A PSYCHOLOGICAL PROFILE OF ALCOHOLICS AT THE TERMINATION OF TREATMENT

BY

DERICK NEVILLE BYRNE

Submitted in part fulfilment of the requirements for the degree Magister Artium

in the Department of Psychology in the
Potchefstroom University for Christian
Higher Education.

Promoter: Prof. L A Gouws
Potchefstroom
1981

My sincere thanks go out to the following who helped me in the completion of this dissertation:

Prof. L A Gouws, for his insightful aid and warm interest;

the Staff and patients of the Cornelius Bekker Clinic;

Nelly and Brendan for all the sacrifices they offered;

My friends and colleagues for their encouragement and friendliness and

the cooperative library staff

and my typists for their eleventh hour efforts

Dedicated to Brendan and Nelly for their love and cooperation, patience and understanding .

CONTENTS

CHAPTER I

MOTIVATION FOR THIS INVESTIGATION

The male alcoholic patients found in clinical settings can be considered unique individuals for they vary in age, socio-economic background, genetic inheritance, occupational history, intelligence, emotionality and personality structure as well as history of pathological drinking habits.

Psychological data on prealcoholics is practically nonexistent and that which is available is neither sufficient nor satisfactory in either quantity or quality. The focus of attention on alcoholics undergoing treatment could rather be placed on how he is coping in the "here-and-now", and how he feels about his life ahead of him when he leaves a clinic. His "in situ" environment is unidimensional - it is past, present and future to him. It was there where his problems started and developed, and it is there where he will return when his treatment period comes to an end. In the clinic he is in the "present" but he may be preoccupied by either his troubled past or problematic future, or a combination of both time dimensions.

Because his prealcoholic era lies in the past, it is not really available to the therapeutic situation. Nevertheless, he tends to shift his attention from the important day-to-day coping strategies and mechanisms into the background because of the pressures of his past. Many modern therapeutic approaches place emphasis on living in the reality of the here-and-now while others underline the alcoholic's personal responsibility and planning for the future as part of rehabilitation.

The readiness and prognosis for more healthy outcomes depend much on how the patient is able to come to grips with his drinking problem. The initial phase of treatment of newly admitted alcohol abusers rests mainly on the shoulders of the medical staff because the physical condition of the person is often in need of detoxification so that he can return to more acceptable and normal physiological functioning. Improvements are expected in the patient's physical health due to medication, improved nutritional intake, and rest.

The second field of attention need not involve all alcoholics. The

person's interaction with his environment may have caused severe problems, e.g. marriage breakdown, loss of his job, financial difficulties, material losses, and criminal charges etc., which pose potential hazards for his future when he terminates treatment. He has to go out and face these problems and he has to find better solutions for them than the one i.e. alcohol he used before. He obtains most guidance and help for these anxiety provoking expectations from the professional staff in the clinic. The social welfare worker plays the most important role as liason between the patient and his awaiting world.

The final zone requiring therapy is really the original one in the development of problem drinking. This is the person's inner psychological functioning and adjustments. No person plans to become an alcoholic, or develop an alcohol problem, therefore there must be underlying aetiological factors and patterns that have contributed to the pathology of alcohol dependence. The cognitive, conative and emotional facets need attention when attempts are made to help an alcoholic rehabilitate himself. The role of the psychologist or psychotherapist is vital in unscrambling the "windmills of the minds" of these patients.

There can be no doubt that alcoholics are people who are suffering stress, conflict and anxiety. Physically, socially and psychologically they are in pathological states. Over the years research has shown conclusively that alcoholics are struggling to cope with their life adjustments. They present a wide range of personality traits, yet most citations have stressed certain problem areas in alcoholics like anxiety and depression which form part of neurotic adaptation to conflict, while others have mentioned that many alcoholics who have suffered drinking relapses, have lost hope and purpose in their lives.

The aim of this investigation is to examine certain psychological profiles of male alcoholics as they come to the termination of their treatment in a clinic for alcoholics. The interest will concentrate on a personality profile with particular features being the alcoholic's view of himself at this pertinent time, his awareness of manifest anxiety (if any), his depression level, and his future perspectives of meaning and purposefulness. It is nevertheless a here-and-now profile as applied to his discharge period. The hypotheses are that they will be highly anxious, depressed, low on ego strength, submissive, prone to being schizoid, emotionally sensitive, suspicious, shrewd, apprehensive, have

high ergo tension, be very concerned about the present purposelessness of their lives and have a strong need to seek meaningfulness in the future.

CHAPTER II

LITERATURE REVIEW:

1. The quest for the profile of the male alcoholic personality.

The problem of assessing the role of personality characteristics in most cases of alcoholism is complicated by other factors like physiological and social ones because they have to do with the body's response to the ethanol drug, with the social occassions, the group attitudes, and the cultural patterns in which drinking takes place. Furthermore, nearly all studies tend to reveal information only about certain persons who were selected by certain forms of bias from the total alcoholic population. Each bit of empirical research provides a keyhole view as well as interpretation of the whole and total dynamic of what is involved in the problem of alcoholism. Some findings confirm others, while some result in opposite conclusions being drawn. It often seems as if one is trying to fit jigsaw pieces together without the knowledge of whether all the pieces available belong to one or more puzzles because there is no reference picture available to serve as a guideline.

Much research on the "alcoholic personality" has yielded results that are at best confusing and at worst contradictory and misleading. Although there is no lack of research, some of it has more often been opinionated and impressionistic and not always systematic, instead of being careful and rigorous in their design and measurement. Lisansky (1967, p. 3-15) expresses it as follows: "Certainly it is true that the test literature has not yielded evidence for the 'alcoholic personality', but it is also true that we cannot reject the idea that personality factors play a very significant role in determining who will be alcoholic and who will not." In describing the criteria for the existence of an alcoholic personality profile, he states that it is vital to reveal "a constellation or pattern of personality traits common to most alcoholics and characterizing the prealcoholic personality" (1960, p. 316).

In the earlier reviews on the search for the 'alcoholic personality profile', conclusions show a general failure to establish the existence of constellations of common personality characteristics in alcoholic groups (Landis, 1945, p. 129-142; Sutherland, Schroeder and Tordella,

1950, p. 547-561; Syme, 1957, p. 288-302; Alexander and Gudeman, 1965, p. 79-86).

The full study of alcohol, alcoholism, and drinking behaviour involves biochemistry, nutrition, environment, pharmacology, genetics, physiology, and all of the behavioural sciences. Psychologists (and other disciplines concerned with alcoholism investigations) are continually searching for the answers to whether pathological behaviour like alcoholism is either biogenic, psychogenic, or sociogenic. Human behaviour is influenced by genetics, biology, environment, social life, and other variables. Doby (1966, p. 88) succinctly expresses it: "Biological potentialities consist of physiological states which are genetically determined, but the transformation of these physiological into behavioral characteristics is a function of social and cultural conditioning."

In some recent reviews the tendency is to support negative findings on the idea of an alcoholic personality (Freed, 1976, p. 1633-1654; Knox, 1976, p. 1023-1050; and Miller, 1976, p. 749-674). Miller simply states that apart from the alcoholic's tendency to have elevated MMPI Pd scale scores, there are practically no established common traits of either alcoholics or alcoholic subgroups.

However, the search for the profile of the alcoholic personality goes on despite the many negative research findings so far encountered. In fact, recent longitudinal research have shown that personality factors may play an important role in the causes and perpetuation of alcoholism (Hoffmann, Loper and Kammeier, 1974, p. 490-498; Kammeier, Hoffman and Loper, 1973, p. 390-399). Hoffman et al. (1974, op. cit.) conclude that the role of personality factors in the aetiology of alcoholism is no longer speculative.

2. Definitions and descriptions of the term "alcoholic":

2.1 Introduction

Definitions of the term alcoholic have undergone many changes and modifications with the passing of time (Bleuler, 1924, p. 320; Strecker, 1941, p. 14; Maslow and Mittelmann, 1941, p. 511; Durfee, 1946, p. 228-229; Bacon, 1947, p. 473-497; WHO, 1951 and 1952, Lemere, 1956, p. 361-362; Clinebell, 1966, p. 17; Plant, 1967, p. 37-38; Ullman and Krasner, 1969, p. 36; Mulford and Miller, 1971, p. 312; and Barnes, 1979, p.571-634).

Each discipline offers descriptions which reflect their particular point of view. Only a few are offered here. Historically the following five sets of indicators are used to separate alcoholics from problem and normal drinkers:

(1) consumption measures (quantity, frequency variables);
(2) psychological causes for drinking;
(3) social consequences;
(4) medical complications resulting from drinking; and
(5) physical addiction (Estes and Heinemann, 1977, p. 29; Kessel and Walton, 1965, p. 15-16).

2.2 Definition of the World Health Organization:

The Expert Committee on Mental Health (Alcoholism) (1951), and the World Health Organization (WHO) (1952) devised a comprehensive and subsequently widely used definition of an alcoholic. "Alcoholics are those excessive drinkers whose dependence on alcohol has attained such a degree that they show a noticeable mental disturbance or an interference with their mental and bodily health, their interpersonal relations and their smoothe social and economic functioning; or who show the prodromal signs of such developments."

Nevertheless later comments show that the above definition is not accepted by all researchers. Lemere (1956, p. 361-362) simply states that "there remains only one characteristic that is common to all alcoholics and that is that they drink too much." In accordance with this and the rejection of the possibility of the alcoholic personality profile, Bowman (1952, p. 529-532) indicates that "further studies have confirmed the conclusion that neither personality traits nor educational attainments differentiate the alcoholic from the nonalcoholic person."

2.3 Behaviouristic approach:

The behaviourist viewpoint opts for a definition which stresses the observable behaviour factors. Plant (1967, p. 37-38) may be a typical example of such a description: "Problem drinking is a repetitive use of beverage alcohol causing physical, physiological, or social harm to the drinker or to others." The important implication of describing accurate and valid definitions is stressed by Ullman and Krasner (1969, p. 36) when they refer to alcoholism treatment systems and procedures:

"If a particular theory does not utilize data based on scientific procedures, it may well be asked whether it is a reasonable basis for the treatment of human beings."

2.4 Modern terminology:

Recent researchers like Barnes (1979, p. 571-634), after a review of the literature on the description of the alcoholic, suggest that the term "alcoholic personality" be replaced by two new terms: "pre-alcoholic personality" (a term for personality characteristics common in persons who are predisposed to becoming alcoholics), and the "clinical alcoholic personality" (personality traits common in those already diagnosed as alcoholics).

2.5 Conclusions:

An appropriate definition of the term "alcoholic" should include the following variables:

* frequency and quantity patterns of alcohol consumed;
* prealcoholic psychological motivations (i.e. psychological dependence);
* harmful consequences to:
  - the person's general physiological functioning,
  - the person's general psychological functioning;
  - other persons and society (e.g. family, employer, and society as a whole.)
* physical dependence or addiction to alcohol.

3. Definitions and descriptions of the term "alcoholism":

3.1 Introduction:

There have been many disagreements over the definition of the term "alcoholism", as none seems to be completely satisfactory. Attempts to define alcoholism have long been marked by uncertainty, conflict and ambiguity. This lack of a firm definition is not a minor inconvenience in the alcohol problem field as it has often constituted a major handicap to the understanding and progress of research and treatment.

3.2 Moralistic definitions:

The comment on the contraversy of alcoholism as being a disease or sinful has not been really resolved. Meiring (1969, p.18) states that: "Ethyl alcohol, an anaesthetic chemically related to ether, is today perhaps the most popular mechanical agent used by men and women to satisfy the universal need to escape from the reality of human existence in the frustrating set-up of a complicated society." If alcoholism is to be seen as an escape-mechanism condition, then a process is started and is continued in a physiological, psychological and religious deterioration in which all relationships and higher values are negatively influenced by the results of the destructive actions of alcohol.

The question of responsibility in alcoholism has been central to the problem from early times. Prins (1973, p. 4-6) includes this feature when he divides definitions into three categories:

(1) alcoholism as a disease;
(2) alcoholism as a sin; and
(3) alcoholism as a symptom of a deeper-lying psychological deviation.

3.3 The "disease" concept of alcoholism:

The disease concept of alcoholism has passed through three main semantic and historical phases:

(1) dipsomania;
(2) chronic alcoholism; and
(3) alcohol addiction.

Jellinek (1960, p. 1-4) mentions those writers who use the term "dipsomania" to describe all forms of pathological alcohol ingestion (Trotter, 1804; Salvatori, 1817; Brühl-Cramer, 1819; Griesinger, 1845; Gaupp, 1901; Wingfield, 1919; Pisk, 1936; Peserico, 1936; Gardien and Marty, 1946).

Marconi (1959, p. 232-233) mentions the supporters of the term "chronic alcoholism" who held that the main feature is the damage or change inflicted by the alcohol on the nervous system (Huss, 1849, Marcé, 1862; Schüle, 1888; Bucknill and Tuke, 1874; and Dittmer, 1932).

Marconi (op. cit.) reviews the term "alcohol addiction" which refers to those persons who are unable to stop drinking even though they know that it causes them serious harm: physiologically, socially and economically (Kürz and Kraepelin; 1901; Cimbal, 1926; Mikhailoff, 1926; Ernst, 1933).

Jellinek defines alcoholism as an uncontrollable craving for alcohol. The alcoholic either is incapable of abstaining or he suffers a 'loss-of-control' over his drinking. The two elements may coexist (Jellinek, 1941; Jellinek and Bowman, 1946; and Jellinek, 1960). He widens his definition to include two types, i.e. alcohol addicts and nonaddictive alcoholics (inability-to-abstainers) (Jellinek, 1952). He deduces that alcoholism is not a single entity.

The problem of alcohol abuse includes moralistic, psychological, physiological, religious and social implications because humans are multimodal beings who function on all the above mentioned spheres.

3.4 The World Health Organization concept of alcoholism:

An important phase in the development of the term alcoholism came in 1951 when the World Health organization Alcoholism Subcommittee stated that "alcoholism signifies any form of drinking which in its extent goes beyond the traditional and customary dietary use, or the ordinary compliance with the social drinking customs of the whole community concerned, irrespective of the etiological factors which might lead to this behaviour or to the extent to which these etiological factors are dependent upon hereditary, constitution, or acquired physiopathological and metabolic influences." A later report of the WHO Committee of Experts on Alcohol and Alcoholism (1955) established that the only criteria for distinguishing real alcoholism are the "inability to abstain" and the "inability to stop drinking". They had adopted to a large extent the differentiating factors of Jellinek by emphasizing that the factor of physical dependence was central to the etiology of alcoholism.

3.5 Definition categories

Three main categories of alcoholism definitions are offered below:

(a) Psychological viewpoint:

Van der Spuy (1959, p. 7-27) used a view offered by Thompson and Wall (1947) who refer to alcoholics as those who drink excessively because of emotional or mental illness. They are uneasy, tense and find very little pleasure or satisfaction in anything that they do. Because of uneasiness and emotional tension they turn to alcohol

for easing their condition. We see here a clear association of this viewpoint with the tension-reduction theory of the cause of alcoholism. Alcoholism exists when alcohol has become the main focus of a person's thoughts and emotions, physiology and environment. Chafetz and Demone (1962, p. 4) also base their definition on earlier ones: "Alcoholism is a chronic behavioral disorder which is manifested by undue preoccupation with alcohol to the detriment of physical and mental health, by a loss of control when drinking has begun, and by a self-destructive attitude in dealing with personal relationships and early life situations."
An encompassing description is offered by Roux (1956, p. 17) who says: "Drankmisbruik (is) die simptoom van 'n onrype, wanaangepaste, oorspanne, gefrustreerde persoonlikheid ... (wat) vanwee 'n swak psigiese verwerkingsproses en 'n ongenoegsame frustrasieweerstand, nie in staat is om, sonder die hulp van alkohol, die moeilikhede spruitende uit sy eie binnewereld (endogene faktore) asook uit die buitewereld (eksogene faktore) die hoof te bied nie en dan, nadat hy eenmaal in die bose kring van spanning - alkohol - bekommernis oor sy drinkery-spanning-drank-verstrik geraak het, nie sonder hulp van buite weer 'n alkoholvrye bestaan kan voer nie."

(b) Physiological viewpoint:

The early physiological hypotheses seem to have been largely discarded in modern times, e.g. the alcohol allergy-theory. Alcoholics suffer from disturbed metabolic functioning which prevent adequate nutrition and result in vitamin deficiencies. These deficits lead to desire for alcohol (Williams, 1947, p. 567-588).
Smith (cited in van der Spuy, op. cit.) hypothesizes that the organic desire for alcohol is due to hypofunctioning of the adrenal cortex. Today an alternative idea has become more acceptable. It appears more feasible that the endocrine disturbance is rather a result or consequence of the alcoholism than a cause of it.
A typical medically styled definition of alcoholism may be found in Taber's Cyclopedic Medical Dictionary (1953): "Alcoholism: diseased condition due to acute or chronic excessive indulgence in alcoholic liquors."
Another more comprehensive medical definition is quoted by Keller (1960, p. 127-128). "Alcoholism is a psychogenic dependence on or a physiological addiction to ethanol, manifested by the inability of the alcoholic consistently to control either the start of drinking or its termination once started, owing to (or caused by) ... personality deviation, immature or deviant personality

development, or injury to the brain by alcohol, or nutritional defect or owing to undetermined causes." Sim (1969, p. 284) maintains that "alcoholism is a major mental health problem."

(c) Psychophysiological viewpoint:

The primary assumption of this approach is that there is a physiological predisposition to alcohol. Frame and Bersohn (1961, p. 664-668) state that: "There is strong presumptive evidence that from the first, and long before compulsive drinking becomes operative, the responses to alcohol in the problem drinker is different from that of the norm."

3.6 Conclusions:

A suitable definition of alcoholism should refer to the following features:

* disturbances in the physical, intrapsychic and extrapsychic, interpersonal, social, occupational and religious functions and adaptations in life;
* the chronic inability to abstain and/or inability to control excessive alcohol intake; i.e. craving, compulsivity, irresponsibility and dependence factors based on psychological and/or physiological pathologies.

4. Types and classifications of alcoholics:

4.1 Introduction:

When it comes to homogeneity on alcoholism, it appears that the differences among alcoholics are so numerous that one should hesitate to speak of a single, unified grouping of alcoholics. Because of the variety of superficial differences found among them, some authorities in this field have posed questions about the assumption that alcoholism is a single and unified disease process. It is suggested that we speak rather of 'alcoholisms' than alcoholism.

Heterogeneous factors show that they come in all shapes, sizes, colours, sexes, occupations, levels of intelligence, states of mental health and income levels. Estes and Heinemann (1977, p.3) say that "contrary to all popular stereotypes, alcoholics do not even drink alike, nor do they

share a single, common life history ... some alcoholics drink daily; others drink in episodic patterns, staying 'dry' for intervals between drinking binges." Other variations also occur. Some drink large amounts while others consume relatively little; the beverages range from malts through wines to spirits; some alcoholics started drinking early in their youth while others developed the problem later in life; some develop the problem over a relatively short duration of time while others do so fairly slowly from social drinking over many years.

A variety of typologies for alcoholism have been developed, including those of Jellinek, the WHO, and Knight. Recent factor-analytic studies tend to support each of these typologies.

4.2 Early typologies:

4.2.1 Alcoholism as a type of mental illness

The concept of alcoholism as a form of mental illness can be traced back to ancient times (Darling, 1942, p. 677-685). In Sanskrit the word 'mada' means both 'intoxication' and ' insanity'. Darling presents a brief historical outline of classifications which have been applied to alcoholism. He says that Kerr (1888) saw intoxication as a form of mental illness; while Mitchell (1913) was to stress the combination of physical and mental diseases as well as the effects of social customs in the etiology of alcoholism. Most alcoholics should be classified as psychoneurotic (Menninger, 1930; Darling, 1942, p. 677-685).

Darling subdivides the types of alcoholics according to the underlying cause or associated psychopathology:

* psychoneuroses or psychoses;
* organic brain lesion;
* mental deficiency;
* escapes from painful life situations;
* habit formation due to frequent repetition, social custom, and physiological craving caused by increased tolerance.

He adds that alcohol is a crutch which helps sick people to meet stress, and if it was unavailable, they would turn to some other more dangerous mechanism like neuroses, psychoses, delinquency or suicide.

4.2.2. Schafer's typology:

Schafer (1954, p. 317) suggests 5 alcoholic personality types:

(1) schizoid type;
(2) relatively normal type;
(3) an uncontrollable type with an anxiety reaction to stress and frustration;
(4) psychoneurotic with pronounced sexual conflict and feelings of inadequacy;
(5) emotionally unstable type.

4.2.3 Marconi's typology:

Marconi (1959, p. 216-217) classifies drinking of alcohol into four systems and three levels presented here in table form:

Quantity	Distribution	Effects	Etiological factors
Moderate	Remittent Intermittent Continuous	Without drunkenness	Without or with cultural dependence on alcohol
Excessive	(same as above)	With or without drunkenness	With cultural and/or psychopathological dependence
Pathological	(same as above)	With or without drunkenness	With physical dependence and cultural, and/or psychopathological dependence

4.2.4 Jellinek's typology:

Possibly the most important contribution of classifying alcoholic types comes from Jellinek (1960, p. 36-41) who emphasizes the "disease concept of alcoholism". He suggests 5 types which are each based on several underlying factors.

(a) Alpha type:
In the Alpha type the main dimension involves psychological depen-

dence or the effect of the alcohol in relieving physical or emotional pain. It is undisciplined yet does not lead to loss of control or inability to abstain features. Most harm is done to interpersonal relationships, work efficiency, and certain nutritional problems. Progressive process signs are also absent. This type of alcoholism is not seen as an actual illness itself but rather a symptom of another maladjustment which it relieves.

(b) Beta alcoholism:

This dimension compares physical health with disease factors. This type suffers from nutritional deficiency diseases like polyneuropathy, gastritis and liver cirrhosis. Criticism of this type point to the prevalence of these symptoms in the other forms as well and so there is a lack of differentiation.

(c) Gamma alcoholism:

In this type there is a clear progression from psychological to physiological dependence and there are typical behavioral changes. The four main features of Gamma types are: (1) acquired increased tissue tolerance to alcohol, (2) adaptive cell metabolism, (3) withdrawal syptoms and 'craving' i.e. physical dependence, and (4) loss of control. The alcoholic may show signs of abstaining on occassions but cannot control the intake once he has started drinking. It seems that this type is the most prevalent one in our society.

(d) Delta alcoholism:

The Delta alcoholic type is very similar to the Gamma type except that the 'loss of control' factor is replaced by an 'inability to abstain' one. He is a 'steady-state' drinker. He is able to control his intake amounts on most occassions but has to drink every day or else withdrawal symptoms become manifest.

(e) Epsilon alcoholism:

This type is sometimes referred to as the 'dipsomanic type'. The person goes on periodic sprees or 'binges' which may last for days on end and then the person is able to abruptly cease drinking and remains abstinent for long periods of time.

Criticism of the Jellinek typology:

Over the years much criticism has been directed at this classification. It fails to satisfactorally resolve the problem of variability among alcoholics. The individual feature of each alcoholic are sub-ordinate to forced classification regimes. The categories are also insufficient-

ly defined and are unsufficiently independent as there are possible borderline cases between the types. Some alcoholics may progress or change in their symptoms and this variability factor appears to cause the typology to lack permanence.

4.2.5 Rudie's typology:

Rudie (1959, p. 2906-2907); Rudie and McGaughran; 1961, p. 659-665) bases his typology on Knight's classification (1937, p. 538-543) of essential and reactive alcoholics:

(1) Essential Alcoholic (EA)
This type of alcoholic is emotionally dependent, egocentric, hedonistic, irresponsible, insincere, and unreliable. He is unable to establish or to maintain long-term goals, or intimate and lasting interpersonal relationships.

(2) Reactive Alcoholic (RA):
Being mostly an opposite type to the EA, this type has assimilated cultural values through identification processes and shows a reasonable degree of the behaviour controlling effects of anxiety and guilt.
Knight infers that the differences in behavioural characteristics result from differences in psychosexual development in early formative years. He also refers to likely differences between the groups in terms of educational and occupational experiences, kinds of drinking and eating habits, time of onset of drinking and prognosis etc.

4.2.6 Carruth's typology:

Carruth (1980, p. 5594) classifies alcoholics as either early essential alcoholics (EA) or late-onset alcoholics (LOA). Because the EA's represent the greatest percentage, he lays more emphasis on them although the types of problems they experience are fairly similar. The EA report more problems related to drinking, are both heavier and more frequent drinkers. The two types are seen as possibly representing a single continuum which proceeds from early alcoholism to chronic alcoholism.

4.2.7 Vogel's typology:

Vogel (1959, p. 78-83; 1961, p. 394-400) uses Eysenck's "introversion-extraversion" personality factor in differentiating two types of alcoholics (1960, p. 85-86). His experimental findings show that introversive alcoholics are solitary drinkers, drink steadily, and have later onset of blackouts. Extraversive alcoholics are more impulsive drinkers who have drinking sprees, often in the company of others and have fairly later onset of blackouts.

4.2.8 Chafetz and Demone's typology:

Chafetz and Demone (1962, p. 6-9) classify alcoholics according to various personality types operating within certain social settings. Their 9 types are based on the use/purpose of alcohol:

* medication for depression;
* to blur threatening perceptions;
* to support a defense system;
* to break down psychological barriers;
* to receive attention and care (while intoxicated) like a hypochondriac;
* to ease social situations;
* To obtain a state of bliss;
* to be more tolerant than when sober;
* to prevent psychotic breakdowns.

4.2.9 The model of Siegler, Osmond and Newell:

A comprehensive model of alcoholism typology is offered by Siegler et al. (1968, p. 571-598) who state that typological models should include both lay and professional components if both the public and the professionals are to accept and support them.

Their 8-fold modality consists of the following models:

(1) Impaired model
(2) 'Dry' moral model;
(3) 'Wet' moral model;
(4) Alcoholics' Anonymous model;
(5) Psychoanalytic model;
(6) Family-interaction model;
(7) 'Old' medical model;
(8) 'New' medical model.

For each model they apply the following categories:

(1) Definition;
(2) Etiology;
(3) Behaviour;
(4) Treatment;
(5) Prognosis;
(6) Functions of the hospital;
(7) Personnel;
(8) Suicide;
(9) Alcoholic's rights and duties;
(10) Family's rights and duties;
(11) Society's rights and duties;
(12) history of the model.

4.2.10 Typology of Partington and Johnson:

A more recent typology is suggested by Partington and Johnson (1969, p. 21-34) who state that "years of research have revealed only a few traits characteristic of alcoholics and no clear predisposing physiological variables." This is inferred by them from their review of research studies conducted by Witkin, Karp and Goodenough (1959, p. 493-504); Kalant (1962, p.52); MacAndrew (1967, p. 43-51); and Partington (1968, p. 21-33). Furthermore they add that the alcoholic population should be classified into several distinct personality types because anyone who is "interested in identifying the alcoholic personality would be seriously misled if he assumed within-group homogeneity and used a mean personality profile to characterize the group. The means would fail to indicate the presence of distinct types in his population and would also conceal all meaningful individual variance."

After using the Quick Test and the Differential Personality Inventory with the Straus-Bacon Social Stability Scale on 168 male alcoholic patients, they conclude that there are the following 5 types:

Type 1: Chronic, emotionally labile alcoholics

This type of patient is unconcerned with what others think of him, is rebellious, antisocial, emotionally labile and cognitively disorganized. They tend to be relatively young, have poor employment records and very serious consequences of their drinking.

Psychiatric ratings report them as the most unstable socially, most chronically depressed and anxious, and most aggressively antisocial, with very little interest in treatment processes and poor prognosis for them solving their problems.

Type 2: Occassional loss of control alcoholics:

These patients usually conform but may occassionally tend to lose emotional and cognitive control. As can be expected they have the best record of abstinence and the least severe drinking habits. They have fairly favourable prognosis as verified by psychiatric reports.

Type 3: Steady, chronic and more stable alcoholics:

This type is nearly solely concerned about his health. These alcoholics are older, academically less educated and less intelligent than the other types. Nevertheless their employment records are fairly stable, their marital status is reasonable, they drink more steadily than the other types and are less ready to live completely without alcohol.

Psychiatric ratings show them to have the lowest amount of self-understanding even though they are the most socially stable group with the fewest symptoms of basic personality disturbance.

Type 4: Social-need-for-approval alcoholics

This group appears to be highly stable (really or apparently so). They have the highest educational level of the groups and have the least serious consequences due to drinking when compared to the other groups. Their psychiatric ratings make them lowest on manifest expression of anti-social tendencies although the general conclusion drawn is that they are responding defensively rather than that they are really healthier types than the others. Their responses may be regarded as unconscious expressions of pervading needs for social approval.

Type 5: Episodic, high intensity and stable alcoholics:

This type is cognitively and emotionally less upset and they have greater satisfaction with their relationships with others than the other types. Psychiatrists rate them as having fewer neurotic symptoms although they have a higher episodic drinking frequency and a greater mean input consumed per occassion than any other type.

4.2.11 Studies on the diagnosis and classification of alcoholic types:

Marcus (1969, p. 2424) tested the basic assumption of the Developmental Theory of Roth (1967) that the diagnosis and assessment of personality provides a more meaningful approach to psychopathology than does any assessment based on the behaviour per se. Her results confirm the assumption that the alcoholic behavious may have differing functions depending on the kind of basic personality structure.

Much research about alcoholism suffers from the diffuse and undefined nature of the term 'alcoholism'. Pokorny, Miller, Kanas and Valles (1971, p. 699-705) say that there "is no assurance that the so-called alcoholics of one study are comparable to the alcoholics on another." They add that there is a need to divide alcoholism into types, subdivisions or groupings for specification and homogeneity purposes. Pokorny et al. (1971 op. cit.) offer another general approach to typologies and classify alcoholics by isolating and identifying dimensions or syndromes of symptoms and behaviours whereby each patient is characterized in terms of a profile with scores on each of the identified dimensions.

They use eleven factors in their study:

(1) loss of control of drinking; (2) low socioeconomic level;
(3) personal dilapidation; (4) duration of alcoholism;
(5) social isolation; (6) marital-emotional disruption;
(7) multiple hospitalization; (8) severity of the alcoholism;
(9) aggressive-outgoing; (10) elation;
(11) steady worker.

4.2.12 Resumé and conclusions:

Variety and the lack of consensus underlie the review of typologies presented by various writers. Most writers present both concepts of heterogeneity and homogeneity. The main factors which emerge are:

* the typical alcoholic can be differentiated from nonalcoholics;
* there is more than one type of alcoholic;
* various cluster or conglomerate variables differentiate the types from each other;
* the disease concept is not the only acceptable one.

5. Phases of alcoholism:

According to the phase theory, all alcoholics pass through identifiable stages of the problem.

5.1 Tiebout's model:

Tiebout (1954, p. 535-547) formulates the following elements of the alcohol addiction syndrome:

(a) An intermittent pattern of drinking which results in periodic release of tension. The drinking habit begins when the potential alcoholic turns to drink more often than do others when facing difficulties. The alcoholic's drinking is more likely to reach the stage of being drunk or 'tight' and so he progressively reaches the spree stage (an outbreak not willed by the person).
(b) A progressive downhill course which ultimately ends in chronic compulsive drinking with eventual somatic modifications; which ensue in three substages: prodromal, acute and chronic where there are signs of compulsivity and somatic complications.
(c) A typically superimposed personality pattern reaction is characterized by an egocentric and eccentric approach to life. The former refers to 'selfward orientation'. Regardless of the pre-alcoholic personality structure, as the illness progresses, a tendency to react in essentially similar ways seems to emerge, and a characteristic constellation of egocentric traits is welded together during the course of the illness.

5.2 Jellinek's model:

Jellinek (1952, p. 673-684) suggests a progressive model involving four phases:

(a) Prealcoholic phase:
Alcohol is used continually and in increasing amounts to help the person relax and deal with everyday tensions and anxieties. A toleration factor leads to gradual increased intake amounts.
(b) Early-alcoholic phase:
The symptoms start with blackouts, more blackouts which follow later, secretive drinking, increasing preoccupation with drinking and drinking situations, defensiveness about drinking habits with increased rationalization and guilt feelings which all lead to

the classical denial mechanism. Blackouts are not necessarily a symptom of this prodromal phase because they occur in later phases (Curlee, 1970, p. 239-247; Fairchild, 1976, p. 3071).

(c) Crucial phase:

Physiological dependence becomes clear and the person shows loss of control over his drinking. Other pathological factors in his life revolve around loss of work, marriage conflicts with separation and divorce problems, dilapidated interpersonal interaction and communication, increased aggressive behaviour and greater risks of losing the struggle against the domination of his life by alcohol. Alcohol becomes the central focus of his total life functioning.

(c) Chronic phase:

In this phase the predominant feature is the breakdown of physiological functioning and he experiences most of the final horrors associated with alcoholism. Physiological functioning deterioration focuses on advanced liver cirrhosis, polyneuropathy, cardiomyopathy, pancreatitis, hypertension, tachycardia, central nervous system damage, anemia, muscle and bone disease, skin disease and oral cancers. If drinking is abruptly ended, the alcoholic usually experiences frightening psychotic-like symptoms including hallucinations, delusions, violent tremors, severe agitation, and paranoia. Other psychiatric symptoms which arise are severe bouts of depression, manic acting-out behaviour, a pervading sense of hopelessness and futility, as well as suicidal thoughts and impulses, panic and dread episodes, self-loathing and guilt.

5.3 The diagnostic model of Valles:

Valles (1969, p. 27-32) rejects the concept that alcoholism can only be diagnosed after the serious symptoms which interfere with a person's daily life have appeared. He refutes the idea that it takes from five to fifteen years for alcoholism to develop.

Using a medical model based on the pathognomic symptoms of a disease he describes those of alcoholism as follows:

(1) the need for the ingestion of alcohol;
(2) the ingestion of more alcohol than was originally intended, and the more frequent ingestion;
(3) the need for a drink upon arising in the morning, particularly

prior to beginning the day's work and the need for further drinks in order to complete the day's work;

(4) withdrawal symptoms that range from slight shakes and tremor to the extremer forms of delirium tremens.

His factors closely resemble those of describing and defining alcoholism made by other writers, but he stresses that it is necessary to have only one symptom in order to make a diagnosis. He comes in for acute criticism when he states that "as in all other diseases, the diagnosis of chronic alcoholism should be made only by a competent physician in the field."

Valles also describes what he terms 'secondary symptoms of chronic alcoholism' which include various features like the rapid intake of alcohol (gulping), deliberate mis-statements and deceit about the amounts of alcohol being consumed, drinking alone (solitary drinking), delaying meals so that more alcohol can be consumed, and drinking in times and situations of stress. He says that the secondary symptoms should alert the practitioner to watch out for the primary ones.

It seems that a safe policy should be adopted when it comes to categorizing phases and types of alcoholics. Two suggestions are made by Estes and Heinemann (op. cit.) who say that the simple distinction should be made by opting for either of the following view-points:

(1) no variability exists at all (i.e. all alcoholics are very much alike), or

(2) regard each and every alcoholic as an absolutely unique case. This may appeal to the phenomenologically oriented disciplines but seems to have little value in the actual phenomena of alcoholism as a whole because nothing can be learned from studying alcoholics if we are unable to make any generalizations from one alcoholic to another.

The motivation to persist in the search for typologies and phases is mentioned by Jackson (1957, p. 240-262) who uses a Scale of Preoccupation with Alcohol with Scale of Psychological Involvement as measures of the extent of alcoholism because she feels that they could be useful in describing alcohol patients for both counseling and research purposes

and especially for incipient alcoholics.

6. Drinking patterns of alcoholics:

6.1 Introduction:

There seems to be an association between the types of personalities, stages of drinking types of alcoholics, and the drinking patterns of addicted drinkers. Because the drinking patterns are basic to the formation of the habit aspect, i.e. the "learning link" with the cause of the problem, it is necessary to ivnestigate what past research has revealed about the drinking patterns of alcoholics.

6.2 Jackson's patterns:

Jackson (1958, p. 269-301) conducted research on the types of drinking patterns of male alcoholics whom she differentiates into three groups:

(1) Belligerent/nonbelligerent types;
(2) Periodic/stabilized types;
(3) Solitary/sociable types.

Differences between the groups is found on all the variables examined and alcoholics differentiate between several patterns of alcoholism. Socially withdrawn drinkers are different to sociable ones, while those who become aggressive and hostile when drunk are differentiated from those who do not have such changes of personality. Periodic alcoholics do not consider themselves to be the same type as the steady alcoholic.

6.3 Drinking patterns of alcoholics according to Nathan, Marlatt and Løberg:

Nathan et al. (1978, p. 29-31) differentiate five patterns in their sample which comprise Whites, Blacks, urban and rural Indians and Hispano subjects.

(a) Alienation pattern:
The main correlates of this pattern indicate unemployment, low economic and social status, unmarried, hypersensitivity, and masculinity. In alcoholism terms the person who is alienated from the dominant culture has a very limited means of maintaining his

livelihood. He tends to live alone, is single and he drinks a great deal.

(b) Rebellion pattern:

The central correlates indicate childhood instability, illegal and antisocial activities, unemployment, lack of sociableness, lack of conventional interests, resentfulness, strange and eccentric thinking distrust of others, hypochondriasis and anxiety. These persons are usually males who are angry, untrusting, unsociable, anxious, rebellious, and they belong to gang groups.

(c) Tranquilizer pattern:

Prominent correlates indicate anxiety, feeling of inferiority and powerlessness, hypersensitivity, tendermindedness, and femininity. Alcohol is used to deal with problems of affect coupled with worry and guilt which subsequently become associated with its use. The symptoms indicate unrewarded love-affairs and non-marriage. Alcohol is used as a medicine to deal with emotional problems and problems to do with doubts about self-worthiness.

(d) Function facilitation pattern:

The correlates indicate shyness, lack of self-confidence and decisiveness, anxiety, mistrust of others and reports of strange or unusual thoughts. Alcohol is used as a means of overcoming inadequacies and expanding awareness by striving to improve functioning through the use of alcohol.

(e) Sociability pattern:

The correlates which stand out are those associated with second-order childhood instability, and are connected to not having experienced rewarding interactions in the original family. In the sociable bar-drinking experiences the alcoholic tries to compensate for the past and to establish a place in a social group wherein he can enjoy himself and be appreciated.

6.4 Patterns of alcoholism over a four-year period:

Research by Polich, Armor and Braiker (1980, p. 397-415) on alcoholics after a period of 4 years had elapsed since their last treatment for alcoholism reveal the following important features:

* Alcoholism is a chronic and unstable condition because the use of alcohol appears to be a continuing condition for the great majority of the persons who come for professional treatment for alcoholism.
* Remission are generally intermittent rather than stable and seem

to occur in two forms (a) longterm abstinence, and (b) nonproblem drinking.

* There are only slight improvements in social adjustments.
* The risk of nonproblem drinking varies significantly between alcoholic subgroups, especially among those who are highly dependent on alcohol and who are aged over 40 years when they are admitted for treatment.
* Relapse rates are lower for longterm abstainers than for nonproblem drinkers.
* Alcohol dependence is the pre-eminent important dimension in the course of alcoholism which supports the hypothesis that alcoholism is a dynamic, changing, and developing condition and not a static and singular problem.

6.5 Influence of social atmosphere on drinking patterns:

The social atmosphere and setting is an important factor in determining alcoholism reactions. The expentancy of beverage content plays a significant role in the drinking behaviour of both alcoholics and social drinkers. The drinking setting itself has little effect on an alcoholic or social drinker's drinking behaviour (Asp, 1976, p. 3506).

7. Psychological profiles of alcoholics:

7.1 Introduction and motivation:

An understanding of the profiles and aetiological factors in alcoholism remain elusive despite intensive study by researchers in the biological and social sciences over the past several decades. Reviews of advances in disciplines as disparate as genetics (Cadoret, 1976; Goodwin, 1971, p. 545-549; 1976); epidemiology (Cahalan and Cisin, 1976); biochemistry (Walsh, 1973, p. 43-61); cultural anthropology (Bacon, 1973, p. 171-192; Stivers, 1976) and psychology (Hoffman, 1976) have been unable to specify the necessary conditions antecedent to this disorder.

Current conceptions about alcohol abuse and alcoholism (or alcohol-related problems) are neither clear nor consistent (Linsky, 1972, p. 47-52; Marconi, 1967, p. 631-640). Eight separate models for alcoholism are described by Siegler, Osmond and Newell (1968, p.571-591).

These are in turn clustered together into three models, i.e.

(1) disease model;
(2) symptomatic model; and
(3) the behavioural model by Caddy, Goldman and Heubner (1976, p. 281-286; and 1976, p. 159-167) The first two may be seen as being combined to form the "traditional approach" which contrasts greatly with the "academic approach" which appears to be shifting towards a behaviourally-oriented multivirate explanation of alcoholism.

While each discipline contributes important information on the factors that predispose a person to drink abusively, the necessary condition for becoming alcoholic is yet to be defined. Part of the difficulty in delineating specific cause for alcoholism may be due to the heterogeneous nature of the alcoholic population (Tarter and Schneider, 1976, p. 1492-1496). A search for unidimensional profiles and aetological mechanisms is most probably an oversimplification of what is probably a complex of disorders of multiple causality. Recent research programmes have been directed towards intercorrelating present drinking style, childhood behaviour characteristics and psychosocial development.

The search carries on because, if alcoholics can be classified into subtype psychological profiles, then more accurate diagnosis and better forms of therapeutic intervention can occur.

Human functioning comprises three modalities: physiological, psychological, and sociological. Because alcohol is a physical substance, its initial action is on the physiological area. This leads to psychological changes in behaviour which in turn cause maladjustments in the social sphere. The main profiles to be looked at more closely are the physiological and psychological.

7.2 Psychophysiological Profiles:

7.2.1 Introduction:

Alcohol as a chemical does not directly affect behaviour but rather it interacts with other chemicals at a cellular level to produce changes in tissue, organ and system functioning (Irwin, 1968, p. 1-19). The re-

sulting alteration in physiological states then determines the limits and manner by which the individual copes and interacts with his environment. Their consumption ultimately has behavioural consequences that alter and possibly increase coping capabilities in some alcoholic cases.

A person who voluntarily takes a drug often does so with the intention of altering one or more of his organismic variables like wakefulness, arousal, activity, endurance, biosocial drives, set attitudes and/or expectations, responsiveness to stimuli or affect, information processing capacity, physiological functioning of autonomic or neurological or endocrine forms.

In addition to motivational needs and desired altered organismic states that alcohol can induce, another factor may be that intrinsic physiological disturbance may be "rectified" by alcohol. The study of excessive alcohol consumption must incorporate into a comprehensive explanatory system an understanding of the state of the organism which under appropriate environmental circumstances (cues and contingencies) leads to alcohol use by a person for its perceived and/or real effects in modifying coping capacity through its mediating action on target physiological systems.

In the following sections, we highlight the following physiological subgroupings: allergy, nutrition, endocrine, metabolic, genetic, addiction, brain pathologies, psychosomatic, and psychophysiological dysfunctions which are theorised to be related to alcoholism.

7.2.2 Allergy concept in alcoholism:

Although periodic revivals of this model have been revived (Silkworth, 1937, p. 249-251; Randolf, 1956, p. 198-224), it has not been generally accepted because an allergic person avoids the cause of the allergy while the alcoholic is attracted to alcohol.

7.2.3 Nutritional models:

The "genotropic theory" (nutritional deficiency theory) of alcoholism (Westerfield and Brady, 1947, p. 499-505; Madonnes et al., 1950, p. 82-84; and Butler, 1969, p. 848-851) is not much accepted because of the

lack of research to allow a definite conclusion one way or the other (Popham, 1953, p. 228-237; Wexberg, 1950, p. 113-119; and Lester and Greenberg, 1952, p. 553-560).

7.2.4 Endocrinology as a cause of alcoholism:

Hormonal treatment for constitutional factors like adrenal cortex disturbance as the underlying factor in alcoholism (Smith, 1949, p. 251-255; 1953, p. 18-19) is not supported by later evidence (v.d. Spuy, 1970, p. 4-16).

7.2.5 Metabolism dysfunctioning in alcoholism:

The problem of cause or effect is intrinsic in evaluating whether metabolic dysfunctioning is aetiologically acceptable in alcoholism.

Incomplete oxidation of alcohol leads to peruvic acid accumulation which might lead to the dependence factor (Derobert, 1952). Nonalcholics have lower metabolism rates of C 14 ethanol than alcoholics. Alcoholics and nonalcoholics can be differentiated according to neural, gastro-intestinal processes, and metabolic processes (Mendelson, 1966, p. 1-12). Alcoholism results from structural physiological deviations whereby cells of the body seem to function better in the presence of alcohol than in its absence (Himwich, 1957, p. 545-549). Instead of referring to the "addictive personality" of the alcoholic, a new term "chemical-prone body" should be used (Brink, 1977, p. 150-151).

If a molecular and cellular level of diagnosis could be found, then alcohol-prone drinkers could be identified before their problem arose. Alcohol dependence involves a mechanism which alters the metabolism of biogenic amines like dopamine (Davis and Walsh, 1970, p. 24).

Further research has still to be done to confirm metabolic links with alcoholism before greater acceptance can occur.

7.2.6 Genetic bases of alcoholism:

As with all theories involving genetic foundations of a pathology,

the nature/nurture contraversy is involved in alcoholism. The question posed is what is it that is genetically transmitted which renders the person vulnerable to alcoholism later in life.

The characteristic disorder is not hypothesized to be extent in all alcoholics, but rather in the primary alcoholic for whom drinking is a pervading disorder beginning in early life without precipitating extrinsic causes and in the absence of other psychiatric disturbances. A person possessing these characteristics is theorized to be the "genetic alcoholic".

Hore (1976, p.27) states that "Care has to be taken in discussing what one believes is inherited; in a genetic theory of alcoholism, is one concerned primarily with the inheritance of a specific (metabolic) syndrome or is one referring to the inheritance of basic personality types particularly vulnerable to alcohol dependence?"

A disturbance (physical, chemical, or emotional) may form the unique personality base upon which later alcoholism may develop (Chafetz and Demone, 1962, p. 17-18). The neonate starts to built his personality upon a prenatal foundation. One of the most important recent areas of investigation has been involved with the fetal alcohol syndrome (Ulleland, 1972, p. 167; Jones and Smith, 1973, p. 999-1001; 1974, p. 1076; Warner and Rosett, 1975, p. 1396-1420; Clarren and Smith, 1978, p. 1063; Hayden and Nelson, 1978, p. 571; Schneider and Donovan, 1979, p. 1077; Smith and Graham, 1979, p. 527; Smith, 1980, p. 36; Beyers and Moosa, 1980, p. 575; WHO, 1980; van Rensburg, 1981, p.687; Op't Hof, 1981). So far insufficient time has passed for us to know whether children who are victims of the fetal alcohol syndrome are significantly more prone to alcoholism in their later life.

Monozygotic twin studies show that not only drinking habits but also the social manifestations of alcohol abuse are determined by genetic factors (Kaij, 1960; Partanen, Brun and Mark-Kanen, 1966, p. 274). In the "colour vision hypothesis", colour blindness and alcoholism are said to be genetically based (Cruze-Coke, 1965), but the theory is also rejected (Gorrell, 1967; and Thuline, 1964). The "blood group hypothesis" (Cruze-Coke and Varela, 1970, p. 284-289) is disputed (Achte, 1958; Madden, 1967; and, Camps and Dodd, 1967, p.30). A link between

alcoholism and manic-depression is found to exist in alcoholics and their relatives (Dunner, Hensel and Fieve, 1979, p. 583-585).

7.2.7 Brain pathologies and alcoholism:

The combined effects of cerebral damage due to chronic alcoholism together with nutritional deficiencies and organ damage in a variety of physiological systems manifest as the permanent loss of control over drinking and is an implicit factor in alcohol addiction (Lemere, 1956, p. 361-362). Alcoholism is a chronic disease of the central nervous system which only eventuates when the alcohol intake affects a condition which had pre-existed (Marconi, 1965, p. 330-340). Enlarged cerebral ventricle pathology appear in fairly young alcoholics (Tumarkin et al., 1955, p. 67-74).

7.2.7.1 Hyperactivity, sociopathy and alcoholism:

A tentative hypothesis that has been advanced states that within the alcoholic population there exists a subgroup for whom symptoms of hyperactivity and minimal brain dysfunction (M B D) were premorbidly existent. Such persons are at risk for primary as opposed to affective disorder alcoholism (Winokur, Rimmer and Reich, 1971, p. 525-531).

Various studies further suggest that an interrelationship may exist among alcoholism, hyperactivity and sociopathy and that the association has an aetiological substrate (Robins, Bates and O'Neal, 1962, p. 47; Quay, 1965, p. 180-183; Jones, 1968, p. 2-22; Mendelson et al, 1971, p. 273-279; Cantwell, 1972, p. 414-417; McClelland, 1972, p. 84-98; Morrison and Stewart, 1973, p. 888-891; Stewart et al., 1973, p. 3-11; Zentall, 1975, p. 549-563; Goodwin et al, 1975, p. 349-353; Mann and Greenspan, 1976, p. 1013-1017; Tarter et al., 1977, p. 761-768; Venables, 1977, p. 28-38). The possibility suggested is that MBD and hyperkinesis (HK) may be antecedent to a history of social incompetency, with accompanying psychological and interpersonal ramifications, leading in turn to alcohol use for both its physiological properties and to satisfy social and emotional needs as well.

Mann and Greenspan (op. cit.) identify and propose treatment for a syndrome which they refer to as "adult brain dysfunction". They assert

that MBD children mature into the adult brain dysfunction syndrome with such characteristics as short attention span, impulsivity, low self-esteem, interpersonal difficulties, anxiety and depression. The disorder is often found in conjunction with alcoholism, drug abuse and character disorders like sociopathy, explosive personalities, hysteria and impulsive personalities. From these studies it appears that MBD/HK is still experienced into adulthood as cognitive and behavioural symptoms although the gross motoric disturbances may be somewhat diminished.

7.2.8 Psychosomatic functioning in alcoholism:

7.2.8.1 Introduction

Psychosomatic diseases are manifested in many ways depending on which organic system becomes the target of the emotional impact. Although unpredictable, the target organ system will usually be determined by a genetically inherited weak one. In alcoholics the target organ seems to be the hypothalamus and the autonomic nervous system (ANS) because they are directly involved with emotional behaviour.

7.2.8.2 The roles of the autonomic nervous system and the hypothalamus in alcoholism

Chronic alcoholism is associated with hypothalmic disturbances (Feldman. 1955, p. 7-38) and acetylcholine functioning (MacLeod, 1955, p. 54-62 Fleetwood, 1955, p. 43-109). Alcohol affects neural metabolism which leads to blood-barrier changes, and permanent lesions and changes in hypothalamus cell structure. The combined impact of alcohol and emotional stress causes functional changes to the autonomic nervous system and the hypothalamus. Damage done to the hypothalamus is the reason why the alcoholic is unable to return to a social drinking state, and possibly why some chronic alcoholics resist therapy. Once alcoholism has become established, the hypothalamus is no longer capable of discriminating between an emotional stimulus and one which arises from contact with alcohol. It is the combined pathological functioning of the hypothalamus (and ANS) under emotional stress together with alcohol attack that is the foundation of alcoholism (Valles, 1969, p. 55-63).

Psychophysiological states of alcoholics, while far from definitive, nonetheless implicate a pattern of responsivity different from that of

nonalcoholic normals. The disturbance seems to be an excessive physiological reactivity which is tied to a defect in neurotransmitter regulation of biological rhythms. Thus while basal arousal is not necessarily disturbed, the failure to maintain arousal stability creates a pattern of excessive physiological reactivity which in turn, is responsible for the alcoholics' failure to distinguish interoceptive cues.

Ingestion of alcohol might be a mechanism for increasing norepinephrine availability and so is used by alcoholics to increase arousal. It might also explain the increased autonomic arousal in alcoholics and thus its beneficial effects on performance. The findings thus far illustrate that ethanol may show stimulant effects via its action as a monoamine-oxidase (MAO) inhibitor. Considering that the monoaminergic system is under genetic control, the possibility (not proven) arises that this might be the source of the inherited defect. Persons with this defect consume excessive quantities of alcohol to correct this aspect of organismic disturbance. (Nathan et al., 1978, p. 53-55).

"Dried-out alcoholics" show increased parasympathetic and decreased sympathetic activity which reflect reduced activation levels (Kissin, Schenker and Schenker 1959, p. 480-492). Alcohol acts to increase anxiety arousal in alcoholics (Garfield and McBrearty, 1970, p. 832-838; Nathan et al., 1978, p. 52). Alcohol functions dually to increase arousal and decrease reactivity and shows how inebriation creates an organismic state discernable from other (sober) states which allows the person to apply different cognitive labels. Alcoholics failure to discriminate internal cues is theorized to be due to sustained physiological variability and reactivity (Nathan, O'Brien and Norton, 1971).

Alcohol consumption for the alcoholic serves to reduce reactivity, especially under conditions of stimulation or stress and thereby allows for greater discrimination between physiological states and hence potentially better adaptation. This may account for the apparently contradictory phenomenon of some alcoholics turning to drink when under stress and anxiety etc. while others do so when they become excited or stimulated.

Primary alcoholics augment sensory input. They reflect the need to enhance stimulation in an effort to increase arousal to more optimum levels. It also serves the coping need to organize behaviour on the

basis of external cues because the alcoholic cannot do so on the basis of internal cues derived from subtle varying physiological states (Tarter and Novick, 1979, p. 520-531; Lansky, Nathan and Lawson, 1979, p. 321-328; Coopersmith and Woodrow, 1967, p. 27-32: Doctor, Naitoh and Smith, 1966, p. 605-615).

7.2.9 The disease model and alcoholism profiles:

Over the last few decades this model has been one of the most important because it has determined a great deal of research into alcoholism. In applying the disease model, it is not implied that the alcoholic is responsible for his plight and should be punished, but rather that he should be treated. He suffers disease because he has drunk heavily- and not that he drinks heavily because he has a disease.

7.2.9.1 The model of Jellinek:

Although Jellinek was not the first one to state that alcoholism was a disease, it is his famous work (1960) which popularized the concept throughout the world.

7.2.9.1.1 Introduction:

Jellinek indicates that there are two types of alcohol dependence, the psychological and the physical (p. 56-68). The person psychologically dependent is not addicted to the alcohol, whereas the one with physical dependence is.

According to Jellinek, many people drink to relax, reduce tension, gain courage or subdue feelings of inadequacy, or to contain feelings of hostility and aggression. If the person continues to satisfy these needs, he may develop psychological dependence but not addiction. He is still able to determine whether to continue drinking or not, i.e. he is still in control of his drinking episodes.

Then something seems to change in some of these drinkers because the psychological dependence takes on the second dimension of physical dependence which now not only requires psychic satisfaction, but the

body tissues as well crave for the drug. Once this has happened the person is no longer able to exercise voluntary control, or conscious choice about his drinking because he has lost control.

In the ensuing discussion on this theory, emphasis will be placed on concepts including: loss of control, craving, building-up-to-drink (BUD), relapse, tolerance, and withdrawal symptoms. In some cases there may be a semantic overlap because different writers use different terms for a similar concept.

7.2.9.1.2 Phases of the disease model:

The progression of the phases which indicate the build up of the alcohol dependence are:

(a) the predependence phase when psychological dependence gradually developes;
(b) tolerance as the body becomes increasingly adapted to alcohol;
(c) the craving or loss of control phase; and
(d) withdrawal symptoms phase and relapses.

(a) Psychological dependence phase:

The initial alcohol intake may be associated with a general urge for pleasure, elation, and release. With continued use, an artificial ecstacy develops and a craving and compulsion to repeat the experience which has now become associated with intoxication (Meerloo, 1952, p. 246-266). On other occassions the need arises to feel more relaxed and gratified and the gradual intake increase begins to reappear with increasing frequency until the habitual need or addictive need stage is reached (Valles, 1969, p. 89). Without doubt, the need for alcohol is influenced and augmented by situations and stimuli in the external environment, but it is the person himself who internalizes the need and makes it a part of him.

(b) Physical tolerance:

Because alcohol is toxic to the body, a process of physiological

adaptation occurs. The person has to drink more so as to capture the expected mood change. In this way his tolerance levels are raised and so the vicious circle of ever-increasing intake occurs.

(c) Craving or loss of control phase:

This is a natural consequence of the increased tolerance. Craving is defined: "Whenever an alcoholic starts to drink it is not certain that he will be able to stop at will" (Keller, 1960, p. 128). He cannot limit intake once drinking has begun.

Craving can be linked to three types of feelings and perceptions, viz., anxiety, depression, and obsessional thoughts about alcohol (Hore, 1974, p. 13) and it is inversely related to length of time abstinent and directly related to physical dependence (Hore, p. 137-140). Ethanol has a normalizing effect which is reflected in the increase in autonomic nervous system arousal and the decrease of reactivity. The person experiences increased anxiety, depression and agitation (Nathan et al., 1978, p. 61).

Normal drinking is influenced by interoceptive and exteroceptive cues, while alcoholics fail to respond to such feedback material and so cannot limit their drinking (Ludwig and Wikler, 1974, p. 108). Ludwig and Stark (1974, p. 899) describe craving as a "conditioned cognitive label which alerts the alcoholic to emotional dysphoria and which permits him to direct his behaviour to a potential source of relief - namely the ingestion of alcohol." Craving is used to explain the onset of drinking after a period of sobriety, loss of control after drinking onset, and as a physiological need state during withdrawal phases (Isbell, 1955, p. 38-42).

(d) Withdrawal and relapse phenomenon:

The earliest sign of withdrawal to appear is usually bilateral tremor most often seen first in the hands. Later, when more chronic, the conspicuous symptom is delirium tremens (D T's). Both tremor and impending DT's motivate morning drinking in the form of the "regmaker".

In advanced stages the more severe symptoms like cirrhosis of the liver

peripheral neuritis and neuropathy, and cardiomyopathy may occur. The person has probably become a member of the "Skid Row" group. The assumption that craving for alcohol arises either at or immediately after withdrawal symptoms is not fully accepted (Lindesmith, 1968; in Clark, 1975, p. 417).

The chemical and physiological changes and reactions of craving and withdrawal are due to imbalances brought upon the functioning of the hypothalamus and the ANS (Valles, 1969, p. 107).

The phenomenon of relapse is explained as follows: " During treatment or after a period of abstinence, an alcoholic develops specific involuntary behaviourism that are in effect warnings or premonitary signals that a relapse is imminent" (Valles, op. cit., p. 89). In building up to drink (BUD) the relapse is seen as a syndrome or group of symptoms characterised by a sudden change in the alcoholic's mood, increased psychosomatic complaints, emotional confusion and diverse levels of anxiety, which if not controlled, will end in alcohol drinking. Valles stated that it was important to note that "there is some special, individualized way in which each alcoholic usually starts his BUD. An alcoholic almost invariably goes into a BUD with a set of physical and emotional components characteristic of him. When he is building up to drink he starts out nearly always via the same route" (p. 103). He adds that a common factor in all the BUD forms is the rise in the amount of psychosomatic complaints, e.g. insomnia, tension headaches, stomach cramps, chest tightness, and nausea.

Generally the alcoholic is unaware of the link between the BUD start and his alcoholic crisis, often because it begins slowly and inconspicuously.

Marlatt (1977, in Nathan et al., 1978, p. 96) offers a relapse theory based on his Abstinence Volition Effect (AVE) which has two elements:

(1) cognitive dissonance (a conflict state), and
(2) the personal attribution effect (cause of the problem is due to internal weaknesses like lack of will-power). He states that the alcoholic relapse occurs under the following conditions:

(1) The abstaining alcoholic is in 'control' until he comes across a high-risk situation which threatens his perception of control.
(2) He lacks a suitable coping mechanism for the high-risk situation or he fails to use a coping response.
(3) He has conditioned positive expectancies about the effects of alcohol; and alcohol is in fact also available to him at that time.
(4) He drinks his first drink;
(5) He experiences one or both components of the AVE; and
(6) the profitability of continued drinking increases quickly and severely.

7.2.9.2 Self-controlled drinking (return to normal drinking) versus craving (loss of control) drinking:

Despite its popular following, the traditional approach has not been able to find much empirical support (Nathan et al., op. cit.) After summarising the many studies examining differences between alcoholics and non-alcoholics, Keller (1972a, p. 1147-1148) notes that the "alcoholics are different in so many ways that it makes no difference." Various researchers (Cohen, Liebson and Faillace 1971; Cutter, Schwaab and Nathan, 1970, p. 369-378; Engle and Williams, 1972, p. 1099-1105; Gottheil, Crawford and Cornelison, 1973, p. 80-82; Keller, 1972b, p. 153-166; Martlatt, Demming and Reid, 1973, p. 233-241; McNamee, Mellow and Mendelson, 1968, p. 1063-1069; Mello, 1972, p. 43-46; Merry, 1966, p. 1257-1258; Pattison, Sobell and Sobell, 1977; Robinson, 1972, p. 1028-1042; Sobell, Sobell and Christelman, 1972, p. 119-123; Wilson, Leaf and Nathan, 1975, p.13-26) examine craving, loss of control and the irreversability aspect which is found in most disease concepts of alcoholism and point out that traditional explanations are inconclusive and severely lacking in empirical foundations.

Also some contradictory evidence has been shown to question the concept that abstinence is the only true treatment (Armor, Polich and Stambul, 1976, in Nathan et al., op. cit., p. 72; Caddy and Lovibond, 1976, p. 223-230; Lovibond and Caddy, 1970, p. 437-444; Miller and Caddy, 1977, p. 986-1003; Sobell and Sobell, 1973, p. 599-618; 1973, p. 49-72; 1975, p. 42-70; 1976, p. 195-215; and reviews by Hamburg, 1975, p. 69-87; Lloyd and Salzburg, 1975, p. 815-842).

Because abstinence has been the traditional yardstick for measuring successful therapy and treatment, Pattison and Headley (1968, op. cit.) set out to test the adequacy of this criterion. They quote the folowing researchers who found ex-alcoholics who had become controlled or normal drinkers: Nørvig and Nielsen (1946); De Morsier and Feldmann (1952); Lemere (1953); Shea (1954); Flaherty, McGuire and Gatski (1955, p. 460-464); Selzer and Holloway (1957); Pfeffer and Berger (1957); Fox and Smith (1959); Moore and Ramseur (1960); Hacquard et al. (1960); Gerard and Saenger (1962); Wile (1966); Lambert (1964); Cain (1964); Kendell (1965); Robson, Paulus and Clarke (1965) and Pattison (1968, p. 268-276). They find that abstinence is not necessarily an indicator of improvement in life areas. The above types of evidence seriously question the traditional approach's validity. More and more research scientists are working along these lines at present. Some of them criticise the traditional approach to such an extent that they say it might be a handicap rather than an aid in understanding alcohol dependence.

The recovered alcohol abstains from drink mainly because he does not want to drink, whereas the 'arrested' one still has the craving to drink but knows he must not and makes an effort to avoid it. Most alcoholics do not want to return to 'normal drinking'; rather, by normal drinking, they mean the intoxication they were once unable to control. The arrested alcoholic learns to control his desire but he never learns to overcome his desire and so these arrested alcoholics could never really return to normal drinking because their pattern of life still revolves around alcohol even when they do not drink. If there is to be a change, then the addictive alcoholic does not 'return to normal drinking' but rather learns for the first time a new attitude towards alcohol and so the change from addictive drinking to normal drinking may be a shift in psychosocial equilibrium (Cain, 1964).

Bailey and Stewart (1967, p. 305-315) came to an interesting conclusion after they had taken a look at the research findings of the ones who claimed that alcoholics could return to normal drinking quoted above. They say that the "repeated discovery in a number of follow-up studies of a minority of alcoholics able to resume normal drinking does not warrant abandonment of the therapeutic goal of abstinence, but is an indication of the need for further research." The bias lies more to the pole that posits the Alcoholics Anonymous tenent: "once an alcoholic,

always an alcoholic" than to the side that alcoholics can return to social drinking. The overwhelming majority of recidivist cases throughout the world bares witness to this phenomenon. The possibility that those who return to social drinking were not alcoholics in the first place may be applicable.

7.3 Psychoanalytic profiles of alcoholics:

7.3.1 Introduction:

Because physiological, biochemical and emotional responses are uniquely individual reactions, an infant is not able to conscieously distinguish between them. In some cases this inability remains fixated and the relief from tension in one field is sought by resorting to actions of the other field. Emotional stress is alleviated by physical intervention, e.g. chemicals like alcohol. In general, the psychoanalytic viewpoint suggests that the alcoholic drinks to escape from unpleasant symptoms or emotions which arise from psychopathological states like neuroses.

7.3.2 Freudian oriented profiles:

The Freudian view states that one or more unconscious efforts such as self-destruction, oral fixation and latent homosexuality may promote alcoholism in a person. Early psychoanalytic theorists like Freud, Abraham, Ferenzi, and Knight thought that alcohol supplied the person with a release from inhibition and this allowed repressed feelings to surface. The repressed urges of oral dependency etc. are believed to have arisen because of abnormal parent-child relationships which interferred with the child's practice of self-control. These sets of behaviours developed during the oral developmental stage and this led to overidentification with the father.

Passive, dependent, narcissistic urges and a wish to use the lips and mouth as the means of achieving gratification are underlying factors found in alcoholics (Fenichel, 1945).

Pathological parent-child relationships underlie alcoholism. This is due to an indulgent mother and an inconsistent father. The child does

not learn self-control and reacts to every frustration with intense rage due to the pattern of dependence, rejection and intense desire for indulgence together with deep feelings of inferiority and guilt. (Knight, 1937, p. 538-548; Gibbons, 1953, p. 51 ; Zwerling, 1959, p.543-554; Menninger, 1938, p. 160-184; Strecker, 1941, p. 12-18).

The alcoholic has a strong need to dominate. Traits that develop from this include hostile attitudes, feelings of loneliness and isolation, and conflicting ambivalent feelings of inferiority and superiority. Because of the ensuing behavioural reactions and experiences, the alcoholic strives for perfection and craves "ecstatic peaks", but the striving serves as a means of certain and continuous failure (Tiebout, 1945, p. 535-547).

Orthodox psychoanalysts commonly mention a sexual origin in alcoholism. The main pathological forms include homosexuality, the Oedipus complex, masturbation, and fear of castration. Many of them stress unresolved homosexual conflicts as the common base element in the profile. They describe the alcoholic as having strong overt or covert homosexual drives. This behaviour is interpreted as a regression to an earlier developmental level comparable to the infant with intense oral longings and then seeking gratification via the bottle. They resort to sedating themselves with alcohol to relieve themselves from the psychic pain.

Among other psychological conflicts found more clearly than others in alcoholics are those concerning lack of self-esteem, lack of self-assertion, depression, various guilts, anxiety, forbidden feelings, and insecurity stemming from early unhappy family constellations.

Infantile neuroticism is the cause of later alcoholism (Strecker, 1941, p. 12-18; Lolli, 1949, p. 404-414; Levy, 1958, p. 649-659.) The alcohol serves 5 functions in the alcoholic:

(1) discharge (catharsis expression of repressed material);
(2) narcotic function (stimuli are prevented from reaching the conscious ego);
(3) symbolic function (his total existence becomes symbolically identified with alcohol);

(4) infantomimetic functions (tension reduction occurs through sucking and swallowing);
(5) masochistic function (alcohol punishes in a variety of ways).

7.3.3 Adlerian profiles in alcoholism:

The Adlerian view suggests that alcoholism symbolizes a struggle for power. To the Adlerian group the addiction is due to a desire of the individual alcoholic to remove powerful feelings of inferiority while escaping responsibility. According to Adler (1941, p. 74-77) feelings of inferiority are the root cause of all alcoholic problems, but the inferiority may be overtly expressed or be hidden under a cover or screen of inferiority. The onset of alcoholism is marked by shyness, isolation and loneliness, impatience and irritability, anxiety and depression, hypersensitivity and sexual inadequacy or insufficiency. To Adler "boastfulness, malicious criminal tendencies, and a longing for power" could be the symptoms of addiction when the superiority compensation is the adaptive mechanism used. He maintains that alcoholism can be seen as the result of childhood pampering because overindulgence and excessive cuddling result in the person's inability to face up to the frustrations of adult reality which eventually results in feelings of inadequacy and inferiority.

7.3.4 Conflict between dependency drive versus aggressive impulsivity:

Inner conflicts between dependency and the expression of aggression towards those figures who simultaneously evoked these emotions could cause a person to turn to alcohol for relief from the tension (Fromm, 1947, 1964). Conflict and anxiety about the gratification of needs to depend on others is a core issue for alcoholics (Bufano, 1976, p. 689-690).

7.4 Clinical profiles of the male alcoholic personality:

It is proposed that there is not just one but a variety of personality types specially susceptible to alcohol which is merely the medium for the expression of the problem of that personality. In the section which follows, a closer look is made of two viewpoints, those of Button and Barnes.

7.4.1 Psychodynamic profiles of male alcoholics according to the model presented by Button:

This model is based on the personality profiles obtained from a sample of 87 male alcoholic subjects and is based on 10 factors (Button, 1956, p. 430-460); 9 of the factors are briefly discussed below:

(a) The behavioural evaluation or the alcoholic's manner of relating:
A most obvious trait appearing in most alcoholics is their fawning willingness to co-operate. Under a layer of bluff (he appears to be passive, gentle, and overtly dignified) are forms of authoritarianism and pomposity mixed with anxiety, tension, defiance, scorn and negativism.

(b) The perceptions of their own selves, roles, and situations:
Because they perceive themselves as inadequate, inferior, impotent and incompetent to deal with life's complexities, their low self-esteem results in reactions like introversion and immature rebellion-like behaviour.

(c) Typically manifested types of ego controls:
Severe control problems arise because of the conflict between an urge to admit their powerlessness in controlling their drinking as opposed to their unrealistic belief that will-power is all that is needed. This leads to 5 types of ego controls:
* Overcontrollers (including obsessive-compulsives and paranoids);
* Undercontrollers (e.g. psychopaths and manic psychotics);
* Bimodal controllers (show signs of both above forms);
* Appropriate controllers; and
* Unratable persons.

(d) Defense mechanisms of alcoholics:
A primary diagnosis reveals the following defenses in percentage ranking: hysteria (25% - denial, repression, suppression and conversion); intellectualization (16% - rationalization); psychopathy (14% antisocial thinking, attitudes and behaviours); hypochondriasis (12%); psychasthenia (9% - obsessive-compulsivity); hypomania (9%); acting-out (9%); isolation and withdrawal (9%); constriction (8% - of conscious output); drinking (7%); projection (7%); intropunitiveness (6%); externalized aggression (5%); flight-escape (3%); schizophrenia (3%); and a number of other defenses grouped together.

(e) Identification patterns:

Male alcoholics appear to be universally characterized by incomplete masculine identifications due to the effects of early life deprivation and traumatic conflict experiences with their parents. They adopt passive and dependent life patterns. The line between passivity and femininity is a thin one and in its maintenance causes much tension. They compensate by trying to be a most complete man, but this goal is unattainable. Under feelings of hostility and futility, their defenses break down and they resort to excessive drinking as a solution.

(f) Interpersonal relationships:

Because of their poor and inadequately developed identifications and the resulting lack of any real sense of identity in their self-perceptions, they often and usually have poor and unsatisfying interpersonal relationships. Those that they do have take on a tone of either exploitation or dependency because other people are seen as existing to serve or dominate. They find it difficult to develop peer relationships because they view others as either superior or inferior objects. Also, they view relationships as threatening because of their own conscious and unconscious feelings of inferiority which make them assume that others see them in the same way. They are caught in a trap of ambivalence: it is vital for them to have the good will of others but their manipulative and cloying behaviour tends to have the opposite effect on the other person.

(g) Reasons why alcoholics drink:

The major reasons given by alcoholics for their drinking include the following: the solution alcohol gives for resolving conflict between passive and aggressive needs; for relieving tension, anxiety, depression and nervousness.

(h) Degrees of psychopathology:

The outstanding factor is the severity of the person's chronicity.

(i) Psychodiagnostic measures:

The main traits diagnozed are: passive-dependency (38%); psychopathy (25%); schizophrenia (23%); psychoneuroses (16%); anxiety neuroses (11%) inadequate personality (10%)

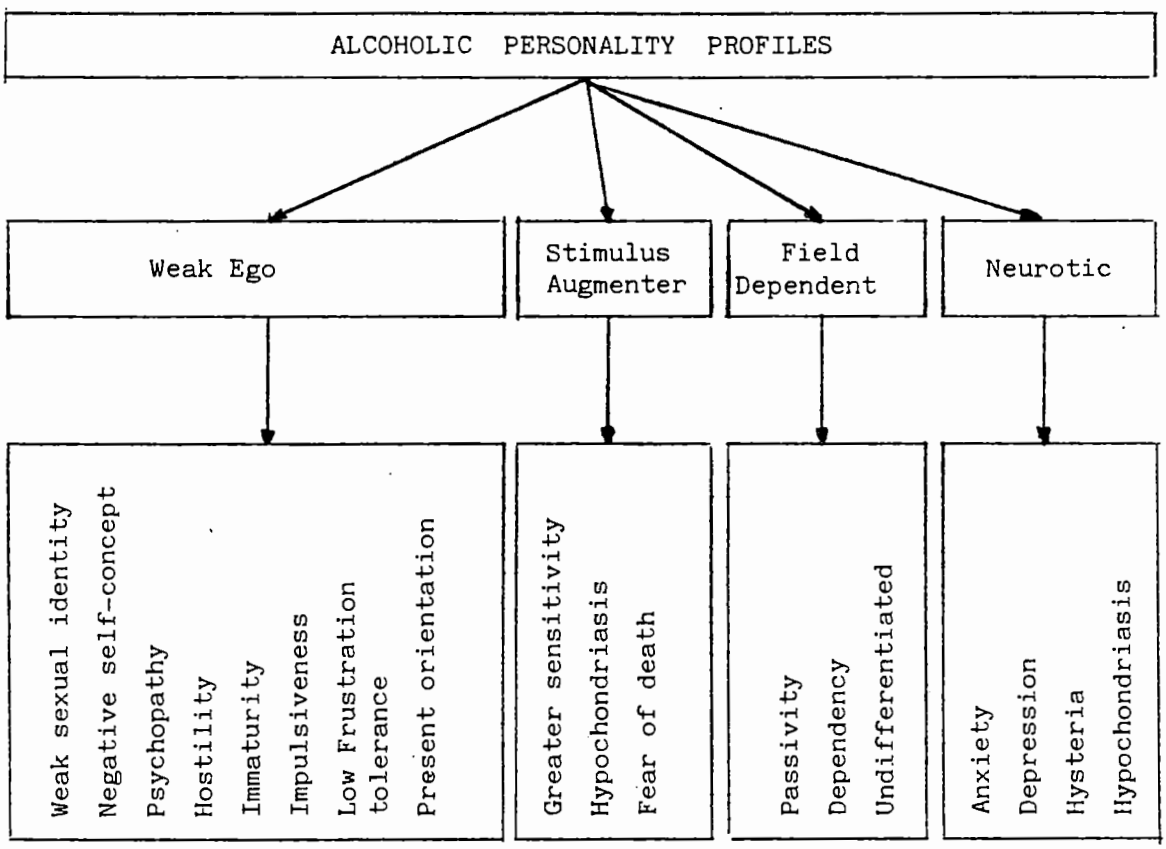
7.4.2 Personality profiles of the male alcoholic according to the model presented by Barnes (1979, p. 571-635):

Two terms should be used in defining the alcoholic personality. The criteria for revealing the existence of the clinical alcoholic personality are very different from those revealing a prealcoholic personality.

(a) The prealcoholic personality: applies to personality characteristics common to alcoholics before the onset of the disorder.

(b) The clinical alcoholic personality: applies to the pattern of personality characteristics which are found in alcoholics during their treatment phase. The requirements for diagnosing this personality are that the similarities between various groups of alcoholics' personality profiles should be apparent; and secondly that alcoholics should differ from nonalcoholics or "normals", other clinical groups and other addicted groups in their personality characteristics.

After reviewing the literature of empirical studies on the personality profiles of alcoholics, Barnes (1979, p. 571-635) drew up the following table:

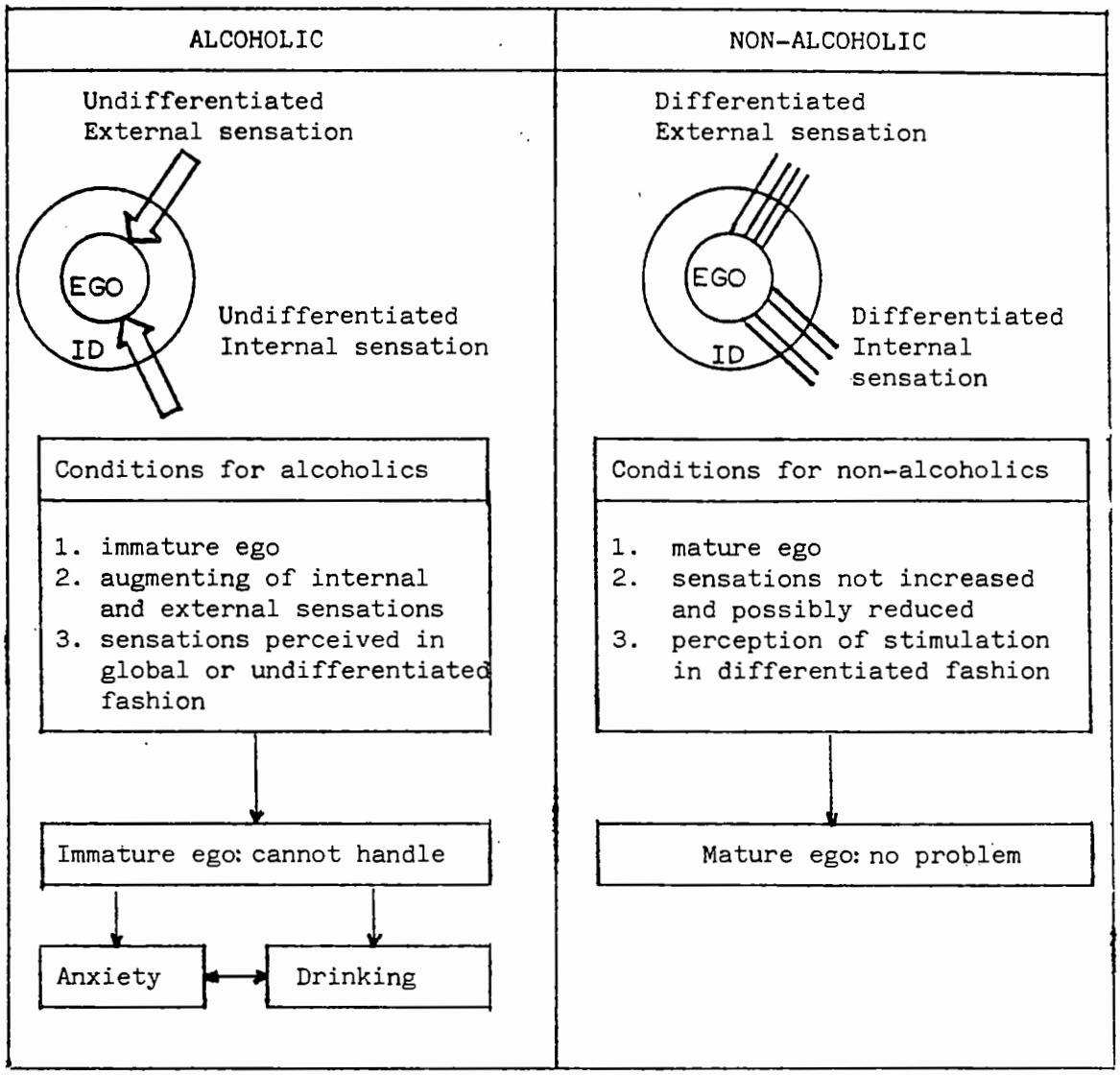


A brief resumé of the table is presented below. Because the aspects of neurotic anxiety and depression are important ones in this investigation, more stress will be placed on them at the end of this model.

7.4.2.1 Weak ego:

Generally, research results and inquiries into ego strengths on alcoholics provide much support for it to be included as a clinical personality trait. Alcoholic groups score consistently lower on various theoretical traits of high ego strength. It is suggested by Spiegel, Hadley and Hadley (1970, p. 366-371) that this is an important characteristic for discriminating alcoholics from other clinical groups. There seems to be sufficient evidence to support the assumption that alcoholics are lower than normals on ego strength. Alcoholics score lower on the MMPI Es subscale and high on the Pd scale (both indicate weak ego strength) (Fowler et al., 1967, p. 65-68; Spiegel et al., 1970, p. 366-371). The 16 PF profiles for alcoholic groups show a consistent low ego functioning level (C-) (Cattell, Eber and Tatsuoka, 1974, p. 84; de Palma and Clayton, 1958, p. 390-392; and Gross and Carpenter, 1971, p. 375-378). Alcoholics score high on the antisocial behaviour scale of the Kalin Personality Test (Williams, McCourt and Schneider, 1971, p. 310-317). Evidence from the Rorschach and Draw-a-Person Tests provide supportive evidence of low ego level functioning among male alcoholics.

Barnes (1980, p. 395) suggests an ego model of the clinical alcoholic personality profile as compared to nonalcoholics:



7.4.2.1.1 Low frustration tolerance and impulsivity:

Alcoholics have a low frustration tolerance (Cowan, Auld and Bégin, 1974, p. 199-206) and they are more impulsive than normals (Williams et al., 1971, p. 310-317; and Cisin and Cahalan, 1968, p. 10-21).

7.4.2.1.2 Immediate gratification:

Alcoholics are mainly concerned with immediate gratification and find it very difficult to accept long-term or long-range consequences for their deeds into consideration. Weak ego strength is correlated with short-term gratification (Roos and Albers, 1965, p. 34-36; Hurwitz and Lelos, 1968, p. 64-76; Smart, 1968, p. 81-83; Sattler and Pflugrath, 1970, p. 839-850).

7.4.2.1.3 Hostility:

Weak ego functioning and poor impulse control are seen in forms of hostility. Alcoholics score higher hostility scores than normals, while lower scores are obtained by those alcoholics who are prognosed to more likely remain abstinent (Ritson, 1971, p. 79-82).

7.4.2.1.4 Object relationships:

Alcoholics have difficulty in forming satisfactory human object relationships as can be seen by their high divorce rates and problems with sexual identity (Chodorkoff, 1964, p. 292-299).

Although the findings have not always been consistent, alcoholics have tended to score low on the MMPI Mf scale. Similar sex identity confusion is identified by Machover Puzzo, Machover and Plumeau (1959, p. 528-542) using this scale, the Rorschach Test and the Draw-a-Figure Test with an alcoholic group, a sample of homosexuals, and a control sample.

Using the Terman-Miles masculinity-femininity test as a measure of sex temperament, Parker (1969, p. 55-61) finds that alcoholics show a lower degree of masculinity than do moderate drinkers especially in those who show a preference for the mother, come from broken homes and form a part of a marriage break-up. He concludes that strong masculinity in alcoholics is in fact a masculine facáde. Zucker (1968, p. 868-884) agrees with this finding but is not able to find support for unconscious feminine characteristics in heavy drinkers when using the Gough Fe scale to measure conscious masculinity.

After using a photo-preference test, Meer and Amon (1963, p. 417-431) find that alcoholics prefer pictures of older people (especially women) and that this could be indicative of either a need to adopt a dependent role or a possible sign of cross-sex identification.

Rozsnafsky (1979, p. 6139) uses Loevinger's theory that ego development is a major dimension of personality which generates a developmental sequence of ego strata that produce individual differences within human groups. She classifies her groups according to three ego levels and

three "person-group factors".

EGO LEVEL	ALCOHOLIC GROUPS
Pre-conformists: Unpredictable, have difficulty in logical thinking, blame others and are hostile, see things in a simple way.	Immature Alcoholics: Blaming, impulsive, manipulative, distrustful, and simplistic.
Conformists: Dependable and believe strongly in rules, judge people in conventional terms, place high value on appearance and possessions.	Conventional Alcoholics: Emphasize "niceness", conservatism masculinity, and overall normality.
Post-conformists: Interpersonally perceptive, concerned with philosophical problems, have insight and introspection, value individuality, ethically consistent, concerned with communicating feelings.	Socially Competent Alcoholics: Cheerful, attractive, considerate, forthright, fluent

Her one alcoholic type can be said to be immature, childish and hostile towards others, i.e. like an Id-type personality which corresponds to the Child State (Berne, 1964). The second type is conventional and conforming and may be associated with Super-ego dominance. It resembles the Parent State (Berne). The last type is socially capable and mature. He resembles a healthier Ego functioning type and is similar to the Adult State (Berne).

7.4.2.1.5 Self-concept and self-acceptance:

The sense of self or self-representation are taken to be important functions of the ego. Alcoholics generally show themselves as having negative self-concepts and self-images. They often profess to be inferior to others.

Alcoholics indicate a lower degree of self-acceptance than a control

group on the Gough Adjective Check List (Berg, 1971, p. 442-453). They tend to see themselves in terms of qualities that would make them popular in primary group relationships but not in secondary institutionalized group relations (Conner, 1962, p. 455-467).

Vanderpool fails to detect differences between alcoholics and non-alcoholics with the Gough Adjective Check List but does so with the Tennessee Self Concept Scale when he discovers that alcoholics score much lower self-concept ratings than a normal group (1969, p. 59-78). Using the latter scale, Gross and Adler (1970, p. 431-434) conclude that alcoholics show an overall lower level of self-esteem and perceive themselves poorly with regard to identity, self-satisfaction while they score lower on physical-self moral and ethical self, personal-self, family-self and social-self concepts.

Alcoholics show more discrepancies between self and ideal-self than do non-alcoholics when they are measured on a self-ideal discrepancy measure (Carroll and Fuller, 1969, p. 363-364) which Berg (1971, p. 442-453) finds to occur when the groups are matched for neuroticism.

Holland (1977, p. 644-650) indicates that alcoholics may be less psychopathic than other addicts which may be interpreted as saying that alcoholics may have higher ego strengths than addicts.

7.4.2.2 Stimulus augmentation profiles of alcoholics:

Stimulus augmenters are more sensitive to pain and stimulation from the environment than are stimulus reducers. Stimulus augmenters are more inclined to feel that they are being bombarded constantly by sensations from both internal and external sources, and prefer sedative drugs like alcohol to allay anxiety and distress. Alcoholics are stimulus augmenters in their mode of perceptual reactance (Petrie, 1967; Spiegel, Hadley and Hadley, 1970, p. 366-371). Alcoholics score low on endurance, play, change and sentience and are not very interested in experiencing new situations (Hoffman, 1970, p. 23-26).

Alcoholics score high on the MMPI Hs scale (Cleveland and Sykes, 1966, p. 265-269; Hagnel and Tunving, 1972, p. 77-84) Hypochondriasis is associated with stimulus augmenters and alcoholics (Petrie, 1967).

7.4.2.3 Field-dependence factors in the profiles of alcoholics:

Alcoholics are more field-dependent than non-alcoholics (Witkin, Karp and Goodenough, 1959, p. 493-505; Rhodes, Car and Jurji, 1968, p. 172-174). The field-dependence of alcoholics results in lowered differentiation on social perception and interaction, and the alcoholic's consequent difficulties of dependency in interpersonal relationships. A predominantly field-dependent person judges the world rigidly according to established frames of reference; does not easily change his set ideas concerning people, things and situations, and his typical defense mechanisms in threatening stimulus situations are repression and denial through which earlier perceptions and experiences are often blanked out. Field dependence and lack of perceptual differentiation in alcoholics may be related to other forms of passive dependency in alcoholics. The dependent nature of alcoholics is noted in their value structures (Freed, 1968, p. 403-406). Dependent alcoholics tend to deny their dependency needs (Goldstein et al., 1968, p. 560-564). Alcoholics perceptually rely on external stimulation cues. They tend to score higher than nonalcoholics on locus of control measures (Oziel et al., 1972, p. 957-958; Hinrichsen, 1976, p. 908-916; Rohsenow and O'Leary, 1978, p. 55-78; p. 213-226; Donovan and O'Leary, 1978, p. 759-784).

7.4.2.4 Emotional conflict and psychoneurotic profiles in alcoholics:

7.4.2.4.1 Emotional lability in alcoholics:

Emotional control does not mean the inhibition of the expression of feelings but rather its suitability and appropriateness. The emotional life of the alcoholic is responded to in a confused, disorganized and impassioned way. His emotionally labile state and low frustration tolerance levels handicap adequate, purposeful and suitable reactions to emotional stimuli. Rather he reacts impulsively in an extreme all-or-nothing way because it is disproportionate, extravagant and extensive. He lacks a smoothe emotional-physiological response-behaviour function of action. His emotions fuse, blend and often conflict with each other. The confusion and instability can be seen as the expression of the imbalance of the autonomic nervous system and hypothalamus which is characteristic of the chronic alcoholic who has a strong tendency to succumb to emotional situations like boredom, irritability. depression,

loneliness and remorse which in turn may lead to feelings of despair. Unfortunately, the association of emotion and alcohol, when once established, usually continues to serve and maintain dependence on the alcohol.

7.4.2.4.2 Conflict in alcoholics:

The associations between frustration, conflict, anxiety, neuroses and neurotic defense mechanisms are often cited as foundations for pathological psychological behaviour in alcoholics. Alcoholics as a group generally show signs of neuroticism and they can be discriminated from normal groups on various tests which measure this construct. Alcoholics appear to be more neurotic than other drug addicts. Mixed results are obtained in studies which try to distinguish clinical groups from alcoholics when measured on neuroticism scales. Although alcoholics and neurotics closely resemble each other in this trait, the evidence is inconclusive (Barnes, 1979, p. 611-612).

A frustration-conflict model (Lewin, 1937) which can be applied to alcoholics, classifies them into a few types of which the important applicable ones are:

(a) Approach-approach conflict:
the person is simultaneously attracted by two incompatible goals like the positive reward offered by alcohol consumption and its quick relieving effect as opposed to the positive reward of abstaining.

(b) Avoidance-avoidance conflict:
the person is trapped between two threats, fears, or situations that repel him. His usual escape is to quit the situation via repression, denial or regression.

(c) Approach-avoidance conflict:
the person is simultaneously attracted and repelled by the same goal. This is difficult to resolve and evokes high levels of anxiety. There is evidence for basing an alcoholic typology on the style with which alcoholics resolve conflicts. If a person internalizes a positive attitude towards alcohol, his conflict resolution takes on the form of an approach-avoidance model when he drinks. Drinking for him is in response to an external source

of demand and his drinking behaviour is relatively controlled. If the person internalizes a negative attitude towards alcohol, his conflict resolutions follow an avoidance-approach model when he drinks. For him, drinking is in response to an internal source of demand and his drinking is relatively uncontrolled (Wetherbee, 1966, p. 1632-1633).

7.4.2.4.3 Coping devices/defense mechanisms in alcoholics:

The ways that alcoholics act out their conflicts, anxieties and tensions appear to be less effective than those of the normal population. The alcoholic develops a number of tactics that enable him to cope with alcoholismic experiences (Wallace, 1978; in Estes and Heinemann, 1978, p. 12-14). The three broad tactical options of alcoholics are:

(a) Tactical denial:
This is probably the most commonly employed device of alcoholics. They seem unaware of the effects of alcohol on their lives, their work, health. reputation, and social and personal relationships. They refuse to admit their loss of control and the problems that their drinking has become for them. They prefer to remain "ignorant".

(b) Rationalization:
The alcoholic always has an endless list of reasons for having a drink. They try to make their chronic drinking appear acceptable to both themselves and to others. They reason why they should stop drinking but cannot put the idea into operation.

(c) Blame projections:
The alcoholics fail to perceive the obvious and prefer to blame everybody and everything except themselves and the alcohol for their dilema Spouses, authority figures like parents, bosses, the police and judicial bodies, the "system", in fact the whole society can be found to be faulty in the view of the alcoholic.

7.4.2.4.4 The prealcoholic personality:

Evidence supporting the concept of the prealcoholic personality is very limited and more longitudinal research, using objective, projective and perceptual instruments, should be applied so that reliable and valid

evidence can be accumulated in order to provide clear information on this important feature of the alcoholic's personality profile.

The clinical alcoholic personality exists as evidenced by the complementary effect of a prealcoholic personality and the effects of the person's drinking pattern history (Barnes, 1980, p. 622). Alcoholics as prealcoholics are impulsive, nonconforming and gregarious, uncontrolled, impulsive and rebellious. Lack of control appears to be the most outstanding trait in the prealcoholic profile (Kammeier et al., 1973, p. 159-163; Jones, 1969, p. 2-12). Poor self-esteem and low ego strength are also central predisposing personality factors of the prealcoholic make-up. Some alcoholics are more neurotic before the process of alcoholism starts while others develop neurotic symptoms after their alcoholism is established (Williams, 1966, p. 689-693). Pollack (1964, p. 7383) considers that "Alcohol might... be a final common pathway which many different personality types could use. The antecedent personality variables include orality, latent homosexuality, and self-destructive traits which imply that the alcoholic is dependent, confused, emotionally immature, impulsive and guilt-ridden".

The clear neurotic personality profile presented by alcoholics at the start of treatment diminishes in degree when tests are applied later in the therapy period. They nevertheless are still basically neurotic (van der Spuy, 1959, p. 232-233).

7.4.2.4.5 Anxiety profiles in alcoholics:

Modern man faces environmental threats like our primitive ancestors did, but, because of the more varied and increased complexities in our lives, as well as the ever-expanding borders of knowledge and communication systems, our anxiety sources are also becoming more numerous and less directly known to us. The stimuli are less controllable and less predictable. Future shock has become present shock. Alcohol (with other similar agents) has become and is probably still going to become even more so, a social way of managing feelings.

Anxiety forms the centre of the neurotic cycle. Unsuccessful defense mechanisms used to reduce anxiety include the anxiety reaction, phobias, hysteria, obsessive-compulsivity, neurotic depression and other

maladaptive mechanisms. It seems thus justified to state that the use of alcohol is directly related to anxiety in all its forms. The physiological hypotheses about the aetiology of alcoholism assumes that there is a relieving feature of alcohol on the alcoholic's anxiety, depression, and other painful emotional experiences and psychopathologies.

7.4.2.4.5.1 Description of the terms anxiety, fear and emotional tension:

One of the central areas of focus of this investigation is the role of anxiety (and tension) as a psychological element underlying alcoholism. Although there are basic similarities between terms like anxiety, fear and emotional tension there are also certain fundemental differences as well. A brief description of the terms is presented.

(a) Anxiety:

Anxiety is a reflection and warning of internally originating discrepancies in the self-system and always pertains to interpersonal relations. The presence of anxiety indicates that circumstances are threatening and unsafe and that the personality is not equipped to handle the threatening causes. "The threat of anxiety is much worse than its absence." It is unwanted and if it is present, a person tries to lessen it immediately. (Sullivan, 1953, p. 113-115; 1954, p.94-95). It occurs where there is a future or anticipated threat to the psychological self, in particular self-esteem and self-worth (Buiter and Frey, 1972, p. 199).
Anxiety is an "unpleasurable affect consisting of psychophysiological changes in response to an intrapsychic conflict." (Freedman, Kaplan and Sadock, 1977, p. 1283). The American Psychiatric Association's second edition of the Diagnostic and Statistical Manual of Mental Disorders DSM-II defines anxiety as "the chief characteristic of the neurosis. It may be felt and expressed directly, or it may be controlled unconsciously and automatically by conversion, displacement and various other psychological mechanisms." (In: Freedman et al., p. 1082-1083).
Jordaan, Jordaan and Nieuwoudt (1979, p. 514) define anxiety as a "subjective experience (which) refers to a diffuse feeling of being threatened without the individual's being aware of the specific cause of that feeling." It is characterized by a lack of cognitive content because the person is unable to pinpoint the

reason for his feelings.

(b) Fear:

Fear arises from known danger sources, from something specific and real. It has greater incidence in childhood and tends to fade with time. The differences between the terms anxiety and fear are made in terms of their cognitive content which the person experiences subjectively. No decisive evidence based on separate physiological reaction patterns have been noted for differentiating the two reactions. In this dissertation the two terms will be used synonymously because of the fluid phasing of the concepts.

(c) Emotional tension:

Jordan et al. (op. cit.) say that emotional tension "is the feeling of tenseness an individual experiences with regard to impinging stressors" and they regard it as "a general state of feeling which is a component of any affective experience, be it anxiety, fear, joy, sorrow, anger, etc." The emotional homeostasis becomes unbalanced and has both psychological and physiological components.

7.4.2.4.5.2 The dynamics of anxiety in alcoholics:

Over the years two hypotheses held the centre of attention with regard to anxiety and alcoholism:

(a) that alcoholics are basically very anxious people, and

(b) that alcohol reduces anxiety. The deduction made was that alcoholics drink so as to reduce anxiety. This has not always been found in research to be the case.

While alcoholics do not conform to any uniform personality type, a few features like low frustration tolerance and the inability to endure anxiety and tension are common characteristics to them (Fox, 1967, p. 769-778). Alcoholics have poorly developed defenses against anxiety because they are incapable of facing up adequately to unpleasant situations and are hypersensitive to rejection, rebuke and criticism (Noyes and Kolb, 1963). These difficulties in adapting to stress situations are due to faulty childhood experiences through gross emotional deprivation or excessive overindulgence and overprotection (Strauss, 1955).

The resolution of emotional problems is complicated and difficult. This becomes especially so for the emotionally labile alcoholic. His anxiety threshhold levels are lower than for most nonalcoholics. Anxiety can become the alcoholic's most potent adversary.

The alcoholic uses alcohol to sedate his unpleasant anxiety feelings but once the effect of the alcohol has passed, the original cause of the anxiety returns. Thus the use of alcohol (or any other tranquilizers) serves no purpose in trying to find solutions to the aetiology of the anxiety. The interference of the alcohol and the emotional tension experienced increase the malfunctioning of the hypothalamus and the autonomic nervous system.

Anxiety and depression significantly decrease when alcohol is administered in small doses to human subjects although it appears that the reduction of anxiety levels occurs only in some subjects and not in all. It affects alcoholics and nonalcoholics in different ways - alcoholics obtain more relief from unpleasant emotions than nonalcoholics after alcohol intake (Williams, 1966, p. 689-693; Mayfield and Allen, 1967, p. 1346-1351; Kalin et al., 1965, p. 441-452).

In some studies the alcoholic's anxiety and depression increases after the intake of alcohol (Mendelson, La Dou and Solomon, 1964, p. 40-52; McGuire, Stein and Mendelson, 1966, p. 1-12; McNamee, Mello and Mendelson, 1968, p. 1063-1069). Conclusions drawn from these three projects suggest that deterioration in the alcoholic's mood state occurs after prolonged drinking; that nonalcoholic persons obtain more relief from unpleasant emotions after taking in from up to 6-10 drinks; and that alcoholics tend to benefit more from the initial stages of their drinking process. Nonalcoholics cope better than alcoholics after alcohol intake on some types of tests (Pollack, 1966, p. 417-419).

Alcoholics also appear to become more anxious than nonalcoholics when they are in a state of anticipation of being given alcohol. Nonalcoholics show better improvement than alcoholics after being given alcohol and their mood of depression is considerably improved (Mayfield and Allen, 1967, p. 1346-1351).

After considering the effects of alcohol on alcoholics and nonalcoholics,

van der Spuy (1970, p. 16) says that "the alcoholic's emotional state appears to benefit considerably less from alcohol than the emotional state of nonalcoholics. In most cases the alcoholic appears to be worse off after the intake of alcohol, and even where he is better off, this improvement is much less than in the nonalcoholic." He finds that the alcoholics in his group experience an increase in tension and anxiety after alcohol intake. He postulates that at the start of their drinking career, alcoholics do derive relief from tension after alcohol intake. But after extensive building up of the habit of drinking alcohol, compulsive drinking arises and then the alcoholic loses the ability to derive relief from anxiety and tension produced by the alcohol. In fact, the opposite effect happens because of a number of suggested reasons. Van der Spuy says that "losing the battle against the very unpleasant withdrawal symptoms and the failure to attain the desired euphoria can cause increasing anxiety during a drinking bout." Other possible explanations for the increased anxiety are offered: the alcoholic realizes he has lost control over his drinking and that it is destroying his life. Possible physiological changes may have occurred and these could have resulted in destruction or neutralization of either biological or neurological functions vital in the process of tension reduction.

7.4.2.4.5.3 Short-term effects of alcohol on anxiety in animal experiments:

Most biochemical and physiological studies done on alcoholism have been conducted by using animals but the danger always exists that conclusions drawn from such studies may be too directly transferred to human reaction and behaviour.

Many psychological theories of alcoholism stress the premise that intoxication causes a pleasant psychological effect by reducing tension or by increasing pleasant feelings.

Experimentally induced anxiety in animals is reduced when alcohol is administered. They are better able to resolve conflict than non-intoxicated animals (Conger, 1951, p. 1-3; 1956, p. 266-305; Weiss, 1958, p. 226-238; and Masserman and Yum, 1964, p. 36-52).

On the other hand these findings have been questioned by the findings of other experiments (Smart, 1965, p. 187-205; and Richter, in Himwich, 1951). The answer to this might lie in another way. After small amounts of alcohol are imbibed, avoidance behaviour increases but as the dosage increases, the same behaviour decreases - not because of the original tension reduction reason, but because the subject is becoming motorically uncoordinated and paralysed. It is incapable of responding (Reynolds, 1960, p. 42-43). It would seem that animal studies are inconclusive and confusing.

7.4.2.4.5.4 Empirical research on the incidence of anxiety among alcoholics:

It appears from findings derived from treatment programmes and from psychological testing that even when they are sober, alcoholics experience problems over anxiety. This is apparent from conclusions based on the IPAT Anxiety Scale (Cattell and Scheier, 1963, Sargent, 1966, p. 753-757; Kissin and Gross, 1968, p. 31-41; Walton, 1968, p. 761-766; Rosenberg, 1969, p. 181-188; and Belfer et al., 1971, p. 540-544), the MMPI and the Eysenck Personality Inventory (Barnes, 1979, p. 571-634), the Taylor Manifest Anxiety Scale (Belfer, Shader, Carroll and Harmatz, 1971, p. 540-544; Kraft and Wijeshinghe, 1970, p. 443-444; and Radzin, 1977, p. 376). Questionnaires which measure anxiety tend to record a general anxiety trait rather than the state of the person's anxiety at the time of testing (Rosenberg and Buttsworth, 1969, p. 729-732). On the other hand anxiety may not be the casual variable in the alcoholic personality because high levels of anxiety might occur in alcoholics for a number of reasons including responses to stimulus overload, the flooding of a weak ego, high levels of autonomic reactivity as well as concern about their condition. Various other tests have confirmed the above association between alcoholism and anxiety (Hobson, 1971, p. 976-981; Cowan, Auld and Begin, 1974, p. 192-206; Williams, 1966, p. 689-693; and Menaker, 1967, p. 43-49).

7.4.2.4.6 Depression profiles in alcoholics:

7.4.2.4.6.1 Introduction:

Depression is another fairly common sign of neuroticism in alcoholics

and although it is a specific entity, it occurs in all neurotic persons (Fox, 1967, p. 585-596). Depression and drinking problems have a definite association (Williams, 1966, p. 689-693; Hordern, Burt and Holt, 1965).

There seems no doubt that alcohol has a depressing effect on all psychological functions (Noyes, 1953; in Freed, 1970, p. 62). On the other hand alcohol administered in small doses stimulate certain functions and cause depression of functioning only with larger doses (Carpenter, Moore, Snyder and Lisansky, 1961, p. 183-192; Carpenter and Ross, 1965, p. 561-579).

The functional depression in alcoholism and depression of function by alcohol have become confused and confounded with each other over the years. Many alcoholics show signs of depression which "may be temporarily relieved by alcohol but the relief is succeeded by a period of enhanced depression during the following withdrawal" (Hoff, 1961, p. 57-65).

7.4.2.4.6.2 The loss factor in depression as related to alcoholics:

The loss in life of a significant other person with whom one relates emotionally is the major cause of depression which is expressed through an empty feeling, loneliness and a feeling that 'something is missing' evokes a denial defense mechanism in alcoholics. They deny their inferiority feelings, their depression, their lack of self-respect and their dependence on alcohol (Chafetz and Demone, 1962, p. 23-24). Alcohol is for the alcoholic an easy way of obtaining control over feelings of helplessness and deprivation.

According to psychoanalytic theory lines of thinking, the loss or absence of a love object during the oral developmental stage leads to primitive and excessive demands which eventually become insatiable. This lays the foundation for the feeling in the person that nearly all interpersonal relationships inevitably lead to rejection which in turn rekindles the original loss and rejection of infancy. The pain, depression and loss of self-esteem which alcoholics go through both reawaken and reproduce the rage experienced as a deprived infant. The rage is too intense and overpowering to handle and the person opts for self-

destruction mechanisms. He "drowns himself in alcohol" (Chaeftz and Demone, op. cit., p. 24).

7.4.2.4.6.3 The depressive-affective disorder in alcoholism:

Earlier clinicians speculated whether alcohol abuse was preceeded by depressive emotional episodes. It might result from dysfunction of the thirst centre in the hypothalamus (Charlin, Gardian and Marty, 1946, p. 38-47).

7.4.2.4.6.4 The diphasic factor of alcohol in depression:

Alcohol initially acts as a stimulent or a releaser of energy, impulses, inhibitions and drives. In later stages with higher doses it becomes a depressant (Carpenter, Moore, Snyder and Lisansky, 1961, p. 183-222; Carpenter and Ross, 1965, p. 561-579).

The craving for alcohol is characterised as a drive for release and elation (Radó, 1933, p. 1-23; 1957, p. 165-170; Meerloo, 1952, p. 246-266). Alcohol is a drug used to "achieve a particular psychological effect or personality change such as ... lifting of depression, so as to regain emotional homeostasis" (Blume and Sheppard, 1967, p. 436-443). The dynamic function of alcohol acts as a regressive regulator of self-esteem and that of dependence on drugs and is a self-inflicted process of "miscarried repair". It is a disastrous attempt at a self-cure (Radó, 1957, p. 165-170; Tänkä, 1966, p. 25-50; and Menninger, 1938, p. 10-20). Alcohol is an enabling drug because alcoholics function with better ego integration when they are inebriated than when they are sober (McGuire et al., 1966, p. 13-26). The longer alcoholics stay in treatment in a hospital (i.e. away from alcohol), the less favourable are their self-concepts (White and Porter, 1966, p. 352-355). When samples of alcoholics rate themselves on personality traits, for an earlier period of their lives (when they had more satisfactory adjustment) and then for the period preceding their hospitalization, there is a significant increase in depressive symptoms (Blume and Sheppard, 1967, p. 436-443).

Severe depression reactions lay the foundations for many drinking episodes. The alcoholic patient who has repeated admissions because

he cannot function outside the hospital setting should be considered to be suffering from a form of psychotic depression (Gross, 1967, p. 655-656). Some reports support the thesis that alcoholics show a decrease of depression after having undergone treatment (Ends and Page, 1959, p. 1-31; Sikes, Fabish and Valles, 1965, p. 275-276) while others report that alcoholic patients show an increase in depression after hospital treatment (Tomsović, 1968, p. 197-203).

7.4.2.4.6.5 Bipolar depression profiles associated with alcoholics:

Mania and depression are closely related with the elation of the mania stage being interpreted as masked depression. Bipolar depression represents a continuum of two extremes with manic excitement or mobility on the one end and depression or debility and regression with psychomotor retardation on the other. The existential school considers them as two separate entities because of each patient's individual perceptions and experiences (Arieti, 1959, p. 623-643).

Alcoholics often belong to the manic-depressive type of depression (Meerloo, 1952, p. 246-266). Heavy drinking in manic psychoses serves as a sedative and hypnotic function (Gaupp, 1901, p. 1-9).

Alcoholics are found in both states but a person does not abuse alcohol in both phases. Drinking in the depressive phase is a form of symbolical destruction, while drinking in the manic phase is exhibitionistic (Bowman and Jellinek, 1941, p. 312-390). Another view holds that most manic-depressive patients experiment only with alcohol and then give it up. Those who become and remain addicted, comprise a group in which it is difficult to decide whether the basic psychiatric problem is one of alcoholism or manic-depressive reaction. Alcohol abuse is one of the ways in which the person tries to postpone or mitigate his depressive feelings because the alcohol offers immediate relief (Campbell, 1953, p. 27-48).

Kraepelin (1921) is one of the first to refer to statistical evidence to support the incidence of alcoholism in manic-depressive patients. This is supported by later research (Matz and Willite, 1934, p. 629-654; Tillotson and Fleming, 1937, p. 611-615; Malzberg, 1955, p. 668-674; Parker, Meiller and Andrews, 1960, p. 560-564; and Moon and Patton,

1963, p. 664-681) but opposed as well (Dublineau and Duchêne, 1940, p. 277-311; Amark, 1951, p. 1-283; Pauleikoft, 1953, p. 445-448; and Kardos and Mária, 1967, p. 117-127).

Psychic energy, ego depletion, mood, level of ego integration and energy release are involved in alcoholism. Ego functioning is dependent on psychic energy reserves and so persons with average levels of psychic energy are relatively resistent to alcohol addiction since they are not tempted by the temporary releasing effect of alcohol and they are not disabled by its consequent depressant effect. Persons who have a surplus of psychic energy behave even more irrationally under the influence of alcohol during the releaser phase, and they improve during the depressant phase. They do not enter the addictive cycle as long as their energy stores are not totally depleted (Blum, 1966, p. 436-443). In the manic state, periodic ingestion of excessive alcohol occurs with other forms of euphoria, overactivity and poor judgement (Pitts and Winokur, 1966, p. 37-50; and Sherfey, 1955, p. 21-22). Other reports stress that alcoholism is related to the manic phenomena (Csekey, 1925, p. 171-172; Cassidy et al., 1957, p. 1535-1546; Smith, 1960, p. 564; Campanella and Fossi, 1963, p. 627-632; Reich et al., 1974, p. 83-86). The alcoholics use alcohol to counter the manic symptoms deliberately and not as a concomitant of generalised euphoria and irresponsibility. The more severe the mania, the more likely they would drink more excessively.

7.4.2.4.6.6 Profiles of depression masquerading as alcoholism:

The problem of the diagnosis of alcoholism is a valid one if we pose the question of whether a referred patient for treatment in a clinical setting for alcohol abuse is suffering primarily from alcohol problems with other secondary symptomatic problems, or whether the alcoholism is the secondary problem of another severe maladjustment. Many writers have referred to the variety of psychopathological conditions which masquerade as alcoholism.

It becomes apparent that research based upon the homogeneity of observed symptomatology which are associated with excessive alcohol consumption, show a wide variety of patients who have unclear underlying psychiatric conditions which have been loosely grouped under the heading 'alcoholic'-

Alcoholics are a heterogeneous group drawn from larger populations which are subject to a variety of personality structural and functional disorders (Schaefer, 1954, p. 304-319).

Some patients who present alcoholic hallucinosis or are diagnosed as alcoholics when they are initially admitted are later found to be depressives (Norman, 1945, p. 563-574; and Ellerman, 1948, p. 556-568). There is increasing adequate psychiatric symptomatology which is associated with excessive alcohol consumption (Lawrence, 1961, p. 117-128). Hospital settings tend to mask the depression in treatment of alcoholics (Gross, 1967, p. 655-666).

7.4.2.4.6.7 Differential effects of alcohol on the phases of depression:

Some writers hold the opinion that alcohol has a differential or selective function upon the phase of the person's emotional state. The person in a depressed state drinks to avoid reality, while he would also do so in the manic phase in order to raise or enhance reality (East, 1936, p. 161-163). A person is not likely to be cyclothymic if he should abuse alcohol and consequently feel more euphoric - such a person would probably be a nonpsychotic endogenous depressive (Pauleikhoft, 1953, p. 445-448). Euphoria is apparently not a consequence of taking alcohol in cyclothymic depressive persons (Tähkä 1966, p. 25-35). Aetiological homogeneity does not necessarily follow from the clinical finding of symptomatology which is continuously distributed (Kiloh and Garside, 1963, p. 451-463). The drinking bouts of periodic alcoholics are more frequently precipitated by exogenous depression, i.e. reactive depression (Odegaard, 1935, p. 544-551).

7.4.2.4.6.8 The relationships between genetic factors and depression in alcoholism:

The question of genetic factors as related to alcoholism and depression remains open for investigation. There seems to be more alcoholism and mental disorders in the families of alcoholics than in the general population (Tänkä, 1966, p. 121). Relatives of affectively ill patients show significant alcoholism and relatives of alcoholics reflect increased affective disorder (Winokur and Clayton, 1967, p. 973-979; Pitts and Winokur, 1964, p. 541-547; Cassidy, Flanagan, Spellman and

Cohen, 1957, p. 1535-1536; Slater, 1936, p. 1-47; Bleuler, 1955, p. 167-178; and Dunner, Hensel and Fieve, 1979, p. 583-585).

7.4.2.4.6.9 Similarities in the profiles of alcoholics and affective disorders:

Most depressed patients learn early on that alcohol provides only immediate relief, and usually causes them to become even more depressed and tense the following day (Campbell, 1953, p. 25-36). The "acute alcoholic episode, with its initial elation followed by the depression of the withdrawal phase, may be considered a manic-depressive attack in abbreviated and miniature form" (Fox, 1967, p. 585-596).

The addicted person has a tendency to exhibit grandiosity although he has insufficient self-esteem, together with strong feelings of omnipotence which have an infantile ego integration underlying it (Tiebout, 1949, p. 48-58). The alcoholic appears to have a need for ecstacy and elation which recaptures the "megalomaniac feelings of infancy" (Meerloo, 1952, p. 246-266). The regressive ego of the alcoholic looks for fabricated elation from alcohol which allows the alcoholism to be primarily a protection against depression. It seems that "the alcoholic can react with a hangover during drinking instead of afterwards (which) proves that the psychoanalytic process has succeeded in unmasking alcoholic elation as a defense against depression" (Simmel, 1948, p. 6-31).

When a person is unaware of who, what or how he is, he is out of touch with reality. Although the denial of reality and the distortions of perceptions of the self may be used to defend the person from stress, it handicaps the person from recognizing those social and environmental cues which are vital for effective functioning and adjustment (Jourard, 1974, p. 336-337). Alcoholics defensively promote a positive self-image while denying their unfavourable personality traits and in this way they obscure those cues which are often important and vital for judging accurately the level of their depression. They have unrealistic self-perceptions, and present themselves as less depressed than their test scores indicate (Hoffman, 1970, p. 23-26; Chafetz and Demone, 1962, p. 23-24; Spiegel, Hadlay and Hadley, 1970, p. 366-371; Hoffman, 1970, p. 23-26; and O'Leary and Donovan, 1974, p. 142-145). The magnitude of perceptual distortion is positively related

to the degree of depression. The greater the depression the greater the distortion of the self-perception and the perception of depression in others.

In families of alcoholic probands, ill female relatives express their illness mostly by depression and sometimes by alcoholism, while ill male relatives express their illness mostly by alcoholism and sometimes by depression (Winoker, Rimmer and Reich, 1971, p. 525-531).

7.4.2.4.6.10 The profile of alcoholism as related to depression and suicide:

The relationship between alcoholism and depression requires that we investigate the suicide factor. Depressives and alcoholic groups make up a major portion of patients who contemplate suicide prior to their admittance in a treatment institution (De Long and Robins, 1961, p. 695-705). In one survey nearly 70% of suicidal deaths could be linked to persons who had been alcoholics or affectively ill. "In no other psychiatric or general medical illness does (suicide) occur with greater frequency" (Pitts and Winokur, 1966, p. 37-50). 7-21% of alcoholics eventually die by suicide as compared to 1% in the general population (Rushing, 1968, p. 96-121).

Although there is little disagreement that an alcoholism-suicide relationship exists, there is no agreement about the theoretical foundations underlying the association. While one theory states that alcoholism is chronic suicidal behaviour because it is a manifestation of primary aggressive tendencies directed against the self (Chodorkoff, 1964, p. 292-299; Menninger, 1938; and Palola, Dorpat and Larson, 1962, p. 511-534), another view stresses the essential psychopathological similarities between alcoholics and suicides (Walling, 1949, p. 15-20).

Alcoholics who attempt suicide have a longer history of drinking than those who do not (Koller and Castanos, 1968, p. 835-837). Alcoholics who complete suicide are significantly more often last-borns, more often attached to their mothers, more critical of their self, and more often have shown past suicidal tendencies (Ritson, 1968, p. 235-242). Alcoholics who complete suicide are older and more often married than

non-suicidal alcoholics (Zmuc, 1968, p. 38-44).

Although there are no differences in the seriousness of the attempts of alcoholic-suicidals and nonalcoholic-suicidals, the motivations vary. Whereas the nonalcoholics show that relationships with other persons as the dominant conflict, the alcoholic-suicidals are mainly plagued by socio-economic factors. Although there are no personality profile differences, both groups show a greater tendency towards pathological values in scales of nervousness, depression, excitability, neuroticism and masculinity when compared to the general population (Brinkman, 1979, p. 776).

7.4.2.4.6.11 The profile of alcoholism as related to suicide and hopelessness:

Fairly recent evidence has brought out the possible links between alcoholism, depression, hopelessness and suicide in both clinical and empirical studies (Beck, 1963, p. 324-335; Mayfield and Montgomery, 1972, p. 349-353; Allman, Taylor and Nathan, 1972, p. 669-678; Woodruff et al., 1973, p. 97-100; Minkoff et al., 1973, p. 455-459; Kovacs et al., 1975, p. 98-103; and Wetzel, 1977).

The main source of variance of suicidal intent is not depression but hopelessness (Beck, Weissman and Kovacs, 1976, p. 66-75). Certain forms of addiction including alcoholism are associated significantly with reduced and noncoherent future time perspectives (Smart, 1968, p. 81-83). Many alcoholics are in a chronic state of hopelessness and have little orientation to the future. The more powerless a person feels, the greater is his tendency to act on impulse and to seize his satisfactions in the absolute present (Michaels, 1959, p. 181-198). Although alcoholism does not seem to affect the degree of suicidal intentions of suicide attempters, alcoholism is a clear predisposing factor to suicidal tendencies. Hopelessness appears to be more closely linked to the seriousness of suicidal intentions and so it is important to look at the two variables of depression and hopelessness in alcoholic patients (Beck, Weissman, and Kovacs, 1976, p. 66-75).

The connection between the hopelessness factor in suicide and alcoholism

provides the motivation for applying the Seeking of Noetic Goals Test and the Purpose in Life Test in the test battery of this dissertation.

Conclusions:

It appears that field-dependence as an important factor in differentiating alcoholics from normals, neurotics, alcoholics and other addicts may be discriminated more by the level of neuroticism. Alcoholics may be seen to be in a state of subjective discomfort caused by the overstimulation that comes from a weak ego while a weak(ened) nervous system may intensify the stimulation. Drinking reduces the problem and may produce a feeling of strength when the ego is relieved of stimulus pressures. The drinking relieves the feeling of subjective discomfort and allows the alcoholic to feel more assertive and more powerful. Subjective discomfort may be synonymous with neurotic anxiety, existential anxiety, depression, role conflict or discrepancy in self-ideal.

None of the four main clinical alcoholic personality trait profiles (weak ego, neurotic, field-dependence, and stimulus augmentation) appears to be outstanding enough for describing a clinical alcoholic personality profile. They should be seen rather as being a syndrome which discriminates alcoholics from other clinical groups and normals.

7.4.2.5 Introversion and extraversion profiles in alcoholics:

Alcohol is likely to produce a schizophrenia-like process in introverted persons and a manic-like psychotic reaction in an extraverted person (Norman, 1945, p. 536-574). The effects of alcohol are extraverting and so the introvert proves less susceptible to the effects of alcohol than the extravert (McDougall, 1929, p. 293-309). The extraversive person is less cautious and more impulsive while introversives are more melancholic. A person who is extremely extraverted readily becomes intoxicated by a small amount of alcohol because it acts to reduce self-control (Eysenck, 1957).

Opposing views propose that excessive drinking in alcoholics is due to the impulsivity of an introvert to extravert or socialize himself. Extraverts hence rarely become problem drinkers. (Strecker and Chambers, 1938). Introverted alcoholics respond to the anticipation

of a drink with a significant increase in anxiety while the extraverted alcoholic shows a decrease in anxiety when anticipating a drink. On the other hand the extraverted alcoholic reveals anxiety increases after having had the drink, while the introverts become less anxious after they have had the drink (Green, 1966, p. 1448).

7.5 The Existentialistic profile of alcoholics:

7.5.1 Introduction:

The existential-humanistic approach emphasizes the philosophical concerns of what it means to become fully human. A basic goal of many therapeutic approaches (Arbuckle, 1975, Bugental, 1965, Frankl, 1959, 1963; Jourard, 1968, 1971; Maslow, 1968, 1970; May, 1953, 1958, 1961, 1967, 1969; and Rogers, 1961) is to enable the person to act and accept the freedom of and responsibility for action. Existential approaches are rooted in the premise that humans cannot escape from freedom and that freedom and responsibility go hand in hand.

7.5.2 Key concepts of the existential-humanistic approach:

Although there are numerous approaches to existential schools of thought which have been based on concepts and assumptions relating to human nature only the main key aspects are presented here.

7.5.2.1 Self-awareness:

Human beings are capable of self-awareness, the unique and distinctive capacity that allows them to think and decide. The power to choose among alternatives, i.e. to decide freely within the framework of limitations, is an essential aspect of being human. With freedom to choose and to act comes a responsibility. The existentialists insist that persons are responsible for their existence and their destiny; they are not the pawns of deterministic forces of conditioning. Frankl (1963) argues that while we are subject to external conditions which affect our lives, we are nevertheless free to choose our reactions to these conditions. We are not impervious to outside forces - they can and do change our circumstances - but we are free to take our own stand in dealing with them. This gives us the ultimate freedom to

rise above circumstances and fate.

7.5.2.2 Freedom, responsibility and anxiety:

The awareness of freedom and responsibility gives rise to existential anxiety, which is a basic human attribute. The knowledge that one must choose even though the outcome is not certain results in anxiety. Existential anxiety results also from the awareness of being finite and from facing the inevitable prospects of eventual death (nonbeing). Existential guilt, also a part of the human condition, is the result of failing to fully become what one is able to become. The more we are able to transcend outselves - to give ourselves to a cause - the more fully human we become, the more truly we become ourselves.

Our search for meaning involves personal responsibility. It is our responsibility to find our own way and to persist in it once found. We must responsibly and freely confront the conditions of our existence and find in them a purpose. Life constantly challenges us and our response must be in deeds, giving overt expression to the meaning we find in our lives.

7.5.2.3 The quest for meaning:

Humans are unique in that they strive toward discovering a purpose in life and creating values that will give substance to living. Being human also implies facing ultimate aloneness: a person comes into the world alone and leaves alone. Although one is essentially alone, one has a need to relate to others in a meaningful way, for humans are relational beings. Failure to create meaningful relationships results in conditions such as isolation, depersonalization, alienation, estrangement, and loneliness. The human being strives for self-actualization, i.e., the fulfillment of human potential. To the degree that one does not actualize oneself, one becomes "sick". Pathology is viewed as a failure to use freedom to actualize one's potentials.

The lack of meaning in life, according to Frankl, is a condition called "noögenic neurosis" which is a state characterized by meaninglessness, purposelessness, aimlessness, and emptiness. Such a person exists in an "existential vacuum". Many of us suffer the bore-

dom and apathy of noögenic neurosis.

To sum up, Frankl's three pillars are:

(a) the freedom of will;
(b) the will to meaning, and
(c) the meaning of life.

7.5.2.4 The alcoholic as a human being:

To understand the alcoholic as a human being implies that we know the world in which the alcoholic lives, how he relates to other humans, and how he relates to himself. The term "existential" refers to the concept of a "human-being-in-the-world" and it contends that there is a mutual influence of a person on others, and them on him.

An important implication is that of the alcoholic's philosophy of life or his way of life which he is forced to develop, i.e. to acquire a series of techniques which, when followed in a more or less rigid manner, serve him as his "survival kit". These techniques, which are actually maneouvres and manipulations, constitute his way of life. They are shuffled and reshuffled as the need arises.

A philosophy of life fulfills one's being. It makes existence meaningful for it is a personal component that closely aligns us with our world because it provides us with a permanent and expanding viewpoint which promotes both a feeling of security and self-confidence. It provides us with a purposeful sense of direction, courage to face up to expectations and the resources to survive disaster and resist the despair that so often crosses our lives' pathways.

The alcoholic finds himself attached to a way of life from which it is most difficult to shake free. He lives in his world which he experiences as so insecure and fragile that even a mere threat is enough to easily fragment it. His anguish and continual sense of insecurity cause him to experience it as a crumbling and wobbling present which is also devoid of a future. It is a life of resentment, remorse, fear, and defeat.

Frankl (1963, p. 154) says that the answer to these existential threats lies in "the striving to find a meaning in one's life" which is a primary motivational force in men. Due to the disorganized and overpowering emotivity of the alcoholic, maturation is delayed, handicapped and obstructed. Hence it is difficult for him to find his meaning in life. During his years of inebriation, the alcoholic learns little that is of use to him in trying to create and generate a meaningful life. Much has to be unlearned and even more has to be learned anew. This meaningless way of life of the alcoholic is not to be seen as the cause of the alcoholism, but rather, as the result of it.

7.5.2.5 Boredom:

The absence of a meaning in life is what Frankl (1962, p.76) calls the "existential vacuum" which manifests itself mainly in a state of boredom. It appears that in modern times, boredom may be causing (and bringing to psychotherapists) more problems to solve than is distress.

Because boredom in the alcoholic is more often a state of tedium, the existential vacuum stemming from the alcoholism augments his drive towards the ingestion of alcohol. A viscious circle is then established between boredom and taking alcohol. The increased emotivity converts the impact of boredom into a feeling of self-loathing, with all the blatant overtones implied in this dilemma. Valles (1969, p. 185-186) says that "not only is the alcoholic's boredom more intense than it is for the nonalcoholic, but boredom for him carries a morbid quality that makes it more insupportable and the ingestion of alcohol is the alcoholic's fruitless response to his tedium."

Zuckerman, Weary and Brustman (1970, in Nathan et al., 1978, p. 87) and Kilpatrick, Sutker and Smith (1976, in Nathan et al., op. cit.) report that the search for novelty and experimental changes in a bored life state could be a major reason for alcoholism.

7.6 The Behaviouristic Profiles of Alcoholism:

7.6.1 Introduction:

The profiles obtained from the behaviour oriented theorists are based on the principles of classical and operant conditioning, tension-reduction theories and reinforcement theories, imitation and modelling tendencies.

The behavioural sciences are often quoted as being hypothetically based on the assumption that the human being is a social animal and so they see drinking behaviour and attitudes towards drinking as being best understood as a socialized process within the context of a society and a culture.

7.6.2 Central themes:

A central factor in the learning theory is that of homeostasis which suggests that when a person's equilibrium is disturbed by heightened tension which result from unsatisfied drives or needs, he becomes restless and active. This process is likely to continue until a response occurs which satisfies the need and then restores the person back to an equilibrium state.

Once a response which satisfies a need or drive has taken place, even if it had been by chance, it tends to become learned and so the response is more likely to occur the next time the person finds himself in a similar unsatisfied need state. In this way the response becomes reinforced, rewarded, and learned as a way of reducing drive-tension (Dollard and Miller, 1950).

If a person casually uses alcohol and it leads to either tension-reduction or raised euphoria feelings, the person's response could tend to become a learned one and so a drinking habit may develop. Dollard and Miller (op. cit.) contend that in the alcoholic the alcohol tends to result in a temporary reduction of fear and conflict although it ultimately produces a state of misery. According to their theory the attempt to adapt to fear and conflict may be the cause of an alcoholic's drinking. The strengthening of the cue-response is the essential factor of learning.

7.6.3 The reinforcement theories and alcoholism profiles:

Reinforcement theories are founded on the assumption that people start to drink abusively, and then remain alcoholics because the alcohol has a basic function of rewarding or reinforcing the drinking habit. The rewards could be the pleasurable psychological changes, the removal of discomfort, or enjoying other sought after experiences. It is also suggested that alcohol drinking habits could be due to learned behaviour which result from the needs of youth to imitate the habits of adult models. They copy their behaviour in an attempt to become adult themselves. Usual reinforcers include peer-group approval, changing social approval modes, seeking release from the demands and pressures of life, and the chance of experiencing adult independence and power.

As with most tension reduction hypotheses, the reinforcing factors of alcohol include situational and time factors. Although each alcoholic's habit is a unique one, there are certain common features which most alcoholics share with each other in this respect.

7.6.3.1 The model of Ullman (Ullman, 1952, p. 602-608; 1953, p. 181-191).

In the vast majority of alcoholics the development of patterns of abnormal drinking takes place over a period of years. Addictive drinking is described as a tension-reducing activity with the source of tension lying in the ordinary problems of life. If it were not for the existence of normal tension and the fact that alcohol is available and useful in reducing tension, then there would not be the likelihood that alcohol would be used to reduce tension at the exclusion of nearly all other means. Everyone has problems of tension reduction; and the differentiation in alcoholism viewed as a mechanism of relief from tension are to be found not in personality levels but in variations in the conditions in which the drinking is learned together with the availability of alternative patterns for relieving tension. A person who is highly motivated to drink will become addicted. By this is meant a person who suffers emotional arousal from ambivalence, who often drinks during stressful situations, and who experiences a tension-reducing effect from the alcoholic drinking.

Because the tension-reducing effect of alcohol is psychologically more meaningful to him, the alcoholic is more likely to remember the first drinking experience. Often it is due to the more intense effect of a high-proof spirit which he experiences more so than the nonalcoholic. "There is a picture of greater ego-involvement or psychological 'meaningfulness' of the first drink in the case of the addictive drinkers." Addictive drinkers have their first drink earlier in life than nonaddictives. Addictives become intoxicated to a greater degree with their first drinking experience than nonaddictives. Most addictives have their first drink in a place other than a private home and usually in the company of persons outside their family members.

7.6.3.2 The model of Orford (1971, p. 1005)

Alcoholism develops from two psychological stages:

(a) the start of the development of the drinking habit, and
(b) the maintainance of the habit despite contrary societal and other pressures.

The three learning processes in becoming an alcoholic are:

(a) Imitation:
Parental drinking habits influence those of their offspring: the behaviour is imitated when there are strong patterns of identification between parents and children. Heavy-drinking males tend to have heavy-drinking fathers and heavy-drinking females have heavy-drinking mothers.
Powerful forces of imitation are manifested in modern times through the mass advertising media where drinking is associated with social needs of prestige, power and virility.

(b) Instrumental (Operant) conditioning:
Alcohol is rewarding in terms of both relief from anxiety and in social interaction systems where the person is accepted as being "one of the boys" due to socially conforming to peergroup approval needs.
In escape learning, already existing anxiety is relieved by alcohol intake, while in avoidance learning, anticipated anxiety is avoided by using alcohol before being exposed to the stressful

situation. Alcohol reduces the avoidance response rather than the approach response (Conger, 1951, p. 1-30; and Knupfer, 1963). On the other hand, other researchers are unable to find significant correlations between drinking behaviour and anxiety levels (Hore, 1971, p. 89). It seems thus that while alcohol reduces the general arousal level, the arousal level of alcoholics in the absence of environmental stimulation is not greater than for nonalcoholics (Greenburg, 1963, p. 109-121).

(c) Classical conditioning:

The repeated presentation of visual and auditory stimuli associated with the milieu of the drinking experiences are conditioned to form an impression which is experienced as either pleasant or as being able to relieve the pressures of anxiety. The conflict experienced in alcoholics is one of approach-avoidance. One force (the need to drink) conflicts with the other (the harmful consequences thereafter).

7.6.3.3 Research which supports the tension-reduction model:

A wide range of researchers support the hypothesis that alcoholism is based on a learning dynamic in tension reduction (Conger, 1956, p. 296-305; Dollard and Miller, 1950; Ullman, 1952, p. 602-608; 1953, p. 181-191; McCord and McCord, 1960; Chafetz and Demone, 1962); Schmidt et al., 1968; and Caddy, 1978, p. 73)-

The excessive drinking of alcohol is a response to threatening stimuli and an attempt to reduce anxiety, tensions and feelings of unpleasantness by replacing them with a sense of well-being and happiness (Conger, 1956, p. 296-305; and Kepner, 1964, p. 279-292). The tragic consequences of the drinking contradicts this because alcoholics suffer severe discomfort and self-punishment as a result of their drinking. Nevertheless, the immediate reinforcement is tension reduction while the unpleasantness comes only later. The immediate rewards are more effective than delayed ones. Even though they suffer from negative after effects (e.g. hangovers, blackouts, delirium tremens, liver cirrhosis, interpersonal alienation, financial and occupational losses, etc.) they still persist with pathological drinking behaviour. In maintaining the drinking habit they are seeking to recapture the initial positive effects of earlier alcohol ingestion. Guilt feeling provoked by the

inability to control drinking triggers additional drinking. Reinforcement of the drinking behaviour occurs when the alcohol removes "fear-motivated restraints".

It is suggested that alcohol is used to handle anxiety because of its ready availability in conjunction with the first drinking experiences (Shoben, 1956). The alcohol disintegrates complicated neurotic patterns which allow simple "goal-oriented" responses to take over (Kingham, 1958, p. 320-330). Alcohol serves as a negative reinforcer by enhancing the alcoholic's psychological state through the reduction of tension (Masserman et al., 1945, p. 281-299; Hughes et al., 1963, p. 25-32; Smart, 1965, p. 187-205; Vogel-Sprott, 1967, p. 337-344; Freed, 1967, p. 236-254; and 1968, p. 323-329).

Many persons use alcohol to allow them the delusion of feeling strong and powerful in social settings (McClelland, David, Kalin and Wanner, 1972). Experiments with cats show that although alcohol produces a lowered efficiency in specific tasks, it simultaneously increases an animal's overall adaptivity by reducing its "highly complex neurotic process" (Masserman and Yum, 1946, p. 36-52).

There are certain processes whereby alcohol dependency becomes habitual. The drinking of alcohol to relieve symptoms caused by the earlier bout of drinking are well known (Zwerling and Rosenbaum, 1959, p. 623-643). Alcohol plays a role in the alcoholic's personality that goes beyond the superficial desire for tension release. It "fills not a small gap ... but an ocean of emptiness, a bottomless pit, a feeling tone of depression" and "into this abyss is poured alcohol. This 'magical' substance dispels excessive tension and depression. It alleviates a sense of aloneness, provides readily available instantaneous pleasure, permits a feeling of imnipotence and the mastery of hostile feelings while providing a built-in guarantee of suffering punishment, and alleviation of guilt" (Chafetz and Demone, 1962, p. 23).

Excessive use of alcohol is part of a learned set of methods for dealing with the many problems of psychological and social adjustment and adaptation. It distorts reality contact. (Horn and Wanberg, 1970, p. 634).

Experimentally alcoholics report beneficial effects of ingesting alcohol. It significantly increases feelings of elation and total emotional expression. After high alcohol doses, alcoholics respond better than when they are sober - their sober difficulties become normalized by high doses of alcohol. The alcohol disrupts cognitive processes by significantly impairing registration, recall, and organization which can become lasting in alcoholics due to chronic impairment of abstracting ability (Parker, 1975, p. 5699-5700).

7.6.3.4 Research which negates the tension-reduction model:

Although both alcoholics and social drinkers report using alcohol to relax and to help them feel comfortable in difficult situations, tests of the actual tension-reduction effects of alcohol yield opposite results (Schukit and Hagland, 1977, p. 15-27; Rosenberg, 1969, p. 729-732). While the tension reduction hypothesis may be intuitively quite plausible, it is not convincingly supported empirically (Cappell, 1975; Nathan and Lisman, 1976; and Marlatt, 1976; in Nathan et al., 1978, p. 86). Some subjects report increased anxiety when alcohol levels rise, while others report decreases (Vannicelli, 1972, p. 341-357). The initial effects of alcohol are to decrease negative affective states such as depression and anxiety, while prolonged drinking leads to increases in these states. Problem drinkers report that they expect decreased anxiety when drinking. They report that anxiety is reduced, when in fact this is not so (McCrady, 1976, p. 5269-5270).

Mood states show changes during experimental intoxication. In the predrinking phase, subjects look forward to becoming more relaxed, comfortable and less depressed. Early drinking phases are experienced as pleasurable, relaxed, elated and less inhibited. But as drinking increases, the positive states change according to the amount and duration of the drinking as well as the specific circumstances in which the alcohol intake takes place. Alcoholics selectively remember the pleasant effects and forget the adverse ones of drinking (Tamerin and Mendelson, 1969, p. 886-889; Keane, 1979, p. 5561; and Keane and Lisman, 1980, p. 215-223).

Initiation and continuation of drinking may thus be explained in terms

of positive and negative reinforcement (Keehn, 1970, p. 28-39). There seems to be doubt about the role that alcohol is proposed to play in reducing tension, but this is probably not the single main factor in the onset or continuation of alcoholism.

8. Summary and Conclusions:

The term alcoholic refers to persons who have prealcoholic physiological and psychological determinants which predispose them to abuse alcohol later in their lives. Through a learning process an association between alcohol intake and resultant mood changes occurs and is reinforced. Increasing tolerance together with the frequent consumption of alcohol allows the person to become psychologically and physiologically dependent. The alcohol addiction leads to secondary problem areas which include both his own general psychophysiological functioning as well as other persons with whom he becomes involved.

Alcoholism is the term used to describe the problems an alcoholic experiences in all his life's modalities. It is manifested in the chronic inability to abstain from alcohol intake and/or the inability to maintain control over drinking.

The classifications of alcoholics suggest that there is not a single unitary type but rather that there are subtypes which have only one common factor which is that alcohol is abused by a variety of persons for a variety of reasons. Some writers stress a basis of psychoneuroses, some a physiological weakness, while others lay emphasis on sociocultural factors which differentiate alcoholics into subgroups. Typologies are also associated with the theme of preagression or development of the problem. The prealcoholic personality and the changes that alcohol has on the personality are features which influence the type of alcoholic pattern a person is likely to adopt and develop. Other typologies are based on the drinking situation and the role of learning in acquiring the habit.

The phases of alcoholism follow progressive and developmental stages through which a person passes on his way to becoming an alcoholic. Tiebout's model starts with the tension-reduction phase which

progresses to chronic compulsive drinking until eventually all alcoholics come to resemble each other towards the end of their drinking behaviour. Jellinek's four phases start with a prealcoholic tension-reduction stage when tolerance builds up. Physiological consequences mark the early alcoholic stage. The pathological drinking deepens and alcohol becomes central to the person's life in the crucial and chronic phases. Valles suggests in his building up to drink model that the alcoholism is secondary to deeper-seated pathologies.

Although drinking patterns are learned, various types may be linked with certain personality types. Jackson suggests three drinking style dichotomies: belligerent vs nonbelligerent, periodic vs stabilized, and solitary vs sociable forms. Nathan et. al. suggest five patterns according to the functional changes that alcohol has on the alcoholic: the alienation of the alcoholic from reality form, rebellion patterns, the tranquilizing effect, the facilitation function of overcoming inferiority, and a sociability compensation function. Relapse factors are discussed in the patterns of drinking formulated by Polich et. al.

Psychological personality profiles of alcoholics are based on various viewpoints. Under the heading of psychophysiological theories fall those which emphasize physical dysfunction interacting with psychological features like allergy causes, nutritional, endocrine, metabolic, genetic, brain dysfunction, psychosomatic pathology and addiction systems. Hyperactivity and minimal brain dysfunction in childhood is correlated with sociopathy and alcoholism in later life. The role of the autonomic nervous system and the hypothalamus play key roles in the addictive process because of the importance of the interaction of alcohol on the sympathetic nervous system and disturbed emotional behaviour.

The disease model motivated by Jellinek provides well-known concepts related to alcoholism research: the inability to abstain and the loss of control, psychological and physiological dependence, toleration and withdrawal symptoms, abstinence and relapse. Recent research shows some alcoholics are able to return to social drinking and are not necessarily always addicted to alcohol as suggested by disease model enthusiasts. The arguments for and against the disease

concept versus controlled drinking by alcoholics has become a major battleground for theorists and therapists alike.

The psychoanalytic profile is based on the role of the subconscious motivation for drinking. The origin of alcoholism is based on early developmental stages which influence factors like orality, dependence, homosexuality, dominance-submissive conflicts, inferiority, introversion-extraversion and neuroses which are central concepts presented by Freud, Adler, Fromm, Knight and Lolli.

Clinical profiles offered by Button and Barnes are used as a framework for describing the personality matrix of the male alcoholic. Button's is based on 10 factors. He states that alcoholics feign cooperativeness and have poor self-concepts. Conflict between willpower and powerlessness over drinking relapses lead to the development of neurotic defense mechanisms of which the most important one is denial (in forms of regression, withdrawal, isolation, hysteria and projection). Alcoholics have difficulties in interpersonal relationships and with identification. Tension reduction is the alcoholic's prime reason for his drinking. Button adds that the problem has degrees of severity and that psychodiagnostic measure should be applied to classify alcoholics.

The model of Barnes is based on four main divisions: weak ego functioning, neuroses, stimulus augmentation and field dependence. The low ego strength of the alcoholic is manifested by a negative self-concept which is due to immaturity, impulsivity and low frustration tolerance. Related pathologies emerge: hostility and psychopathy, inadequate sexual identity and unsatisfactory interpersonal relationships. When his weak ego functioning finds itself unable to deal adequately with needs, demands and presses from both within his internal and from his external environments, he resorts to defense mechanisms in order to cope with the emergent neurotic symptoms like anxiety, depression and hysteria. Supplementary to these features are those which describe alcoholics as being stimulus augmenters and field dependent because they are more sensitive to emotional pain and to stimulation. Field dependence is associated with a general dependence syndrome and passivity accounts for much of their tension and frustration.

Approach-avoidance conflicts enlarge as the drinking problem progresses Barnes also believes that alcoholics resort to denial, rationalization and projection defense mechanisms in order to manage frustration and conflict. The prealcoholic personality is the breeding ground for emergent alcoholism. Because the alcoholic finds it increasingly difficult to handle the demands of life in his earlier years, he becomes prone to seek relief from the stress as he reaches responsible ages of adulthood. Add to this psychological predisposition the fact that alcohol is readily available, its use is encouraged and supported by social norms, that it causes changes in mood and perception which allow tension reduction and excitement control (both homeostatic imbalance states), and the processes of learning and conditioning and the blueprint for alcohol-related problems is set in motion.

Embedded in the tension-reduction hypothesis are anxiety and depression factors. The alcoholic obtains relief from negative emotions in the early stages of drinking although research finds that the person experiences stress and anxiety as his drinking problem becomes more chronic. The first few drinks quell unwanted feelings but heavier drinking tends to provoke more stress. The findings are not universal for all alcoholics. The relieving effect for most of them decreases as the dependence increases. It appears that anxiety increases with increased intake because of their experiencing a loss of control over their drinking. The loss of will-power and increasing guilt add fuel to the fire.

Alcohol acts as a depressant on the central nervous system and it seems an anomoly that alcoholics use a depressant agent like alcohol to relieve symptoms of both neurotic and manic-depression. The diphasic function of alcohol is explained. For manic stages, alcohol acts as a depressant and thereby helps control over-excitement. In the depressive stage it stimulates the release of inhibitions and drives and blanks out the awareness of unwanted emotions. Both extreme states of imbalance become more "stabilized" by the action of the alcohol. Genetic factors are suggested by some researchers to be connected with depression in some alcoholics. When the alcohol no longer serves its psychological medication function in handling depression, some alcoholics develop suicidal tendencies. The main

ingredient of suicidal behaviour is a sense of hopelessness.

The existentialist viewpoint of alcoholism emphasizes certain key concepts: the alcoholic has freedom of choice over his life and he remains responsible for his decisions. Irresponsibility leads to existential anxiety and existential guilt. Because alcoholics choose to live irresponsibly, they fail to seek meaning and purpose in their lives and so they become isolated, alienated and depersonalized. By not actualizing themselves they proceed to live in an existential vacuum where they suffer from noögenic neuroses. Life without meaning is experienced mainly in the form of boredom. Alcohol rules their lives - not they themselves.

Behaviour oriented views spotlight the learning and conditioning processes in the progress of alcoholism. Alcoholics "learn" to become alcoholics. Tension and drive reduction mechanisms become rewarded and reinforced by the effects of alcohol on homeostatic imbalance. Imitation and modelling of significant other people who drink allows the development of an attitude of acceptance to take place in young people. Both classical and instrumental conditioning mechanisms are involved in the learning process whereby anxiety is experienced to become reduced by the effect of alcohol intake. Arousal levels are reduced because the alcoholic learns that any feelings of distress or discomfort, whether real or fantasy, may be aleviated by alcohol. This model of tension-reduction is not accepted by all theorists because they cite that although alcohol initially reduces tension, it increases with higher dosage intake.

In this chapter we have briefly looked at those areas which have bearing on the personality profiles of alcoholics as seen from a variety of viewpoints. Types of alcoholics, phases of the development of the problem of alcoholism, types of drinking patterns, psychophysiological factors, psychoanalytic and behavioural approaches as well as existential schools together with clinical profiles have been reviewed. With this background, we proceed further to investigate what personality features are to emerge after measurement procedures are applied to a group of male alcoholics as they near the end of their treatment in a clinic for alcoholism.

CHAPTER 3

EXPERIMENTAL INVESTIGATION:

1. Method of research:

In this chapter the focus falls on the method that will be followed in the research and how the investigation and collation of data is carried out. Attention is given to the motivation for the research, the sample used in the project, the test battery which was applied, and finally, the statistical procedures which were used.

1.1 Introduction:

In the literature review the spotlight fell on the various profiles of alcoholics as viewed from a variety of vantage points according to the approaches.

The integration of psycho-physio-sociological dimensions are accepted as the unifying elements underlying the psychological functioning of the alcoholic male. From this matrix, the structures of the past history of the influences on psychological profiles, the present predicament of termination of treatment, coupled with the anticipated threats of the future life after treatment, are investigated so that a profile of these patients can be compiled. The purpose and search for meaning are given attention in assessing how the alcoholic views his existentiality.

The aspects of anxiety and depression have long been considered by many researchers to be central features of the alcoholic's maladjustment. Although they form an important part of the psychological configuration of the personality of the male alcoholic, other variables are also considered.

2. The sample used in the Investigation:

2.1 Criteria

The sample consists of 25 males whose ages range from 25 to 55 years.

They are patients who were admitted during the first 4 months of 1981 at the Cornelius Bekker Clinic in Klerksdorp for the treatment of alcohol problems.

Only males were used because the number of female patients available in the clinic over a relatively short time are too few and if they were to be used with the male sample, homogeneity would have been sacrificed.

Because very few patients in the clinic are aged younger than 25 or older than 55 years, the age range was restricted to the 25 to 55 year range. Prior to 25 years, the alcoholism problem has not yet progressed far enough for the person to be aware that he needs treatment. He is still on the way to becoming an alcoholic. It has been stated in research cited elsewhere that alcoholism frequency diminishes with age. For this reason the over 55 year old group was omitted.

As the psychological profile which is being investigated is the one which reflects that which is to be determined at the end of their treatment period, only those subjects who completed the minimum period of 14 days were considered. They completed the tests either on the day prior to leaving the clinic or on the actual departure day.

Both official languages were used and so the tests were available in Afrikaans and English.

2.2 Aims:

The purpose of the investigation was to determine psychological profiles of male alcoholics at the time when they were about to re-enter 'normal' life after having received treatment for alcoholism. Although a 'global' profile is the general goal, certain variables were given prominence, e.g. stress symptoms of anxiety and depression due to the memory of problems encountered in their past in the outside world which they are about to face again after having been fairly protected in the clinic. Because of the buffeting of the effects that alcohol has had on them, it is hypothesized that

they would be lacking in purpose and meaningfulness at this stage. This dilemma would contribute to raised neurotic symptoms like anxiety and depression. Nevertheless, some of them are expected to feel optimistic about the present and future time dimensions because they have regained sobriety and have experienced improved physical health while in the clinic. In a nutshell, the goal is to establish profiles which reflect the alcoholic's attitudes towards his psychological condition when treatment has terminated.

2.3 The test battery (measuring instruments):

In accordance with the aims set out above, an appropriate test battery had to be compiled. It consisted of paper and pencil tests and were completed individually or in small groups depending on the time of discharge. After instructions and the purpose of the tests were read and explained, the subjects completed them in the following order:

(1) Biographical Questionnaire;
(2) Purpose in Life Test;
(3) Beck Depression Inventory;
(4) 16 Personality Questionnaire;
(5) IPAT Anxiety Scale;
(6) Seeking of Noetic Goals Test; and the
(7) Zung Self-Rating Depression Scale.

No time restrictions were imposed and they completed the battery between 2 and 2½ hours, depending on reading skills, etc.

2.3.1 The Biographical Questionnaire:

After consulting a number of questionnaires used in alcoholism and clinical settings, the following features were included in the biographical form for this sample:

(1) Name, date, date of birth, age and home language;
(2) Scholastic history (academic, failures, sport, leadership);
(3) Home life, parents, sibs, birth order;
(4) Drinking history (self and relatives);

(5) Marriage and own family history;
(6) Convictions related to alcohol abuse;
(7) Treatment history;
(8) Attitudes and concerns about own drinking problem(s).

An example appears in the appendix.

2.3.2 The Beck Depression Inventory (BDI):

2.3.2.1 Motivation:

The Beck Depression Inventory is a clinically derived self-report inventory of depression designed for use in psychiatric populations.

Beck, Ward, Mendelson, Mock and Erbaugh, (1961, p. 60-61) comment on the uses and applications of the BDI: "The ability of the inventory to approximate clinical judgements of intensity of depression offers a number of advantages in its use for research purposes." They add that:

(a) "it meets the problem of the variability of clinical judgement of nosological entities and provides a standardized, consistent measure that is not sensitive to the theoretical orientation or idiosyncrasies of the individual who administers it."
(b) Because the inventory can be administered by a person who is easily trained in its use, it becomes much more economical in time and finance than a professional psychiatric and clinical interview situation.
(c) As it is based on a numerical score, it allows for comparisons with other quantitative data.

2.3.2.2 Criticisms levelled at the Beck Depression Inventory:

Three shortcomings of the BDI are given by Beck et al. (op. cit.) They say that while this instrument is geared to register varying degrees of depression along a continuum, it is not designed to distinguish among standard diagnostic categories.

A second limitation has to do with the level of cooperation of the patients. Finally, the patient's ability to comprehend the items

may interfere with the reliability and validity of the results.

2.3.2.3 The form of the inventory which was applied:

The full 21 category form is used. An Afrikaans version was drawn up after translation had been completed and then checked by an examination marker of matriculation Afrikaans examinations for correctness of language and meaning. As yet no reliability and validity checks have been conducted for the translated versions of this inventory.

2.3.2.4 Description:

The BDI is composed of 21 categories of symptoms and attitudes for depression. They are:

(a) Mood
(b) Pessimism
(c) Sense of Failure
(d) Lack of Satisfaction
(e) Guilty Feeling
(f) Sense of Punishment
(g) Self Hate
(h) Self-Accusations
(i) Self Punitive Wishes
(j) Crying Spells
(k) Irritability
(l) Social Withdrawal
(m) Indecisiveness
(n) Body Image
(o) Work Inhibition
(p) Sleep Disturbance
(q) Fatigability
(r) Loss of Appetite
(s) Weight Loss
(t) Somatic Preoccupation
(u) Libido Loss

Each category describes a specific behavioural manifestation of depression and consists of a graded series of 4 or 5 self-evaluative statements which are ranked to reflect the range of severity of the symptom from neutral to maximal. Numerical values from 1 to 4 are given to each statement to show the degree of severity. In some categories two alternative statements are presented at the same given level and are credited with the same weight. These equivalent statements are labelled "a" and "b" (e.g. 2a, 2b etc.) to show that they function at the same level. Beck et al (op. cit.) said that the "items were chosen on the basis of their relationship to the overt behavioural manifestations of depression and do not reflect any theory regarding the etiology or the underlying psychological

processes in depression" (p. 562).

2.3.2.5 Reliability and validity:

2.3.2.5.1 External criterion:

Four experienced psychiatrists participated in the diagnostic study. After they had reached complete agreement as to which criteria should be used in making their clinical judgements, they compiled a detailed instruction manual which was to aid them in their diagnostic evaluations. In pairs they interviewed patients (one directly and the other via a one-way screen). Their task was to establish specific indices so that clinical estimates of the Depth of Depression could be made. After pooling their ideas and experience they decided on the following indices of depression:

(1) Appearance:
- Facial
- Gait
- Posture
- Crying
- Speech
  - : Volume
  - : Key
  - : Speed
  - : Amount

(2) Thought Content:
- Reported mood
- Helplessness
- Pessimism
- Feelings of inadequacy and inferiority
- Somatic preoccupation
- Conscious guilt
- Suicidal content

(3) Vegetative Signs:
- Sleep
- Appetite
- Constipation

(4) Psychosocial Performance:
- Indecisiveness
- Loss of drive
- Loss of interest
- Fatigability

The agreement among the psychiatrists concerning the main diagnostic categories of psychotic disorder, psychoneurotic disorder, and personality disorder was 73% while the degree of agreement in the rating of "depth of Depression" was within one degree in 97% of the cases. (Beck et al. op. cit. p.56).

2.3.2.5.2 Reliability:

Beck and his partners used two methods to evaluate the internal consistency of the instrument:

(a) They analysed the protocols of 200 cases and the scores for each of the 21 categories was compared with the total score on the Depression Inventory for each person. By using the Kruskal-Wallis Non-Parametric Analysis of Variance by Ranks, they found that all the categories showed a significant relationship to the inventory's total score. The significance was beyond the 0,001 level for all categories except category S (Weight- loss) which was significant at the 0,01 level.

(b) They used split-half reliability evaluations to measure internal consistency. They computed the Pearson r between odd and even categories and this presented a reliability coefficient of 0,86. When they applied the Spearman-Brown correction, the coefficient was raised to 0,93.

The compilers went further by applying a test-retest method to evaluate the reliability of their instrument.

2.3.2.5.3 Validity:

The Kruskal-Wallis One-way Analysis of Variance by Ranks (Siegel, 1956, p. 184-193) was used to evaluate the statistical significance of the difference among the means and standard deviations for each of the Depth of Depression categories. The p-value of these differences was $< 0,001$.

The Mann-Whitney U Test (Siegel, 1956, p. 116-127) was used to evaluate the power of the Depression Inventory to discriminate between specific Depth of Depression categories and it was found that all differences between adjacent categories (none, mild, moderate, and severe) in both studies were significant at $< 0,0004$ with the exception of the differences between the moderate and severe categories, which had a p-value of $< 0,1$ in the one study and $< 0,02$ in the other.

The Pearson biserial r was computed to find the degree of correlation

between the Depression Inventory and the clinical judgement of the Depth of Depression scores. Highly significant biserial coefficients were obtained.

To sum up, the BDI was subjected to a variety of tests to determine its reliability and validity. The high correlation coefficient on the split-half item analysis and the significant relationships between the individual category scores and the total scores show that the instrument is highly reliable. The highly significant relationship between the scores on the inventory and the clinical ratings of Depth of Depression underline the validity of this inventory.

Later validity investigations in the form of factor analysis of the BDI by Weckowicz, Muir and Cropley (1967, p. 23-28) who used depressed hospital patients, yielded three significantly loaded factors and a possible fourth:

Guilty Depression: which includes guilty feelings, self-punitive wishes, pessimism, sense of failure, and indecisiveness.

Retardation: which includes work inhibition, fatigue, lack of satisfaction, libido loss, and depressed mood.

Somatic Disturbance: which includes weight loss, loss of appetite, and sleep disturbances.

Tearful depression: this includes concern about body image, crying spells, and loss of libido.

Categories in the BDI:

Pichot and Lamperière (1964, p. 15-29) arrived at 3 depression categories on the BID, viz. (1) Self-Debasement, (2) Vital Depression, and (3) Pessimistic-Suicide. The items related to these categories include the following:

(1) Self-Debasement: self-dislike, guilt, a sense of failure, self-accusations, and expectation of punishment. It is seen as an evaluative factor.

(2) Vital Depression: fatigue, libido loss, weight loss, preoccupation with physical distress (hypochondriasis-like factor), insomnia, and other physical manifestations of depression.

(3) Pessimism-Suicide: pessimism, suicidal ideation, dissatisfaction, crying bouts, social withdrawal. This factor category represents the mood component of depression.

Gibson and Becker (1973, p. 400-408) find that the above 3 categories appear to be valid characteristics of depression of alcoholics. They explain their findings: "One obvious interpretation of these findings is that primary depression tends to accompany alcoholism, that measures of depression derived from primary depressives are applicable to alcoholics".

The use of the BDI with alcoholics:

Certain personality profile variables were studied by Shaw, MacSweeney, Johnson and Merry (1975, p. 56-59) in alcoholics, depressives and a control group. They used a combination of the (PEN) scale of Eysenck and Eysenck (1969, p. 69-76) and the "Validity" scale (a measure of phychic energy) from the Marke-Nyman Temperament Scale (MNTS) to measure "Psychoticism" (P), "Extraversion" (E), "Neuroticism" (N), "Lie score" (L), and "Validity" (V): and the BDI. Shaw et al. find that the alcoholic patients are under-endowed with drive or psychic energy, are emotionally more unstable than both the control group and the recovered-from-depression group. The males tend to be high in P (which suggests a possibility of sociopathy indication). The alcoholics resemble the recovered depressives in their low V scores but differ from them in their high N values. Male alcoholics and ill depressives have high P values.

2.3.3 The Zung Self-Rating Depression Scale (ZSDS):

2.3.3.1 Motivation:

After reviewing the then existing instruments in use for measuring and diagnosing depression, Zung (1965, p. 70) decided to compile his own. He states that: "We were interested in having a scale for assessing depression in patients whose primary diagnoses were that of a depressive disorder, which would fulfill the following: it

it should be all inclusive with respect to symptoms of the illness, it should be short and simple, it should quantitate rather than qualitate, and it should be self-administered and indicate the patient's own response at the time the scale is taken."

Nearly 40% of the items deal with physical complaints which are thought to be a relevant index of depression in recently detoxified alcoholics (Gibson and Becker, 1973, p. 400-408).

An example of the physical set of symptoms in depression was mentioned by Zung (op. cit.) who stated that in the alcoholic population who are admitted for treatment, one of the most commonly reported discomforts presented by them is that they have sleeping problems. Because sleep disturbances are often associated with depression, the ZSDS was used to diagnose whether alcoholic male patients who had come to the end of their treatment were still suffering excessively from this symptom. He concluded from his initial study using the ZSDS that "the ZSDS was useful in quantitating depression as a disorder, and furthermore, it brought out some other pertinent data. Sleep disturbance in depressive disorders has always been considered as one of its cardinal symptoms" and that "patients also feel that this is the symptom which had improved most after treatment of their illness." He added that it was in their interest in studying sleep disturbances in depressive disorders which first prompted him and his co-workers to develop the scale.

Motivation for using both the Beck Depression Inventory (BDI) and the Zung Self-Rating Depression Scale:

Symptom frequency endorsement appears to produce higher depression scores on the ZSDS than symptom intensity on the BDI (Marsella, Sanborn, Komeoka, Shiruzu and Brenan, 1975, p. 281-287).

Shaw, Donley, Morgan and Robinson (1975, p. 641-644) found that the ZSDS was sensitive to changes in depression in patients who are receiving antidepressants, while the BDI did not do so.

While both scales measure a person's subjective experiences of depression, the BDI needs an intensity or severity judgement of depression symptoms and the ZSDS requires a frequency judgement

(Giambra, 1977, p. 928-935). It has been suggested by Raft, Toomey and Brogan (1977, p. 99-104) that the ZSDS may be suitable for screening only nonmedical depressed patients.

Using both instruments, Cozort (1980, p. 1497-1498) concluded that her study "makes it clear that the Beck and Zung scales are measuring different aspects of depression and thus are likely based on separate constructs."

Pishkin, Fishkin, Shurely, Lawrence and Lovallo (1978, p. 171-178) hypothesized that if the BDI and the ZSDS were specific to symptoms of depression, they would show a high correlation with each other. Meites, Lovallo and Pishkin (1980, p. 427-432) compared four scales for anxiety, depression, and neuroticism and their results indicate that the BDI and the ZSDS include aspects which are related to somatic complaints and the general symptom patterns related to overt emotionality of high central nervous system arousal. They concluded that both the BDI and the ZSDS measure cognitive and somatic manifestations of emotional instability.

Although the measures used to assess depression mentioned above used applied the two instruments, some have found that the ZSDS is biased to measuring more the symptom frequency while the BDI stresses the intensity of symptoms. Agreement or disagreement concerning the indicator items may or may not have any direct face relevance to the depression.

2.3.3.2 Description:

The ZSDS incorporates the most commonly found characteristics of depression and can be divided into the following three variables: (a) pervasive affect, (b) physiological concomitants, and (c) psychological concomitants.

The scale was compiled in such a way that ten of the twenty items are positively worded symptoms and the other ten symptomatically negative.

The patient is asked to rate each of the 20 items in a Likert-type format as to how it applies to him at the time of testing. The quantitative rating terms are 'Seldom/Never', 'Sometimes', 'Fairly often', and 'Very often'. Zung's own terminology used in the original form was similar: 'A little of the time', 'Some of the time', ' Good part of the time', and 'Most of the time'.

The ZSDS is constructed in such a way that the less depressed person (and his complaint) has a low score on the scale and the more depressed one a higher score. The scoring system of the ZSDS is important because a value of 1, 2, 3 and 4 is given to each item (whether worded positively or negatively). This was introduced to limit or restrict to much response-set bias. Careful transcription of scores must be ensured when computations are being made.

An index for the ZSDS is derived by dividing the sum of the values (raw scores) obtained on the 20 items by the maximum possible score of 80 and expressed as a decimal.

Patients with mild to moderate amounts of depression have scores of 50-59; those with moderate to severe amounts of depression have scores of 60-69; and those with severe depression 70 and over.

2.3.3.2.1 Categories:

Rickels, Downing, Lipman, Fisher and Randall (1973, p. 98-104) used factor analysis to differentiate the following factors: (a) Retarded Depression, (b) Anxious Depression, and (c) Appetite Disturbance. Both this study and the one by Weckowicz, Muir and Cropley (1967, p. 23-28) indicated that the BDI and the ZSDS measure cognitive and somatic manifestations of emotional instability.

In a pilot study of 66 alcoholic males, Gibson and Becker (1973, p. 400-408) used factor analysis to isolate 4 factors common to depression which were similar to those mentioned by Lorr (1969). Lorr's factors related to the ZSDS are the following:

(a) Anxious self-blame: this includes items on self-criticism,

worthlessness, a sense of guilt, self-attributed responsibility for misfortune, and anxiety.

(b) Concrete Concerns: items include self-worthiness, external circumstances such as job and family responsibilities, negative effective labels.

(c) Depressed Mood: grouping symptoms like sadness, being downhearted and feeling blue, helplessness, dejection, hopelessness, pessimism, suicidal ideation, and crying bouts.

(d) Somatic Disturbances: fatigue, loss of appetite, somatic preoccupation, weight loss, difficulty in sleeping, and loss of libido.

They found that primary depression tends to accompany alcoholism, that measures of depression derived from primary depressives are applicable to alcoholics. Alcoholics as a group are not distinguished by a large number of endogenously depressed people.

2.3.3.3 Reliability:

Two investigations by Zung (1967, p. 543-547) and Zung and Gianturco (1971, p. 247-248) have been conducted to test the reliability of the ZSDS. In the former he researched certain factors which might influence the scale and found that the outcome of the ZSDS was not affected by the patient's age, sex, marital status, educational level, financial status, or level of intelligence.

In the latter, Zung and Gianturco used the ZSDS, a repression-sensitization (R-S) scale (Byrne, 1961, p. 334-349); and a facilitation-inhibition (F-I) scale (Ullmann, 1962, p. 127-132). A significant statistical correlation was obtained between a patient's self-rating on the ZSDS and the two other scales ($p < 0,01$) which indicates that patients with depression do not repress or deny their illness and are proportionately sensitive to their symptoms, as was deduced from their correspondingly higher scores on the ZSDS and the R-S/F-I scales, which reflect degrees of severity of depression and sensitization respectively.

2.3.3.4 Validity:

The MMPI D Scale was correlated with the ZSDS in an alcoholic population which was undergoing hospitalized treatment by Equi and Jabara (1976, p. 504-507). Their findings supported conclusions that the ZSDS was a valid indicator of depression and that the recommended cutoff score of 50 was optimal for this type of population. They also found the ZSDS could serve as a sensitive reflector of changes in depressive affect and therefore has use in the raising of the effects of various therapeutic approaches on depression.

In the search for validity of the ZSDS, Biggs, Wylie and Ziegler (1978, p. 381-385) used a sample of young, non-psychotic outpatients with moderate to severe depression prior to treatment. They found that the ZSDS score correlated well with both the global rating assigned by the treating physician and the Hamilton Rating Scale (RS). The sensitivity of the ZSDS was adequate, although it was lower than that of the HRS. It differentiated patients grouped into four degrees of severity based on the global rating at the 0,05 level of significance. They agreed that their findings support the validity of the ZSDS as a research instrument for assessing severity in depressive illness during treatment. Their results support earlier findings by Zung (1965, p. 63-70); Zung, Richards and Short (1965, p. 508-515); Zung (1967, p. 543-547); Brown and Zung (1972, p. 361-367); and Davies, Burrows and Paynton (1975, p. 21-24). The correlation between the ZSDS and the HRS in their study was similar to those reported by Bailey and Coppen (1976, p. 486-489).

Carroll, Fielding and Blashki (1973, p. 361-366) concluded that the ZSDS was not a valid research instrument for depressed patients who had not yet undergone treatment.

Because reliability and validity are affected by faking (good and bad) in psychological testing instruments, especially self-rating ones like the ZSDS, it is important that this interference be examined empirically. Mikeseli and Calhoun (1969, p. 173-174) administered the test to three groups of students. The results of the fake-bad group were significantly different ($p < 0,91$) from those of the other two (the fake-good and the control groups). The fake-good

group was not found to differ significantly from the control group. Nevertheless the subjects were not told what it was they were being asked to fake. By providing information of the purpose of the ZSDS failed to improve the fakability of this instrument (Swanson and Anderson, 1972, p. 194). They confirmed the previous findings that subjects could fake-bad not fake-good.

Cross-validation of the ZSDS and BDI:

In correlation studies of these two instruments, Beck (1967, p. 51-69) reported that research had showed that the BDI related to diagnosed depression and was the more specific of the two instruments.

Seitz (1970, p. 504-505) obtained highly significant correlations between the BDI and the ZSDS, the BDI and the MMPI (D scale), and the ZSDS and the MMPI (D scale). Other results have demonstrated similar cross-validations. The BDI and MMPI were significantly correlated by Nussbaum, Wittig, Hanlon and Kurtland (1971, in Palmer 1973, p. 489-490); and Seitz (in Palmer, 1973, p. 484-485). Marone (in Kincannon, 1968, p. 319-325) cross-validated the Zung with a depression adjective checklist.

2.3.3.5 Criticisms:

The above-mentioned problem of faking is an important one. Two of the patients in the present dissertation gave nearly total good-faking responses.

Certain depression symptoms cannot be picked up in rating scales. Some unconscious behaviour, e.g. facial expressions, voice tone, motor activities and other body language signals are not recorded in this type of setting.

2.3.4 IPAT Anxiety Scale:

2.3.4.1 Motivation:

According to the designers of the test (Cattell et al., 1968, p. 1)

the IPAT Anxiety Scale has as a main goal, a quick, objective and standardized method whereby clinical information about anxiety can be obtained. It is used basically to "measure free-floating, manifest anxiety level, whether it be situationally-determined or relatively independent of the immediate situation" (Cattell et al, 1968, p. 12).

Anxiety and depression have long been regarded as central personality factors which present pathological psychological profiles in male alcoholics. Lawlis and Rubin (1971, p. 326) concluded from their three studies on the personality profiles of alcoholics that in a "true understanding of the dynamics of alcoholics, it becomes apparent that all types of alcoholics have maladaptive ways of dealing with anxiety. It then becomes necessary to investigate anxiety specifically in order to understand the directionality."

2.3.4.2 Description:

The IPAT Anxiety Scale consists of 40 statements which measure 5 components or factors of anxiety and are divided proportionately to their relative pro rata contribution to the total level of anxiety.

A sten scoring system is used. Stens 1, 2 and 3 indicate stability, security and general good mental health. Stens 4, 5, 6 and 7 lie within the 'normal range', although 7 is a borderline high level. Stens 8, 9 and 10 are signs of severe anxiety and emotional maladjustment and the person is in need of counselling, guidance or therapy for his stress.

In all types of clinical groups, anxiety tends to be high. It is associated with neuroses, psychoses, character disorder and psychosomatic problems. A low level of anxiety is indicative of a more stable and healthy personality.

Four types of scores are calculated, namely:

(a) Total Anxiety: this score is based on all 40 items and is the sum of the A (covert) and B (covert) totals.
(b) Scale A: this is the measure of overt (symptomatic) anxiety

which reflects physical and hostile expressions related to the anxiety syndrome.

(c) Scale B: this is a measure of covert (hidden) anxiety and reflects verbally hostile expressions of anxiety. These styles of expressing anxiety appear to be socially more correct and acceptable.

(d) Subscale factors:

Q3(-): Lack of Self Sentiment Development: (Defective Integration):
Low scores show that the person is able to be motivated to integrate his behaviour around socially-approved norms in a conscious self-sentiment manner. It is a measure of the "extent to which anxiety has become bound in socially-approved character structures and habits, with more binding indicated by a lower Q3 and free anxiety score" (Cattell and Scheier, 1968, p. 16).
High scores show that the person fails to integrate his behaviour into a clear self-concept. This is one of the main causes and signs of anxiety.

C(-): Ego Weakness or Lack of Ego Strength:
Low scores reflect a strong ego which enables the person to control and express his frustrative tensions and conflicts in a realistic and suitable manner.
High scores indicate ego weakness, i.e. an ego which is insecure and has developed many ego defenses which manifest anxiety. High anxiety tension causes regression and prevents the normal growth of ego strength.

L: Suspiciousness, Paranoid-Type Insecurity:
High scores show progressive difficulties in social interactions which lead to isolation and withdrawal may be due to paranoid-type behaviour. On the other hand paranoia behaviour could be the result of anxiety. The paranoia then becomes a defense against the anxiety.

O: Guilt Proneness:
High O scores can be associated with feeling unworthy, depressed, and guilty. This form of anxiety could be said to be caused by severe superego inhibitions and very high scores are often found in depressive reactions and other forms of neuroses.

Q4: Frustration Tension, Id Pressure:

Frustration tension is in many cases the most important component of anxiety. When excited drives and needs of all kinds are frustrated (Id pressure frustration) are repressed, great feelings of anxiety are evoked.

Norm tables are provided for each sex separately and for the combined scores of both sexes and that the raw scores can be converted to stens.

2.3.4.3 Reliability:

The reliability of the IPAT Anxiety Scale was calculated by applying the following:

(a) retest reliability coefficient (retesting after 2 weeks);
(b) split-half method used for calculating the coefficient; and
(c) the coefficients computed according to the Ferguson variation of the Kuder-Richardson 20-Formula.

The coefficients for the total scores range from 0,87 to 0,76. The coefficients for the A and B scores range between 0,84 and 0,76 (Cattell et al., 1968, p. 71).

2.3.4.4 Validity:

Construct validity was calculated at 0,89 for Afrikaans-speaking persons and 0,87 for English-speaking persons (Cattell et al., 1968, p. 8).

The A-score, B-score and Total-score scales were correlated with the NB Adjustment Questionnaire's 10 fields. The coefficients of the A-score varied from -0,50 to +0,40; while the B-score correlation coefficients varied between -0,21 and +0,48. The Total-score coefficients ranged between -0,21 and +0,53. All the correlation coefficients were negative except those which were correlated with the NB scale Nervous Symptoms. In all except two cases the $p < 0,01$.

2.3.5 The Sixteen Personality Factor Questionnaire (16PF) of Cattell:

2.3.5.1 Motivation:

Cattell, Eber and Tatsuoka (1970, p. 3-4) stated that the 16 PF includes 16 personality factors which provide insight into the personality profile of persons including alcoholics. Cattell's theory is expressive of the factor-analytic approach to personality, because it serves as a bridge between the presentation of clinical and theoretical theories of personality, and because it commits us to the further consideration of alternative techniques for the assessment of personality. His emphasis on objective test instruments, large samples of tests and subjects, and factor-analysis of the data suggests little personal bias in theoretical formulation. The basic structural element for him is the trait which is a structure of personality that is inferred from behaviour. It expresses characterological or relatively permanent features of behaviour and represents a broad reaction tendency. There is some pattern and regularity to behaviour over time and across situations.

Cattell, Eber and Tatsuoka, (1974, p. 6) stated that the central feature of the 16PF which distinguishes it from most other adult questionnaires is that it is "firmly based on the personality sphere concept - a design to insure initial item coverage for all the behaviour that commonly enters ratings and the dictionary descriptions of personality" and that "it has not been built up only by factoring of questionnaire material, but is part of the general structuring research on personality in everyday life rating data, objective tests, etc."

According to Cattell's thesis, a fundemental imbalance between personality features is found between mentally ill and more balanced normal persons. These features may be measured by the 16PF. The aim of the 16PF is to measure certain personality traits (op. cit., p. 10) which are basic to the conceptual understanding of human personality profiles and structure.

The 16PF was largely designed by working with normal rather than

pathological populations and so it places a much greater emphasis on day to day personality traits rather than containing the pathological focus seen in the MMPI. The original designers of the test also motivate the test by adding that the various forms of the 16PF "constitute the quickest way of measuring primary personality factors yet worked out and have demonstrated comprehensiveness and good prejudice capacity in relation to everyday life criteria in applied psychology" (1974, p. 6).

The purpose of the 16PF is to delineate the major personality factors in such a way as to allow us to form a broad picture of the personality profile (in this case of male alcoholics).

2.3.5.2 Description:

Form A consists of 187 items and each question on the test is multiple choice and has three possible answere (A, B, C). The person answers each question on an answer sheet which is scored by hand using two templates. Standardized forms for both official languages are available.

After the raw scores for each scale have been determined, they are converted into sten scores which have a mean of 5,5 and a standard deviation of two. The highest score possible is 10 and the lowest score possible is 1. Thus scores may vary only 2,25 standard deviations in either direction for a total variation of only 4,5 standard deviations. Because the factors are described in bipolar terms, the average range is between 4,5 and 6,5. Low scores range from stens 1 to 4,4; while high scores are from 6,6 to 10. Norm tables are provided for the South African form of the 16PF for adult males (and for adult females as well as for combined female/male norms). The stens for each factor are plotted on a standardized profile form 1643.

The factors of the 16PF are given below. First, the factor symbol is listed, followed by the description of the factor with the low score description on the left and the high score description on the right. A general procedure followed by most researchers is to use the minus symbol (-) for low scores and a plus symbol (+) for high scores.

TABLE 1

Factors of the 16 Personality Factor Questionnaire:

A	Introversion (Sizothymia) Reserved, detached, critical, cool	Extraversion (Cyclothymia) Outgoing, warmhearted, easy-going, participating
B	Less intelligent, concrete-thinking	More intelligent, abstract-thinking, bright
C	Low Ego Strength emotionally labile, easily upset	Higher Ego Strength emotionally stable, faces reality, calm
E	Submissiveness humble, mild, obedient, conforming	Assertiveness, Dominance independent, agressive, stub-born, nonconforming
F	Sobriety (Desurgency) Depression, prudent, serious, taciturn	Happy-go-lucky (Surgency) heedless, gay, enthusiastic
G	Weaker Superego Strength expedient, law unto him-self, by-passes obligations	Stronger Superego Strength conscientious, persevering, staid, rule-bound
H	Socially Shy (Threctia) restrained, timid, diffi-dent	Socially bold (Parmia) venturesome, uninhibited, spontaneous
I	Independency (Harria) tough-minded, self-reliant, realistic, no-nonsense	Dependency (Premsia) tender-minded, overprotected, sensitive
L	Trust (Alexia) adaptable, free of jealousy, easy to get on with	Suspicious (Protension) self-opinionated, hard to fool

M	Practical (Praxernia) careful, conventional, proper, regulated by external realities	Imaginative (Autia) wrapped up in inner urgencies, careless of practical matters, bohemian
N	Forthrightness (Artlessness) natural, artless, sentimental	Shrewd (Shrewdness) calculating, worldly, penetrating
O	Self-Assurance (Untroubled adequacy): placid, confident	Apprehensive (Guilt proneness) worrying, depressive, troubled
Q1	Conservative (-ism) respecting established ideas, tolerant of traditionalism	Experimenting (Radicalism) critical, liberal, analytic, free-thinking
Q2	Group Dependence/Adherence joiner and follower	Self-Sufficiency prefers own decisions, resourceful
Q3	Undisciplined integration (Low integration) casual, careless of protocol, follows own urges	Controlled Self-Discipline (High self-concept control) socially-precise, compulsive
Q4	Relaxed (Low ergic tension) tranquil, torpid, unfrustrated	Tense (High ergic level) driven, overwrought, fretful

(from the 16PF Test Profile: IPAT, Form No. 1643)
The above sixteen factors form the first-order factors while second-order traits may be derived from them.

Cattell et al. (1974, p. 7) refer to the above factors as source traits which they define as "factors affecting large areas of the overt personality behaviour, such as intelligence, emotional stability, superego strength, surgency and dominance."

2.3.5.3 Reliability:

In Cattell, Eber and Tatsuoka (1970, p. 30) the construct reliability coefficient is given as potentially perfect and equal to +1,0.

The compilers give data on the following reliability forms:

(a) Dependability coefficient (the correlation between two administrations of the same test when the lapse of time is insufficient for people themselves to change with respect to what is being measured. The range for this was from 0,58-0,83.
(b) Stability coefficient (from a retest after a two-month or longer interval).
(c) Equivalence coefficient (agreement between Forms A and B.)

2.3.5.4 Validity:

The Eysenck Neuroticism and Extraversion Scales correlate significantly high and reliably with the 16PF anxiety scale. Also the anxiety scale of the Welch scale correlated highly with the anxiety factor on the 16PF. Results show that most of the MMPI and the 16PF traits correlate significantly (op. cit., p. 44-47).

Cattell et al. (1970, p. 34-39) supply a variety of validity coefficients:

(a) Direct concept validity (Which shows how well a scale agrees with the construct found in the source trait which it has set out to measure);
(b) Circumstantial validity (or conceptual validity, which show how well the test correlations of the test with a representative sample of concrete natural criteria agree with those which the conceptual criterion itself is expected to have with these relevant variables);
(c) Concrete validities (are the correlations of the scale with many concrete performances).

2.3.6 Purpose in Life Test (PIL):

2.3.6.1 Motivation:

Hopelessness and depression have been associated with the alcoholic's problems in facing life after he has come to the end of his treatment in a rehabilitation centre. Associated with these feelings are those that he has about his future, especially the purposelessness.

The PIL test is an attitude scale which has been designed and based on Frankl's logotherapy orientation by Crumbaugh and Maholick (1969). The test measures "existential vacuum".

Central to Frankl's system (Frankl, 1962) is the idea that man seeks firstly to find purpose and meaning in his life. When a person fails to find meaningfulness and purposefulness in life, he fails to develop his awareness of his unique identity and he experiences life as an "existential vacuum". The empty state felt mainly as a kind of boredom develops into "existential frustration" if it is not relieved. Thus the existential frustration is a response to the existential vacuum and may develop and manifest into a "noögenic neurosis".

According to Frankl the existential vacuum has resulted from the influence of the machine age together with the loss of personal and individual initiative. The noögenic neurosis develops only in persons who are predisposed to neuroses. He adds that this neurosis is a "collective neurosis" and affects more than half of the general population. The alcoholic is a person who is assumed to be even more prone than the average man in the street to this neurosis.

The goal of the PIL test is to detect existential vacuum, and if it is present, to determine whether it is accompanied by noögenic neurosis.

2.3.6.2 Description:

The PIL test is divided into 3 parts. Parts B and C were not applied in this investigation. Part A consists of 20 statements composed of

two parts. An initial phrase is followed by two polar responses arranged in such a way that the numerals 1 to 7 are ascribed so that the respondent can choose which of the two extremes applies to him. The numeral 4 is used as a neutral response and the person is requested to use it as little as possible. To reduce response-set patterns, the ratings are not constantly placed, but are varied by having some arranged from left to right (i.e. 1 to 7) while others are reversed (i.e. 7 to 1). The respondent circles the numeral of his choice as it applies to himself.

The 20 scaled items of Part A are objectively scored by calculating the sum of the numerical values circled for each item. Crumbaugh (1968, p. 74-81) calculated norms based on a sample of 1151 cases. Raw scores above 113 reflect the presence of a definite purpose and meaning in life. The range of raw scores from 92 to 112 represents "somewhat uncertain definition" Crumbaugh and Maholick, (1969, p. 3). Raw scores of 91 and below represent the lack of clear meaning and purpose.

2.3.6.3 Reliability:

The split-half (odd-even) reliability of the PIL test was determined by Crumbaugh and Maholick (1964, p. 200-207) as 0,81 using the Pearson Product-Moment correlation coefficient on a sample of 225 where 105 were normals and 120 were patients. It was Spearman-Brown corrected to 0,90. The same relationship was determined by Crumbaugh (1968, p. 74-81) as 0,85 using the Pearson Product-Moment correlation on 120 protestant parishioner nonpatients, and Spearman-Brown corrected to 0,92.

Crumbaugh and Maholick (1969, p. 2-3) cite that significant Pearson Product-Moment correlations exist between PIL scores and other test variables:

(a) Frankl's Questionnaire: (0,68)
(b) Allport-Vernon-Lindzey Scale of Values (no significant correlation);
(c) MMPI: (correlations for K, D, Pt, Hy, Pd and 5 scales given by

Crumbaugh and Maholick);

(d) Scales of Anomie (Srole Anomie Scale: 0,48);

(e) Crowne-Marlow Social Desirability Scale: (0,57);

(f) California Personality Inventory (CPI): (Various scales);

(g) Cattell Motivational Analysis Test (MAT): (0,28);

(h) Cattell 16PF: Emotional stability (0,41); Expediency (0,37); Confidence (-0,44); Self-Sufficiency (-0,34); Tension (-0,38); Shyness (0,34); Suspiciousness (-0,35).

Reker and Cousins (1979, p. 90) used the split-half correlation for the PIL and found the coefficient to be 0,77 corrected to 0,87 by the Spearman-Brown formula. A test-retest correlation over a 6 week period for 31 introductory psychology students yielded a stability coefficient of 0,79. They calculated the following norms for this sample of student males: N = 57; M = 103,37; SD = 15,59.

2.3.6.4 Validity:

2.3.6.4.1 Construct validity:

Crumbaugh (1968, p. 74-81) used 4 "normal" populations to obtain the construct validity of the PIL:

TABLE 2

Construct Validity for the PIL

GROUP	N	M	SD
Successful business and professional personnel	230	118,90	11,31
Active leading Protestant parishioners	142	114,27	15,28
College undergraduates	417	108,45	13,98
Indigent nonpsychiatric hospital patients	16	106,40	14,49

He obtained the following means for a psychiatric population:

TABLE 3

Means and Standard Deviations for a Psychiatric Population:

GROUP	N	M	SD
Hospitalized neurotics, mixed diagnosis	13	95,31	18,36
Outpatient neurotics, mixed diagnosis	225	93,31	21,67
Hospitalized alcoholics	38	85,37	19,41
Hospitalized nonschizophrenic psychotics	18	80,50	17,50
Schizophrenics: hospitalized Negroes	11	108,00	17,71
Schizophrenics: hospitalized Whites	41	96,66	16,12

The combined "normal" groups and the combined psychiatric groups were compared and the following results were obtained:

TABLE 4

Means for Normal and Psychiatric Groups

GROUP	N	M	SD
Combined "normal" groups	805	112,42	14,07
Combined psychiatric groups	346	92,60	21,34

The comparison yielded a t-value of difference significant at $p < 0,001$ and the variance between the patient and nonpatient populations was significant ($F = 2,20$; $p < 0,01$). According to Crumbaugh, the above data confirms "a prediction from the theory of logotherapy, for greater patient variability on the PIL would reflect the fact that some patients have noögenic problems and some do not, though the incidence of such problems would be expectedly higher among patients than nonpatients. All in all the construct validity of the scale seems well supported".

2.3.6.4.2 Concurrent (criterion) validity:

The concurrent validity of the PIL was calculated by two measures:

(a) Correlation between PIL scores and the ratings by therapists of the degree of purpose and meaning in life shown by the patient. The therapist completed a PIL as he predicted the patient should have done so in order to represent the true facts.

(b) Correlation between PIL scores and the ratings by ministers of the degree of purpose and meaning exhibited by their practising and participating parishioners.

The relationship between the scale and the therapist's ratings was =,38 (Pearson Product-Moment, N = 50). The relationship between the scale and minister's ratings was 0,47 (Pearson Product-Moment, (N = 120). Crumbaugh stated that these results "are in line with the level of criterion validity which can usually be obtained from a single measure of a complex trait".

2.3.6.5 Criticism:

Battista and Almond (1973, p. 411) stress that the PIL contains certain flaws as an adequate operational definition of the meaning of life. They said that of the 20 items, 5 measure the person's ability to see his life as contained within a certain framework, 9 measure his satisfaction with his life, and one considers both simultaneously. Additional criticism is lodged at the unequal distribution of the items, the straightforward manner in which they are presented, and the failure to control for the effects of social desirability or denial responses. The test is furthermore affected by the inclusion of 5 items which reflect certain value orientations assumed to be present in persons with positive life regard, which makes the test become biased. The PIL implies that the more a person sees himself as responsible and the more he perceives his life to be under his own control, the greater his degree of positive life regard.

2.3.7 Seeking of Noetic Goals Test (SONG):

2.3.7.1 Motivation:

The SONG is an attitude scale derived from the orientation of logo-therapy (discussed in 2.2.6.1 above). Frankl developed this system of existential therapy in which his main thesis is that man's strongest

motive is to find a meaning and purpose in life. When a person fails, they slip into a state called the "existential vacuum", and which is manifested mainly by boredom. The person tries to escape or "cop-out" by resorting to escapes like alcohol, drugs or even suicide, as well as from neuroses and psychoses.

Where the PIL is an attitude scale devised to measure the degree to which a person has found meaning and purpose in life, the SONG is a complementary scale used to measure the strength of motivation to find life meaning.

Combined use of the two scales has proved helpful in finding the probability of successful therapeutic intervention. If a person scores a high PIL and a low SONG, we infer that he already has a satisfactory level of life meaning but lacks motivation to find more and is thus unlikely to be a positive candidate for psychotherapy. If he scores a low PIL and a high SONG, he lacks life purpose but he has motivation to find it and is thus positively motivated to benefit from psychotherapy.

Crumbaugh (1977, p. 1) says that self-tests like the PIL and SONG scales should be used in isolation because of motivational distortion and other sources of error variance which leads to increases in the possibility of unreliable scores.

2.3.7.2 Description:

The SONG consists of 20 statements and the respondent circles the number of the continuum from 1 to 7 for each of the items. The numeral 1 is paired with "Never", 2 with "Rarely", 3 with "Occasionally", 4 with "Sometimes" (a neutral opinion), 5 with "Often", 6 with "Very Often", and 7 with "Constantly". The statements are arranged in such a way that set-responses are decreased.

Administration takes about 10 minutes and the scoring system is done by arithmetical addition of the twenty circled numbers. The range of possible scores falls between 20 and 140.

The normative cutting score is 79 (i.e. halfway between the means of 73 for "normal" and 85 for "Abnormal populations". The standard

deviation for the normal group is approximately 14, while it is 15 for the patient population.

Both the PIL and the SONG forms were translated into Afrikaans and checked by high school language teachers for correctness and accuracy. No reliability and validity testing has been done on the translated versions.

2.3.7.3 Reliability:

The reliability of the SONG was determined by correlating the odd-even items of the scale in a combined sample of 158 cases. The resultant Pearson Product-Moment correlation coefficient was 0,71± 0,04; Spearman-Brown corrected to 0,83.

2.3.7.4 Validity:

Crumbaugh (1977, p. 900-907) states that the construct validity was revealed by the verification of the prediction that "abnormal" or patient populations would score consistently higher than "normal" or non-patient populations because mental and emotional illness tends to destroy meaning and purpose in life and thus the need ought to be increased in finding it.

TABLE 5
SONG Norms, Means and Standard Deviations

Population	N	M	SD
Patient (Abnormal)	103	85,11	15,43
Non-patient (Normal)	312	77,30	15,65

(based on Table 1: Crumbaugh, op. cit. p. 903).

Secondly, the construct validity was confirmed by the negative correlation between the SONG and the PIL which ranged from 0,27 to 0,52.

In two alcoholic groups undergoing treatment in a centre for alcoholism, one sample in 1969-1970 and the other in 1972-1973 were

evaluated on the SONG. The following results were obtained:

TABLE 6

SONG norms, relationship to the PIL in a subsample of alcoholic males, and construct validity in predicting differences:

N	M	SD	r with PIL
53	85,10	17,30	-0,36±0,12

(from Crumbaugh, 1977, p. 603)

The general group of patients (N = 209) scored an insignificant increase in SONG scores after they had terminated their therapy and rehabilitation programme. If therapy is assumed to be successful, the expectation is that the post-therapy SONG scores would go down, which shows a decrease in motivation to find life meaning because of an increase in the actual meaning caused by therapy.

The results of PIL-SONG combinations in a pre-and post-therapy treatment programme, patients in the alcoholic unit showed differences in the predicted direction. Patients whose pretherapy scores showed a low PIL and a high SONG did better in therapy than patients who showed the opposite pretherapy scores.

TABLE 7

Construct Validity of SONG in Prediction of Therapeutic Outcomes in an Alcoholism Treatment Unit Population:

	Intake			Exit			Dif. in
GROUP	N	M	SD	N	M	SD	M
Alcohol treatment validation study, general patients sample	212	85,39	15,65	209	87,86	16,10	+2,47
Logotherapy patients in alcohol treatment in (1958-1959)	56	88,40	18,05	55	82,00	15,29	-6,40
Logotherapy patients in ATU, 1973, strict selection criteria	25	92,20	12,34	25	98,16	15,41	-3,04
Logotherapy patients in ATU, 1973, reduced selection criteria	25	83,32	14,14	25	80,00	13,96	-3,32
Combined logotherapy patients in ATU	106	88,10	16,28	105	83,23	15,41	-4,87

(from Crumbaugh, 1977, p. 904)

A more recent validity study was conducted by Reker and Cousins (1979, p. 85-91) who used the PIL and SONG with a Life Areas Survey (LAS) on 248 students, medium age 19,4 years, who were first year psychology students at a university. 189 Were females, 57 males and 2 failed to indicate their sex.

The investigators combined the PIL and SONG items and formed 10 independent factors or dimensions of meaning and purpose in life.

TABLE 8

Factors based on PIL and SONG Tests

I	Purpose in Life	VI	Existential Vacuum
II	Goal Seeking	VII	Search for Adventure
III	Goal Achievement	VIII	Futuristic Aspirations
IV	Contentedness with Life	IX	Internal-External Locus of Control
V	Self-Fulfillment	X	Life View

(from Table 1, Reker and Cousins, 1979, p. 87)

The above factors were correlated with the 2 areas of the LAS, i.e. My Life at Present, and My Life in the Future. The intercorrelations of the validity measures computed were:

TABLE 9

Intercorrelations of the Validity Measures

	Correlations				
	N	2	3	4	5
PIL	248	-0,33	0,65*	0,41*	0,44*
SONG	248		—0,30*	-0,05	0,34*
Present Life	239			0,61*	-0,46*
Future Life	239				-0,02

(* represents $p < 0,001$)

(from Table 2. Reker and Cousins, 1979, p. 89)

Conclusions drawn from the above table are:

(a) A significant but moderate negative correlation was found between the SONG and the PIL.

(b) Significant positive correlations were found between the PIL and attitudes toward Life at Present and Life in the Future.

(c) The SONG correlated negatively with Life at Present.

(d) The correlation between the SONG and the concept My life in the Future was not significant.

(e) The concept My Life at Present was positively and significantly linked to the concept My Life in the Future.

In a subsequent study using the same three instruments mentioned above, Crumbaugh, Reker and Cousins (1979, p. 85-91) confirmed certain previous findings and added others:

(a) The SONG and PIL are complementary instruments.

(b) The items of the PIL and SONG, if regrouped into clusters, form two broad groups: items that measure the "degree" to which meaning and purpose in life have been found (i.e. general purpose in life, goal achievement, contentedness with life, self-fulfillment, internal-external locus of control, and life view) and

items which measure the "motivation" to find meaning and purpose in life (i.e. goal-seeking, existential vacuum, search for adventure, and futuristic aspiration). They add that the data supplies strong evidence for the factorial validity of both instruments.

(c) Further support for the construct validity of the two instruments is provided by the semantic differential data from the Life at Present and Life in the Future concepts. Greater incongruity in attitude between present and future life is related significantly to a lack of meaning and purpose in life and to a strong desire to search for meaning and purpose. The writers add that meaning and purpose in life in the here-and-now are also strongly linked with satisfactory life experiences and positive future expectations. If present life events are satisfactory, then expectations for the future are also very positive. High motivation to find meaning and purpose is associated with a dissatisfied present life situation, but motivation or lack of it to find meaning and purpose in life does not seem to influence future expectations.

3. Statistical procedures:

3.1 Mean and Standard Deviation

Initially the arithmetical means and standard deviations are required for all the instruments (both for the tests and the subtests). The arithmetical mean is computed by applying the formula $\bar{x} = \frac{\Sigma X}{N}$ where $\bar{x}$ = the arithmetical mean;
X = the sum of the scores;
and
N = the number of cases.

For computing the standard deviation for ungrouped data the formula is

$SD = \sqrt{\frac{\Sigma x^2}{N-I}}$ where

SD = the standard deviation;

X^2 = the sum of the deviation of a score from the mean of its distribution squared; i.e. $x = X - \bar{x}$, where x = the deviation of a score from the mean; X = a raw score; $\bar{x}$ = the mean;

N = the number of cases.

In order to correct the sample standard deviation for bias (a downward one as the sample standard deviation tends to be smaller than the population standard deviation), I is subtracted from the number of cases.

3.2 Chi-square

In correlating the dependency between the PIL and SONG for the purpose of finding whether low PIL scores (interpreted as not having a purpose in life) would lead a person to have high SONG scores (indicating that the person was in fact searching for meaningful life goals), the Chi-square test for independence in a 3X2 table for unmatched samples was used. The formula for this test $X^2 = \Sigma\frac{(O - E)^2}{E}$ demands that each expected frequency (E) be subtracted from the observed frequency (O), the differences be squared, and the result be divided by the expected frequency. The sum of these results is the chi-square value. In the calculation the following contingency table is required:

TABLE 13 X^2 Contingency Table

O	$\frac{R \times C}{N} = E$	/O-E/ = D	D^2	$\frac{D^2}{E}$

(Langley, 1979, p 274).

where O : list of observed numbers in each cell of the data table;

E : expected number for each cell;

R : row totals;

C : column totals;

N : grand total;

D : difference between observed and expected values;

D^2 : square of the D calculated in the previous step;

χ^2 : sum of all $\frac{D^2}{E}$ scores. (Langley, 1979, p 269).

The critical values of χ^2 vary with the degrees of freedom (df) which refer to the number of observations which are free to vary according to restrictions inherent in the data. In the case of 3X2 contingency tables, the formula used for calculating the df is df = (c-I)(r-I) where c is the number of columns and r the number of rows. In this case the df=2. The critical values for 2df is obtained by referring to tables (Downie and Heath, 1970, p 311; Langley, 1979, p 275-276).

3.3 Factor Analysis:

In trying to establish global features of the sample of male alcoholics, a factor analysis is made of all the variables contained in the biographical questionnaire and the test battery. The main purpose of factor analysis is to simplify the data by reducing the number of variables to a few clusters of possibly related variables. It is "a method for extracting common factor variance from sets of measures" (Kerlinger, 1973, p 659). Factor analysis seeks more fundamental and conceptually simpler relationships which underlie those actually observed (Morrison, 1967, p 21). It helps to find and name common properties which underlie test measurements. Factor names are attempts at summarizing the essentials of the factors, yet they always remain tentative concepts. Although factors may differ in various samples for various reasons, some nevertheless arise after the application of factor analysis, irrespective of the test batteries, samples and testing conditions.

The first step is to complete a factor matrix (a table of intercorrelations among the variables of the test battery) of the loadings (weights) of each variable in each test. A geometric representation is made by using two reference axes in terms of which each variable is plotted. This correlation table determines the position of the variables in relation to each other. By applying a process of axes rotation, a more satisfactory and easily interpretable pattern is obtained. Thereby significant negative weights are eliminated.

The orthogonal rotation is used in order to maintain the independence of factors.

The computational calculations are carried out by the BMDP4M (Factor Analysis) programme (Dixon and Brown, 1979). The number of variables to be used is 131 and the number of factors to be derived is 10. The number of factors is limited to the number of eigenvalues greater than 1,000 (factor loadings are calculated by applying complex methods like the one using the solution of simultaneous linear equations whereby the roots obtained from the solution are in terms of eigenvalues). The tolerance limit for matrix inversion is 0,0001 and a varimax rotation is performed in which the maximum number of iterations for rotation is 50. A convergence criterion for rotation of 0,00001 and Kaiser's normalization are also applied. Factor loadings $\pm$ 0,50 and above are to be used. Loadings less than $\pm$ 0,50 are not regarded in the final factor categories.

CHAPTER 4

RESULTS AND DISCUSSION

In this chapter the results of the test battery are to be presented. The biographical data is discussed first. Then the tests are looked at in the following order; 16 PF and IPAT Anxiety Scale; Zung Self Rating Depression Scale and Beck Depression Inventory; Purpose in Life and Seeking of Noetic Goals Test.

1. The Sample: Biographical Background:

TABLE 14 Age and Language Variables:

Age group	N
25-29	3
30-39	11
40-49	8
50-55	3

They range from 25 years 4 months to 55 years 9 months with a mean age 38,96 years. 76% of the sample are aged between 30 and 50 years. 18 are Afrikaans speaking, 2 English, and 5 say that they are bilingual.

TABLE 15 Status of Present Employment:

	N	%
Employed	18	72
Unemployed	7	28

Nearly 30% of the sample had the prospect of leaving the clinic unemployed. With no financial income, they have the extra burden of anxiety about this as well as having to

be dependent on other (e.g. family) until they manage to find employment.

TABLE 16 Type of Present Employment:

	N	%
Professional	1	4
Self-employed	4	16
Skilled artisan	14	56
Public service	6	24

The majority of the sample are employed as skilled workers in industry and mining.

TABLE 17 Permanence and Duration of Employment:

Duration in years	N	%
Less than 1 year	9	36
1-2	5	20
3-5	3	12
6-10	3	12
More than 10 years	5	20

The stability of their employment record shows a fairly stable work history. 44% have remained in the same employment for more than 3 years.

TABLE 18 Attitude Towards their Present (latest) Employment:

Attitude	N	%
Dissatisfied	2	8
Satisfied	18	72
Undecided	5	20

The majority of the sample are satisfied with their present employment.

TABLE 19 Attitude Towards Present (recent) Salary (income):

	N	%
Dissatisfied	6	24
Satisfied	18	72
Undecided	1	4

Nearly 30% of the sample are not satisfied with their financial status and feel that their income is insufficient.

TABLE 20 Scholastic and Academic Qualifications:

Standard	N	%
Below standard 5	1	4
Standard 5	5	20
Standard 6-8	8	32
Standard 9	1	4
Standard 10	8	32
Post standard 10	2	8

There is a wide range of scholastic qualification from standard 2 to tertiary education with a mean of standard 8,6. 56% had received an education below standard 9. 40% had passed their matriculation examinations.

TABLE 21 Record of Scholastic Failures:

	N	%
Never failed	13	52
Failed once	11	44
Failed twice	0	00
Failed more than twice	1	4

It appears that nearly half of the sample has experienced failure to be promoted at school which can be assumed to have contributed to the development of a negative self-image.

TABLE 22 Leadership Positions During School Years:

Intramural (prefectship)	N	%
Headboy	2	8
Prefect	10	40
Neither	13	52
Extramural		
Cadet officer	6	24
Sport captain	4	16
Neither	15	60

Nearly 50% of the sample had experienced leadership while at school. Extramurally 40% had been captains of sports teams. It seems safe to say that the label of malajusted youth cannot be attached to the whole group. They must have been fairly well adjusted to have been incorporated into their normal peer group functioning systems, yet they relapsed into alcohol problems when they became adults. It is suggested that for many of them, their first contact and periodic early experiences with alcohol were connected with high school extramural activities, e.g. many youths today accept that drinking a few beers after a sports activity is a normal custom.

TABLE 23 Parental History:

	N	%
Both alive	10	40
Father deceased	4	16
Father and mother deceased	9	36
Mother deceased	2	8

The stability provided by having parents still alive may remain an anchor in the life of persons with alcohol problems. In many reports, alcoholics have been described as dependent persons, especially on maternal figures. Although the mean age of the sample is $\pm$ 39 years, it seems that in 60% of their cases, one or both parents are deceased. In 36% it is both and in the case of 44%, there is no longer a mother to turn to when life's problems have become unmanageable.

TABLE 23(a)

Subject's age when mother died	N	%
Still alive	10	40
Before aged 20 years	1	4
After 20 years	14	56

The hypothesis that the loss of the mother early in life could be a related cause of the person developing alcoholism does not apply to this sample because only 1 of them lost his mother in childhood.

TABLE 23(b)

Subject's age when father died	N	%
Still alive	12	48
Before aged 20 years	2	8
After 20 years	11	44

The same results apply for this variable as for the previous one.

TABLE 24 History of Drinking Problems on Subject's Family:

	N	%
Only subject himself	12	48
Father and mother	1	4
Father	5	20
Mother	1	4
Siblings	4	16
Mother and sibling(s)	1	4
Father and sibling(s)	1	4

More than half of the sample come from homes where another person in the family also has a drinking problem. In most cases it is the father and siblings. Very few have mothers with drinking problems. On the other hand, just less than half are the only one in the family who has become the victim of alcohol abuse. Although patterning and modeling appears to have an influence on the profiles of some, it has not had a total impact on the larger majority of the sample.

TABLE 25 Age of First Drinking Experience:

Age (in years)	N	%
Up to 15	2	8
16-18	6	24
19-21	7	28
22-25	7	28
26-35	2	8
36-45	1	4
46-55	0	0

By the end of their 18th year, 32% had started drinking and by the time they had reached their mid-twenties, the figure had risen to 88%. It is surprising that only 12% had started drinking only after their 25th year.

TABLE 26 Age when Drinking Became a Problem:

	N	%
1-15	1	4
16-18	0	0
19-21	1	4
22-25	2	8
26-30	7	28
31-40	9	36
41-50	4	16
50-55	1	4

One subject had developed his problem before he was 15 years of age. By their 25th year, 16% had alcohol problems. The greatest majority's (64%) problem became apparent between 26 and 40 years. By the age of 50, 96% had experienced a wide spectrum of alcohol related problems.

TABLE 27 Convictions Due to Drunken Driving:

	N	%
0	14	56
1	7	24
2	2	8
3	2	8

Nearly half of the subjects have been convicted at least once for driving under the influence of alcohol. 16% have more than one conviction. In some cases, the convictions had the effect of motivating the subject to do something about his drinking problem.

TABLE 28 Court Convictions Due to Alcohol Use:

	N	%
0	15	60
1	7	28
2	1	4
3	2	8

40% of the sample have appeared in course as a direct result of alcohol abuse. The most prevalent reasons are shoplifting, theft, and assault. 12% have more than one conviction. A brush with the law also serves as motivation for treatment.

TABLE 29 Treatment for Alcohol Problems:

Frequency	N	%
1	11	44
2	5	20
3	2	6
4	3	12
5	1	4
7	1	4
10	2	8

Less than half have come for treatment for the first time. The problem of recidivism is a serious one in treating alcoholics. The "revolving-door syndrome" is very much applicable to them. 34% have been treated more than three times and 2 have a multiple treatment frequency of 10 times or more.

TABLE 30 Marriage Status:

	N	%
Unmarried/widowed	3	12
Divorced or separated	11	44
Married	11	44

The problem of interpersonal relationships becomes clearer when we see that 56% of the sample are living single lives. 44% have a background of divorce or separation. The implications and effects that this has on the alcoholic himself and on others (e.g. wives and children, and society) are well known. Alcohol problems go hand-in-hand with a breakdown in family life. 50% of the sample who married, have remained married.

TABLE 31 Marriage Frequency:

	N	%
Unmarried	3	12
Married once	17	68
Married twice	4	16
Married three times	1	4

The marriage history shows that 20% have been divorced and remarried, i.e. 5 out of 11 divorced subjects (45%). Although statistics have not been kept on the age of the wives, it seems that there is an unexpected number whose second wives are older than their alcoholic husbands. It appears that they have become substitute dominant maternal figures. The dependency conflict is another source of ambivalence caused by the choice of wives in alcoholic males.

TABLE 32 Subject's Dependents (own children):

	N	%
0	6	24
1	3	12
2	6	64
3	7	28
4-6	3	12

The majority of the subjects have between 1 and 3 children (64%) while 12% have more than 3 children.

SUMMARY:

Most of the sample is aged between 30 and 50 years with a mean age of 40 years. The majority are Afrikaans speaking. Their employment profile shows that most of them are employed, are skilled artisans, have a fairly stable work record, and are satisfied with their type of work and their income. A fairly high record of school failure may be coupled with the high percentage who never matriculated although there is a surprisingly high indication of leadership qualities. The death of one or both parents before the subject had reached adulthood may be associated with the prevalence of drinking problems in other family members reveal that in their upbringing there seem to have been a source of insecurity and instability. They tended to have started drinking by the time they had reached their early twenties and for most of them it had become a serious problem by their mid-thirties. Nearly half had been convicted for drunken driving or for crimes related to alcohol abuse. Alcoholic recidivisim and living alone is also prevalent in the majority. Divorce rates are high although the average number of dependents is normal.

2. Sixteen Personality Factor

In the table below the 16 personality factors of the 16 PF are listed with their sten scores (frequency). For each the following are supplied: mean (M) and standard deviation (SD).

TABLE 33 Sten Scores, Means and Standard Deviations for the 16 PF for the Sample of Male Alcoholics at the Cornelius Bekker Clinic.

Factor		1	2	3	4	5	6	7	8	9	10	M	SD
A	Extraversion	1	1	3	0	5	3	3	1	4	4	6,40	2,71
B	Intelligence	0	4	2	6	0	7	2	1	2	1	5,20	2,33
C	Ego Strength/Emotionality	2	5	2	5	6	2	1	1	1	0	4,16	2,08
E	Dominance	1	1	2	3	6	4	5	1	0	2	5,52	2,16
F	Impulsivity (Depression)	1	6	5	4	3	3	2	0	1	0	4,00	2,00
G	Superego Control	1	0	2	1	5	8	8	0	0	0	5,60	1,53
H	Sociability	1	2	3	3	6	0	6	0	2	2	5,44	2,50
I	Emotional Dependence	1	1	5	1	5	5	4	1	1	1	5,28	2,19
L	Suspiciousness	0	1	0	4	0	14	2	2	2	0	6,00	1,58
M	Imagination	0	0	0	3	3	9	5	2	2	1	6,40	1,55
N	Shrewdness	0	2	5	2	0	5	4	3	2	2	5,88	2,51

O	Guilt Proneness/Apprehension	1	1	2	4	2	2	2	7	3	1	6,16	2,50
Q1	Rebelliousness	0	0	1	3	5	7	3	3	2	1	6,20	1,76
Q2	Self-Sufficiency	2	1	3	2	3	7	3	1	3	0	5,36	2,31
Q3	Self-Concept	0	1	2	4	5	5	4	2	2	0	5,64	1,85
Q4	Id Pressure/Anxiety Tension	0	0	3	2	4	3	5	3	5	0	6,36	2,02

Discussion of the results appear in section 2.1 below

TABLE 34(a) Abbreviation Key and Totals for Comparing Various Alcoholic Samples on the 16 PF.

KEY	S A M P L E	N
CBC	1981 Cornelius Bekker Clinic	25
CAT	1964 Cattell et al., Alcoholics	1019
CATAC	" " , Alcoholic convicts	77
CATNZ	" " , Alcoholics: New Zealand	30
CATH	" " , Alcoholics: Holland	60
CATS	" " , Alcoholics: Scotland	20
COS 1	Costello et al., Type I	+
COS II	" , Type II	+
COS III	" , Type III	+
COS IV	" , Type IV	+
COS V	" , Type V	+
WT	Walton: Total	38
WIA	Walton: Inability-to-abstain	22
WLC	Walton: Loss-of-control	16
HA	Hart	142
HT	Holt : Drunk and disorderly	44
HY	Hoy : Group psychotherapy	75

+No figures available

(Cattell and Eber, 1964, p.283; Costello et al., 1978, p.1261; Walton, 1968, p.763; Hart, 1979, p.1083; Holt, 1965, p.196-197; and Hoy, 1969, p.403).

TABLE 34(b) Comparison of 16 PF Means of Male Alcoholic Samples of the CBC, Cattell, Costello et al., Walton, Hart, Holt, and Hoy.

	Extraversion	Intelligence	Ego Strength/Emotionality	Dominance/Assertiveness	Impulsivity (Depression)	Superego Control/Strength	Sociability (Parmia)	Emotional Dependence	Suspiciousness/Paranoia	Imagination (Autia)	Shrewdness	Apprehension/Guiltproneness	Rebelliousness/Radicalism	Self-Sufficiency	Self-Sentiment/-Concept	Ergic Tension/Id Pressure
	A	B	C	E	F	G	H	I	L	M	N	O	Q1	Q2	Q3	Q4
CBC	6,4	5,2	4,2	5,5	4,0	5,6	5,4	5,3	6,0	6,4	5,9	6,2	6,1	5,4	5,6	6,4
CAT	5,7	4,6	3,4	4,3	3,8	4,9	4,5	6,4	6,3	6,8	5,2	7,6	4,7	5,9	5,0	7,6
CATAC	6,3	4,8	2,4	4,6	3,4	4,6	5,3	7,1	6,1	7,4	5,8	7,4	5,0	6,0	5,9	7,3
CATNZ	5,6	3,7	2,0	4,2	4,0	4,9	3,8	7,3	8,3	7,7	6,0	8,7	5,5	7,2	4,5	8,0
CATH	4,3	4,0	5,1	5,7	4,0	5,8	4,3	6,1	6,2	6,5	6,4	6,2	6,0	4,7	4,5	6,1
CATS	6,0	4,4	4,0	4,9	4,8	5,0	4,3	5,4	6,5	6,2	6,8	7,2	6,8	7,3	4,4	7,1
COS I	6,3	6,0	2,1	3,3	5,0	4,6	3,4	4,4	7,6	3,7	7,0	8,6	4,3	3,7	3,7	8,2
COS II	6,2	3,5	4,0	5,2	3,6	6,6	5,6	4,9	5,1	4,5	7,1	5,2	2,1	3,3	8,3	4,4
COS III	4,1	3,6	3,0	3,1	2,9	6,0	2,5	5,1	7,7	4,6	7,1	7,1	4,2	6,5	5,4	7,4
COS IV	7,8	3,8	4,8	7,5	5,3	7,0	5,8	3,8	7,7	3,7	6,5	2,7	3,5	4,8	7,0	6,7
COS V	8,1	6,4	2,3	5,0	7,7	6,0	6,4	4,9	6,6	5,1	6,1	7,6	4,3	2,6	4,9	7,7
WT	5,5	5,4	4,3	6,8	4,4	4,7	4,5	5,4	5,8	6,6	7,0	6,4	6,6	6,2	3,9	7,6
WIA	5,5	5,5	4,6	7,0	5,2	4,8	4,8	5,9	5,6	6,5	7,1	5,9	6,5	5,6	4,2	7,6
WLC	5,6	5,4	3,7	6,6	3,4	4,4	3,6	5,2	6,2	6,6	6,9	6,9	6,5	6,7	3,2	7,9
HA	5,7	5,4	3,8	5,2	5,4	5,6	4,9	5,7	6,9	4,9	6,2	7,4	5,4	6,1	5,7	7,8
HT	6,6	2,3	2,6	3,8	3,9	3,9	3,7	7,5	7,5	7,8	5,5	8,5	4,7	6,5	5,4	7,9
HY	5,8	6,7	3,5	5,3	5,6	4,3	4,1	5,3	6,5	6,1	5,9	7,3	5,3	6,3	4,7	7,1
Totals	102	81	60	88	76	89	77	96	112	101	109	117	88	95	86	123
Means	6,0	4,8	3,5	5,2	4,5	5,2	4,5	5,6	6,6	6,0	6,4	6,9	5,2	5,6	5,1	7,2

2.1 Factor A: Introversion (Sizothymia) - Extraversion (Affectothymia):

a) Hypothesis:

Research cited in the previous chapters show that some types of alcoholics tend to be introverted (or depressed) while others are extraverted (or manic). Loss-of-control alcoholics are more extraverted than those who show an inability to abstain from alcohol (Walton, 1968, p.761-766). The samples cited in Table 33 tend to lie within the general population mean range from 4,7 to 6,3 and this suggests that alcoholics are not differentiated from the general population on this factor.

Theoretically, Scale A measures warmth and there is a strong hereditary influence. Lower scores indicate that the person is inclined to be cautious in expressing emotions, uncompromising and critical as well as being awkward and aloof. A- scores are generally associated with hostility, egotism and suspiciousness. The person tends to be precise, objective skeptical, rigid, cold and sulky.

Higher scoring persons are easygoing, emotionally accessible, interested in people, show overt affect behaviour and emotional expression. They like to be with people and thus experience problems when isolated from others.

b) Findings:

The sample ($\bar{x}$ = 6,4; SD = 2,71) has an extrovert bias which supports the findings of 12 other researchers who report that their sample's mean scores for the A factor are above the normal population mean ($\bar{x}$ = 5,5) and 3 of them are above the upper mean limit (6,3). Only two mean scores are below the general population mean.

c) Interpretation:

The CBC sample tends to be extraverted. This is in agreement with other findings - male alcoholics are biased towards the extraverted pole of the A scale.

2.2 Factor B: Intelligence:

a) Hypothesis:

12 of the 16 samples cited above have means scores lower than the general population mean (5,5). 7 of them are below the lower mean limit (4,7). It appears then that male alcoholic groups are less intelligent than the general

population.

Poor scores are associated with anxiety, the inability to concentrate, and lower intelligence. Low scoring persons tend to think concretely, are poorly organized in their cognitive processes, have a lower morale, and are quitters when facing problems.

b) Findings:

The CBC sample ($\bar{x}$ = 5,2; SD = 2,33) is of average intelligence. They are (as a group) more intelligent than 9 of the samples cited above.

c) Interpretation:

Alcoholic groups are similar in intelligence to the general population according to the B factor on the 16 PF although they usually fall below the mean of the whole population. Lower intelligence suggests less effective cognitive support for coping with the demands of life which lead to a proneness to pathological adjustment.

2.3 Factor C: Ego Strength (Emotional Stability):

a) Hypothesis:

Persons with low C scale scores (C-) are easily annoyed and frustrated by people and with themselves. They are dissatisfied with life, their family, and society. They generate generalised neurotic responses like phobias, psychosomatic disturbances, sleep problems, hysteria and obsessional behaviour. Neurotic symptoms originate in early childhood when the person was handicapped in learning how to handle frustration and responsibility. They give up easily and so psychotherapeutic prognosis is handicapped by their tendency to avoid difficult situations.

Alcoholics are seen as neurotic persons and so we can expect that the C scale scores for them will be below the norm. This is the case in 15 out of the 16 samples cited above in Table 33. The means are below the lower limit (4,7). It is predicted that the mean score of the CBC sample will also be below the general norm (5,5).

b) Findings:

The CBC sample ($\bar{x}$ = 4,2; SD = 2,08) is below the 4,7 limit and well below the norm (5,5).

c) Interpretation:

Earlier findings of low ego strength are supported. Neurotic defenses are coping measures in this sample in trying to solve both drinking and life difficulties.

2.4 Factor E: Submissiveness - Dominance (Assertiveness):

a) Hypothesis:

The E factor is a broad temperamental and dispositional personality trait which is influenced by heredity. Low scores indicate that the person is passive and is thus prone to becoming the scapegoat in a pathological family situation. Passive-dependency conflicts are associated with over-dependent persons because they become too mild, accommodating, obedient, docile on the one hand but become easily upset when their needs are not satisfied on the other hand and hostility which is evoked is then usually repressed.

Previous research cited in Table 34(b) indicate a wide spread of mean scores ranging from 3,1 to 7,5. 11 of the 16 fall below the population norm (5,5) and the bias is towards the submissive (E-) pole.

b) Findings:

The CBC sample ($\bar{x}$ = 5,5; SD = 2,16) is the same as the general population norm. It is higher than most of the other findings.

c) Interpretation:

Factor E does not discriminate alcoholics from the general population.

2.5 Factor F: Impulsivity (Surgency):

a) Hypothesis:

The F scale measures impulsivity and scores tend to decrease with age when it levels off in the 30's. Mean scores on this scale cited in Table 33 suggest that male alcoholics tend towards the lower pole (F-). They are more sober and cautious than the general population. 14 of the 16 samples have means below the general population norm, while 9 of them are below the lower limit mean of 4,7. Persons with low F scores tend to be dull, depressed, suspicious and rigid. Along with C-scores, the F-score is often encountered in alcoholic populations although it is probably a secondary effect of the illness situation (Cattell, 1950).

b) Findings:

The CBC sample ($\bar{x}$ = 4,0; SD = 2,00) has a lower mean score than both the norm and the lower limit mean of the general population.

c) Interpretation:

The CBC sample shows a general tendency which supports the trend found in the other samples. They are sober, serious and cautious in their outlook towards life. This places doubts on the assumption that alcoholics are impulsive. The caring and impulsivity in their drinking pattern may not have a link.

2.6 Factor G: Superego Strength (Experience vs Conscientiousness):

a) Hypothesis:

Both Factor G and Factor C (Ego Strength) have to do with self-controlled behaviour and regard for others as opposed to emotional and impulsive behaviour. It is a measure of group conformity and the moral concerns of right and wrong as well as for perseverence of effort. The superego appears to drive the ego and restrain the id. "We are dealing with attitudes implanted early by strong fear and affection, which are partly unconscious and no longer subject to rational manipulation" (Cattell et al., 1970, p.90).

Low G factor scores indicates a lack of development of a superego which is reflected in tendencies towards antisocial traits found in criminals, homosexuals and drug abusers. G+ is found in rigid and moralistic persons wherein strong trends of repression and conversion hysteria are often present. The strength of the superego thus indicates to an extent, the inner control levels which have been internalized from earlier upbringing forces of the formative years. Because guilt over drinking problems appears to be a source of anxiety, it is hypothesized that alcoholics will tend to be biased towards stronger superego controls than the normal population. Research shows that the samples cited in Table 34(b) are mainly below the normal mean of 5,5 while 5 of the 16 are also below the 4,7 lower limit for the normal population.

b) Findings:

The CBC sample ($\bar{x}$ = 5,6; SD = 1,53) is similar to the normal mean in its superego strength.

c) Interpretation:

21 sten scores of the CBC sample (Table 33) cluster around the central area (stens 4 to 7). Superego strength factors do not differentiate the CBC sample from a normal population.

2.7 Factor H: Shyness vs Sociability (Parmia):

a) Hypothesis:

This factor is associated with constitutional and autonomic factors of tension and over-reactivity with a proneness to schizoid disorders. Because of an over-responsive sympathetic nervous system, the persons tend to be "threat-reactive" (threctic). H- scores indicate to a degree, that the person is shy, is troubled by inferiority feelings, restrained and retarded in their self-expression which could develop into coldness and hostility. Clinical findings combined with the findings in Table 34(b) suggest that alcoholics are socially shy and restrained. 14 of the 16 sample means are below the 5,5 mean for the normal population while 10 of them are below the 4,7 lower mean limit.

b) Findings:

The CBC sample ($\bar{x}$ = 5,4; SD = 2,50) is similar to a normal population on the H factor.

c) Interpretation:

Although most of the other alcoholic sample groups are socially restrained, timid and shy, the CBC sample is similar to a general population sample. There is no bias towards either timidity or boldness in social actions.

2.8 Factor I: (Harria/Premsia) Dependency/Emotional Sensitivity:

a) Hypothesis:

This scale measures emotional sensitivity and has a strong environmental and cultural influence and origin. It is associated with conversion hysteria and hypochondria, sociopathy and drug abuse (alcoholism).

Higher I scores are usually made by persons who are dependent emotionally on others, are tender-minded, sensitive and overprotected. They seek sympathy and help from others. Research cited in Table 34(b) suggests that they are biased towards the dependency polarity: 9 of the samples' means

are below the general population mean while only 2 of them are below the lower 4,7 limit. 7 samples' means are above 5,5 mean while 4 are higher than the 6,3 upper mean limit of the general population. It seems thus that this factor does not discriminate alcoholics from the normal population.

b) Findings:

The CBC sample ($\bar{x}$ = 5,3; SD = 2,19) lies within the normal range but is lower than the means of 9 of the other samples.

c) Interpretation:

The CBC sample is neither biased towards the dependency nor the independency poles.

2.9 Factor L: (Alaxia/Protension) Trusting vs Suspiciousness:

a) Hypothesis:

Scale L measures degrees of paranoia. High L scores indicate the projection of inner tension because such persons are suspecting, jealous, dogmatic, tyrannical, irritable and they dwell upon frustrations. They project their negative feelings onto others and they are not popular in group activities because they are uncohesive and low on morale.

Guilt over their prealcoholic past, the consequences of their drinking and the inability to control their drinking evokes feelings of being under scrutiny. The defense of denial and repression are closely associated with paranoid feelings. They lie about their problems, they deny their drinking habits, etc. and these make them feel suspicious that others will find out about their deceit. Research shows that alcoholics are prone to paranoid reactions. 15 out of the 16 samples cited in Table 33 have mean Factor L scores above the mean of the general population while 9 of them are above the upper mean limit of 6,3.

b) Findings:

The CBC sample ($\bar{x}$ = 6,0; SD = 1,58) is above the general mean for normal populations but not greater than the upper mean limit of 6,3.

c) Interpretation:

we remember that denial is a coping device commonly used by them. While 15 of the 16 means of the samples in Table 33 are above the upper mean limit of the normal mean range of 6,3.

b) Findings:

The sample of the CBC ($\bar{x}$ = 5,9; SD = 2,51) lies in the normal range (4,7-6,3) although it is above the general population mean (5,5).

c) Interpretation:

Although the other research reveal clear signs of shrewdness as a factor in the personality structure of male alcoholics, the CBC sample does not appear to support these findings.

2.12 Factor O (Adequacy vs Apprehension):

a) Hypothesis:

This factor is associated with depressive tendencies, moodiness, and emotional sensitivity. It is assumed to be a reaction to situations of repeated failure, transgression and inadequacy. It is a central factor in anxiety and tends to be high in neurotics and certain psychotics.

It forms an important part in the superego triad together with Factors G and Q3. Factor G represents classical superego patterns and Factor O is linked more to guilt proneness.

Extremes on either polarity are interpreted as pathological. Low O scores reflect weak superego controls and possible sociopathy. High O scores measures anxiety and depression. They come across as fatique-prone, feelings of inadequacy, and experience sleep problems. Phantasy defenses are often used and they do not respond very well to psychotherapy.

Research cited in Table 34(b) show that alcoholics rate higher than normal populations on this scale: 14 of the 16 samples have means above 5,5 while 12 of them are above the upper mean limit for the normal group.

b) Findings:

Although the CBC sample ($\bar{x}$ = 6,2; SD = 2,50) is lower than 12 of the means of the other samples, it is above the mean of the general population.

c) Interpretation:

Apprehension is a factor found in alcoholics which differentiates them from the general population. Strong guilt feelings appears to be a clear indicator of stress in alcoholics, although it might decrease during treatment periods. Nevertheless, the alcoholics appear to become a little more apprehensive as they realize that they have shortly to face their outside world again.

2.13 Factor Q1 (Conservatism vs Radicalism):

a) Hypothesis:

This factor measures rebelliousness. Low scorers tend to respect authority and traditions and retain past life ways, cultural values and norms. An unclear profile emerges from past research cited in Table 34(b) on the one hand the alcoholic may be thought to be conservative because his ego tries to defend itself by creating features which remain unchanged and thereby provide forms of security, while on the other hand, they might prefer to become rebellious against both internalized and external social restraints and taboos. The wide scatter of scores found in the previous samples confirms an opposite hypothesis. 6 of the 16 samples have means above the normal population mean, with 4 of them above the 6,3 upper mean limit. 10 of the 16 are below the norm mean while 4 of them are below the 4,7 lower limit mean.

b) Findings:

The CBC sample ($\bar{x}$ = 6,1; SD = 1,76) falls towards the upper limit.

c) Interpretation:

The CBC sample tends to reflect a rebelliousness factor. Frustration and anxiety tend to increase when this score is shown to rise.

2.14 Factor Q2 Self-Sufficiency:

a) Hypothesis:

Q2- scores indicate conventional attitudes together with social approval dependent on group acceptance. Q2+ scores are self-dependent and such scoring persons prefer their own company which in extreme cases may be indicative of scizoid tendencies. Dependency has been often cited as a typical element in the profiles of alcoholics. Although we may offer

the hypothesis that alcoholics are group dependent, the research in Table 34(b) mirrors an opposite picture: 11 of the 16 means of the samples are above the mean of the general population with 5 of them above the upper mean limit.

b) Findings:

The CBC sample ($\bar{x}$ = 5,4; SD = 2,31) is similar to the 5,5 mean of the general population.

c) Interpretation:

This factor does not differentiate the alcoholic from the normal population.

2.15 Q3: Self Sentiment (Self-concept and Social Image):

a) Hypothesis:

Scale Q3 "represents the level of development of the conscious, behaviour-integrating self-sentiment, i.e. the extent to which the person has crystallized for himself a clear, consistent, admired pattern of socially approved behaviour, to which he makes definite efforts to conform" (Cattell et al., 1974, p.106-107). Low scores indicate overreactivity because the person is unable to productively handle stress. Because alcoholics appear to have a history of an inability to control life's problems including their drinking, they are assumed to be biased towards lower self-sentiment integration. The findings of research cited in Table 33 shows that 12 of the 16 samples have means below the mean of the general population, while 7 are lower than the low mean limit.

b) Findings:

The CBC sample ($\bar{x}$ = 5,6; SD = 1,85) closely resembles the general population on this anxiety factor.

c) Interpretation:

The CBC sample have neither a low or high self-sentiment score which can be interpreted as having a more positive self-image than most of the other samples cited in the Table 34(b).

2.16 Q4: Anxiety (Ergic Tension/Id Pressure):

a) Hypothesis:

Scale Q4 is probably the best indicator of neurotic anxiety on the 16 PF. It measures free-floating anxiety and is associated with depression. Research cited above in Table 34(b) convincingly show that alcoholic samples are tense and frustrated. 15 of the 16 sample means are above the mean of the general population while 14 of them lie above the upper mean limit.

b) Findings:

The sample of the CBC has a mean ($\bar{x}$ = 6,4; SD = 2,02) above the mean of the general population even when the upper mean limit is used. It is nevertheless below all the others except two of the other samples' means.

c) Interpretation:

The Q4 factor appears to single out the alcoholic from the normal population more than any other 16 PF factor except the C factor. Both the Q4 and C scales deal with emotionality, anxiety and tension. Low frustration tolerance thresholds evoke much of the alcoholic's neurotic anxiety.

2.17 Conclusions:

The following factors are found to be above the means of the general population: (A+) Extraversion, (L+) Suspicion, (M+) Imagination, (O+) Apprehension, (Q1+) Radicalism, and (Q4) Id Pressure.

Factors which have means below those of the general population are (C-) Ego Strength, (F-) Surgency, and (H-) Sociability.

The following factors have means which are very similar to those of the general population: (B) Intelligence, (E) Dominance, (G) Superego Strength, (I) Dependency, (N) Shrewdness, (Q2) Self-Sufficiency, (Q3) Self-Sentiment.

If the factors which are both above and below the general population means are grouped together, the profile of the CBC sample of male alcoholics shows that they experience feelings of anxiety and depression, do not conform to social norms and values, are rebellious towards themselves and others and are suffering from paranoid tendencies. Interpersonal relation-

ships cause ambivalence: they are extraverted on the one hand but suffer from satisfying their social needs. It seems that their guilt feelings handicap them in forming stable interaction with others. On certain factors they are similar to the general population: they appear to have been drawn from an average intelligence range, their dependency is biased neither towards others nor themselves. The fact that their superego functions seem normal may be unexpected although this should be seen as leading slightly towards overcontrol.

3. IPAT Anxiety Scale:

TABLE 35 IPAT Anxiety Scale. Means and Standard Deviations for the Male Alcoholic Sample of the Cornelius Bekker Clinic.

SCALE		1 2 3 4 5 6 7 8 9 10	M	SD
T	Manifest/Free Floating	0 1 3 3 1 3 5 2 1 6	6,64	2,61
A	Overt/Symptomatic	0 1 3 2 0 4 3 2 4 6	7,04	2,64
B	Covert/Hidden	0 3 0 2 7 3 2 4 0 4	6,12	2,45
Q3-	Self-sentiment/-Concept	0 2 2 2 3 4 5 4 0 3	6,16	2,32
C-	Ego Strength/Emotion	0 1 1 3 2 5 5 1 7 0	6,52	2,09
L	Suspiciousness/Paranoia	0 1 2 3 3 10 1 3 0 2	5,84	1,97
O	Guilt Proneness	0 2 1 3 3 4 2 5 1 4	6,44	2,47
Q4	Frustration Tension/Id	0 1 1 3 2 4 6 2 5 1	6,56	2,10

The mean sten for the general population is 5,5 while the range for "normal" scores is from sten 4 to 7. The "danger" sten scores are 8 and above.

3.1 Total Anxiety:

A male alcoholic sample of in-patients score a mean total score (N = 95; $\bar{x}$ = 7,0) above the general population mean (Cattell, Scheier and Madge, 1968, p.14). An hypothesis based on the research cited in Chapter 2 supports the idea that alcoholics are more anxious than normal populations is suggested.

The total anxiety mean ($\bar{x}$ = 6,64; SD = 2,61) is above the general population mean. 9 cases have scores above the 7 sten, while 12 lie within the "normal" range. The CBC sample experiences free-floating anxiety which is greater than normal groups.

3.2 A-Scores: Overt Anxiety:

The CBC sample's mean ($\bar{x}$ = 7,00; SD = 2,64) is above the mean of the general population. 12 cases have stens in the "danger" zone. They are aware of their symptomatic anxiety which can be associated with physical expressions of hostility.

3.3 B-Scores: Covert Anxiety:

The mean of the CBC sample ($\bar{x}$ = 6,12; SD = 2,45) is above the mean of the general population. While 8 cases have stens in the danger area, 14 stens lie in the "normal" zone. Hidden anxiety is less a source of concern to them than is overt anxiety.

3.4 Q3-: Self-Sentiment Scores:

Of the 16 cases with stens above the general population mean, 7 lie in the "danger" zone. The CBC sample's mean ($\bar{x}$ = 6,16; SD = 2,32) is above the general norm. It appears that they have failed to integrate their behaviour around a clear self-concept and tend to be rebellious as a group.

3.5 C-: Ego Strength:

Of the 17 cases with stens above the general population norm, 8 lie in the danger area. The CBC sample's mean ($\bar{x}$ = 6,52; SD = 2,09) is above the general norm. It is biased towards lower ego strength which implies that they have problems controlling and expressing frustrative tensions in appropriate ways. Regressive trends tend to dominate and prevent normal ego growth.

3.6 L: Suspiciousness:

While 16 of the CBC cases have means above the general population mean, only 5 are in the higher sten zone. The mean ($\bar{x}$ = 5,84; SD = 1,97) is the lowest of all those obtained on this test.

The sample does not appear to be suffering from paranoia-type insecurity which leads to isolation.

3.7 O: Guilt Proneness:

10 of the 16 cases in the CBC sample which have means above the general population mean, are in the "danger" zone. The mean of the total sample ($\bar{x}$ = 6,44; SD = 2,47) is greater than the norm.

The sample is assumed to experience feelings of unworthiness, depression, and guilt which are generated by the pressures of an overpowering superego.

3.8 Q4: Id Pressure (Frustration Tension):

Of the 14 cases in the CBC who have means above the norm, 8 have stens of 8 or more. The CBC sample's mean ($\bar{x}$ = 6,56; SD = 2,10) is higher than the general mean.

The sample is prone to tension, irritability and emotionality which are evoked by Id pressures which generate anxiety through the frustration of needs and drives.

3.9 Conclusions:

The CBC sample scores higher means on all the scales than the general population. The male alcoholics in the CBC sample experience a wide spectrum of anxiety at levels higher than the normal population. Support is found for the hypothesis that alcoholic males are still victims of anxiety at the termination of their treatment.

4. Zung Self Rating Depression Scale (ZSDS):

The following table of values was obtained by the sample on the ZSDS. The range of scores is from 1 to 4 and the frequency for each is given in the first column. The mean and standard deviation for each variable follows.

TABLE 36: ZSDS Means and Standard Deviations for Cornelius Bekker Clinic Sample

	Variable Frequency	1	2	3	4	Mean	SD
1	Depressed feelings	10	12	3	0	1,72	0,68
2	Diurnal variation	15	2	3	5	1,92	1,26
3	Crying spells	22	3	0	0	1,12	0,33
4	Sleep problems	10	8	5	2	1,96	0,98
5	Appetite loss	12	2	6	5	2,16	1,25
6	Libido/Sex loss	13	7	3	2	1,76	0,97

7	Weight Loss	20	3	2	0	1,28	0,61
8	Constipation	17	7	1	0	1,36	0,57
9	Tachycardia	17	7	1	0	1,36	0,57
10	Fatigue	14	77	2	2	1,68	0,95
11	Confusion	16	3	5	1	1,64	0,95
12	Psychomotor retarded	12	2	9	2	2,04	1,10
13	Restlessness	10	6	5	4	2,12	1,13
14	Hopelessness	12	2	7	4	2,12	1,20
15	Irritability	15	6	3	1	1,60	0,87
16	Indecisiveness	16	3	6	0	1,60	0,87
17	Personal devaluation	12	7	4	2	1,84	0,99
18	Emptiness of life	8	5	7	5	2,36	1,15
19	Suicidal thoughts	22	3	0	0	1,12	0,33
20	Life dissatisfaction	11	6	4	4	2,04	1,14

If the above table is regrouped according to ranking of the means of the variables, the main symptomatic groupings may be derived.

TABLE 37 ZSDS Variables Ranked According to Mean Scores.

Rank Order	Mean ZSDS Score	Item Number	Variable
1	2,36	18	Emptiness
2	2,16	5	Appetite decrease
3	2,12	13	Restlessness
	2,12	14	Hopelessness
4	2,04	12	Psychomotor retardation
	2,04	20	Life dissatisfaction
5	1,96	4	Sleep problems
6	1,92	2	Diurnal variation
7	1,84	17	Personal devaluation
8	1,76	6	Decreased libido/sex drive
9	1,72	1	Decreased affect
10	1,68	10	Fatigue
11	1,64	11	Confusion
12	1,60	15	Irritability
	1,60	16	Indecisiveness

13	1,36	8	Constipation
	1,36	9	Tachycardia
14	1,28	7	Weight loss
15	1,12	3	Crying spells
	1,12	19	Suicidal Thoughts

The 20 items have arbitrarily been divided into thirds so that the results can be compared with a depressive sample examined by Zung (1965, p.63-70). He divides 56 depressive patients into two categories called a Depressive Disorder (DD) group and Disorders Other (DO) group. After comparing them on the ZSDS he finds the following:

TABLE 38. Depressive Disorder and Other Disorder Patients: Mean Indexes Before and After Treatment.

	DD Group	DO Group
Before treatment ZSDS index range:	0,63 - 0,90	0,38 - 0,71
Mean index	0,74	0,53
After treatment ZSDS index range:	0,30 - 0,50	0,25 - 0,50
Mean index	0,39	0,33

(Zung, 1965, p.66-67)

TABLE 39. Severity of Symptoms of Depressed Patients and Other Disorder Patients Before and After Treatment.

A similar tabulation was applied to the DD and DO groups.

Symptoms of DD Patients Before Treatment			DD Patients After Treatment			Symptoms of DO Patients Before Treatment		
Rank Order	Mean ZSDS Score	Item Number	Rank Order	Mean ZSDS Score	Item Number	Rank Order	Mean ZSDS Score	Item Number
1	3,6	4	1	2,3	4	1	3,5	4
	3,6	10	2	2,0	1	2	2,9	16
	3,6	12		2,0	7	3	2,8	2
2	3,2	1	3	1,9	5	4	2,6	12
	3,2	5		1,9	19			
3	3,1	2	4	1,8	12	5	2,5	10

	3,1	13	5	1,7	20		2,5	13
	3,1	16					2,5	15
	3,1	20	6	1,6	13	6	2,3	1
			7	1,5	11		2,3	14
4	3,0	7	8	1,4	10	7	2,2	8
	3,0	11		1,4	18	8	1,9	5
	3,0	14	9	1,2	3		1,9	17
	3,0	18	10	1,1	15		1,9	18
5	2,9	6		1,1	16			
	2,9	19				9	1,7	3
6	2,5	17	11	1,0	9	10	1,6	6
			12	0,9	2	11	1,5	11
7	2,4	9		0,9	17		1,5	20
	2,4	15	13	0,8	8	12	1,4	7
8	2,3	3		0,8	14		1,4	9
9	2,2	8	14	0,7	6		1,4	19

(From Zung, 1965, p.68)

The symptoms of the DD patients before treatment mainly involve physiological concommitants with a depressed affect as the worst complaints (upper third), and somatic complaints least (lower third), with the psychological complaints in the middle (central third). After treatment the same patients feel that most of their symptoms have improved, especially the physiological symptoms with concommitant affect (upper third), then improvements in the psychological concommitants, with the somatic complaints last.

The DO patients rate as their worst symptoms a mixture of physiological and psychological concommitants although there is no clear-cut division between them.

A glance at the means of the CBC, DD and DO samples show that the DD patients experience greatest depression symptoms before treatment, then come the DO before treatment, followed by the CBC after treatment with the DD after treatment last. The level of depression of the CBC sample shows that they are depressed but the degree is less severe than for more purely depressive groups.

A closer look at the variable ranking means of the CBC sample reveals that

they are not leading full lives and that they have a sense of loss of appetite. They feel apprehensive, restless and pessimistic about the future. Their psychomotor activity is experienced as retarded when compared to earlier times. In the middle third of variables they report sleep problems, distress progression through the day, and feelings of unworthiness. Fatigue, irritability, decreased emotional feeling for others may be associated with their lowered libido manifestations. Confusion and indecision are also of secondary importance as perceived symptoms of their depression.

In the lowest third are those symptoms which they feel are not symptomatic of depression. These include physiological concommitants of constipation, tachycardia, and weight loss. Crying bouts and suicidal thoughts appear at the bottom of the list.

An analysis of the subjects' individual total scores is presented in the table below. As the lowest possible score for each item is 1, the lowest possible total that a subject can obtain is 20 for all the variables. The maximum score that each subject can score is 80. Scores below 30 indicate that the person does not report symptoms of depression. Scores between 31 and 39 have mild depression while those scores between 40 and 59 are having problems with depression. Scores of 60 upwards indicate that the depression is severe.

TABLE 40. Ranked Total ZDSS Scores Into 3 Groups.

Problematic Group	
Rank	Total
1	56
2	54
3	49
4	48
5	44
6	42
7	40
	40

Mild Group	
Rank	Total
8	38
	38
9	36
	36
10	34
11	33
12	31

Low Group	
Rank	Total
13	30
	30
14	28
15	27
	27
16	22
	22
	22
	22
17	21

While 8 subjects (32%) have depression problems, 7 (28%) suffer only mildly and 10 (40%) very little at all from depressive symptoms.

Conclusions:

According to the results obtained by the CBC sample on the ZSDS, they are more depressed than the general population, but are not as severely depressed as depressed samples.

The CBC sample reflects most depressive symptoms in their feelings of emptiness, hopelessness and dissatisfaction with their lives. Physiological symptoms which are experienced by them are the losses of appetite and psychomotor activity. Those variables which rate low as symptoms of depression which are significant are the physiological signs of weight loss, tachycardia, constipation and fatigue. The oft quoted factor of depression and suicide in alcoholics is rejected by this sample.

5. Beck Depression Inventory (BDI):

In the table for the Beck Depression Inventory the frequency, mean and standard deviation was obtained for each variable for the sample.

TABLE 41. Frequencies, Means and Standard Deviations for BDI

Variable Frequency		1	2	3	4	Mean	SD
A	Mood	5	20	0	0	1,80	0,41
B	Pessimism	19	4	1	1	1,36	0,76
C	Self-esteem/Failure	9	10	6	0	1,88	0,78
D	Dissatisfaction	12	13	0	0	1,52	0,51
E	Guiltiness	8	7	9	1	2,12	0,93
F	Punishment	11	2	2	10	2,44	1,42
G	Self-image (hate)	10	15	0	0	1,60	0,50
H	Self-accusations	11	1	12	1	2,12	1,05
I	Self-punitive	20	5	0	0	1,20	0,41
J	Crying spells	16	4	0	5	1,76	1,20
K	Irritability	15	8	0	2	1,56	0,87
L	Social withdrawal	17	7	1	0	1,36	0,57
M	Indecisiveness	16	5	3	1	1,56	0,87
N	Body image	21	3	1	0	1,20	0,50

O	Work output/Inhibition	14	9	2	0	1,52	0,65
P	Sleep problems	13	7	5	0	1,68	0,80
Q	Fatigue	10	15	0	0	1,60	0,50
R	Appetite loss	17	8	0	0	1,32	0,48
S	Weight loss	21	3	1	0	1,20	0,50
T	Somatic concern	17	7	1	0	1,36	0,57
U	Libido/Sex loss	18	5	2	0	1,36	0,64
	Totals	300	58	46	21	1,60	0,81
	Means	14,3	7,5	2,2	1,0		
	Standard deviations	4,5	4,8	3,3	2,4		

If the table above is restructured with the ranking of means to differentiate which variables provoke greatest depression, then the following emerges:

TABLE 42. Ranking of BDI Means

Rank	Variable		Mean
1	F	Punishment	2,44
2	H	Self-accusations	2,12
	E	Guiltiness	2,12
3	C	Self-esteem/Failure	1,88
4	A	Mood	1,80
5	J	Crying spells	1,76
6	P	Sleep problems	1,68
7	Q	Fatigue	1,60
	G	Self-image (hate)	1,60
8	K	Irritability	1,56
	M	Indecisiveness	1,56
9	D	Dissatisfaction	1,52
	O	Work output inhibition	1,52
10	B	Pessimism	1,36
	L	Social withdrawal	1,36
	T	Somatic concern	1,36

	U	Libido loss	1.36
11	R	Appetite loss	1,32
12	I	Self-punitive	1,20
	N	Body-image	1,20
	S	Weight loss	1,20

The Beck Depression Inventory (BDI) indicates the subject's self-perception of his mood condition and the accompanying symptoms. The CBC sample reflects that their greatest depressive symptoms are that they deserve punishment, they have many faults for which they accuse themselves, they are bad and worthless persons who are failures in life, and a mood of unhappiness and sadness.

Variables which result in lower degrees of depression show that the sample are aware of somatic effects of depression. They have more frequent crying spells than before and they are experiencing sleep problems. Tiredness and fatigue awareness are responsible for a reduction in activity levels. They tend to be dissatisfied with themselves which sometimes borders on self-loathing. Impatience and the inability to make decisions contribute to the list of symptoms which underlie depression.

Those variables which are <u>not</u> associated with perception of depression symptoms have to do with boredom and life-dissatisfaction, a drop in work output, a pessimism about the future, a loss of interest in interpersonal interaction, concern with their general bodily health and loss of interest in sexual activities. Physically they also report that they do not suffer from loss of appetite and therefore they do not report weight loss. Their self-image perceptions have not decreased and they do not contemplate destructive behaviours like suicide.

The total mean for all the variables ($\bar{x}$ = 1,60; SD = 0,81) indicates that the level of depression is not severe. This does not support the ideas popularly held that alcoholics are more depressed than the normal population.

An analysis of the subjects' individual total scores supports the above findings that the CBC sample is not, on average, a depressive group. With the lowest possible score of 1 for each of the 21 variables, the lowest possible total score

that each one can score is 21. The maximum possible score is 84. Scores between 21 and 31 indicate that the persons do not have any trouble with depression. Scores between 32 and 40 indicate they are experiencing mild symptoms of depression, while those who have total scores between 41 and 46 are experiencing problems related to depression. Persons who score above 47 are severely plagued by depression. The Table below ranks the total scores of the CBC sample:

TABLE 43. Group Rankings of BDI Total Scores.

Problematic Group	
Rank	Total
1	44
	44
	44
2	41
	41

Mild Group	
Rank	Total
3	40
4	39
	39
5	37
	37
6	36
7	35
	35
8	34

Low Group	
Rank	Total
9	30
	30
10	29
11	28
12	27
13	26
	26
14	25
	25
	25
15	22

5 of the 25 subjects have problems with depression while 11 are not troubled by depressive symptoms. The mean ($\bar{x}$ = 33,6; SD = 6,95) for the data in Table 43 divides the group into two subgroups with the low group on the one side and the other two on the other side.

Conclusions:

The CBC sample does not appear to be a grossly depressed group. Their mean depression level is not severe enough to be taken as significant.

The most quoted symptoms of depression involve their self-punitive thoughts combined with self-accusations and loss of self-esteem. Guilt feelings and a depressed mood are concomitants with the lack of a positive self-concept. It would seem that they feel depressed because of their sense of failure in life.

6. The Purpose in Life Test (PIL):

The table below represents the frequencies of each variable together with their means and standard deviations obtained from the sample of 25 male alcoholics at the termination of their treatment:

TABLE 44. Means and Standard Deviations of PIL Variables.

	Variable Frequency	1	2	3	4	5	6	7	Mean	SD
1	Boredom	0	2	5	1	6	7	4	4,92	1,61
2	Routine	0	1	3	4	9	4	4	4,96	1,37
3	Aimlessness	0	0	4	0	6	6	9	5,64	1,41
4	Purposelessness	0	1	7	0	6	3	8	5,08	1,73
5	Sameness	2	4	3	0	4	7	5	4,64	2,08
6	Dislikes life	0	1	5	1	6	4	8	5,24	1,64
7	Retirement idleness	1	0	0	1	6	10	7	5,76	1,30
8	Unfulfilled life	2	1	5	3	8	4	2	4,36	1,66
9	Emptiness	0	1	6	0	7	8	3	4,96	1,49
10	Worthlessness	2	3	1	1	6	7	5	4,88	1,94
11	Existential loss	1	4	4	0	2	7	7	4,88	2,07
12	Confusion	1	3	5	1	6	7	2	4,48	1,73
13	Irresponsibility	0	1	2	2	8	5	7	5,40	1,41
14	Limited life	0	0	3	0	4	8	10	5,88	1,30
15	Fear of death	2	3	3	3	3	7	4	4,56	1,96
16	Suicidal thoughts	1	2	2	1	2	3	14	5,64	1,96
17	Meaninglessness	0	1	2	2	3	6	11	5,76	1,51
18	Externally controlled	0	5	6	1	2	5	6	4,56	1,98
19	Daily boredom	0	1	0	0	9	8	7	5,76	1,13
20	Purposeless aims	0	0	2	0	7	8	8	5,80	1,15

The total mean 5,16 (SD = 1,69) divides the variable means into two groups with 9 means above and 11 means below the total mean. Because the normal mean is 4,00 the total mean of the sample indicates that they have purpose in life.

If the variables are ranked according to their means and they are divided arbitrarily into 3 groups, then the groups of variables are:

TABLE 45. Ranking of PIL Means into Higher, Middle and Lower Groups.

Highest Means		
Rank	Number	Variable
1	14	Limited life
2	20	Purposeless aims
3	17	Meaninglessness
	19	Daily boredom
3	7	Retirement idleness
4	16	Suicidal thoughts
	3	Aimlessness
Middle Range Means		
5	13	Irresponsibility
6	6	Dislikes life
7	4	Purposelessness
8	2	Routine
	9	Emptiness
9	1	Boredom
Lower Variables		
10	10	Worthlessness
	11	Existential loss
11	5	Sameness
12	15	Fear of death
	18	Externally controlled
13	12	Confusion
14	8	Unfulfilled life

A lack of purpose in life is reflected in feelings about worthlessness of their past life and they question their existence. They see every day to be the same as other days and feel afraid when they think about death. They feel that their lives are more in the control of others which makes them confused in their relationship towards the world. They have made little progress in achieving whatever goals they might have had. The description above appears too severe if we note that even the lowest variable mean is

above the normal or neutral mean of 4,00. The interpretation must therefore be modified to fit a mild form.

The group expresses purposefulness in life in the variables with the higher mean scores [those above the total mean (5,16]. According to the mean scores obtained, the sample accepts its freedom to make choices and the discovery that clear-cut goals and satisfying life purposes are not lacking. On the whole they have the ability to find purpose in life. They state generally that they find facing daily tasks a source of pleasure and satisfaction, and look forward to being active on retirement. Suicidal thoughts are avoided while clear goals and aims are factors in their life attitudes. Again the description should be tempered because the means lie within the normal or neutral zone. They should rather be seen as tendencies than as extremes.

When we apply the suggested cutoff points to the total scores obtained by each subject in the sample, the following table can be compiled:

TABLE 46. Groups According to PIL Cutoff Scores.

S C O R E S	N
Equal to or above 113 (high)	9
Between 92 and 112 (neutral)	8
Equal to or below 91 (low)	8
Mean = 103,16; SD = 20,80;N = 25	

8 of the sample have a low purpose in life score while 9 rate themselves as having a meaningfullness to their lives. The bias is towards having purpose in their lives.

Conclusions reached by Von Forstmeyer (1970, p.2971) are supported: she finds in her sample of 20 male alcoholics that they are often unable to organize their existence around a definite purpose, but are aware of the missing positive values in their lives. The self-identified alcoholic considers himself to be a victim or plaything of external circumstances (more than of internal conditions), but only in rare instances shifts the blame onto a general rejection of traditional values and customs. They consider themselves to be victims of conformist and collective thinking, and look upon their existence

as meaningless and without purpose. As in the CBC sample the quest for meaning and purpose in a meaningless existence is still alive. She concludes that alcoholism can be seen as a manifestation of existential pressures which could be defined as "a continuing and persistently increasing anxiety of meaninglessness and lack of purpose in life."

Increase in PIL scores for male alcoholics between early phases of treatment and at the termination of treatment are cited by Jacobson, Ritter and Mueller (1977, p.314-316).

7. The Seeking of Noetic Goals Test (SONG):

The table below represents the frequencies of each variable together with the mean and standard deviation obtained from the sample of 25 male alcoholics at the termination of their treatment:

TABLE 47. SONG Frequencies; Means and Standard Deviations.

Variable	Frequency							Mean	SD
	1	2	3	4	5	6	7		
1 Ultimate meaning	0	3	3	4	4	5	6	4,92	1,73
2 Destined importance	4	1	4	2	7	3	4	4,28	2,01
3 New interests	0	6	6	4	7	1	1	3,76	1,42
4 Missing element	1	4	1	5	5	6	3	4,56	1,76
5 Restlessness	2	5	4	5	4	1	4	3,92	1,89
6 Future fulfillment	1	2	1	3	6	3	9	5,24	1,81
7 Hope for future excitement	0	2	5	1	7	7	3	4,84	1,55
8 Fantasy about new identity	2	3	0	3	5	6	6	4,92	1,96
9 Lack - and - need of purpose	0	6	3	1	8	2	5	4,48	1,85
10 Need to achieve novelty	1	0	0	7	5	7	5	5,24	1,42
11 Change life objectives	2	7	2	7	3	3	1	3,60	1,69
12 Disturbed by life mysteries	2	7	5	8	2	0	1	3,20	1,38
13 Need for new lease of life	2	5	3	4	3	4	4	4,16	2,00
14 Fickleness of goal achievement	0	4	6	3	9	2	1	4,08	1,41
15 Need for adventure	1	3	5	6	6	2	2	4,08	1,55
16 Need to find myself	0	3	1	4	6	4	7	5,12	1,67
27 Loss of life objectives	3	2	3	3	8	4	2	4,24	1,81
28 Awareness of purpose in life	2	3	2	4	9	1	4	4,36	1,80
19 Need for worthwhile job	3	6	4	0	6	3	3	3,84	2,03
20 Need for unusual achievement	0	3	2	4	5	8	3	4,88	1,56

The total mean 4,39 divides the mean vaiables into two groups with 10 variables in each half. 15 variables have means above the normal mean (4,00). The implication is that the sample as a group is in search of noetic goals.

If the variables are ranked according to their means and a median division is used, then the groups are:

TABLE 48. Ranking of SONG Means and Dividing Them by the Median into Two Groups.

Highest Means		
Rank	Number	Variable
1	6	Future fulfillment
	10	Need to achieve novelty
2	16	Need to find myself
3	1	Ultimate meaning
	8	Fantasy about new identity
4	20	Need for unusual achievement
5	7	Hope for future excitement
6	4	Missing element
7	9	Lack-and-need of purpose
8	10	Awareness of purpose in life

Lowest Means		
Rank	Number	Variable
9	2	Destined importance
10	17	Loss of life objectives
11	13	Need for new lease of life
12	14	Fickleness of goal achievement
	15	Need for adventure
13	5	Restlessness
14	19	Need for worthwhile job
15	3	New interests
16	11	Change of life objectives
17	12	Disturbed by life mysteries

The seeking of purposeful goals in life implies that higher scores are to

be obtained. It is important that alcoholics leave the clinic in a positive frame of mind. It also reflects their attitude towards life in the "outside world" in the here-and-now.

Those variables which most identify their search for meaningful goals are the feeling that the greatest fulfillment of their lives lies still in the future where they think about achieving something new and different - a feeling which they have experienced fairly strongly for a long time. Coupled with this is the thought which involves the ultimate meaning of life, finding a new identity and a new place for their lives, and a determination to achieve something over and above the ordinary. In their future they hope to find something exciting because some or other strange element is lacking. They express an awareness of the lack of meaning and purposefulness in their lives and add that they need to find real meaningfulness. When we consider that the normal mean is 4,00, then the total mean obtained by the sample (4,39) can be interpreted as showing that they possess the need to find noetic goals although it is still within the neutral range. The sample therefore tends towards the pole for seeking noetic purposes in life.

The suggested normative cutoff point by Crumbaugh (1977, p.903) for the SONG test is 79. In the table below the total SONG scores for each subject is collectively presented:

TABLE 49. SONG Categories Above and Below the Cutoff Score.

SONG Categories	N
Above 79 (High)	17
79 and Below (low)	8
Mean = 87,72; SD=20,38;N=25	

68% of the sample score total SONG scores above 79. The total mean score (87.72) is above the expected mean (80,00). These two findings imply that the CBC sample does want to find meaningful goals in their lives.

Correlations of PIL and SONG Tests:

Crumbaugh (op. cit.) suggests that the SONG shows a negative but not high correlation with the PIL. High PIL scores indicate that a high purpose in life is present. Thus, persons who already have such purpose would not be as motivated to find it as those who score low PIL scores. On the other hand, a person with low PIL (he lacks purpose in life) should normally be trying to find meaning in his life. He should score high on the SONG. Simply stated, high PIL/low SONG and low PIL/high SONG correlations are

expected. Alcoholics at the end of their treatment are hypothesized more to be low PIL/high SONG types than the converse. Those who are low PIL/low SONG should be seen as patients who appear to have very little positive prognosis for their future after leaving the clinical setting. They have no purpose in life and are not motivated (or have given up trying) to seek meaningful goals. Such patients appear to be at higher risk.

The table below contains the total scores for each subject together with the mean and standard deviation for both the PIL and SONG tests:

TABLE 50. Direction of Relationships between PIL and SONG Scores for Each Subject.

P I L				S O N G			Direction of relationship							
Subject	Total	Mean	SD	Total	Mean	SD	HP LS	HP HS	NP LS	NP HS	LP LS	LP HS	P-HS →	P-LS →
1	97	4,85	1,66	110	5,50	2,06				+			+	
2	87	4,35	1,42	88	4,40	1,73						+	+	
3	89	4,45	1,50	92	4,60	0,88						+	+	
4	67	3,35	1,04	87	4,35	0,93						+	+	
5	84	4,20	1,94	104	5,20	1,06						+	+	
6	91	4,55	1,50	74	3,70	1,95					+			+
7	101	5,05	1,00	64	3,20	1,24	+							+
8	124	6,20	0,77	87	4,35	1,39		+						+
9	124	6,20	0,62	40	2,00	1,08	+							+
10	117	5,85	0,93	83	4,15	1,53			+					+
11	106	5,30	0,92	73	3,65	1,04			+					+
12	130	6,50	1,15	83	4,15	2,46		+						+
13	109	5,45	1,37	101	5,05	1,73				+				+
14	128	6,40	1,85	62	3,10	2,67	+							+
15	80	4,00	1,12	106	5,30	0,98						+	+	
16	73	3,65	1,53	97	4,85	1,50						+	+	
17	119	5,95	0,22	68	3,40	1,14	+							+
18	110	5,50	2,67	117	5,85	1,09				+			+	
19	112	5,60	1,90	132	6,60	0,99				+			+	
20	94	4,70	1,30	115	5,75	1,16				+			+	
21	98	4,90	1,55	70	3,50	0,83			+					+
22	118	5,90	1,17	99	4,95	1,19	+							+
23	129	6,45	0,60	74	3,70	2,00	+							+

24	60	3,00	1,41	87	4,35	1,53						+	+	
25	134	6,70	0,92	80	4,00	1,69		+						+
				Totals			6	3	3	5	1	7	11	14

The code for the columns above is:

HP = high PIL score; NP = Neutral PIL score; LP = Low PIL score

LS = low SONG score; HS = High SONG score;

P-HS = PIL score is lower than the SONG score;

P-LS = PIL score is higher than the SONG score.

Findings based on Table 50

Negative correlations are shown by the 6 subjects who score high PIL low SONG, and 7 subjects score low PIL high SONG: i.e. a total of 52% who indicate the hypothesized relationship. On the other hand positive correlations are found for 4 subjects (3 have high PIL and high SONG; and one has a low PIL and low SONG score). 8 subjects score neutral PIL and SONG scores (3 on low SONG, and 5 on high SONG).

A table of cell frequency counts based on the above table gives the following data required for applying the Pearson Chi-Square correlation to test independence between the rows (PIL scores) and the columns (SONG scores):

TABLE 51. Cell Frequency Counts for PIL and SONG Tests.

	Low SONG	High SONG	Total
Low PIL	1	7	8
Neutral PIL	3	5	8
High PIL	6	3	9
Totals	10	15	25

The contingency table for calculating Chi-square is:

TABLE 52. Contingency Table for Chi-Square.

O	$\frac{R \times C}{N} = E$	/O-E/ = D	D^2	$\frac{D^2}{E}$
1	$\frac{8 \times 10}{25} = 3,2$	1-3,2 = -2,2	4,84	$\frac{4,84}{3,2} = 1,51$
7	$\frac{8 \times 15}{25} = 4,8$	7-4,8 = 2,2	4,84	$\frac{4,84}{4,8} = 1,01$
3	$\frac{8 \times 10}{25} = 3,2$	3-3,2 = -2,2	4,84	$\frac{4,84}{3,2} = 1,51$
5	$\frac{8 \times 15}{25} = 4,8$	5-4,8 = 0,2	0,04	$\frac{0,04}{4,8} = 0,08$
6	$\frac{9 \times 10}{25} = 3,6$	6-3,6 = 2,4	5,76	$\frac{5,76}{3,6} = 1,60$
3	$\frac{9 \times 15}{25} = 3,6$	3,3,6 = -0,6	0,36	$\frac{0,36}{3,6} = 0,10$
				$\Sigma\frac{(O - E)^2}{E} = 5,81$

The Chi-square correlation coefficient is 5,81 (df = 2; $\rho < 5\%$). A null hypothesis that there is no difference between the PIL and SONG scores is held. The hypothesis of a significant negative correlation between PIL and SONG scores is rejected. This is confirmed by the totals indicating the general direction of the relationship between the PIL and SONG scores in Table 50 11 subjects show the trend of PIL scores (low, neutral and high) being related to higher SONG scores, whereas 14 PIL scores have related lower SONG scores. The assumption that alcoholics would tend to fall into the category of low PIL and high SONG is not held.

A factor analysis study of the PIL, SONG and LAS (Life Areas Survey) based on scores obtained from a sample 248 students (189 females, 57 males, and 2 no sex indicated; median age 19,4 years) yields the following main factors: Factor 1: Purpose in Life, Factor 2: Goal Setting, Factor 3: Goal Achievement, Factor 4: Contentedness with Life, Factor 5: Existential Vacuum, Factor 6: Search for Adventure, Factor 7: Futuristic Aspirations, Factor 8: Internal-External Locus of Control, Factor 9: Self-Fulfillment, and Factor 10: Life View. (Reker and Cousins, 1979, p.85-91).

A similar factor analysis study is discussed in the next section.

8. Factor Analysis of the Data.

After applying the computational methods briefly outlined earlier the following sorted rotated factor loadings (patterns) emerge:

TABLE 53. Sorted Rotated Factor Loading of Factor I.

Factor I	Variables	Load
IPAT Total Anxiety		0,89
IPAT Covert Anxiety		0,87
IPAT O	: Guilt proneness	0,86
16 PF O	: Guilt proneness	0,85
16 PF Q4	: Id pressure/Frustration tension	0,82
IPAT L	: Suspiciousness/Paranoia	0,80
IPAT Overt Anxiety/Symptomatic		0,79
IPAT Q4	: Id pressure/Frustration tension	0.74
IPAT Q3(-)	: Self-sentiment/Self concept	0.70
IPAT C(-)	: Ego strength (-)	0,65
SONG 12	: The mystery of life puzzles and disturbs me...	0,64
16 PF C	: Ego strength (-)	0,64
PIL 13	: I am a very irresponsible (responsible) person	0,59
ZUNG 14	: I am optimistic about the future (-)	0,56
ZUNG 3	: I have bouts of crying	0,55
SONG 4	: I feel that some element which I can't quite define is missing from my life...	0,55
16 PF Q2	: Self-sufficiency (-)	0,53
ZUNG 4	: I have trouble sleeping at nights	0,53
ZUNG 20	: I still enjoy things I enjoyed earlier (-)	0,51

Factor I is predominantly a neurotic factor in which anxiety is prime and depression is secondary. All the IPAT Anxiety factors are present. Guilt, Id pressures, frustration, irresponsibility and low ego strength appear to be the major components. Hopelessness is related to physiological indicators of depression.

TABLE 54. Sorted Rotated Factor Loading of Factor 2.

Factor 2	:	Variables	Load
PIL 2	:	Life to me seems: (always exciting) completely routine	0,81
PIL 11	:	In thinking of my life I: often wonder why I exist (always see a reason for my being here)	0,70
BECK P	:	Sleep disturbance	0,69
PIL 17	:	I regard my ability to find a meaning, purpose or mission in life as: (very great) practically none	0,64
ZUNG 9	:	(Tachycardia) My heart beats faster than usual	0,60
PIL 14	:	Concerning man's freedom to make his own choices I believe man is: (absolutely free to make all life choices) completely bound by limitations of heredity and environment	0,59
PIL 6	:	If I could choose, I would prefer: never to have been born (like nine more lives just like this one)	0,59
ZUNG 15	:	I am more irritated than usual	0,58
PIL 18	:	My life is: (in my hands and I am in control of it) out of my hands and controlled by external factors	0,57
PIL 4	:	My personal existence: is utterly meaningless without purpose (very purposeful and meaningful)	0,56
SONG 20	:	I have felt a determination to achieve something far beyond the ordinary	0,56
SONG 18	:	I have been aware of all-powerful and consuming purpose toward which my life has been directed	0,56
16 PF Q3	:	Self-sentiment/Self-concept and Social image	0,55
16 PF : L	:	Suspicion/Paranoia	0,54
ZUNG 17	:	I feel I am something and worthwhile to others	-0,52

The majority of variables have a common factor related to existential problems (PIL 2, PIL 11, PIL 17, PIL 14, PIL 18; SONG 20, SONG 18), poor self-image (PIL 6, 16 PF Q3, ZUNG 17), and depression symptoms (BECK P, ZUNG 9, ZUNG 15 - physical symptom awareness factor).

TABLE 55. Sorted Rotated Factor Loading of Factor 3.

Factor 3	:	Variables	Load
BECK E	:	Guilt feelings	0,90
PIL 16	:	With regard to suicide I have: though of it seriously as a way out (never given it a second thought)	-0,90
ZUNG 2	:	I feel best in the mornings (Diurnal variation)	0,89
BECK S	:	Weight loss	0,74
ZUNG 8	:	I have problems with constipation	0,69
ZUNG 18	:	I lead a fairly full life	-0,69
ZUNG 7	:	I realize that I am losing weight	0,69
ZUNG 6	:	I still enjoy sex	-0,64
ZUNG 10	:	I get tired without any reason	0,55
ZUNG 5	:	I eat as well as earlier	-0,52
ZUNG 15	:	I am more irritated than usual	0,51

Factor 3 appears to be related mainly to the physical contributions to the awareness of depression. It is a psychosomatic depression factor: (ZUNG 2, BECK S, ZUNG 8, ZUNG 7, ZUNG 6, ZUNG 10, ZUNG 5, ZUNG 15). Guilt and self-destruction thoughts may be the underlying variables which result in the depression factor.

TABLE 56. Sorted Rotated Factor Loading of Factor 4.

Factor	:	Variables	Load
Residential Status			0,79
BECK L	:	Social withdrawal	0,76
Age of First Drinking Experience			-0,70
PIL 8	:	In achieving life goals I have made no progress whatsoever (progressed to complete fulfillment)	0,68
Marriage Status			-0,68
Employment Category			0,65
BECK Q	:	Fatigue	0,64
PIL 9	:	My life is empty, filled only with despair (running over with exciting good things)	0,62
PIL 10	:	If I should die today, I would feel that my life has been (very worthwhile) completely worthless	0,54

Academic Qualifications	-0,54
BECK M : Indecisiveness	0,53
Leadership at School (extramurally)	-0,52
Convictions for Alcoholism	0,51
16 PF N : Shrewdness	-0,51
Duration of Employment	-0,50

Factor 4 indicates a social factor (residential status, BECK L, first drinking experience, marriage status, type of employment, academic qualifications, leadership in extramural activities during school years, convictions for alcohol-related reasons, shrewdness, and duration of employment). A secondary feature is the feeling that life goals have not been achieved and causes an emptiness and worthlessness feeling.

TABLE 57. Sorted Rotated Factor Loading of Factor 5.

Factor 5 :	Variables	Load
BECK D :	General dissatisfaction	0,71
SONG 7 :	I hope for something exciting in the future	0,71
SONG 2 :	I have experienced the feeling that while I am best destined to accomplish something important, I cannot quite put my finger on just what it is	0.70
SONG 13 :	I feel myself in need of a "new lease on life"	0,67
SONG 5 :	I am restless	0,68
BECK 1 :	Unhappiness and depressive mood	0,59
SONG 4 :	I feel that some element which I can't quite define is missing from my life	0,58
BECK G :	Negative self-concept	0,58
BECK C :	Sense of failure as a person	0,57
SONG 10 :	I think of achieving something new and different	0,54
SONG 17 :	On occasion I have thought that I had found what I was looking for in life only to have it vanish later	0,53
SONG 8 :	I daydream of finding a new place for my life and a new identity	0,50

Factor 5 highlights the sense of past failure and prospects for the future (BECK D, SONG 7, SONG 13, SONG 5, SONG 4, BECK G, BECK C, SONG 10, SONG 17, SONG 8) together with a negative self-image (BECK D, BECK 1, BECK G, BECK C, SONG 8).

TABLE 58. Sorted Rotated Factor Loading of Factor 6.

Factor 6 : Variables	Load
Mother is Deceased	0.79
Father is Deceased	0.78
PIL 7 : After retiring, I would (do some of the exciting things I have always wanted to do) loaf completely the rest of my life	0,70
Age at Present	0,70
Parents Alive or Deceased	0,69
Number of Dependents (children)	0,55

Factor 6 is loaded with variables associated with family life and home (parental deaths, children, retirement inactivity and present age. The cluster does not have strong face validity towarrant an acceptable classification.

TABLE 59. Sorted Rotated Factor Loading of Factor 7.

Factor 7 : Variables	Load
BECK K : General irritability	0.70
BECK U : Loss of libido/Sex drive decrease	0,65
SONG 14 : Before I achieve one goal, I start out toward a different one	0,64
Attitude Towards Work	0,61

Factor 7 is loaded with variables related to restlessness and irritability and may be a long-shot link with the minimal brain damage/hyperkinetic hypothesis mentioned earlier. It undermines the alcoholic's ability to settle down so as to generate security in his life-style.

TABLE 60. Sorted Rotated Factor Loading of Factor 8.

Factor 8 : Variables	Load
SONG 9 : I feel the lack of... and a need to find... a real meaning and purpose in my life	0,81
16 PF Q1 : Rebelliousness	0,77
PIL 11 : In thinking of my life, I often wonder why I exist (always see a reason for my being here)	0,55

Factor 8 has too few variables which have common traits to be an accepted factor. It is therefore not considered as a meaningful factor.

TABLE 61. Sorted Rotated Factor Loading of Factor 9.

Factor 9 : Variables	Load
16 PF 1 : Emotional sensitivity and dependence	0,71
BECK F : Sense of being punished	0,63
16 PF F : Impulsivity	-0,63
ZUNG 19 : I feel that others will be better off if I was dead	0,51

Factor 9 appears to be loaded with variables related to emotional submissiveness (16PF I, ZUNG 19, 16PF F). The need to be punished as a control measure of assertiveness is suggested (BECK F).

TABLE 62. Sorted Rotated Factor Loading of Factor 10.

Factor 10 : Variables	Load
Church Affiliation	0,77
ZUNG 11 : My mind is as clear as before	0,59
ZUNG 5 : I eat as well as earlier	0,53

Factor 10 lacks clear common traits and is rejected as a significant factor.

Summary and Conclusions of Factor Analysis:

Factor 1 indicates a primary state of anxiety which reduces the ego-strength. It may be called a Neurotic Anxiety Factor.

Factor 2 includes problems related to noetic anxiety and self-image problems which lead to physical symptoms of depression. It may be called an Existential Neurosis Factor.

Factor 3 spotlights depression and may be assumed to be labelled Psychosomatic Depression.

Factor 4 deals with difficulties encountered in interpersonal interaction. It is a Social Interaction Factor.

Factor 5 is a Past Failure and Future Hope Factor. It is closely associated with the person's Self-Image.

Factor 6 is not significantly obvious, but may be termed a Family Life Factor.

Factor 7 is an Irritability Factor.

Factors 8 and 10 are unclear and are not considered as indicative factors.

Factor 9 is an Emotional Submissiveness Factor.

9. Conclusions of Test Results

The two main neurotic symptoms of anxiety and depression emerge as definite manifestations in male alcoholics at the termination of their treatment. Anxiety, the more severe symptom of the two, may be due to underlying pathology areas which include a rebellious and nonconformist attitude, conflict between extraversion and the lack of social interaction skills. Both overt and covert anxiety are problematic.

Depression is present but is not severe. The main components of the depressive syndrome are feelings of emptiness and hopelessness due to dissatisfaction concerning their lives. A poor self-image and self-concept may be connected to this sense of failure in life which provokes feelings of guilt and self punitiveness.

The depression is also covertly expressed via physiological symptoms like tachycardia, loss of appetite, sleep disturbance, loss of weight and a general feeling of restlessness.

Although the sample is not generally lacking a purpose in life, they do experience feelings of worthlessness, unfulfillment of their lives, confusion, being externally controlled, a fear of death and an existential vaccuum. They tend to be motiviated to seek meaningful goals in life. This is due to their awareness of having a need to find purpose in their lives by placing hope on the future so that they can find fulfillment, a new life and identity, future excitement and ultimate meaning.

They clearly indicate that they want to exchange a purposeless past for a meaningful future. They appear to have difficulty in establishing "roots" in life and are novelty seekers. This may be due to them being stimulus augmenters. The possible association between adult alcoholism and childhood hyperactivity is an interesting area which appears to require further investigation. Because they seem to have difficulty in controlling stimuli

receptiveness, they use alcohol to block this lack of control. A loss of control over the drinking results.

CHAPTER 5

SUMMARY

In chapter one the motivation for investigating the psychological profile of male alcoholics was suggested. His past pathological history, his present anxiety about his future when he re-enters his environment were mentioned.

In chapter two the literature review highlighted definitions of terms like "alcoholic" and "alcoholism". Psychological and physiological viewpoints are stressed. Classifications of types of alcoholics and phases of alcoholism models are presented. Profiles of alcoholics centre around psychophysiological features with the emphasis on the autonomic nervous system and the hypothalamus. Jellinek's disease model supplies central concepts like dependence, tolerance, loss of control, withdrawal and relapse. Controlled drinking by alcoholics is cited as a counter theory to the disease model.

Psyhcoanalytic models emphasize oral dependency, parent-child relationships, dependency conflicts, infantile neuroticism and inferiority factors. The clinical profiles of male alcoholics are quoted. Importance is laid on a weak ego, stimulus augmentation, field dependence and neurotic symptomology. Conflict and the role of coping mechanisms in dealing with frustration are integral parts of the alcoholic as a neurotic personality. The main spotlight falls on anxiety and depression. The existentialistic profile of alcoholics draws mostly from Frankl's theories of searching for meaning. Learning and conditioning principles lend support for the tension-reduction model hypothesis of alcoholism.

In chapter three the method of investigation, the test battery and statistical procedures are referred to. The test battery consists of a biographical questionnaire, the 16PF Questionnaire, IPAT Anxiety Scale, Zung Self Rating Depression Scale, Beck Depression Inventory, Purpose In Life Test and the Seeking of Noetic Goals Test. Statistical procedures used are the mean, standard deviation, Chi-square and factor analysis.

Chapter four contains the results, discussion and interpretation of the test battery.

Anxiety is clearly indicated while depression is not severe. Physical symptoms, emptiness, life dissatisfaction, poor self-concept and guilt stand out as component factors. Purpose In Life scores show that the sample tends to lack a purpose in life and that they are motivated to seek meaningful goals.

OPSOMMING

DIE PSIGOLOGIESE PROFIEL VAN MANLIKE ALKOHOLISTE TEEN DIE EINDE VAN HULLE BEHANDELING.

In hoofstuk een word die motivering vir die ondersoek van die psigologiese profiel van manlike alkoholiste voorgestel. Dit bevat sy vroeëre patologiese geskiedenis en sy huidige angs in verband met sy toekoms wanneer hy weer sy omgewing betree.

Aan 'n literatuurstudie word in hoofstuk twee aandag gegee. Dit sluit definisies van die terme "alkoholis" en "alkoholisme", fisiologiese en psigologiese standpunte, klassifikasies van tipologieë van alkoholiste, fases van alkoholisme, en die drinkpatrone van alkoholiste in. Profielmodelle van alkoholiste sentreer om psigofisiologiese kenmerke met die klem op die outonome senuweestelsel en die hipotalamus. Jellinek se "siektemodel" bevat kern begrippe soos: afhanklikheid, toleransie, kontroleverlies, onttrekkingsimptome en terugval. Gedissiplineerde drinkgewoontes van alkoholiste is genoem as 'n alternatiewe teorie teen dié model. Psigoanalitiese modelle benadruk orale afhanklikheid, interpersoonlike verhoudings tussen ouer en kind, afhanklikheidskonflikte, infantiele neurotisisme en minderwaardigheidsfaktore.

Kliniese profiele van manlike alkoholiste word genoem. Die klem val op konsepte soos: 'n swak ego, veldafhanklikheid en neurotiese simptomatologieë. Konflikte en verdedigingsmeganismes is integrale dele van die neurotiese persoonlikheid. Angs en depressie is sentrale fokuspunte. Frankl se begrippe van die soeke na betekenisvolheid is die kern van die eksistensiële profiel van alkoholiste. Leer-en kondisioneringsprosesse onderskraag die spanningsverminderinghipotese van alkoholiste.

In hoofstuk drie word die metode van ondersoek, die toetsbattery en statistiese prosedures genoem. Die toetsbattery bestaan uit: 'n biografiese vraelys, die 16 Persoonlikheidsfaktorvraelys (16PF), die IPAT- angsskaal, die Zung Selfbeoordelings-depressieskaal, die Beck Depressievraelys, die Sinvolheid Van Die Lewetoets en die Soeke na Noëtiese Doelwittetoets. Die gemiddelde, standaardafwyking, Chikwadraat en faktoranalise statistiese prosedures is toegepas.

Hoofstuk vier bevat die toetsresultate en die bespreking en evaluering van bogenoemde toetsbattery. Angs word sterk aangedui terwyl depressie in 'n mindere mate voorkom. Fisiese simptome, 'n gevoel van leegheid, ontevredenheid met die lewe, 'n swak selfbeeld en skuldgevoelens is ook belangrike faktore. Sinvolheid Van Die Lewe-tellings dui aan dat die steekproef neig na 'n gebrek aan 'n doel in die lewe, maar dat hulle tog in 'n mate gemotiveerd is om na sinvolheid te soek.

CHAPTER 5. BIBLIOGRAPHY.

ADLER, A. I94I. The individual psychology of the alcoholic patient. Journal of Criminal Psychopathology, 3:74-77

ADLER, N. & COLEMAN, D. I968. Gambling and alcoholism. Quarterly Journal of Studies on Alcoholism, 30(3):733-737.

ALBRECHT, G.L. I973. The alcoholism process: a social learning viewpoint. (In Bourne, P.G. & Fox, F. eds. Alcoholism: progress in research and treatment. I973. New York: Academic Press.)

ALEXANDER, C.N. & CAMPBELL, E.Q. I967. Peer influences on adolescent drinking. Quarterly Journal of Studies on Alcoholism, 28(3):444-454.

ALEXANDER, J.B. & GUDEMAN, H.E. I965. Perceptual and interpersonal measures of field-dependence. Perceptual and Motor Skills, 20:79-86.

ALLARDT, E., MARKANNEN, T. & TAKALA, M. I957. Drinking and drinkers. Institute of Sociology, University of Helsinki, Finland.

ALLMAN, L.R., TAYLOR, H.A. & NATHAN, P.E. I972. Group drinking during stress; effects on drinking behavior, affect, and psychopathology. American Journal of Psychiatry, I29:669-678.

AMARK, C. I95I. A study in alcoholism: clinical, social-psychiatric and genetic investigations. Acta Psychiatrica Scandanavia, Supplement No. 70.

ANDO, H. & HASEGAWA, E. I97O. Drinking patterns and attitudes of alcoholics and nonalcoholics in Japan. Quarterly Journal of Studies on Alcohol, 3I(I):I53-I6I.

ANTONOW, W. I978. The multidimensional mode; of alcoholism: a study of the interaction between typology and treatment. Dissertation Abstracts Internctional, 38(7B):3377.

APFELDORF, M. & HUNLEY, P.J. I975. Application of MMPI Alcoholism Scales to older alcoholics and problem drinkers. Journal of Studies on Alcohol, 36(3):645-653.

ARIETI, S. I959. Manic-depressive psychosis. (In Arieti, S. ed. American handbook of psychiatry, Vol I, p. 4I9-454. New York: Basic Books.

ARMSTRONG, J.D. I958. The search for the alcoholic personality. Annual American Academy of Political and Social Science, 3I5:40-47.

ARMSTRONG, R.G. & HOYT, D.B. I963. Personality structure of male alcoholics as reflected in the IES Test. Quarterly Journal of Studies on Alcohol, 24:239-249.

BACON, S.D. I947. The mobilization of community resources for the attack on alcoholism. Quarterly Journal of Studies on Alcohol, 3:473-497.

BACON, S.D. ed. I958. Understanding alcoholism. The Anncls of the American Academy of Political and Social Science. Philadelphia.

BACON, S.D. I973. Cross-cultural studies of drinking. (In Bourne, P. & Fox, R. eds. Alcoholism: progress in research and treatment. New York: Academic Press.

BACON, S.D., MARDEN, P., ZYLMAN, P. & FILLMORE, M.A. I976. A national study of adolescent drinking behavior attitudes and correlates. Journal of Studies on Alcohol, 37(9):I346-I349.

BAHN, A.K. & CHANDLER, C.A. I96I. Alcoholism in psychiatric clinic patients. Quarterly Journal of Studies on Alcohol, 22(3):4II-4I8.

BAILEY, J. & COPPEN, A. I976. A comparison between the Hamilton Rating Scale and the Beck Inventory in the measurement of depression. British Journal of Psychiatry, I28:486-489.

BAILEY, .M.B. & STEWART, J. I967. Normal drinking by persons

reporting previous problem drinking. Quarterly Journal of Studies on Alcohol, 28(I):305-316.

BAILEY, M.B., HABERMAN, P.W. and ALKSNE, H. 1965. The epidemiology of alcoholism in an urban residential area. Quarterly Journal of Studies on Alcohol, 26(I):19-40.

BAKAN, D. 1949. The relationship between alcoholism and birth rank. Quarterly Journal of Studies on Alcohol, 10(3 & 4):434-440.

BALES, R.F. 1946. Cultural differences in rates of alcoholism. Quarterly Journal of Studies on Alcohol, 6(4):480-499.

BARNES, G.E. 1979. The alcoholic personality; a reanalysis of the literature. Journal of Studies on Alcohol, 40(7):571-635.

BARNES, G.E. 1978. The clinical alcoholic personality. Dissertation Abstracts International, 38(11B):5537.

BARNES, G.E. 1980. Characteristics of the clinical alcoholic personality. Quarterly Journal of Studies on Alcohol, 41(19):894-922.

BATEMAN, G. 1971. The cybernetics of self: a theory of alcoholism. Psychiatry, 34(1():1-18.

BATES, R.C. 1966. Pathologies associated with alcoholism. Quarterly Journal of Studies on Alcohol, 27(I):110-111.

BATTISTA, J. and ALMOND, R. 1973. The development of meaning in life. Psychiatry, 36:412-423.

BECK, A.T. 1963. Thinking and depression. Archives of General Psychiatry, 9:324-333.

BECK, A.T. 1967. Depression - causes and treatment. Philadelphia: University of Pennsylvania.

BECK, A.T., WARD, C.H., MENDELSON, N. MOCK, J. and ERBAUGH, J. 1961. An inventory for measuring depression. Archives of General Psychiatry, 4:561-571.

BECK, A.T., WEISSMAN, M.A. and KOVACS, M. 1976. Alcoholism, hopelessness and suicidal behavior. Journal of Studies on Alcohol, 37(I):66-78.

BELFER, M.L. SHADER, R.I., CARROLL, M. and HARMATZ, J.S. 1971. Alcoholism in women. Archives of General Psychiatry, 25:540-544.

BELL, R,G, 1965. Defensive thinking in alcoholic addicts. Texas Commission Report on Alcoholism. Texas: Houston.

BELL, A.H., WEINGOLD, H.P. and LACHIN, J.M. 1969. Measuring adjustment in patients disabled with alcoholism. Quarterly Journal of Studies on Alcohol, 30(3):634-639.

BEM, D. 1970. Beliefs, attitudes and human affairs. Belmont, California: Wadsworth Publishing Company.

BENNETT, R.M., BUSS, A.H. and CARPENTER, J.A. 1969. Alcohol and human physical aggression. J. of Studies on Alcohol, 30:870-877.

BERG, N.L. 1971. Effects of alcohol intoxication on self-concept; studies of alcoholics and controls in laboratory conditions. Journal of Studies on Alcohol, 32:442-453.

BERGLER, E. 1944. Contributions to the psychogenesis of alcohol addiction. Quarterly Journal of Studies on Alcohol, 5(3):434-450.

BERGLER, E. 1946. Personality traits of alcohol addicts. Quarterly Journal of Studies on Alcohol, 7(3):356-359.

BERNE, E. 1964. Games people play. New York: Grove Press.

BERTRAND, S. and MASLING, J. 1969. Oral imagery and alcoholism. Journal of Abnormal Psychology, 74: 73-84.

BEYERS, N. and MOOSA, M.M. 1980. The fetal alcohol syndrome. South African Medical Journal, 54:575.

BIDDLE, B.J., BANK, B.J. and MARLIN, M.M. 1980. Social determinants of adolescent drinking; what they think, what they do and what I think and do. Journal of Studies on Alcohol, 41(3):215-241.

BIGGS, J.T., WYLIE, L.T. and ZIEGLER, V.E. 1978. Validity of the Zung Self-Rating Depression Scale. British Journal of Psychiatry, 132:381-385.

BILLIG, O. and SULLIVAN, D.J. 1943. Personality structure and prognosis of alcohol addiction: a Rorschach study. Quarterly Journal of Studies on Alcohol, 4(4):554-574.

BINTER, A.R. and FREY, S.H. 1972. The psychology of the elementary school child. London: Rand McNally.

BIRD, B. I948. One aspect of causation in alcoholism. Quarterly Journal of Studies on Alcohol, IO(4):532-544.

BJÖRK, S. I95O. Alcoholism from the psychological viewpoint. Svenska Lakartida, 47:IOI8-IO26.

BLANE, H.T. and CHAFETZ, M.E. Dependency conflict and sex-role identity in drinking delinquents. Quarterly Journal of Studies on Alcohol, 32(4):IO25-IO4O.

BLANE, H.T., HILL, M.J. and BROWN, E. I968. Alienation, self-esteem and attitudes toward drinking in high school students. Quarterly Journal of Studies on Alcohol, 29(2):35O-354.

BLEULER, M. I955. Familial and personal background of chronic alcoholics. (In Diethelm, O. ed. Etiology of chronic alcoholism. Springfield:Charles C. Thomas.

BLUM, E.M. I966. Psychoanalytic views of alcoholism. Quarterly Journal of Studies on Alcohol, 27(2):259-3OO.

BLUME, S.B. and SHEPPARD, C. I967. The changing effects of drinking on the changing personalities of alcoholics. Quarterly Journal of Studies an Alcohol, 28(3):436-443.

BOLON, K. Cognitive and social effects versus pharmacological effects of alcohol consumption on locus of control and depression. I979.(Masters thesis - Wits.)

BOROWITZ, G.H. I964. Some ego aspects of alcoholism. British Journal of Medical Psychology, 37:257-262.

BOTWINICK, J. and MACHOVER, S. I95I. A psychometric examination of latent homosexuality in alcoholism. Quarterly Journal of Studies on Alcohol, I2(2):268-273.

BOURNE, P.G. & FOX, R. eds. I973. Alcoholism: progress in research and treatment. New York:Academic Press.

BOWMAN, K.M. & JELLINEK, E.M. I94I. Alcoholic mental disease. Quarterly Journal of Studies on Alcohol, 2:3I2-39O.

BRADY, R.A. & WESTERFIELD, W.W. 1947. The effect of B-complex vitamins on the voluntary consumption of alcohol by rats. Quarterly Journal of Studies on Alcohol, 7:499-505.

BRENNER, B. 1967. Patterns of alcohol use, happiness and satisfaction of wants. Quarterly Journal of Studies on Alcohol, 28(4):667-676.

BRINK, N.G. 1977. Dependence proneness, a key target for alcoholism research. Journal of Studies on Alcoholism, 38(1):150-152.

BRINKMAN, R. 1979. The personality and social position of alcoholics after suicide attempts. (Translated abstract from German). Dissertation Abstracts International, 40C;776.

BROWN, G.L. & ZUNG, W.W.K. 1972. Depression scales. Comprehensive Psychiatry, 13:361-367.

BROWN, M. A. 1950. Alcoholic profiles on the Minnessota Multiphasic. Journal of Clinical Psychology, 6:266-269.

BUFFANO, D.L. 1976. An investigation into background and current status-variables associated with dependency types in male alcoholics. Dissertation Abstracts International, 37(2B):689.

BUHLER, C. & LEFEVER, D.W. 1947. A Rorschach study on the psychological characteristics of alcoholics. Quarterly Journal of Studies on Alcohol, 8(2):197-261.

BUTLER, F.S. 1969. Control of the uncontrolled alcoholic. Journal of the American Geriatric Society , 15(9):848-851.

BUTTON, A. D. 1956. A Rorschach study of 67 alcoholics. Quarterly Journal of Studies on Alcohol, 17(1):35-54.

BUTTON, A. D. 1956. A study of alcoholics with the Minnesota Multiphasic Personality Inventory. Quarterly Journal of Studies on Alcohol, 17(4):263-281.

BUTTON, A.D. 1956. The psychodynamics of alcoholism: a study of 87 cases. Quarterly Journal of Studies on Alcohol, 17(3):443-460.

BUTTON, A.D. I956. The genesis and development of alcoholism: an empirically based schema. Quarterly Journal of Studies on Alcohol. I7(4):67I-675.

BYRNE, D. I96I. The Repression-Sensitization Scale: rationale, reliablity, and validity. Journal of Personality, 29:334-349.

CADORET, R. I976. Genetic determinants of alcoholism. (In Tarter, R & Sugerman, A. eds. Alcoholism: interdisciplinary approaches to an enduring problem. Massacheussetts:Addison-Wesley Publishing Co., Reading.)

CAHALAN, D. & CISIN, I. I976. Epidemiological and social factors associated with drinking problems. (In Tarter, R. & Sugerman, A. eds. Alcoholism:interdisciplinary approaches to an enduring problem. Massacheussetts: Addison-Wesley Publishing Co., Reading.)

CAMPANELLA, G. & FROST, G. I97O. (In Freed, E. X. Alcoholism and manic-depressive disorder. Quarterly Journal of Studies on Alcohol, 3I(I):7O.

CAMPBELL, J.D. Manic-depressive disease. I953. Philadelphia: Lippincott.

CAPPELL, H. I975. An evaluation of tension models of alcohol consumption. (In Gibbons, R.J., Israel, Y., Kalant, H., Popham, R.E., Schmidt, W. & Swart, R.G. eds. Research in alcohol and drug problems, Vol. 2. New York: Wiley.)

CAPPELL, H. & HERMAN, C.P. I972. Alcohol and tension reduction. Journal of Studies on Alcohol, 33(I):33-65.

CAROTHERS, C. I97I. A discriminatory analysis of personality characteristics of the intemperate and the rehabilited alcoholic. Dissertation Abstracts International, 2(32B):2393.

CARPENTER, J.A., MOORE, O.K. SNYDER, C.R. and LISANSKY, E.S. I96I. Alcohol and higher-order problem solving. Quarterly Journal of Studies on Alcohol, 22(2):I83-222.

CARPENTER, J.A. & ROSS, B.M. I965. Effect of alcohol on short-term memory. Quarterly Journal of Studies on Alcohol, 26(4):56I-579.

CARROLL, J.L. & FULLER, G.B. I969. The self and ideal-self concept of the alcoholic as influenced by length of sobriety and-or participation in Alcoholics Anonymous. Journal of Clinical Psychology, 25:363-364.

CARRUTH, F.B. I980. A exploration of some subgroup differences among older alcoholics. Dissertation Abstracts International, 40 (IOA):5594.

CASS, W.A. & McREYNOLDS, P.A. I95I. A contribution to Rorschach norms. Journal of Consulting Psychology, I5:I78-I84.

CASSIDY, W.L., FLANAGAN, N.B., SPELLMAN, M. & COHEN, M.E. I957. Clinical observations in manic depressive disease; a quantitative study of one hundred manic-depressive patients and fifty medically sick controls. Journal of American Medical Association, I64: I535-I546.

CATTELL, R.B. & EBER, H.W. I957. Handbook for the Sixteen Personality Factor Questionnaire. Institute for Personality and Ability Testing. Illinois:Champaign.

CATTELL, R.B. & EBER, H.W. I965. Manual fo Form A and B Sixteen Personality Factor Questionnaire. Institute for Personality and Ability Testing. Illinois:Champaign.

CATTELL, R.B., EBER, H.W. & TATSUOKA, M.M. I974. Handbook for the Sixteen Personality Factor Questionnaire. Institute for Personality and Ability Testing. Illinois:Champaign.

CATTELL, R.B. & SCHEIER, I.H. I963. Handbook for the IPAT Anxiety Scale Questionnaire. Institute for Personality and Ability Testing. Illinois Champaign.

CATTELL, R.B., SCHEIER, I.H. & MADGE, E.M. I968. Handleiding vir die IPAT-Angsskaal. Pretoria: Nasionale Buro vir Opvoedkundige en Maatskaplike Navorsing.

CHAFETZ, M.E. Alcohol excess. Annals of the New York Academy of Sciences, I966, I33:808-8I3.

CHAFETZ, M.E. & DEMONE, H.W. I962. Alcoholism and society. New York:Oxford University Press.

CHARLIN, A. GARDIEN, P. & MARTY, P. I946. Dipsomanies - donnes pathogéniques. Annual of Medical Psychology, IO4:38-47.

CHODORKOFF, B. I964. Alcoholism and ego function. Quarterly Journal of Studies on Alcohol, 25:292-299.

CLARK, W. I966. Demographic characteristics of tavern patrons in San Francisco. Quarterly Journal of Studies on Alcohol, 2:3I6-327.

CLARKE W.B. I975. Conceptions of alcoholism: consequences for research. Addictive Diseases: an International Journal, I(4):395-43O).

CLEVELAND, S.E. & SIKES, M.P. I966. Body image in chronic alcoholics and nonalcoholic psychiatric patients. Journal of Projective Techniques, 3O:265-269.

CLIFTON, C.S. I956. A technique for the initial interview with male alcoholics. Quarterly Journal of Studies on Alcohol, I7(I): 89-95.

CLARREN, S.K. & SMITH, D.W. I978. The fetal alcohol syndrome: a review of the world literature. New England Journal of Medicine, 298:IO63.

CLOPTON, J.R. I978. Alcoholism and the MMPI; a review. Journal of Studies on Alcohol, 39(9):I54O-I559.

CONEY, J.C. I976. The precipitating factors in the use of alcoholic treatment services: a comparative study of black and white alcoholics. Dissertation Abstracts International, 37(I):I973.

CONGER, J.J. I95I. The effects of alcohol on conflict behaviour on the albino rat. Quarterly Journal of Studies on Alcohol, I2(I): I-29.

CONGER, J.J. 1956. Reinforcement theory and dynamics of alcoholism. Quarterly Journal of Studies on Alcohol, 17:296-305.

CONGER, J.J. 1958. Perception, learning, and emotion; the role of alcohol. (In Bacon, S.D. Understanding alcoholism. Philadelphia: The American Academy of Political and Social Science. p. 31-39.)

CONNOR, R.G. 1962. The self-concept of alcoholics. (In Pittman, D.J. & Snyder, C.R., eds. Society, culture, and drinking patterns. New York:Wiley.)

COROTTO, L.V. 1963. An exploratory study of the personality characteristics of alcoholic patients who volunteer for continued treatment. Quarterly Journal of Studies on Alcohol, 24:432-443.

COWAN, L., AULD, F. & BÉGIN, P.E. 1974. Evidence for distinctive personality traits in alcoholics. British Journal of Addiction, 69:199-206.

COZORT, D. 1980. Depression: assessment of factors. Dissertation Abstracts International, 41B(4):1497-1498.

CARROLL, J.L. & FULLER, G.B. 1969. The self and ideal-self concept of the alcoholic as influenced by length of sobriety and-or participation in Alcoholics Anonymous. Journal of Clinical Psychology, 25:363-364.

CARRUTH, F.B. 1980. An exploration of some subgroup differences among older alcoholics. Dissertation Abstracts International, 40 (ICA):5594.

CASSIDY, W.L., FLANAGAN, N.B., SPELLMAN, M. & COHEN, M.E. 1957. Clinical observations in manic depressive disease; a quantitative study of one hundred manic-depressive patients and fifty medically sick controls. Journal of American Medical Association, 164: 1535-1546.

CRUMBAUGH, J.C. & MAHOLICK, L.T. 1964. An experimental study in existentialism. The psychometric approach to Frankl's noögenic neurosis. Journal of Clinical Psychology, 10(2):200-207.

CRUMBAUGH, J.C. & MAHOLICK, L.T. 1969. Manual of Instructions for Purpose In Life Test. Indiana:Psychometric Affiliates.

CRUMBAUGH, J.C. 1968. Cross-validation of Purpose-in-Life Test based on Frankl's concepts. Journal of Individual Psychology, 24:74-81.

CRUMBAUGH, J.C. 1977. The Seeking Of Noetic Goals Test (SONG): a complementary scale to the Purpose In Life Test (PIL). Journal of Clinical Psychology, 33(3):900-907.

CURLEE, J. 1970. A comparison of male and female patients at an alcoholism treatment centre. Journal of Psychology, 74:239-247.

DARLING, I.A. 1942. Inebriety: a classification. Quarterly Journal of Studies on Alcohol, 3(4):677-686.

DAVIS, V.E. & WALSH, M.J. 1970. Alcohol, amines and alkaloids. Science, 167:93.

DAVIES, B., BURROWS, G. & PAYNTON, C. 1975. A comparative study of four depression rating scales. Australian and New Zealand Journal of Psychiatry, 9:21-24.

DELHEES, K.H. & CATTELL, R.B. 1971. Manual for the Clinical Analysis Questionnaire (CAQ). Illinois: Institute for Personality and Ability Testing, Campaign.

DE LINT, J.E. 1966. The position of early parental loss in the etiology of alcoholism. Addictions, 2:1-9.

DE PALMA, N. & CLAYTON, H.D. 1958. Scores of alcoholics on the Sixteen Personality Factor Questionnaire. Journal of Clinical Psychology, 14:390-392.

DEROBERT, L. 1952. (In Jellinek, E.H. ed. European seminar and lecture course on alcoholism. Geneva: World Health Organization.)

DE VITO, R., FLAHER Y, L.A. & MOZDZIERZ, G.J. 1970. Toward a psychodynamic theory of alcoholism. Diseases of the Nervous System, 31(1):43-49.

DIETHELM, O. 1955. Etiology of chronic alcoholism. Springfield: Charles C. Thomas.

DIXON, W.J. & BROWN, M.B. 1979. Biomedical computer programs P-series. Berkley:University of California Press.

DOCTOR , R., NAITOH, R. & SMITH, J. 1966. Electroencephalographic change and vigilance behavior during experimentally induced intoxication with alcoholic subjects. Psychosomatic Medicine, 28:605-615.

DOLLARD, J. & MILLER, N.E. 1950. Personality and psychotherapy: an analysis in terms of learning, thinking and culture. New York: McGraw-Hill.

DONOVAN, D.M. & O'LEARY, M.R. 1978. Drinking-related Locus of Control Scale; reliability, factor structure and validity. Journal of Studies on Alcohol, 39:759-784.

DREW, R.A. 1968. Alcoholism as a self limiting disease. Quarterly Journal of Studies on Alcohol, 29(4):956-968.

DUNNER, D.L., HENSEL, B.M. & FIEVE, R.R. 1979. Bipolar illness: factors in drinking behavior. American Journal of Psychiatry, 136 (48):583-585.

EAST, W.N. 1936. Alcoholism and crime in relation to manic-depressive disorder. Lancet, 230:111.

ELLERMAN, M. 1948. Social and clinical features of chronic alcoholism. Journal of Nervous and Mental Disorders, 107:251-253.

ENGLISH, G.E. & CURTIN, M.E. 1975. Personality differences in patients at three alcoholism treatment agencies. Journal of Studies on Alcohol, 36(1):27-52.

EYSENCK, H.J. 1957. Drugs and personality: theory and methodology. Journal of Mental Science, 103.

EYSENCK, H.J. I957. The dynamics of anxiety and hysteria, an experimental application of modern learning theory to psychiatry. New York: Praeger.

EYSENCK, H.J. I960. The structure of human personality. London: Methuen.

FENICHEL, O. I945. The psychoanalytic theory of neurosis. New York: W.W. Norton.

FIELD, P.G. I962. A cross cultural study of drunkeness. (In Pittman, D.J. & Snyder, C. R. eds. Society, culture and drinking patterns. New York:Wiley.)

FLEETWOOD, M.F. & DIETHELM, O. I95I. Emotions and biochemical findings in alcoholism. American Journal of Psychiatry, I08:433-438.

FLEETWOOD, M.F. I955. Biochemical experimental investigations of emotions and chronic alcoholism. (In Diethelm, O. Etiology of chronic alcoholism. Springfield: Charles C. Thomas.)

FOX, R. I965. Psychiatric aspects of alcoholism. American Journal of Psychotherapy, I9(3):408-418.

FOX, R. I967. Alcoholism and reliance upon drugs as depressive equivalents. American Journal of Psychotherapy, 2I:462.

FOX, R. I967. A multidimensional approach to the treatment of alcoholism. American Journal of Psychiatry, I23:769-778.

FRAME, M.C. & OSMOND, W.M.G. I956. Alcoholism, psychopathic personality and psychopathic reaction type. Medical Procedures 2:257-26I. Johannesburg.

FRANK, L.K. I944. The problem of the alcoholic personality. Quarterly Journal of Studies on Alcohol, 5(2):242-245.

FRANKL, V. I962. Man's search for meaning: an introduction to logotherapy. Boston:Beacon Press.

FRANKL, V. 1969. The will to meaning: foundations and applications of logotherapy. Cleveland:World.

FRANKS, G. 1960. Alcohol, alcoholism, and conditioning: a review of the literature and some theoretical considerations. (In Eysenck, H.J. ed. Behavior therapy and the neuroses. London: Pergamon Press.)

FREED, E.X. 1970. Alcoholism and manic-depressive disorders. Journal of Studies on Alcohol, 31(1):62-90.

FREED, E.X. 1975. Alcoholism and schizophrenia: the search for perspectives. Journal of Studies on Alcohol, 36(7):853-882.

FREED, E.X. 1976. Alcoholism and the Rorschach Test; a review. Journal of Studies on Alcohol, 37:1633-1654.

FREEDMAN, A.M., KAPLAN, H.I. & SADOCK, B.J. 1977. Modern synopsis of comprehensive textbook of psychiatry/II. Baltimore:Williams & Wilkins.

FROMM, E. 1947. Man for himself. New York:Holt, Rinehart & Winston.

FROMM, E. 1964. The heart of man. New York:Harper and Row.

FULLER, G.B. 1966. Research in alcoholism with the 16-PF test. Information Bulletin No. 12, IPAT. Illinois:Champaign.

GARFIELD, Z. & McBREARTY, J. 1970. Arousal level and stimulus response in alcoholics after drinking. Quarterly Journal of Studies on Alcohol, 31:832-838.

GAUPP, R. (In Freed, E.X. Alcoholism and manic-depressive disorder. Journal of Studies on Alcohol, 1970, 31:1.)

GELLENS, H.K., GOTTHEIL, E. & ALTERMAN, A.I. 1976. Drinking outcome of specific alcoholic subgroups. Journal of Studies on Alcohol, 37(7):986-990.

GIAMBRA, L.M. I977. Independent measures of depression: a factor analysis of three self-report depression measures. Journal of Clinical Psychology, 33:928-935.

GIBBINS, R.I. I953. Chronic alcoholism. Brookside Monograph, No. I. Ontario: Alcoholism Research Foundation.

GIBBINS, R.I. & ARMSTRONG, J.D. I957. Effects of clinical treatment on behavior of alcoholic patients. Quarterly Journal of Studies on Alcohol, I8(3):429-450.

GIBSON,S. & BECKER, J. I973. Alcoholism and depression: the factor structure of alcoholics responses to depression inventories. Quarterly Journal of Studies on Alcohol, 34:400-408.

GILDEA, E.F. & FLEESON, W. I942. A study of the personality of 289 abnormal drinkers. Quarterly Journal of Studies on Alcohol, 3(3):409-433.

GITLOW, S.E. Alcoholism: a disease. (In Bourne, P.G. & Fox, R. eds. Alcoholism:progress in research and treatment. I973. New York: Academic Press.)

GOLDSTEIN, G., NEURINGER, C., REIFF,C. & SHELLY, C.H. I968. Generalizability of field-dependence in alcoholics. Journal of Consulting and Clinical Psychology, 32:560-564.

GOLIGHTLY, C. & REINEHR, R.C. I969. I6 PF profiles of hospitalized alcoholic patients; replication and extension. Psychological Reports, 24:543-545.

GOTTHEIL, E., CORBETT, L.O. GRASBERGER, J.C. & CORNELISON, F.S. I97I. Treating the alcoholic in the presence of alcohol. American Journal of Psychiatry, I28.

GOODWIN, D.W. I97I. Is alcoholism hereditary?: a review and critique. Archives of General Psychiatry, 25:545-549.

GRAHAM, F.M. 1976. An analysis of the alcoholic's personality as evidenced by the Sixteen Personality Factor Questionnaire: an attempt to predict proclivity to alcoholism. Dissertation Abstracts International, 4647-B.

GREENBERG, L.A. Alcohol and emotional behavior (In Lucia, S.B. ed. Alcohol and civilization. 1963, p. 109-121. New York:McGraw-Hill.)

GROSS, W.T. & CARPENTER, L.L. 1971. Alcoholic personality; reality or fiction. Psychological Reports, 28:375-378.

GROSS, W.F. & NERVIANO, V.J. 1973. The prediction of dropouts from an inpatient alcoholism program by objective personality inventories. Quarterly Journal of Studies on Alcohol, 34:514-515.

HAGGARD, H.W. 1944. Critique of the concept of the allergic nature of alcohol addiction. Quarterly Journal of Studies on Alcohol, 5:233-241.

HAGNELL, O. & TUNVING, K. 1972. Mental and physical complaints among alcoholics. Quarterly Journal of Studies on Alcohol, 33: 77-84.

HALPERN, F. Studies of compulsive drinkers:psychological test results. Quarterly Journal of Studies on Alcohol, 7(4):468-480.

HAMM, J.E., MAJOR, L.F. & BROWN, G.L. 1979. The quantitative measurement of depression and anxiety in male alcoholics. American Journal of Psychiatry, 136(4B):580-582.

HART, L.S. 1979. A 16 PF study of men and women alcoholics. Journal of Studies on Alcohol, 40(11):1082-1085.

HATSUKAMI, D.K. 1981. Depression and relapse to chemical use in individuals treated for alcoholism and drug abuse. Dissertation Abstracts Internationol, 41B(8):3179.

HAYDEN, M.R. & NELSON, M.M. The fetal alcohol syndrome. South African Medical Journal, 54:571.

HEWITT, C.C. I943. A personality study of alcoholic addiction. Quarterly Journal of Studies on Alcohol, 4(3):368-387.

HIMWICH, H.E. I956. The physiology of alcohol. Journal of the American Medical Association, I63:545-549.

HOBSON, G. N. I966. Anxiety and the alcoholic (as measured by eye-blink conditioning. Quarterly Journal of Studies on Alcohol, 32(4):976-982.

HOFF, E.C. I96I. The etiology of alcoholism. Quarterly Journal of Studies on Alcohol, Supplement No. I.

HOFFMANN, H. I97O. Depression and defensiveness in self-descriptive moods of alcoholics. Psychological Reports, 26:23-26.

HOFFMANN, H. I97O. Personality characteristics of alcoholics in relation to age. Psychological Reports, 27.

HOFFMAN, H. Personality measurements for the evaluation and prediction of alcoholism. (In Tarter, R. & Sugerman, A. eds. Alcoholism: interdisciplinary approaches to an enduring problem. I976. Reading: Addison-Wesley.)

HOFFMANN, H., JACKSON, D.N. & SKINNER, H.A. Dimensions of psychopathology among alcoholic patients. Journal of Studies on Alcohol, 36(7):825-838.

HOFFMANN, H., LOPER, R.G. & KAMMEIER, M.L. I974. Identifying future alcoholics with MMPI alcoholism scales. Quarterly Journal of Studies on Alcohol, 35:490-498.

HOLLAND, T.R. I977. Multivariate analysis of personality correlates of alcohol and drug abuse in a prison population. Journal of Abnormal Psychology, 86:644-650.

HOLT, N.F. I965. A I6 PF profile for prisoners convicted of 'drunk and disorderly' behavior. British Journal of Criminology, 5:I96-I97.

HORE, B.D. I976. Alcohol dependence. London:Butterworths.

HORN, J. L. & WANBERG, K.W. 1969. Symptom patterns related to the excessive use of alcohol. Quarterly Journal of Studies on Alcohol, 30:35-58.

HORN, J.L. & WANBERG, K.W. 1970. Dimensions of perception of background and current situation of alcoholic patients. Quarterly Journal of Studies on Alcohol, 31:633-658.

HORNEY, K. 1945. Our inner conflicts; a constructive theory of neurosis. New York: Norton.

HORTOCOLLIS, P. 1964. Some phenomenological aspects of the alcoholic condition. Psychiatry, 27:345-348.

HOY, R.M. 1969. The personality of inpatient alcoholics in relation to group psychotherapy, as measured by the 16 PF. Quarterly Journal of Studies on Alcohol, 30:401-407.

ISBELL, H. 1955. An experimental study of the etiology of "rum fits" and delirium tremens. Quarterly Journal of Studies on Alcohol, 16:1-33.

JACKSON, J.K. 1958. Types of drinking patterns of male alcoholics. Quarterly Journal of Studies on Alcohol, 19(2):269-303.

JACOBSON, G.R., RITTER, D.P. & MUELLER, L. 1977. Purpose in life and personal values among adult alcoholics. Journal of Clinical Psychology, 33(1):314-316.

JACOBSON, G.R. 1977. The alcoholisms: detection, assessment, and diagnosis. New York: Human Sciences Press.

JELLIFE, S.E. 1919. Alcoholism and phantasy life in Tolstoi's drama "Redemption". New York Medical Journal, 109:92-97.

JELLINEK, E.M. 1952. Phases of alcohol addiction. Quarterly Journal of Studies on Alcohol, 13:673-684.

JELLINEK, E.M. I960. The disease concept of alcoholism. New Haven: College and University Press.

JELLINEK, E.M., ISBELL, H., LUNDQUIST, H.M., TIEBOUT, H., DUCHENE, J., MARDONNES, J.& MacLEOD, L.D. I955. The "craving" for alcohol; a symposium by members of the WHO Expert Committee on Mental Health; alcohol. Quarterly Journal of Studies on Alcohol, I6:34-66.

JONES, K.L., SMITH, D.W. & STREISSGUTH, A.P. I976. Outcome in offspring of chronic alcoholic women. Lancet, I:I076.

JONES, K.L. & SMITH, D.W. I975. Recognition of the fetal alcohol syndrome in early infancy. Lancet, 2:999-I00I.

JOURARD, S. I974. Healthy personality. New York: MacMillan.

KAIJ, L. I960. Alcoholism in twins. Stockholm:Almquist & Wiksell.

KALB, M. & PROPER, M.S. I976. The future of alcohology: craft or science. American Journal of Psychiatry, I33(6): I066-I069.

KAMMEIER, M.L., HOFFMANN, H. & LOPER, R.G. I973. Personality characteristics of alcoholics as college freshmen and at time of treatment. Quarterly Journal of Studies on Alcohol, 34:390-399.

KARP, S.A., WITKIN, H.A. & GOODENOUGH, D.R. I965. Alcoholism and psychological differentiation: effect of achievement of sobriety on field dependence. Quarterly Journal of Studies on Alcohol, 26(4):580-585.

KARPMAN, B. I94I. The chronic alcoholic as a neurotic and a dreamer. Journal of Nervous and Mental Disease, 94:I7.

KASTL, A.J. I965. Some psychological effects of alcohol. Dissertation Abstracts International, 26A.

KASTL, A.J. I969. Changes in ego function. Quarterly Journal of Studies on Alcohol, 30(2):37I-384.

KEANE, T.M. 1979. Alcohol and heterosexual anxiety in males: behavioral, cognitive and physiological effects. Dissertation Abstracts International, 39(11B):5561.

KEANE, T.M. & LISMAN, S.A. 1980. Alcohol and social anxiety in males: behavioral, cognitive, and physiological effects. Journal of Abnormal Psychology, 89(2):215-223.

KEELER, M.H., TAYLOR, C.I. & MILLER, W.C. 1979. Are all recently detoxified alcoholics depressed? American Journal of Psychiatry, 136(4B):586-588.

KELLER, M. 1960. Definition of alcoholism. Journal of Studies on Alcohol, 21(1):125-135.

KEPHART, W.M. 1954. Drinking and marital disruption. Quarterly Journal of Studies on Alcohol, 15(1):63-74.

KEPNER, E. 1964. Applications of learning theory to the etiology and treatment of alcoholism. Quarterly Journal of Studies on Alcohol, 25(2):279-281.

KERLINGER, F.N. 1973. Foundations of behavioral research. London: Holt, Rinehart & Winston.

KILOH, L.G. & GARSIDE, R.F. 1963. The independence of neurotic depression and endogenous depression. British Journal of Psychiatry, 109.

KILPATRICK, D.G., SUTKER, P.B. & SMITH, A.D. Deviant drug and alcohol use: the role of anxiety, sensation seeking, and other personality variables. (In Zuckerman, M.& Spielberger, C.D. eds. Emotions and anxiety: new concepts, methods and applications. 1976. New York: Wiley.)

KINGHAM, R.J. 1958. Alcoholism and the reinforcement theory of learning. Quarterly Journal of Studies on Alcohol, 19(2):320-330.

KISSIN, B. & GROSS, M.M. 1968. Drug treatment in alcoholism. American Journal of Psychiatry, 125:31-41.

KISSIN, B., SCHENKER, V. & SCHENKER, A. I959. The acute effects of ethyl alcohol and chlorpromazine on certain physiological functions in alcoholics. Quarterly Journal of Studies on Alcohol, 20: 480-492.

KNAPSTEIN, J.W. I970. A cross-cultural study of certain personality features of tuberculous alcoholic patients. Dissertotion Abstracts International, 3I B.

KNIGHT, R.P. I937. The psychodynamics of chronic alcoholism. Journal of Nervous and Mental Diseases, 86:538-543.

KNOX, W.J. I976. Objective psychological measurement and alcoholism; review of literature, I97I-I972. Psychological Reports, 38:I023-I050.

KOLLER, K.M. & CASTANOS, J.N. I968. Attempted suicide and alcoholism. Medical Journal of Australia, 2:835-837.

KONDO, C.K.Y. I980. Heterogeneity among alcoholics: implications for models and treatment of alcoholism. Dissertation Abstracts Internctional, 4I(2B).

KOVACS, M., BECK, A.T. & WEISSMAN, A. I975. Hopelessness; an indicator of suicide risk. Suicide, 5(2):98-I03.

KRAEPELIN, E. I92I. Manic-depressive insanity and paranoia. Edinburgh:Livingston.

KRAFT, T. & WIJESINGHE, B. I970. Systematic desensitization of social anxiety in the treatment of alcoholism; a psychometric evaluation of change. British Journal of Psychiatry, II7:443-444.

LANCET. I972. Alcohol addiction - a biochemical approach. I. (sine nomine and sine pagina).

LANDIS, C. I945. Theories of the alcoholic personality. New Haven: Yale University Centre of Alcohol Studies, Alcohol, Science and Society, p. I29-I42.

LANSKY, D., NATHAN, P.E. & LAWSON, D. I978. Blood alcohol levels discrimination by alcoholics: the role of internal and external cues. Journal of Consulting and Clinical Psychology, 42:32I-328.

LAWLIS, G.F. & RUBIN, S.E. I97I. I6 PF study of personality patterns in alcoholics. Quarterly Journal of Studies on Alcohol, 32:3I8-328.

LEGRAIN, M. I889. Heredity and alcoholism. Bibliography Anthropology (from French), 7.

LEMERE, F. I956. The nature and significance of brain damage from alcoholism. American Journal of Psychiatry, II3:36I-362.

LEMERT, E.M. I956. Alcoholism and the sociocultural situation. Quarterly Journal of Studies on Alcohol, I7(2):3O6-3I8.

LESTER, D. I96O. A biological approach to the etiology of alcoholism. Journal of Studies on Alcohol, 2I(4):7OI-7O4.

LEVY, R.I. I958. The psychodynamic functions of alcohol. Quarterly Journal of Studies on Alcohol, I9(4):649-66O.

LEWIN, K. I935. A dynamic theory of personality. New York:McGraw-Hill.

LEWIS, N.D.C. I94O. Personality factors in alcohol addiction. Quarterly Journal of Studies on Alcohol, I(I):2I-45.

LEWIS, R.G. I974. An analysis of alcohol drinking patterns among four ethnic groups. Dissertation Abstracts International, 35(5): 3II9.

LIND, C.W. I972. I6 PF screening instrument for alcoholics. Journal of Clinical Psychology.

LISANSKY, E.S. I96O. Etiology of alcoholism: the role of psychological predisposition. Journal of Studies on Alcoholism, 2I(2): 3I4-343.

LISANSKY, E.S. I967. Clinical research in alcoholism and the use of psychological tests: a re-evaluation. (In Fox, R. ed. Alcoholism, behavioral research, therapeutic approaches. New York:Springer.)

LOLLI, G. I949. The addictive drinker. Quarterly Journal of Studies on Alcohol, IO:404-4I5.

LOLLI, G. I956. Alcoholism as a disorder of the love disposition. Quarterly Journal of Studies on Alcohol, I7(I):96-IO7.

LOPER, R.G., KAMMEIER, M.L. & HOFFMANN, H. I973. MMPI characteristics of college freshmen males who later became alcoholics. Journal of Abnormal Psychology, 82:I59-I62.

LORR, M. I969. The depressive syndromes and the endogenous versus reactive dichotomy; an integration. (In Presentation at the meeting of the APA, Washington DC.)

LUDWIG, A.M. & STARK, L.H. I974. Alcohol craving, subjective and situational aspects. Quarterly Journal of Studies on Alcohol, 35: 67-76.

MACHOVER, S. & PUZZO, F.S. I959. Clinical and objective studies of personality variables in alcoholism. I. Clinical investigation of the "Alcoholic Personality." Quarterly Journal of Studies on Alcohol, 20(3):505-5I9.

MACHOVER, S. & PUZZO, F.S. I959. Clinical and objective studies of personality variables in alcoholism. II. Clinical study of personality correlates of remission from active alcoholism. Quarterly Journal of Studies on Alcohol, 20(3):520-527.

MACHOVER, S., PUZZO, F.S., MACHOVER, K. & PLUMEAU, F. I959. Clinical and objective studies of personality variables in alcoholism. III. An objective study of homosexuality in alcoholism. Quarterly Journal of Studies on Alcohol, 20(3):528-542.

MacLEOD, L.D. I955. Craving for alcohol as a problem for investigation. Quarterly Journal of Studies on Alcohol, I6:54-62.

MANSON, M.P. 1948. A psychometric differentiation of alcoholics from nonalcoholics. Quarterly Journal of Studies on Alcohol, 9(2):175-207.

MARCONI, J. 1959. The concept of alcoholism. Quarterly Journal of Studies on Alcohol, 20(2):216-235.

MARCONI, J. 1967. Scientific theory and operational definitions in psychopathology; with special reference to alcoholism. Quarterly Journal of Studies on Alcohol, 28(4):631-640.

MARCUS, S.I. 1969. Diagnostic classification of alcoholics according to developmental theory. Dissertation Abstracts International, 70(308):2424.

MASSERMAN, J.H. 1959. Alcohol and other drugs as preventatives of experimental trauma. Quarterly Journal of Studies on Alcohol, 20:464-466.

MASSERMAN, J.H. & YUM, K.S. 1946. An analysis of the influence of alcohol on experimental neurosis in rats. Psychosomatic Medicine, 8:36-52.

MAYFIELD, D.G. & MONTGOMERY, D. 1972. Alcoholism, alcohol intoxication, and sucicide attempts. Archives of General Psychiatry, 27:349-353.

McALLISTER, J. & FOULDS, J. 1968. Continuum of "personal illness and the 16PF". British Journal of Psychiatry, 114:53-56.

McCLELLAND, D.C., DAVIS, W.N., KALIN, R. & WANNER, E. 1972. The drinking man. New York: Free Press.

McCORD, J. 1972. Etiological factors in alcoholism. Journal of Studies on Alcoholism, 33(4):1020-1027.

McCORD, W. & McCORD J. 1960. Origins of alcoholism. Stanford: Stanford University Press.

McCORD, W. & McCORD, J. 1971. (In First Special Report to the

U.S. Congress, U.S. Department of Health, Education, and Welfare.)

McCORD, W., McCORD, J. & GUDEMAN, J. I959. Some current theories of alcoholism: a longitudinal evaluation. Quarterly Journal of Studies on Alcohol, 20(4):727-749.

McDOUGALL, W. I929. The clinical theory of temperament applied to introversion and extraversion. Journal of Abnormal and Social Psychology, 24:293-309.

McGUIRE, M.T., STEIN, S. & MENDELSON, J.H. I966. Comaprative psychosocial studies of alcoholic and nonalcoholic subjects undergoing experimentally induced ethanol intoxication. Psychosomatic Medicine, 28:I3-26.

McNAMEE, H.B., MELLO, N.K. & MENDELSON, J.H. I968. Experimental analysis of drinking patterns of alcoholics: current psychiatric observations. American Journal of Psychiatry, I24:I063-I069.

McWILLIAMS, J., BROWN, C.C. & MINARD, J.E. I975. Field-dependence and self-actualization in alcoholics. Journal of Studies on Alcohol, 36(3):387-395.

MEERLOO, J.A.M. I952. Artificial ecstasy; a study of the psychosomatic aspects of drug addiction. Journal of Nervous and Mental Disease, II5:246-266.

MEIER, A. & EDWARDS, H. I974. Purpose-In-Life: age and sex differences. Journal of Clinical Psychology, 30:384-386.

MEITES, K., LOVALLO, W. & PISHKIN, V. I980. A comparison of four scales for anxiety, depression, and neuroticism. Journal of Clinical Psychology, 36(2):427-432.

MENAKER, T. I967. Anxiety about drinking in alcoholics. Journal of Abnormal Psychology, 72:43-49.

MENDELSON, J.H., LA DOU, J. & SOLOMON, P. I964. Experimentally induced chronic intoxication and withdrawal in alcoholism: III psychiatric findings. Quarterly Journal of Studies on Alcohol, Supplement No. 2:40-52.

MENDELSON, J.H., STEIN, S. & McGUIRE, M.T. I966. Physiological data. Psychosomatic Medicine, 28:I-I2.

MENNINGER, K.A. I938. Man against himself. New York:Harcourt.

MILT, H. I974. Basic handbook on alcoholism. New Jersey: Scientific Aids Publication.

MILTON, R.B. & LEE, R.R. I968. The Purpose-In-Life Test as a means of assessing improvement in alcoholics.(University of Queensland, Australia - unpublished thesis).

MINKOFF, K., BERGMAN, E., BECK, A.T. & BECK, R. I973. Hopelessness, depression, and attempted suicide. American Journal of Psychiatry, I3O:455-459.

MOORE, M. I939. Alcoholism and attempted suicide; report of I43 cases. New England Journal of Medicine, 22I:69I-693.

MOORE, R.A. & MURPHY, T.C. I96I. Denial of alcoholism as an obstacle to recovery. Quarterly Journal of Studies on Alcohol, 22(4):597-6IO.

MOROS, N. I942. The alcoholic personality: a statistical study. Quarterly Journal of Studies on Alcohol, 3(4):45-49.

MORRISON, D.E. I967. Multivariate statistical method. New York: McGraw-Hill.

MOSTERT, W.C. I978. 'n Literatuurstudie oor die logoterapie van Viktor Frankl en 'n empiriese ondersoek na die toepassing daarvan in die behandeling van die alkoholis.(Unpublished thesis, UOFS.)

MULFORD, H.A. & MILLER, D.E. I96I. Public definitions of the alcoholics. Quarterly Journal of Studies on Alcohol, 22(2): 3I2-32I.

NATHAN, P.E. & LISMAN, S.A. I976. Behavioral and motivational patterns of chronic alcoholics. (In Tarter, R.E. & Sugerman, A.A. eds. Alcoholism: interdisciplinary approaches to an enduring problem. Reading: Addison-Wesly.)

NATHAN, P.E., MARLATT, G.A. & LØBERG, T. eds. I978. Alcoholism: new directions in behavioral research and treatment. New York: Plenhum Press.

NATHAN, P.E., O'BRIEN, J. & NORTON, D. I97I. Comparative studies of the interpersonal and affective behavior of alcoholics and nonalcoholics during prolonged experimental drinking. (In Mello, N. & Mendelson, J. eds. Recent advances in studies of alcoholism: an interdisciplinary symposium. Washington D.C.: U.S. Government Printing Office.)

NATHAN, P.E., TITLER, N.A., LOWENSTEIN, L.M., SOLOMON, P. & ROSSI, A.M. I97O. Behavioral analysis of chronic alcoholism: interaction of alcohol and human contact. Archives of General Psychiatry, 22(5):4I9-43O.

NAVRATIL, L. I959. On the etiology of alcoholism. Quarterly Journal of Studies on Alcohol, 20(2):236-244

NERVIANO, V.J. & GROSS, W.F. I973. A multivariate delineation of two alcoholic profile types on the I6PF. Journal of Clinical Psychology, 29:37I-374.

NOYES, A.P. & KOLB, L.C. I963. Modern clinical psychiatry. Philadelphia:Saunders.

ÖDEGAARD, Ö. I97O. The clinical aetiology of periodic alcoholism. Journal of Studies on Alcohol, 3I(I):62-88.

O'LEARY, M.R. & DONOVAN, D.M. I974. Perception of depression in self and others among male alcoholics. Journal of Clinical Psychology, 3O:I42-I46.

OP'T HOF, J. I98I. The fetal alcohol syndrome. (Paper delivered on the I2 th August, I98I, at the Conference held at the Rand Afrikaans University. Alcohol in perspective: Department of Health, Welfare and Pensions.)

ORFORD, J. I97I. Psychological approaches to alcoholism. Section Community Medicine. Sine loco et sine nomine.

OZIEL, L.J., OBITZ, F.W. & KEYSON, M. I972. General and specific perceived locus of control in alcoholics. Psychological Reports, 30:957-958.

PALOLA, E.G., DORPAT, T.L. & LARSON, W.R. I962. Alcoholism and suicidal behavior. (In Pittman, D. J. & Snyder, C.R. eds. Society, culture, and drinking patterns. New York: Wiley. p. 5II-534.)

PAREDES, A., HOOD, W.R., SEYMOUR, H. & GOLLO, B.M. I973. Loss of control in alcoholism. Quarterly Journal of Studies on Alcohol, 34:II46-II6I.

PARK, P. I962. Drinking experiences of I92 English alcoholics. Acta Psychiatrica Scandanavia, p. 227-245.

PARKER, J.B., MEILLER, R.M. & ANDREWS, G.W. I96O. Major psychiatric disorders masquerading as alcoholism. South Medical Journal, 53:56O-564.

PARTANEN, J., BRUN, K. & MARKKANEN, T. I966. Inheritance of drinking behavior. Finnish Foundation for Alcohol Studies, Publication No. I4.

PARTINGTON, J. & JOHNSON, F. I969. Personality types among alcoholics. Quarterly Journal of Studies on Alcohol, 3O:2I-33.

PATTISON, E, M., HEADLEY, E.B., GLESER, G.C. & GOTTSCHALK, L.A. I968. Abstinence and normal drinking; an assessment of changes in drinking patterns in alcoholics after treatment. Quarterly Journal of Studies on Alcohol, 29(3):6IO-634.

PAUEIKHOFT, B. I97O.((In Freed, E.X. Alcoholism and manic-depressive disorder. Journal of Studies on Alcohol, 3I:62-88.)

PEARSON, P. & SHEFFIELD, B. I974. Purpose In Life and the Eysenck Personality Inventory. Journal of Clinical Psychology, 30:562-564.

PETRIE, A. I967. Individuality in pain and suffering. Chicago: University of Chicago Press.

PHILLIPS, W.M. I980. Purpose In Life, depression, and locus of control. Journal of Clinical Psychology, 36(3):66I-667.

PICHOT, P. & LAMPERIÉRE, T. I964. Factor analysis of a self rating questionnaire of depressive symptoms. Revué Psychologique, I4:I5-29.

PISHKIN, V., FISHKIN, S, & COVALLO, W. I978. Cognitive and psychophysiologic response to doxepin and chlordiazepoxide. Comprehensive Psychiatry, I9:I7I-I78.

PITTMAN, D.J. I959. Alcoholism: an interdisciplinary approach. Springfield: Charles C Thomas.

PITTS, F.N. & WINOKUR, G. I966. Affective disorder. VII. Alcoholism and affective disorder. Journal of Psychiatric Research, 4:37-50.

POKORNY, A.D., MILLER, B.A., KANAS, T.E. & VALLES, J. I97I. Dimensions of alcoholism. Quarterly Journal of Studies on Alcohol, 3:699-705.

POLICH, J.M., ARMOR, D.J. & BRAIKER, H.B. I980. Patterns of alcoholism over four years. Journal of Studies on Alcohol, 4I(5):397-4I6.

POPHAM, R.E. I953. A critique of the genetotrophic theory of the etiology of alcoholism. Quarterly Journal of Studies on Alcohol, I4:228-237.

RADÓ, S. I933. The psychoanalysis of pharmacothymia (drug addiction). Psychoanalysis Quarterly, 2:I-23.

RADÓ, S. I957. Narcotic bondage, a general theory of the dependence on narcotic drugs. American Journal of Psychiatry, II4: I65-I7O.

RADZIN, A.B. I977. Defenses, self-perception and anxiety as related to dependency in male alcoholics. Dissertation Abstracts International, 38(IB):378.

REICH, L.H., DAVIES, R.K. & HIMMELHOCH, J.M. I974. Excessive alcohol use in manic-depressive illness. American Journal of Psychiatry, I3I(I):83-86.

REISKIN, H.R. I98O. Patterns of alcohol usage in a help-seeking minority population: a modified replication of Jessor's tri-ethnic study. Dissertation Abstracts International, 4O(I2A-part I).

REKER, G. I977. The Purpose-In-Life Test in an inmate population: an empirical investigation. Journal of Clinical Psychology, 33: 688-693.

REKER, G.T. & COUSINS, J.B. I979. Factor structure, construct validity and reliability of the Seeking Of Noetic Goals (SONG) and Purpose In Life (PIL) Tests. Journal of Clinical Psychology, 35(I): 85-9I.

RHODES, R.J., CARR, J.E. & JURJI, E.D. I968. Interpersonal differentiation and field perceptual field differentiation. Perceptual and Motor Skills, 27:I72-I74.

RIMMER, J., REICH, T. & WINOKUR, G. I972. Alcoholism. V. Diagnosis and clinical variation among alcoholics. Quarterly Journal of Studies on Alcohol, 33(3):658-666.

RITSON, B. I97I. Personality and prognosis in alcoholism. British Journal of Psychiatry, II8:79-82.

RITSON, E.B. I968. Suicide amongst alcoholics. British Journal of Medicine and Psychology, 4I:235-242.

xxx

RITZLER, B.A., STRAUSS, J.S., VANORD, A. & KOKES, R.F. I977. Prognostic implications of various drinking patterns in psychiatric patients. American Journal of Psychiatry, I34(5).

ROBINS, L.N., BATES, W.M. & O'NEAL, L. I962. Adult drinking patterns of former problem children. (In Pittman, D.J. and Snyder, C.R. eds. Society, culture, and drinking patterns. New York: Wiley.)

ROHSENOW, D.J. & O'LEARY, M.R. I978. Locus of control research on alcoholic populations; a review. I. Development, scales, and treatment. II. Relationships to other means. International Journal of Addiction, I3:2I3-226.

ROSENBERG, C.M. & BUTTSWORTH, F.J. I969. Anxiety in alcoholics. Quarterly Journal of Studies on Alcohol, 30(3):729-732.

ROZSNAFSZKY, J.S.L. I979. The relationship of level of ego development to Q-Sort personality ratings in male alcoholics and medical patients. Dissertation Abstracts International, 39(I2B- part I.)

RUDIE, R.R. I959. Developmental and behavioral differences between essential and reactive alcoholics. Dissertation Abstracts International, 20:2906.

RUDIE, R.R. & McGAUGHRAN, S.S. I96I. Differences in developmental experience, defensiveness, and personality organization between two classes of problem drinkers. Journal of Abnormal and Social Psychology, 62:659-665.

RUSSELL, J.A. & MEHRABIAN, A. I975. The mediating role of emotions in alcohol use. Journal of Studies on Alcohol, 36(II):I508-I537.

SARGENT, M.J. I968. The conception of alcoholism as a mental illness. Quarterly Journal of Studies on Alcohol, 29(4):974-979.

SCHAEFER, E.S. I954. Personality structure of alcoholics in outpatient psychotherapy. Quarterly Journal of Studies on Alcohol, I5(2):304-320.

SCHAEFER, H.H. I970. Aversive conditioning with alcoholics. Progress report, April, Patton State Hospital, California. NIMH Research Grant No. I6547.

SCAHU, E.J., O'LEARY, M.R. & CHANEY, E.F. I980, Reversibility of cognitive deficit in alcoholics. Journal of Studies on Alcohol, 4I(7):733-739.

SCHEINER, A.P. & DONOVAN, C.M. I979. Fetal alcohol in a child whose parents had stopped drinking. Lancet, May I9: I077.

SCHILDER, P. I94I. The psychogenesis of alcoholism. Quarterly Journal of Studies on Alcohol, 2(2):277-292.

SCHNADT, F.W. I95I. A study of alcoholic personality. Thesis - Washington University, St. Louis. I95O. (In abstract form: Quarterly Journal of Studies on Alcohol, I2: sine pagina.)

SCHUCKIT, M.A. I973. Alcoholism and psychopathy - diagnostic confusion. Quarterly Journal of Studies on Alcohol, 34:I57-I64.

SCHUCKIT, M.A. & HAGLUND, R.M.J. I977. An overview of the etiological theories on alcoholism. (In Estes, N.J. & Heinemann, M.E. Alcoholism: development, consequences, and interventions. St. Louis: C.V. Mosby. p. 28-43.)

SEITZ, F. I97O. Five psychological measures of neurotic depression: a correlation study. Journal of Clinical Psychology, 26: 5O4-5O5.

SELIGER, R.V. I948. The psychiatrist looks at contemporary alcoholism. American Journal of Psychotherapy, 2:383-386.

SELZER, M.L., VINOKUR, A. & WILSON, T.D. I977. A psychosocial comparison of drunken drivers and alcoholics. Journal of Studies on Alcohol, 38(7):I294-I3I2.

SHALLOO, J.P. I94I. Some cultural factors in the etiology of alcoholism. Quarterly Journal of Studies on Alcohol, 2(3):464-479.

SHAW, D.M., MacSWEENEY, D.A. JOHNSON, A.L. & MERRY, J. I975. Personality characteristics of alcoholics and depressed patients. British Journal of Psychiatry, I26:56-59.

SHAW, J., DONLEY, P., MORGAN, D. & ROBINSON, J.A. I975. Treatment of depression in alcoholics. American Journal of Psychiatry, I32: 64I-644.

SHEA, J.E. I954. Psychoanalytic therapy and alcoholism. Quarterly Journal of Studies on Alcohol, I5(4):595-606.

SHERESHEVSKI-SHERE, E. & LASSER, L.M. I952. An evaluation of the water responses in the Rorschach of alcoholics. Journal of Projective Techniques, I6.

SHERESHEVSKI-SHERE, E., LASSER, L.M. & GOTTESFIELD, B. I953. An evaluation of anctomy content and F+ percentage in Rorschachs of alcoholics, schizophrenics and normals. Journal of Projective Techniques, I7.

SHERFEY, M.J. I955. Psychopcthology and character structure in chronic alcoholism. (In Diethelm, O. ed. Etiology of chronic alcoholism. Springfield: Thomas. p. I6-42.)

SHOBEN, E.J. I956. View on the etiology of alcoholism: the behavioristic view. (In Kruse, H.D. ed. Alcoholism as a medical problem. New York: Hoeber-Harper.)

SIEGEL, S. I956. Nonparametric statistics for the behavioural sciences. Tokyo: McGraw-Hill Kogakusha.

SIEGLER, M., OSMOND, H. & NEWELL, S. I968. Models of alcoholism. Quarterly Journal of Studies on Alcohol, 29(3):57I-59I.

SIKES, M.P., FAIBISH, G. & VALLES, J. I965. Evaluation of an intensive alcoholic treatment program. (Proceding of the 73rd Annual Convention of the American Psychological Association. p. 275-276.)

SILKWORTH, W.D. I937. Alcoholism as a manifestation of allergy. Medical Research, I54 : 249-25I.

SIMMEL, E. I948. Alcoholism and addiction. Psychoanalysis Quarterly, I7:6-3I.

SINGER, E. I95O. Personality structure of chronic alcoholics. American Psychologist, 5.

SMART, R.G. I965. Effects of alcohol on conflict and avoidance behavior. Quarterly Journal of Studies on Alcohol, 26(2):I87-2O6.

SMART, R.G. I968. Future time perspective in alcoholics and social drinkers. Journal of Abnormal Psychology, 73:8I-83.

SMART, R.G. I968. Alcohol consumption and anxiety in college students. Journal of General Psychology, 78:35-39.

SMITH, D.W. I98O. Alcohol effects on the fetus. (In Schwartz, R H. & Yaffe, S.J. eds. Progress in clinical and biological research. Vol. 36. New York: Alan R. Liss.)

SMITH, D.W. & GRAHAM, J.M. I979. Fetal alcohol syndrome in child whose parents had stopped drinking. Lancet, Sept. 8:527.

SOBELL, M.B. & SOBELL, L.C. I976. Behavioral treatment of alcoholic problems: individualized therapy and controlled drinking. New York: Plenum Press.

SOBELL, L.C., SOBELL, M.B. & CHRISTELMAN, W.C. I972. The myth of "one drink". Behavior Research and Therapy, IO:II9-I23.

SPIEGEL, D., HADLEY, P.A. & HADLEY, R.G. I97O. Personality test patterns of rehabilitation centre alcoholics, psychiatric in-patients and normals. Journal of Clinical Psychology. 26:366-37I.

STEIN, L.I., NILES, D. & LUDWIG, A.M. I968. The loss of control phenomenon in alcoholics. Quarterly Journal of Studies on Alcohol, 29(3):598-603.

STRAUS, R. I946. Alcohol and the homeless man. Quarterly Journal of Studies on Alcohol, 7(3):360-404.

STRAUS, R. I955. Alcoholism. (In Rose, A.M. ed. Mental health and mental disorder. New York: Norton.)

STRECKER, E.A. I94I. Chronic alcoholism: a psychological survey. Quarterly Journal of Studies on Alcohol, 3:I2-I7.

STRECKER, E.A. & CHAMBERS, F.T. I938. Alcohol: one man's meat. New York: MacMillan.

SULLIVAN, H.S. I953. The interpersonal theory of psychiatry. New York: Norton.

SULLIVAN, H.S. I954. The psychiatric interview. New York: Norton.

SUTHERLAND, E.H., SCHROEDER, H.G. & TORDELLA, C.L. I950. Personality traits and the alcoholic; a critique of existing studies. Quarterly Journal of Studies on Alcohol, II:547-56I.

SYME, L. I957. Personality characteristics of the alcoholic. Quarterly Journal of Studies on Alcohol, I8:288-302.

TÄHKÄ, V. I966. The alcoholic personality. Helsinki: Finnish Foundation for Alcoholic Studies.

TARTER, R. & NOVICK, L. I979. Perceptual reactance in alcoholics and its relationship to hyperactivity symptomatology in children. Archives of General Psychiatry, 36:520-53I.

TARTER, R. & SCHNEIDER, D. I976. Blackouts: relationship with memory capacity and alcoholism history. Archives of General Psychiatry, 33:I492-I496.

TARTER, R. & SUGERMAN, A. eds. I976. Alcoholism: interdisciplinary approaches to an enduring problem. Reading: Addison-Wesley.

THOMPSON, G.N. I946. A psychiatric formulation of alcoholism. Quarterly Journal of Studies on Alcohol, 7(3):346-355.

THULINE, H.C. I967. Inheritance in alcoholism. Lancet, I.

TIEBOUT, H.M. I945. The syndrome of alcohol addiction. Quarterly Journal of Studies on Alcohol, 6(4):535-547.

TIEBOUT, H.M. I946. Psychology and treatment of alcoholism. Quarterly Journal of Studies on Alcohol, 7(2):2I4-228.

TIEBOUT, H.M. I949. The act of surrender in the therapeutic process. Quarterly Journal of Studies on Alcohol, IO:48-58.

TIEBOUT, H.M. I954. The ego factors in surrender in alcoholism. Quarterly Journal of Studies on Alcohol, I5(4):6IO-622.

TILLOTSON, K.J. & FLEMING, R. I937. Personality and sociological factors in the prognosis and treatment of chronic alcoholism. New England Journal of Medicine, 2I7:6II-6I5.

TINTERA, J.W. & LOVELL, H.W. I949. Endocrine treatment of alcoholism. Geriatrics, 4:274-28O.

TOMSOVIC, M. I968. Hospitalized alcoholic patients. I. A two-year study of medical, social, and psychological characteristics. Hospitalized Community Psychiatry, I9:I97-203.

TUMARKIN, B., WILSON, J.D. & SNYDER, G. I956. Cerebral atrophy due to alcoholism in young adults. U.S. Armed Forces Medical Journal, 6:67-74.

UECKER, A.E. I97O. Differentiating male alcoholic from other psychiatric inpatients; validity of the MacAndrew Scale. Journal of Studies on Alcohol, 3I(2):379-383.

ULLELAND, C.N. I972. The offspring of alcoholic mothers. Annual New York Academy of Science, I97:I67.

ULLMAN, A.D. I952. The psychological mechanism of alcohol addiction. Quarterly Journal of Studies on Alcohol, I3(4):602-608.

ULLMAN, A.D. I953. The first drinking experience of addictive and of "normal" drinkers. Quarterly Journal of Studies on Alcohol, I4(2):I8I-I9I.

ULLMAN, A.D. I952. The psychological mechanism of alcohol addiction. Quarterly Journal of Studies on Alcohol, I3(4):602-607.

VALLES, J. I969. From social drinking to alcoholism. Dallas: Tane Press.

VANDERPOOL, J.A. I969. Alcoholism and the self-concept. Quarterly Journal of Studies on Alcohol, 3I(I):59-78.

VAN DER SPUY, H.J.J. I972. The influence of alcohol on the personality of the alcoholic. (Thesis (D. Phil.) - Pretoria University.)

VANNICELLI, M.L. I972. Mood and self-perception in alcoholics when sober and intoxicated. I. Mood change. II. Accuracy of self-prediction. Quarterly Journal of Studies on Alcohol, 33(2): 34I-357.

VAN RENSBURG, L.J. I98I. Major skeletal defects in the fetal alcohol syndrome. South African Medical Journal, 59:687.

VERDEN, P., JACKSON, D.N. & KING, G.A. I969. Popular conceptions of the etiology of alcoholism; a multidimensional investigation. Quarterly Journal of Studies on Alcohol, 30(I):78-92.

VOGEL, S. I958. Psychiatric treatment of alcoholism. (In Bacon, S.D. Understanding alcholism. Philadelphia: The Annals of the American Academy of Political and Social Science.)

VOGEL, M.D. I96I. The relationship of personality factors to alcoholics. An exploratory study. Quarterly Journal of Studies on Alcohol, 22(3):394-400.

WALLINGA, J.V. 1949. Attempted suicide; a ten-year survey. Diseases of the Nervous System, 10:15-20.

WAHL, C.W. 1956. Some antecedent factor in the family histories of 109 alcoholics. Quarterly Journal of Studies on Alcohol, 17 (4):643-654.

WALSH, M.J. 1973. The biochemical aspects of alcoholism. (In Bourne, P.G. & Fox, R. eds. Alcoholism: progress and research and treatment. New York: Academic Press.)

WALTON, H.J. 1968. Personality as a determinant of the form of alcoholism. British Journal of Psychiatry, 114:761-766.

WANBERG, K.W. & HORN, J.L. 1970. Alcohol symptom patterns of men and women; a comparative study. Quarterly Journal of Studies on Alcohol, 31(1):40-61.

WARNER, R.H. & ROSETT, H.L. 1975. The effects of drinking on offspring: historical survey of the American and British literature. Journal of Studies on Alcohol, 36:1396-1420.

WASHBURNE, C. 1956. Alcohol, self and the group. Quarterly Journal of Studies on Alcohol. 17(1):108-123.

WECKOWICZ, T., MUIR, W. & CROPLEY, A. 1967. A factor analysis of the Beck Inventory of Depression. Journal of Consulting Psychology, 31:23-28.

WEINGOLD, H.P., LACHIN, J.M., BELL, A.H. & COXE, A.C. 1968. Depression as a symptom of alcoholism; search for a phenomenon. Journal of Abnormal Psychology, 73:195-197.

WEISS, M. 1958. Alcohol as a depressant in psychological conflict in rats. Quarterly Journal of Studies on Alcohol, 19:226-238.

WETHERBEE, M.E. 1966. Conflict-resolution in two types of alcoholics. Dissertation Abstracts International, 27B:1632.

WETZEL, R.D. 1977. Hopelessness, depression and suicide intent. (In Beck, A.T., Weissman, M.A. & Kovacs, M. Alcoholism, hopelessness and suicidal behavior. Journal of Studies on Alcohol, 1976, 37(1):66-77.)

WEXBERG, L.E. 1949. Psychodynamics of patients with chronic alcoholism. Journal of Clinical Psychopathology, 10:147-157.

WEXBERG, L.E. 1950. A critique of physiopathological theories of the etiology of alcoholism. Quarterly Journal of Studies on Alcohol, 11:113-118.

WEXBERG, L.E. 1951. Alcoholism as a sickness. Quarterly Journal of Studies on Alcohol, 12:217-230.

WHITE, W.F. 1965. Personality and cognitive learning among alcoholics with different intervals of sobriety. Psychological Reports, 16:1125-1140.

WHITE, W.F. & PORTER, T.L. Self-concept reports among hospitalized alcoholics during early periods of sobriety. Journal of Counseling and Clinical Psychology, 13:352-355.

WHITELOCK, P.R., OVERALL, J.E. & PATRICK, J.H. 1971. Personality patterns and alcohol abuse in a state hospital population. Journal of Abnormal Psychology, 78:9-16.

WILKINSON, A.E., PRADO, W.M. WILLIAMS, W.O. & SCHNADT, F.W. 1971. Psyhcological test characteristics and length of stay in alcoholism treatment. Journal of Studies on Alcohol, 32(1):60-65.

WILLIAMS, A.F. 1965. Self-concepts of college drinkers. Quarterly Journal of Studies on Alcohol, 26(4):586-595.

WILLIAMS, A.F. 1966. Social drinking, anxiety and depression. Journal of Personality and Social Psychology. 3:689-693.

WILLIAMS, A.F. 1967. Self-concepts of college drinkers: sccles. Quarterly Journal of Studies on Alcohol, 28(1):267-277.

WILLIAMS, A.F. I968. Psychological needs and social drinking among college students. Quarterly Journal of Studies on Alcohol, 29(2):355-364.

WILLIAMS, A.F. I97I. Personality self-descriptions of alcoholics and heavy drinkers. Quarterly Journal of Studies on Alcohol, 32(2):3IO-3I8.

WILLIAMS, A.F., McCOURT, W.F. & SCHNEIDER, L. I97I. Personality self-descriptions of alcoholics and heavy drinkers. Quarterly Journal of Studies on Alcohol, 32:3IO-3I7.

WILLIAMS, R.J. I947. The etiology of alcoholism: a working hypothesis involving the interplay of hereditary and environmental factors. Quarterly Journal of Studies on Alcohol, 8(4):567-588.

WILLIAMS, R.L. I98O. An investigation of relationships between level of alcohol use impairment and personality characteristics. Dissertation Abstracts International, 4O(IO A).

WILKINS, W.L. I956. The idea of proneness in relation to alcoholism. Quarterly Journal of Studies on Alcohol, I7(3):29I-295.

WINGFIELD, H. I9I9. The forms of alcoholism and their treatment. London: Hodder & Stoughton.

WINOKUR, G. & CLAYTON, P.J. I968. Family history studies. II. Sex differences and alcoholism in primary affective illness. Quarterly Journal of Studies on Alcohol, 29(4):885-892.

WINOKUR, G. & PITTS, F.N. I964. Affective disorder. I. Is reactive depression an entity? Journal of Nervous and Mental Diseases, I38:54I-547.

WINOKUR, G., RIMMER, J. & REICH, T. I97I. Is there more than one type of alcoholism? British Journal of Psychiatry, II8:525-53I.

WITKIN, H.A., DYK, R.B., PATERSON, H.F., GOODENOUGH, D.R. & KARP, S.A. I962. Psychological differentiation. New York: Wiley.

WITKIN, H.A., KARP, S.A. & GOODENOUGH, D.R. 1950. Dependence in alcoholism. Quarterly Journal of Studies on Alcohol, 20(3):493-504.

WOLOWITZ, H.M. & BARKER, M.J. 1968. Alcoholism and oral passivity. Quarterly Journal of Studies on Alcohol, 29(3):592-597.

WOODRUFF, R.A., GUZE, S.B., CLAYTON, P.J. & CARR, D. 1973. Alcoholism and depression. Archives of General Psychiatry, 28: 97-100.

WORLD HEALTH ORGANIZATION, 1980. Problems related to alcohol consumption. Geneva: WHO Technical Report Series, 650.

ZIMERING, S. & CALHOUN, J.F. 1976. Is there an alcoholic personality? Journal of Drug Education, 6(2):97-103.

ZIVICH, J.M. 1980. Alcoholic subtypes and treatment effectiveness. Dissertation Abstracts International, 40(II b).

ZMUC, M. 1968. Alcohol and suicide. Alcoholism, Zagreb, 4:38-44.

ZUCKERMAN, M., WEARY, R.S. & BRUSTMAN, B.A. 1970. Sensation-seeking scale correlates in experience (smoking, drugs, alcohol, "hallucinations" and sex) and preference for complexity (designs). Proceedings of the 78th Annual Convention of the American Psychological Association.

ZUNG, W.W.K. 1965. A self-rating depression scale. Archives of General Psychiatry, 12:63-70.

ZUNG, W.W.K. 1967. Factors influencing the Self-Rating Depression Scale. Archives of General Psychiatry, 16:543-547.

ZUNG, W.W.K. & GIANTURCO, J.A. 1971. Personality dimensions and the Self-Rating Depression Scale. Journal of Clinical Psychology, 27:247-248.

ZWERLING, I. 1959. Alcoholic addiction and personality. (In Arieti, S. American handbook of psychiatry. New York: Basic Books.)