

SOCIAL CLASS AS A MEDIATING VARIABLE IN DETERMINING
THE EFFECTIVENESS OF TWO TYPES OF THERAPY WITH ALCOHOLICS

by

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A thesis submitted to the Faculty of Graduate Studies
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ABSTRACT

Individuals diagnosed as alcoholic are typically among the most difficult to treat as is evidenced by the high recidivism rates. The fault for this situation may lie not with the "alcoholic" but rather with the conceptual framework which has been most popular for dealing with alcoholism. A basic tenet of this framework is the assumption of homogeneity within the population of individuals called alcoholic. Alternatively, a conceptual model which favors the assessment of the particular therapeutic needs of each individual as an integral part of the assignment of appropriate treatment modality may lead to a superior system of alcoholism treatment. Thus, it was suggested that the type of therapy offered to a given individual should be dictated to some extent by specific characteristics of that individual to optimize potential for successful outcome. The literature indicates that social class may be an important variable to consider in this regard. There are findings which suggest that alcoholism treatment should be determined, at least in part, by the specific class-related needs of the individual. The present study was designed as an initial test of this notion. More specifically, outcome data of a group of alcoholics exposed to one or the other of two different types of therapy were examined to ascertain the extent to which social class status of the treated individual interacted with type of therapy received in determining therapeutic effectiveness.

The study was a retrospective analysis of outcome data of 62 individuals who completed a three-week inpatient treatment program at the Alcoholism Treatment Unit (Health Sciences Center, Winnipeg) during a period when two distinct kinds of therapy were being employed. Individuals were randomly assigned to either "Reality Therapy" (a behaviorally oriented therapy with emphasis on the individual's responsibility for the choice not to drink) or "Self-Awareness Therapy" (an insight-oriented therapy with emphasis on understanding and dealing with emotional motivations which lead to excessive drinking. Social class rank was calculated for each patient using Hollingshead and Redlich' Two-Factor Index of Social Position (cf., Laswell, 1965). Based on this social class rank each patient was designated as either Level I (essentially working and middle class) or Level II (lower class). Outcome

data as to the drinking and social adjustment behaviors of these individuals were collected five months after the end of treatment. These data were examined within a 2 X 2 factorial design which included the two types of therapy as one factor, and two levels of social class status as the other.

The following predictions were made: (1) lower class clients (Level II) exposed to the reality therapy approach would show greater improvement than those exposed to the self-awareness approach; (2) higher class clients (Level I) exposed to the self-awareness approach would show greater improvement than those exposed to the reality therapy approach; (3) lower class clients exposed to the reality therapy approach would show greater improvement than higher class clients exposed to the same approach; and (4) lower class clients exposed to the self-awareness therapy would show less improvement than higher class clients exposed to the same approach.

Using a multivariate analysis of covariance, no support was found for the stated hypotheses. There were no significant main or interaction effects. Post-hoc analyses provided some possible explanations for these unexpected findings. Examining the follow-up data of a group of program drop-outs, it was discovered that these individuals were functioning as well at follow-up as were those who had completed either therapy. Both treatment groups and the drop-out group showed significant improvement over their intake status at follow-up. While not conclusive, these findings suggest that the three-week treatments made less of a unique contribution in terms of impact on subsequent behavior than expected. This, in turn, suggests that the gains observed in all three groups might be accounted for by variables other than treatment alone. Specifically, three alternative hypotheses are postulated. First, the gains might be accounted for by changes in the patients' subjective assessment of the severity of their drinking problems over the two measurement occasions. Secondly, the objective reality of the patients' community situation may have improved over time leading to less drinking and fewer alcohol-related problems. Finally, the observed changes on the pre-post measures may simply reflect statistical regression toward the mean. Lack of a true control group makes it impossible to determine conclusively the source of the changes. Further, the immediate effectiveness of the therapies remain unknown due to the lack of any measures of therapy-related changes.

Because of these potential confounds the present study may not provide a true test of the hypothesized relationships. Therefore, the lack of support for the hypotheses must be interpreted with caution.

It is specifically recommended that future research in this area should incorporate process measures of the therapies while ongoing as well as measures to determine immediate post-therapy changes. Additionally, it is recommended that other socio-economic variables in addition to social class should be examined as relevant predictive variables.

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INTRODUCTION

The Unidimensional Model of Alcoholism

Alcoholism research and treatment typically have been predicated on the hypothesis that alcoholism is a unitary attribute (Horn & Wanberg, 1969; Wanberg & Knapp, 1970). The underlying assumption is that there exists a unidimensional personality trait, conceptualized as a continuum running from the absence of alcoholism at one end to extreme alcoholism at the other. Within this model, every individual can be located at some point on this continuum (Wanberg & Knapp, 1970). Those individuals at the alcoholic end of the continuum are assumed to embody the "alcoholic personality". In other words, it is implicit in this unidimensional conceptualization of alcoholism that persons who drink to excess share a common core personality - the "alcoholic personality". Those who drink excessively are thus assumed to have other characteristics in common in addition to the excessive drinking. The alcoholism literature, for example, is replete with studies aimed at discovering and understanding these assumed common characteristics. A recent issue of one of the leading journals in alcoholism research (The Quarterly Journal of Studies on Alcohol, 1974) provides many examples of research concerned with how the alcoholic thinks (e.g., Butts & Chotlos, 1974), perceives (e.g., Harley, Cohen & Silverman, 1974), organizes information (e.g., Brown & Crowell, 1974), and feels about himself (e.g., Clarke, 1974). The underlying assumption of such research is that all alcoholics think, perceive, organize information, and view themselves in a like manner. Essential to this unidimensional model, then, is the notion that the closer an individual is to the "alcoholic" end of the continuum, the more he or she will resemble a hypothesized "typical alcoholic". It is this assumption of a specific, identifiable alcoholic

personality based, in turn, on the assumption of within-group homogeneity which is the kingpin of the unidimensional model.

Wanberg and Knapp (1970) postulate a number of probable reasons for the widespread acceptance of the unitary trait concept of alcoholism. First, lay persons, researchers, treatment personnel, and problem drinkers alike tend to infer from the label "alcoholic" itself a basic core of personality characteristics. Thus, society makes the distinction between "drinkers" and "drunks", and this distinction is maintained within the alcoholic community, the treatment center, and the research laboratory. Partington and Johnson (1969) likewise contend that such "analogistic thinking" has led to the assumption of within-group homogeneity with respect to the personality characteristics of those labelled "alcoholic". Wanberg and Knapp (1970) maintain as well that Jellinek's (1952) phase concept of alcohol addiction, which is a unidimensional model, is viewed as a classic work in the study of alcoholism and influences current thinking. Jellinek's model of alcohol addiction is essentially a precursor of the recent tendency to deal with alcoholism as a disease which has also contributed to the unitary trait conceptualization of alcoholism. Discussion of the etiology of alcoholism, for example, assumes the "disease" follows a predictable and consistent course. Wanberg and Knapp (1970) state that, "reports in the area of etiology of alcoholism are generally based on the unitary trait concept, seldom considering that alcoholics may differ considerably as to background, developmental history, or other factors which may be etiological to alcohol problems" (p. 71). This theoretical position largely accounts for the single-modality treatment approach often characteristic of alcoholism treatment centers. This treatment ap-

proach, in turn, perpetuates the unitary trait model (Wanberg & Knapp, 1970). Finally, the assumption of within-group homogeneity among alcoholics is also reflected in, and maintained by, research designs which have failed to acknowledge and examine sources of variance within alcoholic groups. This kind of design is exemplified in studies using the MMPI to compare the personality profiles of "alcoholics" with "normals", "neurotics", or other taxonomic groups (cf., Wanberg & Knapp, 1970).

Evidence for a Multidimensional Model

Recently, the unitary trait model of alcoholism has been called into question. There is a growing body of data which suggests that the model is not viable, that there is no single "alcoholic personality", and that the notion of a "typical alcoholic" has little, if any, meaning (Enrick, 1974; Horn, Wanberg & Adams, 1974; Horn & Wanberg, 1969; Wanberg & Knapp, 1970; Partington & Johnson, 1969). According to Partington and Johnson (1969), "years of research have revealed only a few traits characteristic of alcoholics and no clear predisposing physiological variables" (p. 21). These authors argue further that the assumption of within-group homogeneity is not only invalid, but also is responsible for maintaining a misdirected search for the alcoholic personality. Wanberg and Knapp (1970) concur with this position, adding that the failure to attend to within-group variability may, in fact, "be an actual barrier to the understanding and treatment of persons with drinking problems" (p. 69).

Partington and Johnson (1969) have provided an empirical test of the assumption that alcoholics are a homogeneous group with respect to variables other than uncontrolled drinking behavior. Measures including demo-

graphic indices, personality variables, and psychiatric judgements were used to identify personality types within a cross-validation design. The study sample was comprised of most first admissions to an outpatient alcoholism treatment center in London, Ontario, over one year. Based on the profiles of 186 male alcoholics, five distinct personality types were revealed through factor analysis. Type I (including 20% of the sample) were characterized as being rebellious, anti-social, emotionally unstable, and cognitively disorganized. These individuals were typically relatively young, with poor employment history, poor accomodation, and reports of very serious consequences of drinking. In addition, they were rated as having very little interest in the treatment process and poor prognosis. Type II patients (19%) were characterized as usually conforming but occasionally tending to lose emotional and cognitive control. Demographically, these individuals were typified by high verbal intelligence, poor marital status, and in comparison to other types, mild drinking problems. This group showed considerable interest in treatment with good insight and good prognosis. Type III patients (10%) appeared to be primarily concerned about their own physical health. They were typically older, less verbally intelligent, and less educated than other groups. Despite the fact that these individuals were the most socially stable and the least psychiatrically disturbed, they were judged as possessing the least amount of self-understanding. Further, Type III patients were found to drink more than other types and to be more reluctant to abstain. Type IV patients (23%) were characterized by profiles indicating either highly healthy and stable persons or individuals trying to appear as such. They claimed the highest level of education and the fewest serious consequences of drinking of the

five types. As well, these individuals were rated as lowest in manifest antisocial tendencies. The authors tentatively conclude that this profile more likely implies patients who were responding defensively than patients who were healthy. The remaining patients, Type V (28%), report greater satisfaction in their relationships, were judged as manifesting fewer neurotic symptoms, and showing somewhat less cognitive and emotional upset than the other types. However, they also reported more frequent drinking episodes and greater consumption per occasion than the other types.

These findings suggest that the assumption of a single, clearly defined, alcoholic personality is no longer tenable. More recently, other researchers have undertaken similar studies. Horn, Wanberg and Adams (1974), for example, did a factor analysis of questionnaire responses of alcoholics relative to: 1) drinking-related behaviors; 2) description of background; 3) description of existing life circumstances (employment, marital, etc.); and 4) MMPI evaluations. Their analysis revealed two relatively independent patterns of alcohol use and five other distinct areas of functioning, independent of alcohol. They conclude:

The major finding of these analyses is that indicating the diversity among people who are admitted to an alcoholism treatment center and, for this reason, tend to be labelled "alcoholic". Not only are such persons describing themselves and their problems quite differently with respect to symptoms all of which are supposed to indicate alcoholism, some of these persons are not using many of the "alcoholism" symptoms to describe themselves and instead, are characterizing their condition...in quite different terms (p. 173).

Findings similar to these have been reported by others (e.g., Goldstein & Linden, 1969; Skinner, Jackson & Hoffman, 1974). In each of these studies, analysis of a number of variables, including personality dimensions, has

led to the conclusion that the alcoholic population is not homogeneous.

In light of such findings, Horn et. al. (1974) recommend:

Almost certainly the optimal treatment for the maximum number of such patients is not a singular program designed for a hypothetical "alcoholic". Instead, there must be individualized treatments tailored to suit the particular configuration which is the patient and his problems (p. 174).

It should be noted that these authors are not advocating the abolition of treatment categories. Rather a middle position "in between diagnosing 'alcoholic' on the one hand, and regarding each patient as an individual, on the other hand" is recommended (Horn et.al., 1974).

Other authors have attacked the unidimensional model from a slightly different perspective. These authors have abandoned the investigation into personality characteristics and have employed other criteria for categorizing types of alcoholics. For example, Tomsovic (1974) used patterns of drinking behavior as the means of classifying alcoholic patients. The drinking behaviors of 179 patients were studied to reveal two major types labelled by the author as "binge drinkers" (those who indulge in short periods of heavy drinking followed by periods of abstinence) and "continuous drinkers" (those who drink on a daily basis). The characteristics of the two alcoholic types were compared. Variables investigated included: demographic characteristics, social adjustment (marital, employment, etc.), medical disorders, drinking history, and treatment history. The two groups differed significantly on twelve of the twenty-one variables under investigation. As in the studies cited above, the author suggests a need for different kinds of therapy for the different types of alcoholics. Tomsovic further states:

If higher levels of treatment success are achieved

in the future it will come when our heterogeneous population of alcoholics can be divided into types that can be matched with specific treatment modalities...[However] highly standardized ways of describing differences in these major variables must be adopted before the ideal of matching patient and specific treatment can be achieved (p. 563).

It appears, then, that those labelled alcoholic represent a heterogeneous and diverse group of individuals. Further, there is the suggestion that differences among individuals so labelled might relate to prognosis in therapy. Empirical questions remain, however, concerning which of the individual difference dimensions are critically related to outcome, and how individual differences and treatment modality can best be matched to optimize success. In relation to the first of these questions, a number of variables have been examined with inconsistent results. A recent extensive survey of the literature by Adamson, Fostakowsky and Chebib (1974) indicates that for each of a number of variables (e.g., personality type, drinking pattern, social class, social competence, motivation) empirical studies have yielded conflicting results. Thus, for each of the variables reviewed there are some data indicating a positive relationship with successful outcome and some data suggesting no relationship between that variable and outcome.

Methodological Problems

A critical review of evaluation research of alcoholism treatment programs (Hill & Blane, 1967) suggests a possible explanation for these conflicting results. This review of 49 evaluative studies of programs in the United States and Canada over a ten-year period showed that much of the inconsistency in findings can be attributed to a lack of methodological

consistency and accuracy in reporting. Costello (1975a, 1975b) has addressed himself to this same issue after reviewing 58 evaluation studies. The authors of these two review papers concur in the conclusion that many of the published reports of such studies fail to describe fully the type or content of the treatment program under consideration. This problem is also discussed in a special H.E.W. task force report to the U.S. Congress (1974). The authors contend that most alcoholism treatment evaluation studies have suffered from serious methodological flaws which distort the record of actual effectiveness. The first of these major flaws discussed is the failure to discriminate the "rehabilitation potentials" of different sub-segments of the alcoholic population. The authors cite, as an example, an estimated 5 to 10 percent total rehabilitation rate for a skid row population, while for the problem drinkers in industry or business there is an 80 to 90 percent rehabilitation potential. Thus, failure to specify sample characteristics may obscure treatment results. It is possible, therefore, that the inconsistent results cited above reflect differential success rates of different treatments for different alcoholic populations. This conclusion is lent some support by the fact that reported studies in this field have either: a) assumed homogeneity among the alcoholic population and assessed the relative effectiveness of various treatments (e.g., Ends & Page, 1957; Vogler, Compton & Weissbach, 1975); or b) held treatment constant or disregarded type of treatment and examined differences among patients in relation to outcome (e.g., Adamson, Fostakowsky & Chebib, 1974; Gillis & Keet, 1969; Goldfried, 1969). In short, the possibility of patient by treatment interaction effects is not acknowledged in these designs.

A second major flaw, according to the authors of the H.E.W. report, concerns criteria of success. Ideally, the specific treatment goals of a particular program should be defined in terms of the specific needs of the treated population and related to available methods of treatment. Until recently, however, the tendency has been to use abstinence as the sole criterion of success across all programs (H.E.W. report, 1974). Additional confounding factors cited in the H.E.W. report include: how alcoholism is defined by a given institution; reputation of the program; premature terminations; patients' failure to report for treatment after acceptance; admission criteria (explicit and implicit) of the program; and incomplete follow-up studies, among others. Thus, we cannot conclude from negative results that relationships previously demonstrated between certain variables and outcome are invalid; rather, we can only assume that they are specific to certain (often unspecified) contexts. Such problems, however, are not exclusive to alcoholism treatment research. With regard to psychotherapy in general, Garfield (1971) notes that:

Like many other areas of psychology where one is concerned with complex phenomena, research in the area of psychotherapy is beset with a number of difficulties that lead to inconsistencies in findings. Varying samples of clients and therapists are among the more obvious variables that lead to discrepant results. Different kinds of criterion measures, varying lengths of treatment, different criteria for acceptance of clients, and similar matters also lead to lack of comparability from study to study (p. 272).

Thus, problems paralleling those encountered in the study of alcoholism treatment are evident in other treatment contexts as well.

Social Class and Treatment Effectiveness

Of all of the variables investigated in relation to treatment outcome,

those relating to socio-economic status have been most often cited (Adamson, Fostakowsky & Chebib, 1974). As noted above, results have been mixed, but in light of the methodological confusions cited above, positive results cannot be easily dismissed.

A number of authors have used composite social competence or stability measures as predictive variables. Positive results using such composite measures have been reported by Davies, Shepard & Myers (1969), Gibbins & Armstrong (1959), Gerard & Saenger (1966), Edwards (1966), and Sugarman, Reilly & Albarhary (1965). Also using composite measures, the authors cited below failed to find significant results. In these latter studies, however, several of the component variables were found to relate significantly to outcome. Specifically, Adamson, Fostakowsky and Chebib (1974), in examining the data of 52 inpatient alcoholics during treatment and 38 of these during a one-year follow-up, found residential stability and educational level related significantly to outcome. Goldfried (1969) found that patients' educational level, employment history during the previous three years, and marital stability were each positively related to outcome. His findings were based on the interview data of 163 patients applying for treatment at an alcoholism treatment center, and on follow-up data of 105 of these patients. Gillis and Keet (1969) report similar findings based on information of 797 individuals who were inpatients at a short-term treatment center over a period of five years. They found that educational level, occupational level, and stability of interpersonal relationships were significantly related to outcome. They conclude that "...the more stable, educated, and better anchored in society the alcoholic is, the better he tends to do after treatment in hospital" (p. 430). The

findings cited above lend additional support to this conclusion.

In a study of 935 alcoholics admitted to four hospitals in England, Edwards, Kyle and Nicholls (1974) examined social class as a critical mediating variable. The question was raised as to whether patients of different social classes respond best to different kinds of treatment. Although their data do not bear directly on this point, the authors suggest the possibility that lower class alcoholics may often need a special kind of help in building or reconstructing their social stability for treatment to be successful. As well, the authors note, "class-related patient expectancies as to what constitutes apposite help define needs which must be met if clients of different social classes are to be able to make and sustain treatment contact" (p. 520). That is, certain forms of psychotherapy and group therapy modelled on middle class notions of communication and self-exploration may be inappropriate to a social group with other norms. They caution, however, that although such an argument may have intuitive appeal to clinicians and is consistent with many of the conventional assumptions of psychotherapy, it is an idea in need of further empirical validation. Other authors (Blane & Meyers, 1964; Gibbins & Armstrong, 1957; Zax, Marsey & Biggs, 1961) have reported findings similar to those of Edwards et. al. (1974) and have likewise concluded that lower class patients might tend to benefit less from traditional insight-oriented therapy.

In addition to outcome, social class has been shown to relate to other measures of treatment effectiveness. Blane and Meyers (1964) examined the relationship between social class and establishment of treatment relations by alcoholics. They report that alcoholic men in Class V

(lowest class) had the lowest rate of treatment contacts. Schmidt, Smart and Moss (1968) examined the relationship between social class and a number of treatment variables including source of referral, diagnosis, prognosis, recommendations for therapy, and kinds of therapy received. The study sample included 412 first-admission male alcoholics at an outpatient clinic in London, Ontario. Their findings indicate that lower class individuals are judged as poorer treatment risks, are more likely to be treated with drugs rather than uncovering or supportive therapies, and by physicians rather than psychiatrists. However, no differences were found among classes with regard to difficulty in being admitted for treatment, nor number of treatment contacts. Pattern of drinking behaviors and symptoms of alcohol excess also varied widely between classes, with lower class patients generally exhibiting more extreme alcohol excess and more rapid deterioration. In contrast, the higher class patients as a group were much older when first seeking treatment and less frequently experienced severe complications of alcoholism. Edwards, Kyle and Nicholls (1974) also report findings which indicate that social class relates to type of hospital to which a patient is admitted, referral route, and ancillary diagnosis which are applied.

These findings are consistent with those reported in the general psychotherapy literature. Garfield (1971), for example, cites fairly consistent findings that socio-economic variables are related to: acceptance for treatment (Schaffer & Meyers, 1954); referral to psychotherapy versus medical treatment (Rosenthal & Frank, 1958; Bailey, Warhaw & Eichler, 1959); kind of psychotherapy offered (Hollingshead & Redlich, 1958); and length of stay in therapy. It appears on the basis of these findings that

traditional psychotherapy is offered to and utilized by primarily middle and upper class clients. Lower social class clients are more likely to be treated for somatic complaints, to be seen by lower ranking therapists on staff, and to terminate early (Garfield, 1971). Lorion (1973) also cites evidence to indicate that socio-economic status is a significant positive correlate of acceptance for, and duration of, individual psychotherapy. In fact, his review of the relevant literature indicates that social class is a more prepotent determinant of treatment assignment than is diagnosis. However, Lorion (1973) further concludes that the evidence indicates that social class is not related to therapeutic outcome. Meltzoff and Kornreich (1970), on the other hand, have found conflicting results reported in regards to the relationship between social class and outcome, and thus state that no conclusions about this relationship can legitimately be drawn at this time. These authors suggest, "it would be risky to draw any conclusions about the outcome of psychotherapy as a function of social class membership from any experiment that did not control such variables as selection, diagnosis, assignment, type of therapy and duration. Inconsistencies among the results of those investigations that do report differential statistics may well be due to confounding of these variables" (p. 246).

A number of possible explanations for the apparent class-related double standard of care have been offered. Brill and Storow (1960), for example, suggest that lower class individuals tend to be less "psychologically-minded". Their findings indicate that low social class is related to "low estimated intelligence, a tendency to view the problem as physical rather than emotional, a desire for symptomatic relief, lack of understanding of

the therapeutic process, and lack of desire for psychotherapy" (Garfield, 1971). Zax and Cowen (1972) state:

The poor tend to perceive their problems in immediate, physicalistic, concrete, crises-related and practical terms. By contrast, middle-class clientele, not to mention practitioners, are more inclined to define and view problems in abstract, futuristic terms, emphasizing higher-order functions, achievement, and actualization. Added to these discrepancies, there are language and communication barriers between the low-income person and the professional as well as differences in degree of comfort and preference for such matters as where meetings should be conducted, how they should proceed, and for how long. In the aggregate, these factors add up to the fact that the commodity being "sold" by the mental health practitioner is neither meaningful, attractive, nor utilitarian for the low-income individual. (p. 401).

While the lower-class individual may thus be less attracted to traditional therapy, at the same time, therapists are inclined to respond less favorably to lower class individuals. Brill and Storror (1960) found that intake interviewers had less positive feelings for lower class patients and saw them as less treatable. As well, there is some suggestive data indicating that client-therapist similarity may be related to successful therapy (cf., Garfield, 1971). As therapists are typically of middle or upper class background, this too may provide a bias against the lower class client. Zax and Cowen (1972) summarize Bredemeir's (1964) observations on agencies' reluctance to accept urban poor as clientele:

They are difficult to work with, have poor prognosis, and are more demanding of time and effort; they often require ingenuity and an innovative approach for which the professional's training and resources are inadequate; the agency's own self-image may be tied up with the status of its clients; the price of failure with the poor may be public censure; and in some instances agency personnel frankly have little liking or respect for the poor (p. 402).

As a large proportion of the clientele of an alcoholism treatment center may be derived from the urban poor, such findings may be of particular interest and import. In regards to this issue, Schmidt, Smart and Moss (1968) conclude:

To achieve this goal [of optimizing treatment potentials] therapists would have to re-examine the role which class plays in the actual assignment of therapies, and further to incorporate in their pre-treatment assessments knowledge of the patient's social class, its modal behavior patterns and predominant values...Lower class alcoholics are often considered to be the most difficult patients...However if the characteristics of these patients were evaluated against the conditions of life in the lower socio-economic group, they might assume different meanings (p. 94-95).

A specific recommendation of these authors is that alcoholics be treated in therapy groups which are homogeneous with regard to social class. Likewise, Mayer and Black (1974) maintain that social class should be the most important determinant of type of therapy offered to alcoholics, in order to assure that class-specific needs be met.

In sum, the following conclusions may be drawn from the findings cited above: 1) socio-economic variables may determine, to a greater or lesser extent, the therapeutic needs of alcoholic patients; 2) the class-related double standard of care often evidenced in alcoholism treatment is more clearly related to perceived "liabilities" of lower class individuals than to their special needs; 3) alcoholism treatment programs which have failed to address themselves to the particular therapeutic needs of lower class clients have typically been least successful with those clients. These conclusions, in turn, suggest that successful outcome might be optimized when choice of treatment is determined, at least partially, by class-

related therapeutic needs.

The Present Study

As noted above, no attempts have been made to assess directly the patient by therapy interaction effects on outcome within a crossed design. Such a design was used for the present study. Thus, individuals who were randomly assigned to one of two different forms of therapy within the same alcoholism treatment program were divided into low and middle social class groups, and the relative success rates of each social class group in each of the two therapies were examined.

As discussed, traditional insight-oriented therapy has been demonstrated to be less useful to lower class alcoholic clients. It has been further suggested that lower class clients may need special help in building or reconstructing their social stability, and that this help should be focussed on relatively immediate and concrete concerns. Identical help may be entirely irrelevant to middle class clients whose social stability is already well maintained. It is with these individuals that traditional insight-oriented therapy has been most effective. Thus, the two therapies under investigation in the present study are: 1) a behaviorally-oriented "reality therapy" approach; and 2) a traditional insight-oriented "self-awareness" approach.

The methodology and design employed in the present study are discussed in the following section, along with the specific research hypotheses.

METHOD

The present study was conducted as a retrospective analysis based on data relating to the alcoholism treatment program described below.

Alcoholism Treatment Unit (A.T.U.)

This unit is a three-week inpatient service which operates in a separate ward within the psychiatric division of the Health Sciences Centre of Winnipeg, Manitoba. All patients presenting to this unit are accepted on a first-come first-served basis with the exception of those who are in the first stages of withdrawal (such individuals are admitted after treatment in a de-toxification unit), those who have been in the program less than a year previously, and those diagnosed as actively psychotic. Patients come to the A.T.U. from a variety of sources. Self-referrals comprise the single largest source of referrals, with the remainder coming from physicians, police, relatives, the courts, other alcoholism agencies (including Alcoholics Anonymous) and miscellaneous other sources. The unit can accommodate up to twenty-four inpatients at one time.

The treatment program consists of a variety of activities including: individual counselling, group therapy, occupational therapy, fitness and recreation, and A.A. meetings and discussions. All patients are required to participate in all activities. The treatment staff of the A.T.U. is comprised of: the director of treatment, 9 therapists (4 lay alcohol counsellors, all of whom have previously had drinking problems and have been "dry" for two years prior to employment at A.T.U.; 3 registered nurses; 2 licensed nurses); 2 group leaders (social workers); 1 full-time and 1 half-time occupational therapist. At the time of the present study, the

nine therapists were each assigned to one or the other of two treatment teams. Each of the teams was headed by one of the group leaders, who was also responsible for training and monitoring the team members with regard to the type of therapy the team was engaged in. This training involved primarily three and one-half to four days of full-time inservice workshops, during which time the therapists were familiarized with the goals and techniques of the therapy they were to be doing. The inservice training included lectures and discussions, graphic representations of pertinent materials, and practice sessions. Additional ongoing training was provided in weekly case review sessions. As well, each therapist was monitored in therapy sessions three times per week by the group leader. The teams were comparable with regards to the educational status, number of years of previous experience working with alcoholic patients, official status, and age of the members. The teams are described in fuller detail below.

The organizational model followed by A.T.U. program planners emphasizes both treatment-oriented activities and evaluation research. This model, based on "experimental social innovation" (Fairweather, 1967), represents a "specialized marriage of service procedures and research techniques aimed at a particular social problem and dedicated to bringing about social change in a systematic, orderly, and rational manner" (Lange, 1976, p. 1). Under this model, a new treatment is implemented for a specified period of time and subjected to rigorous evaluation before decisions are made as to whether or not the treatment in question should be adopted. One component of this evaluation is the comprehensive follow-up study done after each experimental innovation. An attempt is made to contact each

ex-patient at five, ten, and fifteen months after discharge, and his/her current drinking behavior and functioning in the community are assessed. Approximately fifty to seventy percent of all ex-patients are located and assessed at each of the three follow-up stages.

In the operational phase under investigation in the present study two types of therapy - referred to as "Reality Therapy"¹ and "Self-Awareness Therapy" - were introduced on an experimental basis. During this phase each patient was randomly assigned to either the Reality Therapy or Self-Awareness Therapy group upon admission to the program. This assignment determined the focus of the individual and group therapy in which the patient was involved. Aside from this difference, all aspects of the program were identical for all patients. Patients were aware that there were two different therapy approaches and were informed that this was a function of the program's ongoing research efforts. They did not, however, have any information as to the nature of the research nor the hypotheses being tested. Neither group was presented as superior to the other, nor was there differential status attached to membership in one or the other group. According to the therapists' treatment plans and descriptions, the two types of therapy differed from one another in both theoretical bias and operations. These differences were not assessed through direct measurement of the content or structure of therapy sessions, as the sessions were terminated before such measures could be taken for the pre-

¹Although it does not represent a rigid adherence to Glasser's (1965) Reality Therapy, this therapeutic approach was loosely based on that formulation. It was liberally adapted to suit the present situation. A description of both therapies used is presented in the following section.

sent study. Therefore, the descriptions of the two types of therapies presented here are based on the therapists' treatment plans, and their verbal reports of what constituted therapy sessions.²

Through random assignment the two treatment groups were matched with regard to age, sex, number of dry days in the last month and last six months prior to admission, income level, number of moves in residence in the last year, number of jobs held in the last year, and level of education.

The Therapies

Reality Therapy approached excessive drinking as a set of destructive behaviors which interfere with effective functioning. Considerable emphasis was placed on the individual's responsibility for his/her drinking and for the choice of a different, less destructive, behavioral life style. The group sessions were described as largely didactic, with the group leader very much in control, and interpersonal interactions at a minimum. In keeping with the stated treatment philosophy, each member was asked to write a contract specifying long term personal goals; as well, each member wrote a daily behavioral plan which was to serve as a guide for the following twenty-four hours. Thus, individuals were exposed to, and given practice in, making intentional choices regarding their own behavior. Contingencies for failure to meet either long term or daily goals were not explicitly specified; rather the individual was to hold him/herself accountable for meeting goals. As well, some remedial training in basic life skills was included in the therapy.

²There are some data which indicate a congruence between a therapist's stated therapeutic approach and his actual behavior in therapy-analogue situations (Strupp, 1973) and in therapy sessions (Strupp, 1957).

The Reality Therapy treatment team was comprised of five members in addition to the group leader - two lay counsellors, two licensed nurses, and a registered nurse. Three members were female while two members and the group leader were male. The team averaged 42 years of age, and the average educational level was Grade 12 completion. Three of the members also had additional training in nursing, and the group leader held a Master of Social Work degree. All but one team member had been working with this alcohol treatment program since its inception two years earlier.

In contrast to the Reality Therapy described above, Self-Awareness Therapy viewed excessive drinking as a means of escape for individuals who are unable to deal with their emotions. Emphasis was placed on becoming aware of feelings and learning to deal with them in an appropriate manner. In Self-Awareness Therapy, as in Reality Therapy, the individual was held ultimately responsible for his/her drinking, but the ability to choose not to drink was seen as arising from a better understanding of self and coping styles. In the Self-Awareness group sessions, participation and interaction by members were highly encouraged. To this end, a number of Gestalt-type exercises, open discussions, and role playing were employed.

The treatment team engaged in Self-Awareness Therapy consisted of four members - two lay counsellors and two registered nurses - in addition to the group leader. The leader and three team members were female; the fourth member was male. The average age of the team members was 41 years, and average educational status was Grade 10 completion, with two members holding nursing diplomas, and the leader holding a Bachelor of Social Work degree. On the average, then, this team was slightly less educated than the Reality Therapy team, and had fewer male members. Like the Reality

Therapy team, however, all but one member of this team had been with this unit since it was established. Thus, in terms of age, personal experience with alcohol problems, working experience with alcoholics, and professional representation (ie. nursing staff), the two teams were evenly matched.

Each therapy group met twelve times during the three-week treatment for a total of twenty-four hours of group sessions. Individual counselling was scheduled on a more informal basis and usually involved approximately six to ten hours of contact during the three weeks.

Participants

During the period between November 1975 and April 1976 a total of 120 individuals were accepted into the A.T.U. program described above. Of these, 7 persons did not complete admissions procedures, and an additional 22 persons left the program before completing the three-week stay. Thus, a total of 91 individuals completed the treatment program during this period. Complete demographic, intake, and follow-up data were available for 62 of these persons. The study sample was restricted to these 62 persons. Twenty-eight of these individuals comprising the sample were in the Reality Therapy group, and the remaining 34 were in the Self-Awareness Therapy group.

As a whole, the study sample was comprised of 54 males and 8 females, of whom 54 were Caucasian and 8 were Native. The majority were married (n=21) with 15 being single, 19 separated or divorced, 5 living commonlaw, and 1 widowed. The mean age was 42 years, the mean educational status Grade 9, and mean annual income just over \$8,000. The average individual in the study sample had held 1.3 different jobs in the twelve months pre-

vious to program admission, and had changed residence 1.4 times in the same one-year period.

In regards to drinking behavior, the group reported an average of 21 years of drinking previous to admission, and an average of 8 years of heavy drinking. As well, they reported an average of 10 "dry" days in the month prior to admission, and 64 "dry" days in the six-month period prior to admission. (A day in which the subject was totally abstinent is defined as a "dry" day.)

T-tests revealed no significant mean differences on any of these variables between the twenty-eight subjects in the Reality Therapy group and the thirty-four in the Self-Awareness Therapy group.

Assessment

In the initial interview, each individual was assessed on a standardized psychiatric/social history, a self-concept checklist (the Interpersonal Checklist; Leary, 1957), and a standardized demographic questionnaire (Appendix A). As well, each individual rated him/herself on a 91-item questionnaire (Appendix B) with regard to drinking behavior, job satisfaction and performance, family situation, health, and occupational stability for the three months previous to admission. This questionnaire also required the patient to rate him/herself on a number of personality characteristics. All of the ratings were made on seven-point semantic differential or Likert-type scales.

At five months following discharge each ex-patient who could be located was contacted by a field worker and again rated him/herself on the behavioral and personality dimensions with reference to the three months

immediately prior. Of the original 91 items only 44 appeared on the follow-up questionnaire prepared by the research team of the treatment unit (Appendix C). Items which were repetitive, which did not discriminate among respondents, and which measured static qualities (e.g., age at which respondent started drinking) were eliminated in the construction of this abbreviated form.

Procedure

Following Hollingshead and Redlich's Two-Factor Index of Social Position (cf., Laswell, 1965), a social class rank was calculated for each member of the study sample using a weighted sum of his/her occupational status and educational level (see Appendix D). On the basis of this social class rank, each individual was assigned to one of two social class levels: Level I, which corresponded to Hollingshead and Redlich's Classes I through IV (upper through lower-middle); or Level II, which was equivalent to Hollingshead and Redlich's Class V (lower class). This created a conceptually and statistically meaningful division between the two social class levels with Level II comprising the poor (lower class) and Level I including primarily working and middle class persons. The Level II individuals had a mean income of \$6,000 with an average of Grade 7 education and ranged from unskilled and casual to semi-skilled workers in occupation. In contrast, the Level I individuals had a significantly higher mean income of \$9,500 ($t=1.99$, $p=.05$) and a significantly higher average of Grade 10 education ($t=5.10$, $p<.01$). Occupationally, they ranged from semi-skilled workers to professionals.

On the basis of this social class level assignment, thirty-six

individuals were classified as Level I (thirteen in the Reality Therapy group and twenty-three in the Self-Awareness Therapy group) and the remaining twenty-six persons were included in Level II (fifteen in Reality Therapy and eleven in Self-Awareness Therapy). This distribution yielded a non-significant chi-square ($\chi^2=2.30$, $p>.10$) indicating no systematic bias was introduced in the social class by therapy assignments. The relative effectiveness of each of the therapies for the individuals in each of these social class levels was examined using the five-month follow-up data as outcome information.

In order to derive empirically meaningful dependent measures, a factor analysis of the 44 items retained for follow-up was done using a principal components analysis.¹ The number of covariate and dependent measures were each restricted to five by the smallest cell size in the design ($n=11$). Thus, the five highest ranking factors of the thirteen yielded by a varimax rotated principal components analysis were defined as the measures to be used as the dependent and covariate variables.² These five factors accounted for 71.3% of the total variance. Only those items which loaded at or above the .50 level on these factors ($n=16$) were retained. For each of these five factors, the individual items which define the

¹The reliability of a factor analysis utilizing data from the current sample alone was considered questionable because of the relatively small ratio of cases to items (62:44). Therefore, intake data on these items from all previous program participants exclusive of the current sample ($n=422$) were used for the factor analysis. The ratio of cases to items thus approached 10:1. This procedure had the further advantage of defining measures independent of the sample in question, thus allowing for greater generalizability.

²Rotating only five factors yielded virtually identical results with the exception of one item which loaded on a factor in the former analysis but not in the latter. Since the full rotation (of 13 factors) thus included a greater number of items it was accepted for defining the factors to be used.

factor are related in a conceptually meaningful way. The five factors are as follows: Factor I - Affective State; Factor II - Interpersonal Attitudes; Factor III - Drinking Behavior; Factor IV - Life Satisfaction; and Factor V - Predictions of Future Drinking.

For each subject a composite score was calculated for each of the five dependent measures by summing the appropriate item scores from his/her follow-up data. In the same way, composite scores were calculated from the intake data to construct five covariate measures for each subject. In these calculations, all items were set up to be scaled in the same direction such that a higher score indicated a more positive response. This involved transforming all items of Factor II and Item #49 of Factor III from their original data format (details are given in Appendix E). In sum, these five factors represent relatively independent behavioral indicators of improvement, with the intake data (covariates) serving as baseline and follow-up data (dependent measures) indicating actual level of improvement. The individual items which comprise these measures, their factor loadings, and the factor eigenvalues are presented in Appendix E.

Design and Data Analysis

Data were analyzed within a 2 X 2 factorial design. The factors included two social class levels (Levels I and II) and two types of therapy (Reality and Self-Awareness). The design included five dependent measures and five covariates as described above. A multivariate analysis of covariance [MANCOVA] (Finn, 1976) was used to test the overall interaction effect of social class by therapy. In order to test each of the four major hypotheses, MANCOVA simple main effects were examined.

Hypotheses

- 1) Lower class clients (Level II) exposed to Reality Therapy would show greater improvement than those exposed to Self-Awareness Therapy.
- 2) Higher class clients (Level I) exposed to Self-Awareness Therapy would show greater improvement than those exposed to Reality Therapy.
- 3) Lower class clients (Level II) exposed to Reality Therapy would show greater improvement than would higher class clients (Level I) exposed to the same therapy.
- 4) Higher class clients (Level I) exposed to Self-Awareness Therapy would show greater improvement than would lower class clients (Level II) exposed to the same therapy.

RESULTS

The multivariate analysis indicated a significant association between the covariates and the dependent measures ($F=1.95$, $p<.005$). Therefore, the covariates were retained for all further analyses.

The cell means and standard deviations for each of the covariate and dependent measures are presented in Table I. The multivariate analysis of covariance for social class level, therapy, and social class by therapy interaction effects is presented in Table II. As can be seen, there was no significant main effect for either independent variable. Contrary to prediction, the interaction between the two independent variables was non-significant. Tests of the simple main effects for therapy and social class were also non-significant.

Comparisons of Study Sample to Other Program Participants

In order to aid interpretation of the study results, a number of post-hoc analyses were undertaken comparing the study sample to other subsamples of the original 120 individuals accepted into the program. A one-way MANCOVA for therapy effects was done comparing data from 14 program drop-outs (average tenure in program = 8 days) to those who completed treatment. Cell means and standard deviations for the three groups are presented in Table III. The MANCOVA sources of variance for these analyses are presented in Table IV. No significant differences were found.

T-tests comparing demographic data on drop-outs (available for 10 of the 14) to program completers indicated that the drop-outs reported significantly fewer years of drinking prior to admission ($t=2.04$, $p<.05$) and fewer years of heavy drinking ($t=5.31$, $p<.005$). On all other variables

TABLE I
Cell Means and Standard Deviations for Therapy by Social Class Comparisons

FACTOR	REALITY THERAPY				SELF-AWARENESS THERAPY			
	Level I (n=13)		Level II (n=15)		Level I (n=23)		Level II (n=11)	
	\bar{X} .	SD	\bar{X} .	SD	\bar{X} .	SD	\bar{X} .	SD
I AFFECTIVE STATE								
pre-measures	14.28	7.72	12.67	4.75	15.48	5.19	14.00	4.80
post-measures	19.23	3.88	18.67	6.19	18.13	5.43	16.82	8.60
adjusted post	19.21		18.88		17.97		16.78	
II INTERPERSONAL ATTITUDES								
pre-measures	16.69	5.15	15.20	3.78	16.30	4.26	14.91	4.23
post-measures	16.85	3.34	15.67	5.19	16.26	5.22	16.00	4.38
adjusted post	16.60		16.60		15.57		16.01	
III DRINKING BEHAVIOR								
pre-measures	76.54	47.54	87.13	48.92	63.63	59.43	68.36	45.46
post-measures	143.23	42.47	133.40	48.54	123.35	46.43	118.36	48.45
adjusted post	143.96		135.02		117.8.		121.56	
IV LIFE SATISFACTION								
pre-measures	10.54	5.04	10.00	3.85	10.17	4.78	9.73	3.82
post-measures	14.92	2.40	12.53	3.87	12.87	4.73	11.00	4.69
adjusted post	14.84		12.73		12.71		11.04	
V PREDICTIONS OF FUTURE DRINKING								
pre-measures	12.92	1.32	12.93	1.22	13.43	1.61	12.91	1.45
post-measures	11.92	2.53	12.13	2.50	11.78	2.37	10.27	2.83
adjusted post	11.88		12.12		11.64		10.47	

TABLE II

Sources of Variance for Therapy X Social Class Comparisons

Source	df	Multivariate F	p
Therapy (A)	5	0.9703	n.s.
Therapy X Level I	5	0.8692	"
Therapy X Level II	5	0.5543	"
Social Class (B)	5	0.6764	"
Social Class X Reality Therapy	5	0.7547	"
Social Class X Self-Awareness Therapy	5	0.5711	"
A X B	5	0.6467	"
Error	49		

TABLE III
Cell Means and Standard Deviations for Therapy Completers vs. Therapy Drop-outs Comparisons

FACTOR	REALITY THERAPY (n=28)		SELF-AWARENESS THERAPY (n=34)		DROP-OUTS (n=14)	
	\bar{X} .	SD	\bar{X} .	SD	\bar{X} .	SD
I AFFECTIVE STATE						
pre-measures	13.46	6.24	15.00	5.04	12.29	5.78
post-measures	18.93	5.16	17.71	6.52	17.86	5.61
adjusted post	18.96		17.57		17.96	
II INTERPERSONAL ATTITUDES						
pre-measures	15.78	4.45	15.85	4.24	14.43	5.84
post-measures	16.21	4.39	16.18	4.90	17.00	4.67
adjusted post	16.46		15.68		17.26	
III DRINKING BEHAVIOR						
pre-measures	82.21	47.69	65.18	54.65	67.21	44.97
post-measures	137.96	45.26	121.74	46.41	115.86	50.32
adjusted post	135.21		115.68		124.66	
IV LIFE SATISFACTION						
pre-measures	10.25	4.37	10.03	4.44	9.43	4.50
post-measures	13.64	3.43	12.26	4.73	10.21	4.35
adjusted post	13.55		12.01		10.56	
V PREDICTIONS OF FUTURE DRINKING						
pre-measures	12.93	1.25	13.26	1.26	11.93	2.20
post-measures	12.04	2.47	11.29	2.59	11.57	3.23
adjusted post	11.81		10.97		12.12	

TABLE IV

Sources of Variance for Therapy Completers vs. Therapy Drop-outs Comparisons

<u>Source</u>	<u>df</u>	<u>Multivariate F</u>	<u>p</u>
Reality Therapy vs. Drop-out	5	1.1495	n.s.
Self-Awareness Therapy vs. Drop-out	5	1.1404	"
Error	64		

including socio-economic status, and number of days dry in the month prior to admission and in the six months prior to admission, the groups did not differ.

Post-hoc t-tests were also done comparing available demographic data of individuals not located at five-month follow-up (n=37) to the study sample. While the groups did not differ in socio-economic status or in reported drinking behaviors, the non-follow-up group reported a significantly greater number of residential moves in the twelve months prior to admission ($t=2.66$, $p<.05$) and a significantly greater number of jobs held in the same period ($t=2.30$, $p<.05$).

Pre-post Improvement

Although there are no data to indicate the superiority of either therapy group over the other, nor over the drop-out group, as reported above, post-hoc multivariate analysis of pre-post differences indicated significant positive change for all three of the groups. (Reality Therapy, $F=8.92$, $p<.001$; Self-Awareness Therapy, $F=12.24$, $p<.001$; drop-out group, $F=4.63$, $p<.02$). At the univariate level, the direction of changes on Factors I through IV reflected this positive change. However, scores on Factor V (Predictions of Future Drinking) were lower on the post-test than on the pre-test (see Table III). While the directionality of this latter finding was consistent for all three groups, it was significant for the Self-Awareness Therapy group only. It may thus have represented a chance finding and was not interpreted further.

DISCUSSION

This study was designed to test the hypothesis that the socio-economic status of the alcoholic plays a significant role in determining the kind of therapy which is most effective for him or her. The results do not support this hypothesis. Statistical tests revealed no significant interaction between type of therapy received and social class on the outcome measures. Post hoc analyses revealed a number of findings which may help to understand this unexpected result.

Therapeutic Effectiveness

A possible explanation for the finding of a non-significant therapy by social class interaction is suggested by comparing follow-up data of program completers and program drop-outs. As reported above, this comparison indicated that program drop-outs were functioning as well at five-month follow-up as were those who had completed therapy. One interpretation of this finding is that the therapies were no more effective than limited (or no) therapy in inducing relevant changes in the selected population. However, there are a number of considerations which make it impossible to draw any firm conclusions about the effectiveness of the therapies. The first of these is the lack of any immediate post-therapy measures to assess specific therapy-related changes. Lacking such measures it cannot be determined in what ways (if any) individuals were directly effected by the therapy experience itself. Secondly, the drop-out group does not constitute a true no-treatment control group for two reasons:

- 1) they were exposed to the treatment program for a limited time; and
- 2) there is some evidence to indicate that the drop-outs may be represen-

tative of a different population than the study sample. This latter contention is supported by the finding that the drop-outs entered therapy with significantly shorter histories of drinking and heavy drinking than did the program completers. Thus, they may be representative of a population less in need of formal therapeutic intervention. It is possible, for example, that these individuals gained as much from their short exposure to treatment as the others did from the full three-week treatment. A third consideration which mitigates against concluding that therapy was ineffective is introduced by the finding that all groups (including the drop-outs) showed significant positive change from intake to five-month follow-up.

However, it would be equally misleading to interpret this finding of pre-post change as firm evidence in favor of treatment effectiveness. While improvement in the experimental groups may indeed reflect therapy-induced changes, the finding might also be attributable to a number of extraneous uncontrolled variables. In a quasi-experimental design (such as that used in the present study) with no equivalent control group, and no immediate measures to determine actual therapy-related gains, the question of internal validity must be considered before the hypothesis that observed gains are a function of therapy alone can be accepted unequivocally (Cook & Campbell, 1976). That is, the improvement noted in all three groups may be totally unrelated to treatment and instead be accounted for in terms of a number of other variables. In their discussion of constraints on internal validity in the quasi-experimental design, Cook and Campbell list several such extraneous variables. First, the noted improvement may reflect the subjective status of the individuals at the two mea-

surement occasions. Thus, at intake (first measurement occasion), individuals had just been admitted for a currently salient drinking problem. It may well be that at that point in time, these persons were particularly agitated, depressed, and accordingly pessimistic in assessing their current situation. In other words, the apparent extremity of his/her plight may well be exaggerated by the individual when first presenting for treatment. At five-month follow-up, on the other hand, the individuals were not actively seeking aid in relation to drinking problems, but rather were approached in the context of their own communities to assess their current status. Thus, it is quite possible that while problems may still have existed, they were perceived by the respondents as less immediate and extreme at this second measurement occasion. This kind of shift in perspective would be manifested as improvement on the dependent measures. Such an explanation would account for the improvements observed in the drop-out group as well.

This same contrast between the two measurement occasions also suggests that the objective reality of the individual's situation was improved from the time that he/she presented for treatment (presumably a low point for the individual). Variables which intervened between the measurement occasions (in addition to therapy) may have been responsible for the observed gains. The effects of "history" and "maturation" (Cook & Campbell, 1976; Campbell & Stanley, 1963) should be considered in this regard. History refers to any change-producing event (e.g., an effective drug-abuse television campaign, a renewed interest on the part of spouse, etc.) which may have occurred between the two measurement occasions, while maturation refers to "all those biological and psychological processes which system-

atically vary with the passage of time independent of external events" (Campbell & Stanley, 1963, p. 8). This latter is essentially that which is often referred to as "spontaneous remission". While there is considerable evidence to indicate that such a phenomenon occurs (e.g., Landis, 1937; Eysenck, 1952), Bergin (1971) points out that such recoveries are not necessarily truly "spontaneous" but rather reflect changes induced by unaccounted-for variables external to formal therapy. These kinds of extra-therapeutic changes could be responsible for improvements in the individual's state and situation. In the absence of any data to rule them out, the hypotheses of subjective and objective improvements in the individuals' lives must be considered as equally plausible in accounting for the observed gains as the therapy itself. Finally, the phenomenon of statistical regression towards the mean must also be considered in relation to the findings in this study. As Kerlinger (1973) explains:

Scores of tests change as a statistical fact of life: on retest, on the average, they regress toward the mean. The regression effect operates because of the imperfect correlation between the pretest and posttest scores...With the moderate and sizable, but imperfect, correlations found in practice, the net effect is that lower scores on the pretest tend to be higher and higher scores lower on the posttest - when, in fact, no real change has taken place in the dependent variable. Thus, if low-scoring subjects - the underprivileged, for example - are used in a study, their scores on the posttest will probably be higher than on the pretest due to the regression effect. This can deceive the researcher into believing that his experimental intervention has been effective when it really has not. (p. 320)

Thus, the observed gains may simply be a function of this statistical occurrence.

Many of these contaminants of internal validity might be obviated by

the introduction of: a) a truly equivalent control group; and b) immediate post-therapy measures which are designed to tap the specific short-term therapeutic goals. An equivalent control group would allow the researcher to determine whether any observed changes from pre- to post-test are specific to the treated population. If both experimental and control groups show equivalent change, then the conclusion must be that the change is not a function of the experimental treatment itself, but rather reflects the influence of these extraneous variables. If, on the other hand, the experimental group changes in ways that the control group does not, the researcher can conclude that the changes are somehow related to, or a function of, the experimental treatment (see Cook and Campbell, 1976 or Kerlinger, 1973 for more complete discussion). Measurement of the short-term therapy goals would aid in resolving a further question which must be raised in regard to the present findings. Specifically, it is possible that therapy-induced changes did in fact, occur, but did not lead to the long term goals as predicted by the therapy model (Weiss, 1972). That is, therapy may have accomplished the short term goals as articulated within the therapeutic framework, but attainment of these short term goals was unrelated to the longer term goals of abstinence and adjustment. Again, lack of information on specific therapy-related changes makes it impossible to determine 1) whether the short term goals were attained, and 2) whether the hypothesized relationship between the short and long term goals is valid. In other words, it is impossible to determine where this chain might have broken down.

Definition of Social Class

The unexpected findings might also be attributed to the way in which the two social class levels were defined for the present study. Earlier studies indicating the relevance of socio-economic variables as predictors have focussed primarily on composite social competence measures rather than on social class per se (e.g., Davies, Shepard & Myers, 1969; Gibbins & Armstrong, 1955b; Gerard & Saenger, 1966; Edwards, 1966; Sugarman, Reilly & Albarhary, 1965). In most instances, these composite scores have included some measure of social stability. Adamson, Fostakowsky & Chebib (1974), for example, included residential stability, while Goldfried (1969) included marital and employment stability, and Gillis and Keet (1969) included stability of interpersonal relationships. While stability has thus been related to outcome, studies employing social class have instead demonstrated a relationship between social class and treatment availability (e.g., Blane & Meyers, 1964; Schmidt, Smart & Moss, 1968; Edwards, Kyle & Nicholls, 1974). There is no example of a direct relationship between social class (as defined by Hollingshead and Redlich) and outcome. Nevertheless, a number of authors have predicted that such a relationship should exist (Edwards, Kyle & Nicholls, 1974; Blane & Meyers, 1964; Gibbins & Armstrong, 1957; Zax, Marsey & Biggs, 1961, Schmidt, Smart & Moss, 1968).

This prediction is apparently based on the assumption that social class per se rather than social stability is the more prepotent determinant of treatment effectiveness. In other words, the fact that the majority of the less socially stable persons are also members of the lower social class may have lead these authors to conclude that the class membership rather than the stability measure was the critical variable. It is

equally possible, however, that the stability measures themselves tap more directly the variable which mediates treatment effectiveness. If this latter is true, then social stability would be a more useful variable for determining the most appropriate kind of therapy for an individual.

As mentioned in previous discussion, the size of the final sample was dictated by considerations of data collection. The 62 subjects who comprise the final sample as well as the fourteen drop-outs are different from the remainder of the 120 persons accepted into the program by virtue of the fact that they were available for assessment at the five-month follow-up. The fact that these persons could be located while the others could not suggests that they may represent the most stable of the original 120. Additional support is lent to this hypothesis by the finding that those not followed up had reported a significantly greater number of residential moves and changes in place of employment in the year prior to program admission, than did those followed up. In other words, the final sample may be representative of only a limited range on the stability dimension. This possibility is supported by the fact that there were no significant differences between the two social class levels with regard to these two stability measures. Thus, the study sample was fairly homogeneous with regard to the stability which may, in fact, be the relevant mediating variable as suggested above.

Conclusion

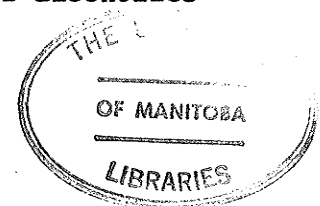
In sum, it would be premature to conclude from the lack of positive findings in the present study that the hypothesized relationship between social class and type of therapy does not exist. It may be instead that

the study did not provide a fair test of the hypotheses for the reasons outlined above. The major pitfalls center around the lack of ongoing evaluation of the therapy process itself (rendering it difficult to determine if the therapists actually did what they purported to do), and the absence of measure to determine if treatment was actually meeting its stated immediate goals. Given these constraints, it is impossible to ascertain whether or not the treatments were effective, and further whether or not these particular kinds of therapy, when effective, do lead to the desired long term goals. Such questions should be carefully considered in determining the definition of success in relation to any given therapeutic program.

Future research in this area should be designed in such a way as to avoid these problems. Further, the question of the relative importance of social stability versus social class should be carefully considered. It is recommended that social stability measures be included in the definition of social class levels.

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APPENDICES

APPENDIX A
Demographic Questionnaire

DEPARTMENT OF PSYCHIATRY
CHEMICAL WITHDRAWAL UNIT DATA SHEET

Unit Serial Number	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>		<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	1	5
Hospital Record Number	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>				11
Surname	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>				26
Current Address	Initials <div><div></div><div></div></div>	27	Sex	Male - 1 <div><div></div><div></div></div>	28
				Female - 2 <div><div></div><div></div></div>	
<hr/>					
Date of Birth (day-month-year)	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		34
Number of admission to CWU			<div><div></div><div></div></div>		35
<hr style="border-top: 1px dashed black;"/>					
Admission Date (day-month-year)	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		42
Day of the week	Monday - 1 <div><div></div><div></div></div> Tuesday - 2 Wednesday - 3 Thursday - 4 Friday - 5 Saturday - 6 Sunday - 7				43
Time — next hour			<div><div></div><div></div></div>		45
<hr style="border-top: 1px dashed black;"/>					
Discharge Date (day-month-year)	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		51
Day of the week	Monday - 1 <div><div></div><div></div></div> Tuesday - 2 Wednesday - 3 Thursday - 4 Friday - 5 Saturday - 6 Sunday - 7				62
Time — next hour			<div><div></div><div></div></div>		64
<hr style="border-top: 1px dashed black;"/>					
Racial Appearance	1 ONLY		White - 1	<div><div></div><div></div></div>	55
			Indian-Metis - 2		
			Negro - 3		
			Other - 4		
<hr style="border-top: 1px dashed black;"/>					
Religion	1 ONLY		R C - 1	<div><div></div><div></div></div>	58
			Anglican - 2		
			United - 3		
			Other Prot. - 4		
			Jewish - 5		
			Other - 6		
			None - 7		
Practising - 1	Not practising - 2			<div><div></div><div></div></div>	67

Marital Status - Single - 1 ☐ 50
1 ONLY Married - 2
Common-law - 3
Separated - 4
Div. or Annulled - 5
Widowed - 6

No. of times married 60

Living with	yes - 1	
alone	<input type="checkbox"/>	61
parent	<input type="checkbox"/>	62
sibling	<input type="checkbox"/>	63
fiancé or com.-law	<input type="checkbox"/>	64
spouse	<input type="checkbox"/>	65
child	<input type="checkbox"/>	66
other relative	<input type="checkbox"/>	67
friend	<input type="checkbox"/>	68
other	<input type="checkbox"/>	69

U.S.N.

				2
--	--	--	--	---

 б

Disposal

hospital - 1	other - 6	
A T U - 2	home - 7	<input type="checkbox"/> 8
A F M - 3	Pritchard	
X-Kalay - 4	House - 8	
S.A. - 5	A M A - 9	

H S C	<input type="checkbox"/>	7
other medical	<input type="checkbox"/>	8
counsellor	<input type="checkbox"/>	9
legal and/or penal	<input type="checkbox"/>	10
C W U Soc. Serv.	<input type="checkbox"/>	11
A.A. Group	<input type="checkbox"/>	12
S.A.	<input type="checkbox"/>	13
X-Kalay	<input type="checkbox"/>	14
M.S.P.	<input type="checkbox"/>	15
other agency	<input type="checkbox"/>	16
nil	<input type="checkbox"/>	17

Type of Accommodation ☐ 18

house - 1 prison - 6
apartment - 2 institution - 7
rooming - 3 other - 8
hotel - 4 none - 9
hostel - 5

Census Tract ☐ ☐ 20

No. of moves in
past 12 months ☐ ☐ 22

Highest Education Level ☐ ☐ 24

1 ONLY none - 01

kindergarten - 02

Grade 1 - 03

2 - 04

3 - 05

4 - 06

5 - 07

6 - 08

7 - 09

8 - 10

9 - 11

10 - 12

11 - 13

12 - 14

13 - 15

College 1st year - 16

2nd year - 17

3rd year - 18

4th year - 19

5th year and over - 20

Technical Course ☐ 25

Upgrading yes - 1 ☐ 26

Work:

1 ONLY employed - 1 ☐ 27

unemployed - 2

casual - 3

retired - 4

housewife - 5

No. of jobs in
past 12 months ☐ ☐ 29

Time since last job if
unemployed or casual yrs. ☐ ☐ 31

mths. ☐ ☐ 33

days ☐ ☐ 35

Source of Family Income
in past year

private ☐ 36

paid employment ☐ 37

Income supplement or
pension (public funds) ☐ 38

Approx. Total in \$1000's ☐ ☐ ☐ 41

Referred or Brought by: ☐ ☐ 43

1 ONLY

self - 01

physician - 02

clergy - 03

police/fire - 04

court - 05

probation officer - 06

A F M - 07

A A - 08

S A - 09

M S P - 10

ambulance - 11

relative - 12

H S C - 13

other - 14

Currently Active Relationships

yes - 1 parent ☐ 44

sibling ☐ 45

fiancé ☐ 46

spouse or com. law ☐ 47

child ☐ 48

other relative ☐ 49

friend ☐ 50

clergy ☐ 51

physician ☐ 52

psychotherapist ☐ 53

probation officer ☐ 54

A F M ☐ 55

A A ☐ 56

S A ☐ 57

other counsellor ☐ 58

No. of convictions since last admitted
to C W U

(ALL if 1st admission since
September 17, 1973) alcohol 60

other 62

No. of hospital admissions
since last admitted to C W U

(ALL if 1st admission) alcohol 64

other 66

U.S.N. 3 5

Other drug abuse yes - 1 6

Cigarette smoker (number/day) 9

Handedness for most activities 10
Right - 1 Left - 2

DRINKING BEHAVIOUR

First admission to C W U only

Years drinking 12

Years heavy drinking 14

All admissions to C W U

Days dry in last month 16

Days dry in last 6 months 18

Readmissions to C W U only

Days dry since last admission to C W U 23

U.S.N. 4 6

TO BE COMPLETED BY NURSING

	present during CWU treatment	present on discharge
Tremor	<input type="text"/> 6	<input type="text"/> 7
Hallucination	<input type="text"/> 8	<input type="text"/> 9
Seizures	<input type="text"/> 10	<input type="text"/> 11
Vomiting	<input type="text"/> 12	<input type="text"/> 13
Tachycardia (>110/min)	<input type="text"/> 14	<input type="text"/> 15
Pyrexia	<input type="text"/> 16	<input type="text"/> 17
Confusion	<input type="text"/> 18	<input type="text"/> 19
Sweating	<input type="text"/> 20	<input type="text"/> 21
Diarrhoea	<input type="text"/> 22	<input type="text"/> 23
Hypertension (systolic >160 or diastolic >100)	<input type="text"/> 24	<input type="text"/> 25
Rapid respiration (>20/min)	<input type="text"/> 26	<input type="text"/> 27

APPENDIX B

91-item Intake Questionnaire

ALCOHOL TREATMENT PROGRAM QUESTIONNAIRE

Name _____

Date _____

U S N

Period _____ months

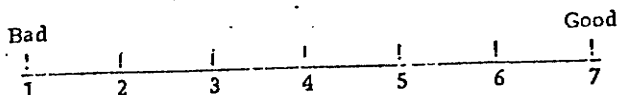
Please leave blank

Please Read Carefully

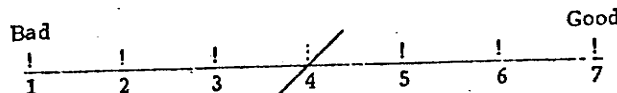
The purpose of this questionnaire is to help us understand alcoholism better. This can only be done if you answer all questions truthfully and as accurately as possible. Your help will enable us to improve our treatment program.

All information will be treated confidentially. It will not go beyond the Chemical Withdrawal Unit.

If you are asked to RATE something, a scale will be given below the statement



The two words shown represent the extremes of the scale. You should make a stroke where you feel the particular statement would fall on that scale.



If the statement is neither good nor bad, you would probably mark the scale about the middle (4) as shown. If the statement is EXTREMELY good or EXTREMELY bad, you would mark the scale near the appropriate end. Between the extremes, any number of good bad ratings can be made.

- 1 Rate your overall health during the past 3 months

Very poor 1 2 3 4 5 6 7 Very good

- 2 How many times have you visited a doctor in the past 3 months? _____ times

- 3 How many times have you been hospitalized for physical illness (other than drinking) in the past 3 months? _____ times

- 4 Rate how your illness has changed your opinion about drinking

Not at all 1 2 3 4 5 6 7 A great deal

- 5 Rate how satisfied you are with your physical health

Very dissatisfied 1 2 3 4 5 6 7 Very satisfied

- 6 Check off any of the following that you have suffered from at any time

_____ D T 's _____ Ulcers
_____ Blackouts _____ Liver damage
_____ Hallucinations _____ Malnutrition
_____ Convulsions

- 7 At approximately what age did you first start drinking heavily?

_____ years of age

8 Approximately how many years have you been drinking frequently or heavily?

_____ years

9 Rate how often you attended A A meetings in the last 3 months

Never Regularly

1 2 3 4 5 6 7

10 For how many years have you been in contact with A A ?

_____ years _____ no contact

11 What was your main source of income during the last 3 months? (CHECK ONE ONLY)

_____ Job	_____ Pension (or Social Security)
_____ Spouse	_____ Illegal
_____ Family or friends	_____ Savings/Investments
_____ Public assistance (or welfare)	_____ Insurance (or Workmen's Compensation Unemployment Insurance)
_____ Other (Specify) _____	

12 How many weeks have you worked in the last 3 months? _____ weeks

13 How many different jobs have you had in the last 3 months? _____ jobs

14 What is the main reason you were NOT looking for work in the last 3 months?

_____ I was looking for work	_____ Permanently disabled
_____ Retired/too old	_____ Institutionalized
_____ Drinking problem	_____ No job available
_____ Don't want a job	_____ Housewife
_____ Employed	_____ Student
_____ Other (Specify) _____	

- 15 Rate how often you have been looking for work in the last 3 months

Never Continuously

1	2	3	4	5	6	7

- 16 Does your employer know you have a problem with alcohol?

_____ No _____ Yes _____ Not employed

- 17 Rate how much you would like to change your occupation.

Not at all A great deal

1	2	3	4	5	6	7

- 18 Rate your work experience over the last 3 months in terms of job satisfaction.

_____ no job

Very dissatisfied Very satisfied

1	2	3	4	5	6	7

- 19 Rate your own performance on the job over the last 3 months. _____ no job

Very poor Very good

1	2	3	4	5	6	7

20. Rate your financial situation in the last 3 months.

Very unsatisfactory Very satisfactory

1	2	3	4	5	6	7

21. Rate how satisfied you are with your life

Very dissatisfied							Very satisfied
1	2	3	4	5	6	7	

22. Have you ever made a serious attempt to commit suicide?

_____ No _____ Yes

23. Rate how you enjoy being with your wife/husband. _____ not married

Very little							Very much
1	2	3	4	5	6	7	

24. How many children do you have living with you? _____ children

25. Rate how much you enjoy being with your children. _____ no children

Very little							Very much
1	2	3	4	5	6	7	

26. Rate how satisfied you are with your role in your family. _____ no family

Very dissatisfied							Very satisfied
1	2	3	4	5	6	7	

27. Rate how you believe your wife/husband is fulfilling his/her role.

_____ not married

Very poorly							Very well
1	2	3	4	5	6	7	

- 28 Rate your chances for a reconciliation not separated

None Great

1 2 3 4 5 6 7

- 29 Rate your living accommodation prior to admission

Very Very

unsatisfactory satisfactory

1 2 3 4 5 6 7

- 30 An encounter with the law means a warning by a police officer, an arrest or a summons How many encounters with the law have you had in the past 3 months?

_____ encounters

- 31 How much time have you spent in custody in the last 3 months? _____ days

- 32 Rate your drinking habits

Non drinker Alcoholic

1 2 3 4 5 6 7

- 33 Rate how helpful you think counselling can be to alcoholics.

No A great

help help

1 2 3 4 5 6 7

- 34 Rate how often you feel sorry about your drinking.

Never Always

1 2 3 4 5 6 7

35. Rate how often your drinking causes trouble in your relationships with your friends.

Never						Always
!	!	!	!	!	!	!
1	2	3	4	5	6	7

36. Rate how often your drinking causes financial problems.

Never						Always
!	!	!	!	!	!	!
1	2	3	4	5	6	7

37. Rate how much you think your drinking damages your health.

Not at all						A great deal
!	!	!	!	!	!	!
1	2	3	4	5	6	7

38. Rate how your drinking affects your work.

Not at all						A great deal
!	!	!	!	!	!	!
1	2	3	4	5	6	7

39. Rate how frequently your drinking causes trouble in your home. (If married this means wife and family; if single this means parents, relatives, or people you live with.)

Never						Always
!	!	!	!	!	!	!
1	2	3	4	5	6	7

40. Everyone gets angry, frightened, or depressed at times. Rate how often you drink to relieve these feelings.

Never						Always
!	!	!	!	!	!	!

- 41 Rate how often you experience loss of memory when you drink

Never Always

1 2 3 4 5 6 7

42. Rate how often you drink whatever is available, even if you strongly dislike it

Never Always

1 2 3 4 5 6 7

43. Rate how often you have a drink the morning after to treat a hangover.

Never Always

1 2 3 4 5 6 7

- 44 Rate how often you drink alone

Never Always

1 2 3 4 5 6 7

45. There are three basic drinking patterns. Please indicate which pattern best describes your drinking

_____ Steady Drinker - has something to drink almost every day.

_____ Episode Drinker - drinks at clearly-defined intervals and only for several hours each time (for example, only on weekends or twice a month)

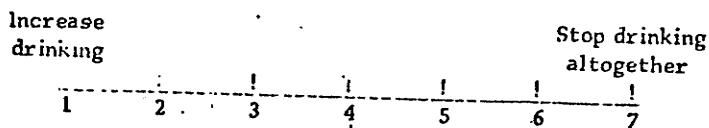
_____ Bender Drinker - drinks more or less continuously for several days or weeks with drinking bouts separated by periods of total abstinence

_____ Do not drink

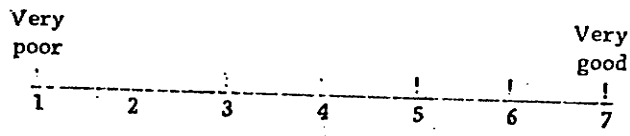
- 46 If you are an Episode Drinker, how many episodes did you have in the last 3 months? _____ episodes

- 47 If you are a Bender Drinker, how many days do you usually drink at one time? _____ days

- 48 If you are a Steady Drinker how many days a week do you usually drink?
_____ days
- 49 How many days did you drink in the last 3 months? _____ days
- 50 What was your longest "dry" period during the last 3 months? _____ days
- 51 How long was your most recent drinking bout? _____ days
- 52 Check the amount of alcoholic beverage you would consume on a typical day of drinking (Check more than one type only if you would drink both on the same day)
- | | |
|-----------------------|---|
| Beer _____ bottles | Steam (rubbing alcohol) _____ ozs. |
| Wine _____ bottles | Squeeze (sterno, canned heat) _____ ozs |
| Hard liquor _____ ozs | Bay rum (after shave) _____ ozs |
- 53 How many times have you been drunk during the past 3 months? _____ times
- 54 Rate what you think you will be able to do in the next few months about your drinking



- 55 Rate your chances of staying dry for the next 3 months



Rate yourself honestly and carefully on the following scales:

56

steady

shaky

1	2	3	4	5	6	7
---	---	---	---	---	---	---

57

successful

unsuccessful

1 2 3 4 5 6 7

58

withdrawn

outgoing

A horizontal number line with tick marks at each integer from 1 to 7. The numbers 1, 2, 3, 4, 5, 6, and 7 are written below the line.

59

peaceful

aggressive

A horizontal number line with tick marks at each integer from 1 to 7. The numbers are labeled below the line.

60

sensitive

insensitive

A horizontal number line with tick marks at each integer from 1 to 7. The numbers are labeled below the line.

61.

energetic

tired

$$\frac{1}{1} - \frac{1}{2} + \frac{1}{3} - \frac{1}{4} + \frac{1}{5} - \frac{1}{6} + \frac{1}{7}$$

62

suspicious

trusting

A horizontal number line with tick marks at each integer from 1 to 7. The numbers 1, 2, 3, 4, 5, 6, and 7 are written below the line.

63

secure

insecure

A horizontal number line with tick marks at each integer from 1 to 7. The numbers 1, 2, 3, 4, 5, 6, and 7 are written below the line.

64

proud

humble

A horizontal number line with tick marks at each integer from 1 to 7. The numbers 1, 2, 3, 4, 5, 6, and 7 are written below the line.

65. depressed happy
1 2 3 4 5 6 7

66. forgiving unforgiving
1 2 3 4 5 6 7

67. afraid unafraid
1 2 3 4 5 6 7

68. tolerant critical
1 2 3 4 5 6 7

69. tense relaxed
1 2 3 4 5 6 7

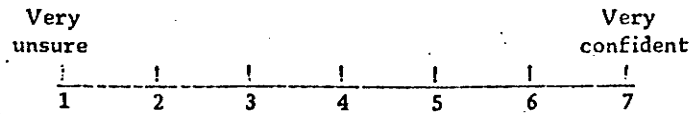
70. weak strong
1 2 3 4 5 6 7

71. open defensive
1 2 3 4 5 6 7

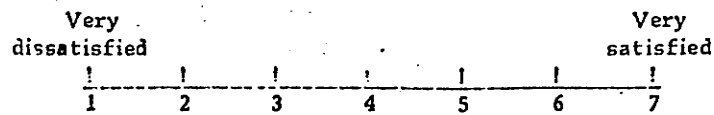
72 Rate how well you get along with others.

Very Very
well poorly
1 2 3 4 5 6 7

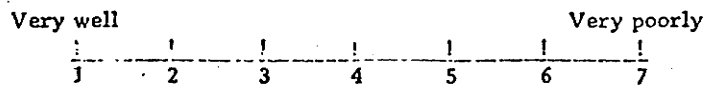
73 Rate how you feel about your abilities in general.



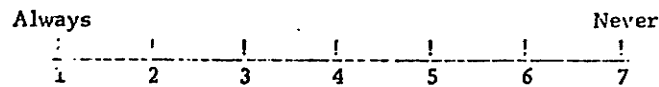
74 Rate how satisfied you are with your lot in life.



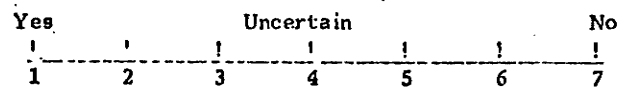
75. Rate how other people usually treat you.



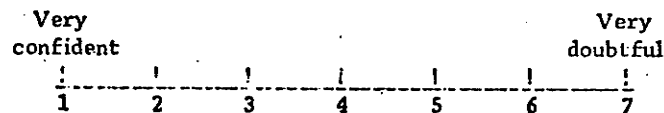
76 Rate how often you feel discouraged about your life.



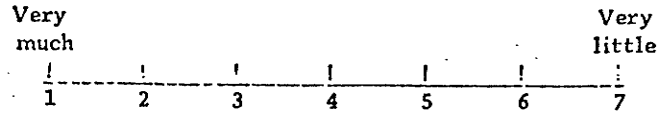
77. Can you control your drinking without help?



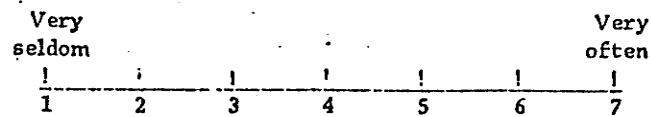
78 Rate how sure you are that some day the poeple you know will look up to you and respect you



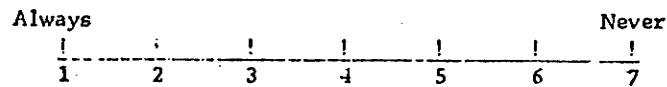
79 Rate how well you like yourself.



80 Rate how often you feel self conscious

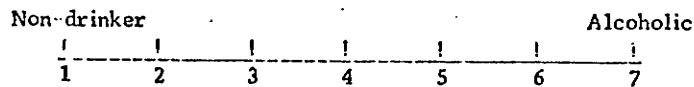


81. Rate how often you worry about the impression you make on other people.

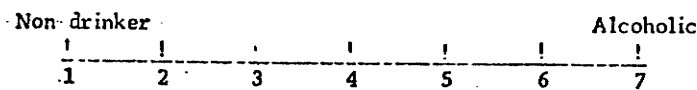


Rate the degree to which the following people drank when you were growing up:

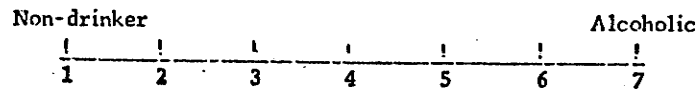
82 Father _____ not present



83 Mother _____ not present



84. Brother and/or sister _____ not present



85 Other persons _____ not present

Non drinker

Alcoholic

1 2 3 4 5 6 7

86 Have you received treatment for drinking problems, other than A A in the past 5 years?

_____ No _____ Yes

87 If "yes" specify name of agency length of treatment, and the date of termination of the 3 most recent:

Name of Agency

Length of Treatment

Date of Termination

88 How much time have you spent as a patient in a mental institution? _____ weeks

89 How much time have you spent in treatment by a psychiatrist? _____ weeks

90 Do you plan to return to the same living arrangements after you leave here?

_____ No _____ Yes

91 Rate how you believe you should change the way you drink

No need of change

Cut it out permanently

1 2 3 4 5 6 7

APPENDIX C

44-item Follow-up Questionnaire

ALCOHOL TREATMENT PROGRAM QUESTIONNAIRE

Name _____

Date _____

U.S.N. _____

Period _____ months

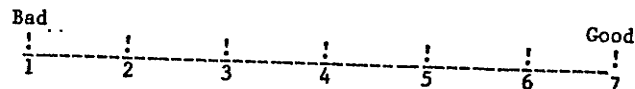
Please leave blank

Please Read Carefully

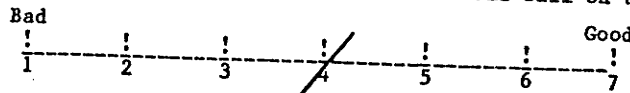
The purpose of this questionnaire is to help us understand alcoholism better. This can only be done if you answer all questions truthfully and as accurately as possible. Your help will enable us to improve our treatment program.

All information will be treated confidentially. It will not go beyond the Chemical Withdrawal Unit.

If you are asked to RATE something, a scale will be given below the statement.



The two words shown represent the extremes of the scale. You should make a stroke where you feel the particular statement would fall on that scale.



If the statement is neither good nor bad, you would probably mark the scale about the middle (4) as shown. If the statement is EXTREMELY good or EXTREMELY bad, you would mark the scale near the appropriate end. Between the extremes, any number of good bad ratings can be made.

5. Rate how satisfied you are with your physical health.

Very dissatisfied Very satisfied

1 2 3 4 5 6 7

12. How many weeks have you worked in the last 3 months? _____ weeks

13. How many different jobs have you had in the last 3 months? _____ jobs

18. Rate your work experience over the last 3 months in terms of job satisfaction.
_____ no job

Very dissatisfied Very satisfied

1 2 3 4 5 6 7

19. Rate your own performance on the job over the last 3 months. _____ no job

Very poor Very good

1 2 3 4 5 6 7

20. Rate your financial situation in the last 3 months.

Very unsatisfactory Very satisfactory

1 2 3 4 5 6 7

21. Rate how satisfied you are with your life.

Very dissatisfied Very satisfied

1 2 3 4 5 6 7

23. Rate how you enjoy being with your wife/husband. _____ not married

Very little Very much

1 2 3 4 5 6 7

25. Rate how much you enjoy being with your children. _____ no children

Very little Very much

1 2 3 4 5 6 7

26. Rate how satisfied you are with your role in your family. _____ no family

Very dissatisfied Very satisfied

1 2 3 4 5 6 7

40. Everyone gets angry, frightened, or depressed at times. Rate how often you drink to relieve these feelings.

Never Always

1 2 3 4 5 6 7

49. How many days did you drink in the last 3 months? _____ days
50. What was your longest "dry" period during the last 3 months? _____ days
53. How many times have you been drunk during the past 3 months? _____ times
54. Rate what you think you will be able to do in the next few months about your drinking.

Increase drinking Stop drinking altogether

1 2 3 4 5 6 7

55. Rate your chances of staying dry for the next 3 months.

Very poor Very good

1 2 3 4 5 6 7

Rate yourself honestly and carefully on the following scales:

56. steady shaky
- 1 2 3 4 5 6 7

57. successful unsuccessful
- 1 2 3 4 5 6 7

58. withdrawn outgoing
- 1 2 3 4 5 6 7

59. peaceful aggressive
- 1 2 3 4 5 6 7

60. sensitive insensitive
- 1 2 3 4 5 6 7

61. energetic tired
- 1 2 3 4 5 6 7

72. Rate how well you get along with others.

Very well Very poorly

!-----!-----!-----!-----!-----!-----!

1 2 3 4 5 6 7

73. Rate how you feel about your abilities in general.

Very unsure							Very confident
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

74. Rate how satisfied you are with your lot in life.

Very dissatisfied							Very satisfied
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

75. Rate how other people usually treat you.

Very well							Very poorly
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

76. Rate how often you feel discouraged about your life.

Always							Never
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

77. Can you control your drinking without help?

Yes			Uncertain				No
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

78. Rate how sure you are that some day the people you know will look up to you and respect you.

Very confident							Very doubtful
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

79. Rate how well you like yourself.

Very much							Very little
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

80. Rate how often you feel self conscious.

Very seldom							Very often
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

81. Rate how often you worry about the impression you make on other people.

Always							Never
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

Rate the degree to which the following people drank when you were growing up.

82. Father _____ not present

Non-drinker							Alcoholic
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

83. Mother _____ not present

Non-drinker							Alcoholic
!	!	!	!	!	!	!	!
1	2	3	4	5	6	7	

APPENDIX D

Two-Factor Index of
Social Position

Hollingshead and Redlich's Two-Factor Index of Social Position is calculated on the basis of educational level and occupational status.

These two variables are scaled as follows:

Occupational Scale

- 1) executives and proprietors of large concerns and major professionals
- 2) managers and proprietors of medium-sized businesses and lesser professionals
- 3) administrative personnel of large concerns, owners of small independent businesses, and semi-professionals
- 4) owners of little businesses, clerical and sales workers, and technicians
- 5) skilled workers
- 6) semi-skilled workers
- 7) unskilled workers

Educational Scale

- 1) graduate professional training, completion of graduate degree
- 2) college or university graduate
- 3) some college (one year minimum)
- 4) high school graduate
- 5) some high school (Grade 10 or 11 completion)
- 6) junior high school graduate (Grades 7 through 9)
- 7) less than Grade 7

For the present study education information for each subject was obtained from the demographic questionnaire (Appendix A), while occupational information was based on the following item from the psychiatric/social history:

Occupational level (enter whichever applies most closely)

1. housewife
2. student
3. casual labourer
4. semi-skilled tradesman
6. office worker
7. salesman
8. managerial
9. professional
10. owns and operates small farm
11. small business owner
12. large business owner (i.e., more than ten employees)
13. junior executive
14. senior executive

The raw data on each of these items was rescored to correspond to the scales shown above.

After the appropriate occupational and educational scale scores were determined, a weighted sum of the two was derived, with the constant weight of 7 applied to the occupational score, and the weight of 4 applied to the educational score. The possible social position scores thus range from 11 (highest) to 77 (lowest). Class I (upper class) is defined as scores less than 17, Class II (upper middle) as scores from 17 to 32, Class III (middle) as scores from 33 to 48, Class IV (lower middle) as scores from 49 to 64, and Class V (lower) as scores greater than 64.

APPENDIX E

Factor Analysis: Individual Items Comprising Factors
Defined as Covariate and Dependent Measures

Individual Items Comprising Five Factors Defined as Covariate and Dependent Measures

FACTOR ¹	% of Variance ²	Eigen-value	Loading
I AFFECTIVE STATE	35.9	7.029	
65. depressed...happy			.654
69. tense...relaxed			.655
67. afraid...unafraid			.640
70. weak...strong			.631
II INTERPERSONAL ATTITUDES	10.9	2.137	
59. peaceful...aggressive			.533
66. forgiving...unforgiving			.611
68. tolerant...critical			.649
72. get along with others: very well...very poorly			.566
III DRINKING BEHAVIOR ³	9.6	1.881	
49. number of days drinking in last three months			.876
50. longest "dry" period in last three months			-.701
IV LIFE SATISFACTION	7.7	1.512	
21. satisfied with life: very dissatisfied...very satisfied			.667
26. satisfied with role in family: very dissatisfied...very satisfied ⁴			.614
74. satisfied with lot in life: very dissatisfied...very satisfied			.673
76. feel discouraged about life: always...never			.540
V PREDICTIONS OF FUTURE DRINKING	7.1	1.392	
54. predict amount of drinking in next few months: increase...stop altogether			.840
55. chances of staying dry for next few months: very poor...very good			.812

¹ Items making up Factors I, II, IV and V were presented as 7-point scales (from 1=negative to 7=positive). The scores for Factor II as presented in the Tables were transformed from their form as presented here by subtracting item total from 28 (highest total possible) to scale in same direction as other factors.

² % of variance accounted for was derived on full factors (44 items). Factors as presented here may account for less than the amount of variance indicated.

³ Items making up Factor III were recorded as raw data in number of days. For consistency Item #49 was transformed to "number of days not drinking" by subtracting raw score from 90 (highest total possible).

⁴ this item was dropped from Factor IV as it could not be answered by 23% of the subjects with no family.