Family Treatment of Adult Schizophrenic Patients: A Psycho-Educational Approach

by Carol M. Anderson, Gerard E. Hogarty, and Douglas J. Reiss

Abstract

As part of a long-term study in schizophrenia, a model of family intervention has been developed which attempts to diminish relapse rates of schizophrenic patients. This model reflects theoretical and research findings which suggest that certain patients have a "core psychological deficit" that might increase vulnerability to external stimuli. While a program of maintenance chemotherapy attempts to decrease patient vulnerability, a series of highly structured, supportive, psycho-educational family interventions are aimed at de-intensifying the family environment in which the patient lives.

The psychosocial treatment of schizophrenia has too often represented an altruistic form of caring with effects that are variable, inconsistent (May 1975), and for some patients, even detrimental (Van Putten and May 1976; Goldberg, Schooler, and Hogarty 1977). Conversely, although antipsychotic drug treatment is capable of inducing a remission of psychotic symptoms for a majority of patients (Cole and Davis 1969), as many as 40 percent subsequently relapse within a year of hospital discharge (Hogarty and Ulrich 1977), even when medication has been assured by depot administration (Hogarty et al. 1979).

Treatment requirements for schizophrenic patients are shaped by a knowledge base which includes a host of very poorly understood biological, psychological, and environmental factors. Beyond the inadequacy of present knowledge, what seems to have been lacking in the treatment of schizophrenia is some integrated psycho-social-

biological position regarding an assumed pathogenesis from which a reasonable treatment formulation would logically follow. But are there sufficient data to support a reasonable pathogenesis for schizophrenia? The answers are likely to range from an unequivocal "no" to an overly qualified "yes." It is our opinion that expediency and intuition will continue to determine the application of psychosocial treatment to severe mental disorders unless some attempt is made to integrate theoretical concepts and treatment programs. The issue is not exclusively reserved to schizophrenia. Rather, the scores of psychosocial treatments now available must ultimately provide data about their specific methods and effectiveness if public support is to continue (Marshall 1980). To the extent that research-based treatments variably fail or succeed, the underlying theoretical assumptions have the opportunity to become more broadly validated, modified-or abandoned.

Although numerous theoretical positions regarding schizophrenia have been developed in recent years, it is our purpose to illustrate briefly how selected evidence, interdisciplinary in nature, could support a theoretical position about the course of certain schizophrenic disorders and their treatment. Until some Copernican exercise separates cause and effect from antecedence and consequence in the etiology of schizophrenia, a tentative model on which to base principles of practice is offered with the full awareness that the theoretical position is often supported by indirect or incomplete

Reprint requests should be addressed to Ms. Anderson at Western Psychiatric Institute and Clinic, University of Pittsburgh, 3811 O'Hara St., Pittsburgh, PA 15261.

VOL. 6, NO. 3, 1980 491

evidence, methods of questionable validity, inconsistently tested hypotheses, and equivocal, if not conflicting, results.

Theoretical Assumptions

Research of the past half century has identified what many consider to be a "core psychological deficit" among certain schizophrenic persons. (For an eclectic overview of this not easily reconciled literature, see Broen and Storms 1966; Lang and Buss 1965; Payne, Mattussek, and George 1959; Rabin, Doneson, and Jentons 1979: Shakow 1962; Silverman 1972; Tecce and Cole 1976; Venables 1964, 1978.) The deficit—or perhaps more accurately, "deficiencies"—variably appears as problems in the selection of relevant stimuli, the inhibition of irrelevant stimuli, the ability to sustain or flexibly shift focused alertness, or as problems in stimulus recognition, identification, integration, storage, recall, and use. This broadly defined "attentional process," in turn, appears to be adversely affected by the extremes of "arousal" which "energize behavior unselectively," thus affecting the intensity of response to stimuli (Tecce and Cole 1976). Difficulties in control of the intensity and processing of stimuli are thought to follow upon anomalies of the reticular activating system (Fish 1969) and the higher order areas of control in the brain (Stephens 1973). The behavioral results are viewed as perceptual and cognitive difficulties compatible with the principal signs of schizophrenia (Corbett 1976).

As simple as the argument appears, considerable debate nevertheless surrounds the various theories of attention-arousal dysfunction in schizophrenia, partly because of problems in diagnosis, in definitions

of attention, arousal, and schizophrenic subtype, and in the reliability and validity of the measures (Neale and Cromwell 1972). Few schizophrenic patients would likely manifest a deficit on each of the numerous cognitive and perceptual tests available, and for those that do manifest a deficit, much of the variance could be attributed to clinical state. More convincing would be evidence that supports a welldefined attentional deficit that exists as a "trait" or abiding characteristic of the person, independent of clinical state; one that is possibly shared among first-degree family members. Increasing evidence suggests that certain aspects of attention/arousal dysfunctions do occur among family members of schizophrenic patients (Asarnow et al. 1977; Grunebaum et al. 1974; Holzman et al. 1974; Itil et al. 1974) and that attention deficits persist among many patients while in symptom remission, whether medicated (Asarnow and MacCrimmon 1978) or not (Wohlberg and Kornetsky 1973).

The concept of a psychophysiologic deficit appears able to accommodate related hypotheses (perhaps as the underlying substrates), which indict regulatory dysfunctions of the neurotransmitter and neuroendocrine systems (Meltzer 1979) or even the structural integrity of brain areas themselves (Weinberger et al. 1979).

It is central to our hypothesis that these deficits in stimuli processing are capable of being exploited (i.e., manifested as "schizophrenic" behavior) by stimuli from the natural and therapeutic environments of the patient. To our knowledge, no formal studies exist, beyond isolated inpatient trials, which would support the notion that measurable psychologic deficit predicts subsequent

treatment response, course, and outcome. Further, great latitude must be given in extrapolating from the nature of laboratory stimuli and impaired performance to the nature of environmental stimuli and psychotic relapse, even though both share the characteristic of "sensory input." However, the evidence from environmental psychology would at least imply some underlying vulnerability, since no social stress, per se, appears sufficient to precipitate a psychosis, yet many schizophrenic persons seem to succumb periodically to environmental conditions.

In the therapeutic environment, certain disorganized, anxious, withdrawn, low-insight patients have. been observed to relapse more quickly when assigned to intensive social therapy (Goldberg et al. 1977). Similar patients were recently observed to do less well in more dynamic, as opposed to less dynamic, day treatment centers (Linn et al. 1979). Some patients also do less well in overstimulating foster care homes (Linn, Klett, and Caffey 1980). Furthermore, active, intense, and overstimulating inpatient treatment programs have been shown to produce positive signs of schizophrenia (Van Putten and May 1976) as have ambitious attempts at rehabilitation (Wing and Brown 1970). Conversely, understimulating therapeutic settings appear to contribute to negative symptoms, such as amotivation, withdrawal, apathy, and blunted affect (Wing and Brown 1970).

Adverse stimuli from the natural environment appear to extend from the effects of broad cultural phenomena to the effects of factors inherent in individual families. Complex, technologically advanced societies seem to have higher rates of schizophrenia (Torrey 1973); while course and outcome appear worse in

"developed" countries and better in "developing" countries (Sartorius et al. 1977). Ecological and social pressures, which range from stressful life events (Brown and Birley 1968), to induction into military service (Steinberg and Durell 1968), to the stress of membership in socially disadvantaged classes (Kohn 1973), have been associated with higher rates of schizophrenia. As with therapeutic settings, understimulating natural environments seem related to negative symptoms of the disorder (Lamb and Goertzel 1971; Murphy et al. 1972).

Although data which support the family's role in the etiology of schizophrenia are inconclusive (Hirsch and Leff 1975), there is some evidence that these families have patterns of interaction that could exacerbate the hypothesized deficit. For instance, family studies of schizophrenic patients indicate a lack of clarity and acknowledgment in communication (Goldstein and Rodnick 1975; Jacobs 1975; Jones 1977; Jones et al. 1977; Singer and Wynne 1965, 1966). Communicative behaviors that are vague, amorphous, tangential, or unrelated to the topic at hand are frequently reported. An individual who has difficulties controlling the intensity and processing of stimuli would be likely to exhibit a diminished tolerance for interpersonal stresses in general, and for these complex, ambiguous, or intense family communications in particular.

There are other data which suggest that certain aspects of family life may influence the course and outcome of identified schizophrenic patients. Vaughn and Leff (1976), for example, in replicating and summarizing the earlier work of Brown, Birley, and Wing (1972), provide convincing evidence that families manifesting high

"expressed emotion" (EE)-principally reflected in criticism and emotional overinvolvement-tend to have patient relapse rates of more than 50 percent in the first 9 months following hospital discharge as compared to a 13 percent relapse rate among patients from low EE households. Within the high EE group, continuing "face to face contact" with high EE relatives increases relapse to 68 percent, even when patients receive psychotropic medication, and exceeds 90 percent in the absence of protective maintenance chemotherapy.

Allegedly in more benign, low EE households, relapse rates remain low independent of face to face contact or the receipt of medication. (Replications of this work in other cultures, including prospective studies in which chemotherapy is controlled, are currently in progress.) In a similar finding, contention in the patient's household following hospital discharge has recently been shown to predict relapse on depot fluphenazine (Hogarty et al. 1979).

In general, then, it could be argued that overstimulating environments contain the pathogens sufficient to exploit the hypothesized psychophysiologic deficit in many schizophrenic patients, precipitating, in turn, the vicious cycle of hyperarousal, distraction, disattention, and disease for the patient, and increasing frustration and hopelessness for families. The nature of the offensive stimuli seems, in our view, to be traced to the conditions of social environments that necessitate adaptive responses to complex and/or vague, excessive, and emotionally charged stimuli.

Thus, our theoretical notions lead to the proposition that if either environmental stimulation or the psychological deficit is sufficiently severe, then these factors alone or interactively might represent sufficient cause for relapse, even when medication is assured. Conversely, chemotherapeutic regulation of central and autonomic nervous system dysfunction, or a more benign, stimulimodified environment, either alone or interactively, might account for survival.

For these reasons, we are attempting an aftercare research project which compares the relative effectiveness of medication management and two types of psychosocial intervention (social skills training and family therapy) for patients whose families are rated as high in "expressed emotion." The highly structured model of family intervention described here is designed to be used in conjunction with a program of maintenance chemotherapy to simultaneously decrease environmental stimulation and the patient's hypothesized vulnerability to it. In this program, a variety of supportive and educational techniques are used to lower the emotional temperature of the family while maintaining sufficient pressure on patients to avoid the pitfalls of negative symptoms.

Goals of Family Intervention

The program seeks to increase the predictability and stability of the family environment by decreasing family members' anxiety about the patient and increasing their self-confidence, knowledge about the illness, and ability to react constructively to the patient. By teaching the family appropriate management techniques for coping with schizophrenic symptomatology, we hope to decrease the pressures placed upon the patient, and diminish the possibility of overstimulation from aspects of family

life, particularly those affectively charged communications that are characterized by criticism and/or overinvolvement. These broad objectives can be illustrated by a series of more specific and narrowly defined goals designed to lower environmental stimuli.

Increased Understanding of the Illness by the Family. The provision of information regarding theories of pathogenesis, course, outcome, symptomatology, and effective management of illness tends to decrease guilt, anger, and other emotional responses of the family and the resultant need to react by either overprotecting or attacking the patient. Further, the "power of knowledge" appears to decrease the likelihood of negative or oversimplified unidimensional views of the patient. For instance, one common unidimensional view among families is that the patient is "incurably ill"; that he has no control over his behavior. In such cases, families tend to react with overinvolvement, excessive concern, and exaggerated attempts to support, close ranks, and compensate for real but potentially modifiable deficits. While some amount of protection is obviously necessary, excessive protection can cause additional stress for the family and the patient by increasing the intensity of the home environment. While overly protective families are less likely to impose unrealistic expectations on the patient, they are also often unable to provide the structure and separateness necessary to simplify the environment, diminish chaos, and promote individual growth. At the opposite extreme, other families hold the unidimensional view that the patient has a character deficit or that he is in control of his behavior but is fundamentally malicious or

lazy. In such cases, families tend to respond with criticism, anger, hostility, and suggestions that the patient eliminate problem behaviors by sheer willpower.

Both extreme responses often depend upon the meaning which the family attaches to the patient's deviant behavior, their understanding of schizophrenia itself, and whether or not they are the target of the patient's delusions or fears (Yarrow et al. 1955). The provision of information (however incomplete) appears to increase the family's understanding and tolerance of the patient, and improves their ability to set limits appropriately. Furthermore, information tends to decrease conflict among family members concerning the patient's capabilities and the most helpful way of responding. In turn, the intensity of family life is diminished and a constructive supportiveness is enhanced.

Reduction of Family Stress. Because certain families have problems with differentiation or unresolved losses, they may be more likely to develop unhelpful responses when stressed. Furthermore, schizophrenia itself presents features such as withdrawal, confusing communications, and unpredictable behaviors that are likely to make family life difficult even for families that cope well with most other crises. Because it is difficult to understand the cause and meaning of unusual patient behaviors, these behaviors tend to stimulate the family's feelings of inadequacy, guilt, anger, and concern. Such feelings may also cause or exacerbate the manifestations of "communication deviance" (Goldstein et al. 1978) and "expressed emotion" observed in families of schizophrenic patients (Brown, Birley, and Wing 1972; Vaughn and Leff 1976).

It is possible that overstimulation of the patient and the stress level of the family can both be diminished by the creation of an environment which is predictable and supportive. For this reason, we attempt to anticipate problems before they develop, to suggest clear rules and reasonable expectations which simplify family interactions, and generally to support and facilitate effective interpersonal and generational boundaries. Clear boundaries and rules tend to promote structure and predictability in family life and thus tend to diminish chaos, overstimulation, and the need for reactive decisionmaking in crisis situations. Furthermore, if family members have been provided with guiding principles for managing upsetting behaviors, they are usually less reactive to provocations, more respectful of their own and the patient's need for distance, and more confident of their abilities.

Enhancement of Social Networks.

There is evidence that the social support networks of patients play a role in the onset and recovery from illness (Andrew et al. 1978; Beels 1978; Hammer 1963; Sokolovsky et al. 1978). Furthermore, both schizophrenic patients and their families appear to lack the connections with a larger support network which would allow support and feedback from the outside world and potentially provide a buffer for stress (Beels 1975, 1978; Brown, Birley, and Wing 1972; Tolsdorf 1975). There is some evidence that family members with fewer or less available social supports also tend to be more involved with and critical of the patient (Brown, Birley, and Wing 1972). While there may be many reasons for a correlation between high expressed emotion and deficits in the social support system of families, these deficits

might logically tend to increase the amount of face to face familial contact and stimulation and thus the potential for subsequent relapse.

For these reasons, a further objective of this family model is to increase both the quantity and quality of extrafamilial connections for patient and family members. To reduce the intensity of the family system and to reinforce external resources for meeting the needs of family members, three types of extrafamilial contacts are sought: (1) interpersonal contacts wherein others serve as outlets for discussion of concerns, tensions, and needs, thereby providing support and reassurance; (2) social or recreational contacts which serve to distract, amuse, or stimulate areas of interest that might decrease the totality of family investment in the patient and in his illness; and (3) work or service contacts which emphasize alternate areas of personal competence, altruism, and the ability to contribute to others.

Diminishment of Long-term Issues Contributing to Family Stress. The final objective is highly individual and arbitrary. As the crisis passes, there may become available sufficient energy to enable the family to deal with longstanding conflict or three generational patterns that may be preventing growth and development of individual family members. These problems need not be specific to the families of schizophrenic patients, but may constitute extra liabilities to a family attempting to cope with the long-term effects of schizophrenia. Of particular concern are such issues as marital discord or unresolved loss which could discourage the individuation of the identified patient, in addition to being an ongoing source of pain for other family members.

The four major goals discussed

above are interwoven through several types of family interventions, including family sessions with and without the patient and sessions with groups of families. These sessions may be conducted by a clinician from any one of several disciplines so long as the clinician has training and experience in working with the families of severely disturbed individuals. The model is deliberately oversimplified and authoritative by design. Without a clear and directive "road map," clinicians can be easily overwhelmed by families of schizophrenic patients. Furthermore, the model is supportive, concrete, and educational since the ambiguity present in most therapeutic situations would seem to be nonproductive and even counterproductive for these highly stressed families and patients (Mosher and Keith 1979) and for the clinicians attempting to help them. An assumption is made that the high anxiety present in a crisis must be modified in order for families to learn about the illness and effective mechanisms for coping with it. Although some discomfort and anxiety is probably a necessary component of learning, specific attempts are made to avoid stimulation that could exploit the patient's psychological deficit, and the family's already high anxiety. The treatment process has a developmental sequence which includes four overlapping phases that are made logically distinct here for illustrative purposes. Table 1 represents an overview of the goals and techniques of each phase of treat-

Phase I: Connection With the Family

Phase I begins as soon after admission or as early in the episode as possible and involves at least two ses-

sions per week throughout the brief hospitalization or acute phase of the illness. It is explicitly suggested that the family be involved from the beginning of the hospitalization since this approach appears critical to the maintenance of an effective aftercare program (Anderson 1977; Hogarty, Goldberg, and Schooler 1975). Unless the acute phase of the patient's illness remits rapidly, most Phase I sessions will be held without the identified patient. From observations discussed in more detail elsewhere, sessions with an acutely psychotic member are usually not helpful (Anderson 1977; Mueller and Orfanidis 1976). However, at least one session with the entire family, including the patient, is held before discharge.

The following represent the essential components of Phase I interventions:

Joining the Family (Minuchin 1974). In becoming part of the system before attempting change-producing interventions, the clinician demonstrates respect for the family's boundaries and diminishes tendencies toward resistance, rejection, and discontinuance of therapy. In this case, "joining" involves social conversation and thoughtful sharing of information before any direct attempts to change family patterns. The clinician attempts to adapt to the family's style of relating and strives to increase the family's level of comfort, acceptance, and feelings of being understood. Furthermore, since the approach aims to lower anxiety, an attempt is made to increase predictability and the family's sense of control by providing in advance concrete information about the therapeutic process and each person's role in it.

Establishing the Clinician as the Family Ombudsman. Although the

Table 1. Overview of the process of treatment

Phases	Goals	Techniques
Phase I Connection	Connect with the family and enlist coopera- tion with program Decrease guilt, emotionality, negative reac- tions to the illness Reduction of family stress	Joining Establishing treatment contract Discussion of crisis history, and feelings about the patient and the illness Empathy Specific practical suggestions which mobilize concerns into effective coping mechanisms
Phase II Survival skills workshop	Increased understanding of illness and patient's needs by family. Continued reduction of family stress De-isolation—enhancement of social networks	Multiple family (education and discussion) Concrete data on schizophrenia Concrete management-suggestions Basic communication skills
Phase III Reentry and application	Patient maintenance in community Strengthening of marital/parental coalition Increased family tolerance for low level dysfunctional behaviors Decreased and gradual resumption of responsibility by the patient	Reinforcement of boundaries (generational and interpersonal) Task assignments Low key problem solving
Phase IV Maintenance	Reintegration into normal roles in commu- nity systems (work, school) Increased effectiveness of general family processes	Infrequent maintenance sessions Traditional or exploratory family therapy techniques

usual function of a family therapist would be to represent the entire family system, including the patient, the natural emphasis of the hospital system on the patient must be counterbalanced by investment in the family's concerns and problems during this phase. Families are often ignored or mistreated by mental health professionals, or at best given sympathy without direction. Often the family is used only as a resource for gathering historical information about the patient with little attention to their needs and concerns. In many cases, whatever contact is made with the family contains the implication that they are to blame for the patient's problems, further stimulating guilt, pain, and potentially leading to the

family's withdrawal from the treatment system (Anderson 1977; Appleton 1974; Deasy and Quinn 1955; Hatfield 1978; Keith et al. 1976; Kint 1977; Kreisman and Joy 1974; Lamb and Oliphant 1978; Maxmen, Tucker, and LeBow 1977). Since schizophrenia is often a chronic illness, many of these patients and their families will have been involved in years of unsuccessful attempts at treatment. The family's reactions to past treatments and the differences between these attempts and the current program must be discussed to establish therapeutic credibility. The clinician establishes his role and expertise by stressing his availability, interest, and commitment. He listens, provides helpful information, and respects the family's needs and requests. When information must be gathered, consistent attempts are made to avoid an unwitting accusatory stance.

The family clinician keeps the family informed of ward decisions regarding the patient, ensures the family's input into treatment planning, and provides the family with direct suggestions and information to add structure to their attempt to cope with the current crisis. Furthermore, it is made explicit that the clinician involved with the family is available for emergency phone and in-person contacts, and will act as the family's representative with other therapeutic and rehabilitation systems, services, and mental health personnel.

Eliciting Reactions to Illness.

Families usually experience considerable pain, frustration, embarrassment, and anger before resorting to the hospitalization of a disturbed member (Kreisman and Joy 1974). Candid discussions of the illness and its impact are designed to decrease the inevitable sense of guilt families seem to experience when a member has a mental illness. At this time, the clinician can also begin to establish the foundations of a treatment contract by assessing family stress levels and priorities. The process will frequently involve asking the family about such issues as their own theories about the patient's problems; the patient's role in the family; their reactions when they first became aware that the patient needed help; the type of problems they encountered before they came to the hospital; and how they have been treated by extended family, friends, and professionals. Particular attention is paid to feelings about "involuntary" hospitalizations since such procedures usually extract a high psychological and interpersonal price from the family. Only when the clinician has a good grasp of the type and level of difficulties experienced by the family is reassurance given. Too rapid reassurance will be viewed as insincere and will decrease the clinician's credibility.

Mobilizing the Family's Concern. In spite of deep concern about the patient, most families feel helpless and irrelevant in effecting change. The clinician emphasizes that they can have an important and constructive impact if they apply their concern by performing tasks which will augment the treatment process. Concrete suggestions are made about things a family can do to help the patient remain out of the hospital and in the

community. Mobilization of a family's strengths and power to help reinvolves them in the patient's life in a potentially constructive way and gives the family an important sense of mastery that may help to diminish guilt, anger, and criticism.

The Treatment Contract. A mutual agreement about the goals, content, length, rules, and methods of therapy is formally established. Therefore, the main complaints and concerns of the patient and the family are formulated by the clinician into clear, specific, mutual, and attainable goals. If there are crucial goals that the family has not mentioned spontaneously, the clinician will negotiate to have them placed on the treatment agenda. No unilateral goals are entertained.

It is important to avoid goals which imply major moves toward autonomy or emancipation in the early stages of treatment. While steps toward differentiation are reasonable agenda items, the introduction of major "separation" issues immediately following a psychotic episode can create more stress than it resolves, causing everyone to feel overwhelmed or bad about themselves and therapy.

In general, the clinician suggests a specific number of sessions during which three or four central issues relevant in the current crisis will be discussed, yet leaves the door open for the contract to be renegotiated. Specific rules of therapy which reinforce order, structure, and boundaries are suggested. These include directions that no family member speak for another (Mueller and Orfanidis 1976) and no family member is permitted to lose emotional or physical control during sessions. This phase of treatment provides the beginnings of a good working relationship, an agenda upon which to build, and a climate that reduces an overstimulating, emotionally charged family atmosphere.

Phase II: Teaching Survival Skills for Living With Schizophrenia

Phase II is primarily educative and is accomplished in a day-long work-shop format attended by all members of four or five families new to the program. The workshop is held early in treatment and serves to provide not only basic information about the illness and its management, but to establish the themes of the entire treatment program. It is designed as a multiple family enterprise to promote a process of de-isolation, desensitization, and normalization about the subject of mental illness in the family.

Through their exposure to other families struggling with similar issues and problems at the workshop, the families have an opportunity for increased coping through positive comparisons with others and the beginning of an artificial support network (Beels 1975; Pearlin and Schooler 1978). The creation of a support network is further stimulated by coffee and lunch breaks during which both staff and families interact informally. Since the techniques and advantages of multiple family groups are discussed elsewhere (Atwood and Williams 1978; Barcai 1976; Berman 1972; Detre et al. 1961; Harrow et al. 1967; LaBart and Morony 1964; Strelnick 1977), it is sufficient to say here that the opportunity for contact and interaction with other families in similar circumstances, combined with the educative input, appears to have

been extremely useful to families in the project.¹

The format of the workshop contains the following elements:

Information About the Illness. The best available evidence related to the phenomenology, onset, treatment, course, and outcome of schizophrenic disorders is summarized for families in clear and understandable language. Descriptions of the experience of patients are used to help the family to understand the patients' experience of schizophrenia, including examples of difficulties in processing and responding to complicated or excessive interpersonal stimuli. So that families can come to truly appreciate the patient's point of view, these descriptions are augmented by handouts of material written by former patients (Bachman 1971; McDonald 1960). Although qualifiers are liberally employed in light of incomplete and inconsistent available data, an attempt is made to promote cognitive mastery among family members by offering an organized and conceptually consistent model of the nature, treatment, and outcome of schizophrenia.

Current views about the pathogenesis of the illness are shared, with emphasis on data which suggest a cognitive and perceptual disturbance and the likelihood of patient sensitivity to overstimulation. Questions about causes (including family interaction theories and genetic issues), prognosis (including the risks of relapse associated with the receipt or discontinuation of drug

and psychotherapies), and treatment (including psychotherapy, chemotherapy, diets, megavitamins, and hemodialysis) are encouraged and responded to as simply and accurately as possible considering our current knowledge of this disorder. Factual data, and our own opinions of these data, are kept distinct. Opinions for which little or no direct evidence exists are identified as such and are often recast as research objectives of the program.

The effects of antipsychotic medication are given special attention. Mechanisms of action, possible side effects, and use of antiparkinsonian agents are explained. The role of medication in the reduction of vulnerability to internal or external sources of stimulation is stressed. The importance of the family's support for the medication program is emphasized along with the need for their ongoing feedback about its positive and negative effects on the patient.

Information About Management.

This knowledge base about schizophrenic disorders then becomes the basis for introducing techniques of management that can facilitate patient progress, avoid decompensation, and diminish the family's tendencies to react emotionally to each change in the patient's behavior. Although research data on family interaction and schizophrenia are reviewed, families are informed that there is no firm evidence that families "cause" schizophrenia. It is stressed, however, that we have reason to believe that the family has the power to influence the course of illness.

Families are helped to see the need to create barriers to overstimulation by setting limits and distancing without rejection. This recommendation usually must be reinforced re-

peatedly throughout the course of treatment and translated into very specific suggestions for responding to irrational fears, paranoid ideas, obsessive rituals, and threats of violence. In general, the family is entreatment and translated into very lence. In general, the family is encouraged to set limits on unreasonable and bizarre behavior, and to do so before the tension builds, others become upset, and a blowup occurs. Direct limit setting, however, is not encouraged for families of paranoid patients. In such cases, the family is 5 encouraged not to confront paranoid delusions directly, but simply to say a that they can appreciate the anxiety such beliefs must create (Anderson of and Janosko 1979).

Overall, the family is encouraged to normalize their routine and interaction as much as is possible, and $\frac{\overline{a}}{\overline{c}}$ not to keep waiting for the patient's "other shoe to drop." Following the receipt of information, most families immediately see the need to diffuse $\frac{\Omega}{\Omega}$ the intensity of the home environment and provide sufficient "psychological space" for the patient. This space is ensured by encouraging the S family to adopt an attitude of "benign indifference" toward the patient → and a decreased focus on the details of his behavior. This decreased focus on the patient is also encouraged by $\frac{9}{2}$ stressing the importance of continuing a normal level of attention to the $\stackrel{\triangleright}{=}$ needs of other family members. For instance, parents are encouraged to \overline{s} be aware of signals of the needs of other children and signals of waning \? tolerance in their partner.

The need for modified expectations about the patient and his behavior is also a focus. For instance, during the period immediately following his hospitalization, the patient's need for rest, sleep, and a moderate level of inactivity and withdrawal is stressed (Schooler et al. 1980). It is suggested that what

¹ Initially, this part of the program involved only one day-long session. By popular request, we have scheduled an optional bimonthly followup meeting for the families on an ongoing basis.

appears to be an unusual need for sleep is often unavoidable but will usually diminish. When the need for increased sleep is predicted in advance and is redefined as a phase in the recovery process, families are better able to tolerate what appears to be an inevitable period of patient inactivity. Without such predictions, many families find the patient's excessive sleep intolerable; they perceive an apparently healthy adult who seems either to be lazy or just not trying.

Modified expectations are also suggested in evaluating the patient's overall performance. There is a risk of creating a hopeless atmosphere which encourages negative symptoms and the label or role of "patient" if the expectations of families and patients are too low or the illness is viewed as intractable. On the other hand, frustration, failure, and relapse are possible if expectations are too high (Goldberg et al. 1977). An attempt is made to strike a balance between realism and hope. Family members are asked to help patients by encouraging the use of an "internal yardstick" (Anderson, Meisel, and Haupt 1975) which involves comparing oneself to where one was a month ago, rather than to where others are today. This is useful in sensitizing the patient and the family to small signs of progress, thus avoiding discouragement.

Communication. Our approach to communication in these families is based on the belief that the content of interactions matters less than clarity, simplicity, and control of barragement. While many families of schizophrenics have multiple and serious problems in communication, we feel a strong focus on communication dysfunction is too frustrating and anxiety provoking for both the

family and the clinician. Therefore, the aim is primarily to modify communication *indirectly* by modifying the meanings of behavior and educating the family about the patient's needs. Only four communication issues are addressed directly:

- 1. Keeping discussions at a moderate level of specificity by avoiding excessive detail, abstraction, or verbiage.
- 2. Differentiating description from evaluation (i.e., the ability to say what happened, as opposed to how one feels about it).
- 3. Accepting responsibility for one's own statements and allowing others to do the same (e.g., "I didn't like what you said," as opposed to "You didn't mean that because I don't like it").
- 4. Expressing acknowledgment and emphasizing positive messages and supportive comments.

Concern for Self. Many families initially respond to a psychotic episode as though it were an acute illness that will remit in a matter of days or weeks. This assumption often leads to family members centering their lives around the patient, becoming more socially isolated themselves in the process. While this can be an appropriate short-term coping mechanism during a crisis, over time such behaviors are likely to so deplete the resources of the family that it can become impossible for them to provide the long-term support that is needed. It is emphasized that in schizophrenia, there is likely to be an extended period of time before increments in personal and social adjustment are visible (Hogarty, Goldberg, and Schooler 1974). For this reason, parallels are drawn between schizophrenia and chronic

physical illnesses, such as diabetes, in which patients and family must learn ongoing management techniques and methods of living with the illness without allowing its symptoms to dominate their lives. This metaphor is not meant to suggest that schizophrenia is a medical illness; rather it is used to promote a recognition of the need for ongoing treatment, management, and concern without yielding to hopelessness or guilt. Family members are encouraged to talk of their difficulties to friends and extended family and to engage such people in psychological support and practical help. The increased quantity and quality of extrafamilial connections for both the patient and family members help to reduce the intensity of the family system and to reinforce alternative resources for meeting the needs of all family members.

The process of de-isolation and desensitization of the families begins in the workshop by exposure to other families struggling with similar issues and by stressing the need for the family to have a life style which does not entirely center on the patient and which maintains the family's own resources for nurturance and support. It is difficult for many families to consider their own need for survival as important when a family member is in crisis, but we encourage this by emphasizing its altruistic purpose-that is, its importance in helping the patient over time.

Finally, the survival skills workshop introduces opportunities for the family to discuss and integrate the experience they have been through, and also to be helpful to others. Families are asked to share their experiences, to discuss their reactions to the workshop, and to contribute their suggestions for helping other VOL 6, NO. 3, 1980 499

families going through this experience. In selected cases, families are asked later to share their gains more directly (in person or by videotape) with other families who are at an earlier stage in treatment. In this way, family members are given an opportunity to integrate what they have learned with what they have experienced, and to increase their perceptions of what they have to offer to others. Furthermore, these discussions provide emotional distance through conceptualization, thus discouraging those automatic "emotional" responses to upsetting situations, often regretted once there has been time for reflection and reconsideration.

Although much of our own earlier training experiences would argue against a candid exchange of information as a method of changing family patterns, families have long requested such help (Deasy and Quinn 1955; Hatfield 1979; Kint 1977). Furthermore, this method of intervention is becoming more common and the preliminary results are strikingly positive (Dincin, Selleck, and Streicker 1978; Falloon et al. 1978; Leff 1979). Earlier fears that labeling (an inevitable component of this educative program) might encourage psychiatric symptomatology appear unwarranted (Greenley 1979). Adolescents and grandparents, professionals and manual laborers uniformly volunteer comments about the helpfulness of learning what professionals do and do not know about schizophrenia and having a chance to question and participate.

Phase III: Reentry and Application of Survival Skills Themes to Individual Families

The third phase of family intervention involves family sessions with the patient. These sessions begin as soon as the acute phase of the illness has been controlled and progress from weekly to biweekly sessions for at least a 6-month period. During this phase of treatment, the management themes of the survival skills workshop are individualized and applied to specific situations and concerns in a structured and directive manner. Most interventions during this phase relate to two main themes: the reinforcement of family boundaries and the gradual resumption of responsibility by the patient.

Reinforcing Family Boundaries. The overall goal of increased structure within the family and increased psychological space for the patient is operationalized through repeated attempts to reinforce interpersonal and generational boundaries, and to diminish the boundary between the family and the community.

Respect for interpersonal boundaries often increases spontaneously following the survival skills workshop. This may be the result of decreased reactivity and increased self-respect as guilt diminishes. Nevertheless, families are encouraged to respect interpersonal boundaries in concrete ways such as allowing family members to speak for themselves, allowing family members to do things separately, and recognizing each person's limitations and vulnerabilities. A family routine is encouraged which builds in "time

outs," thereby allowing the patient or others to retreat to their rooms or to go for a walk when feelings of agitation or overstimulation arise. Furthermore, the patient and the family are asked to discuss and agree upon signals which indicate the need for psychological space and the need for psychological space and the need for support. If both patients and families can identify and verbalize these "signal" behaviors, families can be helped to avoid the tendencies to engage in "mind reading," overresponding to every symptom as if it meant patients were getting sick again, or underresponding by ignoring all messages to avoid confrontations.

Patient behaviors which are problems for the family and family behaviors which are problems for the patient are all discussed.

Tendencies to ignore, negate totally, or reinterpret unclear messages are discouraged. The patient and the family are encouraged to develop rules to live by that do not violate anyone's individual integrity or privacy. Families are asked to set limits on the patient's requests if they are unreasonable, and provide opportunities for reality testing when possible, without becoming overintrusive with the patient. Patients are asked to assume responsibility for letting the family know their needs and to perform tasks sufficient to maintain the morale of the household.

Generational boundaries are reinforced by supporting a solid marital coalition with both partners meeting their adult needs within the adult relationship, and uniting for the sake of child-rearing or patient care tasks (Fleck 1966; Minuchin 1974; Walsh 1979). In families with a severely dysfunctional child (of whatever age), it is common to see one, if not both, parents as being more involved with

² Initially, we scheduled these sessions weekly throughout the first 6 months. Although we stressed the fact that maintenance was our only goal at this time, the metacommunication of weekly sessions appeared to suggest that more was possible and desirable. The move to less frequent sessions appears to have been a relief to patient, family, and therapist.

the child than with their spouse. This weakens the much needed marital coalition and the ability of spouses to be supportive to one another in times of stress. Furthermore, such crossgenerational alliances put burdens on the younger generation to meet parental needs at the expense of their own needs to grow, differentiate, and emancipate.

Tasks which discourage the excessive mutual involvement of some members and encourage other relationships are assigned. For instance, to increase generational boundaries and firm up a marital coalition, parents may be given tasks that engage them in a social activity as a couple, without the patient or other children. If they have not spent time alone together for some time, beginning activities are suggested which do not require a great deal of interaction or intimacy (e.g., a movie or sport activity). Later, activities which require more talk are instituted (e.g., dinner or walks). Reinforcement of boundaries is also accomplished by dividing the family into various groupings for portions of sessions-sometimes the parents alone, sometimes the patient alone-to legitimize the needs of both generations for privacy and separateness (Mosher 1969).

During these months, attempts are continued to gradually build conections for the family and the patient with others outside the family, thus enhancing the social network. Suggestions are made for family members to contact and connect with extended family or friendship ties. If no ties currently exist, assignments are geared toward beginning connections and involvement of family members in structured social groups which might enable them to develop such contacts. Pressure toward increased social contacts for the patient moves more slowly. After a hospitalization, most patients are socially inactive, socially isolated, and devoid of support systems external to the family. Some of this isolation and withdrawal might be crucial for the avoidance of stimulation and relapse (Schooler et al. 1980). Therefore, very gradual steps are made to involve the patient with others in structured situations which do not involve emotional intensity.

Gradual Resumption of Responsibility. Since this apparently is the time of highest risk for relapse among patients vulnerable to stimulation (Hogarty and Ulrich 1977), the clinician and the family choose only those issues from the established treatment contract which must be resolved if the patient and family are to live together with a minimum of chaos and thus avoid rehospitalization. Although attention is given first to those issues raised spontaneously by patient or family during the first 6 months after a hospitalization, these issues must be attainable and related to and consistent with the primary goal of maintenance outside the hospital. For instance, both patient and family might request that the first goals be that the patient return to work and live independently in an apartment of his own, although he has not worked in 2 years and he has never lived away from home. In such cases, a return to work could constitute a stress severe enough to precipitate a relapse; therefore, the clinician suggests that successful accomplishment of small tasks precede this ambitious goal. He suggests that if the patient can stay out of the hospital for 6 months, the task of returning to work can become a focus; if he works for 6 months, the task of moving to an apartment can be dis-

During these first few months, our

approach stresses a gradual reengagement of the patient in the normal functioning of the household. Simple structured tasks appear to be less threatening to both patient and family and can be used as first steps toward complete reintegration into the patient's pre-illness world. At times, chores done with another family member are assigned to support the patient and promote specific subsystem relationships or positive familial interaction. At other times, independent projects are assigned. This task focus allows the clinician to measure progress and give positive reinforcement for small successes as they occur. Furthermore, task accomplishment enhances self-esteem, an important aspect of coping behavior, and a beginning step toward independent functioning.

The most difficult issue during this phase is often the patient's apparent lack of motivation and energy. For many families, it was easier to be understanding when the patient was clearly bizarre than when he enters this phase of not being overtly ill, but also not being functional. Since our direct attempts to energize patients during this period have been unsuccessful, a great deal of support and encouragement is given to the family, with an emphasis on the need for patience and tolerance.

After a period of time has passed during which the family and patient's functioning as a unit has been stable, there is a decreased need to focus entirely on issues of day to day survival. If patients begin to show signs of increased energy and restlessness, the focus of the treatment contract is changed gradually to one which emphasizes a return to effective work and social functioning. Tasks are assigned which are more ambitious, and parents are encouraged to remain supportive but begin

VOL. 6, NO. 3, 1960 501

to be more demanding in their expectations for the patient's performance. Often the frequency of sessions is increased (to weekly sessions), in order to provide more support during a time of greater pressure, or to monitor and fine-tune tasks and demands to match the abilities of the patient. The tasks of this phase are influenced by the premorbid level of functioning of patient and family. A crisis involving regression in both the patient and the family often occurs when an increase in pressure and level of goals is initiated. At such times, increased structure is reinstituted temporarily, along with the encouragement that the gradual process of increased functioning continue.

Of particular importance in this entire process is the idea of making one change at a time. For example, if the patient is seeking a new job, it is not the time to also discontinue his medication. If he has moved into a new apartment, it is not the time to change jobs. This point must be stressed repeatedly for two reasons. First, patients often become impatient because they are behind their peers in accomplishing developmental tasks. When they feel good, therefore, they often try to do everything simultaneously. Second, clinicians, particularly young ones, so highly value progress and independence that they tend to reach for its attainment unrealistically or without respect for limitations and defenses. In the area of emancipation, this is often reinforced by the popular view that the family of a schizophrenic patient is disturbed and destructive, and therefore the patient should be helped to "escape" as quickly as possible. Whatever the home situation, the patient must take one step at a time and only when both patient and family are ready to do so. We assume

that the issue of emancipation is particularly upsetting and must be handled with great care. Gradual moves toward independence should result in less contact between the patient and family, increased differentiation, and decreased interpersonal stress, expressed emotion, and potential for relapse. However, sudden emancipation could prduce stress in and of itself. Therefore, a gradual, explicit, and carefully managed process of differentiation is suggested for these stimuli-dependent and vulnerable individuals. A number of therapeutic techniques are used to accomplish this process. Among these are the use of modeling, role playing, and videotaped segments of other families solving or dealing appropriately with similar issues. Frequently, tasks are given as homework assignments to help stimulate movement toward the specific goal.

Finally, Phase III involves teaching about the appropriate use of therapeutic resources. Since many families are unsure of when to call for help and are reluctant to intrude or impose, the clinician's availability for crisis intervention on an emergency basis is stressed. Furthermore, family members are verbally rewarded for bringing issues to family sessions and for simply attending. It is predicted in advance that this phase of therapy will be slow and sometimes discouragingly painful. This prediction helps families to see progress and intermittent setbacks as normal, not as a result of their inadequacy, and helps to avoid premature discontinuation of treatment.

Phase IV: Continued Treatment or Disengagement

Once the goals for effective functioning have been attained to the

maximum degree possible considering the patient's abilities and the current family structure, the family and the patient are presented with two possible options for treatment: They may elect to engage in more intensive weekly family therapy to facilisive weekly family therapy to facilitate effective family interaction, deal with unresolved issues, conflicts, and developmental tasks, and gradually encourage increased differentiation. This might include a focus on problems such as marital discord between the parents, school problems in a sibling, or even, as several authors have suggested, ongoing family problems as a result of roles, myths, or unfinished mourning created by the death of a grandparent who has died in relative proximity to the birth of a patient (Mueller and Orfanidis 1976; Walsh 1978).

This treatment option involves moving into a more traditional form of family therapy with increased expression of feeling, increased therapeutic pressure, and increased responsibility of family members for the therapy and their participation in it. In some families, therapy is not necessary for these problems since the successful coping with crises generalizes to other situations, enabling family members to resolve such issues on their own. Other families do not wish to work on these problems or do not see them as essential to their life with one another. For these reasons, this phase of treatment is clearly labeled as optional, and families are asked to gauge their own needs and strengths to cope with it at this time. If the family does not elect this treatment option, they move toward a phase of ... decreased involvement and therapeutic maintenance.

Once a family has accomplished its goals or achieved as much help on a

family basis as they can tolerate or as they wish to receive, maintenance sessions of a gradually decreasing frequency for a year or more are suggested. These maintenance sessions do not involve the introduction of new issues by the clinician, but serve to reinforce earlier themes and interventions and to avoid any sudden increase in stress caused by unexpected major changes or the abrupt discontinuance of the support of therapy. Our past experience has shown that many of the benefits of treatment interventions occur only after 18-24 months of therapy (Hogarty, Goldberg, and Schooler 1974). While at least one other study has demonstrated substantial symptom improvement after only six. sessions, the population in that group tended to include a higher number of first admissions (69 percent) than is customary among samples of schizophrenic patients (Goldstein et al. 1978).

For this reason, families are given appointments which gradually diminish in frequency; yet the opportunity for additional appointments is there should the need arise. The intent of these sessions is to maintain initial gains and to abort potential new episodes by anticipating stress and reinforcing knowledge about the illness and its characteristics. Periodically, the clinician conducts reviews of what has been accomplished in order to reinforce morale, and to keep new troubles in perspective.

Summary

We have described a method of family intervention designed for a large subgroup of families of schizophrenic patients who, because of their vulnerability to overstimulating environments, are prone to relapse.

Family dynamics are rarely a direct focus in this program, but alliances, boundaries, and processes do change over the course of treatment.

The method of intervention includes the provision of information which attempts to equip the family with a rational guide for interacting that is designed to neutralize the precipitators of relapse and the despair of behavioral deficits. While no one component is unique, this psychoeducational model, which is derived from a synthesis of clinical experience and interdisciplinary research, could prove valuable in altering the course of schizophrenic illness.

Over the course of the next few years, a total of 40 patients will have been randomly assigned to this family model and the results compared with other methods of intervention. At present, however, only 13 families have been seen over a 15-month period with an average of 17.1 sessions. The patients in these families were four females and nine males who had a mean age of 27.1 years. The average length of illness was 6.8 years and included 3.2 hospitalizations. Eight families are middle or upper-middle class; five are lowermiddle or working class.

Although empirical data on the effectiveness of the program are not yet available, preliminary impressions are nevertheless encouraging. Families have been relatively easy to engage and seem to respond well to the progrm. Of the 12 parental families involved, no treatment dropouts or relapses have occurred. The one nonparental family was noncompliant (did not attend the survival skills workshop and only sporadically attended sessions), and the patient suffered a relapse. This patient was a 52-year-old single parent of eight children with a 22-year

history of schizophrenia. It may well be that the model cannot cope with this level of chronicity or requires at least some family members who have the authority and ability to provide a structured environment for the patient. Clearly, this is less feasible when a parent, rather than a spouse or child, is ill.

Nevertheless, it does appear that certain families can be a resource for the long-term management of schizophrenia if they are given support and information. It remains to be seen whether these results can be maintained or generalized to other populations. However, before sacrificing the families of schizophrenic patients on the altar of "expedient separation," it would seem ethical, if not scientifically imperative, to attempt to develop this primary resource for patients.

References

Anderson, C.M. Family intervention with severely disturbed inpatients. *Archives of General Psychiatry*, 34:697–702, 1977.

Anderson, C.M., and Janosko, R.E. Family therapy in paranoia. In: Masserman, J.H., ed. *Current Psychiatric Therapies*. Vol. 18. New York: Grune & Stratton, Inc. 1979. pp. 107–116.

Anderson, C.M.; Meisel, S.S.; and Houpt, J.L. Training former patients as task group leaders. *International Journal of Group Psychotherapy*, 25(1):32–43, 1975.

Andrew, G.; Tennant, D.; Hewson, M.; and Vaillant, G. Life event stress, social support, coping style, and the risk of psychological impairment. *Journal of Nervous and Mental Disease*, 166:307–316, 1978.

Appleton, W.S. Mistreatment of patients' families by psychiatrists. *American Journal of Psychiatry*, 131:6, 655–657, 1974.

Asarnow, R.F., and MacCrimmon, D.J. Residual performance deficit in clinically remitted schizophrenics.

Journal of Abnormal Psychology, 87:597-608, 1978.

Asarnow, R.F.; Steffy, R.A.; Mac-Crimmon, D.J.; and Cleghorn, J.M. An attentional assessment of foster children at risk for schizophrenia. *Journal of Abnormal Psychology*, 86:267–275, 1977.

Atwood, N., and Williams, M. Group support for the families of the mentally ill. *Schizophrenia Bulletin*, 4(3):415–426, 1978.

Bachman, B.J. Re-entering the community: A former patient's view. Hospital and Community Psychiatry, 22:119–122, 1971.

Barcai, A. An adventure in multiple family therapy. Family Process, 6:185–192, 1967.

Beels, C.C. Social networks and schizophrenia. *Psychiatric Quarterly*, 51(3):209–215, 1978.

Beels, C.C. Family and social management of schizophrenia. *Schizophrenia Bulletin*, 1 (Issue No. 13):97–118, 1975.

Berman, K. Multiple family therapy: Its possibilities in preventing readmission. In: Erickson, G.D., and Hogan, T.P., eds. Family Therapy: An Introduction to Theory and Technique. Monterey, CA: Brooks/Cole Publishing Company, 1972. pp. 279–284.

Broen, W.E., and Storms, L.H. Lawful disorganization: The process underlying a schizophrenic syndrome. *Psychological Review*, 73:265–279, 1966.

Brown, G.W., and Birley, J.L.T. Crises and life change and the onset of schizophrenia. *Journal of Health and Social Behavior*, 9:203–214, 1968.

Brown, G.W.; Birley, J.L.T.; and Wing, J.H. The influence of family life on the course of schizophrenic disorders. A replication. *British Journal of Psychology*, 121:241–258, 1972.

Cole, J.O., and Davis, J.M. Antipsychotic drugs. In: Bellak, L., and Loeb, L., eds. *The Schizophrenic Syndrome*. New York: Grune & Stratton, Inc., 1969. pp. 278–568.

Corbett, L. Perceptual dyscontrol: A possible organizing principle for schizophrenia research. *Schizophrenia Bulletin*, 2:249–265, 1976.

Davis, J.M. Overview: Maintenance therapy in psychiatry. I. Schizophrenia. *American Journal of Psychiatry*, 132:1237–1245, 1975.

Deasy, L.C., and Quinn, O.W. The wife of the mental patient and the hospital psychiatrist. *Journal of Social Issues*, 11:49–60, 1955.

Detre, T.P.; Sayers, J.; Norton, N.M.; and Lewis, H.C. An experimental approach to the treatment of the acutely ill psychiatric patient in the general hospital. *Connecticut Medicine*, 25:613–619, 1961.

Dincin, J.; Selleck, V.; and Streicker, S. Restructuring parental attitudes—Working with parents of the adult mentally ill. *Schizophrenia Bulletin*, 4(4):597–608, 1978.

Falloon, I.R.H.; Liberman, R.P.; Simpson, G.M.; and Talbot, R.E. Family therapy with relapsing schizophrenics: A research proposal. Unpublished manucript, 1978.

Fish, F. A neurophysiological theory of schizophrenia. *Journal of Mental Science*, 107:828–838, 1961.

Fleck, S. An approach to family pathology. *Comprehensive Psychiatry*, 7(5):307–320, 1966.

Goldberg, S.C.; Schooler, N.R.; Hogarty, G.E.; and Roper, M. Prediction of relapse in schizophrenic outpatients treated by drug and social therapy. Archives of General Psychiatry, 34:171–184, 1977.

Goldstein, M., and Rodnick, E. The family's contribution to the etiology of schizophrenia: Current status. *Schizophrenia Bulletin*, 1 (Issue No. 14):48–63, 1975.

Goldstein, M.J.; Rodnick, E.H.; Evans, J.R.; May, P.R.; and Steinberg, M. Drug and family therapy in the aftercare treatment of acute schizophrenia. *Archives of General Psychiatry*, 35(10):1169–1177, 1978.

Greenley, J.R. Familial expectations, post-hospital adjustment and the societal reaction perspective on mental illness. *Journal of Health and Social Behavior*, 20:217–227, 1979.

Grunebaum, H.; Weiss, J.; Gallant, D.; and Cohler, B.J. Attention in young children of psychotic mothers. *American Journal of Psychiatry*, 131:887–891, 1974.

Hammer, M. Influence of small social networks as factors on mental hospital admission. *Human Organization*, 22:243–251, 1963–64.

Harrow, M.; Astrachan, B.M.; Becker, R.E.; Detre, T.P.; and Schwartz, A.H. An investigation into the nature of the patient-family therapy group. *American Journal of Orthopsychiatry*, 37:888–899, 1967.

Hatfield, A.B. The family as partner in the treatment of mental illness. *Hospital and Community Psychiatry*, 30(5):338–340, 1979.

Hatfield, A.B. Psychological costs of schizophrenia to the family. *Social Work*, 23(5):355–359, 1978.

Hirsch, S.R. Interacting social and biological factors determining prognosis in the rehabilitation and management of persons with schizophrenia. In: Cancro, R., ed. *Annual Review of the Schizophrenic Syndrome*, Vol. 4. New York: Brunner/Mazel, Inc., 1976. pp. 453–467.

Hirsch, S.R., and Leff, J.P. Abnormalities in the Parents of Schizophrenics. London: Oxford University Press, 1975.

Hogarty, G.E.; Goldberg, S.C.; and Schooler, N.R. Drug and sociotherapy in the aftercare of schizophrenic patients. *Archives of General Psychiatry*, 31:609–618, 1974.

Hogarty, G.E.; Goldberg, S.C.; and Schooler, N.R. Drug and sociotherapy in the aftercare of schizophrenia: A review. In: Greenblatt, M., ed. *Drugs in Combination With Other Therapies*. New York: Grune & Stratton, Inc., 1975. pp. 1–12.

Hogarty, G.E.; Schooler, N.R.; Ulrich, R.; Mussare, F.; Ferro, P.; and Herron, E. Fluphenazine and social therapy in the aftercare of schizophrenic patients. *Archives of General Psychiatry*, 36:1283–1294, 1979.

Hogarty, G.E., and Ulrich, R.F. Temporal effects of drug and placebo in delaying relapse in schizophrenic outpatients. *Archives of General Psychiatry*, 34:297–301, 1977.

Holzman, P.S.; Proctor, L.R.; Levy, D.L.; Yasillo, N.J.; Meltzer, H.Y.; and Hurt, S.W. Eye tracking dysfunctions in schizophrenic patients

and their relatives. Archives of General Psychiatry, 31:143–151, 1974.

Itil, T.M.; Hsu, W.; Saletu, B.; and Mednick, S. Computer EEG and auditory evoked potential investigation in children at high risk for schizophrenia. *American Journal of Psychiatry*, 131:892–900, 1974.

Jacob, T. Family interaction in disturbed and normal families: A methodological and substantive review. *Psychological Bulletin*, 82:33–65, 1975.

Jones, J.E. Patterns of transactional style deviance in the TAT's of parents of schizophrenics. *Family Process*, 16:327–337, 1977.

Jones, J.E.; Rodnick, E.; Goldstein, M.; McPherson, S.; and West, K. Parental transactional style deviance as a possible indicator of risk for schizophrenia. *Archives of General Psychiatry*, 34:71–74, 1977.

Keith, S.J.; Gunderson, J.G.; Reifman, A.; Buchsbaum, S.; and Mosher, L.R. Special report: Schizophrenia 1976. Schizophrenia Bulletin, 2(4):509–565, 1976.

Kint, M.G. Problems for families vs. problem families. *Schizophrenia Bulletin*, 3(3):355–356, 1977.

Kohn, M.L. Social class and schizophrenia: A critical review and a reformulation. *Schizophrenia Bulletin*, 1 (Issue No. 7): 60–79, 1973.

Kreisman, D.E., and Joy, V.D. Family response to the mental illness of a relative: A review of the literature. *Schizophrenia Bulletin*, 1 (Issue No. 10):34–54, 1974.

Lamb, R., and Goertzel, V. Discharged mental patients—Are they really in the community. *Archives of General Psychiatry*, 24:29–34, 1971.

Lamb, H.R., and Oliphant, E. Schizophrenia through the eyes of families. *Hospital and Community Psychiatry*, 29(12):805–806, 1978.

Lang, P.J., and Buss, A.H. Psychological deficit in schizophrenia: Interference and activation. *Jour*nal of Abnormal Psychology, 70:77–106, 1965.

Laqueur, H.P.; LaBart, H.A.; and Morony, E. Multiple family therapy. Current Psychiatric Therapies, 4:150–154, 1964.

Leff, J.P. Developments in family treatment of schizophrenia. *Psychiatric Quarterly*, 51(3):216–232, 1979.

Linn, N.W.; Caffey, E.M.; Lett, C.J.; Hogarty, G.E.; and Lamb, H.R. Day treatment and psychotropic drugs in the aftercare of schizophrenic patients. *Archives of General Psychiatry*, 36:1055–1066, 1979.

Linn, M.W.; Klett, C.J.; and Caffey, E.M. Foster home characteristics and psychiatric patient outcome. *Archives of General Psychiatry*, 37:129–132, 1980.

Marshall, E. Psychotherapy faces test of worth. *Science*, 207:35–36, 1980.

May, P.R.A. Schizophrenia: Evaluation of treatment methods. In: Freedman, A.M.; Kaplan, H.I.; and Sadock, B.J., eds. *Comprehensive Textbook of Psychiatry*. Vol. 1. Baltimore: The Williams & Wilkins Company, 1975. pp. 955–982.

Maxmen, J.S.; Tucker, G.J.; and LeBow, J. Rational Hospital Psychiatry. New York: Brunner/Mazel, Inc., 1974.

McDonald, N. The other side: Living with schizophrenia. Canadian Medical Association Journal, 82:218-221, 1960.

Meltzer, H.Y. Biology of schizophrenia subtypes: A review and proposal for method of study. *Schizophrenia Bulletin*, 5:460–479, 1979.

Minuchin, S. Structural family therapy. In: Arieti, S., ed. *American Handbook of Psychiatry*. Vol. II. New York: Basic Books, Inc., 1974. pp. 178–192.

Mosher, L.R. Schizophrenogenic communication and family therapy. Family Process, 8(1):43–63, 1969.

Mosher, L.R., and Keith, S.J. Research on the psychosocial treatment of schizophrenia: A summary report. *American Journal of Psychiatry*, 136(5):623–631, 1979.

Mueller, P.S., and Orfanides, M.M. A method of cotherapy for schizo-phrenic families. *Family Process*, 15(2):179–191, 1976.

Murphy, H.B.M.; Pennee, B.; and Luchins, D. Foster homes: The new back wards? Canada's Mental Health, 20 (Supplement #71): 1–16, 1972.

Neale, J., and Cromwell, R. Atten-

tion and schizophrenia. In: Cancro, R., ed. Annual Review of the Schizophrenic Syndrome, Vol. 2. New York: Brunner/Mazel, Inc., 1972.

Payne, R.W.; Mattussek, P.; and George, E.I. An experimental study of schizophrenic thought disorder. *Journal of Mental Science*, 105:624–652, 1959.

Pearlin, L.I., and Schooler, C. The structure of coping. *Journal of Health and Social Behavior*, 19:2–21, 1978.

Rabin, A.I.; Doneson, S.L.; and Jentons, R.L. Studies of psychological functions in schizophrenia. In: Bellak, L., ed. Disorders of the Schizophrenic Syndrome. New York: Basic Books, Inc., 1979. pp. 181–231.

Sartorius, N.; Jablensky, A.; and Shapiro, R. Two year follow-up of the patients included in the WHO International Pilot Study of Schizophrenia. *Psychological Medicine*, 7:529–541, 1977.

Schooler, N.R.; Levine, J.; Severe, J.B.; Brauzer, B.; DiMascio, A.; Klerman, G.L.; and Tuason, V.B. Prevention of relapse in schizophrenia: An evaluation of fluphenazine decanoate. *Archives of General Psychiatry*, 37:16–24, 1980.

Shakow, D. Segmental set: A theory of the formal psychological deficit in schizophrenia. *Archives of General Psychiatry*, 6:1–17, 1962.

Silverman, J. Stimulus intensity modulation and psychological disease. *Psychopharmacologia*, 24:42–80, 1972.

Singer, M.T., and Wynne, L.C. Communication styles in parents of normals, neurotics, and schizophrenics. *Psychiatric Research Reports*, 20:25–38, 1966.

Singer, M.T., and Wynne, L.C. Thought disorder and family relations of schizophrenics. *Archives of General Psychiatry*, 12:187–212, 1965.

Sokolovsky, J.; Cohen, C.; Berger, D.; and Geiger, J. Personal networks of ex-mental patients in a Manhatten SRO hotel. *Human Organization*, 37:5–15, 1978.

Steinberg, H.R., and Durell, J. A stressful social situation as a precipitant of schizophrenic symptoms.

British Journal of Psychiatry, 114:1097-1105, 1968.

Stephens, J.R. An anatomy of schizophrenia. Archives of General Psychiatry, 29:177-189, 1973.

Strelnick, A.H. Multiple family group therapy: A review of the literature. *Family Process*, 16(3):307–326, 1977.

Tecce, J.J., and Cole, J.O. The distraction-arousal hypothesis, CNV, and schizophrenia. In: Mostofsky, D.I., ed. Behavior Control and Modification of Physiological Activity, Englewood Cliffs, NJ: Prentice-Hall, Inc., 1976.

Tolsdorf, C.C. Social networks, support, and coping: An explanatory study. *Family Process*, 15(4):407–417, 1976.

Torrey, E.F. Is schizophrenia universal? An open question. *Schizophrenia Bulletin*, 7:53–59, 1973.

Van Putten, T., and May, P.R.A. Milieu therapy of the schizophrenias. In: West, L.J., and Flinn, P.E., eds. *Treatment of Schizophrenia*. New York: Grune & Stratton, Inc., 1976. pp. 217–243.

Vaughn, C.E., and Leff, J.P. The influence of family and social factors on the course of psychiatric illness. *British Journal of Psychiatry*, 129:125–137, 1976.

Venables, P.H. Cognitive disorder. In: Wing, J.K., ed. Schizophrenia: Towards a New Synthesis. New York: Academic Press, Inc., 1978. pp. 117– 137.

Venables, P.H. Input dysfunction in schizophrenia. In: Maher, B.A., ed. *Progress in Experimental Personality Research*. Vol. 1. New York: Academic Press, Inc., 1964. pp. 1–47.

Walsh, F.W. Concurrent grandparent death and birth of schizophrenic offspring: An intriguing finding. Family Process, 17(4):456–463, 1978.

Walsh, F.W. Breaching of family generation boundaries by schizo-phrenics, disturbed and normals. *International Journal of Family Therapy*, 1(3):254–275, 1979.

Weinberger, D.R.; Torrey, E.F.; Neophytides, A.N.; and Wyatt, R.J. Structural abnormalities in the cerebral cortex of chronic schizophrenic patients. *Archives of General Psychiatry*, 36:935–939, 1979.

Wing, J.K. The social context of schizophrenia. *American Journal of Psychiatry*, 135(11):1333–1339, 1978.

Wing, J.K., and Brown, G.W. Institutionalism and Schizophrenia. Cambridge: Cambridge University Press, 1970

Wohlberg, G.W., and Kornetsky, C. Sustained attention in remitted

schizophrenics. Archives of General Psychiatry, 28:533–537, 1973.

Yarrow, M.R.; Schwartz, C.G.; Murphy, H.S.; and Deasy, L.C. The psychological meaning of mental illness in the family. *Journal of Social Issues*, 11:12–24, 1955.

Acknowledgment

This research was supported, in part, by Grant No. MH 30750 from the National Institute of Mental Health.

The Authors

Carol M. Anderson, M.S.W., is Associate Professor of Psychiatry and Director of Family Therapy; Gerard E. Hogarty, M.S.W., is Associate Professor of Psychiatry and Director of the Community Treatment Evaluation Program; and Douglas J. Reiss, Ph.D., is Therapist, Family Therapy Program, Western Psychiatric Institute and Clinic, University of Pittsburgh, Pittsburgh, PA.