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The Prediction of Psychotherapy Dropout Using Select Client Variables: A Multivariable Analysis

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THE PREDICTION OF PSYCHOTHERAPY DROPOUT USING SELECT CLIENT VARIABLES: A MULTIVARIATE ANALYSIS

by

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VITA

The author, Ann Marie Sauer, was born March 3, 1961 in St. Cloud, Minnesota to Clarence and Alvina Sauer.

She obtained her secondary education from Apollo High School, St. Cloud, Minnesota, where she graduated in 1979. She attended the College of St. Scholastica, Duluth, Minnesota between 1979 and 1983, majoring in psychology and sociology. She graduated, summa cum laude with the degree of Bachelor of Arts in May, 1983.

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CHAPTER I

INTRODUCTION

The concept of psychotherapy dropout or premature terminator has been used by mental health professionals to refer to those patients or clients who leave treatment after relatively brief periods of time. These individuals constitute a relatively large proportion of those who seek or are referred to psychological treatment. Baekeland and Lundwall (1975), in a review of the dropout literature, reported that 20-57% of general psychiatric clinic patients failed to return after their first visit and that 31-36% attend no more than four sessions. Garfield (1971, 1978), in two major reviews of the literature, reports that the median length of stay for treatment varies between three and twelve interviews with a clustering around six interviews. More recent studies have reported similar results (Fiester & Rudestam, 1975; Larsen, Nguyen, Green, & Attkisson, 1983; Pekarik, 1983, 1985). Garfield (1971, 1978) concluded from his review

> the finding of an unplanned and premature termination from psychotherapy on the part of many clients in traditional clinic settings has been a reasonably reliable one (1978, p. 197).

It appears fairly clear that psychotherapy dropout is a significant problem in the delivery of mental health services.

There are at least two serious implications of the dropout problem. The first is economic. Given the increasingly high demand for psycho-

therapeutic services and the limited availability of such services it is important to identify those persons who will follow through with treatment to enable the most efficient utilization of resources. Clients who terminate treatment prematurely exact costs to the clinic in terms of dollars, staff time and energy, and treatment of other clients who are turned away or made to wait. Identifying characteristics of the premature terminator could be useful in terms of improving cost effectiveness.

Second, there is the issue of client welfare. While it would hardly be appropriate to conclude that all clients who drop out of therapy are treatment failures neither can it be assumed that all such clients are no longer in need of treatment. It seems probable, from a common sense perspective, that when clients drop out of treatment early they may have obtained less than optimal benefit from treatment and that a large proportion of such clients may benefit from extended services.

This view has been disputed by some (May, 1984; Papach Goodsitt, 1981, 1985) who maintain that at least some of those clients who terminate treatment early leave therapy improved and should not be considered treatment failures. This latter perspective does have some limited support in the literature. For example, Rosenthal and Frank (1958) reported that 32.5% of patients who left psychotherapy "improved" attended no more than five sessions. Similarly Straker, Devenloo, and Moll (1967) found that 50% of patients who dropped out before eleven sessions reported themselves as successful outcomes. Papach Goodsitt (1981) found that one third of a sample of early terminators from an

outpatient clinic were rated by their therapists as at least somewhat improved at termination of treatment. In a later follow-up study of psychotherapy dropouts, this same author (Papach Goodsitt, 1985) found that 50% of the dropouts were improved and that they reported levels of functioning and symptom improvement similar to nondropout clients evaluated at the same length of follow-up. May (1984) also found that early terminators reported an increase in the level of adjustment or functioning at termination from the level reported at intake. She adds however, that the amount of positive change varied as a function of the number of sessions, with those clients who remained in treatment longer reporting greater change.

This last finding is consistent with the findings of Luborsky, Chandler, Auerbach, Cohen, and Bachrach (1971). These authors reviewed studies of factors influencing the outcome of psychotherapy and found a positive relationship between length of treatment and positive therapeutic outcome. On the basis of such findings, the prevailing view of psychotherapists and researchers has been that the vast majority of therapy dropouts are treatment failures or unimproved at the termination of treatment (Baekeland & Lundwall, 1975; Garfield, 1978; and Pekarik, 1985). This conclusion has been supported in at least two studies. Gottschalk, Mayerson, and Gottlieb (1967) and Pekarik (1983) found that clients who dropped out of treatment early had very poor outcomes at three to seven month follow-up in terms of symptom change from intake.

Thus while a percentage of psychotherapy dropouts may have obtained some symptom relief and can be considered treatment successes, a fairly

large number of early terminators show no such improvement and might benefit from continued treatment were they to remain in therapy. Identification of potential dropouts before they terminate could therefore be advantageous in the development of interventions aimed at getting such clients to return for further treatment.

An extensive body of literature has accumulated over the past three decades examining the correlates and/or predictors of early treatment termination. Comprehensive reviews of this literature have been written by Baekeland and Lundwall (1975), Brandt (1965), Garfield (1971, 1978), and Meltzoff and Kornreich (1970). Results have been confusing and contradictory. The reviewers encountered a number of problems, primarily methodological in nature, which precluded drawing any firm conclusions as to the d terminants of premature termination. Individual studies were found to vary widely in terms of the definition and criteria for dropout, the samples and settings used, and the variables which the studies attempted to control and/or investigate. Given this great degree of variability in the operational definitions of variables and the methodologies used, it is not very surprising that reviews of the literature in this area have produced inconsistent and/or limited results.

The majority of previous studies have focused on patient or client variables including demographic data and personality characteristics. While therapist and process variables are also important these factors are not as easily investigated and have received less attention. Further, some authors argue that it is the client's characteristics which

are of primary importance. As stated by Lambert and Asay (1984)

> More recent research has shown not only that the patient's characteristics in psychotherapy are important but also that what the patient brings into the therapeutic situation is the single most important and influential factor relating to outcome (p. 313).

It is those client variables which will receive attention here as they relate to psychotherapy dropout.

Garfield (1978) summarizes the results of research on client demographic variables as they relate to continuation in treatment:

> our survey .... indicates a likely relationship between social class and length of stay, some relationship between educational level, particularly an inverse one at the lower educational levels, and no clear relationship between length of stay and variables such as age, sex, and psychiatric diagnosis (p. 199).

These conclusions are similar to those of other authors (Baekeland & Lundwall, 1975; Brandt, 1965; Meltzoff & Kornreich, 1970). Social class has been one of the only variables consistently related to drop out.

The lack of a clear relationship between psychiatric diagnosis and dropout is particularly interesting. The traditional diagnostic classification system has been criticized for it's low reliability and inability to accurately describe the majority of patients seeking treatment (Straus, Gabriel, Kokes, Ritzler, Vanord, & Tarana, 1979). It would seem quite possible that the use of traditional diagnostic classifications to differentiate between terminators and remainers in psychotherapy has produced poor results because it is too general or too broad and does not adequately reflect the reasons for which clients seek treatment. The use of more specific classification schemes based on presenting problem, symptoms, or initial complaint might be more appropriate. Some evidence for this claim does exist in the literature. Noonan

(1973) found that dropouts were indistinguishable from nondropouts on the basis of demographic variables alone. Such clients were, however, distinguishable on the basis of their original statement of the problem for which they sought treatment. In their review Baekeland and Lundwall (1975) also found that a number of symptomatic and behavioral variables were related to dropout. They report that clients with low levels of depression or anxiety, those who display some paranoid symptomatology, sociopathic features, drug dependence, alcoholism, or a tendency to somatize, more frequently terminate prematurely. Further exploration using such an approach may prove beneficial in identifying the psychotherapy dropout.

Baekeland and Lundwall (1975) and Garfield (1978) also discuss other variables which are related to dropout, although in less clearcut ways. The history of previous treatment, time between intake and start of treatment, source of referral, and other measures of "motivation" are additional variables that appear to bear some relationship to early treatment termination, at least in a few studies. Many of these factors have been studied less frequently and as a result the findings are less clear. Further study of these variables may be useful in clarifying their role in premature termination.

Frequently a part of the problem in the existing literature on premature termination is that researchers have attempted to relate individual variables to dropout in a univariate manner. Such attempts have been largely unsuccessful in predicting the occurence of dropout beyond the base rate. A consideration of the possible joint interactions between

variables in a multivariate type of analysis would appear to be more appropriate and has been suggested by Fiester and Rudestam (1975) as well as others (Fraps, McReynolds, Beck, & Heisler, 1982; Heisler, Beck, Fraps, & McReynolds, 1982; Timothy, 1981).

An additional problem has been the use of varied definitions and criteria for who is considered a dropout. Many studies make a very general distinction between terminators and remainers or dropouts and non-dropouts using some arbitrary cutoff of length of stay in treatment to determine the two groups. Such an approach has been criticized for failing to differentiate between a number of possible types of dropouts (Baekeland & Lundwall, 1975; Brandt, 1965). It seems quite reasonable that different types of dropouts may have quite different characteristics and very different reasons for dropping out of treatment and should be studied separately.

In addition, a strict number of session cutoff may erroneously include a number of "appropriate terminators", who complete treatment in a very few sessions and are terminated from treatment with the consent of the therapist, or who obtain the relief they were seeking in a relatively few sessions and do not have need for further treatment at this time, among the dropout group (May, 1984; Papach Goodsitt, 1981, 1985; Pekarik, 1983, 1985). Therefore the utilization of any number of session cutoff should be accompanied by a second dropout criterion for including only those patients or clients who terminate treatment clearly without the therapist's consent and/or who are considered to be in need of further services.

Drawing upon the extensive literature on the variables which predict psychotherapy dropout and the critical methodological weaknesses in previous research, the present study will investigate the influence of and interactions among select client variables as they relate to psychotherapy dropout at an urban community mental health center. For this purpose dropout will be defined to mean those clients who terminate treatment without the therapist's consent in four sessions or less. This includes those clients who fail to return for therapy after the intake interview. These "pretherapy dropouts" will be examined separately from the "in-therapy dropouts" to determine whether there are any significant differences between these two distinct types of premature terminators. Variables to be examined include type, duration, and severity of presenting problem, primary Diagnostic and Statis ical Manual of Mental Disorders, Third Edition (DSM-III, American Psychiatric Association, 1979) diagnosis, previous inpatient psychiatric history, history of previous outpatient mental health treatment, therapist or intake worker's rating of client level of functioning, therapist or intake worker's rating of client need for service, source of client referral, social class (using Hollingshead's two-factor index of social position) and elapsed time between intake and scheduled start of treatment. Particular emphasis will be placed on the differences between traditional psychiatric diagnosis and presenting problem information in differentiating between dropouts and nondropouts. The study will be conducted in two phases. Findings of an initial exploratory analysis will be used to generate hypotheses as to those variables which predict premature termi-

nation. These hypotheses will then be tested in an independent cross-validation sample.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Definition of Dropout

The term psychotherapy dropout is generally taken to refer to clients who terminate their treatment after relatively brief periods of time. Typically this has been operationally defined by the number of sessions a patient remains in treatment. Yet there is no consensus as to the number of sessions that qualify a patient for dropout status and there is considerable variability in the number of sessions used as the criterion. In addition, on occasion other definitions of dropout have also been used including the number of hours in treatment, the number of months in treatment, and others. As a result the definition of dropout has not been consistent.

Brandt (1965), in an early review of the dropout literature, takes issue with the multitude of definitions and meanings for dropout in the literature. He found that the criterion for dropout varied from a cutoff between three sessions and six months. Baekeland and Lundwall (1975) found the cutoff to range between three and ten sessions, and others have noted cutoffs ranging from three to fourty-four sessions.

Brandt (1965) also reports that while dropout is generally taken to

refer to that patient who terminates treatment on his/her own without the therapist's consent, both patient-initiated and therapist-initiated early treatment termination are often mixed in the literature (Auld & Myers, 1954; Garfield & Affleck, 1959; Gundlach & Geller, 1958; Lief, Lief, Warren, & Heath; 1961; Rosenthal & Frank, 1958). Part of the reason for this confusion appears to be the use of arbitrary number of session cutoffs as the criterion for who is considered a dropout without regard for the reason for termination. Brandt argues for the importance of making a distinction between early terminators who "ceased keeping appointments" and those who were "discharged". Morrow, Del Gaudio, and Carpenter (1977) make a similar point in suggesting that a differentiation be made between the "drop-out" who fails to return to treatment and the "terminator" who ends treatment after a short time having obtained the assistance he or she was seeking. Meltzoff and Kornreich (1970) offer a related criticism in claiming that

> it is frequently impossible in reviewing published reports to distinguish between patients who are truly dropouts and those who have left after completing brief courses of therapy (p. 358).

Similarly, Papach Goodsitt (1981) suggests the use of a dual criterion of length of stay and therapeutic outcome for defining who is considered a psychotherapy dropout.

Several recent studies underscore the importance of using a criterion for dropout beyond just the number of sessions. Pekarik (1983a) did a follow-up study of therapy dropouts and "appropriate terminators" to determine their adjustment three months after their initial visits. Dropout was defined as a client who was "in need of continued treatment

beyond his last session" while an appropriate terminator was defined as someone "not in need of continued treatment beyond his last session" as determined by the therapist (p. 505). Pekarik found that dropouts attended an average of 2.8 visits while appropriate terminators averaged 3.8 visits. Thus using only a number of session cutoff as the criterion would very likely have included many appropriate terminators in the dropout group.

In studies in a similar vein, Papach Goodsitt (1981, 1985) found that a significant number of clients traditionally labeled dropouts using a strict number of session criterion were actually considered improved by their therapists at the termination of treatment and may not have been in need of further services. She argues that such clients should not be included in a category with "premature terminators" or dropouts and the connotation this carries of treatment failure. Rather it seems likely that such clients are qualitatively different from those clients who truly terminate treatment prematurely, before deriving any benefit from it.

In his study Pekarik (1983) further differentiated between dropouts who attended one or two sessions and those who attended three or more sessions. He found the two groups differed significantly with regard to follow-up adjustment. This finding suggests that dropout is not a unitary phenomenon but rather that there may be different types of dropouts.

This same conclusion has been emphasized by Brandt (1965). He differentiated between the "pretherapy dropout" and the "in-therapy drop-

out". The "pretherapy dropout" or "rejector" in his terminology is the patient or client who drops out before the first interview. These clients were not rejected by the clinic but rejected treatment when it was offered. The "in-therapy dropout" or "early terminator", on the other hand, is that patient or client who fails to return for a scheduled appointment after the first interview. Brandt states that the "pretherapy dropout" has probably been excluded from the majority of studies or, alternately, no clear differentiation has been made between the pretherapy and in-therapy dropout.

Meltzoff and Kornreich (1970) also note this confusion over the definition of dropout in the literature. They broadly define "terminators" as patients who decide to leave therapy at any point after having been accepted for treatment. They state that most frequently this refers to patients who have been accepted for treatment and have usually begun treatment but who have ended it prematurely after a small number of interviews. They note, however, that some authors also consider patients as "terminators" if they have been accepted for treatment but fail to appear. They emphasize that the "stage" during which rejection of treatment takes place is important in making comparisons of dropout studies.

Baekeland and Lundwall (1975) also caution against overlooking the existence of different kinds of dropouts. They identify several types of patients who may be considered dropouts including a) the patient who fails to return, b) the patient who refuses to return, and c) the patient who is expelled from a treatment program for lack of coopera-

tion, poor response to treatment, and the like. They note that

> it seems very likely that not only do these three kinds of patients drop out of treatment for different reasons and at different times, but also that they are different kinds of people with different eventual outcomes (p. 740).

These same authors (Baekeland & Lundwall, 1975) further emphasize the importance of "temporal categorization" of dropouts as an additional means of differentiating between types of dropouts. They suggest that different variables may operate in determining the patient who makes an initial appointment and never shows up, the patient who drops out after one visit (the "immediate dropout"), the patient who drops out after a relatively short time (the "rapid dropout"), and the patient who remains in treatment for a relatively longer amount of time before terminating (the "slow dropout"). Hence these groups should be looked at separately.

Garfield (1978) broadly defines dropouts as

> those patients who do begin psychotherapy but who terminate their participation and drop out of therapy relatively early. Generally, such termination appears to be initiated by the client before there has been a mutual agreement that therapy has been completed (p. 195).

He seems to distinguish the dropout from the patient who is offered therapy but fails to accept it. In an earlier section of the same review, under the heading "The Selection of Clients for Psychotherapy" he briefly discusses the findings on the "rejection of psychotherapy" but he distinguishes these findings from the literature on dropout.

Incidence of Dropout

Despite the lack of consensus as to how dropout should be defined, a number of studies have attempted to estimate the extent of this problem. In an early investigation of length of stay of outpatients in psychotherapy at a Veteran's Administration Mental Hygiene Clinic Garfield and Kurz (1952) found that 27% of 768 veterans to whom treatment was offered refused to accept it. Further, of the 73% of patients who accepted treatment the median length of stay fell between six and seven interviews with approximately two-thirds of the cases receiving less than 10 interviews and 42.7% of those cases receiving less than five interviews. Kurland (1956) obtained similar results in another Veteran's Administration setting. He found that 30% of the 2500 veterans seen over a nine year period did not return for the first session of psychotherapy and that an additional 35% had left the clinic by the end of the fifth interview.

In a comparison of dropout rates at five government aided mental hygiene clinics and one Veteran's Administration clinic, Rogers (1960) reported that in all such settings dropout occured rapidly so that by the eighth interview not one agency retained as many as one-half of their cases. In another study, Haddock and Mensch (1957) found that two-thirds of the patients in a Veteran's Administration clinic and two university student health centers were seen for less than five sessions.

As the Haddock and Mensch (1957) data suggests the incidence of dropout appears to be remarkably similar in non-Veteran's Administration or non-government sponsored clinics as well. Katz and Solomon (1958)

reported that one-third of the patients at the Yale University Outpatient Clinic came only once, and one-third less than five times. Rosenthal and Frank (1958) found that of 384 patients referred for psychotherapy at the Henry Phipps Psychiatric Clinic 35% failed to accept it when it was offered. Further, those 65% of clients who accepted treatment stayed for a median of six visits with most dropouts occuring in the first five sessions.

Similarly, Gallagher and Kanter (1961) report that 26% of the clients assigned to treatment at a Boston evening clinic failed to appear for the first appointment and that 30% of those who did attend terminated treatment after the second or third appointment. Of this sample only 44% remained in treatment for four or more interviews, and only 30% remained after eight interviews. Dodd (1970) found that 30% of clients seen at a university psychiatric clinic terminated treatment between the first and second visit, and that the median number of visits was four. Brown and Kosterlitz (1964) report an unusually low percent of "rejectors" of psychotherapy at a University clinic in that only 4% of 76 patients failed to return for therapy. Nonetheless, these authors still found that 59% of the patients dropped out before the fifth session.

A few studies have reported exceptions to these high dropout rates. Lief, Lief, Warren and Heath (1961) found a 6% dropout rate for those accepted for treatment at the Tulane University Psychiatric Clinic. This same low figure was reported by Gundlach and Geller (1958) in a study of premature termination at the Postgraduate Center for Psychotherapy where

6% of clients were found to drop out after one to five sessions. These studies, however, involved a relatively select sample which met specific and rigorous criteria for acceptance into treatment. As such these results do not appear to be comparable to or representative of the majority of dropout studies.

Overall then, on the basis of the studies reviewed here between 4% and 35% of clients in all settings fail to return for the first therapy visit after intake. This corresponds closely to Brandt's (1965) estimate that pretherapy dropout varies between 3% and 35%. This author does not provide a similar estimate of "in-therapy dropout" but from the data examined here between 6% and 66% of those clients who appear for therapy drop out before the fifth interview. If one excludes the two extreme percentages noted above one arrives at an estimate of dropout ranging between 30% and 66% with a mean of 51.66%.

These figures correspond closely to those in the existent reviews of the dropout literature. Eiduson (1968) estimated that 30% to 60% of all patients in facilities representing all types of psychiatric service drop out of treatment. Baekeland and Lundwall (1975) report similar results in their review. They found that 20-57% of general psychiatric clinic patients failed to return to treatment after the first visit and that 31-56% attend no more than four sessions. Fiester and Rudestam (1975) cite three studies of urban community mental health centers which showed that between 37% and 45% of adult outpatients drop out after the first or second session.

More recent estimates have been similar. Larsen, Nguyen, Green,

and Attkisson (1983) reported that dropout typically accounts for 30-50% of closed cases at mental health clinics and that clients who drop out of treatment do so very early on. Pekarik (1983) also reports that reviews of the dropout literature have consistently reported finding from 30-60% or more of all outpatient psychotherapy clients, in all settings, drop out of treatment.

In two major reviews of the literature Garfield (1971,1978) states that the majority of clinics have lost one-half of their patients by the eighth interview. The median length of stay for treatment in the studies he reviewed varied between three and twelve interviews with a clustering around six interviews. If only those studies which focused on actual in-therapy dropouts are examined the median number of interviews was between five and six.

Pekarik (1985) states that there is evidence to suggest that the majority of community mental health center outpatients are dropouts. This conclusion echoes that of Baekeland and Lundwall (1975) who state that the dropout is the typical patient seen in treatment and Garfield (1978) who said:

> contrary to traditional expectation concerning length of therapy, most clinic clients remain in therapy for only a few interviews (p. 197).

If this is indeed the case then psychotherapy dropout or premature termination must be considered a major problem in the practice of psychotherapy that deserves immediate attention.

Correlates and/or Predictors of Dropout

In order to gain an understanding of the dropout problem and to develop means of ameliorating it an extensive body of research has accumulated in an attempt to identify the correlates and/or predictors of early treatment termination. The variation in the definition of dropout discussed previously makes interpretation of the findings regarding predictor variables difficult. Nonetheless, a number of such studies have been done. Variables examined have included a number of client, therapist, client-therapist interaction (process) and situational factors. A detailed review of this literature will not be provided here and the reader is referred elsewhere for such information (Baekeland & Lundwall, 1975; Garfield, 1971, 1978; Lambert & Asay, 1984; Meltzoff & Kornreich, 1970). Rather, the available findings on select client demographic variables and certain situational factors as they relate to dropout from adult individual psychotherapy will be reviewed as they pertain to the present study.

Age

The variable of patient age has generally been shown to bear little or no relationship to dropout. Brandt (1965), in his survey of 25 dropout studies, found that age did not consistently differentiate between those who dropout and those who remain in treatment. Lambert and Asay (1984) reached a similar conclusion. They state that "most studies indicate that age does not appear to be an important variable in whether or not the patient continues to receive treatment" (p. 329).

Of the 51 studies of dropout reviewed by Baekeland and Lundwall (1975), 16 (31.4%) showed age to be an important factor in continuation in treatment. The majority of those studies found that the younger patient was more likely to drop out of treatment. The remaining 35 studies (68.6%) found age to be unrelated to dropout. This review included studies of a wide range of treatments including nonpsychiatric medical and inpatient treatments and was not restricted to the results of studies on mental health patients. Interestingly, in the four studies of adult individual psychotherapy which were included in this review three (Brown & Kosterlitz, 1964; Gottschalk, Mayerson & Gottlieb, 1967; Katz & Solomon, 1958) revealed a relationship between age and dropout while one study (Weiss & Schaie, 1958) did not. The results of the three significant studies were, however, inconsistent. Younger patients appeared to drop out more frequently in one case (Gottschalk et al., 1967) while older patients had a higher attrition rate in the other two studies (Brown & Kosterlitz, 1964; Katz & Solomon, 1958).

Garfield (1977), in a commentary on the Baekeland and Lundwall (1975) review, questions their conclusion that age is related to dropping out. He argues that age does not have any predictive value for who will drop out of adult outpatient psychotherapy. He notes that the three studies which Baekeland and Lundwall cite as evidence for the relationship between age and premature termination showed little agreement and thus offer a poor basis for Baekeland and Landwall's conclusion. Further he points out that several other studies not mentioned by Baekeland and Lundwall fail to support that conclusion.

In his own surveys of the literature Garfield (1971, 1978) limited his review to studies of premature termination for psychotherapy outpatients. In both of his reviews he arrives at the same conclusion, that "age does not appear to be an important variable, at least as far as continuation in psychotherapy is concerned" (1971, p. 277; 1978, p. 198). Only one study that he reviewed (Sullivan, Miller, & Smelser, 1958) showed age to significantly differentiate between dropouts and remainers and the mean age difference in that study was less than two years. Four other studies cited by Garfield (Cartwright, 1955; Garfield & Affleck, 1959; Rosenthal & Frank, 1958; and Rubenstein & Lorr, 1956) showed no such significant relationship. In summary then, the variable of patient age has usually been reported to be unrelated to psychotherapy dropout.

Sex

A somewhat similar conclusion can be stated with regard to the variable of patient or client gender. A few early studies (Brown & Kosterlitz, 1964; Cartwright, 1955; Rosenthal & Frank, 1958; and Weiss & Schaie, 1958) found that male patients more frequently remained in treatment while female patients had a greater tendency to dropout but a more recent study by Fraps, McReynolds, Beck, and Heisler (1982) obtained just the opposite result. Female clients in that study were more likely to remain in treatment for a longer length of time. The majority of studies, however, have reported no relationship between sex and continuation in psychotherapy (Affleck & Garfield, 1961; Chesney, Brown, Poe, & Gary, 1983; Craig & Huffine, 1976; Frank, Gliedman, Imber,

Nash, & Stone, 1957; Garfield & Affleck, 1959; Grottjahn, 1972; Koran & Costell, 1973; Noonan, 1973; Raynes & Warren, 1971a, 1971b; Rodolfa, Rapaport, & Lee, 1983).

Heilbrun (1961b) in one study related length of stay at a University counseling center to certain sex-linked personality patterns and found that early terminators, either male or female, were those clients who conformed most to traditional middle-class cultural stereotypes of their sex whereas remainers tended to be less stereotypic. In a follow-up study (Heilbrun, 1961a) this same relationship was again demonstrated for males but not for females. Female clients in that study showed an interaction effect with therapist "dominance" which significantly predicted outcome. This finding, however, has not been replicated by other authors.

Clearly most studies suggest an absence of relationship between patient gender and premature termination. In the Baekeland and Lundwall (1975) review less than 50% (44.8%) of the 31 relevant studies reviewed found sex to be a determinant of length of stay in treatment while 55.2% found no such relationship. Brandt (1965), in his early review, concluded that sex did not clearly differentiate dropouts from remainers. Similar conclusions have been reached by Garfield (1971, 1978), Zeldow (1978), and Lambert and Asay (1984), in their reviews.

Marital Status

Relatively fewer studies have explored the relationship between marital status and duration of stay in psychotherapy. Those which have done so have generally not found it to be an important factor or have obtained inconsistent results. In reviewing six studies which considered marital status as a variable in dropout Brandt (1965) found not one of the six showed marital status to differentiate between terminators and remainers. Lambert and Asay (1984) report similar findings. Although they reviewed only three such studies, two of the three (Frank, Gliedman, Imber, Nash, & Stone, 1957; Yalom, 1966) did not find marital status to be a significant predictor of premature termination while one study (Katz & Solomon, 1958) found a higher dropout rate among patients who were divorced or separated. This latter result was also obtained by Gottschalk, Mayerson, and Gottlieb (1967) but four other studies (Brown & Kosterlitz, 1964; Chesney, Brown, Poe, & Gary, 1983; Fiester, Mahrer, Giambra, & Ormiston, 1974; Noonan, 1973) failed to support this finding. From these results it would appear reasonable to conclude that marital status is not a significant predictor of psychotherapy dropout.

Social Class and Related Variables

The variable of client social class or socioeconomic status has received a considerable amount of attention in the literature and of the many client variables studied in relation to duration of stay in psychotherapy it has yielded the most consistent results. Social class has most typically been defined by Hollingshead's Two-Factor Index of Social Position (Hollingshead, 1957) or, in a few cases, Warner's Index of Sta-

tus Characteristics. Other measures such as education, occupation, and income have also been used to infer social class.

Garfield (1971, 1978) reports that those studies which have used one of the composite indices of social class status have found "a definite relationship between length of stay and social class index". More lower class clients terminate psychotherapy prematurely than middle or upper class clients. This same conclusion has been reached by others (Baekeland & Lundwall, 1975; Baum, Felzer, D'Zmura & Shumaker, 1966; Lambert & Asay, 1983; Meltzoff & Kornreich, 1970) and appears to apply both to the patient's acceptance of psychotherapy and his/her continuation in psychotherapy once it has begun.

Baekeland and Lundwall (1975) report that in 35 out of 57 studies (61%) that considered socioeconomic status in relation to dropout the socioeconomic status of the patient was an important determinant of whether he/she would remain in treatment while only 22 of the 57 studies (39%) found it to be unimportant. In those studies which were limited to a consideration of adult individual psychotherapy dropout 16 of 18 studies (89%) found socioeconomic status predictive of dropping out.

Rubenstein and Lorr (1956), using a five session cutoff, and Sullivan, Miller, and Smelser (1958), using a cutoff of nine sessions, both report that higher class patients stay in treatment significantly longer than lower class patients. Fraps, McReynolds, Beck and Heisler (1982) obtained similar results in a more recent study. Similarly, Gibby, Stotsky, Hiler and Miller (1954) and Winder and Hersko (1955) also found that middle class patients remain in treatment longer than lower class

patients.

In many studies the differences in dropout rates between classes are quite marked. Imber, Nash, and Stone (1955) reported that whereas 11.1% of middle class patients left treatment before the fifth interview, 42.9% of lower class patients did so. In another study (Cole, Branch, & Allison, 1962) only 12% of lower class patients remained in treatment beyond 30 sessions as compared to 42% of patients in the highest two social classes.

Both Dodd (1970) and Fiester and Rudestam (1975) reported finding a relationship between social class and length of stay in therapy in one sample but were unable to replicate the finding in a second, independent sample. Several other studies (Albronda, Dean, & Starkweather, 1964; Brown & Kosteilitz, 1964; Fiester, Mahrer, Giambra, & Ormiston, 1974; Pope, Geller, & Wilkonson, 1975) have failed to support the social class - psychotherapy dropout relationship although significantly fewer of these studies can be found in the literature.

Specific individual variables such as education, occupation and income are often used as indirect measures of social class or have been considered to bear some relation to social class and are frequently subsumed under the social class heading. Of these factors education has been most often investigated. Studies exploring the effects of occupation and income have been much less frequent but these variables have, nevertheless, generally been found to differentiate somewhat between terminators and remainers in psychotherapy.

Four studies examining occupation and length of stay in therapy

(Fraps, McReynolds, Beck, & Heisler, 1982; Heisler, Beck, Fraps, & McReynolds, 1982; Katz & Solomon, 1958; Sullivan, MIller, & Smelzer, 1958) were found by this author. All found occupation to significantly differentiate between dropouts and nondropouts. Patients with higher occupational status tended to drop out less often.

Education has been studied more frequently. In three reviews of the literature on dropout (Garfield, 1971, 1978, Lambert & Asay, 1984) it was concluded that education was related to dropout. Most studies have tended to show a positive relationship between educational level and continuation in psychotherapy (Bailey, Warshaw, & Eichler, 1959; Brown & Kosterlitz, 1964; Dodd, 1970; Fiester, Mahrer, Giambra & Ormiston, 1974; Fraps, McReynolds, Beck, & Heisler, 1982; Heisler, Beck, Fraps, & McReynolds, 198[illegible]; Katz & Solomon, 1958; Lief, Lief, Warren, & Heath, 1961; McNair, Lorr, & Callahan, 1963; Rosenthal & Frank, 1958; Rosensweig & Folman, 1974; Rubenstein & Lorr, 1956; Sullivan, Miller, & Smelzer, 1958) while a few have not (Affleck & Garfield, 1961; Garfield & Affleck, 1959; Noonan, 1973; Pope, Geller, & Wilkonson, 1975; Weissman, Geanakapoulos & Prusoff, 1973).

Both Garfield (1978) and Lambert and Asay (1984) suggest that education is a factor in duration of treatment only when it is below a certain level such as grammar school or eighth grade and that above that level it is less influential. These same authors further state that education most likely contributes to length of stay in a complex, interactive manner.

A similar statement seems to apply to all of the social class

related variables. Meltzoff and Kornreich (1970) suggest that social class variables do not seem to be of importance by themselves. Rather these authors argue that the psychological implications of the patient's socioeconomic status are most significant for explaining the relationship. That is, the patient's "learned behaviors, roles, attitudes, expectancies and traits", which are influenced by his/her social class are most important. Similar explanations for the social class influence on dropout are posed in other reviews (Baekeland & Lundwall, 1975; Garfield, 1978, Lambert & Asay, 1984; Pekarik, 1985). These writers suggest that it is the client's expectations of therapy as a result of his/her social class which bears the greatest relationship to premature termination.

A considerable literature has d veloped examining the relationship between treatment expectations on the part of both client and therapist and psychotherapy dropout. In addition several interventions have been developed which are aimed at changing the client's expectations of therapy through a "pretherapy orientation" or "role induction interview" in an attempt to reduce the dropout phenomenon (Hoehne-Saric, Frank, Imber, Nash, Stone, & Battle, 1964; Overall & Aronson, 1963; Truax & Carkhuff, 1967; Heitler, 1973; Strupp & Bluxom, 1973). This literature is too voluminous to include here and is not directly relevant to the present study. However, the idea that social class variables may exert their influence on psychotherapy dropout in an indirect manner through such expectancies is an interesting one worthy of further exploration.

Race

A variable that very likely operates in a similar manner, through it's influence on the client's expectations of psychotherapy is that of client race. This variable is correlated with social class to some degree but has been studied separately. Studies which have investigated the relationship between patient race and premature termination have found a frequent tendency for black patients to terminate treatment early.

Raynes and Warren (1971) found that blacks were significantly more likely not to keep their first appointment at the Outpatient Psychiatric Department of Boston City Hospital. Other researchers have reported similar results once therapy has begun. In one study of 17 community mental health centers Sue, McKinney, Allen, and Hall (1974) found that black patients attended significantly fewer sessions than whites and that blacks tended more often to terminate treatment after the first session. These same findings have been reached in other studies as well (Dodd, 1970; Krebs, 1971; Rosenthal & Frank, 1958; Saltzman, Shader, Scott, & Binstock, 1970; Yamamoto, James, & Palley, 1968).

A few studies have, however, reported contradictory findings. One study by Gibbs (1975) reported that the dropout rate for black students at a university mental health clinic did not differ significantly from that of white students. Similarly Warren, Jackson, Nugaris, and Farley (1973) found that while white patients had a longer length of stay this difference was not significant.

Based on some of the above findings Lambert and Asay (1984) con-

cluded that race is an important factor in whether or not a patient continues in psychotherapy. Garfield (1978), however, feels that the results are not conclusive. He states that "while there appears to be a tendency for a more frequent early termination from psychotherapy by black clients than for whites, this is by no means a consistent pattern" (p.200). He cautions that results of investigations of race as a factor in duration of treatment are often confounded with social class factors. Without partialing out the social class influence any conclusions as to the relationship between race and length of stay must be tentative.

Diagnosis

Psychiatric diagnosis, while not strictly a client demographic variable, is an additional variable which has been explored in relation to psychotherapy dropout. Findings here have typically been negative; that is, no relationship between diagnosis and length of stay in psychiatric treatment has been found consistently.

This is the conclusion reached by Brandt (1965) in his early review of the dropout literature. He located six studies which examined diagnosis as a predictor of dropout. Of these six studies, two found that diagnosis differentiated terminators from remainers while in the remaining four such studies diagnosis did not differentiate. Baekeland and Lundwall (1975) found that four of nine studies found diagnosis to be unrelated to early treatment termination (Gallagher & Kanter, 1961; Garfield & Affleck, 1959; Katz & Solomon, 1958; Rosenthatl & Frank, 1958). Additional studies (Affleck & Garfield, 1961; Bailey, Warshaw & Eichler, 1959; Brown & Kosterlitz, 1964; Fiester, Mahrer, Giambra, & Ormiston,

1974; Lief, Lief, Warren, & Heath, 1961; Pope, Geller, & Wilkinson, 1975) have substantiated this finding. On the basis of these findings, then, most reveiwers (Garfield, 1971, 1978; Meltzoff & Kornreich, 1970) have concluded that psychiatric diagnosis is a poor predictor of continuation in psychotherapy.

Baekeland and Lundwall (1975) did note that five of the nine studies they examined found certain diagnostic features to be related to premature termination. In particular low levels of anxiety and/or depression were reported in all five studies (Frank, Gliedman, Imber, Nash, & Stone, 1957; Hiler, 1958; Lorr, Katz, & Rubenstein, 1958; Straker, Devenloo, & Moll, 1967; Taulbee, 1958) to predict dropout. Four studies (Hiler, 1959; Lloyd, Katon, DuPont, & Rubenstein, 1973; Rubenstein & Lorr, 1956; Straker, Devenloo, & Moll, 1967) reported a relationship between "antisocial acts" or "sociopathic behavior" and dropout. One of these studies (Hiler, 1958) also found patients with paranoid symptoms to drop out of treatment more frequently while another (Straker, Devenloo, & Moll, 1967) found that alcoholism was more frequent among dropouts.

On a more general level, two studies (Craig & Huffine, 1976; Dodd, 1970) found patients with a psychoneurotic or psychotic diagnosis to remain longer in treatment than patients with other diagnoses. To the contrary, however, Lief, Lief, Warren, and Heath (1961) found a tendency for psychotics to drop out of treatment more frequently than neurotics. This finding was not, however, significant.

From this array of findings it seems fairly definite that there is

no clear relationship between psychiatric diagnosis and psychotherapy dropout. One possible reason for this finding may be that the traditional psychiatric categories do not adequately reflect the reasons for which patients seek treatment. In a discussion of psychiatric diagnosis Straus, Gabriel, Kokes, Ritzler, Vanord, and Tarana (1979) criticized the traditional diagnostic classification system citing it's low reliability and inability to accurately describe the majority of patients seeking treatment. Sullivan, Miller, and Smelzer, as early as 1958, expressed similar doubts about the utility and reliability of diagnosis in an outpatient setting.[1] Given this criticism it would seem quite possible that other, more specific classification schemes based on presenting problem, initial complaint or symptoms might be more discriminatory.

Some evidence for the claim that alternative problem classification systems are predictive of psychotherapy dropout does exist in the literature. Meltzoff and Kornreich (1970) report that studies of symptoms or initial complaints have yielded more promising results than the findings with regard to diagnosis. Specifically, citing Hiler (1959) these authors note that early terminators more frequently present with bodily

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The introduction of the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III, American Psychiatric Association, 1979) was in part an attempt to address these criticisms. Preliminary research (Spitzer, Forman, & Nee, 1979) has indicated that DSM-III is more reliable than it's predecessors but the question of whether it also has greater clinical utility, particularly in outpatient settings remains open to question. In one study exploring this issue Craig, Goodman, and Haugland (1982) concluded that while DSM-III did use more specific diagnostic criteria and was a refinement of DSM-I and DSM-II, it did not differ qualitatively from those classification systems. Further research is necessary to clarify how DSM-III differs from it's predecessors, if at all.

complaints or somatic disorders while those who remain in therapy present with complaints more strictly psychological in nature.

In a similar vein Noonan (1973) found a difference between patients who kept their first therapy appointment and those who did not in the way they originally presented their problem. Dropouts in his study tended to be much more vague and evasive in stating their problems while those who kept their appointments voiced more specific complaints. Further, Brown and Kosterlitz (1964) while finding the relationship between diagnosis and length of stay nonsignificant did find "problem area" significantly discriminated terminators from remainers. Patients who stayed in treatment defined their problems as intrapersonal or interpersonal in nature while terminators were those who were unable to state their problem, those who emphasize' somatic complaints, or who attributed their difficulties to external situations.

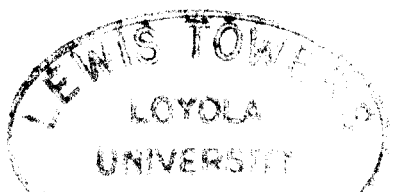
In addition, the results of the Baekeland and Lundwall (1975) review cited above in which five studies found a significant relationship between "diagnosis" and dropout may more appropriately be considered findings regarding the relationship between symptoms or initial complaints and premature termination. In fact, later in the same review Baekeland and Lundwall (1975) discuss many of the same results as well as other findings from the nonpsychiatric literature and determine that 22 out of 35 studies (62.8%) of "symptom level and symptom relief" found these variables related to dropout while 13 of the 35 (37.2%) found such variables irrelevant.

One of the most solid of these findings was the relationship

between low levels of anxiety and/or depression and a tendency to drop out of treatment (Frank, Gliedman, Imber, Nash, & Stone, 1957; Hiler, 1958; Lorr, Katz, & Rubenstein, 1958; Straker, Devenloo & Moll, 1967; Taulbee, 1958). In a more recent study Chesney, Brown, Poe and Gary (1983) found anxiety to be unrelated to early termination but these authors did find that dropouts were more likely to report depressive symptoms.

Related variables which have been studied less often in relation to dropout are those which Lambert and Asay (1984) have subsumed under the heading "severity of maladjustment". This category includes such related but distinct variables as premorbid state, duration of problem, symptom severity, level of disturbance, degree of impairment, level of functioning, adjustment, etc. These reviewers found that most studies of this type of phenomena related to the outcome of psychotherapy and did not explore length of stay specifically. With regard to outcome however, while the results are not consistent, the level and severity of the client's disturbance has been shown to relate to the positive outcome of therapy. Patients or clients with lower levels of disturbance have been found to improve more than those with a greater initial disturbance, and to have a better prognosis for treatment.

In one study which did look at the level of disturbance and premature termination (Rubenstein & Lorr, 1965) terminators were found to be "sicker", feel more dissatisfied, and have poorer interpersonal and overall adjustment than remainers. A later study (Horenstein, 1975) found however, that dropout was unrelated to initial client disturbance.



Epperson (1981) also found severity of client problem no different between returning and nonreturning clients in a university counseling center.

In two recent studies, Pekarik (1983, 1985) suggests that many outpatient visits are "crisis-oriented" and that much of the early dropout from treatment may be accounted for by the fact that clients drop out of treatment when the crisis subsides. An examination of the duration of symptoms for terminators versus remainers might prove this hypothesis but no such studies have been conducted thus far. Given the paucity of research in this area it could prove interesting and worthwhile to pursue the relationship between presenting problem, severity of maladjustment, and duration experiencing symptoms and length of stay in psychotherapy.

Source of Referral

Another not strictly client variable which has been related to dropout has been the source of referral. It has typically been assumed that the patient or client who come to therapy involuntarily or who has been other than self-referred wil be unmotivated to remain in treatment or derive benefit from it. Indeed that would appear to be the case in those studies that have examined this variable. Four early studies (Katz & Solomon, 1958; Pfouts, Wallach, & Jenkins, 1963; Rosenthal & Frank, 1958; Straker, Devenloo, & Moll, 1967) all found that patients who were other than self-referred were more likely to drop out of treatment. These findings may, in part, be due to a self fulfilling prophecy on the part of mental health professionals. Therapists working with

clients who are other than self-referred may harbor expectations for early termination or treatment failure for such clients. These expectations may be subtly conveyed to the client, through any number of mechanisms, such as therapist effort enthusiasm, and may result in the significantly greater dropout of these clients from treatment. This hypothesis has not been explored in the literature.

Raynes and Warren (1971a, 1971b) in two studies of dropout prior to the start of treatment (those clients who made an appointment but failed to follow through) found that source of referral did have an effect on attendance at the Psychiatric Outpatient Department of Boston City Hospital. Those clients who were self referred were more likely to attend than those who had been referred to treatment from other sources. These authors concluded that "self motivation appears to be an important f c-tor in those patients who make use of psychiatric facilities" (1971a, p. 149).

Fiester, Mahrer, Giambra, and Ormiston (1974) found a trend toward patients who were referred to treatment by themselves or other psychiatric sources staying in treatment longer than those who are referred from other sources although this was not significant. A similar result has been reported by Chesney, Brown, Poe, and Gary (1983) who found that patients who continued in a psychiatric outpatient clinic affiliated with a medical school were more often self-referred or referred by family and friends while dropouts tended to be referred by other institutional sources. In a related vein, Baum, Felzer, D'Zmura and Shumaker (1966) report that patients referred to treatment through welfare and

other social agencies dropped out of therapy earlier than those who were referred from other sources and Heisler, Beck, Fraps, and McReynolds (1982) found that dropouts tended to be more frequently referred through the emergency room than through any other source. These findings seem to reflect a fairly consistent relationship between dropout and source of referral.

Previous Psychiatric History

Another patient variable which has been examined in relation to premature termination has been that of previous psychiatric treatment. The number of studies exploring this relationship have been relatively few and none have specified the type (inpatient versus outpatient) of previous treatment in their analysis. Nonetheless those studies which have been done have suggested a positive relationship between continuation in treatment and previous psychotherapy or psychiatric treatment.

Brandt (1965) in his review found that in three of the five relevant studies terminators and remainers were differentiated on the basis of previous therapy. Baekeland and Lundwall (1975) cite two additional studies which reported a positive relationship between previous psychotherapy and length of stay. The more previous experience in therapy the less likely a patient was to drop out.

Fiester, Mahrer, Giambra, and Ormiston (1974) replicated this result. They showed that dropouts, especially those who drop out in the first or second session are less likely to have had previous therapy experience than those who dropout later and/or those who remain in therapy. The study by Chesney, Brown, Poe, and Gary (1983) confirms this

finding. One study (Raynes & Warren, 1971b) did not obtain significant results but overall it seems that previous psychiatric history does have a relationship to duration of stay in treatment. Additional research on the possible differences between type of treatment history (inpatient or outpatient) may be beneficial in extending the research in this area.

Length of Time Between Intake and Start of Treatment

The final variable to be examined here is that of "waiting time". While not strictly a client variable and perhaps more appropriately considered a situational variable this factor has received some attention in the literature with relatively consistent results. As might be expected, those patients with longer waiting times between intake and treatment have tended to drop out more frequently, although there have been some exceptions.

Raynes and Warren (1971a, 1971b) found in both of their studies that the percentage of patients who drop out increases with the length of time spent in the waiting period. In the first study (Raynes & Warren, 1971a) no difference in dropout was observed when the wait ranged from zero to fifteen days but dropout increased sharply after the fifteenth day.

Rodolfa, Rapaport, and Lee (1983) obtained similar results. They found that "administrative variables" were the major factors related to premature termination in a university counseling center. These administrative variables included length of initial interview, days from intake to assignment, and days from intake to first session. In particular these authors found number of days from intake to assignment was signif-

icantly longer for the dropout group. A similar trend was noted for time between intake and first session but this failed to reach significance. Larsen, Nguyen, Green, and Attkisson (1983) also found that "no-show" rates for intake appointment were directly related to the length of the waiting period.

Baekeland and Lundwall (1975), in their review, note three additional studies (Kamin & Caughlin, 1963; Mayer, 1972; Mayer, Nadham, & Myerson, 1965) which found a positive relationship between dropout and length of time spent waiting for assignment. Noonan (1973), however, found that mean number of days between intake and first scheduled appointment did not differ significantly in pretherapy dropouts and those who appeared for the first interview.

Summary

As can be seen from this review, a number of client variables have been examined as correlates or predictors of psychotherapy dropout with somewhat mixed results. Few of the strictly demographic variables such as age, sex, and marital status have yielded any consistent results as to how they might be related to dropout and most reviewers have concluded that no such relationship exists.

Social class and related variables such as education and occupation have been among the few demographic variables to show any positive and consistent findings regarding premature termination. Lower social class clients or those with lower educational levels, tend to more frequently drop out of treatment prematurely. Closely related to this, and to some extent confounded with the analysis of social class variables, client

race has also produced positive results although the conclusions one may draw from this research are less clear. In general, however, black clients have been found to terminate treatment earlier and more often than white clients in the same settings.

At least one part of the explanation for the higher dropout rates among both lower social class and black clients has been that such clients enter treatment with very different expectations of therapy by virtue of their socioeconomic status or race than upper class and white clients. Some literature does exist to support this hypothesis and several "pretherapy orientation" programs have been developed to address this problem.

In addition to the more clearly demographic characteristics, other client variables have also been examined in relationship to continuation in psychotherapy. Of these, psychiatric diagnosis has been studied quite often with limited results. Part of the reason for these negative findings may be that diagnosis does not accurately reflect the reasons for which patients seek treatment. More specific classification schemes using presenting problem or initial complaint may be more discriminatory. Some amount of evidence exists in support of this claim but more needs to be done to explore whether alternative means of classification can better differentiate dropouts and remainers in psychotherapy. In addition there has been a noticeable absence of research on the relationship between severity of maladjustment and/or duration of problem and length of stay. More work in this area is called for.

Several other variables which have received a very limited amount

of attention in the literature are those of source of referral, previous psychiatric history, and time between intake and scheduled start of treatment. Each of these variables has been shown fairly consistently to bear some relationship to premature termination in a limited number of studies. Further contributions to this literature might be useful.

Statement of the Problem

Given the large number of studies reporting nonsignificant or contradictory findings with regard to the relationship between certain client characteristics and psychotherapy dropout many have suggested that investigations in this area be abandoned. Before so hastily making such a retreat, however, it seems wise to recall that a large part of the reason for this inconsistency has been that previous studies of dropout have been frought with methodological problems. Chief among them have been conflicting definitions and criteria for who is considered a dropout, as well as simplistic univariate analyses of the data which fail to take into account possible interactions among variables.

This study attempts to address itself to both of these issues as they relate to psychotherapy dropout in an urban community mental health center. Dropout is defined using a dual criterion of number of sessions and reason for termination or closure of the case. Those clients who terminate treatment before the fifth session and who have initiated such termination without the therapist's consent will be considered psychotherapy dropouts while those staying in treatment beyond the fourth interview will be considered remainers. The dropout group will further

be divided into "pretherapy" dropouts and "in-therapy" dropouts in order to address the issue of whether these two distinct types of dropouts differ in terms of the predictor variables.

A number of select client variables will be examined to determine which predict dropout beyond the base rate. Variables were selected on the basis of the results from the preceding literature review and include: primary psychiatric diagnosis, primary presenting problem, duration experiencing problem, severity of problem, history of previous inpatient and outpatient psychiatric treatment, ratings of client level of functioning, ratings of client's need for service, source of referral, social class, and elapsed time between intake and start of treatment. Particular emphasis will be placed on examining prediction of dropout using diagnosis versus presenting problem variables. All of the aforementioned variables will be examined from both a univariate and multivariate perspective, looking at potential interactions or relationships among variables which may increase the predictive accuracy over and above that of the variables individually.

This study is intended to be primarily exploratory in nature and a full range of hypotheses as to how these variables will predict premature termination, particularly in combination, will not be offered. Given the accumulated literature, however, a few limited predictions can be made for those individual variables which have been examined previously.

1. Social class will discriminate those who remain in treatment from those who drop out prematurely.

2. Psychiatric diagnosis will not accurately predict who drops out of treatment. Presenting problem, however, will be more discriminatory.

3. Clients who remain in treatment are more likely to have had previous outpatient therapy experience and no inpatient psychiatric history.

4. Clients who are self referred to psychotherapy will remain in treatment longer than those who are referred from other sources.

5. Those clients who drop out of treatment early will have a greater mean length of time between intake and start of treatment than those who remain in therapy for a longer period.

Findings of the initial exploratory analyses will be used to generate further hypotheses which will be examined in an independent cross-validation sample.

CHAPTER III

METHOD

Subjects

The subjects in this study consisted of 233 adult (18 years of age or older) clients who sought or were referred for outpatient individual psychotherapy at Ravenswood Community Mental Health Center, Chicago, Illinois between November 1, 1984 and October 31, 1985. This sample was divided into three groups by the number of therapy sessions attended to reflect subject's l ngth of stay in treatment. Number of sessions attended was determined from the client service summary generated for each client at the termination of treatment. This report details the dates a client received clinic services and the type of service the client received on each date. Cancelled appointments or failed sessions are also noted. For purposes of this study, only those treatment dates on which the client received individual psychotherapy were included as valid sessions and any cancelled or failed appointments were excluded from the session count. The resulting count of the number of sessions the client attended then served as the basis for classification into the three groups described below.

Group one, "pretherapy dropouts", composed 32.6% of the sample and

consisted of 76 clients who failed to appear for further treatment beyond the initial intake interview although individual psychotherapy had been offered to them and was scheduled to begin in most cases. The second group, "in-therapy dropouts", constituted 22.3% of the overall sample and consisted of 52 clients who attended at least one but no more than four therapy sessions beyond the intake interview. Termination of treatment in these cases was initiated by the client and was without the consent of the therapist or the clinic. Clients terminated from treatment by the clinic before the fifth session for any reason other than compliance or failure to return for further treatment were not included in the sample. A delineation of the closing dispositions recorded by the clinic for both client-initiated and clinic-initiated terminations is provided in Appendix A. The remaining 105 subjects, 45.1% of the sample, formed group three, the "remainers". These subjects remained in therapy for five or more sessions and are considered the nondropouts for purposes of this study regardless of their final disposition.

Demographic information including age, sex, marital status, ethnicity, education, and occupation for the overall sample as well as for each subgroup is presented in Table 1. One-way analyses of variance for continuous variables (age) and chi square statistics for categorical variables (sex, marital status, ethnicity, education, and occupation) were computed to determine whether the three groups differed significantly on any of these variables. Results of these computations were negative for all variables examined. The groups were not found to be significantly different with regard to any demographic variable.

TABLE 1

Summary of Sample Demographic Characteristics

Variable	Total Sample (N=233)	Pretherapy Dropouts (N=76)	Intherapy Dropouts (N=52)	Non-Dropouts (N=105)
Age				
Mean	31.60	32.00	31.04	31.60
Range	18-78			
Sex				
Males	31.8%	35.5%	40.4%	24.7%
Females	68.2%	64.5%	59.6%	75.3%
Marital Status				
Single	39.7%	39.2%	36.5%	42.2%
Married	31.0%	29.7%	32.7%	30.4%
Divorced	19.7%	20.3%	21.2%	18.6%
Widowed	1.7%	2.7%	1.9%	1.0%
Separated	7.9%	8.1%	7.7%	7.8%
Ethnicity				
White	79.0%	85.5%	76.9%	75.2%
Black	2.6%	2.6%	0.0%	3.8%
Hispanic	10.3%	7.9%	11.5%	11.4%
Other	8.1%	4.0%	11.6%	9.6%
Occupation				
Prof/Tech	16.1%	18.1%	16.0%	14.7%
Mgmt/Sales	10.3%	9.7%	12.0%	9.8%
Skilled	6.3%	5.6%	12.0%	3.9%
Clerical	16.5%	12.5%	6.0%	24.5%
Unskilled	8.9%	11.1%	8.0%	7.8%
Service	8.9%	12.5%	6.0%	7.8%
Student	5.8%	1.4%	4.0%	9.8%
Housewife	11.6%	13.9%	14.0%	8.8%
None	15.6%	15.3%	22.0%	12.7%

Table 1--continued

Variable	Total Sample	Pretherapy Dropouts	Intherapy Dropouts	Non-Dropouts
Education				
Some Gram.	1.7%	2.6%	2.0%	1.0%
Gram. Schl.	2.2%	2.6%	2.0%	1.9%
Some H.S.	19.1%	17.1%	27.5%	16.5%
H.S. Grad.	26.1%	23.7%	25.5%	28.2%
Some Coll.	31.7%	34.2%	33.3%	29.1%
Coll.Grad.	12.2%	13.2%	7.8%	13.6%
Grad. Schl.	5.7%	5.3%	0.0%	8.7%
Unknown	1.2%	1.3%	2.0%	1.0%

Site

Ravenswood Community Mental Health Center is a comprehensive, hospital-based community mental health center serving the north side of Chicago. While considered a privately run clinic, the center receives funding from city, state and federal sources and serves a wide variety of clients.

The clinic supports an outpatient child and adolescent program as well as a number of adult programs including mental health consultation and education services for the surrounding community, inpatient psychiatric treatment (through Ravenswood Hospital Medical Center), hospital aftercare/sustaining care programs, a day hospital program, emergency services and crisis intervention, and the adult outpatient program. Services provided by the adult outpatient program at the mental health center include walk-in screening; intake evaluation and diagnosis; psychological assessment; individual, couples, family, and group psychotherapy; sex therapy; vocational counseling; and medication monitoring/supervision.

Clients may be self-referred, initiating contact with the clinic on their own by telephone or in person, or they may be referred by other sources. Clients are referred to the mental health center from inpatient psychiatry, inpatient and/or outpatient medical and surgical services within the Ravenswood hospital/medical center complex, or from other outside clinics, hospitals, community or social agencies, the

school system, the courts or police.

Once referred to the clinic an intake appointment is arranged for the client for the nearest convenient time. Staff therapists and trainees conduct all intake interviews and clients are randomly assigned to an intake worker based on who is on intake duty at the time of the client's scheduled appointment. Intake interviews take approximately one to one and one-half hours and are preceded by a brief financial interview to determine the client's fee for service. The clinic offers services on a sliding fee scale ranging from $4 to $60, with fee determined by household income and the number of persons in the household. During the intake interview clients are asked to describe their reasons for seeking treatment, problems and their history are outlined, a social history is obtained, and treatment op ions as well as goals for treatment are discussed with the client.

After the intake appointment, if a client is determined to be in need of, or able to benefit from, clinic services the client is assigned a therapist. Therapist assignment is based primarily on the availability of openings in each therapist's caseload although every attempt is made to assign client's to a therapist who will work well with them and meet their unique needs for treatment. The therapist assigned to a case contacts each client assigned to him/her by phone and schedules the first therapy session.

The clinic offers time-limited supportive psychotherapy, with most clients limited to 20 therapy sessions. If after 20 sessions it is determined by the client and the therapist that treatment should con-

tinue, application for extension of treatment may be made. Most clients receive individual psychotherapy although other forms of therapy such as couples, family and group treatment are also available. Only those clients receiving individual therapy were included in the subjects for this study. In addition, clients in any form of therapy may also be prescribed medication by the clinic psychiatrist if such treatment is determined to be necessary or potentially helpful for that client. Approximately 30% of the overall sample used in this study received medication in addition to psychotherapy. Pretherapy dropouts were less likely to have received medication than subjects in the other two groups ($\underline{X}^2(3)=9.614$, $\underline{p}<.05$). This finding is not surprising given than many of these clients would have terminated treatment before medication could be prescribed. Those subjects in this group who did receive medication saw the psychiatrist before therapy itself was scheduled to begin. For these subjects the receipt of such medication may have alleviated their distress to such an extent, or it may have been the only treatment they were actually seeking, so that obtaining such medication in part contributed to their failure to return for therapy by making such treatment seem unnecessary.

Procedure

Upon intake at the mental health center a variety of demographic and other information is routinely collected from each client and composes the client's permanent clinic file. Copies of these record forms are included in Appendix B. The clinic records for the 233 subjects in

the sample were examined and data relevant to the specific variables of interest to this study was extracted from them. All data was archival in nature and obtained from the existent records of closed clinic cases. No direct contact with subjects was made for purposes of this study. Data extracted from clinic records was identified by code numbers assigned by this author and not by name thus ensuring the confidentiality of clients.

Descriptive client demographic information extracted from client files included age, sex, marital status, ethnicity, education, and occupation. The categories used by the clinic to record this information were utilized for this study, with a few exceptions, and are included in the reproduction of clinic records in Appendix B (pages one to three). Due to the low frequency of subjects falling into some categories of ethnic background the original seven categories used for this variable were condensed into the following four categories: white/caucasian, black, hispanic, and other.

Socioeconomic status was determined using Hollingshead's Two-Factor Index of Social Position (Hollingshead, 1957). This index was developed as a means of estimating an individual's social class status using a weighted sum of the person's occupation and educational level. The occupational scale used in the index places occupations into seven categories according to their size and social value. The seven positions on this scale are: 1) higher executives, prorietors of large businesses, and major professionals; 2) business managers, propietors of medium businesses, and minor professionals; 3) administrative personnel,

owners of small, independent businesses and minor (semi-) professionals; 4) clerical and sales workers, technicians, and owners of very small businesses; 5) skilled manual laborers; 6) machine operators and semi-skilled laborers; and 7) Unskilled laborers. This latter category includes homemakers, the unemployed, and those receiving public assistance. See Hollingshead, 1957 for a more detailed description of the occupations included in each category.

Educational level is also divided into seven categories which are as follows: 1) graduate or professional training; 2) college graduate or technical degree; 3) some college; 4) high school graduate; 5) some high school; 6) completed junior high school (grades six, seven, or eight); and 7) less than seven years of formal education. Client occupation and educational level as recorded by the clinic were recoded according to the Hollingshead scale and then used to determine the socioeconomic status for each subject.

To calculate the Index of Social Position score for an individual the scale value for occupation is multiplied by a factor weight of seven and the scale value for educational level is multiplied by a factor weight of four. These two weighted scores are then summed to yield a total social position score. These scores are then arranged along a continuum and divided into five groups, representing a hierarchy of social class, with class I being the uppermost social class and class V being the lowest social class. The division of scores used to form this hierarchy may be found in Hollingshead's manual (Hollinghead, 1957).

Other demographic information extracted from clinic records for

each subject included the source from which the client had been referred to the clinic and whether he or she had any previous history of inpatient or outpatient mental health treatment. The mental health center classifies referral source into 15 categories, as shown in the clinic records presented in Appendix B (page one). For purposes of data analysis, these 15 categories were condensed into four larger categories based on the type of referral source and the frequency of subjects in each category. The four resultant categories used were: 1) self-referred; 2) referred by a friend or family member; 3) referred by another mental health, psychiatric or medical source (either within or outside of Ravenswood Hospital Medical Center); and 4) referred from other sources (i.e. other social or community agencies, the schools, the courts or the police).

Psychiatric history was recorded separately for previous inpatient and outpatient mental health treatment. If a client had any prior history of psychiatric hospitalization he/she was considered to have a history of previous inpatient psychiatric treatment. Similarly, if a client had ever been previously involved with any form of outpatient mental health services he/she was considered to have a history of previous outpatient mental health treatment. Clinic records also include information as to both the number of previous inpatient or outpatient episodes and the recency of the last such episode, however, this information was frequently incomplete and therefore was not utilized in this study.

In addition to the above client demographic data, information

regarding a client's diagnosis according to DSM-III, his/her presenting problem(s), and the severity and duration of each problem listed was also obtained from the records. After completing the intake interview a psychiatric diagnosis is recorded for each client by the intake worker. Diagnosis is made according to the third edition of The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1979) with particular emphasis on Axis I and Axis II of that diagnostic system. While multiple diagnoses may be recorded for each client, a primary diagnosis is indicated and it is this diagnosis which was used in the present study. Based on the sample frequency data for diagnosis, the original diagnostic categories were recoded and condensed into six broader categories to simplify data analysis. These six categories are: 1) affective disorders; 2) anxiety disorders; 3) adjustment disorders; 4) personality disorders; 5) conditions not attributable to a mental disorder that are a focus of attention or treatment; and 6) other diagnoses. This latter category included such diagnoses as various forms of psychosis and schizophrenia, paranoia, and eating disorders among others. There were relatively few subjects with these diagnoses and the overall category of "other diagnoses" remained small.

In addition to diagnosis, information regarding the specific problem(s) for which a client seeks treatment is also recorded at the time of the intake. Up to seven different presenting problems may be specificied for each client. This information is coded according to criteria developed by the mental health center and problems fall into 19 general categories. A detailed outline of these categories and the subcategories

they subsume is reproduced in Appendix C.

The 19 problem categories used by the clinic were further condensed for purposes of this study into eight classes of problems. These eight classes include: 1) problems related to aggression and impulse control; 2) suicidal/self-destructive threats or behaviors; 3) problems with self-management or productivity (includes vocational, academic, financial/legal, and self-care problems); 4) interpersonal problems including intra- and extra-familial interpersonal difficulties; 5) problems with alcohol and/or drug use or abuse; 6) affective problems and problems with self-concept and self-esteem; 7) physical/medical problems or complaints; and 8) other problems, including perceptual/cognitive problems and thought disorder. These latter problems were very infrequent.

The presence or absence of each of these eight types of problems was recorded for each client. A category was listed as present only once for each subject even if more than one of the problems identified for a subject fell into that category. For each client one problem is identified as the primary presenting problem by the intake worker. This problem was noted separately for each subject and served as the primary problem variable in the analyses although the other presenting problem information was also examined.

For each presenting problem listed for a client, ratings of the severity of the problem and the duration the client has been experiencing the problem are made by the intake worker. Ratings of problem severity are made on a five point scale ranging from very mild or seldom a problem to very severe or frequently a problem to the client. Simi-

larly, problem duration is also rated according to a five point scale with a rating of one indicating the client has experienced the problem for less than one week while a rating of five suggests the client has suffered from that problem for two years or more; other ratings indicate points between these two poles. The problem severity and problem duration scales used at the clinic are reproduced in Appendix D.

In order to derive measures of problem severity and problem duration which would be comparable for each subject regardless of the number of problems or problem types listed for that subject, average ratings of problem severity and problem duration were used. Individual problem severity and problem duration ratings for each subject were summed and divided by the number of presenting problems listed for that subject to obtain the average ratings.

Other variables examined in this study included the client's level of functioning and his/her need for service as perceived by the intake worker. The level of functioning scale is specific to the mental health center. Level of functioning is determined on the basis of four criteria including personal self-care, social functioning, vocational/educational functioning, and emotional symptoms/stress tolerance. Considering all four criteria together, the individual's level of functioning is rated on a nine point scale where level I indicates that the client is severely dysfunctional in all four areas, and level IX represents a person functioning very well in all four spheres. The full level of functioning scale, with definitions/criteria for each of the nine points on the scale, is reproduced in Appendix E.

Need for service is also rated by the intake worker at the time of the intake appointment. This rating is made, using a five point scale, according to the immediacy of the client's need for mental health treatment. The five points on this scale are: 1) very mild; 2) mild; 3) moderate; 4) great; and 5) extreme. These categories of need for service were retained for this study.

The final variable of interest for this study is less directly a client variable and more of an administrative variable. It concerns the length of time a client is made to wait between the intake interview and the first scheduled therapy session. This time interval may range from no wait whatsoever (seeing a therapist immediately or the same day) to a period of several months dependent on the individual case. This waiting time is a function of the perceived immediacy of the client's need for service, the availability of a therapist, and the length of the waiting list. The actual number of days a subject spent waiting between the intake interview and the first session was computed by subtracting the date of the intake from the date of the first treatment session. The number of days that each subject spent waiting was then recoded for data analysis into the following five categories: 1) no wait; 2) less than one week; 3) one to three weeks; 4) three to six weeks; and 5) more than six weeks. For some of the pre-therapy dropouts this information was not available as the client withdrew from treatment before the first therapy session was scheduled although in most cases these clients had been told that they would be assigned a therapist for individual psychotherapy. In these cases the length of waiting time was treated as miss-

ing data.

After the data for each of the above variables was collected and recorded for each subject, the overall sample of 233 subjects was randomly divided in half. Division of the sample was accomplished through computer-generated random selection of cases, specifying that 50% of the subjects in the overall sample be assigned to each subsample. Further, each subsample was to contain subjects from each of the three dropout criterion groups (pre-therapy dropouts, in-therapy dropouts, and remainers) in proportion to the percentage of such subjects in the overall sample. That is, each subsample should be composed of approximately 33% pre-therapy dropouts, 22% in-therapy dropouts, and 45% remainers. Results of this division of the overall sample are summarized in Table 2.

An analysis of variance for continuous variables (age) and Chi square analyses for categorical variables (sex, marital status, ethnicity, education, and occupation) were completed to determine whether the two resulting samples were comparable after the division. Results of these analyses are provided in Table 3. The two samples were found to be comparable, with no significant differences observed between the two groups on any of the demographic variables examined. Similarly, the groups appeared to be representative of the overall sample.

Data from each subsample were analyzed in independent discriminant functions analyses. Results of the analyses for the second sample were used as a means of replicating the results obtained in the analysis of the first sample. A considered decision was made to use this approach

TABLE 2

Composition of Samples by Length of Stay

Group	Total Sample (N=233)	Sample One (N=119)	Sample Two (N=114)	Significance
Pretherapy Dropouts				
Frequency	76	44	32	
Percent	32.6%	37.0%	28.1%	
				$X^2(2)=3.798$,
Intherapy Dropouts				
				$p>.10$
Frequency	52	21	31	
Percent	22.3%	17.6%	27.2%	
Remainers				
Frequency	105	54	51	
Percent	45.1%	45.4%	44.7%	

TABLE 3

Summary of Sample Demographic Characteristics

Variable	Sample A	Sample B	Significance
Age			
Mean	31.85	31.35	$F(1,230)=.137$, $p>.10$
Sex			
Male	27.7%	36.0%	$X^2(1)=1.461$,
Female	72.3%	64.0%	$p>.10$
Marital Status			
Not Married	40.9%	38.6%	
Married	32.2%	29.8%	$X^2(4)= .999$,
Divorced	17.4%	21.9%	$p>.10$
Widowed	0.9%	2.6%	
Separated	8.7%	7.0%	
Ethnicity			
White	77.3%	80.7%	
Black	4.2%	0.9%	$X^2(3)=5.378$,
Hispanic	12.6%	7.9%	$p>.10$
Other	5.9%	10.5%	
Occupation			
Prof/Tech	20.4%	11.7%	
Mgmt/Sales	13.3%	7.2%	
Skilled	4.4%	8.1%	
Clerical	19.5%	13.5%	$X^2(8)=15.18$,
Unskilled	10.6%	7.2%	$\|p\|>.05$
Service	4.4%	13.5%	
Student	4.4%	7.2%	
Housewife	9.7%	13.5%	
None	13.3%	18.0%	

Table 3--continued

Variable	Sample A	Sample B	Significance
Education			
Some Gram. Schl.	1.7%	1.8%	
Grammar School	0.0%	4.5%	
Some High School	17.8%	20.5%	
High Schl. Grad.	26.3%	25.9%	$\underline{X}^2(9)=9.194$,
Some College	34.7%	28.6%	$\underline{p}>.10$
College Grad.	11.9%	12.5%	
Grad. School	5.9%	5.4%	
Unknown	1.6%	0.9%	

rather than attempting to classify subjects in the second sample using the function generated from the first sample for cross-validation. This latter type of cross-validation of discriminant functions has generally not proven to be successful. The percentage of correctly classified cases in the second sample, using the weights generated from the first sample, is typically much lower than that obtained with the first sample. Such shrinkage frequently renders the results of such a classification insignificant or meaningless. Use of a replication enables one to determine whether the same variables are identified as significant in each function but places less emphasis on the specific weights used in the function. This method was employed in the present study.

CHAPTER IV

RESULTS

Independent analyses were carried out for each subsample. Results of the analyses of the second sample (Sample B) were used as a means of replicating the results obtained from the first sample (Sample A).

In both samples A and B, results of univariate analyses were non-significant. Continuous interval variables, which included problem severity and problem duration, were analyzed with an analysis of variance and categorical variables, including socioeconomic status, referral source, inpatient and outpatient psychiatric history, diagnosis, primary presenting problem, level of functioning, need rc service, and length of time between intake and treatment, were analyzed by means of a Chi square analysis. Results of these analyses for both samples are presented in Table 4. The actual analysis of variance and chi square computations for each variable are given in Appendix F. All 11 variables of interest in this study, when examined individually, failed to be able to differentiate pretherapy dropouts, in-therapy dropouts, and nondropouts. Further analyses, combining the two types of dropouts into one dropout group and comparing this group with the remainers on the 11 variables, also failed to acheive significance.

In addition to the univariate analyses carried out on the major 11 variables of interest, Chi square analyses were also completed for each

TABLE 4

Univariate Results for 11 Targeted Client Variables

Variable	Sample A	Sample B
Social Class	$X^2(8)= 3.179$	$X^2(15)=22.096$
Referral Source	$X^2(6)= 8.091$	$X^2(9)= 4.218$
Inpatient History	$X^2(2)= 0.007$	$X^2(3)= 0.295$
Outpatient History	$X^2(2)= 1.207$	$X^2(3)= 3.256$
Diagnosis	$X^2(10)= 6.415$	$X^2(15)=10.689$
Presenting Problem	$X^2(12)=19.430$	$X^2(18)=12.317$
Problem Duration	$F(2,116)=0.745$	$F(2,110)=0.613$
Problem Severity	$F(2,116)=1.374$	$F(2,110)=1.365$
Level of Functioning	$X^2(8)= 8.894$	$X^2(12)= 9.922$
Need for Service	$X^2(8)=11.404$	$X^2(6)= 5.378$
Waiting Time	$X^2(8)= 7.078$	$X^2(8)= 9.240$

Note: None of the above calculations were significant, $p > .05$ for all analyses.

of the eight problem categories. These analyses were completed to determine if the three groups of subjects differed in the incidence with which they reported any of these types of problems. No further analyses were undertaken with this data as it was not a primary focus of the study. This information was, however, thought to be of some interest in itself. Results of these analyses for both samples were generally negative, as can be seen in Table 5.

The three groups did not differ significantly in the incidence with which they presented with any of the eight types of problems, with one exception. Examination of the results of these analyses on the first sample suggests that nondropouts were less likely to present with interpersonal problems than subjects in either of the other two groups. This result was not replicated, however, in the second sample.

In addition to the univariate analyses, a major focus of interest in the present study was to explore a multivariate approach to the prediction of psychotherapy dropout. It was expected that while specific client variables may not successfully predict premature termination individually, some combination of these variables might more accurately discriminate who drops out and who remains in treatment. Discriminant functions analyses were conducted on each of the two samples to examine this hypothesis. The initial discriminant functions analyses carried out on Sample A were intended to be exploratory in nature. These analyses provided a means of identifying the function, and more specifically those variables included in such a function, which were best able to predict who dropped out of treatment. Once such variables were

TABLE 5

Univariate Results for Eight Problem Categories

Variable	Sample A	Sample B
Aggression	$X^2(2)= 5.059$	$X^2(2)= 4.559$
Suicidal	$X^2(2)= 0.425$	$X^2(2)= 1.466$
Productivity	$X^2(2)= 1.713$	$X^2(2)= 1.311$
Interpersonal	$X^2(2)= 7.555$*	$X^2(2)= 6.408$
Alcohol/Drugs	$X^2(2)= 3.177$	$X^2(2)= 0.156$
Affective	$X^2(2)= 0.579$	$X^2(2)= 1.540$
Physical/Medical	$X^2(2)= 2.834$	$X^2(2)= 2.554$
Other	$X^2(2)= 0.506$	$X^2(2)= 7.480$

Note: All results except those noted with an asterick are not significant ($p > .05$)
*$p < .05$.

identified, an attempt was made to replicate these findings on a second, independent sample. Sample B served this purpose. Additional discriminant functions analyses were carried out on this sample to determine if the variables identified for inclusion in the resultant function matched those generated as a result of the analyses using Sample A. Results of these two analyses will be presented separately below.

The 11 variables included in each discriminant analysis were: social class, referral source, inpatient psychiatric history, history of outpatient mental health treatment, diagnosis, primary presenting problem, problem duration, problem severity, level of functioning, need for service, and length of time between intake and start of treatment. These variables were grouped into two distinct variable sets. One group consisted of the variables social class, inpatient history, outpatient history, and referral source. These variables were all some type of information about client demographics and will hereafter be referred to as the client demographic variable group. The second group, containing the remaining seven variables, included those variables related to the client's reasons and need for treatment and will hereafter be referred to as the problem-related variables. The variable of length of time between intake and treatment was also included here although more of an administrative than problem related variable in some respects. It appeared to be more relevant to this group than to the group of demographic variables. How long a client is made to wait for treatment is in part a reflection of the perceived immediacy of the client's need for service. Clients seen to be in need of immediate service due to their

degree of disturbance or the severity of their problem, those considered at risk for suicide, or who pose a threat to others without intervention, will be assigned to treatment more quickly. As such the length of time between intake and treatment is a problem-related variable.

A stepwise discriminant functions analysis was carried out for each set of variables on each sample. These analyses identified those variables within each set of variables which were able to discriminate between the three groups of subjects and eliminated those variables with little discriminating power. Subsequently, those variables from each set which had obtained a Wilk's Lambda sufficient for inclusion in the stepwise analyses were combined into one group for a final direct-entry discriminant analysis.

The first stepwise discriminant analyses for Sample A using the four client demographic variables could not be computed. None of the four variables in this group qualified for inclusion in the analysis. The F levels or tolerance levels for the variables were not sufficient to allow for computation of the discriminant function and the analysis was abandoned.

In the second stepwise discriminant functions analysis for Sample A, the variables of problem duration, level of functioning, need for service, and length of time between intake and treatment failed to qualify for the analysis. The variables of primary presenting problem, diagnosis, and problem severity were included in the analysis. Results of this discriminant analysis are presented in Table 6. Remainers were less likely to present with interpersonal problems than subjects in

TABLE 6

Discriminant Analysis of Problem-related Variables for

Sample A: Pretherapy Dropouts, Intherapy Dropouts, and Nondropouts

Summary Table

Step	Action Entered	Action Removed	Vars In	Wilks' Lambda	Significance Level
1	Prim. Prob.		1	.87746	.0034
2	Diagnosis		2	.83957	.0044
3	Prob. Sev.		3	.81538	.0075

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Pretherapy Dropouts	Intherapy Dropouts	Non-Dropouts
Diagnosis	-.5316898	-.8048359	-.8842582
Primary Problem	2.627841	3.018067	3.464438
Problem Severity	20.91616	21.75965	20.75406
(Constant)	-44.71180	-49.32183	-46.98242

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1	Function 2
Diagnosis	-0.49840	-0.56830
Primary Problem	1.03946	0.20100
Problem Severity	-0.19825	0.93699

Table 6--continued

Classification Results

Actual Group	N	Predicted Group Membership: One	Two	Three
1 Pretherapy Dropouts	44	15 34.1%	1 2.3%	28 63.6%
2 In-therapy Dropouts	21	4 19.0%	3 14.3%	14 66.7%
3 Non-Dropouts	54	7 13.0%	1 1.9%	46 85.2%

Percent of "Grouped" Cases Correctly Classified: 53.78%

either of the dropout groups. These subjects were more likely than the dropouts, however, to complain of affective disturbances or problems with self-esteem or self-concept. In-therapy dropouts were less likely than subjects in the other two groups to be diagnosed as suffering from anxiety or adjustment disorders but were more likely to receive "other diagnoses". These same subjects were also somewhat more likely to be suffering from problems rated more severe in their nature.

The linear function resulting from the combination of these three variables was able to correctly classify 53.78% of the subjects in Sample A. Use of the z approximation to a binomial to test the significance of this result indicated that this classification rate was significantly greater than chance expectation ($z=4.744, p<.01$). A greater percentage of nondropouts were classified correctly (85.2%) than either the pretherapy dropouts or the intherapy dropouts (34.1% and 14.3% of cases in each of these groups, respectively, were classified correctly) and over 60% of the subjects in each of these two groups were actually misclassified as nondropouts.

Because none of the client demographic variables had emerged significant in the first stepwise analysis, a combined analysis using the variables generated from the two preliminary analyses was not completed. Such an analysis would have been a replication of the second analysis as only the significant problem-related variables would have been used to compute the discriminant function.

In an attempt to replicate the results obtained from the first sample the same discriminant analyses were completed using Sample B. It

was predicted that the variables identified in the discriminant analyses of Sample A, if truly significant for predicting psychotherapy dropout, should also emerge significant in a second, independent but comparable sample.

Results of the stepwise discriminant analysis using client demographic variables on this second sample revealed that the variable socioeconomic status was able to significantly differentiate between the three criterion groups. More remainers fell into the upper class; more in-therapy dropouts fell into the upper middle class and the lower class, and fewer of these clients fell into the lower middle class, and; more pretherapy dropouts were from the middle class. This variable had failed to qualify for inclusion in the analysis of the first sample and thus the results of that analysis were not replicated. As in the first analysis, however, no other client demographic variable held sufficient discriminating power for inclusion in the analyses.

In the second stepwise discriminant analysis computed on Sample B, using the problem-related variables, four of the seven variables were included in the discriminant function. Two of these, diagnosis and problem severity, had also qualified for inclusion in the same analysis carried out on Sample A, suggesting that these two variables were consistently able to contribute to the discrimination of dropouts and nondropouts. These results were not always in the same direction for the two samples, however. In Sample B, pretherapy dropouts were less often diagnosed with conditions not attributable to a mental disorder or anxiety disorder than subjects in the other two groups while remainers were

less frequently diagnosed with personality disorders. None of these findings had been noted in the first sample. The finding that in-therapy dropouts had fewer adjustment disorders and more "other diagnoses" did hold up. However, contrary to the results of the first sample, in this sample in-therapy dropouts had slightly lower problem severity ratings than the pretherapy dropouts or remainers. They had shown slightly higher problem severity ratings in the first sample.

Primary presenting problem, which had been included in the analysis of the first sample, failed to qualify for inclusion in this analysis. Two other variables however, which had been excluded from the analysis of Sample A, were included in this computation. Those variables were client level of functioning and the length of time between intake and start of therapy. Over one-half of the in-therapy dropouts were functioning below level six on the rating scale and fewer were rated at level seven, while these results were not observed for the other two subject groups. Regarding waiting time between intake and treatment, pretherapy dropouts experienced longer waiting times than in-therapy dropouts or remainers. The variables of problem duration and need for service failed to be included in the function generated from either sample and appear not to have sufficient power to discriminate the three groups.

The four problem-related variables identified as significant in this analysis were combined with the variable of social class, which had emerged significant in the preceding analysis of the same sample, into one variable set for a final discriminant analysis. All five variables

were included in the analysis using a direct-entry method of computation. This last analysis was completed to determine how well the five identified variables, in combination, would be able to predict dropout. Results of this analysis are presented in Table 7.

The resultant function using the five variables of social class, level of functioning, diagnosis, problem severity, and length of time between intake and treatment was able to successfully classify 48.25% of the subjects in Sample B. This result is statistically significant ($z=3.462$, $p<.05$). Using a combination of these five variables one can predict who will drop out of psychotherapy and when to a degree significantly greater than chance. This is a slightly lower percentage of correctly classified cases than was obtained in the analysis of Sample A, although more variables were actually considered in the classification. As in the analysis of the first sample, classification of nondropouts is more accurate using this function than is the classification of either group of dropouts. While 74.5% of the remainers were classified correctly, over one half of the cases in each dropout group were misclassified as nondropouts.

In order to determine whether the predictive accuracy could be improved using a simpler classification into two groups, dropouts and nondropouts, the data were reanalyzed for each sample. The two criterion groups of pretherapy dropouts and in-therapy dropouts were combined into one overall dropout group for comparison with the nondropout group, which remained the same. As in the previous analyses, two preliminary discriminant functions analyses were completed on each sample,

TABLE 7

Discriminant Analysis of All Qualifying Variables for

Sample B: Pretherapy Dropouts, In-therapy Dropouts and Nondropouts

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Pretherapy Dropouts	Intherapy Dropouts	Non-Dropouts
Social Class	3.742867	4.126870	3.884997
Level of Function	14.52051	13.82246	14.48191
Diagnosis	3.297045	3.042830	2.939136
Wiating Time	3.845141	3.165202	3.043456
Problem Severity	35.06594	32.09766	32.70286
(Constant)	-129.1634	-113.5278	-117.1605

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1	Function 2
Social Class	-0.35447	0.25960
Level of Function	0.48117	-0.64930
Diagnosis	0.29441	0.55109
Waiting Time	0.40070	0.48312
Problem Severity	0.86922	0.18807

Classification Results

Actual Group	N	Predicted Group Membership: One	Two	Three
1 Pretherapy Dropouts	32	11 34.4%	3 9.4%	18 56.3%
2 In-therapy Dropouts	31	6 19.4%	6 19.4%	19 61.3%
3 Non-Dropouts	51	12 23.5%	1 2.0%	38 74.5%

Percent of "Grouped" Cases Correctly Classified: 48.25%

one utilizing client demographic variables and the other utilizing the problem-related variables, to determine which variables within each set of variables had discriminative power and to eliminate those variables which were not able to contribute to the discrimination of the two groups. The significant variables emerging from each of these preliminary analyses were then combined into a final direct-entry discriminant analysis to examine how well these variables in combination were able to predict dropout status. As had been done in the previous analyses, Sample B was used to replicate the results obtained from Sample A.

Results of these analyses were comparable to the three-group analyses reported above. For Sample A, none of the client demographic variables qualified for inclusion in the preliminary analysis due to insufficient F values or tolerance levels and that analysis was abandoned.

The analysis using problem-related variables was more successful and five variables qualified for inclusion in the discriminant function. These five variables were primary presenting problem, diagnosis, need for service, level of functioning, and waiting time between intake and start of therapy. Dropouts were more likely to present with interpersonal problems while remainers complained of affective disturbances and physical problems more frequently. Remainers more frequently had a diagnosis of anxiety disorder while dropouts were diagnosed with a condition not attributable to a mental disorder more often. Dropouts also had a slightly higher level of functioning than remainers and the remainers had shorter waits for treatment. The relationship between need for service and the two groups is not clear. Problem duration and

problem severity were eliminated from the analysis. These results are presented in Table 8.

More of the problem related variables qualified for inclusion in this analysis than had been included in the three-group analysis of the same sample. Of the five variables included in the present analysis, only primary presenting problem and diagnosis had emerged significant in the earlier analysis. Problem severity, which had also been included in that analysis, did not appear to be significant when the subjects were grouped into two classes by dropout status. Problem duration was also not significant, a finding observed in the earlier analysis. However, three other variables which had been excluded previously were found to be significant in discriminating dropouts from nondropouts in this analysis. These variables were level of functioning, need for service, and waiting time between intake and treatment. While these variables did not yield significant power in discriminating pretherapy dropouts, in-therapy dropouts, and nondropouts they did become a factor in the identification of dropouts as opposed to those remaining in treatment.

The classification results obtained with this function are somewhat better than that which had been acheived for the three groups. In this case, the overall classification rate of 67.3% reflects accurate classification of 70.4% of the remainers and 64.6% of the dropouts. This result is statistically significant ($\underline{z}=3.942, \underline{p}<.01$). The percentage of remainers accurately classified is actually slightly lower than that obtained previously. However, a greater percentage of the dropouts are classified accurately using this function whereas the previous function

TABLE 8

Discriminant Analysis of Problem-related Variables for

Sample A: Dropouts and Nondropouts

Summary Table

Step	Action Entered	Action Removed	Vars In	Wilks' Lambda	Significance Level
1	Prim. Prob.		1	.88932	.0014
2	Diagnosis		2	.86451	.0018
3	Need		3	.84523	.0023
4	Lvl. Func.		4	.82701	.0026
5	Wait		5	.81343	.0034

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Dropouts	Nondropouts
Waiting Time	7.969834	7.650442
Level of Function	20.72475	20.16930
Need for Service	28.74342	27.58252
Diagnosis	2.467552	2.182881
Primary Problem	1.272100	1.953881
(Constant)	-125.0049	-120.1866

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1
Waiting Time	0.32813
Level of Function	0.46478
Need for Service	0.69410
Diagnosis	0.51369
Primary Problem	-0.95995

Table 8--continued

Classification Results

Actual Group	N	Predicted Group Membership: One	Two
Group 1 Dropouts	65	42 64.6%	23 35.4%
Group 2 Nondropouts	54	16 29.6%	38 70.4%

Percent of "Grouped" Cases Correctly Classified: 67.23%

misclassified over half of the dropouts in both such groups. This decrease in the percentage of dropout cases misclassified using this function makes it favorable to that used to classify subjects into the three criterion groups.

Any further discriminant analyses were not completed for this sample. Since no variables emerged significant in the first preliminary analysis, to combine the results of the first and second analyses would have resulted in a repeat of the analysis of problem-related variables just reported.

An attempt was made to replicate these results using independent analyses of Sample B. As in the previous analyses of Sample B using three criterion groups, socioeconomic status was the only client demographic variable to be included in the first preliminary analysis. Remainers were more likely to be in the upper class while dropouts were more often in the upper middle class or the lower class. It had failed to qualify for inclusion in the analysis of sample A.

In the second analysis, three of the problem-related variables qualified for inclusion in the discriminant function. These variables included level of functioning, diagnosis, and the length of time between intake and treatment. Dropouts had slightly lower levels of functioning and were more likely to have a diagnosis of personality disorder or an "other diagnosis" while more remainers were diagnosed with anxiety disorders. Remainers also had shorter waits for therapy. All three of these variables had also emerged significant in the analysis of Sample A. The findings for diagnosis and waiting time were similar in the two

samples, but the results regarding level of functioning differed. Dropouts had a lower level of functioning than remainers in Sample B while the opposite result had been observed in Sample A. The remaining four problem-related variables of problem duration, problem severity, primary presenting problem, and need for service were excluded from the present analysis. The latter two of these variables had been included in the same analysis of Sample A. Problem duration and problem severity were not included in either analysis.

The discriminant analysis on Sample B for problem-related variables did not exactly replicate the results of the same analysis on Sample A. It did exclude the same two variables excluded from that first analysis-but also eliminated two additional variables (primary presenting problem and need for service) which had qualified for inclusion in the first sample. The three variables which did emerge significant in this analysis had also been included in Sample A and no new variables were identified which had not been included in that analysis. Thus in a limited way the replication was partially successful.

Using the resulting significant problem-related variables and adding the variable of social class, which had emerged significant in the discriminant analysis of client demographic variables, a third discriminant analysis was performed on sample B to determine how well these variables were able to predict membership in the dropout and nondropout groups. The discriminant analysis used for this classification was a direct-entry analysis including all those variables which had qualified for inclusion in any of the two previous stepwise discriminant analyses.

Four such variables were identified: socioeconomic status, diagnosis, level of functioning, and length of time between intake and treatment. The results of this analysis are presented in Table 9.

The discriminant function computed using these four variables resulted in an overall correct classification rate of 50.88%. This proportion of correctly classified cases is not statistically significant (z=0.187, p>.10). The function is not able to discriminate dropouts from remainers in psychotherapy to any degree greater than chance. In fact, while the percent of dropouts classified accurately by the function is a reasonable 63.5%, almost two-thirds of the nondropouts (64.7%) are misclassified as dropouts.

One additional premise on which the design of this study was based was that not all dropouts are alike. Specifically, it was thought that pretherapy dropouts differed significantly, not only from nondropouts, but also from those who terminate treatment after beginning therapy, here referred to as the in-therapy dropouts.

A final set of analyses were undertaken to more directly test whether the pretherapy dropouts could be discriminated from those subjects who did appear for at least one (or more) therapy sessions. While it did not seem that the pretherapy dropouts could be successfully identified using the three group classification scheme, it was thought that a more global approach using two criterion groups might enable more accurate identification of these subjects. Given that a considerable percentage of clients seen for intake at community mental health centers do not return for therapy, the early identification of these client's

TABLE 9

Discriminant Analysis of All Qualifying Variables for

Sample B: Dropouts and Nondropouts

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Dropouts	Nondropouts
Social Class	4.439717	4.288564
Level of Function	9.148416	9.661482
Diagnosis	1.731000	1.568391
Waiting Time	2.026159	1.739822
(Constant)	-40.16287	-41,53794

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1
Social Class	0.30660
Level of Function	-0.73406
Diagnosis	0.49761
Waiting Time	0.43093

Classification Results

		Predicted Group Membership	
Actual Group	N	One	Two
Group 1		40	23
Dropouts	63	63.5%	36.5%
Group 2		33	18
Nondropouts	51	64.7%	35.3%

Percent of "Grouped" Cases Correctly Classified: 50.88%

would not be a minor accomplishment.

For these analyses, subjects in the in-therapy dropout and remainer groups were combined into an overall "attender" group. These subjects had all attended at least one therapy session beyond the intake appointment whereas the pretherapy dropouts had failed to return for any further appointments after the intake interview. As in the previous explorations included in this study, the results obtained in Sample A were then replicated using Sample B. Three discriminant analyses were carried out using each sample, one for each of the two variable sets to identify significant discriminating variables and eliminate those without discriminating power, and a third direct-entry discriminant analysis combining those variables emerging significant in the two preliminary stepwise discriminant analyses.

The first preliminary analysis for Sample A indicated that none of the client demographic variables was able to significantly differentiate those who attend and those who fail to attend the first therapy session. All of the four demographic variables examined failed to qualify for the analysis due to insufficient F values or tolerance levels. As a result the computation of the discriminant function using those variables was not completed.

Two of the seven problem-related variables did qualify for inclusion in that discriminant analysis. These two variables were primary presenting problem and diagnosis. With regard to diagnosis, pretherapy dropouts were more likely to have a diagnosis of adjustment disorder than attenders, while attenders had a higher frequency of "other diagno-

ses" than the pretherapy dropouts. The occurence of all other diagnostic categories appeared relatively comparable for the two groups. In terms of presenting problem, the pretherapy dropouts reported experiencing interpersonal problems almost twice as often as attenders, while the attenders more frequently complained of affective disturbances. Again, the incidence of other types of problems did not appear to differ significantly for the two groups. Problem duration, problem severity, length of time between intake and treatment, level of functioning and need for service were excluded from this analysis. Results of this analysis are provided in Table 10. A combined analysis of demographic and problem-related variables was not carried out. Since none of the demographic variables qualified for analysis such an approach would have been a repetition of the analysis of the problem-related variable set.

The resultant discriminant function utilizing these two variables was able to accurately classify 63.87% of the subjects overall. This classification rate is significantly greater than chance ($z=3.184, p<.01$). The function classified 86.7% of the attenders correctly but tended to misclassify three out of every four of the pretherapy dropouts. Such a high misclassification rate makes the practical utility of this function open to question.

These same analyses were carried out on Sample B in an effort to replicate the above findings. In these analyses, as in the analyses of Sample A, none of the client demographic variables qualified for the analysis due to insufficient F values or tolerance levels. The analysis of client demographic variables was therefore abandoned.

TABLE 10

Discriminant Analysis of Problem-related Variables for

Sample A: Pretherapy Dropouts and Attenders

Summary Table

Step	Action Entered	Action Removed	Vars In	Wilks' Lambda	Significance Level
1	Prim. Prob.		1	.92184	.0076
2	Diagnosis		2	.88741	.0055

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Pretherapy Dropouts	Attenders
Diagnosis	.3706572	.5284671D-01
Primary Problem	2.164920	2.839256
(Constant)	-6.415446	-8.101073

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1
Diagnosis	-0.62078
Primary Problem	1.04915

Classification Results

		Predicted Group Membership	
Actual Group	N	One	Two
Group 1 Pretherapy Dropouts	44	11 25.0%	33 75.0%
Group 2 Attenders	75	10 13.3%	63 86.7%

Percent of "Grouped" Cases Correctly Classified: 63.87%

Three of the problem-related variables did qualify for the second analysis. These variables were problem severity, length of time between intake and treatment, and psychiatric diagnosis. Pretherapy dropouts had slightly higher average problem severity ratings, spent a somewhat longer time waiting before therapy was scheduled to begin, and were more likely to be given a diagnosis of an adjustment disorder while attenders more frequently were diagnosed with anxiety disorders. The remaining four problem-related variables of primary presenting problem, problem duration, level of functioning, and need for service failed to be included in the analysis. Results of this analysis are provided in Table 11. Since none of the client demographic variables qualified for the first preliminary analysis a combined analysis was not undertaken.

The discriminant function using these three problem-related variables correctly classified 69.30% of the subjects in Sample B. This result is statistically significant ($z=4.121$, $p<.01$). As in the first sample, however, while a good percentage of attenders were correctly classified (87.8%), a full 78.1% of the pretherapy dropouts were misclassified as attenders. As such the function appears to have limited utility in identifying who will terminate treatment after the intake appointment.

The results of Sample A were not replicated with Sample B. While the analyses of both samples suggested that none of the client demographic variables were significant for predicting who would drop out before the first therapy session, they were less similar with regard to the problem-related variables identified as significant in each sample.

TABLE 11

Discriminant Analysis of Problem-related Variables for

Sample B: Pretherapy Dropouts and Attenders

Summary Table

Step	Action Entered	Action Removed	Vars In	Wilks' Lambda	Significance Level
1	Severity		1	.94445	.0280
2	Wait		2	.91118	.0201
3	Diagnosis		3	.88952	.0206

Classification Function Coefficients
(Fischer's Linear Discriminant Functions)

Variable	Pretherapy Dropouts	Attenders
Waiting Time	5.930301	5.081545
Diagnosis	2.389807	2.089227
Problem Severity	27.10968	24.73137
(Constant)	-66.18561	-53.50397

Standardized Canonical Discriminant Functions Coefficients

Variable	Function 1
Waiting Time	o.64747
Diagnosis	0.47584
Problem Severity	0.83836

Table 11-continued

Classification Results

Actual Group	N	Predicted Group Membership: One	Two
Group 1 Pretherapy Dropouts	32	7 21.9%	25 78.1%
Group 2 Attenders	82	10 12.2%	63 87.8%

Percent of "Grouped" Cases Correctly Classified: 69.30%

Problem duration, level of functioning and need for service failed to qualify for either analysis suggesting that these variables make little or no contribution to predicting who drops out of treatment before the start of actual therapy sessions. Presenting problem, problem severity, and length of time between intake and treatment, were each identified as adding to the discrimination between groups in one of the samples but not the other. Only diagnosis emerged significant in both samples. Thus the findings obtained from the two samples were not consistent and no firm conclusions can be drawn as to which variables (if any) are able to discriminate the pretherapy dropout from those who attend at least one therapy session.

CHAPTER V

DISCUSSION

The results of this study indicate that the use of select client demographic and problem-related variables is of limited success in predicting who will drop out of psychotherapy and at what point. Eleven select client variables including social class, referral source, inpatient psychiatric history, history of previous mental health treatment, psychiatric diagnosis, primary presenting problem, duration experiencing the problem, severity of the problem, client level of functioning, client need for service, and the length of time between the intake appointment and the first scheduled therapy session were examined for their value in discriminating clients who drop out of treatment after the intake interview, those who terminate treatment after one to four psychotherapy sessions, and those who remain in treatment beyond four sessions.

None of these variables, examined individually, emerged significant. Hypotheses one through five, stated at the start of this study, outlined the results expected for some of these variables based on the results of previous studies reported in the literature. None of these hypotheses, however, were borne out. Social class, psychiatric diagnosis, primary presenting problem, inpatient or outpatient psychiatric history, referral source, and elapsed time between intake and treatment

all failed to significantly differentiate dropouts from remainers in psychotherapy in this study. No specific hypotheses had been proposed for the variables of problem duration, problem severity, client level of functioning, and client need for service but findings for these variables were also nonsignificant. These results are not surprising in some respects as the findings with regard to most individual client variables have been negative or inconsistent in the prediction of early treatment termination.

It had been hoped that a finer look at psychiatric history information, dividing this category into the two classes of inpatient psychiatric history and history of outpatient mental health services, might be more succesful in discriminating dropouts from nondropouts. The results of this study do not support this hypothesis. Neither of the two types of psychiatric history information contributed to the discrimination of dropouts and remainers in psychotherapy. Using the two categories of psychiatric history did not appear any more predictive of dropout than the use of the more global psychiatric history classification.

The lack of a relationship between socioeconomic status and dropout is somewhat unexpected. This relationship had been established quite consistently in previous studies. It may be that the sample used here was too homogeneous in terms of social class for a positive result to be observed. Ravenswood is a community mental health center serving a predominately lower and middle class population and thus the amount of heterogeneity in social class status is very likely to be limited.

The findings with regard to diagnosis are less unexpected since it

had been hypothesized that this variable failed to accurately describe the reasons for which people seek treatment and that it would not be useful in predicting dropout from psychotherapy for this reason. It had been expected, however, that the alternative use of presenting problem data would be more discriminatory and allow for more successful prediction of who drops out and who remains in treatment. This hypothesis was not supported. Use of the primary presenting problem information alone was no better able to predict psychotherapy dropout than psychiatric diagnosis.

The reasons for this lack of positive results are unclear and may in part lie with the method of analysis chosen here. That is, only the primary presenting problem information was included in the discriminant analyses and additional problems listed for ea.h client were ignored. This approach had been selected in order to make the data analysis more manageable and interpretable but it also necessitated eliminating a lot of potentially significant data from consideration. It may be that a more detailed exploration of the problem information would be beneficial and would reveal differences between the dropout groups on the basis of this data that were not uncovered here. For example, subjects in the three dropout groups may be found to differ in the number of problems they present, or in the pattern or combination of problems that they present with, although not differing in terms of that problem identified as primary. Further research in this area may be fruitful.

While the lack of findings for individual variables was not particularly surprising it had been expected that such variables used in com-

bination might exhibit greater discriminatory power. This hypothesis was tested through a number of discriminant analyses.

Results of these analyses suggested that the majority of client demographic variables were not significant in predicting dropout alone or in combination with other such variables. None of the client demographic variables examined here (socioeconomic status, referral source, inaptient psychiatric history, and history of outpatient mental health treatment) qualified for inclusion in the discriminant analyses completed for the first sample. This lack of discriminating power was evident whether the subjects were divided into two or three criterion groups.

Upon replication, socioeconomic status did emerge as a significant discriminating variable, although it had not been so iden ified in the first sample. The fact that it was significant in the second sample suggests that this result may be a sample specific finding. Further, use of this variable for the prediction of dropout resulted in a fairly low rate of correct classification (31.86%) that was no greater than chance. Using two criterion groups, dropouts and nondropouts, instead of three improved this classification rate slightly but the result still barely exceeded chance levels. In addition, examining the classification percentages within each of the groups shows that while the function can identify dropouts with moderate success, it misclassifies a large proportion of the dropouts as remainers. Since a large part of the rationale for generating such functions lies in their potential ability to successfully identify the early treatment terminator and possibly

intervene to retain him or her in treatment, the fact that this function is not able to accurately identify such individuals makes it's practical utility a question. The inconsistency with which socioeconomic status was identified as significant in the two samples, and the low percentage of correct classification obtained when this variable is used to classify dropouts, makes the significance of this variable in the prediction of dropout open to question.

Use of the problem-related variables such as diagnosis, primary presenting problem, problem severity, problem duration, level of functioning, need for service and length of time between intake and the start of therapy also yielded essentially negative results when these variables were considered in combination. The discriminant analyses of the first sample suggested that three of these seven variables could be combined to classify therapy dropouts and nondropouts. This function accurately classified just over half of the subjects into the three criterion groups, a result that was statistically significant. From a practical perspective, however, this classification rate is not remarkable, particularly considering that the majority of dropouts were actually misclassified as remainers and only the nondropouts were identified with any true measure of success.

Comparable results were obtained on replication. The discriminant function generated using problem-related variables was able to correctly classify just over 48% of the subjects correctly. Again this figure reached statistical significance but the practical significance of this result is questionable. As in the first analysis, the function was able

to classify remainers fairly accurately but suffered in the classification of the two dropout groups, misclassifying a significant proportion of the pretherapy and in-therapy dropouts as nondropouts. Use of two criterion groups instead of three raised the classification rates slightly but not to any great extent. Such results suggest that the use of problem- related variables to predict psychotherapy dropout, either for two or three criterion groups, is not particularly successful.

The utility of these results is further called into question when one notes that different combinations of variables entered into the discriminant functions in each sample. Only diagnosis and problem severity appeared in the results for both samples, and the ways in which these variables entered into the analysis were not always the same from one sample to the next.

The relative consistency with which psychiatric diagnosis appeared as a significant variable in the determination of dropout was surprising and actually ran counter to previous expectations. This variable had not been especially successful in previous studies in discriminating dropouts and nondropouts in psychotherapy. Part of the reason for it's consistent appearance in the discriminant functions generated here may be because the DSM-III classification system was used here whereas many of the previous studies in the literature used older diagnostic systems. It is possible that the reliability and utility of diagnosis have been significantly improved through the introduction of DSM-III and enable more accurate prediction of dropout using this variable. Further stud-

ies of the role of this variable in predicting early treatment termination with other samples and in other settings might prove worthwhile.

Other variables including primary presenting problem, level of functioning, need for service, and waiting time between intake and treatment, were less consistent in their inclusion in the discriminant analyses, appearing in results for one sample or the other but not both. Such findings suggest that these results may be somewhat spurious or specific to the sample under study and that these variables are not consistently able to contribute to the prediction of dropout. Problem duration did not appear in the results of any of the analyses and thus does not appear to be at all significant in predicting who drops out of mental health treatment.

One possible explanation for the lack of consistent findings across the two samples may be that the samples were not truly comparable. While analyses comparing the two samples did not yield significant differences between them on those variables considered here, there were certain trends noted in the data suggesting that the two groups were not equivalent. For example, while no statistically significant difference was observed between the two groups for occupation, examining the percentage of persons in each occupational category suggests that Sample A may have contained more professionals and persons in management than Sample B. Similarly the two samples may also have differed in regard to other variables not examined here, which might have a bearing on who drops out of treatment and which client characteristics are identified

as predictive of treatment termination.

In addition to the hypotheses regarding which variables would discriminate the dropout from the remainer in therapy, two additional hypotheses were proposed here. It was expected that psychotherapy dropouts could be classified into two distinct groups, those terminating treatment after intake (the pretherapy dropouts) and those who drop out after therapy has begun (in-therapy dropouts), and further, that these two types of dropouts could be discriminated on the basis of the target variables examined here. These hypotheses were also not supported by the data. The most accurate classification of subjects was obtained when the two dropout groups were combined into one overall dropout group and compared with the remainers. Further, analyses looking at pretherapy dropouts as opposed to all other clients who did attend therapy were also unsuccessful in accurately identifying the pretherapy dropout. In these analyses almost three-quarters of the pretherapy dropouts were misclassified as attenders and only the attenders could be correctly identified with any success. It would seem that on the basis of the client variables selected for study here pretherapy dropouts do not differ substantially from either those dropping out of treatment after therapy has begun or those who remain in treatment.

In general, it would appear that the variables examined here are of limited value in the prediction of psychotherapy dropout. These variables, alone or in combination, seem to account for only a small portion of the variance at play in discriminating between those who drop out and those who remain in therapy. The lack of significant findings with

regard to client demographic variables in the prediction of psychotherapy dropout may prove to be the most beneficial contribution of this study to the literature. Despite methodological changes aimed at addressing problems in previous studies, the results of this study still emerged negative. This finding as well as the abundance of similar findings, or lack thereof, in the dropout literature suggests that further explorations of this area may not be worthwhile and that perhaps research in this area should be abandoned. Client demographic data alone does not appear to be useful in predicting early termination from psychotherapy.

Parloff, Waskow, and Wolfe (1978) have suggested that demographics are too simplistic to characterize what are considered therapeutically relevant client or therapist characteristics in psychotherapy. They argue that those factors which effect results in psychotherapy are not to be found in such global constructs and that a more refined approach is required for studying those variables important to the psychotherapy process. Results of this study lend support to this argument.

Two recent trends in studies of those variables predicting psychotherapy dropout have been observed. Some researchers have begun looking more closely at client expectations of psychotherapy as potentially important to predicting premature termination. As Garfield (1978) points out, "What appears to be of possibly greater importance than length (of treatment) per se is how therapy is structured for the client and how therapy meets his or her expectations" (p.210). This author goes on to explain that if the client's expectations about therapy are

incongruent with what actually occurs, it is conceivable that the client may be dissatisfied with treatment and be more inclined to withdraw. This reasoning supplies the rationale for the study of client expectations of psychotherapy and their role in psychotherapy dropout and outcome. This approach has shown some promise (Hoehne-Saric et al., 1964; Overall & Aronson, 1963; Strupp & Hadley, 1977; Timothy, 1981) and may yield more positive results than those obtained through the study of client demographics.

A second trend in the study of early treatment termination has been to take a look at a combination of client, therapist and process variables (including therapist-client matching) for their potential contribution to identification of the dropout from therapy. Since psychotherapy is a complex process involving two (or more) unique individuals who contribute equally to the dynamic process of therapy it stands to reason that both parties as well as the process itself might play important roles in determining the course of treatment. This approach has been tested to only a limited extent and more research is called for in this area. It seems likely however that this approach to the study of psychotherapy dropout may prove to be quite valuable.

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APPENDIX A

CLOSING DISPOSITIONS

Disposition 1 -- Client withdrew

Reason for Withdrawal:

1 Discharge demanded against advice
2 Financial reason
3 Moved, illness, deceased
4 Death by suicide
5 Other
6 Clinic not notified--failed to return
7 Found employment
8 Joined a training program
9 Left to attend school

Disposition 2 -- Transferred to another program

Disposition 3 -- Clinic terminated

Reason for discharge:

1 No further treatment need at this time
2 Therapist terminates for motivational/compliance issues
3 Needs more intensive services
4 Needs treatment not available here
5 Funding expired
6 Court order expired
7 Administrative discharge
8 Other
9 Received maximum benefit

APPENDIX B

CLINIC RECORD FORMS

R.H.M.C. — C.M.H.C.
PRELIMINARY SCREENING FORM

STATUS NEW___REOPEN___OPEN___

DATE ___/___/___

TIME OF DAY _____ AM _____ PM

CENSUS TRACT: ___ ___ ___

CLIENT NAME LAST FIRST INITIAL

CLIENT ADDRESS

CITY STATE ZIP

CATCHMENT AREA

___ LIVES IN CATCHMENT AREA
___ WORKS IN CATCHMENT AREA
___ SCHOOL IS IN CATCHMENT AREA
___ NON-CATCHMENT AREA

SEX AGE BIRTHDATE MARITAL STATUS

___/___/___ NA M D W SEP

HOME PHONE _____
WORK PHONE _____

TYPE OF CONTACT: IN PERSON _____
TELEPHONE _____

COVERAGE WORKER'S NAME

_____

TREATMENT CATEGORY

_____ ALCOHOL ABUSE
_____ DRUG ABUSE
_____ MENTAL ILLNESS-EMOTIONAL DISTURBANCE
_____ MR
_____ OTHER _____

DISPOSITION OF CONTACT: (✓)

___ INTAKE APPT (GO TO PG 2)
___ NO CARE NEEDED-NO REFERRAL
___ REFERRAL OUT (GO TO 1 BELOW)
___ CLIENT WITHDREW
___ APPROP REFERRAL NOT AVAILABLE
___ REFERRED BACK TO THERAPIST
___ INFORMATION ONLY
___ CLIENT WILL CALL

1 **EXTERNAL:** **WHO/WHERE?**

___ OTHER MHC _____
___ OTHER PSYCH HOSP _____
___ OTHER GENERAL HOSP _____
___ PRIVATE M H PROFESS _____

___ CLERGY _____
___ SOCIAL SERVICE AGENCY _____
___ NON-PSYCH PHYSICIAN _____
___ VOCATIONAL REHAB _____
___ CRIMINAL JUSTICE _____
___ DEPT HUMAN RESOURCES _____
___ NURSING HOME _____
___ O/P DRUG PROGRAM _____
___ O/P ALCOHOL _____
___ RESIDENTIAL DRUG _____
___ RESIDENTIAL ALCOHOL _____
___ REFERRAL REFUSED _____
___ APPROPRIATE REF UNAVAILABLE _____
___ OTHER _____

REFERRAL SOURCE (✓)

___ SELF
___ FAMILY FRIEND

EXTERNAL

___ CLERGY
___ CORRECTIONS
___ OTHER CMHC
___ PUBLIC PSYCHIA HOSP
___ OTHER PSYCHIA FACULTY
___ MEDICAL FACILITY
___ PRIV PRAC M H PROFESS
___ NON-PSYCHIA PHYSICIAN
___ MASS MEDIA
___ POLICE
___ SCHOOL SYSTEM
___ SOCIAL COMMUN AGENCY
___ OTHER _____

NAME OF AGENCY _____
WHO CALLED _____
RELATION TO CASE _____

WHY DID THEY CALL?

RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER

CLIENT NAME _____ 2

PREVIOUS MENTAL HEALTH TREATMENT

INPATIENT ____ NONE

OF I/P EPISODES IN LAST 5 YRS. _____

HOW RECENTLY WAS LAST? (✓)

	SAME DAY	(30 D.	(6 M.	(1 YR.	)1 YR.
	____	____	____	____	____

TYPE: (✓)
____ HERE ____ PUBLIC PSYC.
____ PRIV. PSYCH. ____ V.A.
____ OTHER _____

NAME OF LAST I/P FACILITY:

OUTPATIENT ____ NONE

____ HERE
____ OTHER MHC
____ PSY. CLINIC
____ SUBSTANCE ABUSE PROG.
____ 1/2 WAY HOUSE
____ DAY CENTER
____ VOC. REHAB.
____ PRIV. M.H. PROFESSIONAL
____ SCHOOL
____ OTHER

HOW RECENT WAS LAST O/P SERVICE?

	SAME DAY	(30 D.	(6 M.	(1 YR.	)1 YR.
	____	____	____	____	____

OF O/P EPISODES IN LAST 5 YRS. _____

WHO/WHERE LAST RENDERED O/P SERVICE?

RECENT STRESSES

____ DEATH/RELATIVE/FRIEND/SPOUSE
____ HEALTH PROBLEMS/SELF/FAMILY/FRIEND
____ LOSS OF LOVED ONE/NOT DEATH
____ ADDITION TO HOUSEHOLD
____ CHANGE IN RESIDENCE
____ PREGNANCY/NEW BIRTH
____ LEGAL TROUBLES
____ FAMILY ARGUMENTS
____ CHILD LEAVES HOME
____ OTHER _____
____ LOSS OF JOB
____ CHANGING JOB
____ RETIREMENT
____ RUNAWAY
____ FINANCIAL
____ NONE

IMPACT SCALE
0-ACCLIMATED
1-PROBLEMATIC
2-INCAPACITATING
4-CAN'T DISCERN

PRESENTING PROBLEM AREAS

SEVERITY SCALE:
1. VERY MILD (VERY SELDOM)
2. MILD (SELDOM)
3. MODERATE (OCCASIONALLY)
4. SEVERE (FREQUENT)
5. VERY SEVERE (VERY FREQUENT)

PROBLEM	CODE	SEVERITY RATING	DURATION EXPERIENCING (✓) -WK.	-MO.	-YR.	-2 YR.	+2 YRS.

NEED FOR SERVICE: (✓)
____ EXTREME
____ GREAT
____ MODERATE
____ MILD
____ VERY MILD

SUICIDE (✓) POTENTIAL
____ EXTREME
____ MODERATE
____ MINIMAL
____ NONE

POTENTIAL DANGER TO OTHERS
____ EXTREME
____ MODERATE
____ MINIMAL
____ NONE

INTAKE ASSIGNED TO: _____
DATE OF INTAKE APPT ____/____/____
TIME OF APPT ____:____ ____ A.M.____ P.M.____

DATE OF MEDICAL APPT ____/____/____
TIME OF APPT ____:____ ____ A.M.____ P.M.____

NARRATIVE

RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER
NON-CLINICAL INTAKE

CLIENT ID NUMBER _____

REQUISITION DATE ____/____/____

CLIENT NAME/LAST _____ FIRST _____ INITIAL _____

NEW PATIENT Y ☐ N ☐ (REOPEN)

CLIENT SOCIAL SECURITY NUMBER ___ – ___ – _____

REFERRING PHYSICIAN'S NAME _____

BILLING ACCOUNT # _____

CLIENT INFORMATION

ETHNICITY (✓)
- ___ AMER. INDIAN
- ___ BLACK
- ___ CAUCASIAN
- ___ GREEK
- ___ HISPANIC
- ___ ORIENTAL
- ___ OTHER _____

CITIZENSHIP (✓)
- ___ AMER. BORN
- ___ NATURALIZED
- ___ ALIEN
- ___ OTHER _____

RELIGIOUS PREFERENCE (✓)
- ___ PROTESTANT
- ___ ROMAN CATHOLIC
- ___ JEWISH
- ___ OTHER _____
- ___ NONE

EDUCATION (✓) CHECK HIGHEST LEVEL
- ___ ILLITERATE
- ___ GRAMMAR SCHOOL
- ___ COMPL. G.S.
- ___ HIGH SCHOOL
- ___ COMPL. H.S.
- ___ COLLEGE/TECH.
- ___ DEGREE
- ___ GRAD. SCHOOL
- ___ SPECIAL ED. PROGRAM
- ___ UNKNOWN

LENGTH OF RESIDENCE
HOW LONG AT CURRENT ADDRESS? ___ (1 YR. ___ 1-2 YRS. ___ 2-3 YRS. ___ 3+ YRS.

HOW MANY TIMES HAVE THEY MOVED IN LAST 2 YEARS? _____

CLIENT LIVES: (✓)
- ___ ALONE
- ___ W/SPOUSE OR FAMILY
- ___ W/NON-RELATIVES
- ___ INSTITUTION
- ___ OTHER _____

NO. IN HOUSEHOLD: (✓)
- ___ 1 ___ 4
- ___ 2 ___ 5
- ___ 3 ___ 6+

RESIDENCE TYPE: (✓)
- ___ OWN HOME/APT. ___ ROOMING HOUSE
- ___ RENT HOME/APT. ___ FOSTER HOME
- ___ SHELTER CARE ___ TRANSIENT
- ___ OTHER _____

EMPLOYMENT (✓)
- ___ FULL-TIME PERM.
- ___ PART-TIME PERM.
- ___ TEMPORARY
- ___ ARMED FORCES

UNEMPLOYED
- ___ SEEKING ___ NOT SEEKING
- ___ RETIRED ___ LAY OFF
- ___ INSTITUTIONALIZED

OCCUPATION (✓)
- ___ PROFESSIONAL/TECH.
- ___ MGMT./SALES
- ___ CRAFTSMAN/SKILLED
- ___ CLERICAL
- ___ UNSKILLED LABORER
- ___ SERVICE
- ___ STUDENT
- ___ HOUSEWIFE
- ___ NONE

TREATMENT INFORMATION

HAVE OTHER RELATIVES EVER RECEIVED PSYCHIATRIC SERVICES AT RHMC? YES ☐ NO ☐

IF YES, WHO?

NAME	RELATIONSHIP	HOW RECENTLY? WITHIN LAST 6 MOS.	6 MOS. - 1 YR.	1 YR.+

HAS CLIENT BEEN HOSPITALIZED FOR PSYCHIATRIC SERVICES OR RECEIVED PARTIAL HOSPITALIZATION SERVICES AT ANY OTHER FACILITY SINCE JULY 1? YES ☐ NO ☐

HOW MANY DAYS HOSP.? _____

HOW MANY DAYS PH.? _____

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AVENSWOOD HOSPITAL MEDICAL CENTER
CHICAGO, ILLINOIS
COMMUNITY MENTAL HEALTH CENTER
CLINICAL INTAKE

CLIENT'S NAME _____ ID # _____ INTAKE DATE ___/___/___

INTAKE WORKER'S NAME _____ ID # _____ FACILITY # _____ PROGRAM # _____

LOCATION OF INTAKE (✓)
- ___ EMERGENCY ROOM
- ___ TRAUMA UNIT
- ___ INPATIENT
- ___ OTHER RHMC
- ___ SATELLITE
- ___ HOME
- ___ DAY CENTER
- ___ AMB. CARE CENTER
- ___ OTHER

AGENCIES INVOLVED WITH CLIENT
NONE (___)

IDENTIFIED PATIENT YES ☐ NO ☐

LENGTH OF INTAKE _____

INTAKE REVIEWED BY _____ DATE ____

RECENT STRESSES
(RATE IMPACT FOR EACH)

- ___ DEATH/ RELATIVE/ FRIEND/ SPOUSE
- ___ HEALTH PROBLEMS/ SELF/ FAMILY/ FRIEND
- ___ LOSS OF LOVED ONE/ NOT DEATH
- ___ ADDITION TO HOUSEHOLD
- ___ CHANGE IN RESIDENCE
- ___ PREGNANCY/ NEW BIRTH
- ___ LEGAL TROUBLES
- ___ LOSS OF JOB
- ___ CHANGING JOB
- ___ RETIREMENT
- ___ RUNAWAY
- ___ FINANCIAL
- ___ NONE
- ___ FAMILY ARGUMENTS
- ___ CHILD LEAVES HOME
- ___ OTHER _____

IMPACT SCALE
0- ACCLIMATED
1- PROBLEMATIC
2- INCAPACITATING
4- CAN'T DISCERN

PROBLEM LIST

PROBLEM SEVERITY SCALE:
1. VERY MILD (VERY SELDOM)
2. MILD (SELDOM)
3. MODERATE (OCCASIONALLY)
4. SEVERE (FREQUENT)
5. VERY SEVERE (VERY FREQUENT)

PROBLEM	CODE	C	TH.	SEVERITY RATING	DURATION EXPERIENCING PROBLEM -WK.	-MO.	-YR.	-2 YRS.	+2 YRS. (✓)

DIAGNOSTIC CATEGORY

	DSM III CODE	DSM III NAME
I.		
I.		
I.		
II.		
II.		
II.		

LEVEL OF FUNCTIONING
OVERALL LEVEL _____
SI ____ SII ____
SIII ____ SIV ____

SUICIDE POTENTIAL (✓)
- ___ EXTREME
- ___ MODERATE
- ___ MINIMAL
- ___ NONE

POTENTIAL DANGER TO OTHERS (✓)
- ___ EXTREME
- ___ MODERATE
- ___ MINIMAL
- ___ NONE

640-7-F8 (REV. 1/81)

CHART COPY

RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER

CLIENT NAME _____ CLIN. ID -2

MEMBERS OF HOUSEHOLD AND RELATIONSHIP	NONE ( )	NAME	RELATIONSHIP	SEX	MARITAL ST
OR-OTHER RELATIVE	P -PARENT				
GP -GRANDPARENT	C -CHILD				
F -FRIEND	FC -FOSTER CHILD				
S -SPOUSE	AC -ADOPTED CHILD				

PRESENT MEDICAL PROBLEMS NONE ( )	CURRENT MEDS. NONE ( )	AMOUNT PRESCRIBED	DOSAGE

ALLERGIES TO MEDICATION NONE ( )	NAME OF FAMILY PHYSICIAN	EMERGENCY CONTACT
		NAME _____
		PHONE # _____

DISPOSITION OF INTAKE: DATE OF DISPOSITION: ___/___/___

1. ____ TREATMENT (GO TO 1)
2. ____ REFERRAL OUT (GO TO 2)
3. ____ NO CARE NEEDED-NO REFERRAL
4. ____ EVALUATION ONLY
5. ____ CLIENT WITHDREW/CLINIC NOTIFIED: ____ YES ____ NO
6. ____ CLIENT WILL CALL
7. ____ OTHER _____

1. INTERNAL DISPOSITION

- ____ EXTENDED EVALUATION
- ____ INPATIENT
- ____ DAY CENTER
- ____ OUTPATIENT : MODALITY _____
- ____ CHILD/ADOLESCENT
- ____ COMMUNITY CONNECTIONS
- ____ CRISIS
- ____ VOC. REHABILITATION
- ____ AFTERCARE

2. EXTERNAL DISPOSITIONS

WHO/WHERE?

- ____ OTHER MHC _____
- ____ OTHER PSYCH. HOSP. _____
- ____ OTHER GENERAL HOSP. _____
- ____ PRIV. PRAC. M.H. PROFESS. _____
- ____ CLERGY _____
- ____ SOCIAL SERVICE AGENCY _____
- ____ NON-PSYCH. PHYSICIAN _____
- ____ VOC. REHAB. _____
- ____ CRIMINAL JUSTICE _____
- ____ DEPT. HUMAN RESOURCES _____
- ____ NURSING HOME _____
- ____ O/P DRUG PROG. _____
- ____ O/P ALCOHOL _____
- ____ RESIDENTIAL DRUG _____
- ____ RESIDENTIAL ALCO. _____
- ____ REFERRAL REFUSED _____
- ____ APPROPRIATE REF. UNAVAILABLE _____
- ____ OTHER _____

CONVENIENT APP'T TIMES: ( )

	M	T	W	TH	F	S
A.M.'S 12						
P.M.'S 1-5						
EVENINGS AFTER 6						

FORMS SIGNED

- ____ INVOLUNTARY INPATIENT (COMMITMENT)
- ____ VOLUNTARY INPATIENT
- ____ CONSENT TO FOLLOW-UP
- ____ REQUEST FOR INFORMATION
- ____ CONSENT FOR TREATMENT (MINOR)
- ____ CONSENT TO DISTRIBUTE INFORM. (P.A.)
- ____ CONSENT TO CONTACT SIGNIFICANT OTHER
- ____ MEDICAL EXAM. RELEASE
- ____ MEDICAL EXAM. WAIVER

IF I/P. ADMITTING MD/DO _____

CONSULTING MD/DO _____

HAVE OTHER RECORDS BEEN REQUESTED? ____ YES ____ NO

PRIORITY OF NEED FOR SERVICE ( )

- ____ EXTREME
- ____ GREAT
- ____ MODERATE
- ____ MILD
- ____ VERY MILD

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RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER

CLIENT NAME_____ CLIN. IN-3

DATE_____ PAGE_____ OF_____

INTAKE NARRATIVE

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_____
WORKER SIGNATURE

RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER
DISCONTINUATION FORM

CLIENT'S NAME _____ ID# _____

PROGRAM FROM _____ THERAPIST ID# _____ ☐ CLOSING/☐ TRANSFER DATE ___/___/___

DISPOSITION OF CASE

____ CLIENT WITHDREW (1)
____ TRANSFERRED TO (2) & (5)
_____ PROGRAM _____ STAFF
____ CLINIC TERMINATED (3 & 4)

1. REASON FOR WITHDRAWAL
CLINIC NOTIFIED

____ DISCHARGE DEMANDED AGAINST ADVICE
____ FINANCIAL REASON
____ MOVED ILLNESS DECEASED
____ DEATH BY SUICIDE
____ OTHER
____ NOT NOTIFIED - FAILED TO RETURN

2. REASON FOR TRANSFER

____ NEEDS MORE INTENSIVE SERVICES
____ NEEDS LESS INTENSIVE SERVICES
____ FUNDING EXPIRED
____ MORE AGE APPROPRIATE SERVICES NEEDED
____ OTHER

3. REASON FOR DISCHARGE

____ NO FURTHER TREATMENT NEEDED AT THIS TIME
____ THERAPIST TERMINATES FOR MOTIVATIONAL COMPLIANCE ISSUES
____ NEEDS MORE INTENSIVE SERVICES
____ NEEDS TREATMENT NOT AVAILABLE HERE
____ FUNDING EXPIRED
____ COURT ORDER EXPIRED
____ ADMINISTRATIVE DISCHARGE
____ OTHER

DIAGNOSTIC CATEGORY AT DISCONTINUATION

	DSM III CODE	DSM III NAME
I		
I		
I		
II		
II		
II		

LEVEL OF FUNCTIONING AT DISCONTINUATION

LEVEL _____

SI _____ SII _____ SIII _____ SIV _____

NARRATIVE ATTACHED?

YES _____ NO _____

4. REFERRAL OUT: **WHO/WHERE?**

____ REFERRAL REFUSED
____ NONE NEEDED
____ NEEDED BUT APPRO REFERRAL NOT AVAILABLE

____ OTHER MHC _____
____ OTHER PSYCH HOSP _____
____ OTHER GENERAL HOSP _____
____ PRIV PRAC MH PROFESS _____
____ CLERGY _____
____ SOCIAL SERVICE AGENCY _____
____ NON-PSYCH PHYSICIAN _____
____ VOC REHAB _____
____ CRIMINAL JUSTICE _____
____ DEPT HUMAN RESOURCES _____
____ NURSING HOME _____
____ O/P DRUG PROG _____
____ O/P ALCOHOL _____
____ RESIDENTIAL DRUG _____
____ RESIDENTIAL ALCO _____
____ REFERRAL REFUSED _____
____ APPROPRIATE REF UNAVAILABLE _____
____ OTHER _____

5. NEED FOR FURTHER SERVICE PRIORITY

____ EXTREME
____ GREAT
____ MODERATE
____ MILD
____ VERY MILD

IMPACT ON TREATMENT GOALS

	CLIENT	THERAPIST
GOAL #1		
GOAL #2		
GOAL #3		
GOAL #4		

IMPACT SCALE
0- NOT PURSUED
1- MUCH THAN EXPECTED
2- WORSE THAN EXPECTED
3- EXPECTED
4- BETTER THAN EXPECTED
5- MUCH THAN EXPECTED

FORM NO 646 7-F9 (REV 2-83)

RAVENSWOOD HOSPITAL MEDICAL CENTER
COMMUNITY MENTAL HEALTH CENTER

Disc. Form - 2

Client I.D. #_____

DISCONTINUATION NARRATIVE

_____

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_____
Worker's Signature

_____
Date

APPENDIX C

PROBLEM AREA CODES

General Problem Areas

Code	Problem Area
A	Aggression
B	Suicide/Self-destruction
C	Productivity/Self-management
D	Education
E	Interpersonal and Social Activities
G	Sexual Functioning
H	Financial/Legal
I	Alcohol
J	Drug and Substance Abuse
K	Affective Functioning
L	Physical/Medical
M	Self-Concept
N	Perceptual-Cognitive Functioning
O	Self-Control

P Problems Interfering with Treatment

Q Other

R Couples Problems

S Intergenerational Issues in the Nuclear Family

T Extra-Nuclear Family Issues

Problem List

Code	Problem
A000	----AGGRESSION----
A001	Verbal aggression
A002	Physical aggression
A003	Homicidal behavior
A999	Other
B000	----SUICIDE/SELF-DESTRUCTION----
B001	Verbalizes, threatens self-destructive behavior
B002	Self-destructive behavior
B999	Other internally destructive behaviors
C000	----PRODUCTIVITY/SELF-MANAGEMENT----
C100	Employment problems
C101	Unemployed
C102	Job performance poor
C103	Frequently fired
C104	Recent problems with boss
C105	Recent problems with co-workers
C106	No promotion
C107	New work responsibility
C108	Work demotion
C109	Recent problems with new job
C110	Loss of job
C111	Dislikes job
C112	Work absenteeism
C113	Sheltered employment problems
C114	Problems with structuring daily routine
C115	No vocational interests
C116	Limited vocational and work skills
C200	Poor personal habits
C201	Clothing and hygiene poor
C202	Poor personal hygiene
C203	Wets or soils clothing or bedding
C204	Messy eating habits
C205	Bizarre appearance
D000	----EDUCATIONAL-----
D001	Underachievement in school
D002	Arithmetic problems
D003	Reading problems

D004 Spelling problems
D005 Writing problems
D006 Other learning problems
D007 Overachievement in school
D008 Poor attendance
D009 Truancy
D010 Recent academic problems
D011 Longstanding academic problems
D012 Specific learning disability
D014 Non-academic behavioral problems
D999 Other

E000 ----INTERPERSONAL AND SOCIAL ACTIVITIES----

E100 Anti-social behavior
E101 Cheating
E102 Lying
E103 Firesetting
E104 Vandalism
E105 Stealing
E106 Group delinquent behaviors
E199 Other anti-social behaviors
E200 Disturbance in interpersonal functioning
E201 Difficulty making ormaintaining friendships
E202 Relat onship problems with authority
E203 Other relationship problems
E204 Death/dying/loss of friend
E205 Socially withdrawn or isolated
E299 Other disturbance in interpersonal functioning

G000 ----SEXUAL FUNCTIONING----

GA00 Erectile dysfunction
GA01 Primary
GA02 Secondary
GB00 Retarded ejaculation
GB01 Primary
GB02 Secondary
GC00 Premature Ejaculation
GC01 Primary
GC02 Secondary
GD00 General sexual dysfunction
GD01 Primary
GD02 Secondary
GE00 Orgastic dysfunction
GE01 Primary
GE02 Secondary
GF00 Vaginismus
GF01 Primary
GF02 Secondary

GG00	Dyspareunia
GH00	Desire-phase disorder
GI00	Paraphilia
GJ00	Ego-dystonic homosexuality
GK00	Difficulties in gender identification
GL00	Difficulty maintaining satisfactory relationship
GZ99	Other problems in sexual adjustment
H000	----FINANCIAL/LEGAL PROBLEMS----
H100	Financial problems
H101	Poor budgeting
H102	Medical bills high
H103	Other bills high
H104	Garnishment or liens
H105	Bankruptcy
H106	No means of self-support
H107	Needs external financial assistance
H199	Other
H200	Legal Problems
H201	Civil
H202	Criminal
H203	Needs legal assistance
I000	----ALCOHOL----
I001	Excessive alcohol intake
I002	Intoxicated now
I003	D.T.S.
I004	Benders
I005	Blackouts due to alcoholism
I006	Absenteeism due to alcoholism
I007	Job loss due to alcoholism
I008	Arrests due to alcoholism
I009	Family problems due to drinking
I999	Other problems due to alcohol abuse
J000	----DRUG AND SUBSTANCE ABUSE----
J001	Drug abuse
J002	Substance abuse
K000	----DISTURBANCE IN AFFECTIVE FUNCTIONING----
K001	Affect blunted or unvarying
K002	Increased lability of affect
K003	Affect inappropriate to thought content
K004	Anxiety attacks
K005	Apprehensive behavior
K006	Phobias

K007 Difficulty verbalizing/expressing feelings
K008 Inappropriate laughing or giggling
K009 Depressive feeling
K010 Easily angered
K012 Feelings of guilt
K013 Self-reported nervousness or anxiety
K999 Other disturbance in affective functioning

L000 ----PHYSICAL/MEDICAL----

LA00 Eating
LA01 Anorexia
LA02 Food refusal
LA03 Overeating
LA04 Food rituals
LA05 Obesity
LA06 Diet problems (unusual content)
LA08 Bulimia
LA99 Other eating difficulties
LB00 Sleeping
LB01 Bedtime rituals
LB02 Chronic resistance to sleep
LB03 Difficulty falling asleep
LB04 Excessive sleepiness
LB05 Fitful sleep
LB06 Hypersomnia
LB07 Hyposomnia
LB08 Night fears
LB09 Night terrors
LB10 Nightmares
LB11 Somnambulism
LB12 Talking in sleep
LB13 Unwillingness to sleep alone
LB99 Other sleeping difficulties
LC00 Bowel and bladder functions
LC01 Resistance to training
LC02 Not toilet trained
LC03 Eneuresis nocturnal
LC04 Eneuresis diurnal
LC05 Encopresis nocturnal
LC06 Encopresis diurnal
LC07 Toilet rituals
LC08 Other bladder function difficulties
LC09 Constipation
LC10 Diarrhea
LC99 Other bowel function difficulties
LD00 Speech impairment
LD01 Infantile speech
LD02 Slurring of speech
LD03 Stuttering

LD04	Monotone
LD05	Nasal speech
LD06	Whining speech
LD07	Echolalia
LD08	Perseveration
LD09	Loud talking
LD10	Whispering
LD11	Does not talk
LD99	Other speech disturbances
LE00	Motor functions
LE01	Involuntary movements
LE02	Catatonic behavior
LE03	Disturbance of gait
LE04	Disturbance of posture
LE05	Excessive motor activity
LE06	Poor coordination
LE07	Tics
LE08	Tremors
LE09	Increased motor activity
LE10	Slowed motor activity
LE11	Retarded motor activity
LE12	Fine motor problems
LE99	Other motor dysfunctions
LF00	Habit patterns
LF01	Finger or thumb sucking
LF02	Masturbation
LF03	Nail-biting
LF04	Picking behavior
LF05	Hairpulling
LF06	Headbanging
LF07	Body rocking
LF99	Other significant habit patterns
LG00	Sensory disturbances
LGA0	Hearing
LGA1	Deafness
LGB2	Selective limitation in hearing
LGB0	Vision
LGB1	Blindness
LGB2	Myopia
LGB3	Other visual disturbances
LGC0	Other sensory disturbances
LH00	Other disturbances in bodily functions
LH01	Headaches
LH02	Acne
LH03	Eczematoid reactions
LH04	Other skin disturbances
LH05	Asthma
LH06	Allergies
LH07	Other respiratory disturbances
LH08	Hypertension

LH09	Anemia
LH10	Abdominal pain
LH11	Abortion
LH12	Cessation of menstrual periods
LH13	Miscarriage
LH14	Pain related to female sexual organs
LH15	Pain related to male sexual organs
LH16	Endocrine disturbances
LH17	Dizziness
LH18	Seizure-like behavior
LH19	Petite mal seizures
LH20	Grand mal seizures
LH21	Other seizure disorders
LH22	Physical handicap
LH23	Dry mouth
LH24	Appears drowsy or groggy
LH25	Dental problems
LH26	Problems in using medication
LH28	Chest pains
LH99	Other medical problems
LI00	Problems associated with physical trauma
LI01	Rape victim
LI02	Assault victim
LI03	Accident victim
LJ00	Problems with physical growth
LJ01	Retarded physical growth
LJ02	Advanced physical growth
LK00	Required medication monitoring
M000	----SELF-CONCEPT----
M002	Feelings of hopelessness
M003	Feelings of worthlessness
M004	Cognitive Dissonance
M005	Feelings of helplessness
M006	Low self-esteem
N000	----PERCEPTUAL/COGNITIVE FUNCTIONING---
NA00	Disturbance in orientation
NA01	Disoriented to person
NA02	Disoriented to place
NA03	Disoriented to time
NB00	Disturbances in perception
NB01	Auditory hallucinations
NB02	Visual hallucinations
NB03	Visions/illusions
NB99	Other types of hallucinations
NC00	Disturbances in memory
NC01	Impaired immediate recall

NC02	Impaired recent memory
NC03	Impaired remote memory
ND00	General intellectual functioning
ND01	Impaired attention span
ND02	Impaired abstract thinking
ND03	Concrete thinking
ND04	Poverty of thought content
ND05	Difficulty anticipating consequences of behavior
ND06	Difficulty organizing plan of action
ND07	Fails to learn from past experience
ND08	Indecisive
NE00	Disturbance in intellectual functioning
NE01	Looseness of associations
NE02	Circumstantial speech
NE03	Tangential speech
NE04	Illogical speech
NE05	Speech flow decreased
NE06	Speech flow increased
NE07	Does not express ideas clearly
NE08	Distorts information
NF00	Disturbances in thought content
NF01	Obsessions
NF02	Delusions
NF03	Ideas of reference
NF04	Ideas of influence
NF05	Depersonalization
NF06	Derealization
NF99	Other disturbances of thought
0000	----SELF CONTROL PROBLEMS----
0001	Low frustration tolerance
0002	Impulsive behavior
0003	Overly controlled
0004	Compulsions
0005	Temper tantrums
0006	Uncontrollable temper outbursts
P000	----PROBLEMS INTERFERING WITH TREATMENT----
P001	Difficulty acknowledging psychological problems
P002	Frequently blames others or circumstances
P003	Not self-motivated for treatment
P004	Medical problems interfere with treatment
P006	Reluctant to take medication
P007	Social or familial interference
P008	Present problems interfere with treatment goals
P009	Problems with alcohol in treatment
P999	Other treatment related problems

Q000	----OTHER PROBLEMS----
Q100	Administrative problems
Q200	Housing problems
Q300	Family foster placement problem
Q400	Group foster placement problem
R000	----COUPLES PROBLEMS----
R001	Difficulty communicating ideas or feelings
R002	Arguments around childrearing/discipline
R003	Physical abuse
R004	Separation issues
R005	Divorce issues
R006	Conflict over pregnancy or abortion
R007	Budgeting and finance conflicts
R008	Death/dying of a spouse
R009	Sexual dissatisfaction
R010	Role conflict
R012	Frequent arguments
R013	Conflict over values or goals
R999	Other couples problems
S000	----INTERGENERATIONAL FAMILY ISSUES----
SA00	Parent-child communication problem
SB00	Verbal conflict between parent-child
SC00	Physical conflict between parent-child
SD00	Sibling conflict
SE00	Child noncompliant with limits
SF00	Limits not appropriate or consistent
SG00	Parental expectations of child inappropriate
SH00	Family members overinvolved
SI00	Family members disengaged
SJ00	Family concerns over specific issue
SJ01	Child custody problems
SJ02	Separation or divorce issues
SJ03	Death of family member
SJ04	Loss other than death
SJ05	Illness of family member
SJ06	Stepfamily adjustment problem
SK00	Problems requiring legal agency contact
SK01	Physical child abuse
SK02	Sexual child abuse
SK03	Physical child neglect
SL00	Runaway

T000	----EXTRA-NUCLEAR FAMILY ISSUES----
T001	Problems with extended family
T002	Difficulty with social agency
T003	Extramarital affair
T004	Family isolated in community

APPENDIX D

PROBLEM DURATION AND PROBLEM SEVERITY SCALES

Problem Duration Scale

1 Less than one week

2 Less than one month

3 Less than one year

4 Less than two years

5 Two years or more

Problem Severity Scale

1 Very mild/very seldom

2 Mild/seldom

3 Moderate/occasionally

4 Severe/frequent

5 Very severe/very frequent

APPENDIX E

LEVEL OF FUNCTIONING SCALE

With regard to the balance of the four criteria: 1) personal self-care; 2) social functioning; 3) vocational/educational functioning; and 4) emotional symptoms/stress tolerance, the person's ability to function autonomously in the community is at level "X" where "X" can assume one of the following nine levels:

Level I: Dysfunctional in all four areas and is almost totally dependent upon others to provide a supportive, protective environment.

Level II: Not working; ordinary social unit cannot or will not tolerate the person; can perform minimal self-care functions but cannot assume most responsibilities or tolerate social encounters beyond restrictive settings (e.g. in group, in play, or occupational therapy).

Level III: Not working; probably living in ordinary social unit but not without considerable strain on the person and/or others in the household. Symptoms are such that movement in the community should be restricted or supervised.

Level IV: Probably not working, although may be capable of working in a very protective setting; able to live in ordinary social unit and contribute to the daily routine of the household, can assume responsibility for all personal self-care matters; stressful social encounters ought to be avoided or carefully supervised.

Level V: Emotional stability and stress tolerance is sufficiently low that successful functioning in the social and/or vocational/educational realms is marginal. The person is barely able to hold on to either job or social unit, or both, without direct therapeutic intervention and a diminution of conflicts in either or both realms.

Level VI: The person's vocational and/or social areas of functioning are stabilized but therapeutic intervention will be required to maintain this stability. Symptom presence and severity is probably sufficient to be both noticeable and somewhat disconcerting to the client and/or those around the client in daily contact.

Level VII: The person is functioning and coping well socially and vocationally/educationally, however, symptom reoccurence is sufficiently frequent to maintain a reliance on some sort of regular therapeutic intervention.

Level VIII: Functioning well in all areas with little evidence of distress present. However, a history of symptom reoccurence suggests periodic correspondence with the mental health center.

Level IX: The person is functioning well in all areas and no contact with the mental health center is recommended.

APPENDIX F

ANALYSIS OF VARIANCE AND CHI SQUARE TABLES

SAMPLE A

Chi Square Analyses

Social Class

Group	Upper Class	Upper Middle Class	Middle Class	Lower Middle Class	Lower Class
Pretherapy Dropouts	6 15.0%	4 10.0%	7 17.5%	10 25.0%	13 32.5%
Intherapy Dropouts	1 4.8%	3 14.3%	6 28.6%	5 23.8%	6 28.6%
Nondropouts	5 9.8%	4 7.8%	13 25.5%	14 27.5%	15 29.4%
Total	12 10.7%	11 9.8%	26 23.3%	29 25.9%	34 30.4%

$X^2(8) = 3.17923$, $p = .9226$

Referral Source

Group	Self	Family/ Friends	Medical	Other
Pretherapy Dropouts	31 70.5%	5 11.4%	5 11.4%	3 6.8%
Intherapy Dropouts	12 57.1%	2 9.5%	4 19.0%	3 14.3%
Nondropouts	40 74.1%	0 0.0%	9 16.7%	5 9.3%
Total	83 69.7%	7 5.9%	18 15.1%	11 9.2%

$X^2(6) = 8.09123$, $p = .2315$

Inpatient History

Group	Yes	No
Pretherapy Dropouts	8 18.2%	36 81.8%
Intherapy Dropouts	4 19.0%	17 81.0%
Nondropouts	10 18.5%	44 81.5%
Total	22 18.5%	97 81.5%

$X^2(2)= .00713$, $p=.9964$

Outpatient History

Group	Yes	No
Pretherapy Dropouts	21 47.7%	23 52.3%
Intherapy Dropouts	13 61.9%	8 38.1%
Nondropouts	27 50.0%	27 50.0%
Total	61 48.7%	58 51.3%

$X^2(2)= 1.20652$, $p=.5470$

Diagnosis

Group	V Code	Affective Disorder	Anxiety Disorder	Personality Disorder	Adjustment Disorder	Other
Pretherapy Dropouts	16 36.4%	11 25.0%	4 9.1%	3 6.8%	9 20.5%	1 2.3%
Intherapy Dropouts	8 38.1%	6 28.6%	1 4.8%	1 4.8%	2 9.5%	3 14.3%
Nondropouts	16 29.6%	14 25.9%	8 14.8%	3 5.6%	9 16.7%	4 7.4%
Total	40 33.6%	31 26.1%	13 10.9%	7 5.9%	20 16.8%	8 6.7%

$X^2(10)= 6.41557$, $p=.7792$

Primary Presenting Problem

Group	Aggress	Suicide	Product	Interper	Affect	Phys.	Other
Pretherapy Dropouts	2 4.5%	2 4.5%	4 9.1%	20 45.5%	15 34.1%	1 2.3%	0 0.0%
Intherapy Dropouts	0 0.0%	1 4.8%	1 4.8%	9 42.9%	9 42.9%	1 4.8%	0 0.0%
Nondropouts	1 1.9%	0 0.0%	4 7.4%	9 16.7%	33 61.1%	6 11.1%	1 1.9%
Total	3 2.5%	3 2.5%	9 7.6%	38 31.9%	57 47.9%	8 6.7%	1 0.8%

$X^2(12)= 19.43376$, $p=.0786$

Level of Functioning

Group	Level IV	Level V	Level VI	Level VII	Level VIII
Pretherapy Dropouts	0 0.0%	16 36.4%	17 38.6%	10 22.7%	1 2.3%
Intherapy Dropouts	1 4.8%	4 19.0%	9 42.9%	7 33.3%	0 0.0%
Nondropouts	0 0.0%	20 37.0%	22 40.7%	12 22.2%	0 0.0%
Total	1 0.8%	40 33.6%	48 40.3%	29 24.4%	1 0.8%

$X^2(8)= 8.89406$, $p=.3513$

Need for Service

Group	Very Mild	Mild	Moderate	Great	Extreme
Pretherapy Dropouts	1 2.3%	1 2.3%	36 81.8%	6 13.6%	0 0.0%
Intherapy Dropouts	0 0.0%	1 4.8%	14 66.7%	5 23.8%	1 4.8%
Nondropouts	0 0.0%	6 11.1%	36 66.7%	12 22.2%	0 0.0%
Total	1 0.8%	8 6.7%	86 72.3%	23 19.3%	1 0.8%

$X^2(8)=11.40491$, $p=.1798$

Waiting Time

Group	No Wait	<1 Week	1-3 Weeks	3-6 Weeks	>6 Weeks
Pretherapy Dropouts	0 0.0%	2 10.5%	8 42.1%	7 36.8%	2 10.5%
Intherapy Dropouts	0 0.0%	5 23.8%	7 33.3%	8 38.1%	1 4.8%
Nondropouts	2 3.7%	9 16.7%	23 42.6%	11 20.4%	9 16.7%
Total	2 2.1%	16 17.0%	38 40.4%	26 27.7%	12 12.8%

$X^2(8) = 7.07764$, $p = .5283$

Analyses of Variance

Problem Severity

Group	N	Group Mean	Standard Deviation
Pretherapy Dropouts	44	3.6531	.4000
Intherapy Dropouts	21	3.8173	.5723
Nondropouts	54	3.6414	.3883
Total	119	3.6768	.4311

Source of Variance	DF	Sum of Squares	Mean Squares	
Between Groups	2	00.5074	00.2537	F= 1.3739,
Within Groups	116	21.4201	00.1847	p=.2572
Total	118	21.9275		

Problem Duration

Group	N	Group Mean	Standard Deviation
Pretherapy Dropouts	44	3.6103	.9425
Intherapy Dropouts	21	3.3719	1.2618
Nondropouts	54	3.3627	1.0610
Total	119	3.4559	1.0552

Source of Variance	DF	Sum of Squares	Mean Squares	
Between Groups	2	1.6660	.8330	F= 0.7450,
Within Groups	116	129.7089	1.1182	p=.4770
Total	118	131.3749		

SAMPLE B

Chi Square Analyses

Social Class

Group	Upper Class	Upper Middle Class	Middle Class	Lower Middle Class	Lower Class
Pretherapy Dropouts	1 3.1%	2 6.3%	9 28.1%	10 31.3%	10 31.3%
Intherapy Dropouts	0 0.0%	4 13.8%	3 10.3%	6 20.7%	16 55.2%
Nondropouts	5 10.4%	1 2.1%	10 18.9%	19 39.6%	14 29.2%
Total	6 5.5%	7 6.4%	22 20.0%	35 31.8%	40 36.3%

$X^2(8)=22.09601$, $p=.1053$

Referral Source

Group	Self	Family/ Friends	Medical	Other
Pretherapy Dropouts	20 62.5%	6 18.8%	3 9.4%	3 9.4%
Intherapy Dropouts	23 74.2%	3 9.7%	1 3.2%	4 12.9%
Nondropouts	37 72.0%	4 8.0%	3 6.0%	7 14.0%
Total	80 70.2%	13 11.4%	7 6.1%	14 12.3%

$X^2(6)= 4.21795$, $p=.8965$

Inpatient History

Group	Yes	No
Pretherapy Dropouts	5 15.6%	27 84.4%
Intherapy Dropouts	5 16.1%	26 83.9%
Nondropouts	9 18.0%	42 82.0%
Total	19 16.7%	95 83.3%

$X^2(2) = .29545$, $p = .9609$

Outpatient History

Group	Yes	No
Pretherapy Dropouts	21 65.6%	11 34.4%
Intherapy Dropouts	15 51.6%	16 48.4%
Nondropouts	29 58.0%	22 42.0%
Total	65 57.0%	49 43.0%

$X^2(2) = 3.25578$, $p = .3538$

Diagnosis

Group	V Code	Affective Disorder	Anxiety Disorder	Personality Disorder	Adjustment Disorder	Other
Pretherapy Dropouts	6 18.8%	9 28.1%	0 0.0%	6 18.8%	8 25.0%	3 9.4%
Intherapy Dropouts	8 25.8%	6 19.4%	2 6.5%	5 16.1%	4 12.9%	6 19.4%
Nondropouts	14 26.0%	13 26.0%	4 8.0%	5 10.0%	10 20.0%	5 10.0%
Total	28 24.6%	28 24.6%	6 5.3%	16 14.0%	22 19.3%	14 12.3%

$X^2(10)=10.68938$, $p=.7743$

Primary Presenting Problem

Group	Aggress	Suicide	Product	Interper	Affect	Phys.	Other
Pretherapy Dropouts	0 0.0%	1 3.1%	1 3.1%	11 34.4%	18 56.3%	0 0.0%	1 3.1%
Intherapy Dropouts	2 6.5%	0 0.0%	2 6.5%	7 22.6%	15 48.4%	4 12.9%	1 3.2%
Nondropouts	2 4.0%	1 2.0%	4 8.0%	14 28.0%	28 54.0%	2 4.0%	0 0.0%
Total	4 3.5%	2 1.8%	7 6.1%	32 28.1%	61 53.5%	6 5.3%	2 1.8%

$X^2(12)= 12.31667$, $p=.8305$

Level of Functioning

Group	Level IV	Level V	Level VI	Level VII	Level VIII
Pretherapy Dropouts	0 0.0%	12 37.5%	13 40.6%	7 21.9%	0 0.0%
Intherapy Dropouts	2 6.5%	16 51.6%	10 32.3%	2 6.5%	1 3.2%
Nondropouts	1 2.0%	18 36.0%	20 38.0%	11 22.0%	1 2.0%
Total	3 2.6%	46 40.4%	43 37.7%	20 17.5%	2 1.8%

$X^2(8)= 9.92263$, $p=.6227$

Need for Service

Group	Very Mild	Mild	Moderate	Great	Extreme
Pretherapy Dropouts	0 0.0%	0 0.0%	26 81.3%	6 18.8%	0 0.0%
Intherapy Dropouts	0 0.0%	1 3.2%	20 64.5%	10 32.3%	0 0.0%
Nondropouts	0 0.0%	4 8.0%	36 70.0%	11 22.0%	0 0.0%
Total	0 0.0%	5 4.4%	82 71.8%	27 23.8%	0 0.0%

$X^2(8)= 5.37809$, $p=.4963$

Waiting Time

Group	No Wait	<1 Week	1-3 Weeks	3-6 Weeks	>6 Weeks
Pretherapy Dropouts	0 0.0%	0 0.0%	3 33.3%	6 66.7%	0 0.0%
Intherapy Dropouts	0 0.0%	7 22.6%	15 43.4%	6 19.4%	3 9.7%
Nondropouts	1 2.0%	10 19.6%	20 39.2%	16 31.4%	4 7.8%
Total	1 1.1%	17 18.7%	38 41.8%	28 30.8%	7 7.7%

$X^2(8) = 9.24006$, $p = .3225$

Analyses of Variance

Problem Severity

Group	N	Group Mean	Standard Deviation
Pretherapy Dropouts	32	3.7203	.3730
Intherapy Dropouts	31	3.5464	.4273
Nondropouts	50	3.6179	.4455
Total	113	3.6273	.4226

Source of Variance	DF	Sum of Squares	Mean Squares	
Between Groups	2	00.4842	00.2421	F= 1.3646,
Within Groups	110	19.5161	00.1794	p=.2598
Total	112	20.0003		

Problem Duration

Group	N	Group Mean	Standard Deviation
Pretherapy Dropouts	32	3.6943	1.0753
Intherapy Dropouts	31	3.4810	1.0315
Nondropouts	50	3.4670	.8330
Total	113	3.5352	.9585

Source of Variance	DF	Sum of Squares	Mean Squares	
Between Groups	2	1.1332	.5666	F= 0.6125,
Within Groups	110	101.7613	.9251	p=.5438
Total	112	102.8745		

APPROVAL SHEET

The thesis submitted by Ann Marie Sauer has been read and approved by the following committee:

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Professor, Clinical Psychology
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The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

11/7/86
Date

Alan S DeWolfe
Director's Signature