THE EFFECTS OF EXPOSURE TO A PAMPHLET ABOUT THE THERAPEUTIC PROCESS ON ATTENDANCE OF ADULT OUTPATIENTS AT AN URBAN COMMUNITY MENTAL HEALTH CENTER

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ABSTRACT

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Purpose

The primary purpose of this study was to determine whether more clients at a community mental health center would attend scheduled initial appointments if they were educated prior to the first interview about the therapy process and what was expected of them, using a pamphlet. Two secondary hypotheses were explored. First, that lower socioeconomic status clients would respond more favorably to the pamphlet than their higher socioeconomic status counterparts. Second, that clients who attended and those who did not could be differentiated on the basis of 25 descriptive variables.

Methodology

An eight column, two-sided pamphlet was designed and then reviewed by professional editors and clinicians prior to a pilot study. After revision, the pamphlet was mailed,

prior to the first interview to 389 adults who requested outpatient therapy from March 31, 1981 to September 18, 1981. Of those clients who attended the first interview, 257 attended the second.

The data were subjected to two four-part analyses: log linear analyses and a discriminant function test of the dependent variable of attendance.

Results

The log linear analysis of the first and second interviews yielded no significant differences between treatment and control groups. Socioeconomic status significantly differentiated attend versus nonattend and cancel versus nonattend categories at the .05 level. There was a sex by treatment interaction for the second interview, cancel versus nonattend response categories.

The discriminant function analysis yielded one significant function for the first session, attend versus nonattend. Attenders had a higher income and were more likely to be married and financially dependent than nonattenders.

The results of the analyses suggested that a well-researched and constructed pamphlet, in itself, is not sufficient to motivate clients to attend or cancel their first or second appointments. The discriminant function analyses suggested that there may be clusters of variables which can differentiate between attenders and nonattenders.

DEDICATION

This thesis is dedicated to:

My husband, Gregory D. Cook, whose humor, love and faith in me have made it all possible;

My daughter, Kathryn Elaine, in the hope she will not have to struggle as I did to accept being a woman;

My father and mother, Fred P. and Janet R. Forman, whose love and support started this whole process; and

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CHAPTER ONE

INTRODUCTION

The existence of mentally ill individuals has always been problematic for society and solutions have run the gamut from banishment to tolerance, treatment and grudging acceptance. Cases of eccentricity, psychosis, symptoms of medical disorders (e.g., senility, epileptic seizures, syphillis) and interpersonal conflicts of varying severity, have been lumped together and treated with a multiplicity of remedies, the choice frequently contingent on culture, sex, and social class. Historically, the most severe cases of mental illness, in which individuals lost touch with reality, whether as the result of psychological disorder or physical symptoms, were isolated from society. With increasing sophistication, societies no longer "banished" these luckless individuals altogether, but institutionalized them. Once in an institution, they received treatment that varied from warehousing and medication to electroshock. Institutions grew as they came to be convenient "catch alls" for all those persons who were different from rigid community norms or were otherwise inconvenient to have around. Psychotropic drugs, however, developed in the 1900s, have

significantly reduced the numbers of these seriously disturbed people who need long-term institutional care.

For less seriously disturbed persons, the historical solutions were also contingent on social class. With the advent of Sigmund Freud's psychoanalysis in Europe in the 1900s, the wealthy upper and upper-middle classes found a palatable solution for the care of mentally ill family members. An individual could be treated without hospitalization and generally at home. Freud's premise was clear: if mentally ill individuals could understand what their symptoms represented on an unconscious level, they could, through analysis, gain control of their unconscious impulses and become healthy. Treatment included talking to analysts about anything that came into the patients' minds (free association) and analysts' interpretations of patients' unconscious motivations.

For the less wealthy, lower-middle and lower classes, there was little time, money or inclination to try to effect an analytic "therapy cure". Hollingshead and other researchers noted that, historically, the lower classes have consistently accounted for a higher percentage of seriously ill persons in mental institutions than the upper classes. Among the reasons that have been suggested are: less prevention, more stress, less tolerance for eccentric behavior, political and social persecution and, perhaps, more congenital

mental illness. To these reasons must be added a lack of money to pay for private community-based treatment and a dearth of such treatment on a public basis.

As society became more egalitarian, however, the class distinctions eased, community-based mental health treatment was given higher priority. This treatment, radically changed from the early 1900's, now includes many different types of psychotherapy, chemotherapy, therapeutic activities, partial and complete hospitalization, and outpatient psychotherapy and chemotherapy, delivered to the public and funded partially or entirely by federal, state and local tax dollars.

While personal wealth no longer dictates access to services or what kinds of services are available, some aspects of treatment, such as the usual referral source and payee, are still related to socioeconomic status. Private psychiatrists, hospitals and clinics continue to serve upper and upper-middle class patients, with some of these services available to middle and working class persons whose insurance covers private psychiatric care. Others in these groups go to community mental health (CMH) clinics where sliding fee scales are available if medical insurance is not. Referral sources are generally private physicians, family, friends or self. CMH centers are the primary providers for lower-middle and lower socioeconomic status (SES) clients. These people are referred for treatment, not only by physicians, but by the courts and social service agencies.

CMH centers offer a variety of services ranging from individual to family and group therapy, including referrals to and coordination with other community agencies.

As public, community-based mental health centers have become more prevalent and more lower SES clients have used them, some problems have been noted that are not particularly visible with other groups. One important concern has been the poor attendance rate for appointments. Researchers have generated many hypotheses that focus on three main areas: (1) the agency characteristics, e.g., a large bureaucracy may alienate clients, (2) the characteristics of the problem and the referral source, e.g., involuntary court referrals may generate more antagonism, (3) the clients' characteristics, e.g., the clients may lack information about therapy and be hesitant to arrive for appointments. Such questions about lower SES clients' failure to use community mental health center services more effectively than they have, have been investigated in research studies in many ways without consistent conclusions. Why does one out of three clients fail to attend an initial session? The need for answers to these questions points up a need for further research.

The Problem

As noted above, community mental health centers serve a predominantly lower class population. Within this group,

client problems span a continuum from those who have been discharged from psychiatric hospitals to those experiencing minor adjustment problems. The clients are referred by a number of sources; some request help on their own or are referred by their families, others are referred by physicians, the court system, or a social service agency. Some attend therapy voluntarily, others are mandated by the courts to attend. The expectations of these clients vary widely.

In order to serve these clients as efficiently and appropriately as possible, it is important for the referral process to go smoothly. Given the diversity of client functioning levels, the nature of the referral source and client information about therapy, a smooth referral process is often not achieved.

The first part of the therapy--making an appointment for the first session and attending--is often the most difficult stage. It is certainly the most crucial. Nothing can be achieved without starting, but it is common in urban CMH centers for approximately 25 percent of clients who are referred or request initial appointments not to keep them (Fiester, 1975). As many as another 37 to 45 percent of the outpatient population do not keep their second appointments (Fiester, 1975; Borghi, 1968; Heine, 1960; Imber, 1955). These attendance rates have not changed substantially over the last 20 years (Baekeland, 1975). For example, an average of 34.6 percent of clients who requested initial appointment for therapy

at the Tri-County CMH Centers in Lansing, Michigan area in 1979 and 1980 did not attend or cancelled.

Attrition at initial appointment may reflect many things. Clients are often referred to other agencies after the initial appointment is made and subsequently cancel their CMH appointments. Others resolve their problems prior to the first appointment. Researchers have hypothesized, however, that the greatest share of nonattending clients do not come because they do not understand what therapy is all about. They lack information about what therapy is and how therapy is done, may fear what it can do, and may be suspicious about what happens during the therapy hour. This fear, suspicion, and ignorance results in nonattendance. The lack of information is likely to be greatest in the socioeconomic classes which use therapy least and are most likely to be referred by authority figures such as physicians, judges, and social service workers, who often require attendance. Any combination of these factors (expectations, socioeconomic status, and referral source) contributes to the low attendance at initial appointments.

In efforts to educate mental health clients about therapy and therapy-intake, researchers have explored many alternatives. Researchers have "educated" clients with written material, pre-therapy interviews, video tapes and audio tapes. Little research, however, has been conducted to match socioeconomic status, referral source, and client

education, prior to the first session. When client-education studies have been undertaken, little effort has been made to construct the educational material according to the existing expertise in communication and reading comprehension theory, which has a great deal to offer on developing material for greatest comprehension with a particular group. Most researchers have constructed their own information material, sometimes tested it with a pilot study, but more often not, and assumed it would have the effect they desired on the group they wished to reach.

In this study, the researcher produced a one-page pamphlet with six columns of text and/or art work on each side. The pamphlet design and text were developed using the published expertise available in communication and reading comprehension research and theory. This pre-therapy educational material included a brief description of therapy and its setting, the roles of the therapist and client, attendance, length of time in therapy and possible outcomes. The theoretical considerations and technical aspects that went into the pamphlet to educate clients are discussed in further detail in Chapter Two.

Purpose of the Study

The primary purpose of this study was to determine whether more clients at a community mental health center would attend

scheduled initial interviews if they were educated prior to the first session about the therapy process and what would be expected of them. Within the primary purpose were two other objectives. First, to determine whether or not clients of upper and lower SES will respond to information about therapy in different ways. The research to date suggests that lower SES clients have a higher rate of nonattendance than those of higher status. If lack of information is a reason for nonattendance, then lower SES clients who receive pre-therapy information will be more apt to attend initial sessions than those who do not receive such information. Further, the effect on lower SES clients will be greater than on higher SES clients who receive the same information.

In an effort to describe socioeconomic status in a way which would include the values and beliefs which influence behavior, Hollingshead's Two Factor Index of Social Position was chosen. Hollingshead's criteria includes a weighted combination of education and occupation and has been used in many research studies to assess SES.

The second objective is to determine whether the referral source is a predictor of whether clients attend the first interview. Further, are there other variables, in addition to SES and referral source, that predict attendance? If so, are they affected by pre-therapy information. To this end, other variables which may have an effect on

attendance were considered, including sex, income, age, marital status, race, education, diagnosis, severity of problem, employment, and prior contacts with CMH, sex of the first therapist, sex of the second therapist, occupation, payee, living arrangements, days before appointment, days between first and second appointments, first or second therapist profession or educational level.

Hypotheses

Three primary hypotheses parallel the purposes noted above. First, clients at community mental health who receive information about the process of therapy will attend initial interviews more often than those who do not. This difference will also hold true for the second interview.

Second, the effect pre-therapy information has on attendance at the first and second therapy sessions interacts with client SES. The affect of education on low SES clients is larger than the affect of education on high SES clients.

Third, attendance at first and second interviews can be predicted on the basis of a multivariate discriminate function analysis of such descriptive client variables as referral source, age and education.

Overview

In the second chapter, precedent research relevant to the theory of client expectations and behavior in mental health settings and to the design of an informational pamphlet is reviewed. In Chapter Three, the sample of the study is defined, the design stated, the hypotheses written in testable form and the analyses explained. In Chapter Four, a summary of the data analyses and findings is presented. The results are interpreted and summarized in Chapter Five.

CHAPTER TWO

REVIEW OF THE LITERATURE

The review of the literature is divided into two sections. The first is a review of studies about "premature terminations" and "dropouts" from therapy and the strategies used to improve client attendance. Such studies cover very diverse populations and settings, so only those which concerned private clinics, hospitals, and community mental health settings have been included and the focus has been restricted to investigations of clients who drop out during the first few sessions. Strategies to improve client attendance include: (1) changing the intake process, (2) matching client and theoretical orientation, (3) educating the therapist, (4) matching client and therapist characteristics and/or expectations, and (5) educating the client.

The second section comprises a review of the theory and research on how written information is processed and the technical aspects of designing a pamphlet to meet the needs of new community mental clients and help improve their attendance. The design section includes a discussion of reading level, tone, graphics, visual appeal, type and underlining, and sentence structure and variety.

Premature Termination Studies

Premature termination from therapy has been studied for some time. Community mental health centers have recorded dropout rates of thirty-seven to forty-five percent after the first session (Fiester 1975). Even though community mental health has become more visible and better used, dropout rates have remained comparable to those of twenty years ago (Baekeland, 1975). Efforts to understand the reasons for dropping out have ranged from descriptive studies of clients, therapists, and urban and rural centers, to experimental studies to restructure the intake interview. Most studies have focused on client characteristics: age, sex, socioeconomic status, expectations, diagnosis and personality characteristics have been used to identify high risk clients. Research studies have: (1) matched therapist to client expectations, (2) attempted to change client behavior or perceptions of the services, or (3) suggested using a different therapeutic approach (Fiester, 1975).

The terms "dropout" or "premature termination" are most often used to describe clients who fail to keep initial appointments or who terminate after an intake appointment and before assignment to a therapist (Overall and Aronson, 1963). Fiester in a 1975 article, however, uses three sessions as a guideline for premature termination, while others describe it as twelve sessions (Yalon, 1966). Baekeland, in

his 1975 review of the literature, points out the difficulty of comparing studies on premature termination without operational definitions. Definitions often vary according to the theoretical orientation of the therapist. Analytic therapists tend to see the therapy process as longer than behaviorists. As a result, they often see clients who drop out before three to four months as unsuccessful. For the short term model, on the other hand, eight to twelve weeks is considered the upward limit of services. In a crisis intervention model, if the client comes for a session or two, therapy is considered complete. For the purposes of this study, "dropouts" are potential clients who: (1) do not show for their first scheduled appointment or (2) do not return for the appointment scheduled after initial intake.

Dropouts are more likely:

1. to be looking for therapy at a community mental health center than privately or a college counseling center (Bernstein, 1964)
2. to be of lower socioeconomic status (Monti, 1976)
3. to have low anxiety levels (McNair,1963 and Jones, 1975)
4. to be diagnosed paranoid or psychopathic (Hiler 1958)
5. to have little information about therapy or what is expected of them in therapy (Bernstein, 1974).

In summarizing previous research on dropout clients, four variables are important.

1. The setting - medical center outpatient clinics, private clinics, college counseling centers, community mental health centers.

2. Therapist variables - level of experience, theoretical orientation, socioeconomic status, sex, professional affiliation.*

3. Client variables - expectations of therapy, information about therapy, sex, socioeconomic status, anxiety level, clients' perceptions of their problems and therapists' diagnoses.

4. Type of therapy offered - individual or group, child or adult, psychoanalytic, psychodynamic, insight and behavioral.

Most studies which attempted to manipulate one or more of these variables were unable to control for the others. Comparisons of studies which do not control for setting or therapist orientation can only be inconclusive. The following is a summary of the research in each of these four areas.

The Setting

At community mental health centers attendance for initial interview appointments is lower than that of private clinics and college counseling centers for both upper and lower socioeconomic status (SES) clients (Myers and

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*Although it hasn't been explored in the "dropout" research, therapists' experience is a complex issue. Inexperienced therapists lose clients because they make inappropriate interventions, but they also keep clients with their enthusiasm. Experienced therapists make more distinctions between "good" and "bad" clients and often choose to work only with "good" ones. Therapists who have worked in agencies particularly for long periods of time describe reduced investments in therapy and their clients and their "no show" rates may reflect their lack of enthusiam (Duckro,1979).

Roberts, 1959; Fiester, 1975). There are no comparisons of attendance at medical center outpatient clinics with that at community mental health centers, but since their client populations are similar, attendance rates are hypothesized to be similar. Community mental health centers serve a higher percentage of lower SES clients than private clinics and college counseling centers and approximately the same percentage as medical outpatient clinics (Eisenthal, 1976). Low SES clients have lower attendance rates than middle and upper SES clients (Overall, 1963; Auld and Myers, 1954). Community mental health centers have a higher proportion of self-described eclectic and psychodynamically oriented therapists than private clinics. Although analytic therapists have higher attendance rates than other orientations, the attendance of their lower SES clients is also lower than that of their middle and upper SES clients (Baekeland and Lundvall, 1975).

Other issues are specific to physical differences in settings. McMahon (1964) found that lower class clients are often discouraged with the long waiting lists of community mental health centers. Kazdin (1979), in a series of three articles, suggested that the "nonspecifics" of therapy, including the setting and bureaucratic details, are more likely to affect whether clients continue in therapy than theoretical orientation. Thus, necessary paper work and large agency atmosphere of hospitals and community mental health centers may

discourage clients, especially those in disadvantaged circumstances who often lack the ability or sophistication to negotiate long questionnaires or complicated directions.

Graziano and Fink (1973) argue that community mental health centers require clients to alter their schedules for appointment times, impose financial obligations and contribute to clients' feelings that they must be middle class to get help. In support of their hypothesis that financial obligations are a significant issue, Balch (1977) found that clients whose therapy was paid for by third parties were more likely to continue in therapy than those who paid for the services themselves. Within the lower SES client group people are either working class who may have Blue Cross-Blue Shield coverage or intermitently employed laborers who may be eligible for medicaid to pay for their therapy. Upper SES people are more likely to be able to pay for their therapy. Middle SES people are often covered by insurance.

Lazare, Eisenthal and Wasserman (1975) attempted to change the passive "patient" role usually played by clients of hospital outpatient clinics by encouraging a more active "consumer" approach. They found that lower SES clients who became more actively involved and "negotiated" with their therapists about therapy goals were less likely to terminate prematurely.

In summary, lower SES clients are more likely to seek therapy at community mental health or medical outpatient clinics. Their attendance rates,however, are lower than other SES groups.

Therapist Variables

Therapist variables include: theoretical orientation, socioeconomic status, sex, and professional achievement level.

Analytic therapists recorded lower attendance rates for lower SES clients than eclectic or psychodynamic therapists (Baekeland and Lundwall, 1975). Tracy (1977) found that therapists who used behavioral strategies in working with lower SES clients reduced attrition. He also found that therapist status (M.D., Ph.D., M.S.W.) did not affect attrition.

Experienced therapists, regardless of orientation, are more likely to keep clients in therapy than less experienced therapists (Riessman, 1964). Fiester (1975), Goldstein (1973), Meltzoff and Kornreich (1971) found that more seriously disturbed clients were assigned to therapists with less education and that more of these seriously disturbed clients dropped out of therapy prematurely.

The educational level of the therapist is as significant as the theoretical orientation. Sue (1976), Fiester (1976), Imber (1955) found that more seriously disturbed clients and those of lower socioeconomic status tended to be

referred to either less experienced therapists, or those with less prestige (paraprofessionals, students, psychiatric residents). Most therapists, both experienced and inexperienced, tend to be of middle to upper socioeconomic status. Hollingshead (1958) found that attendance of lower SES clients is lower for mid- to upper-class therapists than for lower SES therapists.

Vail (1978), in studying sex and racial preferences among clients, found that when he randomly assigned black and white female and male clients to community mental health therapists, that the only significant predictor of premature termination was the sex of the therapist. Betz and Shullman (1979) in a study at a college counseling center of relationships between client sex, intake counselor sex and the sex of the counselor to whom the client was referred, found that both sexes were significantly less likely to return when initially interviewed by male intake workers than female intake workers. Further, clients referred to male therapists were less likely to return than those referred to female counselors.

Therapist attitudes and cognitive styles have also been studied with regard to socioeconomic status. Riessman, Cohen, Pearl (1964) suggest that therapists need to be educated about lower SES clients. He believes that such clients are more amenable to role playing, family therapy, behavioral objectives and less likely to use intellectualization as a

defense. This study supports earlier studies that indicated that behaviorally-oriented therapists have a lower incidence of dropout among lower class clients.

To summarize, therapists with the most experience, and those with a behavioral orientation, are most likely to be successful in retaining lower SES clients. There is mixed evidence about therapists' educational level and sex.

Client Characteristics

Client characteristics include: expectations of therapy, information about therapy, sex, socioeconomic status, anxiety level, perception of problem and diagnosis.

By far the greatest amount of research on variables involved in premature termination is focused on lower SES client characteristics. Miller (1964) emphasizes that it is not sufficient to identify one "lower" socioeconomic class. There are two subgroups, Level IV and Level V. Level IV or working class people are semi-skilled or skilled workers whose employment is stable. Level V or lower class people are laborers with irregular unemployment. Few studies differentiate between these two groups.*

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*This is particularly significant for the community mental health sample in this study. Many of the working class people in Level IV work in the automobile industry and although they are not skilled labor, they have many of the characteristics of the middle class by virtue of their large salaries and benefits, e.g., insurance.

The most comprehensive study of mental illness and social class was the New Haven study by Hollingshead and Redlich (1958) and the follow-up by Myers and Roberts (1959). Hollingshead and Redlich began with five hypotheses:

1. the prevelance of mental illness is related significantly to an individual's position in the class structure.

2. the types of diagnosed psychiatric disorders are connected significantly to the class structure.

3. the kind of psychiatric treatment administered by psychiatrists is associated with the patient's position in the class structure.

4. social and psychodynamic factors in the development of psychiatric disorders are correlated to an individual's position in the class structure.

5. mobility in the class structure is associated with the development of psychiatric difficulties. (1958, p.11).

The results of the first three hypotheses Hollingshead and Redlich reported in Social Class and Mental Illness (1958) and the third and fourth were reported by Myers and Roberts in Family and Class Dynamics in Mental Illness (1959). This comprehensive descriptive study began in 1950, involved data collected from a representative five percent sample of the New Haven population on social class and incidence of mental illness. The researchers found substantial support for the first three hypotheses and the following differences:

1. Class I, II and III neurotics were more likely to be referred to a psychiatrist by a private physician. Neurotics in class IV were referred by private physicians and clinic physicians, and class V neurotics were often referred by social agencies and the police and courts.*

   Classes I and II psychotics were most often referred by family and friends. Class III psychotics were referred by private physicians, IV by private physicians and the police and courts, and V predominantly by the police and courts.

2. Classes IV and V produce three times more psychotics than Classes I, II and III. The number of neurotics is constant across classes. Hollingshead suggested psychotics were not recognized as quickly by lower socioeconomic classes and tolerated longer than in other classes.

3. Treatment for eighty-five percent of Class I and II neurotics is a private practitioner. Of Class V, fifty-seven percent go to a public agency and/or state hospital. Class V neurotic patients receive significantly more custodial care compared with other classes. They also get less time with the therapists and when they do, the therapist is more directive.

   In-patient treatment for psychotics in Classes IV and V is in the state hospitals, for Classes I and II, private hospitals.

Myers and Roberts found support for hypothesis four and significant differences between Class III and V patients in "infrafamiliar role relationships, sex role development,

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*See Appendix for a description of Hollingshead's Two-Factor Index of Social Position.

external community processes, attitudes toward psychiatric illness, the therapy process and symptomatology." (1959, p. 246) Hypothesis five was partially supported. Mobility was associated with the development of psychiatric disorder in Class III, but not Class V.

Since the Hollingshead study, researchers have continued to argue that socioeconomic class is responsible for a disproportionate number of lower SES clients leaving therapy prematurely, being diagnosed psychotic rather than neurotic, being treated in state hospitals and community mental health centers with directive therapy and having a poorer prognosis for recovery than those of higher classes.

McMahon (1964) and Riessman (1964) have suggested that being born and raised in the lower socioeconomic classes creates people who are: (1) physical rather than intellectual, (2) concrete rather than abstract, (3) externally oriented rather than introspective, (4) spatial rather than temporal, (5) inductive rather than deductive. These characteristics, they concluded, are not conducive to insight-oriented verbal therapy which is often used in community mental health centers. Bernstein (1964) found that lower SES clients' style of communication was not conducive to therapeutic relationships.

Based on his studies of waiting lists at community mental health centers, McMahon (1964) suggested that one

reason lower SES clients exhibit poor attendance at initial interview is that the time concept for the poor is "here and now." If immediate help is not available when there is a crisis, they are unlikely to wait. Delaying gratification is a "luxury" of the middle and upper classes.

Research on client anxiety prior to initial interviews is inconclusive. Jones (1975), in his dissertation, found no relationship between reported anxiety prior to initial interview and continuance in therapy. Clemes (1965), in an adult outpatient experiment in which lower SES clients were assigned to psychiatric residents for either structured or unstructured interviews, found that more structured interviews lowered anxiety.

Other researchers have explored lower SES clients' expectations and their knowledge about therapy. Duckro, in a 1979 review of the literature, reported that prior to 1962 differences were noted in lower, upper and middle class clients' expectations of therapy. Most studies reported that lower SES clients wanted: (1) direct advice from therapists, (2) therapy continued for less than ten sessions, (3) medication and (4) a therapist who would be active in the sessions. In short, lower status clients wanted the medical model. The preference for active, directive therapy is not exclusive to lower SES clients, but proportionally more of them want that kind of therapy and are more apt to drop out if it is otherwise (Orne and Winder, 1968).

Duckro reported that mixed results appeared after1962: client satisfaction and continuance in therapy seemed related to more complex variables. If the clients got the therapy style they requested, Goin, Yamamoto and Silverman (1965) and Isard and Sherwood (1964) found that they were happier. If they did not, they were more critical, but did not necessarily drop out of therapy (Mendelsohn, 1964). Kumler (1969) found therapist warmth, rather than type of therapy or agreement with client expectation, to be a determiner of satisfaction. Severinson (1966) had similar findings. Gladstein (1969) found clients were dissatisfied when several of their expectations were unmet. Fiester (1975) found that, of lower class clients assigned to therapists they saw as concerned and attentive, those who felt angrier during the sessions and told their therapists less about their feelings, tended to be those who dropped out.

The major difficulties with these studies are that their failure to keep therapist and setting variables constant limit their comparability. In spite of this, it may be concluded that SES clients come to therapy with less information about the process than their middle or upper SES counterparts (Myers and Roberts, 1959), less prepared for a verbal therapy (Bernstein, 1964; McMahon, 1964; Reissman, 1964), less likely to confront their therapists and often distrustful of the agency setting (Hollingshead and Redlich, 1958).

Whether they are happy with their therapists is a function of: the therapists' sex, race, SES, theoretical orientation, experience and warmth. Given the limitations and uneasiness with which these clients approach therapy, the responsibility for making a good "connection" seems to fall on their therapists. Whether such connection is made is the product of numerous style and personality variables. Attempting to control for one or two variables at a time is not likely to yield consistent results.

Type of Therapy Offered

Most of the studies reviewed were examinations of individual therapy. Two were not. Yalom (1966, 1967) was interested in premature termination within groups. In the 1966 study Yalom worked with nine groups of ninety-seven patients of upper and middle SES. First year psychiatric residents functioned as group leaders. Yalom found that thirty-six percent of the patients were socially ineffective and dropped out within three months. In his 1967 study, Yalom attempted to see if an explanatory session prior to the group meetings would affect attendance and behavior in group therapy. The preparatory lecture was twenty-five minutes long and emphasized: (1) involvement, (2) "here and now" qualities, (3) cohesiveness, (4) purpose of therapy, (5) resistance as a block to therapy, and (6) appropriate behavior. Both studies involved upper-middle class clients

in a group setting and while helpful, the results cannot be generalized to lower SES clients in individual therapy. Truax, Carkhuff, Wargo, Kodman and Moles (1966) also used an introductory interview (VIP) with a time-limited therapy group and found significant improvement of clients' scores on the MMPI. Attendance was not a variable.

Homes (1975) conducted a thorough study of preparatory training for children about to begin therapy. Children from six to twelve were randomly assigned to one of two treatment groups, either a thirty to forty-five minute interview explaining why people go into therapy and why they, in particular, are in therapy, what patients can expect from the therapist and what the client is expected to do, or a social history interview of the same length of time. There were three process variables: premature termination, therapist's liking for the client, therapist's expectations of client improvement. Outcome variables were: therapists' and parents' rating of clients' level of disturbance, assessed after the first, third and sixth sessions. Level of disturbance was calibrated on a list of 116 "target problems."

Homes' conclusions were that the pre-therapy interview decreased premature termination, increased the therapist's liking for clients and expectations that they would improve, and increased the consistency of parent and therapist evaluation of target problems. There were no between group differences in behavior improvement. Holmes concluded that

the preparatory interview needed to be more specific about possible changes in behavior as a result of therapy.

Strategies To Improve Client Attendance

Descriptions of client and therapist characteristics and observations of the high attrition of lower SES clients have generated several strategies. These strategies include:

1. changing the intake process.
2. matching clients with therapists who have a particular theoretical orientation.
3. educating therapists to meet client expectations.
4. matching client and therapist expectations.
5. educating clients.

Changing The Intake Process

Eisenthal and Lazare, in a series of articles (1976, 1976, 1977) cited earlier, advocated a "consumer" or "negotiated" approach to the intake process. The approach included a "pre-interview" with a nurse, a patient request form, and intake interviews that stressed the therapeutic "contract" as a way of being helpful and included patients in therapy decision-making from the beginning. This "consumer model" contrasted with what Eisenthal and Lazare described as the "medical model" in which therapists make operative decisions and direct their clients, or the "passive model", in which

therapists wait until clients initiate discussions of their needs. Their studies concluded that clients were more likely to stay in therapy and to make specific requests when the "consumer" or "contract" approach was used, rather than more traditional approaches.

Eisenthal's goal was to combine clients' needs for symptom relief with therapists' beliefs that clients who were able to verbalize their needs were healthier. The medical model sabotaged that goal by keeping clients passive, rather than involving them. Eisenthal advocated negotiated contracts as therapy in themselves because they involve self-examination, verbalization and problem-solving. A contract results from "combining the patient's problem, the patient's resources, the patient's habitual style of coping and the patient's expectations regarding treatment and the treatment setting." (1976, p.740) Results of his hospital outpatient clinic study of 363 subjects were that negotiated interviews increased specificity in patients' problem statements. Becker (1978) also found support for the negotiated contract approach in the findings of his outpatient clinic research.

Matching Clients With A Theoretical Orientation

Although researchers have suggested that lower SES clients respond more positively to directive, concrete,

action-oriented, behavioral therapies, supporting studies are limited. In the Clemes (1965) study cited above, matching lower SES clients with a directive interviewer were found to be helpful in reducing anxiety.

In Tracy's (1977) study at a community mental health center, the effects of a traditional psychiatric evaluation procedure were contrasted with results using a behavioral analysis report technique. Tracy believed that clients who did not understand the therapy process or feel involved in it, would be benefitted by a behavioral analysis report that required therapists to communicate their understanding of the problem as well as the client's strengths, and treatment goals. The results indicated clients who received the behavioral report more often attended the second interview than those who had had psychiatric interviews. The experimenter also examined the effect of therapist training and experience and found no significant differences.

Another position was taken by McMahon (1964) and Bernstein (1964). These researchers stressed the importance of a therapist's attention to lower SES clients' needs, at least initially, in order to establish a therapeutic alliance.

Fiester (1975) and Goldstein (1973) argued that lower SES clients were less likely than other clients to talk with their therapists about their negative feelings. When clients

did not share their feelings they were more likely to drop out prematurely.

Educating the Therapist

Many therapists prefer not to work with lower SES clients. These clients are seen as poor candidates for "successful" therapy; they tend to: (1) drop out of therapy early, (3) need educating about the process of therapy, (3) prefer to be passive, and (4) tend to be more disturbed than middle and upper SES clients. As a result, they are often assigned to less experienced therapists or paraprofessionals and are seen less often.

Riessman and Goldfarb (1964) are part of a growing number of researchers who are attempting to reeducate therapists about this client group. They point out that lower class clients have advantages for the therapist; they intellectualize less, affect is more readily available and they have more to gain by changing. These researchers suggest that directive therapy is appropriate with these clients, including role playing, family therapy and behavioral contracts. Others have emphasized that the middle class values prevalent among therapists obstruct successful therapy with lower SES clients. With some adjustments in the way they view them, therapists <u>can</u> do therapy with these clients.

Mosby (1972) urged therapists to look at how the expectations of their lower SES clients differ from their own.

Once the differences are clear, client and therapist should then work together toward successfully met therapy goals.

Matching Client and Therapist Characteristics and/or Expectations

As Duckro (1979) pointed out, the research on client expectations has generated mixed results. Other research, designed to manipulate the variable of therapist orientation did no better. One problem has been the lack of a common definition of "expectancy". For some researchers, it denotes only "anticipation" and for others it carries a connotation of urgency. Probably for clients it is a continuum ranging from "most preferred (type of therapy) to least preferred, through a middle ground of indifference" (Duckro, 1979, p.271). The continuum would explain the mixed results in attempts to evaluate clients' satisfaction, even when their expectations were not met. Duckro (1979) reported a split of twenty-one studies (49%), which supported the concept of disconfirmed role expectations, and twenty-two studies (51%) which did not.*

Another problem with much of the research in this area is the use of pretests, particularly paper and pencil evaluations of client satisfaction. In several studies,

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*Disconfirmed role expectations are defined as those instances in which a client's expectations of a therapist were not met.

questionnaires were administered orally by the research team, making the probability of positive responses very high, irrespective of the client's true thoughts. Venzor, Gillis and Beal (1976) found that client's verbal responses to checklist or preferred therapist characteristics differed from a behavioral index of therapist style.

Educating clients about the process of therapy as it is practiced in most community mental health centers is an important first step. Even if clients are flexible in their willingness to respond to a therapist with ideas different from their own, the differences create obstacles which must be overcome. The more serious the pathology, and the more rigid the therapist or client, the less likely their differences will be overcome and therapy pursued successfully.

Educating the Client

Educating the clients for therapy includes several strategies: (1) direct advice during therapy, (2) interviews prior to therapy to explain what will happen in therapy, (3) video-taping of model clients, (4) audio tapes of model clients, or (5) written explanations of therapy. The underlying theory is the same: clients need to be "trained" to be clients; therapists have the option of training implicitly or explicitly.

Pre-Interviews

Attempts to educate clients, using pre-interviews, have been successful. When these pre-therapy sessions with the therapist were used, client attrition dropped, client satisfaction increased, and more therapists evaluated therapy as successful (Yalom, 1967; Holmes, 1975; Hoehn-Saric and Rudolf, 1964; Heitler, 1973). The pre-interviews included information on (1) how clients should act,(e.g., sharing their feelings, expecting to be involved in the process), (2) how long therapy would last, (3) what resistance in therapy is, and (4) how their therapist would act.

Hoehn-Saric and Rudolf (1964) hypothesized that lower SES clients held more unrealistic expectations of therapy than did middle or upper socioeconomic status clients, making pre-interviews more useful for them than for their middle or upper class counterparts. The researchers provided a brief session prior to therapy interviews to develop realistic expectations.and found that lower class clients who received the treatment remained in therapy longer than those who did not. Their results were replicated by Schonfeld, Stone, Hoehn-Saric, Imber and Pande (1969).

Michaels and Sevitt (1978) interviewed clients prior to initial intake at a medical school outpatient clinic and found clients were confused and frightened, anticipating such treatment as electroshock, medication, and hypnosis from the

psychiatrist. When interviewed afterward by the researchers, fifty-two percent found the interview with the psychiatrist unhelpful. Over half of the clients felt the psychiatrist should have told them earlier what to expect. The researchers concluded that pre-interviews would have been helpful in building more accurate expectations.

Nutter (1973) in a study with students to lower their anxiety, structured an initial counseling session. He offered a general orientation to therapy and explained the goals and importance of clients sharing their concerns. While there was no reported difference in client satisfaction, anxiety was somewhat lowered. As counselors, Nutter used graduate students with limited experience. The counselors' inexperience may have been responsible for the lack of greater treatment effect, rather than the treatment itself.

Video Tapes, Audio Tapes and Films

There have been a number of attempts to substitute audio tapes, video tapes or films for the face-to-face pre-therapy interview. Theoretical justification for this comes from Bandura's theory of role modeling, which holds that if clients see or hear appropriate models of behavior, they are more likely to behave in the same way.

Truax and Carkhuff, together and separately, explored the use of role induction interviews. Truax (1965) developed Vicarcious Therapy Pretraining (VTP), a presentation of a

thirty minute tape recording of excerpts of "good client behavior." Patients from a Veterans Administration Hospital were randomly assigned to treatments; later analysis showed that those patients with VTP training underwent more constructive personality change as measured by the Minnesota Multiphasic Personality Inventory. Attendance was not a treatment variable.

Truax, Carkhuff, Wargo, Kodman and Moles (1966) examined the effect of VTP on juvenile delinquents and hospitalized mental patients in time-limited group psychotherapy. The pre-training was found to have positive effects on self concept.

Strupp and Bloxom (1973), in another attempt to find an economical and widely available procedure for role induction, developed a film, "Turning Point" specifically designed for lower SES clients. Their theory was that these clients not only lack information, but have "(a) poor motivation stemming from apathy or feelings of helplessness, (b) defensive inhibitions and feel threatened by self examination, (c) misconceptions concerning problems in living and their amelioration through psychotherapy." (Strupp and Bloxom, 1973, p.373) The purpose of the film was to inform clients about what therapy can do. They concluded that lower class clients (defined as those of "lower income and whose average years of education were 10.8 or less) showed greater response as measured by process variables and attendance.

Zarcham (1977) developed another role induction film designed for lower SES clients. His sample of fifty-five Veterans Administration Hospital clients and their therapists were evaluated at the end of the first, fourth, and tenth sessions. Zarcham hypothesized that patients who saw the film would show increased appropriate patient behavior, but there was little support for this hypothesis. While upper and middle SES patients showed more improvement than lower SES patients, Zarcham suggests the film was not effective. He found little similarity between patient experience and the film and the staff did not reinforce the material in the film. The Zarcham study points out the necessity of the treatment intervention being appropriate to the population and the therapy to be given.

Several studies have attempted to compare videotape modeling and pre-counseling counselor-client interaction, and written instructions with videotaping and/or pre-interview training. Wuehler (1976) in a study with college students compared the effects of videotape modeling with pre-counseling interviews on client self-disclosure and client expectations. He found that the videotape, either alone or with counselor discussion, elicted more self-disclosure and improved understanding. There were no significant differences between videotape and videotape plus counselor interview.

Coughanour (1975) compared the effects of role induction interviews (RII) with automated expectancy training (AET)

on premature terminations and client expectations. Automated expectancy training is a fourteen minute audiotape based on the role induction interview. Both RII and AET clients had more realistic expectations than the control group. AET clients were found significantly less likely to terminate early, but Coughanour concluded that there were no significant differences between AET and RII on client behavior in therapy.

Scherpenisse (1976), in a rural mental health clinic, assigned female clients to a treatment condition which involved reading a one-page statement describing effective client behavior and listening to an eleven-minute audio tape of a model interview, or to a control group which read a one-page history of the center and heard an eleven-minute tape of a woman asking questions about community mental health centers. Initial interviews with these clients were then rated by judges according to the amount of time it took the clients to state their personal problems. Attendance at a succeeding interview was also tabulated. Scherpenisse found no difference between treatment groups. As in the earlier Zarcham study, difficulties seemed to have been inherent in the treatment itself; Scherpenisse suggested that procedural problems may also have been responsible for the lack of treatment effect.

Martin and Shewmaker (1962), in a study like Yalom would undertake in 1967, were interested in improving attendance at group therapy sessions. Yalom would provide a

pre-therapy lecture which stressed the importance of: (1) involvement (2) "here and now" qualities, (3) cohesiveness, (4) the purpose of therapy, (5) resistances and (6) appropriate behavior. He would find that initiated clients showed more appropriate group behavior. Martin and Shewmaker used a written introduction to group therapy covering: (1) the purpose, (2) the setting and (3) the content of the therapy hour. The instructions were written for a nonpsychotic person with an average or above-average level of intelligence. The authors determined that the members of the group used the written instructions and improved their level of communication.

Finally, Schneiderer (1977) assigned thirty-two self-referred males to one of four conditions: (1) videotape modeling of client behavior, (2) detailed written instructions about client behavior, (3) instructions plus videotape modeling and (4) control. The instructions and videotape modeling stressed self-disclosure, decreased impersonal description and more interpersonal discussion. His results showed that modeling and the written instructions produced a significant effect on client and therapist satisfaction and process variables. Schneiderer pointed out that if both modeling and written instructions were helpful, then written instructions were an easier, less expensive way to educate clients.

Summary

Studies on the use of pre-therapy training have generally found it to be successful in achieving several aims: (1) reducing client attrition, (2) promoting more appropriate client behavior in the therapy session, (3) increasing client satisfaction with therapy and (4) increasing therapist satisfaction with client behavior in therapy. Research into differential means of providing pre-therapy training have frequently focused on comparing the efficacy of personal contact with other training vehicles. The results at this time are moot, since written and video instructions have been as successful as personal contact.

The question is still what kind of intervention is most advantageous. Should it be a film or videotape, or can it be a written pamphlet describing the process of therapy which is much less expensive and easier to administer? The research seems to suggest that the written information is as effective as the other interventions and less costly.

The Pamphlet

Designing the pamphlet used in the research was a complex process; its preparation included a review of the research on how written information is processed and the technical aspects of designing a pamphlet to meet the needs of the community mental health client. In the following

discussion, attention is given first to theoretical concerns in designing informational presentations and then to their technical aspects.

Theoretical Considerations

The first concern was the theory of language acquisition and comprehension. Language acquisition theory has changed as the research developed to support the theory has grown. Theorists have attempted to explain: (1) how language is learned, (2) the process by which written and spoken language are understood, and (3) how that understanding is stored in short- and long-term memory. Related research efforts have been made in linguistics, psychology, education, philosophy, medicine, communication and advertising. Some of the current theories in linguistics and reading comprehension are presented below. Reading specialists, in particular, have attempted to apply the theories in order to teach better reading skills and some of those contributions are noted. Psychologists have recently become interested in applying Chomsky's notion of transformational grammar to human experience (Bandler and Grinder, 1976).

Until 1960, the two primary theories of language acquisition were behaviorism and learning theory. Skinner generated much research in the stimulus-response field. Piaget also produced considerable research in developmental

psychology. The studies were done with children and were primarily descriptive.

Chomsky published his first work on transformational grammar, Syntactic Structures, in 1957 and research since 1960 has been concentrated on describing this theory (Greene, 1970). Chomsky argued that children develop linguistic rules for the acquisition of language which evolve internally, rather than learning by imitation as earlier learning or behavior theorists had suggested. His thesis was that every sentence has a "surface structure" and a "deep structure". the surface structure is the "linear arrangement of the clauses, phrases, words and sounds," (Clark and Clark, 1977, p.12) and the "deep structure" is the underlying meaning (Richards and Denner, 1978). Transformational grammer is the process by which deep structure is converted into surface structure. This theory has had an important influence on research because it holds that reading comprehension is not memorized words or phrases, but the storage of information in "schema". These "schema" or storage outlines can be described theoretically and material designed to make comprehension simpler.

Estes and Shebitske (1979) indicate that, in the last ten years, research has moved from surface structure analysis of text to analyses of semantic structure. As a result, researchers have changed the techniques they use to measure comprehension and have included, among other methods, more

free recall (Ausubel, 1960). Bransford and Franks (1971) and Sachs (1967) reasoned that the surface syntax must be transformed in memory while semantic content was retained. This "schema" theory was based on Chomsky's theory. Individuals did not simply "store" all of the information they learned, but transformed and digested it. Baddeley (1974, 1975, 1979) postulated two hypothetical components of what he called a "working memory". These were a central executive function responsible for decision-making and information processing, and an articulatory loop responsible for basic learning and rote memory. When the need arises to comprehend quickly or to abstract, the central executive takes over. It thus became apparent that testing short term memory of words or phrases, or observing eye movements, was insufficient to determine comprehension. If subjects learned and stored concepts differently than they did individual words, these processes had to be studied differently.

Gibson and Levin (1975) posited reader strategies for reading: (1) flexible attention for different kinds of information, (2) strategic shifts with characteristics of the text and difficulty of concepts and style, (3) slowing down or speeding up as individual circumstances such as the newness or complexity of information and reader interest dictate. There is also a two-part economy principle which guides readers: (1) they focus on relevant materials,

so that the least amount of information needed is processed and the largest units appropriate to the task are processed; (2) storage of the information is characterized by a continual reduction of information. Old information is then used to process new. Alternatives are reduced by the application of rules, structure and redundancy. Most of the support for these findings comes from memory research and eye movement experiments (Lefton, 1979; Shebilski and Reid, 1979; Carpenter and Just, 1977).

In moving toward a more process-oriented theory, additional studies were published of how people learn and process information from texts. Thorndyke (1977) conducted a series of studies with four goals: (1) to elucidate the process by which knowledge is acquired from text, (2) to specify how it is represented in memory, (3) to identify how and when related information is integrated in memory, and (4) to discover techniques for the facilitation of learning and reasoning with textual information. He found evidence to support the following principles of learning and performance: (1) present new information in well learned schema and repeat if needed with new details; (2) when material is presented in sequential order or by primary topic, memory is improved; (3) complementary facts placed in proximity increase memory; (4) reasoning from memory of texts is more accurate than inspection of texts if inferences are made; and (5) people learn little unless

they are trying to learn. Throndyke's was the first study to look at how text could be manipulated to "help" readers process information.

Rupley (1980), writing from the standpoint of education, emphasized that comprehension is dependent on processing meaning, rather than sounds or words. The processing depends on "reconstructing the author's message in light of how well it matches the reader's experiential background." (1980, p.3) Teachers or writers can focus the reader's attention and set up the expectations and a direction for reading which will aid in comprehension. The writer can also aid the reader by including only relevant details. If however, the reader's experiences are very different from those presented by the author, integration of the message abstract does not occur.

Of the research studies executed to test these research hypotheses of reading comprehension, most have used populations of children and college students. Children are studied for developmental changes in reading comprehension and college students because they are the most accessible groups of adults to educators and linguists. Results of the studies indicate that memory in adults, as opposed to comprehension, has been found to be age-related and deficits have been found in learning word lists, as well as in remembering prose (Denney, 1974; Hultsch, 1974; Taub, 1974).

This subject is of particular interest since the population for the study at hand is composed of middle-aged adults. The memory losses have been attributed to age-related decrements in organizational processes of memory (Meyer, 1980). In contrast, Meyer's 1979 study of three age groups, with high verbal ability, showed no differences in measures of total recall or ability to recall main ideas. Young adults, however, remembered more information, supporting the primary thesis, while middle-aged and older adults picked up more details. In his ongoing research, Meyer hypothesizes "a deficit for old adults with low verbal ability to utilize conceptual hierarchies." (1980, p.10)

In summary, then, the most recent theories of reading comprehension posit that readers use a schema or organizational plan. The sophistication of their ability to organize material depends on the individuals' intellectual ability, age, experience and the complexity and presentation of the material. There is some evidence that the organization of the text can be helpful to integration and retention in long term memory.

Technical Aspects

Tone

Communication literature includes a number of studies on speaker style and its effect on listeners. While this research deals primarily with spoken language, it appears to

have some relevance for written material as well. Bradac, Bowers and Courtright (1979) found that the more stressed the listener is, the less likely it is that he will listen to a high intensity speaker. Carmichael (1965) found that low intensity persuasion was more successful with college students than high intensity persuasion.

Bradac (1979) found that when the receiver of a message is aroused, even though the arousal is irrelevant to the message, a persuasive message is more likely to be accepted. Arousal in these studies is often in the form of perceived threat. The subjects are almost always college students and the threats are related to academic matters. While community mental health clients often appear to be anxious and perhaps feel threatened by the prospect of therapeutic treatment (based on their rates of failure to show up for clinic appointments), it is difficult to apply the persuasion research directly without more data. Nevertheless, there is enough evidence to support the hypothesis that speakers (or written materials) that are direct, authoritative, fluent, and reassuring, are likely to have impact on the target audience (Miller and Hewgill, 1964; Conville, 1975; and Bradac, 1979).

In another variation on the persuasion theme, Wellins (1977) found that, subjects who were encouraged to counter-argue when faced with a view that differed from their own,

listened longer than subjects who were not allowed to counter-argue. It is assumed that written material that includes statements of possible counterarguements such as "you may think a therapist should be like a doctor...," should show similar effects. This may be extended by encouraging clients to ask questions of their therapists and talk about their disagreements.

Graphic Design

The graphic design field is large and includes a range of approaches to printed material. Twyman (1979) suggests a schema which includes 28 categories or theoretical approaches to graphic material. A pamphlet, like the one used in the present study, fits into the category of non-linear directed materials; traditionally this is the category of advertising. The category includes such diverse techniques as bold headings which are scanned vertically to copy interrupted by pictures. Cuing (a technique of directed viewing) is also part of this category.

Visual Cues

"Visual cues are variations in the appearance of a graphic display which are intended to assist the reader in using the display more efficiently" (Foster, 1979, p.189). These visual cues include the use of space, changes of type,

color, underlining, italics and illustrations. In a review of eleven studies from 1951 through 1975, Foster found considerable evidence that typographical cuing can increase comprehension as measured by both immediate and delayed post-tests.

Several questions are raised by Foster about what material should be cued and how much should be cued, since there is evidence that too much cuing is distracting (1978, p.191). Foster reported that early studies, such as those done by Klare et al., in 1955 cued single words. Later researchers examined the use of cued statements or sentences (Crouse and Idstein, 1972; Fowler and Barker, 1974). Still other researchers described the need to identify "core" content without describing how they chose the "core". In studies requiring students to underline what they thought were core issues, Fowler and Barker (1974) and Rickards and August (1975) found that students underlined very different things than "experts." The net result of the studies seems to indicate that writers can determine the type of materials they wish to emphasize and readers will learn what is cued, although they may not remember it for long if it does not represent material useful to them. Rothkopf (1972) and others supported the hypothesis that individuals can be encouraged and directed in their reading and that typographical cuing can be helpful in directing attention and increasing recall.

The sophistication of the reader is a factor in the success of cuing. A knowledgeable reader needs fewer notations of topic material for comprehension, but may use headings to locate particular material (Doolings and Lachman, 1971). Reading comprehension improves for poor readers when they are directed in their reading (Rothkopf, 1972).

Most researchers have used multiple choice tests to evaluate comprehension. Rickards and August (1975), Foster (1979), Meyer and McConkie (1973) and Mandler and Johnson (1977) argue for free recall evaluation because it is closer to reality and offers better evidence of the usefulness of cuing in helping people organize their reading. In accord with these advantages, the researcher has chosen free recall as a part of the preliminary evaluation of the pamphlet to be used with CMH clients.

Another emphasis of the research in cuing focuses on color. Research studies over the last 30 years have concerned the use of color in educational settings for movies, textbooks, and film strips (Chute, 1979). Attempts have been made to determine which strategies are best while taking into consideration the learner's aptitude and the use of the color cues in the presentation. Chute's review of the literature in this area summarized that, "it has been assumed that color presentations provide learners more information cues and more stimulation; thus it has been theorized that color presentations would enhance learning" (1979, p.252).

In fact, while color has often been shown to capture the interest of readers, its use has differential effects on high and low aptitude students, as measured by posttests (Allen, 1971; Cronbach and Snow, 1977). In general, Chute found that most researchers compared intrinsic color cuing with black and white films or tapes, intrinsic color being the color normally associated with an object. Integral color cues, designed to differentiate an object from other objects because it is the "wrong" color, was used with intrinsic color cues and other cues such as type or spacing changes.

Intrinsic color was appreciated more by viewers (and presumably educators and educational film makers) but performance on posttests indicated little or no difference in comprehension or recall between black and white films and color films (Kanner and Rosenstein, 1960; Rosenstein and Kanner, 1961; Vandermeer, 1954). With respect to color and form, (moving or still pictures), the pattern remained the same. For individuals older than six (prior to six, color seems to be a more potent cue than form) form is a more important determiner than color, so that black and white often function as well as color. In contrast, several experiments with integral color (Berry, 1977; Dwyer, 1976) found that students learned better when "unnatural" color was used.

Type and Underlining

Wright (1977) reviewed the literature in regard to typographical changes in written technical reports and found considerable support for the use of headings, underlining and outlining of significant material. Wide margins, skipped lines, or type changes were other alternatives (MacDonald-Ross and Wallter, 1975; Klare et al., 1955). Spencer (1968) found that type larger than twelve point or smaller than six-point was difficult to read. Titles in all capitals were also found to be difficult to read (Wright, 1977).

Sentence Structure and Inserted Questions

Readers recall simple declarative sentences more readily than complex sentences (Clark and Clark, 1977). Active sentences are more often remembered than passive ones (Wright, 1977). Jones (1966) found that phrasing sentences in the positive improved comprehension (e.g., "Do... only if...," rather than "Do not...unless...").

The research in the use of inserted questions was surveyed by Rickards and Denner in 1978. They found that while the earliest research was done in 1929 by Washburne, it wasn't until Rothkopf's 1965 study that the research proliferated. "Inserted questions" are questions which are "interspersed in a passage of text contiguous to the material to which they relate" (1978, p.318). The placement

of these questions may be manipulated from the beginning of the text to the end and the level of the questions (verbatim to inferential recall) may be altered as well as their frequency. Interactions between individual differences, place, and level of question have been investigated.

To summarize Rickards and Denner's findings, groups using questions after the text surpassed prequestion groups in some cases, but there were many exceptions. The research seemed to indicate that prequestions help the reader to remember details related specifically to the questions asked, but neglect others. Questions following the material promoted greater recall of details incidential to the questions. No consistent effects of position have been found for cognitive, high level questions, although these questions produce more organized recall of information than verbatim questions (1978, p.339).

With respect to individual differences and inserted questions, Shavelson et al., (1974) found that students with low vocabulary scores recalled the material better than those with high vocabulary scores when higher order post-text questions were used. Rickards and Hatcher (1978) reported similar findings. Lower ability students found the questions more helpful than higher ability students or the controls. Winter (1977) suggested that readers start with questions and that writers often ignore these questions when writing texts or pamphlets. Wright (1978) also suggested

that readers' needs are ignored, particularly in writing instructions for machines.

One of the major problems with inserted question research is the process by which the results of experiments are measured. As noted above, reading comprehension researchers hypothesize that comprehension flows from cognitive or organization schema. How the answers to inserted questions are stored is hypothesized but not known (Anderson, 1976). Rickards and Denner (1978) suggest that research based on a particular cognitive theory may be more helpful than manipulating types and placement of questions.

In the same vein, Dooling and Lachman (1971) found that the presence of thematic titles increased the recall of written material, as well as of specific words associated with the theme. Ausubel (1960) found that a summary of the theme or major idea, either before or after the material aids in comprehension.

From the standpoint of the present research, questions were included in the text prepared by the researcher to structure the client reading, increase their comprehension and to pique their curiosity. The questions chosen were those that clients frequently ask about therapy and were derived from clinical observation.

Summary

There are few definitive theories or outlines in the literature on how to design and write an instructional pamphlet. Wright (1978, 1977) suggested one plan, but notes that "there will never be a single all-embracing theory of how to design written information." (1978, p.291) She suggests that the writer start first with what the readers think they need. The second stage is writing in compliance with the available research findings. As she notes, the information that exists in the literature is widely diverse and applies to such diverse vehicles as educational texts, instructional pamphlets, maps and charts. Expert opinion is, however, available and should be used (MacDonald-Ross, 1978). Finally, an evaluation of the draft material is necessary.

In this last stage Wright recommends pilot testing the target population to ensure that there are no misperceptions of the text message and suggests that informational material be reviewed by the population with which it will be used. One strategy is to ask the subjects to comment on the difficulties a third person might have in understanding the material.

In summary, prior research offers general guidelines on language level, syntax, use of questions, use of color, cuing and evaluation. In accord with the findings of this research, the text and the layout of the pamphlet used in

the study at hand were designed to fit the pertinent parameters as much as possible, given the population and the purpose of the research.

To conclude, there have been a variety of strategies designed to affect the attendance of clients who prematurely terminate therapy. Written material, as well as video/audio and personal contact efforts, have often been used to educate such clients and prevent premature termination. Given the results of prior research, a written pamphlet has been chosen as a vehicle to educate community mental health clients in this study, because it has been effective in other instances. It was also inexpensive, convenient to use prior to the first therapeutic session and offered both the client and therapist a guideline to which to refer. The pamphlet design was based on the available research in communication, reading comprehension and journalism and it was evaluated by experts at three levels. With this framework in mind, the present research will be described in Chapter Three.

CHAPTER THREE

DESIGN OF THE STUDY

In Chapter One, the problems associated with attendance among lower socioeconomic status (SES) clients were discussed with the objective of developing a strategy to increase attendance. In Chapter Two, a review of the literature suggested that one intervention which might be helpful was contact with clients about therapy prior to the first interview. This contact or "pre-therapy training" involved written material, video or audio tape, or a pre-interview meeting with the therapist or another professional. The strategies were generally found to be successful in reducing client attrition, promoting more appropriate client behavior in therapy sessions, and increasing client satisfaction with therapy and therapist satisfaction with client behavior. A pamphlet sent to the client prior to the first session was chosen as the intervention most appropriate to the community mental health setting in the study at hand and in the second half of Chapter Two the available guidelines and research appropriate to pamphlet design was reviewed.

In the first part of Chapter Three, construction of the pamphlet including content, design and evaluation, is

reviewed. Following the description of the pamphlet is a description of the population, sample selection, and a summary of the demographic data pertinent to the clients in the sample. Finally, the design of the study is outlined and the specific hypotheses and analyses are described.

Construction of the Pamphlet

As described in Chapter Two, the pamphlet was designed to meet a specific need--to educate the lower socioeconomic status client about therapy. It was constructed with a particular question in mind--will information about therapy decrease absenteeism at initial appointments?

Text

Construction of the pamphlet was divided into text and design. The text was written by this researcher, keeping in mind the available research and recommendations to key such text to the 8th grade level, as measured by the "Fog" readability formula developed by Gunning (Appendix A). Approximately 58 percent of the CMH population have some high school education and approximately 38 percent (See Appendix B) have some college education. Although most of the target clients may read at a high school level, the reading level of some clients could be lower. In order to assure that everyone could read the

material, the 8th grade level was chosen as the minimum reading level for the pamphlet. The content covered the main questions about therapy: how does it work, what kinds of problems are helped by therapy, what happens in therapy, what is the client expected to do, how long will therapy take?

In addition to the information about therapy, a letter on one side of the pamphlet confirmed the client's appointment time, gave the name of the therapist, and encouraged the client to read the pamphlet (See Appendix C). The letter was included to establish personal contact with the client and in the hope that the client would bring the pamphlet to his or her appointment. This procedure would give clients another opportunity to read the material and, in some cases, ask the therapist questions or serve as an "icebreaker" in the initial interview.

The way in which the content was phrased followed the research findings when possible. The tone of the pamphlet was of low intensity (Carmichael, 1965) and counter-arguments such as, "you may think a therapist should be like a doctor..." were used (Welling, 1977). Simple rather than complex, active rather than passive, positive rather than negative wording was used (Clark and Clark, 1977; Wright, 1977; Jones, 1966). Questions were used to head subtopics because they help the reader to organize the material.

The content was reviewed by a professional editor, the CMH supervisor and his outpatient staff at Ingham Community Mental Health and by clients for applicability. Changes were made where appropriate, following their recommendations.

Design of Pamphlet

The pamphlet's layout and illustrations were done by a professional artist and editor. Visual cues to the reader, such as the use of space, underlining, illustrations, capital letters, and changes of type were designed to increase comprehension. Doolings and Lachman (1971) found that the less sophisticated reader tended to use more cues than the more knowledgeable reader. While color was also found to highlight important concepts, the simplicity of this one page, eight column pamphlet and the expense of color precluded its use. An 11 point type size was found to be the most legible for a pamphlet of this size (Spencer, 1968).

Once it was completed, the pamphlet was again submitted to outpatient staff and supervivors for their comments and suggestions. After appropriate revisions the pamphlet was reviewed by the director of student publications at MSU, who felt its design and text were adequate. Finally, the finished pamphlet was reviewed by five CMH clients prior to their first sessions at Ingham Community Mental Health. The clients were asked if they felt the pamphlet

would be helpful and if so, how it would help them. Their reactions to art work, readability and usefulness were noted. Comprehension was reviewed using free recall. In each instance the clients made positive comments and all were able to remember the primary points made in the text.

Design of the Study

In the following section, the selection of the sample, the size of the sample, the procedure followed, and the dependent description variables are discussed. The research design is described in Table 3.14.

Selection of the Sample

The population from which the sample for this study was drawn was comprised of all adult outpatients who requested therapy appointments at Ingham Community Mental Health Center from March 31, 1981 to September 18, 1981. These clients reside in Ingham County and their appointments were scheduled at the Ingham Community Mental Health Center in Lansing, Michigan. Lansing is the largest urban area (pop. 130,000) in a county with a population of about 275,000. Ingham Community Mental Health Center is the primary treatment facility for Ingham County, although there is a small rural satellite center in Mason. Adult outpatient clients who requested therapy at the Mason facility were included in the study as a separate sample. It was originally intended

to combine the subjects from the Ingham and Mason centers but subsequent analyses indicated the clients from each center differed significantly on all of the major descriptors. As a result, the Mason outpatient demographic data is included in Appendix D for comparison.

All clients included in the study were accepted by Ingham Community Mental Health personnel for outpatient unit services. Those under 17 years of age were referred to the child and adolescent unit. Clients whose primary difficulties were with children, substance abuse or who required after care services*, were referred to other CMH units. The decision of the unit to which a client is referred is made by two referral workers, who handle all incoming calls for services. Their experience is extensive, one worker has worked for CMH for sixteen years and the other for four years.

Some clients who do not wish family members living with them to know they have contacted community mental health, often request that they not be contacted by phone or mail at home. These clients were not included in the study, since mailing a brochure to the home was inherent in the treatment. Six clients were excluded for this reason. A total of 389 subjects from CMH were included in the sample.

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*After care services are defined as those services CMH offers to clients who have been discharged from psychiatric hospitals. These services include therapy, case management, and residential or hospital treatment as needed.

Sample Size

The size of the sample was based on a minimum cell size of 20 subjects and a minimum total sample size of 320. There are 16 cells in the design when the first and second interview are considered. The minimum 20 subjects per cell was meant to be large enough to detect treatment effects if they existed. Twenty subjects per cell exceeds Borg and Gall's 15 subjects per cell rule of thumb (1971). The sample, collected from March 31, 1981 through September 18, 1981, included a total of 389 subjects (69 additional subjects from Mason were included in the supplemental study). A comparison of the attendance rate during this period with that of other months and the previous 2 years (for the same 6 months) may be found in Table 3.1.

Procedure

A caller who requests services at Ingham CMH is referred to one of two intake workers. This worker asks the client a number of routine questions about the nature of the problem and its duration, the referral source, the client's age, education, occupation, living arrangement, income, marital status, and dependents (See Appendix E and F). She then assesses the fee for services and assigns a therapist and an appointment time. The fee for services is based on a sliding scale using the client's salary and number of family members.

TABLE 3.1: ATTENDANCE RATE FOR INGHAM COMMUNITY MENTAL HEALTH CENTER CLIENTS AT THE FIRST INTERVIEW FROM APRIL-SEPTEMBER, 1979-81

Year		April	May	June	July	August	September	
1979	Total n	122	149	102	102	128	138	
	Attend. in Percent	63.6	58.5	69.0	57.3	58.1	64.0	
	Cancel + non attend in Percent	36.4	41.5	31.0	42.7	41.9	36.0	$\bar{X}$ = 61.8
1980	Total n	140	214	158	188	117	246	
	Attend in Percent	67.5	68.5	67.0	71.0	69.5	71.0	
	Cancel + Nonattend in Percent	32.5	31.5	33.0	29.0	30.5	29.0	$\bar{X}$ = 69.1
	$\bar{X}$ percentage of attends	65.5	63.5	68.0	64.2	63.8	67.5	$\bar{X}$ = 65.4
1981 Sample	Total n	56	88	87	56	55	51	
	Attend in Percent	67.9	70.5	72.4	58.9	76.4	72.5	$\bar{X}$ = 69.8
	Cancel + Nonattend in Percent	32.1	20.5	27.6	41.1	23.6	27.5	

Cancel = C RS S
C RS NS

Subjects in the sample were assigned to treatment groups in a specific manner. The referral worker determined each subject's education and occupation scores using Hollingshead's Two-Factor Index of Social Position (1957) shown in Appendix G. Hollingshead's criteria are explicit about scoring occupation and education and the referral workers were trained in using them for approximately three hours prior to beginning the study. Several special cases arose and were included in the directions. When clients indicated they were unemployed, their last occupation was used unless a person had been unemployed for more than two years. In this event, the subject was classified as "unemployed." Women who described themselves as "housewives" were coded according to their husbands' occupations. Students were classified by their programs (e.g., a student in law school was assigned the occupational title of lawyer, a technical school student in air conditioning repair was classified as a skilled worker).

Subjects were also classified by income. Those whose scores fell into the three highest levels (I,II,III) were labeled as "high socioeconomic status" and those in the two lower levels, "low socioeconomic status". Subjects were randomly assigned to treatment groups by socioeconomic status and sex (See Appendix H for assignment sheet). Pamphlets were then mailed to subjects in the treatment groups. Since pamphlets included the appointment time and date and the name of the therapist, any subject whose appointment was

too close to initial referral to allow them to receive the pamphlet before the first interview was excluded from the study. Those subjects who did not wish to receive any communication from the mental health center were also excluded from the study. The pamphlets were mailed in plain envelopes with no return address and every attempt was made to protect client confidentiality.

Informed Consent

In this study subjects were not informed that they were part of a research study. This decision was made by the researcher and approved by the University Ethics Committee and supervisory personnel at CMH and was based on the following facts. First, to inform clients prior to the study that they were going to be involved in a research study might have changed the intake procedure and possibly altered their behavior in an atypical way. Second, the information gathered by the referral worker was in no way altered by the research study. The outpatient program director and the client director at CMH felt that mailing the pamphlet to clients was neither intrusive nor potentially damaging. All people who requested therapy received it; the research study did not alter the referral process or the therapeutic relationship.

Referral workers routinely keep track of attendance for outpatient clients. They note whether clients attend, cancel, cancel and reschedule or never appear. This

information was collected from the referral workers for the first interview and from the records office for the second interview. Demographic data was collected from two places: referral sheets and client files. A client file is created when a client attends the first interview. Names were not collected with this data and in no case does a client name appear in this or any other report.

Descriptive Variables

The descriptive variables included in the study are described in Appendices I and J. These variables were available either from the face sheet filled out at the first contact or at the end of the first interview.

Dependent Variables

In order to test the research hypotheses, data were collected concerning client attendance at the first and second interview. The response variable for the first session included five levels of attendance-nonattendance. There were eight levels for the second interview; see Table 3.2

In order to simplify the analysis, the response variables for the first interview were consolidated to the dichotomous variables attend and non attend. Those who did not attend were separated into two further categories, cancel and did not attend.

TABLE 3.2: FIRST AND SECOND APPOINTMENT ATTENDANCE

First Interview	Second Interview
-Attend	-Attended
-Did Not Attend	-Did Not Attend
-Cancelled	-Cancelled
-Cancelled, Rescheduled and did not attend	-Cancelled, rescheduled and did not attend
-Cancelled, rescheduled and did attend	-Cancelled, rescheduled and did attend
	-Not Scheduled
	-No response to phone or written contact
	-Contacted, withdrew from therapy

TABLE 3.3: RESPONSE VARIABLES FOR THE FIRST AND SECOND INTERVIEW FOR CLIENTS WHO ATTENDED

First Interview Attendance	Second Interview Attendance
1. attended (attend plus cancel, reschedule and attend)	1. attended (attend plus cancel, reschedule and attend)
2. did not attend (did not attend, plus cancel and cancelled, rescheduled and did not attend).	2. did not attend (did not attend plus cancel and cancelled, rescheduled and did not attend, no response, withdrew).

TABLE 3.4: RESPONSE VARIABLES FOR THE FIRST AND SECOND INTERVIEW FOR CLIENTS WHO DID NOT ATTEND

First Interview Attendance	Second Interview Attendance
1. cancelled (cancelled only)	1. cancelled (cancelled plus contacted, withdrew).
2. did not attend (did not attend plus cancelled, rescheduled, did not attend).	2. did not attend (did not attend plus cancelled, rescheduled and did not attend plus no response to written or phone contact).

Although the response variables could have been collapsed to only two categories, important information about client response behavior would have been lost. Further, the pamphlet stressed the importance of cancelling if one is unable to attend. The agency benefits from knowing whether the appointment will be kept and if the appointment is cancelled it can be rescheduled.

Demographic Characteristics of the Sample

A total of 389 subjects were included in the sample. Among these 389 subjects, there were instances of missing data for each descriptive variable, but the primary descriptors, those used as blocking variables in the design (sex, SES) were available for every subject. In order to be included in the study, clients had to be classifiable by sex and socioeconomic status. From that point forward, every effort was made to include all of the pertinent data, but omissions occurred when clients could not or would not give pertinent information to the referral service or therapist. In the instances where incomplete information occurred (e.g., on income) values were assigned. For clients on General Assistance, and Aid to Dependent Children, Social Services' estimates of income were used. For clients who cancelled or did not attend were used. For clients who cancelled or did not attend the initial appointment, of course, client data supplied by the therapist (diagnosis, etc.) were unavailable.

To summarize, the following information was available at each stage:

1. after initial contact--sex, SES, treatment condition, income, age, marital status, education, referral source, employment status, number of prior contacts with CMH, insurance, living arrangement, number of days to first appointment.

2. after the first session--diagnosis, severity of problem, prior contact with CMH, number of days to second appointment.

In addition, information about the therapist assigned, such as sex, educational level, or profession, was available for the first session with the first therapist and at the second if a new therapist was assigned.

It is apparent then, that there may be significant differences between those clients who did not attend the first interview and those who did. The descriptive data, which includes data collected after the first interview, is relevant only for those clients who did attend and should not be generalized to those who did not attend.

Similar to past experience with CMH clients (See Appendix B), two-thirds of the population were females (66.6 percent, Figure 3.1). A similar proportion was lower SES (61.7 percent) as noted in Figure 3.2. The average income was $8208 and the average age was 31.4 (See Table 3.4 and 3.5). Over 60 percent had been married at one time or another (See Figure 3.3). The clients were predominantly white (90.1 percent) and almost half (48.9 percent) had some education beyond a high school diploma (Table 3.6). Approximately half of the clients were working full- or part-time (Figure 3.4), but

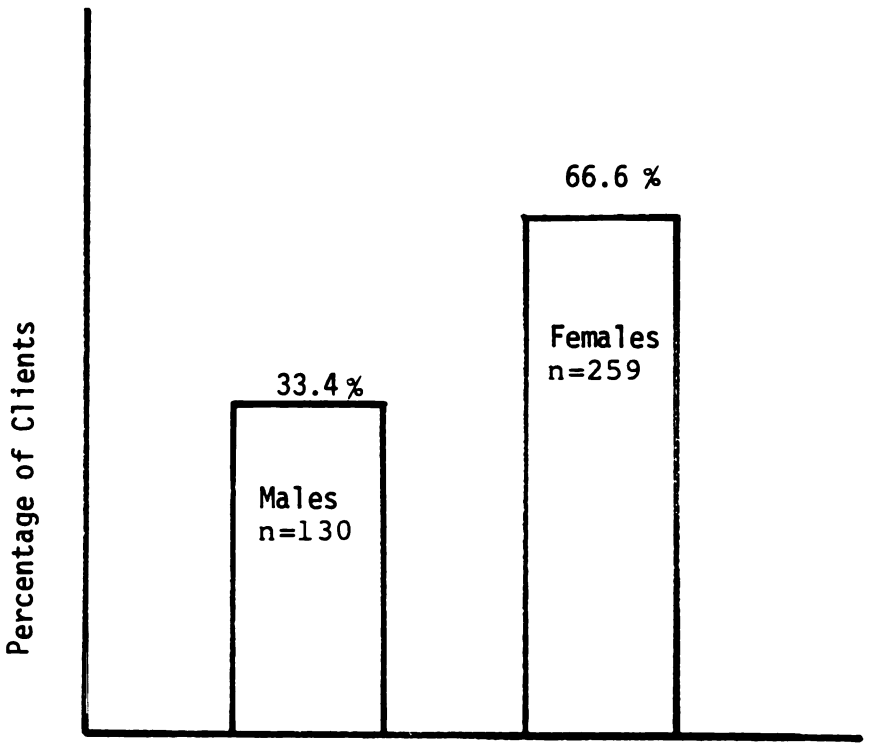


Figure 3.1 . Sex of community mental health clients in percentages

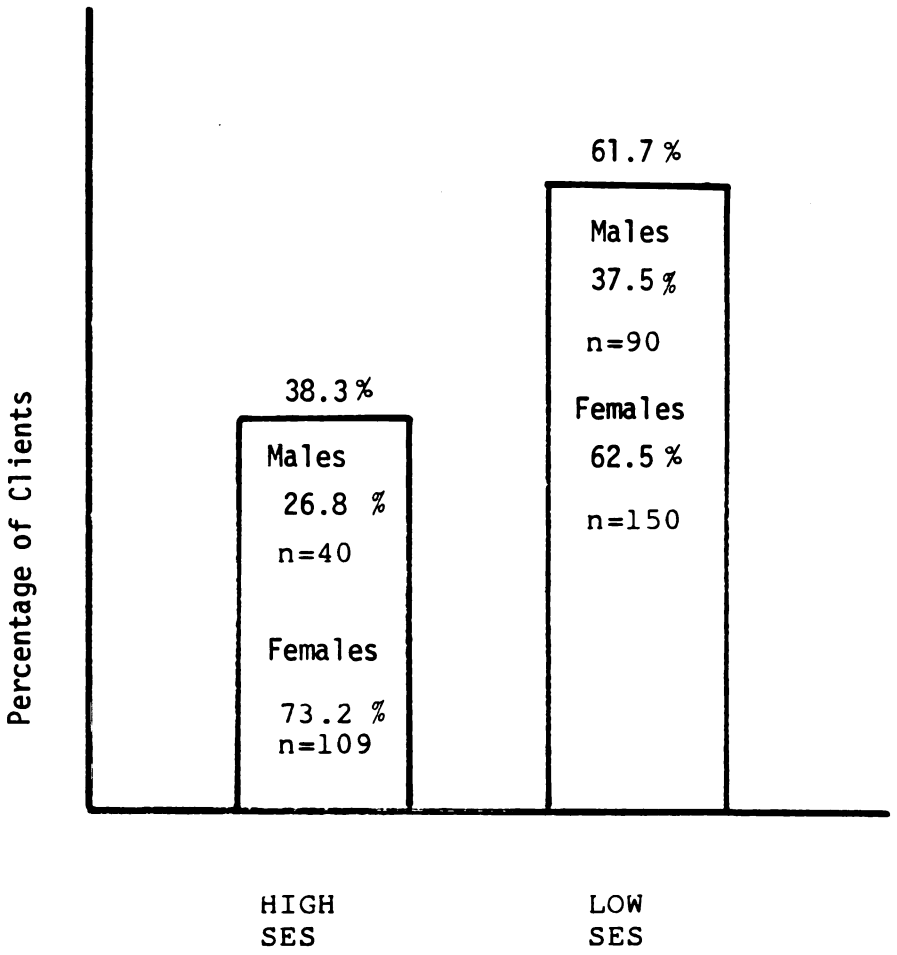


Figure 3.2. Socio-economic status and sex of community mental health clients.

TABLE 3.5: INCOME OF COMMUNITY MENTAL HEALTH CLIENTS

	Number of Respondents	Percentage
Under 2999[1]	70	18.3
3000 - 5999[2]	93	23.9
6000 - 7999[3]	77	19.8
8000 - 9999	16	4.1
10,000 - 14,999	45	11.6
15,000 - 19,999	36	9.3
20,000 - 24,999	14	3.6
25,000 - 29,999	7	1.8
30,000 - 39,999	7	1.8
> 40,000	4	1.0
Blank		5.1
Total	389	100.0

[1] 52 clients reported zero income

[2] General Assistance clients who did not report exact income were averaged as $3000.

[3] Aid to Dependent Children clients who did not report exact income were averaged as $6000.

TABLE 3.6: AGE OF CLIENTS

Age	Number of Responses	Percentage
Under 18	2	.5
18-24	118	30.3
25-29	94	24.2
30-34	58	14.9
35-39	44	11.3
40-44	12	3.1
45-49	17	4.4
50-54	14	3.6
55-59	6	1.5
60-64	5	1.3
Over 65	9	2.3
Blank	10	2.6
Total	389	100.0

$\overline{X}$ = 31.4 Range -16 - 74

Mode = 24

Median = 28.1

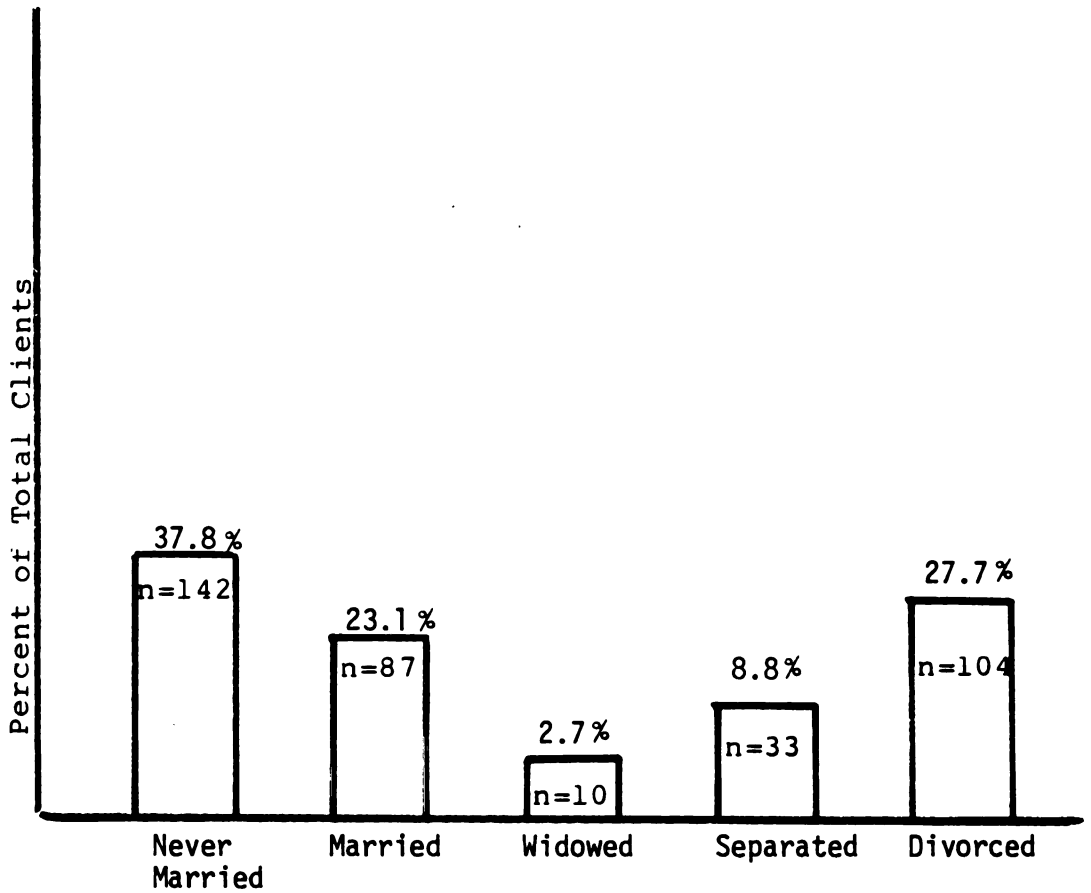


Figure 3.3 . Marital status.

TABLE 3.7: EDUCATIONAL LEVEL OF CLIENTS

Category	Number of Respondents	Percentage
Graduate Training	13	3.4
University Graduate	44	11.3
Partial College	127	32.7
Junior College Degree	6	1.5
High School Degree	130	33.5
10th or 11th Grade	37	9.5
7, 8, 9 Grade	26	6.7
Less than 7	5	1.3
Total	389	100.0

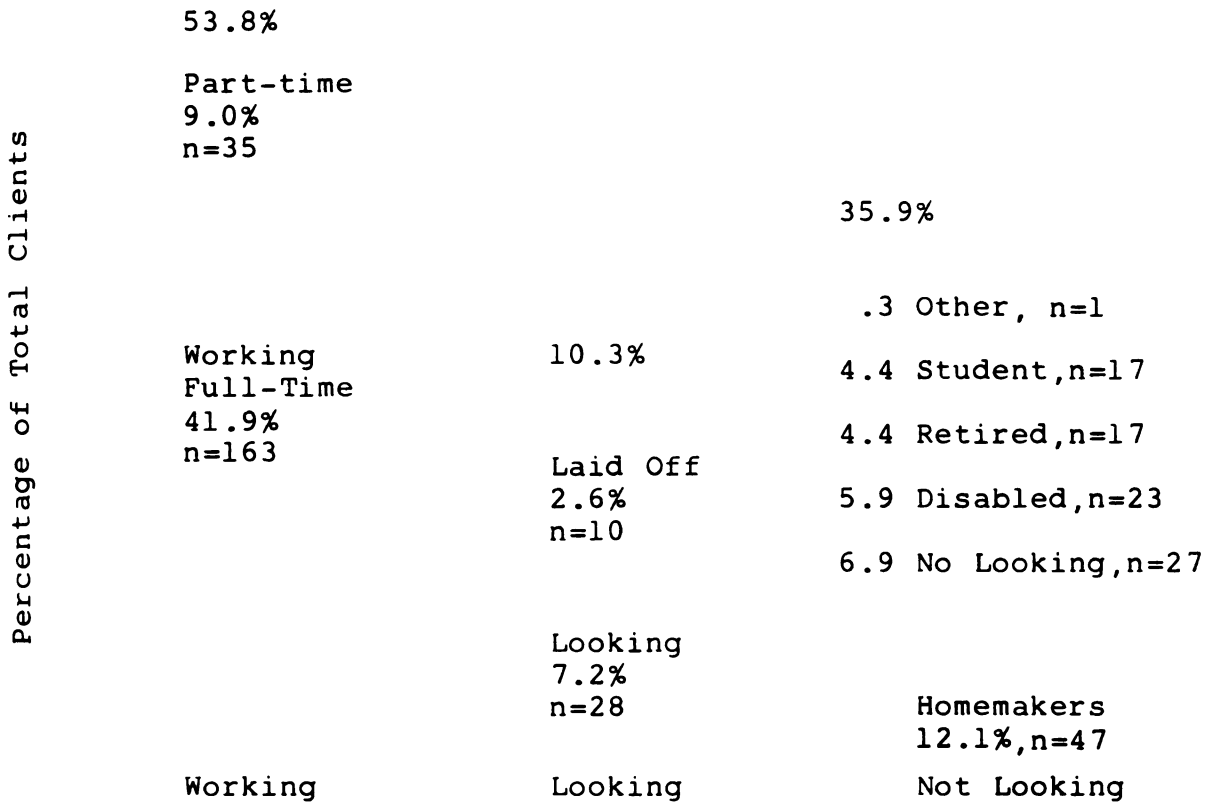


FIGURE 3.4: EMPLOYMENT STATUS*

*21 clients did not answer the employment question. Total n=368

almost two-thirds of the clients included in the study (63.5 percent) had no insurance (Table 3.7). Approximately one-third of the clients (34.7 percent) were living alone when they applied for services (See Table 3.8). A summary of the attendance at the first and second appointments is included in Tables 3.9 - 3.12.

Design of the Study

To test the main hypothesis of whether sending a pamphlet to community mental health clients prior to the first sessions would increase attendance, a 2x2x2 post-test only, control group design with random assignment was used.

The first dependent variable was attendance at the first interview and the second was attendance at the second session. As previously noted, there were five levels of the dependent variable for the first interview and eight for the second interview (See Table 3.2).

TABLE 3.8: INSURANCE

Category	Number of Responses	Percentage
None	247	63.5
Blue Cross-Blue Shield	51	13.1
Medicaid & Medicare	43	11.1
Other	30	7.7
Missing	18	4.6
TOTAL	389	100.0

TABLE 3.9: LIVING ARRANGEMENT OF COMMUNITY MENTAL HEALTH CLIENTS

Category	Number of Responses	Percentage
Living alone	135	34.7
With family or friends as the primary provider	59	15.2
With family or friends as a dependent	81	20.8
With family or friends as an independent	63	16.2
In jail or prison	1	.3
Blank	50	12.9
Total	389	100.0

TABLE 3.10: SUMMARY IN PERCENTAGES OF FIRST APPOINTMENT AS A FUNCTION OF TREATMENT, SES AND SEX

			Attend	Cancel	Nonattend	Totals
Treatment N=188* %=73.9	High SES N=71 %=76.1	Males	N=17 %=81.0	2 9.5	2 9.5	21
		Females	N=37 %=74.0	7 14.0	6 12.0	50
	Low SES N=117 %=72.6	Males	N=34 %=73.9	2 4.3	10 21.7	46
		Females	N=51 %=71.8	2 2.8	18 25.4	71
Control N= 201 %=70.1	High SES N=78 %=80.8	Males	N=17 %=89.5	0 .000	2 10.5	19
		Females	N=46 %=78.0	3 5.1	10 16.9	59
	Low SES N=123 %=63.4	Males	N=28 %=63.6	2 4.5	14 31.8	44
		Females	N=50 %=63.3	5 6.3	24 30.4	79
	TOTALS		280	23	86	389

*N=total number of clients
%=Percentage of total clients who attended

TABLE 3.11: SUMMARY IN PERCENTAGES OF SECOND APPOINTMENT ATTENDANCE AS A FUNCTION OF TREATMENT, SES AND SEX

			Attend	Cancel	Nonattend	Totals
Treatment N=128 %=60.9	High SES N=50 %=66.0	Males	N=10 %=71.4	3 21.4	1 7.1	14
		Females	N=23 %=63.9	4 11.1	9 25.0	36
	Low SES N=78 %=57.7	Males	N=21 %=67.7	1 3.2	9 29.0	31
		Females	N=24 %=51.1	6 12.8	17 36.2	47
Control N=129 %=70.5	High SES N=57 %=84.2	Males	N-13 %=86.7	0 .000	2 13.3	15
		Females	N=35 %=83.3	4 9.5	3 7.1	42
	Low SES N=72 %=59.7	Males	N=15 %=57.7	0 .000	11 42.3	26
		Females	N=28 %=60.9	6 13.0	12 26.1	46
	TOTALS		169	24	64	257

TABLE 3.12: CLIENT ATTENDANCE AT THE FIRST INTERVIEW

	Number of Clients	Percent
Attend	251	64.5
Nonattend	75	19.3
Cancel	23	5.9
Cancel, Reschedule No Show	11	2.8
Cancel, Reschedule Show	29	7.5
Total	389	100.0

TABLE 3.13: CLIENT ATTENDANCE AT THE SECOND INTERVIEW

	Number of Clients	Percent
Show	158	56.6
No Show	28	10.0
Cancel	12	4.3
Cancelled, Rescheduled, and No Show	3	1.1
Cancelled, Rescheduled, Show	11	3.9
Not Rescheduled[1]	22	7.9
No Response[2]	33	11.8
Contact Withdrew[3]	12	4.3
Total	279	99.9

[1]Client and therapist decided a second session was unnecessary.

[2]Client was contacted by letter and did not respond.

[3]Client was contacted by phone or letter and did not wish to schedule another appointment.

For the purposes of the analysis, the hypotheses for the response variables for the first and second interview were collapsed: first, to those clients who attended and those who did not attend and second to those who attended, those who cancelled and those who did neither. An explanation of the collapsed categories was given earlier in this chapter. This strategy was developed for two reasons. First, it was likely there would be empty cells in the design unless the response variables were collapsed which could affect the analysis and second, that if only two categories remained, potentially important information about intervention would be lost.

Additional analyses was designed to describe those clients who were most likely to attend therapy sessions, using the descriptive variables cited earlier in this chapter. In addition to those demographic variables, several others were included based on hypotheses about client attendance. For example, if the client's sex matched the therapist's for the first interview or for the second, would that affect attendance? If the therapist was changed between the first and the second interview, would that affect client attendance? Other variables which described the therapist were included: profession, educational level. Finally, would the amount of time between the first and second appointment affect attendance? These variables and the descriptive variables were listed in hierarchical order

and submitted to a discriminant function test to classify clients with respect to attendance. Both of these aspects of the research will be discussed further in the statistical analyses section. The design is described in Table 3.14 below.

TABLE 3.14: RESEARCH DESIGN

		Males		Females	
		High SES	Low SES	High SES	Low SES
R X_1 Pamphlet	1st				
	2nd				
R X_2 Control	1st				
	2nd				

There were a minimum of 20 subjects per cell and a total of 389 subjects in the sample.

Analysis

Because the response data was categorical, the testing of the hypotheses was done using a nonparametric procedure called logit linear analysis and computations were done using Multiqual, a program developed by Bock and Yates

(August, 1973). Because Multiqual tests the goodness of fit for a given model, as well as individual hypotheses, the working variables SES and SEX were included along with the treatment to find the model which was the best descriptor of the observed data. As indicated previously, the response variables were collapsed to two categories: attended and did not attend for the first analysis, then to two other categories: cancelled and did not attend for those who did not attend the first session. The same two analyses were run for those clients who attended a second interview.

In addition to the hypotheses testing analysis, discriminant function was used to classify clients into attending or non attending categories for the first analysis and cancelled and non attending categories for the second analysis. The procedure was repeated for the second interview for a total of four analyses.

To summarize there were four analysis of the data for each statistical procedures (See Table 3.15).

Multiqual or Log Linear Analysis

Multiqual is an educational statistical package developed by Bock and Yates to "analyze qualitative data by means of log-linear models and maximum likelihood estimation." (1973, p.1) The program has a number of advantages which

TABLE 3.15: SUMMARY OF THE ANALYSES FOR THE FIRST AND SECOND INTERVIEW

Multiqual	First Interview	attend, non-attend cancel, non-attend
	Second Interview	attend, non-attend cancel, non-attend
Discriminant Function	First Interview	attend, non-attend cancel, non-attend
	Second Interview	attend, non-attend cancel, non-attend

will be discussed below. The primary advantage is that Multiqual analyzes "qualitative data within a framework that is similar to that of analysis of variance (e.g., the analysis yields interaction terms). (Baker, p.75)

The uses of log linear analysis, a method of research designed to analyze categorical data proliferated in the late 1970s (Fienberg, 1980). Until the 1970s, the most commonly used nonparametric statistic was the chi square. Categorical data was presented in contingency tables and when several variables were considered simultaneously (e.g., a 2x2x2 table) they were considered a multidimensional contingnecy table. These tables were usually analyzed using

various two dimensional marginal totals (e.g., two variables at a time). Fienberg pointed out three problems with this strategy.

> (1) confuses the marginal relationship between a pair of categorical variables with the relationship when other variables are present.
>
> (2) does not allow for the simultaneous examination of these pairwise relationships.
>
> (3) ignores the possibility of three factor and higher order interactions among the variables. (1980, p.1)

Log-linear analysis of cross-classified data does not have the problems noted by Fienberg. The analysis simultaneously includes the response and explanatory variables and the interaction among the variables.

Log linear analysis is designed to identify the structure underlying a set of categorical variables (Reynolds, 1977). Analysis of variables is designed, "to assess the effects of independent variables on a dependent variable and to partition overall variance" (Fienberg, 1980, p.3). Log linear analysis deals with categories or groups of observations. The unit of analysis is not individual scores, as in an ANOVA, but "cell probabilities or functions of cell probabilities." (Reynolds, 1977, p.110) To further explain the similaries between the log linear model and ANOVA, an explanation from Baker is included in Appendix K.

As indicated, log linear analysis is useful in two ways: to test the goodness of fit of a model and to test

treatment main effects. Baker indicates that there are two test statistics commonly calculated for log linear analysis: the maximum likelihood ratio statistic

$$G^2 = 2 \sum (\text{observed}) \log \left(\frac{\text{observed}}{\text{expected}}\right)$$

and the Pearson X^2

$$X^2 = \frac{(\text{observed} - \text{expected})^2}{\text{expected}}$$

In each instance the statistic represents a comparison of the expected and observed frequencies for one model compared with another.

The G^2 or maximum likelihood estimate is generally more appropriate than X^2 because it is additive and can be partitioned into additive components, each providing an independent test (Reynolds, 1977; Bishop, Fienberg and Holland, 1975; Baker, 1981). With large populations the statistics are generally equal. Large values of G^2 of X^2 indicate a poor fit and small test statistics suggests a good fit.

Sample Zeros

There is considerable dispute about the importance of zeros in the sample space. Log linear analysis assumes that all cells can be filled. In reality, most designs have empty cells. Various strategies have been suggested

to reduce the number of empty cells, of which collapsing the data is one. Collapsing the variables is useful because it eliminates empty cells, but may potentially obscure the important relationships among the data. The algorithms for determining collapsibility is found in Reynolds (1977), Bishop, Fienberg and Holland (1975), Fienberg (1980). Another solution is to "smooth" the data, which involves adjusting the observed frequencies (Reynolds, 1977). Goodman (1968) recommends adding one-half to each cell and Fienberg (1980) reduces the degrees of freedom when there are random zeros (See Goodman and Fienberg for more detailed explanations of their procedures). The Multiqual program, as a logit linear analysis, accommodates zeros in the cells by defining a logit for each cell whether the observations are missing or not.

Criteria for Accepting Models

Reynolds (1977) stresses that accepting a model is not necessarily as direct as finding a nonsignificant X^2 or MLE summary statistic and deciding the model "fits." The models may have equivalent summary statistics, but one includes more terms than the other. The better choice is the most parsimonious model, since the model will always fit (e.g., account for all of the observed data) if enough parameters are entered and the model saturated. The model

which accounts for the data with the least number of variables is the best.

Unlike regression analysis, there is no term for the strength or magnitude of the relationship. Maximum likelihood estimation of X^2 indicates the goodness of fit of a model to a set of data, but not the strength of the association. In regression analysis, there is a multiple correlation coefficient which tells "how much of the variation in the dependent variable is attributable to the independent variables." (Reynolds, p. 177) If that value is small, the independent variables have little ability to explain variance in the dependent variable. A Chi square or MLE only indicates whether the expected frequencies conform to the observed data, not how meaningful the data is. The decision whether the relationship is meaningful or not needs to be made on the basis of theory and examination of the data.

Interpreting Multiqual Results

The Multiqual program develops a series of contrasts, then, from the simplest to the most complex (most terms) to test a model which best fits the observed data. The first model is the grand mean and tests the model that says there are no differences between observed and expected frequencies. The analysis continues to test the goodness

of fit moving from the simplest to the most complex model by adding one explanatory variable at a time. For example, see the table provided by Baker (1981) in Appendix L for a further explanation.

Summary

In Chapter Three, the construction of the pamphlet, its contents, design and evaluation were reviewed. The population, the selection of the sample and a summary of the characteristics of clients included in the sample were presented. The design of the study and specific hypotheses and methods of analysis were discussed. In Chapter Four the results of the analysis will be presented and these will discussed in Chapter Five.

CHAPTER FOUR

ANALYSIS OF THE DATA

Following data collection, the data were analyzed in two ways: (1) log linear analysis using Multiqual, a Fortran program developed by Bock and Yates (August 1973) and (2) discriminant function analysis. Both analyses tested the hypothesis that no relationship existed between treatment main effects and the response variable of attendance at the first or second appointment. Each analysis, log-linear and discriminant function, was conducted twice for the first appointment and twice for the second. In each case, attendance was divided into two dichotomous categories: (1) those clients who attended the interview and those who did not attend and (2) those non attending clients who cancelled their appointments and those who did not.

Log Linear Analysis

Because log linear analysis is used primarily to fit a proposed model which includes treatment main effects (explanatory variables) and response variables, the following section is divided into two parts. First, each hypothesis

proposed in the study will be stated and the results of the analysis indicated. Significant interactions will be discussed under the appropriate hypothesis and under hypothesis 6. Second, an overall picture of the model tested will be discussed.

The primary hypothesis of the study was that there would be no differences in client attendance at the first appointment between those clients who received a pamphlet and those who did not. Stated in the null:

> H_1: There will be no differences in attendance at the first appointment between clients who received a pamphlet about therapy and those who do not.

To test this hypothesis, 389 clients who requested services at Ingham Community Mental Health from 3/81 through 9/81 were randomly assigned to treatment and control groups stratified on the basis of their SES and sex. Treatment, SES and sex were entered in the log-linear analysis. The analysis was conducted twice, once with attendance defined as the dichotomous response variable (attend and not attend) and second (cancel and not attend). There were 109 subjects.

The analysis failed to reject the null hypothesis at the .05 level for either the first or second response variable. In other words, the observed data fit a model in which all the cells have the same expected frequency and no additional information (sex, SES, treatment) was needed. The MLE chi squares and probabilities for the first

response variable are listed in Table 4.1 below. For the second response variable they are in Table 4.2. Both Pearsonian and MLE chi squares are included. As indicated earlier, the MLE was chosen to test the hypothesis because if its greater accuracy. Component chi squares were not calculated because the model fit at the first level. There were no significant interactions.

The second hypothesis tested whether there was any relationship between treatment and attendance at the second appointment. Stated in the null:

> H_2: There will be no difference in attendance at the second appointment between clients who receive a pamphlet about therapy and those who do not.

To test this hypothesis 257 clients who attended the first appointment and scheduled a second appointment were included in Multiqual analyses. The analyses failed to reject the null hypothesis at the .05 alpha level for either response variable, attend versus non attend or second cancel versus non attend. See Tables 4.3 and 4.4 for the results. There was an interaction between sex and treatment at the second interview in the cancellation group. Three males in the treatment group cancelled versus none in the control group. Because the three males were only 3.4 percent of all nonattenders, it is unlikely the interaction marked a treatment effect.

TABLE 4.1: LOG LINEAR ANALYSIS OF THE RESPONSE VARIABLE ATTENDANCE AS A FUNCTION OF TREATMENT, SES AND SEX IN THE FIRST INTERVIEW

Sample Design	Response Design	Chi-Squares		Degrees of Freedom	Probabilities	
		Likelihood	Pearsonian		Likelihood	Pearsonian
SEX x SES x X_1	Attend	.000000	.000000	0	-1.000	-1.000
SEX x X_1	Attend	.232	.229	1	.630	.632
SES x X_1	Attend	.240	.237	2	.887	.888
SEX x SES	Attend	7.502	2.494	3	.475	.476
X_1	Attend	3.280	3.142	4	.512	.324
SEX	Attend	3.964	3.854	5	.555	.571
SES	Attend	4.670	4.446	6	.587	.617
Grand $\overline{X}$	Attend	9.921	9.432	7	.193	.223

TABLE 4.2: LOG LINEAR ANALYSIS OF THE RESPONSE VARIABLE CANCELLATION AS A FUNCTION OF TREATMENT, SES AND SEX

Sample Design	Response Design	Chi-Squares		Degrees of Freedom	Probabilities	
		Likelihood	Pearsonian		Likelihood	Pearsonian
SEX x SES x X_1	Cancel	.000	.000	0	-1.000	-1.000
SEX x X_1	Cancel	.297	.179	1	.586	.673
SES x X_1	Cancel	1.200	.932	2	.549	.627
SES x SEX	Cancel	4.312	3.751	3	.230	.290
Treatment	Cancel	4.377	3.718	4	.357	.445
SEX	Cancel	5.408	4.696	5	.368	.454
SES	Cancel	5.427	4.707	6	.490	.582
Grand $\overline{X}$	Cancel	12.262	13.537	7	.092	.060

TABLE 4.3 : LOG LINEAR ANALYSIS OF THE RESPONSE VARIABLE ATTENDANCE AS A FUNCTION OF TREATMENT, SES AND SEX, SECOND INTERVIEW

Sample Design	Response Design	Chi Squares: Likeli-hood	Chi Squares: Pearson-ian	Degrees of Free.	Probabilities: Likeli-hood	Probabilities: Pearson-ian	Component Chi Squares: X^2	df	P
SEX x SES X X_1	Attend	.000	.000	0	-1.000	-1.000	.333	1	
SEX x X_1	Attend	.333	.330	1	.564	.566	1.113	1	
SES x X_1	Attend	1.446	1.447	2	.485	.485	2.614	1	
SES x SEX	Attend	4.060	4.066	3	.255	.254	.002	1	
X_1	Attend	4.062	4.064	4	.398	.397	2.365	1	
SEX	Attend	6.427	6.390	5	.267	.270	1.056	1	
SES	Attend	7.483	7.456	6	.278	.281	8.23**	1	.01
Grand $\overline{X}$	Attend	15.713	14.730	7	.028	.090			

TABLE 4.4 : LOG LINEAR ANALYSIS OF THE RESPONSE VARIABLE CANCELLATION AS A FUNCTION OF TREATMENT, SES AND SEX AT THE SECOND INTERVIEW

Sample Design	Response Design	Chi-Squares		Degrees of Free.	Probabilities		Component Chi Squares		
		Likeli-hood	Pearson-ian		Likeli-hood	Pearson-ian	X^2	Degrees of Free.	Prob-ability
SES x SEX X X_1	Cancel	.000	.000	0	-1.000	-1.000	.000		
SEX x X_1	Cancel	.000	.000	1	.991	.994	6.87**	1	.01
SES x X_1	Cancel	6.878	5.687	2	.032	.058	.002	1	
SES x SEX	Cancel	6.880	5.690	3	.076	.127	3.586	1	.10
X_1	Cancel	10.466	9.533	4	.033	.049	.018	1	
SEX	Cancel	10.484	9.542	5	.063	.089	2.693	1	.10
SES	Cancel	13.177	10.227	6	.040	.115	4.104*	1	.05
Grand $\overline{X}$	Cancel	17.281	14.551	7	.0161	.042			

The third hypothesis of the study concerned sex of clients and attendance. Stated in the null:

> H_3: There will be no differences between male and female clients in attendance at either the first or second appointment.

To test this hypothesis 389 clients were included in the first interview analysis and 257 clients were included in the analysis for the second interview. The Multiqual analysis failed to reject the null at the alpha level .05. There was an interaction between sex and treatment at the second interview, in the cancellation group. Males in the treatment group cancelled significantly more often than control group males (3 versus 0).

The fourth hypothesis tested whether SES had any impact on attendance of clients. Stated in the null:

> H_4: There will be no difference between upper and lower SES clients in attendance at the first or second interview.

The analysis failed to reject the null for the first interview, for either response variable at the .05 alpha level.

At the second interview, the null was rejected for both response variables. In the attend versus non attend category, the null hypothesis was rejected at the .05 level with a maximum likelihood component chi square of 8.23 with 1 degree of freedom. For the response variable, cancel versus non attendance, the null hypothesis was rejected at the .05 alpha level with a maximum likelihood component chi

square of 4.10 with 1 degree of freedom. In Tables 4.3 and 4.4 the analysis results for the two response variables for the second interview is presented. In short, high SES subjects attended at a higher rate (.757 versus .587) and of those who didn't attend, high SES cancelled at a higher rate (.423 versus .209). (See Figure 4.1)

> H_5: Lower SES clients who receive a pamphlet in the mail prior to their first appointment will attend the initial appointment more often than clients in the higher SES group.

In either the first or the second response category, for the first or second session there was no support for hypothesis 5 at the .05 level (Tables 4.1, 4.2, 4.3, 4.4).

The sixth hypothesis was stated as follows in the null:

> H_6: There will be no interaction effect between socioeconomic status, treatment and sex.

The Multiqual analysis for the first interview, first and second stage failed to reject the null hypothesis at the .05 level of significance. For the second appointment the first stage, attend versus non attendance, the data failed to reject the null at the .05 level of significance. For the second response variable (cancel versus no attend) there was a significant interaction at the .01 level with a maximum likelihood estimate chi square

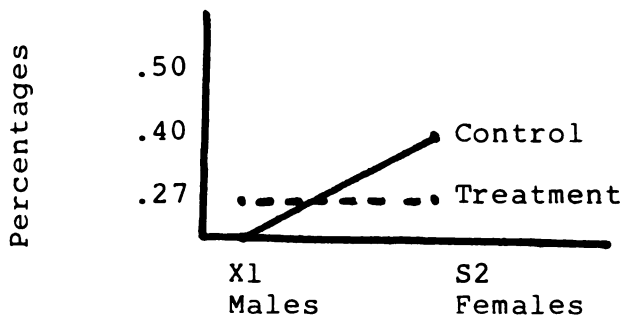
of .000. See Table 4.4 for the MLE chi squares and component chi squares. Figure 4.1 shows that males in the treatment group were more likely to cancel than males in the control. There was no significant difference between women in the treatment and control group.

The Multiqual Model

In the preceeding section, the individual hypotheses generated by this study were tested using the Multiqual analysis. Multiqual is also very useful to test a proposed model. In other words, it may be asked how well observed data fit a model which could be generated by including the explanatory factors, one at a time. The first test statistic generated, the maximum likelihood estimate or the chi square statistic, represents a comparison of the expected and observed frequencies if the expected cell frequencies were obtained randomly. If that statistic is over the alpha level set in the design, that model fits. If not, the next model fixes one parameter. In these analyses, the main effects (SES, sex, and treatment) were added one at a time and each was fixed and then the two way and three way interactions were added. As each new explanatory variable was added, one degree of freedom was lost. When all variables and interactions were added, the data was accounted for in the model. The goal was to find the most

TABLE 4.5: CHI SQUARE ANALYSIS OF THE RESPONSE VARIABLE CANCELLATION AS A FUNCTION OF TREATMENT AND SEX FOR THE SECOND INTERVIEW

	Males					Females				
	C		NS			C		NS		
X_1	0	4	0	10	14	0	10	0	26	36
	E	2.07	E	11.93		E	11.80	E	24.20	
Control	0	0	0	13	13	0	10	0	15	25
	E	1.93	E	11.07		E	8.20	E	16.80	
		4		23	27		20		41	61
	$X^2 = 4.376^*$					$X^2 = .997$				



$X^2 = 3.441$

FIGURE 4.1: PLOT OF THE TREATMENT BY SEX INTERACTION AT THE SECOND INTERVIEW FOR CANCELLATIONS

parsimonious model (Reynolds, 1977). In this section the analysis for the first and second interview, attend versus nonattend and cancel versus non attend, were examined again, but from the standpoint of fitting a model rather than testing a hypothesis.

In the first interview, attend versus nonattend, the first MLE chi square statistic was .193 (See Table 4.1), therefore, the grand mean model was accepted at the .05 alpha level. In other words, the data were accounted for by random distribution. None of the explanatory variables was necessary to explain the distribution.

In the cancel versus nonattend category for the first interview, the findings were similar. The grand mean fit with a MLE chi square of .092 which is not significant at .05 (Table 4.2).

In the second interview, for attend versus nonattend (Table 4.3), the grand mean model was rejected at .028 with an alpha level of .05. When SES was added, the models fit at the .278 level. The remaining explanatory variables and interactions would not appreciably enhance the fit.

In the second interview, cancel versus nonattend, the model fit at the .05 level when SES and sex were proscribed in the model (See Table 4.4). When the component chi squares were examined, however, it was SES and treatment by sex which accounted for the fit of the model.

The model can also be used in an explanatory fashion to examine trends, rather than to test hypotheses. For example, in the first interview, attend versus nonattend, the model "fit" at the grand mean level because the MLE was .193. However, when the entire range of MLEs was examined (See Table 4.1), the MLE values jumped from .193 to .587 when SES was added. There was a decrease when the SES by sex interaction was added and another large increase when the SES by treatment interaction was added to the model. When the three way interaction was added the data could be completely classified. Although these data are useful for hypothesizing only, they indicated that SES may be important in attendance behavior and merit additional study, although not significant in this study.

The same pattern was apparent in the cancel versus nonattend categories (See Table 4.2). The grant mean was accepted, but there was a large jump in MLE when SES was added to the model. The use of these trends in further research will be discussed in the recommendations section. The results of the discriminant function analysis are reported in the following section.

The second analysis of the data was a discriminant function analysis using descriptive variables available about the clients after the first or second interview. The data were collected by the referral worker or the therapist after the first or second interview.

Discriminant Function Analysis Of The Descriptive Variables

When clients requested services at the Community Mental Health center, the referral workers collected the descriptive data indicated in Appendix I and recorded it on a face sheet (See Appendix F). The face sheet was placed in the client's file with the referral sheet and appropriate consent and fee forms. When the client came in for the first appointment the therapist wrote an intake assessment. The data in the assessment, along with the number of days from the first to second appointment and the second therapist's name and educational level provided additional descriptive data.

Some additional variables were added by the researcher to test questions of interest:

-were client and therapist of same or opposite sex?

-when waiting lists existed, was the therapist for the first session the same as the one for subsequent sessions?

The variables were reviewed and listed in order of their importance (based on prior research or hypothesis) and submitted for analysis (See Table 4.5).

• The first hypothesis tested by discriminant function analysis was whether there were differences between those

clients who attended and those who did not attend the first session, on the basis of their descriptive variables. Stated in the null:

> H_7: No differences exist between those clients who attend their initial appointment and those who do not attend, on the basis of their sex, treatment group, SES, income, age, marital status, referral source, education, employment status, previous contacts with mental health or CMH, therapist's sex, profession or education, insurance, living arrangement, or number of days from referral contact to the first appointment.

To test this hypothesis, 25 variables were collected on a community mental health population of 389. Ninety cases were excluded from the analysis because they were missing one or more of the 25 variables. The null hypothesis was rejected at the .05 level. Three variables were significant at the .05 level: income, marital status and living situation. (See Tables 4.6 and 4.7). The average income for group one, those clients who attended, was $8,642.52; average income for those who did not was $4,739.44. Clients who were married attended more often than those who were not (.262 versus .083) as did clients who were dependent on others in their living situation (.270 versus .111). The discriminant function correctly predicted the attendance of 71.57 percent of the sample (See Table 4.7).

TABLE 4.6: VARIABLES INCLUDED IN THE FIRST AND SECOND SESSION DISCRIMINANT FUNCTION ANALYSES

1st Session

1. Sex of client
2. SES
3. Treatment Condition
4. Income
5. Age
6. Previous Contacts with CMH
7. Sex of Therapist
8. Number of days from referral to first appointment
9. First therapist education level
10. Therapist professional orientation (MSW, Psychologist, physician)
11. Clients who have ever been married
12. Clients who are currently married
13. Clients who lived alone
14. Clients who are dependent financially on others
15. Self-referred clients
16. Family or clergy referred client
17. Outreach or medically referred clients
18. Court or police referred clients
19. Clients referred by other agencies
20. Client/therapist are the same sex
21. Years of Education of the client
22. Client is employed
23. Client is looking for work
24. Client is not working
25. Client has insurance

2nd Session

26. Severity of problem
27. Previous contacts with M.H. other than CMH
28. Number of days from first appointment to second
29. First and second appointment therapist are the same
30. Diagnosis of client is psychotic
31. Diagnosis of client is neurotic
32. Diagnosis of client is character disorder
33. Diagnosis of client is situational disturbance

TABLE 4.7: SUMMARY STATISTICS FOR THE FIRST INTERVIEW, ATTENDANCE VS. NONATTENDANCE DISCRIMINANT FUNCTION ANALYSIS

Variable	F.Statistic	Significance
V3 SEX	1.834	.1767
V4 SES	1.026	.3119
V5 X_1	.8371	.3610
V8 Income	1.673	.0060**
V9 Age	1.463	.2272
V19 Previous Contacts w/CMH	2.607	.1075
V23 Therapist's Sex	.1087E-01	.9170
V29 Referral to First appt. (in days)	.9347	.3344
V32 First therapist (degree or student)	.1462	.7025
Ther. Ed. Therapist a MSW or Equivalent	.1256E-01	.9108
Ever Married	2.967	.0860+
Still Married	5.618	.0184*
Living Alone	.3552E-01	.8506
Dependent	4.285	.0393*
Referral Source 1-Self	.6900E-01	.9934
Referral Source 2-Family,clergy	.3799	.5381
Referral Source 3-Outreach or MD	.2414	.6235
Referral Source 4-Penal Agen.	2.163	.1424
Referral Source 5-Other community agency	.6710	.4134
Ther. & client same sex	1.233	.2677
Client yrs of education	3.084	.0801+
Working	1.137	.2871
Looking for work	.5231E-01	.8192
Not working	.9411	.3328
Insurance	.5229	.4702

+Significant at the .10 level
*Significant at the .05 level
**Significant at the .01 level

TABLE 4.8: SUMMARY OF THE DISCRIMINANT FUNCTION ANALYSES

First Session	Number of Cases	Percent of Cases Classified	Percent of Variance Acct'd For	df	Chi Square
Attend vs. did not attend	299	71.57	34.97	24	31.176*
Cancel vs. did not attend	36	88.89	70.96	23	15.758 NS
Second Session					
Attend vs. did not attend	198	68.18	42.17	29	35.55 NS
Cancel vs. did not attend	66	87.88	59.00	29	21.18 NS

*Significant at .05
**Significant at .01

The second hypothesis of the discriminant function analysis, H_8, concerned discrimination between those clients who did not attend and those who cancelled the first session. Stated in the null form, H_8 read as follows:

> H_8: No difference exist between those clients who cancelled their initial appointment and those who did not, on the basis of their sex, treatment group, SES, income, age, marital status, referral source, education, employment status, previous contacts with mental health or Ingham CMH, therapist's sex, profession and education, insurance, living arrangement, or number of days from the referral contact to the first appointment.

The discriminant function analysis of 36 cases with 25 variables failed to reject the null hypothesis H_8. Of the 36 cases, 10 were clients who cancelled and 26 simply failed to appear with no notice to Ingham Community Mental Health (ICMH). Two variables, referral source No. 14 (legal referrals) and employment status if not working, were excluded because they failed the tolerance test.*

The ninth hypothesis tested the same question as hypothesis seven but concerned the second session rather than the first session. Hypothesis nine stated in the null was:

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*The tolerance test excludes variables which would have tolerances below .001. To include these variables would be likely to produce large rounding errors.

H_9: No differences exist between those clients who attended their second appointment and those who did not, on the basis of their sex; treatment group; SES; income; age; marital status; referral source; education; employment status; previous contacts with mental health or Ingham CMH; therapist's sex, profession or education; insurance; living arrangement; or number of days from the first appointment to the second.

There were 198 cases used in the analysis. Of the total sample, 191 subjects were excluded because they had at least one missing discriminant variable and/or were not present at a second session. Of those 198 cases in this analysis, 132 clients attended the second session and 66 did not. (See Table 4.7) Thirty variables were included in the analysis. The discriminant function analysis failed to reject null hypothesis H_9.

Hypothesis ten tested the same hypothesis as hypothesis eight, but concerned the second interview.

H_{10}: No differences exist between those clients who cancelled their second appointment and those who did not, on the basis of their sex; treatment group; SES; income, age; marital status; referral source; education; employment status; previous contacts with mental health or ICMH; therapist's sex, profession or education; insurance, living arrangement; or number of days from the first appointment to the second appointment.

There were 66 cases used in this analysis. Of the total sample, 323 cases had at least one missing variable and/or clients were not present at the second session. Of those 66 cases, 11 cancelled the second appointment

and 55 simply failed to appear. Thirty variables were included in the analysis. (See Table 4.7) The discriminant function analysis failed to reject null hypothesis H_{10}.

In summary, the discriminant function analysis rejected the null hypothesis for the first session only and was able to correctly place subjects in attend, or did not attend categories 71.57 percent of the time. In the remaining three hypotheses the analysis failed to reject the null.

Summary

In Chapter Four, the results of the ten hypotheses tested were presented. The first six hypotheses were tested by Multiqual analysis and the last four by discriminant function analysis. The findings are summarized below in Table 4.8. In Chapter Five, the implications of these results for the present research study and for future research will be discussed.

TABLE 4.9: SUMMARY OF HYPOTHESES TESTED

Hypotheses		Significance
Hypothesis 1:	Does the treatment increase attendance at the 1st interview?	
	Attend vs. nonattend	NS
	Cancel vs. nonattend	NS
Hypothesis 2:	Does treatment increase attendance at the 2nd interview?	
	Attend vs. nonattend	NS
	Cancel vs. nonattend	NS
Hypothesis 3:	Does sex affect attendance?	
1st Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	NS
2nd Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	NS
Hypothesis 4:	Does SES affect attendance?	
1st Interview:	attend vs. nonattand	NS
	cancel vs. nonattend	NS
2nd Interview:	attend vs. nonattend	Signif. at .05 level
	cancel vs. nonattend	Signif. at .05 level
Hypothesis 5:	Do clients in the treatment group of low SES attend more often than high SES clients in the treatment group?	
1st Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	NS
2nd Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	NS

TABLE 4.9 (Cont)

Hypotheses		Significance
Hypothesis 6:	Is there an interaction between treatment, SES. and sex?	
1st Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	NS
2nd Interview:	attend vs. nonattend	NS
	cancel vs. nonattend	Signif. at .01 level
Hypothesis 7:	Are there any variables which distinguish between attendance and nonattendance at the first interview:	Signif. at .05 level income marital status living situation
Hypothesis 8:	Are there any variables which distinguish between cancellation and nonattendance at the first interview?	NS
Hypothesis 9:	Are there any variables which distinguish between attendance and nonattendance at the second interview?	NS
Hypothesis 10:	Are there any variables which distinguish between cancellation and nonattendance at the second interview?	NS

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Summary

The primary purpose of this study was to determine whether more clients at a CMH center would attend scheduled initial interviews if they were educated with a pamphlet prior to their first sessions about the therapy process and what would be expected of them.

Attendance at initial interviews at CMH centers has been of concern for some time. It is common for approximately 25 percent of the clients who request initial appointments not to keep them (Fiester, 1975); another 37-45 percent will not keep their second appointments (Fiester, 1975; Berghi, 1968; Herne, 1960; Imber, 1955). These attendance rates have not changed substantially for twenty years (Baekeland, 1975) and are remarkably stable across CMH centers. Ingham Community Mental Health, for example, over the past three years has averaged 33.1 percent cancellation or nonattendance at initial appointments (See Table 3.1).

This attrition may arise for several reasons, such as referral to another agency, problems resolved prior to the appointment, lack of client or referral source information. The research in this study focused on educating clients about therapy prior to their first appointment.

In addition to the primary purpose there were two other objectives. The first was to determine whether SES or sex would influence attendance or therapy appointments. The second objective was to determine whether any of several selected descriptive variables had an effect on attendance. Information about therapy was provided to the CMH clients in a pamphlet designed and written by the researchers with the collaboration of a professional editor and artist.

Hoehn-Sarnic and Rudolf (1964), Monti (1976), Hollingshead and Redlich (1958), and McMahon (1964) have all indicated that lower SES clients tended to have less information about therapy and attend less frequently than higher SES people. With this in mind, the pamphlet was designed primarily for lower SES clients. Every effort was made to develop a pamphlet which would reflect the research on written materials. In addition to SES, other important variables, such as referral source, therapist, and sex of client and therapist were considered in the analysis.

There were three primary hypotheses:

> Clients at CMH who receive information about the process of therapy will attend initial interviews more often than those who do not. This difference will also hold for the second interview.

There will be differences between high and low SES clients in the effect pre-therapy information will have on attendance at the first and second therapy sessions.

Attendance at the first and second interviews can be determined on the basis of a multivariate discriminant function analysis of such descriptive variables as referral source, age and education.

Design and Methodology

CMH clients included in the study sample were those who requested initial therapy appointments in the ICMH adult outpatient unit between March 31 and September 18, 1981. Clients who did not wish the pamphlet mailed to their homes were excluded from the study. The subjects were randomly assigned as treatment or control on the basis of their SES and sex in a 2x2x2 design. A total of 389 subjects attended the first interview and 257 were scheduled for a second session.

Data on attendance and the descriptive variables were made available through the referral office at CMH and on forms filled out by the clients themselves. The data were analyzed in two ways. First, a log linear analysis was used to analyze categorical attendance data for the first and second interviews. A discriminant function analysis was then used to analyze additional descriptive data.

Results

Attendance data were analyzed four times: (1) first interview, attend versus non attend (389 subjects); (2) first interview, cancel versus non attend (109 subjects); (3) second interview, attend versus non attend (257 subjects); and (4) second interview, cancel versus non attend (88 subjects). The results are presented in Tables 4.1, 4.2, 4.3, and 4.4, with a summary in Table 4.8.

Analyses of the first interview data failed to reject the null hypothesis for any of the main effects or interactions in the 2x2x2 design. In analysis of the second interview data, however, main effects were noted for SES or both response variables, attend versus non attend and cancel versus non attend. High SES clients were significantly more likely to attend the second session than lower SES clients. High SES clients were also significantly more likely to cancel their appointments than lower SES clients. The research treatment did not affect those results. There was also a significant sex by treatment interaction. Male subjects in the treatment group cancelled more often than those in the control group. Women in the treatment group did not cancel significantly more than those in the treatment group (See Figure 4.1).

In the discriminant function test, four analyses were conducted for each of the following four dependent variables.

1. first interview, attend versus non-attend (389 subjects, 25 variables);

2. first interview, cancel versus non-attend (36 subjects, 25 variables);

3. second interview, attend versus non-attend (198 subjects, 30 variables);

4. second interview, cancel versus non-attend (66 subjects, 30 variables).

For the first interview and first response variable, three predictors were significant at the .05 alpha level: income, marital status, and living situation. Those clients who had higher incomes, who were married, and who lived as dependents were more likely to attend the first session. Analyses for each of the other three discriminant functions failed to reject the null at the .05 alpha level (Table 4.7). In other words, only in the first session was there any support for the hypothesis that, given information known at the time of the session about the client, the setting, the therapist, the referral source or any of the 25-30 selected variables, available, could attendance be predicted. These results will be discussed in the following section.

Conclusions

The conclusions drawn from this research are based on the review of literature, the design of the study and

the results of the analysis. They are presented here in an order consistent with the three major hypotheses. The first stated that:

> clients at CMH who receive information about the process of therapy will attend initial interviews more often than those who do not. This difference will also hold for the second interview.

The provision of information about the therapy process, accomplished through the use of a pamphlet in this research study, was predicted on earlier research which indicated that pre-therapy training (video, audiotapes, interviews, written information) was useful in preventing premature termination and in increasing client and therapist satisfaction with therapy. While many previous researchers used interviews with a therapist or an audio or video tape to educate clients, (Truax, 1965; Strupp and Bloxom, 1973; Zarcham, 1977; Wuehler, 1976; Coughanour, 1975; Scherpenisse, 1976), two studies in which written information was used as part of treatment were Martin and Shewmaker (1962) and Schneiderer (1977). Both of these studies reported positive results. Martin and Shewmaker found that the written information about therapy improved their group members' level of communication. Schneiderer found that written instructions combined with a video tape modeling client behavior, increased client and therapist satisfaction and suggested that written instructions alone might be as

productive as video tape and superior in terms of time and expense.

While there was even more support for pre-interviews than written material to increase attendance, a pamphlet was chosen for this study because it offered the most likely intervention to be adopted in a CMH center. The pamphlet technique is both inexpensive and easily incorporated in the intake process. Schneiderer's research indicated that written material was at least as powerful as pre-interviews in educating clients.

In contrast to the earlier research, this study showed no support for the hypothesis that a pamphlet about therapy would enhance client attendance.

The most common explanations for a lack of treatment effect in the past have been that a treatment (pre-therapy interview, film, pamphlet, audio tape) was not powerful enough or did not "suit" the client. That may have been the case in this instance, but the results of this study suggest that a pamphlet is not sufficient to change attendance at the first or second session. The pamphlet was carefully designed and clients who reviewed the pamphlet during the pilot study found it helpful. Follow-up interviews of actual study subjects who received the pamphlet might have been helpful in discerning definitive reasons for the lack of treatment effect. Interviews were not

possible because by the time the analysis was completed most of the sample could not be found.

In addition to the above, some subtle secondary effects may have occurred. First, the pamphlet may have affected variables other than attendance, such as those explored in other studies (e.g., client or therapist satisfaction, length of stay in therapy, outcome and interaction between client and therapist). The pamphlet may have been of use beyond the first session, when the nonattending client reapplied for therapy, or had value in explaining therapy to family members. For example, the pamphlet may not affect first appointment attendance because it is not potent enough by itself to influence a client to attend, but it may quell enough fears to allow a nonattending client to contact CMH later when the need for help may be greater. Another possibility is that the pamphlet convinced people that therapy was not what they needed. Nevertheless, the analysis of the data for the first interview clearly indicated that the treatment (informational pamphlet) was not significant in predicting attendance.

Data analysis for the second interview yielded more ambiguous results. There was no indication that the pamphlet affected whether or not clients attended the second interview, but there was a significant sex by treatment interaction when the difference between those who cancelled

and those who did not was examined. Males who received a pamphlet were more likely to cancel, rather than simply fail to appear, than those who received no pamphlet with an alpha level of .05. While there was a significant relationship between sex and treatment, a total of 3 subjects out of 88 nonattenders (3.4 percent) actually moved in the usual direction by cancelling. No usefulness of such a finding is questionable.

The second major hypothesis stated that:

> There will be no differences between high and low SES clients in the effect pre-therapy information will have on attendance at the first and second therapy sessions.

In the review of the literature it was noted that considerable differences had been found between high and low SES clients in their attendance at therapy appointments (Monti, 1976). Noting that lower SES clients had attended less frequently than others, many researchers looked for differences among lower SES clients to explain their responses to therapy and therapist (Baekeland and Lundwall, 1975; Tracy, 1977; Riessman, Cohen and Pearl, 1964; Hollingshead and Redlich, 1958; Myers and Robers, 1959; McMahon, 1964; Orne and Wender, 1968).

Clemes (1965) found that matching lower socioeconomic status clients with structured interviews was helpful in reducing anxiety. McMahon (1964) and Bernstein (1964)

found that if a therapist met a lower SES client's needs initially, there was more hope that the client would continue in therapy. Fiester (1975) and Goldstein (1973) found that lower SES clients were less likely to talk to their therapists about their feelings and, as a result, often dropped out of therapy prematurely. These findings were incorporated in designing the pamphlet, so that it included suggestions to the client that therapy might include advice and recommended discussing disagreements and disappointments about therapy with the therapist, rather than terminating therapy prematurely. Hoehn-Sarnic and Rudolf (1964) found that pre-interview treatment of lower class clients was helpful and these results were replicated by Schonfeld, Stone, Hoehn-Sarnic, Imber and Pande (1969). In general, there was a consensus in the literature that lower SES clients attended therapy less often, that lower SES clients needed additional help if they were to attend as often as their middle class counterparts and that some specific issues needed to be addressed.

The results of the study suggested some support for SES as a factor in attendance, but not for an SES by treatment interaction. SES, in the second interview, discriminated between clients who attended and those who did not and those who cancelled and those who did not. If income alone was used as an indicator of social class, as it was in the discriminant function analysis, clients with higher

incomes attended the first interview, more often than those who did not. This finding suggests that the criterion used for SES (Hollingshead's Two Factor Index) may describe a different aspect of SES than income or possibly criteria used in previous research.

Overall, the results with respect to SES were somewhat ambiguous. Although SES was significant at the second interview, it was not at the first, in the log linear analysis. There was a trend in that direction, but not a significant relationship, as had been expected. Income alone, on the other hand, was significant at the first but not the second session in the discriminant function analysis. It would seem that the statistical procedures suggest different "weighting" of the variable SES. When SES, treatment and sex are used to fit a model in the Multiqual analysis, SES adds a significant amount of information at the point of the second interview. When SES is added to the discriminant function analysis along with 24 other variables for the first session and 29 other variables for the second, it is no longer as powerful in predicting attendance as other variables, such as income.

In order to explain the relationship between income and SEX two additional analyses could have been useful. First, the two variables used to calculate SES, education and occupation, could have been included in the discriminant

function analysis for a rough estimate of the correlation with income. A more exact estimate would be difficult because the Hollingshead criteria weights education and occupation separately.

The third major hypothesis concerned the discriminant function analysis and whether is was possible to describe the clients most likely to attend or cancel their appointments. It stated that:

> attendance at the first and second interviews can be determined on the basis of a multivariate discriminant function analysis.

There was no evidence in the literature that other studies had been done using the descriptive variables available at the time of the first interview to predict attendance. Researchers had chosen target groups, such as low SES, high or low functioning clients, or those from a particular referral source and then offered a treatment, but none had attempted to discern nonattending vs. attending clients based on the descriptive data available.

The analysis of the data for the first and second interviews suggested that only three variables were significant in discriminating between attending and nonattending clients and that was only at the first interview. As noted, clients who had higher incomes attended more often than those who had lower incomes. Clients who were married at the time of the interview were more likely to attend than

those who were single or divorced. Clients who were dependent on other family members for financial support were also more likely to attend.

The lack of results on 22 remaining variables for the first interview and 30 variables for the second interview is noteworthy because the analysis indicated that many variables that clinicians and administrators often consider important to attendance were not (See Table 4.5 for a listing of the variables used in the discriminant function analysis). The large number of variables used in the analysis and the relatively small sample size may have been responsible for this lack of statistical significance. To further explore other alternatives, another discriminant function analysis was undertaken. The exploratory discriminant function analysis is described in Appendix M.

Discussion and Implications For Further Research

The results of this study and the conclusions drawn have implications for the use of preinterview strategies designed to increase attendance. First, contrary to Schneiderer's (1977) findings, there was no support for the hypothesis that educating clients with a pamphlet prior to the first interview affects attendance at the first or second interview. Other factors, such as SES,

marital status, dependent living situation and income were found to be more predictive of attendance.

This study had a number of advantages over earlier studies in that it included a large sample and controlled for SES and sex. There was support for previous research that indicated that SEX, whether measured by Hollingshead's criteria or income, was an important component of whether clients came for therapy appointments. Although the findings from this study were somewhat ambiguous as to what criteria best described SES, income or Hollingshead's criteria, the persistence of the results in this and other studies suggests that socioeconomic status does not affect attendance behavior. Because lower SES clients continue to be the primary users of mental health center services, continued research to determine why they tend to have lower attendance rates is important. Several suggestions follow.

Since there is evidence that upper and lower SES clients have different attendance patterns at community mental health centers, future research might concentrate on these populations separately. Several factors might be considered to separate them. This study indicates that income and possibly living situation differentiate one group from another. A cluster of such characteristics, perhaps including education, occupation and income, could be used to separate upper and lower income clients. After separation,

a discriminant function analysis employing the demographic characteristics available at the time of the initial appointment could be performed. In particular characteristics are determined to be associated with attendance and SES, intervention strategies can then be developed to focus on these in particular. The pamphlet in this research was designed to lower SES clients but, by itself, was not powerful enough to change first or second appointment attendance. Once the nonattending clients are identified with the lower SES group, more specific interventions can be designed. Another possibility is to interview low SES clients who do not attend and assess their reasons for nonattendance as a basis for future interventions.

Although attendance at both the first and second appointments was measured in this research, future research might focus on differences between the two. It seems possible that attendance at the first interview is a function of client characteristics not readily measurable. Such items as family support may be crucial, but not variables easily assessed in an intake interview over the phone. On the other hand, interaction with the referral worker may be most important. Although the referral workers in this study were both experienced at their jobs, they may not have interacted equally well with all clients. The differences between the referral workers were not examined and could be in future studies. In the end, the attendance

rate of approximately two-thirds may be stable over community mental health centers and geographic areas for no easily identifiable reason, but simply as a characteristic of attendance behavior without a single cause, and unresponsive to intervention. Studies of other mental health centers and the center in this study indicate consistent initial interview attendance, within a few percentage points of 67 percent over 20 years.

The second interview involves a number of additional variables, primarily those of the therapist. The interaction between client and therapist is subtle and clearly not defined by such obvious variables as educational level or therapist's theoretical orientation. Even such indicators as the therapist's sex and whether clients respond to a therapist of the same or different sex, are not sufficient. Future research about the educative process and attendance in therapy might look more closely at individual sessions. An evaluation of the interaction such as Leary's might be useful.

To summarize, the results of the study suggest that receiving a pamphlet alone is not a sufficient reason for a client to attend a first or second therapy appointment. SES, on the other hand, is determined by Hollingshead's criteria or income, is. The definition of SES and then the differences between SES groups needs to be analyzed further. The behavior of low SES groups continues to be of particular

interest and could be explored first in individual interviews and then statistically by clustering their characteristics to develop a more accurate picture of how SES influences attendance behavior.

APPENDICES

APPENDIX A

APPENDIX A

GUNNING "FOG" - RULES FOR APPLICATION

Unlike the SMOG which considers only one factor, the Gunning "Fog" considers both word length (words of three or more syllables) and sentence length. It is especially conducive to determining the grade level readability of a shorter selection of instructional material, such as study guides, tests, etc. If the selection is short it will suffice to sample only one segment to determine the level. However, the "Fog" may be used for longer selections (chapters, essays) and in this case it is best to select three samples (beginning, middle and end) as is done with the SMOG. This provides a better measure.

FOLLOW THESE STEPS

1. Count 100 words in succession from any part of the material.
2. Count every <u>complete</u> sentence found in that selection.
3. Divide the number of complete sentences into 100 to obtain the average number of words per sentence.
4. Count the number of three or more syllable words in the section. Only count each word once even if it occurs two or three times. Plurals and derivatives are considered the same word. EXAMPLE: determine, determines, determining--are considered the same word and counted only <u>once</u> when they occur within a 100 word sample.
5. Add steps three and four.

APPENDIX A (Cont)

6. Multiple the total from step five by .4.

7. The total is the "Fog" grade level.

APPENDIX B

APPENDIX B

TABLE B-1 : DEMOGRAPHIC CHARACTERISTICS FOR NEW CASES FOR INGHAM COMMUNITY MENTAL HEALTH IN PERCENTS

Age	10/77-9/78	10/78-9/79	10/79-9/80	10/80-9/81	10/81-9/82
0-5			2	3	3
6-12			12	15	14
13-17			11	12	14
18-20	18-24 25		5	5	5
21-30	25-44 63		37	33	30
31-40	45-64 63		20	20	22
41-50	45-64 63		7	6	7
51-64	--		5	4	3
65+	--		1	2	2
Unknown	1		--	--	--
Sex					
Male	35		43	44	42
Female	65		57	56	58
Income					
0-4,999	70		22	20	23
5-9,999	19		11	14	13
10-14,999	20		12	14	13
15-24,999	24		15	17	15
25,000+			6	6	9
SS	17		8	3	4
PA			24	23	21
Unknown			3	3	2

TABLE B-1 : Cont

Ethnic Group	10/77-9/78	10/78-9/79	10/79-9/80	10/80-9/81	10/81-9/82
White	92		87	88	87
Black	6		8	7	8
American Indian	--		0	--	--
Hispanic	2		3	3	3
Oriental	--		0	--	--
Other	--		0	1	1
Unknown	--		1	1	1
Education					
0-8	1		22	26	26
some High School	--		21	16	16
High School Grad.	69		33	30	29
Some Advance sch.			16	16	17
College Grad.	28		8	11	10
Other	3		--	--	2
Unknown				1	--
Referral Source					
Agency Init.	4		13	8	12
Self	56		25	26	25
Family/friends	15		22	23	20
Clergy	--		0	--	--
M.D./D.O.	8		8	8	7
Police	1		1	1	--
Employment	2		1	2	2
School	1		6	6	5
Hospital	2		3	2	2
Jail	1		0	--	--

TABLE B-1 : Cont

Referral Source Cont	10/77-9/78	10/78-9/79	10/79-9/80	10/80-9/81	10/81-9/82
Community Agency	4		6	4	4
Cmtt Bd.	1		1	1	1
Dept. Soc. Serv.	1		1	3	2
Voc. Rehab.	1		1	3	4
Depend. Facility	--		1	1	--
State Mi Hosp.	--		1	1	--
State MR Hosp.	--		--	--	--
Const.	2		3	8	--
Other	3		4	3	13
Unknown	--		1	--	3
Health Dept.	--		1	--	--
Not Referred	--		0	--	--
Admitting Diagnosis					
Schizophrenic	1		11	3	2
Affective Psychosis			2	1	3
Paranoid			0	--	0
Neurotic Disorder	25		15	16	12
Personality Disorder	13		18	16	15
Sexual Disorder	1		1	2	1
Alcohol/Drug	2		0	1	1
Stress Reaction			6	4	4
Adjust. Reaction	20		23	32	39
Conduct Disturbance	27		6	8	9
Emot. Disorder C&A			3	4	3
MR			1	--	--
Other	9		16	11	10
Unknown			0	2	1

TABLE B-1 : Cont

Living Arrangements	10/77-9/78	10/78-9/79	10/79-9/80	10/80-9/81	10/81-9/82
Living Alone	n/a		13	16	14
Fam/friends primary support			16	16	15
Fam/Friends dependent			46	50	55
Fam/Friends independent			14	15	12
Jail/Prison			0	--	--
Foster Care			2	1	1
Group home			1	--	--
DMH State Facility			1	--	--
Other			5	1	1
Unknown			1	1	2
Employment					
Employed full time	Not Available		25	27	27
Employed part time			6	7	8
Sheltered employment			1	--	--
Laid Off			2	2	2
Looking for work			11	9	11
Homemaker			10	11	10
Child			20	25	25
Student			6	8	8
Never Worked			0	--	--
Disabled			2	2	2
Retired			1	2	2
Not Looking			14	4	3
Other			1	1	1
Unknown			--	2	1

APPENDIX C

CLINTON-EATON-INGHAM
COMMUNITY
MENTAL HEALTH
BOARD

INGHAM COMMUNITY MENTAL HEALTH CENTER
407 West Greenlawn
Lansing, Michigan 48910
517/374 8000

MASON MENTAL HEALTH CENTER
555 Jewett P O Box 200
Mason, Michigan 48854
517/676 2401

EATON COUNTY COUNSELING CENTER
228 South Cochran
Charlotte, Michigan 48813
517/543 5100

CLINTON COUNTY COUNSELING CENTER
300 East Sturgis
St. Johns, Michigan 48879
517/224 8729

CLINTON-EATON-INGHAM
COMMUNITY
MENTAL HEALTH
BOARD

Dear

This is to confirm your appointment for therapy with

_____

on _____ at _____.

In order for your session to be more helpful, we want to answer as many of your questions as possible before your appointment. Please read the following information carefully. If you have any additional questions, feel free to ask your intake therapist.

Sincerely,

Referral Worker

THERAPY: What's it all about?

How will talking with a therapist help?

When you're upset, talking with an understanding person helps. Sometimes it is also important to understand why you feel and act the way you do in order to feel better about yourself. A therapist does both. He or she will be understanding *and* help you see your situation and the choices you have.

If you are out of work, for example, you may have feelings you don't understand or can't control. A therapist will help you talk about what is bothering you and help you gain control. The therapist will also help you sort out what is important to you now and what may be for the *future*.

What kinds of problems are helped by therapy?

Therapists work with people who feel lonely, confused, unhappy, frustrated, angry, afraid or hopeless. These feelings can come from problems at work, with family, or with friends. If you find yourself overwhelmed by feelings or doing things you don't understand, talking with a therapist can help.

What can I expect to happen?

The therapist will meet with you privately for about an hour once a week to talk about what is troubling you. Your therapist will be listening carefully. He will

ask about how long you have felt this way, what you think is wrong and perhaps about your family history.

You may be expecting your therapist to give you a prescription or advice as your doctor does. Occasionally your therapist may think medicine will help.

If so, you will see a doctor along with your therapist. The therapist may advise you, but more often he or she will help you think about your problems in a way that will help you become *your own advisor.*

What am I expected to do?

The most important thing is to talk about what is on your mind. Try to talk as openly as you can about what is happening to you. This may be hard to do. Your problems may seem too personal or embarassing to talk about. The therapist is there to help you understand and accept your feelings.

There may be times when you feel discouraged or upset with therapy or your therapist. You may want to stop coming. These feelings mean you are talking about tough problems. Keep coming in for your appointments and tell your therapist how you feel.

How long will I need to come?

"How long?" is not an easy question. You may need only a few sessions. Many people find they feel better after about eight sessions. Talk with your therapist about this question. You should also know that unless you sign a release of information form, no one will know what you talk about in therapy.

A final reminder -

Therapy can help you with your problems. Talk as freely and openly as you can. Your therapist will listen carefully and help you understand yourself and your behavior. Remember, it is important to keep appointments.

APPENDIX D

APPENDIX D

MASON MENTAL HEALTH CENTER

Mason Mental Health Center is a satellite community mental health center of Ingham Community Mental Health (ICMH) and is administered by the same Tri-County Community Mental Board. Mason serves a predominantly rural community in comparison to the more urban population served by ICMH. Initially, samples of clients of both Mason Mental Health and ICMH Centers were to be included in the study. Prior to combining the samples, they were compared on a series of chi squares and t-tests on the variables of primary interest (i.e., sex of clients, SES, age, marital status, first therapist's sex, income, previous contacts with community mental health, severity of problem, number of days from referral contact to first appointment and number of days from the first appointment to the second, diagnosis, education, employment status, sex of therapist assigned, living situation, referral source. See Tables A-1 and A-2. Clients of Mason and ICMH Centers were significantly different on 13 of the 18 variables. As a result of the analysis, the samples were not combined. The ICMH sample was used for the present research. The descriptive data for Mason clients are presented in the following tables.

TABLE A-1: SUMMARY OF THE CHI SQUARES ANALYSIS OF DIFFERENCES BETWEEN ICMH AND MMHC CLIENTS

Variable	Degrees of Freedom	Chi Square	Significance
Sex of client	1	6.308	.0120*
SES	1	13.628	.0002**
Age	7	42.522	.0000**
Marital Status	5	20.826	.0009**
Education	7	35.267	.0000**
Referral Source	17	24.328	.1108NS
Diagnosis	4	2.925	.5704NS
Employment Status	9	6.863	.6513NS
Sex of therapist	1	4.488	.0341*
Living arrangement	4	29.058	.0000**
Therapist's educational level	1	4.182	.0409*
Second therapist's sex	2	1.429	.4895NS
Referral Source	5	11.869	.0366*

* significance at .05 level

** significance at .01 level

TABLE A-2: SUMMARY OF T-TESTS COMPARING MASON AND INGHAM COMMUNITY MENTAL HEALTH CENTERS

Variables of Primary Interest	C.M.H.	No. of Cases	Mean	Standard Deviation	Standard Error	T Test	DF	Signif.
Income	Ingham	369	$ 8,208.25	8300.75	432.12	-2.31	44	.021*
	Mason	47	11,255.15	9958.63	1452.62			
Age	Ingham	379	31.38	11.20	.575	3.12	433	.002*
	Mason	56	26.59	6.73	.900			
Previous Contacts	Ingham	373	1.55	.807	.042	1.45	404	.148NS
	Mason	63	1.40	.661	.083			
No. of Days to 1st appt.	Ingham	389	11.06	4.215	.214	- .02	456	.986NS
	Mason	69	11.07	6.607	.795			
No. of days to 2nd appt.	Ingham	264	21.08	17.15	1.056	2.26	304	.025*
	Mason	42	14.83	12.98	2.003			

The Mason Mental Health Center data was collected from April 13, 1982 through September 18, 1982 and included a total of 69 subjects, 12 males and 57 females. Fifty-nine were in the lower SES and ten in the upper SES category. The mean income was $11,255.15 and the mean age 26.59. Of the sample, 45.8 percent were presently married. The majority of the clients were self- or family-referred (60.6 percent). Most were working full-time (47.9 percent) or part-time (12.5 percent). For a sizable majority (62.3 percent) this was their first contact with community mental health. Over half (58.0 percent) of the clients had no insurance and 56 percent lived with family as either the primary income source or a dependent. The average wait from referral to the first appointment was 11.07 days. Clients then waited an average of 14.83 days to the second appointment. Attendance at the first session is summarized below:

Table A-3: ATTENDANCE AT FIRST SESSION--MASON

Category	Frequency	Percentage
attend	42	60.9
non attend	14	20.3
cancel	7	10.1
cancel, reschedule and non attend	1	1.4
cancel, reschedule and attend	5	7.2
TOTAL	69	100.0

The attendance for the second interview is summarized below:

TABLE A-4: ATTENDANCE AT SECOND SESSION--MASON

Category	Frequency	Percentage
attend	28	62.2
non attend	5	11.1
cancel	3	6.7
cancel, reschedule and attend	1	2.2
not scheduled	7	15.0
no response	1	2.2
TOTAL	45	100.0

Analysis

Chi squares analyses of treatment, SES, and sex main effects indicated no relationship with attendance. T-tests of income, age, previous contacts with community mental health and number of days to the first or second interview, also indicated no relationship with attendance.

APPENDIX E

CLIENT INFORMATION

NAME: _____ Case #: _____ Referral Date: _____

ADDRESS: _____ City: _____

COUNTY/TOWNSHIP: _____ ZIP: _____ PHONE: _____

PARENTS/GUARDIAN OR SPOUSE: _____ BIRTHDATE: _____

CHILDREN OF CLIENT		or	SIBLINGS OF CLIENT	
Name	Birthdate		Name	Birthdate

Employer or School: _____ Phone: _____

Spouse's Employer: _____ Phone: _____

If Child, Parents' F: _____ Phone: _____

Employer(s) M: _____ Phone: _____

Gross Annual Income: _____ Insurance: _____

Subscriber's Name: _____ Group: _____

BC: _____ BS: _____ BC/BS: _____ Contract: _____

Medicaid? Yes ☐ No ☐ Don't Know ☐ Medicaid Number: _____

Labor Union Affiliation: _____

Program Stamp

Previous Mental Health Services:

Dates	Name of Clinic/Hospital/Private Therapist	City/State

Source of Referral: _____

Reason for Requesting Service: _____

THERAPIST: _____ Intake Date: _____

Time: _____ Fee: _____

APPENDIX F

DMH-1810 (1/77)

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MICHIGAN DEPARTMENT OF MENTAL HEALTH

COMMUNITY AGENCY

STATISTICAL FACE SHEET

1. CASE NUMBER | OPTIONAL (use with case no.) | 2. COST CENTER CODE

3. AGENCY (NUMBER) | AGENCY (NAME)

4. OPENING DATE (Mo., Da., Yr.) | 5. UNIQUE IDENTIFIER

TION DE 0. ☐ Initial 1. ☐ Update 2. ☐ Reopen 3. ☐ Correction | 7. UPDATE OR CORRECTION DATE Complete if Action Code= 1. or 3. (Mo., Day, Yr.)

8. BIRTH DATE (Mo., Da., Yr.) | 9. SEX 1. ☐ M 2. ☐ F

11. COUNTY OF RESIDENCE Code* | 12. CENSUS TRACT | 13. GROSS INCOME (Annual) Code*

NO. OF DEPENDENTS (by age) 0-5 | 13-17 | 6-12 | 18+

15. ETHNIC GROUP (Check One) 1. ☐ White 2. ☐ Black 3. ☐ Am. Indian 4. ☐ Hispanic 5. ☐ Asian 6. ☐ Other

16. MARITAL STATUS (Check One) 1. ☐ Never Married 2. ☐ Married 3. ☐ Widowed 4. ☐ Separated 5. ☐ Divorced 6. ☐ Remarried

EDUCATION

Highest Grade Completed

Years in special education (If blank skip to item 18.)

Currently in special education? 1. ☐ Yes 2. ☐ No

Most recent special education program (check one)

1. ☐ Educable
2. ☐ Trainable
3. ☐ Severely Mentally Impaired
4. ☐ Severely & Multiply Impaired
5. ☐ Emotionally Impaired
6. ☐ Other Learning Disabilities
7. ☐ Other

EMPLOYMENT STATUS AT OPENING (Check One)

CURRENTLY EMPLOYED
1. ☐ Full-time
2. ☐ Part-time
3. ☐ Sheltered Employment

UNEMPLOYED
4. ☐ On lay-off
5. ☐ Looking for work (Available during past 4 weeks)
6. ☐ Not looking for work

NOT IN LABOR FORCE
8. ☐ Homemaker
9. ☐ Child
10. ☐ Student
11. ☐ Never worked - Non-student
12. ☐ Disabled
13. ☐ Retired
14. ☐ Other

SOURCE OF REFERRAL Code*

20. PREVIOUS MENTAL HEALTH SERVICES (most recent - last 5 years)
1. ☐ None
2. ☐ DMH Inpatient (Last 30 days)
3. ☐ Inpatient (all other)
4. ☐ Other
0. ☐ Unknown

21. PPB OBJECTIVE (Check One)
1. ☐ Psychosocial Adjustment
2. ☐ Crisis Resolution
3. ☐ Rehabilitation/Habilitation
4. ☐ Maintenance

CURRENT LIVING ARRANGEMENT Code*

23. CLIENTS ELIGIBLE FOR PURCHASE OF SOCIAL SERVICES (Title XX)
Current Assistance Recipient Program Code ☐ (From DSS M.A. Authorization Card)
Income Eligible - Scale 1. ☐ 2. ☐ (from DSS form 1928) Eligible Beginning Mo. Yr.

. DIAGNOSIS
Primary Code | Secondary Code

25. OPTIONAL USE

STATUS AT TIME OF CLOSING

. HOW TERMINATED 1. ☐ Withdrew 2. ☐ According to Plan 3. ☐ Other

37. REFERRED TO Code*

38. DATE OF CLOSING (Mo., Day, Yr.)

EMARKS

APPENDIX G

APPENDIX G

THE TWO-FACTOR INDEX OF SOCIAL POSITION
August B. Hollingshead
1965

I. Introduction

The Two-Factor Index of Social Position was developed to meet the need for an objective, easily appicable procedure to estimate the positions individuals occupy in the status structure of our society. Its development was dependent both upon detailed knowledge of the social structure, and procedures social scientists have used to delineate class position. It is premised upon three assumptions: (1) the existence of a status structure in the society; (2) positions in this structure are determined mainly by a few commonly accepted symbolic characteristics; and (3) the characteristics symbolic of status may be scaled and combined by the use of statistical procedures so that a researcher can quickly, reliably and meaningfully stratify the population under study.

Occupation and education are the two factors utilized to determine social position. Occupation is presumed to reflect the skill and power individuals possess as they perform the many maintenance functions in the society. Education is believed to reflect not only knowledge, but also cultural tastes. The proper combination of these factors by the use of statistical

techniques enable a researcher to determine within approximate limits the social position an individual occupies in the status structure of our society.

II. The Scale Scores

To determine the social position of an individual or of a household two items are essential: (1) the precise occupational role of the head of the household performs in the economy; and (2) the amount of formal schooling he has received. Each of these factors are then scaled according to the following system of scores.

A. The Occupational Scale

1. Higher Executives, Proprietors of Large Concerns, and Major Professionals

a. Higher Executives

Bank Presidents; Vice-Presidents; Judges (Superior Courts)
Large Business, e.g., Directors, Presidents, Vice-Presidents, Assistant Vice-Presidents, Executive Secretary, Treasurer.
Military, Commissioned Officers, Major and above, Officials of the Executive Branch of Government, Federal, State, Local, e.g., Mayor, City Manager, City Plan Director, Internal Revenue Directors
Research Directors, Large Firms

b. Large Proprietors (Value over $100,000[1])

Brokers
Contracts
Dairy Owners
Lumber Dealers

c. Major Professionals

Accountants (C.P.A.)
Actuaries
Agronomists
Architects
Artists, Portrait
Astronomers
Auditors
Bacteriologists
Chemical Engineers
Chemists
Clergyman (Professionally Trained)
Dentists
Economists
Engineers (College Grad.)
Foresters
Geologists
Lawyers
Metallurgists
Physicians
Physicists, Research
Psychologists, Practicing
Symphony Conductor
Teachers, University, College
Veterinarians (Veterinary Surgeons)

2. Business Managers, Proprietors of Medium Sized Businesses, and Lesser Professionals.

a. Business Managers in Large Concerns

Advertising Directors
Branch Managers
Brokerage Salesmen
District Managers
Executive Assistants
Executive Managers, Govt. Officials, minor, e.g., Internal Revenue Agents
Farm Managers
Office Managers
Personnel Managers
Police Chief; Sheriff
Postmaster
Production Managers
Sales Engineers
Sales Managers, National Concerns
Sales Managers (Over $100,000)

b. Proprietors of Medium Businesses (Values $35,000-$100,000)

Advertising Owners ($100,000)
Clothing Store Owners ($100,000)
Express Company Owners ($100,000)
Fruits, Wholesale ($100,000)
Furniture Business ($100,000)
Jewelers ($100,000)
Labor Relations Consultants
Manufacturer's Representatives
Poultry Business ($100,000)
Purchasing Managers
Real Estate Brokers ($100,000)
Rug Business ($100,000)
Store Owners ($100,000)
Theater Owners ($100,000)

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[1]The value of businesses is based upon the rating of financial strength in Dun and Bradstreet's Manual.

c. Lesser Professionals

Accountants (Not C.P.A.)
Chiropodists
Chiropractors
Correction Officers
Director of Community House
Engineers (Not College Grad.)
Finance Writers
Health Educators
Librarians
Military, Commissioned Officers, Lts., Captains
Musicians (Symphony Orchestra)
Nurses
Opticians
Pharmacists
Public Health Officers (M.P.H.)
Research Assistants, University (Full-time)
Social Workers
Teachers (Elementary and High)

3. Administrative Personnel, Small Independent Businesses, and Minor Professionals

a. Administrative Personnel

Adjusters, Insurance
Advertising Agents
Chief Clerks
Credit Managers
Insurance Agents
Managers, Department Stores
Passenger, Dept. Stores
Private Secretaries
Purchasing Agents
Sales Representatives
Section Heads, Federal, State, and Local Government Offices
Section Heads, Large Businesses and Industries
Service Managers
Shop Managers
Store Managers (Chain)
Traffic Managers

b. Small Business Owners ($6,000-$35,000)

Art Gallery
Auto Accessories
Awnings
Bakery
Beauty Shop
Boatyard
Brokerage, Insurance
Car Dealers
Cattle Dealers
Feed
Finance Co., Local
Fire Extinguishers
5 & 10
Florist
Food Equipment
Food Products
Foundry
Funeral Directors
Furniture
Garage
Cigarette Machines
Cleaning Shops
Clothing
Coal Businesses
Convalescent Homes
Decorating
Dog Supplies
Dry Goods
Electrical Contractors
Engraving Business
Monuments
Package Store (liquor)
Painting Contracting
Plumbing
Poultry Producers
Publicity & Public Relations
Real Estate
Records and Radios
Restaurant
Roofing Contractor

b. Small Business Owners (Continued)

Gas Station
Glassware
Grocery-General
Hotel Proprietors
Inst. of Music
Jewelry
Machinery Brokers
Manufacturing
Shoe
Shoe Repairs
Signs
Tavern
Taxi Company
Tire Shop
Trucking
Trucks and Tractors
Upholstery
Wholesale Outlets
Window Shades

c. Semi-Professionals

Actors and Showmen
Army M/Sgt; Navy C.P.O.
Artists, Commercial
Appraisers (Estimators)
Clergymen (Not Professionally trained)
Concern Managers
Deputy Sheriffs
Dispatchers, R.R. Train
I.B.M. Programmers
Interior Decorators
Interpreters, Court
Laboratory Assistants
Landscape Planners
Morticians
Oral Hygienists
Photographers
Physio-therapists
Piano Teachers
Radio, T.V. Announcers
Reporters, Court
Reporters, Newspaper
Surveyors
Title Searchers
Tool Designers
Travel Agents
Yard Masters, R.R.

d. Farmers

Farm Owners ($25,000-$35,000)

4. Clerical and Sales Workers, Technicians, and Owners of Little Businesses (Value under $6,000)

a. Clerical and Sales Workers

Bank Clerks and Tellers
Bill Collectors
Bookkeepers
Business Machine Operators Offices
Claims Examiners
Clerical or Stenographic
Conductors, R.R.
Employment Interviewers
Factory Storekeeper
Factory Supervisor
Post Office Clerks
Route Managers (Salesmen)
Sales Clerks
Shipping Clerks
Supervisors, Utilities, Factories
Toll Station Supervisors
Warehouse Clerks

b. Technicians

Camp Counselors
Dental Technicians
Draftsmen
Driving Teachers
Expeditor, Factory
Experimental Tester
Instructors, Telephone Co., Factory
Inspectors, Weights, Sanitary Inspectors, R.R. Factory
Investigators
Laboratory Technicians
Locomotive Engineers
Operators, P.B.X.
Proofreaders
Safety Supervisors
Supervisors of Maintenance
Technical Assistants
Telephone Co. Supervisors
Timekeepers
Tower Operators, R.R.
Truck Dispatchers
Window Trimmers (Store)

c. Owners of Little Businesses

Flower Shop ($3,000-$6,000)
Newsstand ($3,000-$6,000)
Tailor Shop ($3,000-$6,000)

d. Farmers

Owners ($10,000-$20,000)

5. Skilled Manual Employees

Adjusters, Typewriter
Auto Body Repairers
Bakers
Barbers
Blacksmiths
Bookbinders
Boilermakers
Brakemen, R.R.
Brewers
Bulldozer Operators
Butchers
Cabinet Makers
Carpenters
Casters (Founders)
Cement Finishers
Cheese Makers
Chefs
Compositors
Diemakers
Diesel Engine Repair & Maintenance (Trained)
Diesel Shovel Operators
Electricians
Glassblowers
Glaziers
Gunsmiths
Gauge Makers
Hair Stylists
Heat Treaters
Horticulturists
Lineman, Utility
Linoleum Layers (Trained)
Linotype Operators
Lithographers
Locksmiths
Loom Fixers
Lumberjacks
Machinists (Trained)
Maintenance Foreman
Installers, Electrical Appliance
Masons
Masseurs
Mechanics (Trained)
Millwrights
Moulders (Trained)
Painters

5. Skilled Manual Employees (Cont)

Electrotypists
Engravers
Exterminators
Fitters, Gas, Steam
Fireman, City
Fireman, R.R.
Foremen, Construction, Dairy
Gardeners, Landscape (Trained)
Printers
Radio, T.V., Maintenance
Repairmen, Home Appliances
Riggers
Rope Splicers
Sheetmetal Workers (Trained)
Shipsmiths
Shoe Repairmen (Trained)
Stationary Engineers (Licensed)
Stewards, Club
Switchmen, R.R.
Paperhangers
Patrolmen, R.R.
Pattern and Model Makers
Piano Builders
Piano Tuners
Plumbers
Policemen, City
Postmen
Tailors (Trained)
Teletype Operators
Toolmakers
Track Supervisors, R.R.
Tractor-Trailer Trans.
Typographers
Upholsterers (Trained)
Watchmakers
Weavers
Welders
Yard Supervisors, R.R.

Small Farmers

Owners (under $10,000)
Tenants who own farm equipment

6. Machine Operators and Semi-Skilled Employees

Aides, Hopsital
Apprentices, Electricians, Printers, Steamfitters, Toolmakers
Assembly Line Workers
Bartenders
Bingo Tenders
Building Superintendents (Cust.)
Bus Drivers
Checkers
Clay Cutters
Coin Machine Fillers
Cooks, Short Order
Delivery Men
Dressmakers, Machine
Drill Press Operators
Photostate Machine Operators
Practical Nurses
Pressers, Clothing
Pump Operators
Receivers and Checkers
Roofers
Set-up Men, Factories
Shapers
Signalmen, R.R.
Solderers, Factory
Sprayers, Paint
Steelworkers (not skilled)
Stranders, Wire Machines
Strippers, Rubber Factory
Taxi Drivers
Testers
Timers

6. Machine Operators and Semi-Skilled Employees

Duplicator Machine Operators
Elevator Operators
Enlisted Men, Military Services
Filers, Benders, Buffers Foundry Workers
Garage and Gas Station Assistants
Greenhouse Workers
Guards, Doorkeepers, Watchmen
Hairdressers
Housekeepers
Meat Cutters and Packers
Meter Readers
Operators, Factory Machines
Oiler, R.R.
Paper Rolling Machine Operators
Tire Moulders
Trainmen, R.R.
Truck Drivers, General
Waiters-Waitresses ("Better Places")
Weighers
Welders, Spot
Winders, Machine
Wine Bottlers
Wood Workers, Machine
Wrappers, Stores and Factories

Farmers

Smaller Tenants who own little equipment.

7. Unskilled Employees

Amusement Park Workers (Bowling Alleys, Pool Rooms)
Ash Removers
Attendants, Parking Lots
Cafeteria Workers
Car Cleaners, R.R.
Car Helpers, R.R.
Carriers, Coal
Countermen
Dairy Workers
Deck Hands
Domestics
Farm Helpers
Fishermen (Clam Diggers)
Freight Handlers
Garbage Collectors
Grave Diggers
Hod Carriers
Hog Killers
Hospital Workers, Unspecified
Hostlers, R.R.
Janitors, Sweepers
Laborers, Construction
Laborers, Unspecified
Laundry Workers
Messengers
Platform Men, R.R.
Peddlers
Porters
Roofer's Helpers
Shirt Folders
Shoe Shiners
Sorters, Rag and Salvage
Stagehands
Stevedores
Stock Handlers
Street Cleaners
Unskilled Factory Workers
Truckmen, R.R.
Waitresses--"Hash Houses"
Window Cleaners
Woodchoppers

Relief, Public, Private

Unemployed (No Occupation)

Farmers

Share Croppers

This scale is premised upon the assumption that occupations have different values attached to them by the members of our society. The hierarchy ranges from the low evaluation of unskilled physical labor toward the more prestigeful use of skill, through the creative talents of ideas, and the manipulation of men. The ranking of occupational functions implies that some men exercise control over the occupational pursuits of other men. Normally, a person who possesses highly trained skills has control over several other people. This is exemplified in a highly developed form by an executive in a large business enterprise who may be responsible for decisions affecting thousands of employees.

B. The Educational Scale

The educational scale is premised upon the assumption that men and women who possess similar educations will tend to have similar tastes and similar attitudes, and they will also tend to exhibit behavior patterns. The educational scale is divided into seven positions: (1) Graduate Professional Training (Persons who complete a recognized professional course leading to a graduate degree are given scores of 1). (2) Standard College or University Graduation. (All individuals who complete a four-year college or university

course leading to a recognized college degree are assigned the same scores. No differentiation is made between state universities, or private colleges.) (3) Partial College Training. (Individuals who complete at least one year but not a full college course are assigned this position. Most individuals in this category complete from one to three years of college.) (4) High School Graduates. (All secondary school graduates whether from a private preparatory school, a public high school, a trade school, or a parochial high school, are assigned the same scale value.) (5) Partial High School. (Individuals who complete the tenth or the eleventh grades, but do not complete high school are given this score.) (6) Junior High School. (Individuals who complete the seventh grade through the ninth grade are given this position.) (7) Less Than Seven Years of School. (Individuals who do not complete the seventh grade are given the same scores irrespective of the amount of education they receive.)

III. Intregration of Two Factors

The factors of Occupation and Education are combined by weighing the individual scores obtained from the scale positions. The weights for each factor were determined by multiple correlation techniques. The weight for each factor is:

Factor	Factor Weight
Occupation	7
Education	4

To calculate the Index of Social Position score for an individual the scale value for Occupation is multipled by the factor weight for Occupation, and the scale value for Education. For example, John Smith is the manager of a chain supermarket. He completed high school and one year of business college. His Index of Social Position score is computed as follows:

Factor	Scale Score	Factor Weight	Score X Weight
Occupation	3	7	21
Education	3	4	12
		Index of Social Position Score	33

IV. Index of Social Position Scores

The Two Factor Index of Social Position Scores may be arranged on a continuum, or divided into groups of scores. The range of scores on a continuum is from a low of 11 to a high of 77. For some purposes a researcher may desire to work with a continuum of scores. For other purposes he may desire to break the continuum into a hierarchy of score groups.

I have found the most meaningful breaks for the purpose of predicting the social class position of an individual or of a nuclear family is as follows:

Social Class	Range of Computed Scores
I	11-17
II	18-27
III	28-43
IV	44-60
V	61-70

When the Two Factor Index of Social Position is relied upon to determine class status, differences in individual scores within a specified range are ignored, and the scores within the range are treated as a unit. This procedure assumes there are meaningful differences between the score groups. Individuals and nuclear families with scores that fall into a given segment of the range of scores assigned to a particular class are presumed to belong to the class the Two Factor Index of Social Position score predicts for it.

The assumption of a meaningful correspondence between an estimated class position of individuals and their social behavior has been validated by the use of factor analysis.[2] The validation study demonstrated the existence of classes when mass communication data are used as criteria of social behavior.

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[2]See August B. Hollingshead and Frederick C. Redlich, Social Class and Mental Illness, John Wiley and Sons, New York, 1958, pp. 398-407.

APPENDIX H

DATE	APPT. DATE	NAME	EDUCATION	SCORE X 4	OCCUPATION	SCORE X 7	HIGH		LOW		PAMPHLET SENT	
							MALES	FEMALES	MALES	FEMALES		
											Yes	
											Yes	
											Yes	
											Yes	
											No	
											Yes	
											No	
											Yes	
											No	
											No	
											No	
											Yes	
											No	
											No	
											Yes	
											No	
											Yes	
											Yes	
											Yes	
											No	
											Yes	
											No	

APPENDIX I

CODING DATA FOR DISSERTATION

Variable Name	Label	Values	Column
1	Subject ID (001-352)	001-352	1-3
2	Treatment Center	1 = Ingham 2 = Mason	4
3	Sex of Client	1 - male 2 = female	5
4	Socioeconomic status	1 = high 2 = low	6
5	Treatment Condition	1 = pamphlet 2 = control 3 = refusal	7
6	Responsevariable first	1 = show 2 = no show 3 = cancel 4 = cancel, reschedule NS 5 = cancel, reschedule S 6 = referral out 7 = therapist ill	8
7	Response - second	1 = show 2 = no show 3 = cancel 4 = cancel, reschedule NS 5 = cancel, reschedule S 6 = not scheduled 7 = no response 8 = contacted - withdrew	9
8	Income	XXXXX 01 = ADC 02 = GA 03 = SS 04 = PA	10-14
9	Age	XX	15-16
10	Marital Status	1 = never married 2 = married 3 = widowed 4 = separated 5 = divorced 6 = remarried	17

Variable Name	Label	Values	Column
11	Race	1 = white 2 = black 3 = hispanic 4 = other	18
12	Education	1 = graduate training 2 = univ. graduate 3 = partial college 4 = jr college degree 5 = high school degree 6 = GED 7 = 10 or 11th grade 8 = jr high 7-9th 9 = less than 7 years 10 = technical school 11 = other	19-20
13	Referral Source	1 = outreach 2 = self 3 = family or friends 4 = clergy 5 = MD/DO 6 = Police 7 = Employment 8 = school 9 = Hospital 10 = Jail 11 = 12 = other community agency 13 = Other CMH Board 14 = DSS 15 = Health Department 16 = Vocational Rehabilitation 17 = 20 = Court 21 = Other 22 = Not referred	21-22
14	PPB Objective	1 = Psychosocial Adjustment 2 = Crisis Resolution 3 = Rehabilitation 4 = Maintenance	23
15	Diagnosis	XXXXX	24-28
16	GAS	XX	29-30
17	Employment Status	1 = Fulltime 2 = Parttime 3 = Laied Off 4 = Looking for Work 5 = Not Looking 6 = Homemaker	31-32

VARIABLE NAME	LABEL	VALUES	COLUMN
17 cont.	Employment Status	7 = Student 8 = Disabled 9 = Never Worked 10 = Retired 11 = other	
18	Nature of Problem	1 = Personal 2 = Interpersonal 3 = Work/School Related 4 = Unemployment 5 = Court 6 = Other 7 = Personal and Interpersonal 8 = Personal andWork 9 = Personal and Unemployment	33
19	Previous Contacts with CMH	1 = Private 2 = Other CMH 3 = Both 0 = None	34-35
20	Previous Contacts with MH	1 =Private 2 = Other CMH 3 = Both 0 = None	36
21	Number of Sessions with Positive Outcome	XX	37-38
22	Number of Sessions with Negative Outcome	XX	39-40
23	Therapist Sex	1 = Male 2 = Female	41
24	Therapist	See Attached List	42-43
25	Occupational Score	1 = Higher Exec. 2 = Mgrs and Proprietors 3 = Admin. Personel Small Business 4 = Clerical and Sales 5 = Skilled Manual 6 = Semiskilled Manual 7 = Unskilled Workers	44
26	Social Class	1 = I 2 = II 3 = III 4 = IV 5 = V	45

Variable Name	LABEL	VALUES	COLUMN
27	Insurance	1 = None 2 = BC/BS 3 = Medicaid 4 = AETNA 5 = Teamsters 6 = American 7 = Health Central 8 = Medicare	46
28	Living Arrangement	1 = Living Alone 2 = with Family/friends primary support 3 = with family/friends dependent 4 = living with family/friends independent 5 = Jail/prison	47
29	Referral to 1st appointment in days	XX	48-49
30	First appointment to second	XX	50-51
31	Therapist's profession	1 = MSW 2 = MA Counseling 3 = MA Counseling Psychology 4 = MA Rehabilitation 5 = MA Counseling Guidance 6 = MA Psychology 7 = MA CLinical Psychology 8 = Ph.D. 9 = BA	52
32	First therapist education level	1 = degree 2 = student	53
33	Second therapist	XX	54-5
34	Second therapist's sex	1 = Male 2 = Female	56
35	Second therapist's Profession	same as 31	57
36	Scond therapist's educational level	1 = Degree 2 = Student	58
37	First Interview if therapist ill	1 = Show 2 = No show 3 = Cancel 4 = Cancel, reschedule NS 5 = Cancel, reschedule S 6 = Referral out	59

APPENDIX J

APPENDIX J: VARIABLE LIST, ADDENDUM

NV6 = 1 = show
2 = no show
3 = cancel (3,4,5)
4 = refer out (6)
5 = therapist ill (7)

NV 7 = 1 = show
2 = no show
3 = cancel (3,4,5)
4 = not scheduled(6)
5 = no response (7)
6 = withdrew (8)

N2V6= 1 = show (1,5)
2 = no show (2,4)
3 = cancel (3)
4 = else (6,7)

N2V7 = 1 = show (1,5)
2 = no show (2)
3 = cancel (3)
4 = not scheduled(6)
5 = withdrew (7,8)

Ther. Ed. 1 = MSW (1)

Ther. Ed. 2 = (2-7) master's

Ever Married= Married (2)
Widowed (3)
Separated (4)
Divorced (5)

Stilmard = Married (1)

Living Alone= Living Alone (1) V28 Living Arrangement

Dependent = With Family/Friends (3)
Jail/Prison (5)

Ref. Src. 1 = Self(1) V3 Referral Source

Ref. Src. 2 = Family (3)
Clergy (4)

Ref. Src. 3 = Outreach (1)
MD/DO (5)
Hospital (9)
Health Dept. (15)

Ref. Src. 4 = Police (6)
Jail (10)
Court (20)

Ref. Src. 5 = Other Agency (12)
Other CMH (13)
DSS (14)
Voc Rehab (16)

APPENDIX J: VARIABLE LIST, ADDENDUM

Same Sex 1 = V3 = V23 client and therapist have same sex

Same Sex 2 = V3 = V34 client and therapist have same sex for second appointment

Same Ther. = Therapist remains the same for the second interview V24=V33

Years Educ. = Graduate = 18
University = 16
Partial = 14
High School = 12
10th, 11th = 10.5
Junior High = 8
Technical = 13

Working

Looking for work

Not working

Psychotic

Neurotic

Character Disorder

Situational

Insurance = V27

Referral Source

Client Benefit			Labels
1st V6	(1,5)=1	show plus cancel reschedule show	Attend
	(3) =2	cancel	Cancel
	(2,4)=2	NS plus Cancel reschedule NS	No Show
2nd V7	(1,5)=1	Show, cancel reschedule show	Attend
	(3,8)=2	Cancel, withdrew	Cancel
	(2,4,7)=3	NS,Cancel reschedule NS, No response	

APPENDIX K

APPENDIX K

COMPARISON OF LOG LINEAR MODELS WITH ANOVA FROM BAKER "LOG-LINEAR, LOGIT-LINEAR MODELS: A DIDACTIC*

The sequential set of models which would be used to analyze a two dimensional contingency table where Factor A has r levels and Factor B has c levels are shown below in Table 1.

Model	Interpretation
M_o	all cells have the same frequency
M_1	only factor A has an effect
M_1	only factor B has an effect
M_2	both A and B have an effect but there is no interaction (an additive model in ANOVA)
M_3	a fully saturated model because all effects and interactions are specified

It should be noted that multiple models of the same form, such as M_1 and M_1, are not used simultaneously. The real question of interest is what information the models provide. Initially, the structure of the set of models will be of interest. Under model M_0 all cells would have the same expected frequency, thus U corresponds to the grand mean in ANOVA. In contingency table terms, it means that the sample size has been fixed at N. Model M_1 adds a $U_{1(j)}$ term representing the effect of the classificatory variable used to define the rows of the contingency table. This

*Baker, Frank B. "Log-linear, logit-linear models: A Didactic." I. of Educational Statistics, Spring, 1981, Vol.6, NO. 1, pp.75-102.

corresponds to a main effect in ANOVA. In contingency table terms, the row marginal frequencies have been fixed in addition to fixing the sample size. Model M_2 adds a $U_{2(k)}$ term to the model representing the effect of the classificatory variable used to define the columns of the contingency table. Again, this corresponds to a treatment main effect in ANOVA terms. Adding the term fixes the column marginal frequencies of the contingency table after the row marginal and the sample size have been fixed. Finally, the $U_{12(jk)}$ term for row-column association was added to form model M_3. In ANOVA terms this is analogous to the use of a row-column interaction with one major distinction. Under ANOVA such a model is probabilistic because it includes an error component. Model M_3, however, is deterministic and does not contain an error term; hence, it fully accounts for the observed cell frequencies. The cell frequencies have been fixed and the total table is determined.

APPENDIX L

APPENDIX L

LOG LINEAR ANALYSIS CONTINGENCY TABLES FROM BAKER "LOG-LINEAR, LOGIT-LINEAR MODELS: A DIDACTIC."*

In order to explain the general model and its application to specific hypotheses testing the following excepts from Baker are considered.

TABLE A-5: ROW BY COLUMN CONTINGENCY TABLE

Model	X^2	df	Component X^2	df
$M_0 Z_{jk} = U$	$X^2 M_0$	rc-1	none	
$M_1 Z_{jk} = V + V_1(j)$	$X^2 M_1$	(rc-1)-(r-1)= r(c-1)	$X^2 M_0 - X^2 M_1$	r-1
$M_2 Z_{jk} = V + V_1(j) + V_2(k)$	$X^2 M_2$	(rc-1)-(r-1) -(c-1)= (r-1) (c-1)	$X^2 M_1 = X^2 M_2$	c-1
$M_3 Z_{jk} = V + V_1(j) + V_2(k) + V_{12}(jk)$	$X^2 M_3$	(rc-1)-(r-1) -(c-1)-(r-1) (c-1)=0	$X^2 M_2 - X^2 M_3$	(r-1)(c-1)

where r=rows, c=columns and U=grand mean

- M_0 = is the grand mean model in which all cells have the same frequency
- M_1 = is the model in which the first factor is fixed or specified
- M_2 = is the model in which the first and second factor are specified
- M_3 = is the model in which the first, second, and interaction term are specified.

*Baker, Frank B. "Log-linear, logit-linear models: A Didactic." I. of Educational Statistics, Spring, 1981, vol.6, No. 1, pp. 75-102.

From this general model the analysis of results tables are developed. For example Baker continues in his article with the following table:

TABLE A-6: ANALYSIS OF RESULTS

Model	Residual X^2	df	P	Component X^2	df	P
M_o	10.000	3				
M_1(A)	6.733	2	.03	3.267	1	.20
M_2(B)	1.797	1	.18	4.936	1	.03
M_3	0	0		1.797	1	.18

In this analysis, M_2 fits the data at an alpha level of .05. This fit implies a nonsignificant relationship between factor A and B and main effects to factor B (significant component X^2 at the .03 level.) M_3 fits the data exactly because it contains all of the information necessary, hence there are no degrees of freedom.

While the above is an example of log linear analysis, logit linear analysis has a similar interpretation. In logit linear analysis the contingency tables may look exactly the same or vary, according to the number of response variables included in the design. In the present research, with the response factor dichotomous, the analysis

tables were similar to those in the example above. When several levels of response variables are used, the way in which degrees of freedom are calculated change. See Baker's 1981 work for examples.

Although the illustration above lists the models from the grand mean term to the interaction model, M_3, usually the models are considered in the reverse order from most complex to the simplest. In this way, the most complext association or interaction can be considered first. If these second order interactions do not exist, the interpretation of the simpler models is easier. The analysis results from this study are presented from the most complex association to the least complex. Instead of labeling the models with the Baker notation, the models will be designated by main effects or interactions terms as appropriate.

APPENDIX M

APPENDIX M

EXPLORATORY DISCRIMINANT FUNCTION ANALYSIS

Because the discriminant function analysis addressed a question on which there had been little previous research, an exploratory analysis was conducted. The number of variables was collapsed from twenty-five for the first interview to ten and from thirty to eleven for the second. The variables included in the exploratory analysis were those whose significance level at the first analysis was .20 or below. The degrees of freedom increased in the following way:

	First Analysis df	Exploratory Analysis df
First Session		
Attend vs. non-attend	297	340
cancel vs. non-attend	34	85
Second Session		
Attend vs. non-attend	196	246
Cancel vs. non-attend	64	77

The degrees of freedom increased because fewer cases were excluded from the analysis for failing to have data on each variable and there were fewer variables included in the analysis. The likelihood of detecting variables which contributed significantly to the discriminant function was increased as well as the likelihood of a type I error. A summary of the exploratory discriminant function is measured in Table 4.5 .

In the first interview, attend versus nonattend, three new variables were significantly related to attendance. These included: number of previous contacts with CMH, court referrals and the number of years of education (See Table A-6). Clients who had had more contacts with CMH, those who were court referred and those more highly educated were more likely to attend the first session.

There was no change in the lack of significant results in the cancel versus nonattend category for the first interview. For the second interview, eight variables were significant at the .05 level. These included SES, number of days from the first to second appointment, marital status, referral from outreach or medical source, "other" referrals, a change in therapist from the first to second interview, the number of years of education and the work status (See Table A-7). Higher SES clients, those who waited less time for a second appointment, those were were married, referrals from medical

TABLE A-7: SUMMARY OF EXPLORATORY DISCRIMINANT FUNCTION ANALYSIS OF FIRST AND SECOND SESSIONS

1st Interview	Chi Square	df	Signif.	Percent of cases correctly classified
-attend vs nonattend. = 342	19.905	10	.0302*	62.28
Variables included in the equation	F Statis.			
Number of persons contacts w/CMH[1]	5.230	340	.0228	
Court referral[2]	4.472	340	.0352	
Years education[3]	3.686	340	.0557	
-Cancel vs nonattend = 87	N.S.			
2nd Interview				
-attend vs nonattend = 248	38.649	11	.0001*	68.55
Variables included in the equation	F Statis.			
SES[1]	9.445	246	.0024	
Number of days from 1st to 2nd appt.	6.101	246	.0142	
Marital status	4.792	246	.0295	
Outreach, medical referral	4.387	246	.0372	
Court referral	4.432	246	.0363	
1st & 2nd appt. therapist were same	4.934	246	.0272	
Years of education	4.108	246	.0438	
Work status	4.355	246	.0379	
-Cancel vs nonattend = 79	N.S.			

NOTE:
1 = clients who had had more contacts with CMH were more likely to attend
2 = clients who were referred by the police or courts were more likely to attend
3 = clients who attended had more years of education

TABLE A-8 : FIRST INTERVIEW GROUP MEANS FOR DISCRIMINANT FUNCTION VARIABLES

	Sex of Client	SES	Treatment	Income
Attend	.34672	.41606	.5000	8580.96
Non-Attend	.25000	.33824	.5000	7120.00
$\bar{X}$	.32749	.40058	.5000	8290.48

	No. of Prev. Cont. w/CMH*	Ever Married	Court Referred*	Same Sex Ther./client	Years of Education*	Working
Attend	1.62044	.66423	.06204	.56934	13.00912	.55474
Non-Attend	1.36765	.58824	0	.51471	12.40441	.45588
$\bar{X}$	1.57018	.64912	.04971	.55848	12.88889	.53509

*significant at the .05 level

TABLE A-9 : SECOND INTERVIEW GROUP MEANS FOR DISCRIMINANT VARIABLES

	Sex of Client	SES*	Treatment
Attend	.35329	.47305	.46707
Non-Attend	.30864	.27160	.56790
$\overline{X}$	.33871	.40726	.5000

	No. of Days From 1st to 2nd appt.*	Still Married*	Looking for Work*	Outreach Medical Referral*
Attend	20.50297	.28743	.08383	.25150
Non-Attend	26.09877	.16049	.17284	.13580
$\overline{X}$	22.33065	.24597	.11290	.21371

	Court Referral	Other Referral*	Same Therapist for 1st & 2nd Session*	Years of Education*
Attend	.07186	.06587	.55689	13.23952
Non-Attend	.03704	.14815	.40741	12.59877
$\overline{X}$	.06048	.09274	.50806	13.03024

*Significant at the .05 level

and "other" sources, clients who had the same therapist for the first and second session and those clients who were more educated were more likely to attend the second session. There was no change in the lack of significant results in the cancel versus nonattend category for the second interview.

In each instance, these new data should be interpreted cautiously. They are the result of hypotheses about the data after the initial analysis and have no foundation in theory or previous research. The results may arise from the statistical procedure used and lack meaningful significance.

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