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A Comparision Of Minnesota Multiphasic Personality Inventory Profiles In Native American And White Alcoholics

by

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Bachelor of Science, University of South Dakota, 1981

A Thesis

Submitted to the Faculty

of the

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in partial fulfillment of the requirements

for the degree of

Master of Arts

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This thesis submitted by Barbara Nelle Vesely in partial fulfillment of the requirements for the Degree of Master Of Arts from the University of North Dakota has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

Chairperson

This thesis meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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Dean of the Graduate School

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ABSTRACT

Although the literature on alcoholism is extensive, virtually all of the existing psychological theories of alcoholism are based on research primarily conducted on White males. The question of generalizability of these research findings to females and to other ethnic groups, such as Native Americans, is one of paramount importance. The present study was designed to investigate differences between the sexes and between the White and Native American groups, by analysis of the MMPI profiles of each group.

In addition to investiagtion of the group differences, this study addressed another major deficiency of the literature. Many psychological assessments, for example the MMPI, are invalid for many ethnic groups, such as Native Americans. Results from this study produced a series of MMPI profiles for alcoholics based upon Native Americans.

The medical records of three hundred and thirty-six patients were obtained from a chemical dependency treatment center at a State Hospital located in the Upper Midwest. Subjects were placed into one of four groups based upon sex and race: White male, White female, Native American male, or Native American female. For each of the four groups, the T scores from the individual MMPI protocols were analyzed through use of the hierarchical classification by generalized distance

procedure (Clark, 1986). Data on demographic variables and data on type of discharge, precipitating events, medications used in hospital, termination referrals, religion, number of admissions, community of childhood and culture identity were also obtained. The demographical variables were analyzed to determine statistical significance for each of the four groups.

The results of this study produced nineteen types, each with their own representative profile. Four representative profiles were obtained for each of the groups of Native American females, White females, and White females. The Native American Males, as a group, were represented by seven profiles. Analysis of the demographic variables produced thirteen variables which were significant at the .05 level for one or more of the groups. The significant variables for the Native American female group included years of education, parents' marital status, and residence prior to admission. The White females, as a group, had significant demographic variables for age (years), length of residence in Minnesota, chronological quotient, marital status, religion and residence prior to admission. The significant demograhical variables for the White male group were age (years), intelligence quotient, marital status, parents' marital status, religion, occupation, income level and residence prior to admission. The Native American male group had eight significant demographical variables. They were age (years), length of residence in Minnesota, marital status, parents' marital status, income level, referral source, residence prior to admittance and followup referral.

CHAPTER I

INTRODUCTION

Alcohol abuse has become one of the major health concerns in the United States. Alcohol ranks as the third most popular drug following only caffeine and nicotine. In the United States alone there are an estimated one hundred million individuals who drink alcohol; of these ten million are classified as alcoholic and an additional ten million classified as "problem drinkers" (O'Brien & Chaffee, 1982). Alcoholics, or patients whose illness is directly related to alcohol use, occupy between 20 and 60 percent of the adult beds in acute general care hospitals (O'Brien & Chaffee, 1982). Alcohol consumption also plays an important role in accidental deaths. O'Brien and Chaffee (1982) found that 50% of the people who had accidents of all types had been drinking. Alcohol was also involved in 52% of adult fire deaths.

The rate of health problems which stem from alcohol abuse varies by group. For Native Americans alcoholism is the number one health problem (O'Brien & Chaffee, 1982). The impact of alcohol on the mental health of Indians is severe. For example, the United States Center for Studies of Crime and Delinquency (cited in Westermeyer, 1974) states that the suicide rate among Indians is twice that of the general population and that about 75 to 80 percent of all suicides are

alcohol related. The number of accidental deaths is also higher among Indians, about three times that of whites. The majority of these accidental deaths are alcohol related (U.S. Health Services Administration, cited in O'Brien & Chaffee, 1982). In Minnesota, "violent death" is the most common form of death for Indians, with alcohol normally implicated which is five times the rate seen in the general population (Westermeyer, 1974).

Another area in which alcohol abuse has had serious ramifications for both Whites and Native Americans is in crime and delinquency. Although the sample was not representative, H. L. Baker (cited in Stewart, 1964), found that all Indians in a federal prison had been acutely intoxicated when they committed murder or manslaughter. The arrest rate for Indians is very high, 40 times that for nonIndians in the United States. Alcohol is clearly implicated in the high arrest rate since the majority of arrests are for public intoxication or other "victimless" crimes (Stewart, 1964).

It is evident that alcohol is a serious problem, even more serious for Indians, than for whites. There also appear to be different reasons for drinking, as well as differences in drinking behavior, between the two groups. Additional research is warranted in order to further investigate these differences. Knowledge obtained might be beneficial in determining causes of alcohol abuse. Knowing the causes would undoubtedly help in the formulation of preventive measures and treatment.

Identifying the personality factors which differentiate

alcoholics from nonalcoholics might be one way to provide an understanding of the etiological factors of alcoholism. Do alcoholics have unique personality characteristics which force them to drink to excess? Are alcoholics more often depressed and/or anxious than non-alcoholics? If so, treatment of the depression or anxiety might help prevent alcoholism in an individual, as well as help the alcoholic abstain from alcohol. Secondly, do white versus Native American, alcoholics exhibit different personality characteristics which require different preventative and treatment programs for the two groups? Such findings would be of paramount importance in the prevention and treatment of alcoholism, for if certain patterns of personality characteristics delineate alcoholic subgroups (i.e. Native American versus white alcoholics) than primary and secondary treatment programs should be tailored to fit the individual needs of those subgroups.

The criteria for demonstrating the existence of an alcoholic personality have been variously defined. Barnes (1979) stated that it is not necessary to show that all alcoholics are similar in all respects in order to prove that there is a alcoholic personality. However, it is necessary, in order to substantiate the claim of a single alcoholic personality,to be able to distinguish alcoholics from nonalcoholics and from other clinical groups on the basis of personality test scores. Furthermore, it must be proven that the personality traits existed prior to the development of alcoholism and not as a consequence.

Past research has focused on characterizing the "alcoholic personality" (Barnes, 1979; Blashfield, 1981; Lisansky, 1957) While these studies have failed to find one distinctive personality type which every alcoholic possesses, (Barnes, 1979) they do point out common personality traits which are often found in alcoholics such as depression, anxiety, and antisocial traits, for example. Thus, in spite of the lack of evidence for a single alcoholic personality, researchers have not concluded that the search for an alcoholic personality be abandoned. For instance, Lisansky (1957) stated that "we cannot reject the idea that personality factors play a very significant role in determining who will become an alcoholic and who will not" (p.13). Although no one distinct alcoholic personality has been discovered there do appear to be certain personality characteristics which may be integral in the development and continuation of alcoholism (Barnes, 1979).

A major criticism of many early studies which sought to find a single alcoholic personality was that most were conducted using only white males as subjects. Thus, the results from these studies cannot be generalized to include females or other ethnic groups of either sex. From these studies, importantly, it has been found that there are differences between male and female alcoholics in personality traits, as well as in drinking habits and etiology of alcoholism (Beckman, 1975; Mulford, 1977; Scoufis & Walker, 1982). The differences found in these studies between males and females will be fully discussed in the Literature Review which follows this Introductory section.

In order to further investigate the differences in personality characteristics between different races and sexes, the current study is designed to provide a series of personality profiles specific to each of the following groups, White males, White females, Indian males, and Indian females. This study was devised under the assumption that there is no one alcoholic personality, and that a different set of personality characteristics may be evident in each of the four ethnic groups.

Many methods have been used to determine the personality factors which are influential in the development and maintenance of alcoholism. Most notably, the Minnesota Multiphasic Personality Inventory (MMPI), which is an objective personality assessment, has been widely used. Initially, the MMPI was developed to aid in diagnosis of different types of psychopathology through the use of clinical scales. Currently the MMPI consists of four validity scales which measure the test-taking attitude of the individual. In addition, there are ten clinical scales which measure different personality indices. More recently, numerous experimental scales have been derived to measure a wide range of personality characteristics, such as dominance and ego-strength.

A second major criticism of the early studies (Barnes, 1979) has been their use of statistical procedures which use an average of profile data to determine categories of alcoholics. These procedures may actually be masking important differences between alcoholics which may limit our understanding of alcoholism. This study attempts to

overcome this weakness through use of a hierarchical classification procedure which will provide a series of representative profiles for each group. The use of statistical procedures which reveal different subgroups of alcoholics may prove to be beneficial in understanding alcoholism and in providing appropriate treatment.

The following literature review will examine research which: 1) explores hypotheses for the development and continuation of alcohol abuse, 2) investigates personality characteristics of the alcoholic, 3) examines the usefulness of the MMPI for investigating personality characteristics of various subgroups, and 4) reviews drinking patterns of white and Native American males and females.

CHAPTER II

LITERATURE REVIEW

The Search For The Alcoholic Personality

In the past alcoholism treatment has been based upon the ideas generated by various mental health professionals and/or researchers. Many individuals who receive treatment for alcoholism, however, are treated via programs which follow the assumption of only a few of those researchers. For instance, the traditional Alcoholics Anonymous (A.A.) model has been extremely popular (Patterson, Sobell, & Sobell, 1977). Essentially this model assumes that in terms of personality characteristics alcoholics form a homogeneous group (i.e. they have been classified as impulsive and egocentric). Treatment approaches for alcoholism have focused upon these specific personality characteristics to the exclusion of other intervening factors, such as stress, which may be of importance in the individual case. In the A.A. model complete abstinence from alcohol is assumed to be of utmost importance in the treatment of alcoholics.

Another important, and more recent, model used in the treatment of alcoholics was developed by Sobell and Sobell (1978). This model assumes that alcoholics can control their drinking behavior. Treatment under this model focuses upon cessation of problematic drinking and the ability to use alcohol in a socially sanctioned manner. Jellinek (1960) proposed another set of important ideas in

manner. Jellinek (1960) proposed another set of important ideas in the treatment of alcoholism which has come to be known as the disease model. In this model alcohol is considered to be the primary problem. Other problems such as interpersonal difficulties, antisocial behavior, depression, or anxiety neurosis are believed to be of secondary importance to alcohol use. Thus, in the disease model, cessation of drinking by the individual is undertaken first. After drinking behavior is under control other problems faced by the alcoholic are treated.

The above ideas have not led to successful treatment for all alcoholics (Patterson, Sobell & Sobell, 1977). For example, many alcoholics may not be helped by treatment based on the disease model because problems such as interpersonal difficulties, depression and/or anxiety could be closely tied to the drinking. In order to obtain effective treatment, some researchers have suggested that coexisting problems may need to be treated simultaneously with the problem drinking (McLachlan, 1974).

As noted, alcoholism treatment models, for the most part, assume that alcoholics form a homogeneous, rather than a heterogeneous group. Research does not support the idea of a homogeneous group (Goldstein and Linden, 1969; Loberg, 1981; & Whitelock, Overall, & Patrick, 1971). This heterogeneity of alcoholics may be responsible for the lack of successful treatment for all alcoholics. However, research which points out the fact that alcoholics form a heterogeneous group, suggest that the application of individual treatment to the subgroups

found within alcoholics is desirable.

As mentioned above, research in the field of alcohol addiction has attempted to delineate clusters of personality traits that may describe the problem drinker. It was hypothesized by early researchers that identification of a distinct alcoholic personality would be found (Barnes, 1979; Blashfield, 1981). Such a discovery which would support the idea of alcoholic treatment which focuses on the treatment of alcoholics as a homogeneous group was not found by these early researchers. Although the concept of a single characteristic personality which would invariably lead to alcohol abuse has been discarded, (Barnes, 1979; Blashfield, 1981), many alcoholics do share certain personality traits such as antisocial characteristics, anxiety and/or depression. While the symptoms of antisocial characteristics, anxiety and/or depression, do not form the alcoholic personality, they are of interest because they may help in the delineation of several of the alcoholic personality types which this research is focused on uncovering. Thus, in order to review this field of literature as widely as possible, let us look closely at research which has revealed common symptoms of the identified alcoholic.

Many authors have found support for the hypothesis that antisocial personality traits are present in alcoholics. For example, Jessor et al. (1968) found that in a sample of 88 males and 50 females, problem teenage drinkers committed significantly more antiauthoritarian acts, even when they were not drinking compared to teenagers who did not have a drinking problem. Schuckit (1969) found

that 25% of a group of male alcoholics had histories of serious anti-social problems before the onset of alcoholism. Furthermore, other authors have documented other antisocial behaviors in their alcoholic subjects. In addition, Schwartz et al. (1978) found sensation-seeking behaviors in 130 male and 112 female alcoholics. While these behaviors displayed by alcoholics in the above studies are not enough to warrant a DSM III diagnosis of anti-social personality, taken together they do suggest that alcoholics have a greater likelihood of displaying more anti-social traits than do non-alcoholics. Data from the MMPI suggest that many alcoholics are unable to profit from past experience and have difficulties with authority figures and also in the establishment of long-term, stable relationships, traits which are indicative of antisocial personality (Duckworth, 1979; Greene, 1980). These findings have been verified in a number of populations including male alcoholics (Schwartz et al., 1978) and middleclass alcoholic women (Krauthamer, 1979).

In addition to anti-social traits, some alcoholics manifest both anxiety and depression, regardless of whether they are sober or intoxicated. Tamerin and Mendelson (1970) measured alcoholics' mood and self-perception in both sober and intoxicated states. Some subjects reported greater levels of anxiety in the sober condition and others reported greater levels of anxiety when intoxicated. The level of anxiety in the intoxicated state was not predictable from any of the measures completed in the sober state. Those who became anxious in the intoxicated state could not be predetermined by their level of

anxiety in the sober state. Further, depression increased from the sober to the intoxicated state in every subject. From the results of this study, the authors concluded that alcoholics may actually have expectations of change in mood when intoxicated, but that these changes may not actually occur.

Several studies using self-report rating scales, have shown that alcoholics view themselves as significantly depressed (e.g. Hoffman, 1973). The authors went on to say that the depression of the alcoholic may be qualitatively similar to that of individuals who experience depression as their primary problem. Studies utilizing the MMPI have also noted that male alcoholics are both anxious and depressed (Hoffman and Nelson, 1971).

In summary, although the concept of a single personality trait or cluster of traits which would accurately describe the alcoholic is not considered viable, (Barnes, 1979) the idea that many alcoholics do share some personality traits is valid. Most notably these traits include antisocial characteristics, anxiety, and depression. Furthermore, the presence of these traits have been noted both cross-culturally and cross-racially.

Butcher and Pancheri (1976) compared groups of alcoholic and nonalcoholic men and found that features of depression, anxiety and antisocial characteristics were present significantly more often in the alcoholics than the nonalcoholics cross-culturally. A second study using male American Indian alcoholics, noted characteristics of acting out and depression (Kline, Rozynka, Flint, & Roberts, 1973).

As noted previously, the ability to differentiate alcoholics from other groups is important in the provision of appropriate treatment. However, treatment paradigms which follow one homogeneous alcoholic personality have not been effective in many cases. Recognition of this fact has lead many researchers to attempt to delineate subgroups of alcoholics. The following section will briefly examine the specialized MMPI scales which have been developed to differentiate alcoholics from nonalcoholics. A later section will explore studies which attempt to characterize alcoholics into personality subgroups based on MMPI scores.

The Use Of Specialized MMPI Scales To Differentiate Alcoholics From Nonalcoholics:

In many of the studies mentioned above the average MMPI profile was used to determine personality characteristics which distinguish the alcoholic from the nonalcoholic (e.g. Butcher and Pancheri, 1976). As stated these studies have been relatively unsuccessful. Specialized MMPI scales also have been developed which have been used clinically to further aid in the diagnosis of alcoholism. For example, the determination of differences between alcoholics as a group and psychiatric populations might lead to the discovery of knowledge of the cause and course of alcoholism. Knowledge gained through these studies would be useful in planning both preventive strategies and treatment programs.

Several researchers have developed MMPI scales designed to

distinguish alcoholic patients from other nonalcoholic populations (Button, 1956; Hampton, 1953; Hoyt & Sedlacek, 1958). Hampton utilized his scale to differentiate alcoholics from nonalcoholics and also to distinguish among different categories of drinkers. Button (1956) used a scale which was developed to measure the effect of stressful life events upon mental health to differentiate male alcoholics from both normal males and male psychiatric patient populations.

In a similar study, Hoyt and Sedlacek (1958) compared groups of male alcoholics, male psychiatric patients and normal males. They reported that although their scale did not differentiate alcoholics from psychiatric patients, it did show differences between alcoholic and the normal, nonalcoholic sample . MacAndrew (1965), however, stated that the scales used by Button and Hoyt and Sedlacek did not actually distinguish alcoholics, but rather were a measure of overall maladjustment or general psychopathology. MacAndrew then developed a scale by contrasting the MMPI item endorsements of 300 male outpatient alcoholics with those of 300 male psychiatric outpatients. Subsequent validity studies showed that the MacAndrew scale discriminated between the outpatient alcoholics and nonalcoholic psychiatric inpatients with a very high accuracy rate (Groot & Adamson, 1973; Uecker, 1970).

The previous studies demonstrate that alcoholics can be distinguished from nonalcoholics through the use of specialized MMPI scales with differing degrees of success (Button, 1956; Hoyt and Sedlack, 1958; MacAndrew, 1965). However, discrimination of

alcoholics from nonalcoholics based solely on single specialized scales, such as the MacAndrew, may mask important differences between alcoholics. Use of different statistical procedures point out that there is actually more diversity among alcoholics than is apparent in the average of group profiles (Goldstein & Linden, 1969). The following section will review the work of Goldstein and Linden (1969) who examined subgroups of male alcoholics in order to determine if different types of alcoholics exist.

Examination Of Subgroups Of Alcoholics By Empirical Study Based On MMPI Profiles

Goldstein and Linden (1969) were among the first to attempt examine subgroups of hospitalized, male alcoholics. Using multivariate cluster analysis with MMPI data, they delineated four personality types which accounted for 45 percent of the original sample and 42 percent of the replication sample. The first two types were the largest and have been found in a variety of populations. For example, male state hospital alcoholic patients (Whitelock, Overall, & Patrick, 1971) and male inpatients with a primary diagnosis of alcoholism fit into one of the first two subtypes. (Loberg, 1981). Specifically, Type I alcoholics as defined by Goldstein and Linden (1969) are typically defensive and angry and repress and/or deny knowledge of their own unfavorable traits. Generally, the Type I person doesn't recognize the need to change, but rather blames others for his/her problems. Type II, the psychoneurotic alcoholic with

anxiety or depression reactions, was also found within the above populations.

Goldstein and Linden's other two subtypes are less frequently referred to in the literature: Type III is represented by a normal limits profile, all scales below a T-scale of 70, although these individuals have slight features of antisocial characteristics, depression and mania. These Type III alcoholics tend to express overabundant anger and may have an excess of energy that can contribute to depression if they are unable to keep busy. The fourth subgroup, Type IV, has a primary problem of alcoholism with secondary characteristics of paranoia.

The work of Goldstein and Linden explicitly points out the error of viewing alcoholics as a homogeneous group. They actually form a heterogeneous group. This heterogeneity, has caused much speculation as to the reason for these differences. Many hypotheses which have focused upon different etiological factors in the development of alcoholism have been presented to explain this heterogeneity. Several of the etiological theories point to the idea that alcohol fulfills a need of the individual. For example, the need might be for power, for stress reduction, or for a variety of narcissistic needs. These theories will be reviewed in the following sections. It is possible that alcoholics who drink to fulfill different needs may develop or possess different personality characteristics. It is also possible to speculate that a specific set of personality characteristics may correspond to a specific need. For example, perhaps those who develop

alcoholism due to a need for power maintain personality characteristics which are similar to the Goldstein and Linden (1969) Type II personality.

Need For Power

Several studies have investigated the hypothesis that some cases of alcoholism result from a thwarted need for power. McClelland et al. (1972) concluded that male heavy drinkers have both a high need for power and low activity inhibition. Need for power was defined as "anticipation of an increased feeling of power, of being recognized and of having influence over others" (p. 5). Activity inhibition was defined as a "general measure of a tendency of the individual to restrain himself on a variety of occasions in a variety of situations" (p. 5). McClelland et al. used male college students to study the hypothesis that heavy drinkers (those who consumed three or more drinks, two or more times a week) would have higher levels of need for power and lower levels of activity inhibition than light drinkers (those who drank up to two drinks, two to four time a month). On the basis of four Thematic Apperception Tests (TAT) administered to both groups prior to and after alcohol consumption, McClelland et al. concluded that heavy drinking males did have high power scores and low inhibition scores when compared to light drinkers.

McClelland's work has been criticized on a number of counts (Deardorff et al., 1975). This distinction between heavy and light drinkers appears to be based upon an inappropriately moderate

criterion. The use of TAT scores alone without other measures of power and activity inhibition has also been questioned. Although questioned, McClelland's work has been extended by other researchers. For example, Wilsnack (1973) found that women who were heavy drinkers had significantly higher need for power scores than women who were light drinkers. However, she did not report on measures of activity inhibition. Cutter et al. (1973) studied hospitalized alcoholics and found that although activity inhibition scores were associated with alcohol consumption power scores were not. Finally, Scoufis and Walker (1982) reported that in both men and women heavy drinking is associated with high power needs, but not with activity inhibition scores. They also state that heavy drinking women had significantly lower power needs than heavily drinking men. It should be recalled that Wilsnack (1974) found higher power needs in heavy-drinking women than in women who were light drinkers. Thus, based on the aforementioned studies, it appears that differences in power needs and activity inhibition are evident in comparing heavy drinking individuals to light drinkers.

Other researchers have hypothesized that it is not a need for power but rather the perception of the power that an individual possesses that is associated with drinking (Levy, Reichman, & Herrington, 1979; Deardorff et al., 1975). Beckman (1980) found that women experience a greater sense of power when drinking. Naditch (1975) found that male army recruits drank more when they were faced with an external locus of control, such as a new environment and

commanding officer which suggested lead to a feeling of powerlessness. Markowitz (1984) found that the drinking behavior of full time employees in eleven different organizations was related to both perceived job responsibility and perceived lack of personal power within the organization. More recently, studies have expanded upon this concept by suggesting that the self-perceived lack of power impacts upon the individual by reducing his/her potential for personal attainment of goals. This may result in a sense of frustration or stress which in turn, may lead to the use of alcohol as a coping device (Beckman, 1980).

Need To Reduce Stress

Other authors have proposed that the use of alcohol fulfills the individual's need for stress reduction, rather than his/her need for power (Tamerin & Mendelson, 1970; Nathan & Lisman, 1970, 1976). Accordingly, one body of research has centered upon the ability of alcohol to reduce stress. Basically, this hypothesis states that the individual reacts to psychological stress by drinking. The literature consistently suggests that both alcoholics and social drinkers report using alcohol to relax in stressful situations (Calahan, 1976). Observations of alcoholics' behavior while drinking show them to be depressed, anxious and nervous, although when interviewed the following day, they reported having experienced a reduction of stress (Tamerin & Mendelson, 1970; Nathan & Lisman, 1970, 1976). The results of the above studies point out that the alcoholic credits alcohol

with an ability to reduce stress even though when objectively observed this reduction was not apparent. Although the tension reduction hypothesis is not fully empirically established, it is a widely used theory for explaining the reasons for drinking and the progression to alcohol abuse.

Alterman, Gottheil and Crawford (1975) suggested that this discrepancy occurred because the effects of drinking on stress and mood are related to the schedule of drinking as well as the drinking situation. They concluded that during the first week alcohol consumption is associated with positive effects on mood; but that after this initial period, alcohol is associated with negative mood. They proposed that this consequence may be related to the amount, time and circumstances of drinking. An additional factor may be that the person is selectively remembering the 'good aspects' of drinking.

In summary, it appears that alcohol may be used by the individual in order to reduce psychological stress. Several authors (Beckman, 1975; Johnson, 1982) have found that stressful life events precipitated alcoholism. This finding has been particularly noted in the limited research on women and alcoholism which will be presented later in this paper. If in fact, alcohol does fulfill the individual's need to reduce stress, this has important ramifications in both the etiology and treatment of alcoholism. Individuals who are "stress induced" alcoholics would require treatment which would most likely focus on reducing the stress and learning appropriate coping strategies.

Narcissistic Needs

Another approach applies psychodynamic theory to alcoholism. Freud (1953 as reviewed by Forrest, 1985) stated that the alcoholic is fixated at the developmental stage which focuses upon oral gratification. However, Freud did not provide case studies of alcoholics nor did he present treatment guidelines. Other psychodynamic theories state that alcohol is used as a means to reduce narcissistic drives (Forrest, 1985). The alcoholic remains at the stage of development in which his/her own narcissistic needs are of paramount importance. Narcissistic needs pertain to essentially physiological processes, for example oxygen, food, and physical contact. These needs are self-oriented. Narcissistic entitlement refers to psychological and interpersonal processes, such as love, respect, esteem, and trust. This theory states that the alcoholic, views his narcissistic needs and entitlements as more important than the needs of others (Forrest, 1985).

Forrest (1985) presented a psychodynamically oriented etiological theory of alcoholism. The alcoholic, according to this theory, has been hurt, either physically or psychologically, by significant others during his/her childhood. The resultant feelings of inadequacy, worthlessness, and depression are reinforced by ongoing failures by the individual to succeed at interpersonal relationships and other endeavors such as employment. This theory states that alcohol is used by the individual to avoid facing both interpersonal and intrapersonal

problems.

Psychoanalytic hypothesis are difficult to test empirically for a number of reasons (Bratter & Forrest, 1985). For example, operationally defining psychoanalytic terms is difficult. Another problem is the reliance upon retrospective reports of childhood which may be difficult to substantiate. Even though these difficulties exist, Bacon (1973) points out that cultural studies have found that societies which are less indulgent of the dependency needs of their children have higher rates of alcoholism as compared to societies which foster dependency in children. The work of Bacon points out a relationship between dependency needs and alcoholism.

To summarize, research has not supported the concept of a distinct personality or cluster of personality characteristics which would invariably lead to alcoholism. However, groups of alcoholics frequently do share the personality traits of antisocial characteristics, anxiety and depression. Furthermore alcoholics form distinct subgroups which differ in terms of these characteristics (Goldstein and Linden, 1969).

Many etiological theories have been presented to explain alcoholism. Most notably, these include the idea that alcohol fulfills a need of the individual, such as power, stress reduction, or satisfaction of narcissistic needs. As reviewed in prior sections many factors have been implicated in the development of alcoholism. However, the majority of the above findings are based upon white males. More recently, researchers have began to study women

alcoholics. Therefore the following section will present a survey of the literature that has focused upon women. It will be shown that women alcoholics do seem to differ from men alcoholics, for example, in strength of power needs. The sex differences noted in alcoholics, (Beckman, 1980; Scoufis & Walker, 1982) could be important in the planning of effective treatment for the individual.

Women And Alcohol

Sanmaier (cited in Wilsnack and Beckman, 1984) noted that there were only 28 English-language studies of alcoholic women between the years 1929 and 1970. Today although the literature on women and alcoholism has grown, it still grossly underrepresents women. For example, in 1982, the Journal of Studies On Alcoholism published 49 empirical abstracts on drinking, problem drinking or alcoholism among women (Wilsnack & Beckman, 1984). This increase in research dealing with women and alcohol may be due to the increased awareness and focus upon women's issues, the increased publicity received by the problem of alcoholism in women, and finally, the discovery of alcohol's detrimental effects on the development of the fetus (Wilsnack & Beckman, 1984).

Past research studies have compared women alcoholics to male alcoholics in terms of drinking behavior in order (Beckman, 1975; Garrett & Bahr, 1973; Horn & Wanberg, 1969; Morrissey & Schuckit, 1978; Rimmer et al., 1971). One of the differences that has been found is that alcoholic women are more likely to drink alone (Beckman, 1975;

Horn & Wanberg, 1969) This pattern of solitary drinking is seen even in skid row female alcoholics who maintain a solitary drinking pattern and remain more sensitive to social disapproval than male alcoholics (Garrett & Bahr, 1973). There are sex differences in the type and amount of beverages consumed; women are reported to prefer liquor and wine to beer which is preferred by men (Horn & Wanberg, 1969). Women report less daily drinking, less drinking throughout the entire day, fewer binge episodes, and lower consumption rates per drinking occasion than do men (Horn & Wanberg, 1969; Morrissey & Schuckit, 1978; Rimmer et al., 1971). The alcoholic woman is also more likely to hide drinking problems than men are (Beckman, 1975) which may partially account for the lower rate of clinically observed alcoholism seen in women.

In general, research has shown that alcoholic women have poor self-concepts and low self-esteem (Beckman, 1975). Jones (1971) followed up a sample of women who as adolescent girls completed extensive personality and behavioral measures. She found that, the majority of women who had developed problem drinking, had suffered severe isolation and emotional disturbance as adolescents. Most notably she found that the alcoholic women in her sample, as adolescents, had described themselves as lacking in trust,and having maladaptive impulsivity, low self-esteem and depression.

Hoar (1983) found that the childhood of alcoholic women differs from that of male alcoholics. Women alcoholics are more likely to experienced family disruption and deprivation as children than are

male alcoholics. Women alcoholics are also more likely to have alcoholism in their families.

Many researchers have pointed out that women differ from men in terms of antecedent events which appear to correlate with alcoholism onset (Beckman, 1975; Lisansky, 1957; Morrissey & Schuckit, 1978). Beckman (1975) states that alcoholism and heavy drinking are more likely to be preceded by a psychological stressor in women than in men. Beckman went on to say that it appears likely that women, in general, are propelled into alcoholism in response to stressful life events. Whereas, in contrast men, are more likely to drift into alcoholism rather than develop alcoholism in response to stress.

Many stressors have been identified as possible antecedents of alcoholism in adult women. Lisansky (1957) found that almost all alcoholic women in his study reported specific recent stressors prior to the onset of alcoholism. These stressors included loss of a parent, marital difficulties or divorce, or medical problems. However, he concluded that although women alcoholics cited such precipitating stressors more often than did male alcoholics, this could be because women have a greater need to explain their alcoholism in a more socially accepted manner. Likewise, Morrissey and Schuckit (1978), found that stressors precipitated alcoholism in women. On the other hand, support for the idea that a precipitating event is named in order to gain social support, was found in both men and women by Mulford (1977).

As stated above, marital problems have been identified as a

possible precipitating stressor in the development of alcoholism in women. In addition to this finding, female alcoholics report a heavily drinking or alcoholic spouse more frequently than do male alcoholics (Lisansky, 1957; Rosenbaum, 1958; Mulford, 1977). Johnson (1982) found an interaction between marital status, age, and working outside the home in the occurrence of alcoholism in women. The highest rate of problem drinking occurred among divorced or separated women who were under 35 year of age. Among the married women, in Johnson's sample, those who worked outside the home had significantly higher rates of problem drinking, compared to married women who did not work outside the home. Johnson went on to state that it appears that certain combinations of factors may place women at a higher risk for problem drinking. Although these findings from a limited sample, were not replicated in a national survey by Wilsnack, Wilsnack, and Klassen (1984), these findings suggest the hypothesis that dual-role stress may precipitate problem drinking in some women. Women when faced with many stressors, such as marriage and employment or marriage and aging may use alcohol to reduce the stress (Johnson, 1982). If women do, in fact, use alcohol to relieve stress brought about by dual-roles, treatment which would address the precipitating stressor could be of paramount importance, whereas treatment focused solely on drinking reduction may prove ineffective.

Other researchers have focused upon different motives for drinking. Beckman (1980) compared alcoholic men and women, women in psychiatric treatment for neurotic disorders, and normal women. She

found that both alcoholic men and women reported that they drank to relieve stress, and that both groups reported that they experienced positive affect due to drinking. However, alcoholic women reported more feelings of powerlessness and inadequacy before drinking than any of the other groups did. Edwards, Hensman, and Peto (1972) compared man and women's reasons for drinking and found that relief of unpleasant feelings and celebration drinking strongly related to the amount that women drank. In addition, social pressure from family, friends, and coworkers also were reflected in problem drinking by women. Finally, a study by Fillmore (1974, 1975) which followed identified college drinkers into midlife, found that young women who relied on alcohol for relief of unpleasant feelings were more likely to be problem drinkers later in life. From the above studies it appears that some women use alcohol in response to stress, and in fact, alcoholism in women, is often preceded by a stress, such as marital difficulties.

As noted previously, men and women alcoholics differ in their reasons for drinking, with women frequently stating a specific precipitating event for alcoholism. In contrast, men who do not report a specific precipitating event but rather, gradually drink more and "drift" into alcoholism (Beckman, 1975). This difference is noted also in the reasons that women and men seek treatment. Women tend to seek treatment for alcoholism in response to some interpersonal crisis, such as marital discord, whereas men are more likely to "drift" into alcoholism treatment (Hoar, 1983).

Most theories concerning alcoholism have been developed using male alcoholics as the data base (Goldstein & Linden, 1969; McClelland et al., 1972). The leading theories include the need for power (McClelland, 1972) which states that men drink excessively in response to strong, but unsatisfied needs for personal power. Support for this theory was found in a group of women alcoholics who are described as "upwardly striving" by Wilsnack (1974). She found that women who were heavy drinkers had significantly higher power scores than light drinkers. Scoufis and Walker (1982) found that both men and women alcoholics have high power needs, although women, as a group, had lower power need scores than the heavy drinking men.

Concerns and conflicts over the feminine sex role also appear to be critical factors in the development of alcoholism in women. Wilsnack (1974, 1976) suggested a "womanliness hypothesis". This hypothesis states that women who have been described as having sex role confusion and "inadequate adjustment to the adult female role", drink excessively to increase feelings of traditional femininity. Wilsnack went on to state, that women do not drink to be more like men, but rather to enhance their femininity. She found that women who drank became more feminine, as measured on the basis of thematic apperception test responses. In contrast, men became more power-oriented. Beckman (1978b) studied 120 alcoholic women matched with control groups of nonalcoholic women in treatment for emotional problems, and nonalcoholic normals. She found that when sex-role confusion was defined to include both conscious femininity and

unconscious masculinity, there were no significant differences between the incidence of sex-role conflict in the alcoholic women and the normal controls. However, the alcoholic women who did have sex-role confusion, differed from the other alcoholic women in that they had lower self esteem and a higher rate of single parent households during their childhoods. Beckman also studied androgyny measures and found that the alcoholic women were significantly less androgynous than the normal controls. Both the alcoholic women and the women in treatment for psychological problems, scored in the same range on the androgynous measures. To summarize, these studies suggest that alcohol is used by some women, to resolve sex-role confusion by enhancing the individual's feelings of femininity.

In summary, the theories which have been developed thus far are frequently based upon male alcoholics. This brings forth a serious question about the applicability of these theories in explaining alcoholism in women. Furthermore treatment for women alcoholics may differ from treatment for male alcoholics, for example if stress is a important factor in alcoholism in women whereas other factors play a major role in alcoholism in men. The current literature suggest differing reasons for the development of alcoholism in women, as compared to men. Most notably, is the fact that a precipitating factor is frequently implicated in the etiology of alcoholism in women (Beckman, 1975; Lisansky, 1957). A second source of alcoholism that has been proposed for women, is the need to increase feelings of femininity. Therefore, if the reasons that women develop alcoholism

differ from men's reasons for alcoholism, the importance of research which deals with women and alcoholism is apparent.

A second variable which may be important and has not been adequately incorporated into theories on alcoholism is the one of ethnic group membership. The following section will briefly review research which focuses upon the differences in drinking patterns, consequences, and reasons cited by Native Americans as compared to whites.

Current Drinking Practices Of Native Americans

As noted previously, the impact of alcohol on Indians is severe. For example, the number of alcohol-related health problems and legal problems is much higher among Indians than Whites (O'Brien & Chaffee, 1982; Stewart, 1964). The following section will discuss other differences, e.g. reasons for drinking, and problems associated with drinking, between White and Indian males and females.

Weisner et al. (1984) studied differences between three groups of Native Americans; those who abstained from alcohol, moderate drinkers, and heavy drinkers. A 6 point self-report scale was used to assess both present and past drinking, in both men and women. A series of stepwise multiple-regression analyses showed that the most influential predictors of alcohol use were: age, with younger and middle-aged individuals drinking more than older ones; sex, with men drinking more heavily than women; and self-reported stress scores. Individuals who reported more psychophysiological stress drank more than those who

reported less stress. As noted in the previous section on stress and alcoholism, many alcoholics report drinking as a response to stress (Calahan, 1976). Weisner et al. also noted that the percentage of Indian ancestry was also a predictor. Individuals who reported 50% Indian ancestry drank more than those who reported 25%, or more than 75% Indian ancestry. The authors suggests that this is due to an acculturation stress, rather than a genetic component.

Variables which were not significant in predicting drinking, included degree of traditional Indian behavior (as measured by fluency in the tribal language, participation in traditional ceremonies and use of Indian medicines) and exposure to tribal culture, for example, years on reservation and number of Indian childhood friends. Other variables which were nonsignificant included socioeconomic status, a measure which included education, earned income and occupational status, years of residence in Los Angeles and drinking level in the childhood home. The authors hypothesized that these variables may prove to be contributing factors in certain groups. In fact, when the data was reanalyzed excluding "on the wagon" abstainers, both drinking level in childhood home and stress measures became significant.

Another study, conducted by Hughes and Dodder (1984) compared both male and female Native American college students to male and female White college students, by use of a self-administered questionnaire. They found that although both groups preferred beer, Whites reported drinking significantly more wine and liquor. An additional difference was noted in terms of location of drinking.

Whites reported drinking in public places such as bars, restaurants and parked cars, whereas Indians reported drinking in either their own home or the homes of friends. Reasons for drinking were also different. Indians reported drinking to escape from stress, to get high, or for social reasons, while whites cited hedonistic reasons, such as enjoyment of taste or to feel good or to promote relaxation for engaging in drinking.

In terms of self-reported problem endorsement, men cited a higher frequency of problems than did women. In general, Indians reported significantly more arrests and more frequently thinking that they may have a drinking problem. Whites noted problems such as nausea, drinking and driving, behavior that was regretted later,and damage to property and interference with school or work. Differences were also seen between the White and Indian women. Indian women had higher frequencies of problem endorsement, than white women in every area, with the exception of nausea and drinking and driving. Indian women also noted significant interference with school or work and concern about their drinking.

In addition to the differences noted within sex, differences were also found between the sexes, in terms of problem endorsement. Overall, White men reported more problems than white women in every area. Indian women reported a higher frequency than Indian men in over half of the problem areas. In summary, White men reported a mean of 47.7% of problems, Indian women 39.9%, Indian men 36.3% and White women 31.4%.

The following section will briefly review the introduction of alcohol into the Native American culture. In addition, Native American culture will be reviewed in order to gain an understanding of the unique stresses which face the Indian who is living within the white culture.

Native American Culture

McNickle (1962) reports that there were at least 400 different Native American cultures located on the North American continent in the early 15th century. There were many group differences in speech, dress, value system and religious beliefs. Therefore, Indians were in contact with and accustomed to dealing with different cultures, through the trading of ideas and goods. On the other hand, the European culture was more homogeneous, for the most part espousing few languages and one religion, the Judeo-Christian (McNickle, 1962). Consequently, Europeans were less accustomed to incorporating different cultures, trying instead to impose their lifestyle upon the Indians.

Alcohol was introduced on a widespread scale in the late 1700s and early 1800s by the Europeans (McNickle, 1962). Initially, alcohol was offered as a social beverage in a gesture of friendship (McNickle, 1962). However, MacAndrew (1965) documented a number of other situations in which Indians had adverse physiological reactions to alcohol. From the initial contact, when the White men were vying

for military and commercial alliances with the different tribes, alcohol's growing importance to the Indian made it an important commodity in trade (Heath, 1975). The Indians did not manufacture their own alcohol, therefore the White men maintained a "seller's market." Furthermore, alcohol could easily be transported, stored with minimal waste, and divided. Once alcohol was consumed, the consumer was in need of replenishing his supply (Heath, 1975).

As the use of alcohol in trade increased, the White man began to expand its use to his advantage (Estes & Heinemann, 1977). The White trader would induce an Indian to become intoxicated before negotiating deals for furs, often taking advantage of the Indian's impaired judgment. Later, alcohol was used to persuade Indians to trade off their land for almost nothing (Estes & Heinemann, 1977). In addition to losing their lands and being forced to live on reservations, Indians have had their children, homes, art, language and customs taken from them.

Tribal leaders have been concerned about drinking by their members ever since alcohol was introduced to the Indians (Estes & Heinemann, 1977). In response to this concern, Congress passed the Indian Prohibition Act in 1932 which made it illegal to possess alcohol while within Indian territory. This measure, however, did little to reduce drinking but rather forced the Indians to buy liquor from bootleggers. Indian prohibition existed from 1832 to 1953 at which time the decision for prohibiting alcohol was left to tribal counsels. Heath (1975) found that about 66% of the reservations

observed prohibition and that alcohol-related death rates (including cirrhosis, and alcohol-implicated suicides and car accidents) were lower on reservations where drinking is legal. Heath (1975) found that repeal of prohibition had little effect on drinking patterns in off-reservation Navajos. These studies suggest that prohibition is not a satisfactory resolution of the problems caused by alcohol use among Indians.

Today both male and female Indians are caught between the world of the White man and their traditional Indian culture with disastrous consequences. Estes & Heinemann (1977) reported that Indians, as an ethnic group, experience the worst health and housing conditions, have the highest unemployment rates and are in the lowest economic brackets in comparison to Whites and Blacks. If they enter the White man's world, they face discrimination both socially and economically. However, if they remain on the reservation, they are subjected to high rates of unemployment, poor health care, and inadequate housing. Either way the individual is placed in an stress-provoking situation. As noted in the previous review stress has been implicated in the development of alcoholism in both men and women.

To better understand the dilemma with which the Indian is confronted, examination of a few of the basic differences between the White man's and the traditional Indian culture is necessary. The Indian culture places a strong emphasis on the group. Ties to both family and tribes are very strong. An extension of the group orientation is evident in the lack of concern for amassing personal

property. Resources are to be shared with others until depleted. Another difference is in the concept of time. For the Indian, life is not scheduled by a calendar but rather according to the events of nature. For example, the Indian would eat when hungry rather than when the clock says that it is appropriate (McNickle, 1962).

After gaining some knowledge about the Indian culture, one can appreciate the difficulties that confront the Indian trying to fit into the white culture. The conflict between the two cultures can be difficult in all areas, for example, the white culture stresses competition whereas the Indian culture stresses mutual striving for goals. Even in terms of time management, differences between the two cultures are apparent. The white culture is strictly scheduled and the Indian culture does not strictly heed the calendar or the clock. One method of coping with the daily problems posed by such conflicts may be the use of alcohol. Current literature suggests that drinking may be an attempt by the Indian to adjust to the larger society of the white man and a reaction to the loss of the native culture (Dozier, 1966; Maynard, 1969). Dozier (1966) felt that the "Indians' deep sense of inadequacy and inferiority is one of the most important factors in alcohol abuse." A similar viewpoint was held by Jilek (1974) who stated that drinking by the Indian was a result of:

> anomic depression (which) develops in reaction to alienation from aboriginal culture under Westernizing influences; it derives from experiences of (1) anomie, the absence of an effective normative structure; (2) relative deprivation, the negative discrepancy between a minority group's legitimate expectations and its actual situation in a larger society; (3) cultural confusion, the weakening of norms in members of a cultural group, unable to integrate the contrasting values

of their own with those of a different culture.... (p. 56)

The drinking behavior of Indians, as with the general population, ranges on a continuum from abstinence to alcoholism. Most heavy drinking takes place in groups in which the goal is to get drunk. Failure to drink is a social offense. Typically, the rate of drinking is fast. Members of the group are expected to share their supply of alcohol and drinking continues until resources are depleted. Furthermore, since there are few sanctions against drunkenness, behavior which is unacceptable to the White culture, is tolerated (Estes & Heinemann, 1977).

The preceding section has pointed out some of the differences between the Native American culture and the White culture. The especially deleterious effect of alcohol on Indians was pointed out in the introduction. Most notably, alcoholism is the number one health problem among Indians (O'Brien and Chaffee, 1982). Alcohol also has a great impact legally, with alcohol implicated in the majority of arrests for public intoxication (Stewart, 1964). It is evident that the ethnic identification of the individual is an important variable which could affect both the development and the treatment of alcoholism. For example, the higher arrest rate and accident rate that is seen in Indians may be due to cultural influence which dictates sharing and drinking until the supply is depleted.

The preceding literature review has pointed out the variability that is encountered within the field of alcohol research. Although alcoholics have been noted to differ from nonalcoholics in terms of

personality characteristics, these characteristics are not unique to the alcoholic nor do they make it inevitable that the person who has these characteristics will become alcoholic.

Alcoholics form a heterogeneous, not a homogeneous, group (Goldstein & Linden (1969). They differ in sex, race and personality characteristics. This heterogeneity may in part be due to the use of differing definitions of alcoholics. The next section will explore some of the definitions used in the past and the current diagnostic category of alcoholism presented by the DSM III. In addition, the use of a conjunctive category in defining alcoholism will be reviewed and contrasted to the use of a disjunctive category. Finally, the multivariate model of alcoholism developed by Patterson will be reviewed.

Alcoholism As A Disjunctive Category

Thus far we have explored exhaustive evidence that, while alcoholics do share some common characteristics, they differ in a myriad of ways. The research of Goldstein and Linden (1969) and Barnes (1979) point out that alcoholics maintain different personality characteristics. In addition to personality differences, alcoholics differ in the individual etiology of alcoholism (Calahan, 1976; Forrest, 1985; Markowitz, 1984; McClelland, 1972). Furthermore, males and female alcoholics differ in reasons for drinking (Beckman, 1980; Beckman, 1975; Wilsnack, 1974, 1976) and drinking behavior (Beckman, 1975; Garrett & Bahr, 1973). In addition to the above noted differences between alcoholics, there are racial differences as well, with alcohol-related health problems and legal problems at much higher rates among Native Americans as compared to Whites (O'Brien & Chaffee, 1982; Stewart, 1964). Hughes and Dodder (1984) found differences between Native Americans and Whites, in reasons for drinking; Native Americans reported drinking to escape from stress or for social reasons, whereas Whites cited hedonistic reasons for drinking. Native Americans and Whites also differed in the frequency of self-reported problem endorsement. Generally, Native Americans reported legal problems and concern about their drinking behavior. In contrast, Whites reported problems such as nausea, drinking and driving, and interference with school or work. It is apparent that alcoholics do not form a homogeneous group, but rather form a heterogeneous group.

McHugh & Slavney (1983) fully explored the issue of homogeneous

versus heterogeneous groups, in their discussion of conjunctive versus disjunctive categories of disease syndromes. They also noted the problems which are encountered when disjunctive categorization is used. McHugh and Slavney (1983) went on to state that the difficulty in finding common traits may be due, in part, to the use of disjunctive categorization in defining alcoholism. A disjunctive category includes members who fulfill any single one, or any combination of several, defining attributes. For example, the traditional concept of alcoholism requires that an individual's drinking results in suffering to self or others (McHugh & Slavney, 1983).

The existence of negative consequences, for example, unemployment and/or problems in interpersonal relationships has been used in the past as criteria for being labeled "alcoholic" (Estes & Heinemann, 1977), although these conditions may exist independently of alcohol dependence and may not necessarily be part of the clinical picture. Any one, or all of many independent criteria, could result in the diagnosis of alcoholism when defined as a disjunctive category. A person could be considered alcoholic if because of drinking, job or family is lost, or if drinking results in organic damage, or if actual drinking is infrequent but the person reacts adversely to drinking. The disjunctive category "alcoholism" could encompass one or all of the above drinking patterns. Thus, the disjunctive category of alcoholism is a broad one whose criteria for membership are both diverse and individually sufficient.

In summary, disjunctive categories have criteria which are linked by 'or' in listing of the the criteria, (i.e. the person is diagnosed as alcoholic if he/she has, due to drinking, lost family or job, or has sustained organic damage). In the past, recognizing alcoholism through the use of a disjunctive categorization, has been useful in identifying individuals who are in need of treatment. However, the disjunctive categorization of alcoholism has proven to be inadequate in terms of providing treatment to all individuals who are alcoholics, as it may encompass individuals who are not physiologically dependent on alcohol (McHugh & Slavney, 1983). An improvement is seen in the use of a conjunctive category which would provide more specific diagnostic criteria in defining alcoholism. A conjunctive category accumulates its members by a conjunction of criteria; as an individual is determined to fit more than one criteria he/she is considered a member of that conjunctive category (McHugh & Slavney, 1983). The use of a conjunctive category to define alcoholism will be presented in the following section.

Alcohol As A Conjunctive Category

The criteria for a conjunctive category are linked by the word "and" whereas the criteria for a disjunctive category are linked by the word "or". For example, the disjunctive categorization could include the individual who is adversely affected by drinking "or" has problems in interpersonal relationships. A conjunctive category of alcoholism would state that the individual is adversely affected by

drinking "and" has interpersonal difficulties due to drinking. In the field of alcoholism treatment, the use of a conjunctive category would more accurately diagnosis the individual. Thus treatment could be focused upon that particular individual's problems. The individual would not be forced into a single treatment paradigm. The DSMIII is an example of conjunctive categories and provides a more specific set of diagnostic criteria in the determination of alcoholism. To be a member of the conjunctive category of alcohol dependence, an individual must meet a criteria from both section A "and" a criteria from section B, in the following DSM-III definition:

> A. Either a pattern of pathological alcohol use or impaired social or occupational functioning due to alcohol use:
>
> Pattern of pathological alcohol use: need for daily use of alcohol for adequate functioning; inability to cut down or stop drinking; repeated efforts to control or reduce excess drinking by "going on the wagon" (periods of temporary abstinence) or restricting drinking to certain times of the day; binges (remaining intoxicated throughout the day for at least two days); occasional consumption of a fifth of spirits (or its equivalent in wine or beer); amnesic periods of events occurring while intoxicated (blackouts); continuation of drinking despite a serious physical disorder that the individual knows is exacerbated by alcohol use; drinking of non-beverage alcohol.
>
> Impairment in social or occupational functioning due to alcohol use: e.g., violence while intoxicated, absence from work, loss of job, legal difficulties (e.g., arrest for intoxicated behavior, traffic accidents while intoxicated), arguments or difficulties with family or friends because of excessive alcohol use.
>
> B. Either tolerance or withdrawal:
>
> Tolerance: need for markedly increased amounts of alcohol to achieve the desired effect, or markedly diminished effect with regular use of the same amount.
>
> Withdrawal: development of Alcohol Withdrawal (e.g., morning "shakes" and malaise relieved by drinking after cessation of or reduction in drinking (p. 170).

The broad disjunctive category of alcoholism has been criticized

as inadequate in accurately defining and categorizing alcoholism. Furthermore, models of alcoholism treatment which assume that alcoholics form a homogeneous group fit alcoholism into a disjunctive category. As noted above, diagnosis of alcoholism through the use of conjunctive categorization provides a more accurate diagnosis. Following improvements in diagnosis, treatment models which are based upon more specific diagnosis could be more effective in provision of services to the individual.

A number of researchers have focused upon providing more concise definitions of alcoholism through the use of narrower conjunctive categories. Most notably, Patterson et al. (1977) has proposed a multivariate concept of alcoholism which views alcoholism as a syndrome rather than a unitary concept. In general, there are sets of symptoms associated with the early, middle and late stages of alcoholism. However, there is variability at each stage due to the individual's unique life history and present circumstances. Patterson's view that the expression of alcoholism varies due to both the stage of the syndrome and individual differences has been considered to be of paramount importance in the effective diagnosis and treatment of alcoholism.

Patterson states that alcohol syndrome produces physical, psychological and/or social consequences for the individual. These consequences range on a continuum from mild to severe and even fatal. The individual's alcohol intake also ranges on a continuum from non-use to drinking without consequences, to deleterious drinking.

Drinking problems are typically interrelated with other life problems, such as interpersonal difficulties. Within this model physical and psychological dependence on alcohol are separate and not necessarily related. Patterson extends his model to include a multivariate treatment approach. He unequivocally states that treatment must begin with accurate diagnosis and follow through with individualized treatment due to the fact that the alcoholic population is a multivariate one.

The above model points out the utility of defining alcoholism in terms of narrow conjunctive categories, rather than a broad disjunctive category. The use of conjunctive categories would assist in the goal of providing the most appropriate treatment. For example, McLachlan (1974) has provided data which point to the increased effectiveness of treatment when matched to the individual. He stated that when patients were matched in terms of therapy and after-care environments, 77 percent recovered. When matched to either the after-care or therapy environment alone, 61 and 65 percent respectively recovered. However when mismatched to both therapy and after-care, only 39 percent recovered. Since the category of alcoholism encompasses such a variety of attributes, it is unlikely that the members of this category would be homogeneous. This study was conceived in order to provide further evidence that alcoholics form many conjunctive categories, rather than one disjunctive category. In order to insure that the individual receives treatment that is the most effective, future research should fully explore the

use of conjunctive categories in the development of treatment models.

A second difficulty in the identification and explanation of alcoholism is the nature of the behavior. The use of alcohol is very common among adults and as a behavior, varies along a continuum from abstinence to continuous intoxication. The point at which one labels an individual an alcoholic may be problematic. Calling alcoholism a disease has had beneficial effects in the improvement of society's attitudes toward and treatment of the alcoholic and the disease concept may fit a subset of alcoholics. However, it may prove to be too restrictive to provide an explanation for other types of alcoholism. By viewing alcoholism as a behavior, the dynamic interaction of the individual with the total environment is taken into account.

Statement of the Problem:

Although the literature on alcoholism in extensive, virtually all of the existing psychological theories of alcoholism are based on research primarily conducted on White males. The question of generalizability of these research findings to females and to other ethnic groups, such as Native Americans, is one of paramount importance. This study investigated differences between the sexes and between the White and Native American groups, by analysis of the MMPI profiles of each group.

In addition to accessing differences between males and females

and White and Native Americans, this study addressed another major deficiency of the literature. Many psychological assessments, for example the MMPI, are invalid for many ethnic groups, such as Native Americans. Results from this study produced a series of MMPI profiles for alcoholics based upon Native Americans. However, although these profiles were generated from data based upon Native Americans, the profiles were interpreted through the use of norms which are based upon Whites. Thus, the following results, for the groups of Native American males and females, should be read as a set of hypothesis which were generated from data obtained from Native American alcoholics.

CHAPTER III

METHODS

Subjects

The medical records of three hundred and thirty-six patients were obtained from a chemical dependency treatment center at a State Hospital located in the Upper Midwest. As part of the admission procedure, subjects were administered the Minnesota Multiphasic Personality Inventory (MMPI), the Shipley--Hartford Intelligence Scale, and questionnaires concerning personal and demographic data. All records were completed within the first week of admission. Following discharge, subjects were placed into one of four groups based upon sex and race: male White (N = 89), male Native American (N = 82), female White (N = 42), or female Native American (N = 62). Individuals who had not completed the MMPI were excluded from this study. Demographic variables for the subjects are listed in Table 1 through Table 4. For additional background information, see Appendix A.

Procedure

Data for the study was obtained from records of discharged patients. For each of the four groups, the T scores from the individual MMPI protocols were analyzed using a cluster analysis to

obtain a series of representative profiles. Data on demographic variables and data on type of discharge, precipitating events, medications used in hospital, termination referrals, religion, number of admissions, community of childhood and culture identity, were analyzed using the Statistical Analysis System (SAS) as outlined by the SAS Introductory Guide (Helwig, 1983).

Methodology

Analysis of the MMPI profiles was accomplished using the hierarchical classification by generalized distance procedure (Clark, 1986). This procedure produces clusters of profiles for each group of subjects by successively combining individual profiles according to degree of similarity between them. Initially, the procedure selected pairs of profiles which were the most similar to each other in terms of the T-scores on the fourteen MMPI scales. Each pair formed the base for an overall average profile. Following the selection of th base pair, an index of generalized distance was calculated to indicate the amount of "spread" between the individual profiles in that pair. An index of generalized distance which is small indicates that the profiles are very similar.

Following the selection of the initial pair of profiles and calculation of the generalized distance the procedure repeated this cycle. Thus additional profiles were added which were the most similar to the pair and a new generalized distance which was larger, was calculated. This cycle was repeated until all profiles were

contained within one of the clusters. The average profile for each cluster could then be computed.

The demographical variables were dummy coded by assignment of representative number to each subset of the variable. The demographical variables were analyzed using the Statistical Analysis System (SAS). Dichotomous variables which included age, I.Q., C.Q. (Chronological Quotient), years of completed education, length of residence in Minnesota and number of admissions for chemical dependency were summarized (see Tables 1 through 4).

Following the summarization of demographical data, the SAS General Linear Model was utilized to study the relationship between each dichotomous demographical variable and the four groups. Variables which were significant at the .05 level are included in Tables 5 through 8.

In addition, a canonical analysis was used to determine the statistical significance of the categorical demographic variables in each of the subject groups. Categorical variables included marital status, parents, marital status, religion, occupation, income level, referral source, residence prior to admission and discharge referral to other than regular agency. Canonical analysis was used to assess the relationship between each of the subject groups and the significance categorical variables. Roy's Greatest Root was used to determine significance as it is the most powerful statistic when there is only one main eigenvalue in the canonical analysis (Pedhazer, 1982). That is, Roy's Greatest Root, has the highest probability that

it will reject the null hypothesis when the hypothesis is false (Roscoe, 1969).

CHAPTER IV

RESULTS

The analysis of the MMPI profiles using the hierarchical classification by generalized distances procedure yielded nineteen types each with their own representative profile. Four types for each of the groups of Native American females, White females, and White males were obtained. Analysis of the Native American male group produced seven types. The interpretations for each profile is provided in the following text. The reader is cautioned in reading the following intrepretations on the profiles of the Native American groups. Interpretations were obtained through use of MMPI norms which were based on White subjects. Thus, the following intrepretations are hypothesis which are based on Native American data and must be read as such. It is not known how representative the interpretations are for Native Americans. In addition, differencies between tribes may influence the generalization of these results. Analysis of the forty-four demographical variables produced thirteen variables which were significant at the .05 level for one or more of the groups (see Tables 5 through 8).

Native American Females

This group produced four types each with its own representative

profile. As noted above, the interpretations for the Native American profiles where obtained through the use of norms based upon Whites. The Native American female group reached significant levels for the demographic variable of years of education, parents' marital status and residence prior to admission (see Table 5).

Type one (N = 6). People in this type had a MMPI profile (see Figure 1) characterized as pessimistic, immature, rebellious, and antisocial. They have a poor self-concept, feel alienated from others and are devastated by even minor setbacks encountered in life. In addition, they feel guilty and ruminate about any perceived criticism of their actions (Newark, 1979). These women had a mean of 12.7 years of education. In regard to parental marital status, one had parents who were married, four had a father who was deceased, and one had a mother who was deceased. Upon admittance to treatment, four had came from their own home and two had came from a residence other than their own home or jail (see Table 5).

Type two (N = 16). The profile of this type of women (see Figure 2) point to an individual who views herself as unique and often is unconventional in their thinking. At this time, defenses are down and they feel unable to face challenges. Furthermore, women with this profile are likely to be verbose, impulsive, and lacking in social judgment. Typically, they experience interpersonal difficulties and problems in dealing with society in general (Duckworth, 1979). Therapeutic prognosis is good due to high levels of anxiety which can serve as motivation in psychotherapy and an openness at this time in

discussing problems (Duckworth, 1979). Ten women in this type came from their own home directly to the hospital, whereas two came from jail and four from other residences. This type had a mean of 11.8 years of education. In regards to parental marital status, seven had parents who were married and two each had parents who were separated/divorced, father deceased or mother deceased and three fell within the category of "other" (see Table 5).

Type three (N = 23). People with this profile present themselves as virtuous, conforming and self-controlled (see Figure 3). Furthermore, they are experiencing a mild dissatisfaction with life or have made an adjustment to problems of a chronic nature (Duckworth, 1979). Usually they possess sufficient ego strength to deal with their problems. There is a likelihood of legal difficulties or some other social problems which may be the result of anger, rebelliousness, and dislike of rules and regulations (Duckworth, 1979). As a type these women had 11.00 years of education. Sixteen came from their own home, five from jail and two from other residences directly to the hospital. In this type, eight had parents who were married, five had divorced parents, three had fathers who were deceased, and two had mothers who were deceased, and five had marked other category (see Table 5).

Type Four (N = 5). This profile of this type (Figure 4) is characteristic of people who are anxious, depressed and trying to look extremely disturbed as a means for requesting help. People with such a profile are pessimistic, immature, and narcissistically egocentric.

They are demanding of affection and support. Characteristically, they deny or repress unfavorable traits and deal with problems by using physical symptoms to solve conflicts or avoid responsibility. Prognosis for change in therapy is poor due to lack of psychological insight and strong need to repress feelings and events (Duckworth, 1979). Two of these women came from their own home to the hospital, one came from a residence other than home or jail and two from other residences. As a type they had a mean of 9.00 years of education. Three of the women had parents who were married, one had a mother who was deceased and one fell within the category of "other" (see Table 5).

White Females

Analysis of this group produced four types with their own representative profile and six significant demographical variables (see Table 6). The variables were age (years), length of residence in Minnesota, C.Q., marital status, religion and residence prior to admission.

Type one (N = 5). This profile (Figure 5) is characteristic of hostile, angry women who are most often particularly angry at men. They are passive, submissive, and self-deprecating. They are unable to express their anger directly, instead they arrange events to "victimize" the objects of their anger. Their social relationships are shallow and they feel isolated. In addition, this profile suggests a suspicious, overly sensitive person who has a very poor

self-concept and feels helpless in improving her situation. Therapeutic prognosis is poor (Marks, Seeman, & Haller, 1974). This type had a mean age of 28.00 years and had lived in Minnesota a mean of 15.40 years. In terms of marital status, three were single and two were separated or divorced. Within this type, one was Baptist, two were Lutheran, and two were "other" religion. This type had a mean chronological quotient of 107.40. Four of these women came from their own residence to treatment while one came from a residence other than home or jail (see Table 6).

Type two (N = 6). The profile representative of this type (see Figure 6) may be invalid due to a variety of reasons. These women may be seriously confused, delusional, unable to understand, randomly answered the test items, or were intensely anxious and pleading for help. Beyond indication of possible invalidity, this profile is indicative of a long-term problem. People with this profile are angry, paranoid, and do not learn from past experiences. They deal with problems by using somatic complaints to manipulate others and avoid responsibilities. In addition, they look for simple solutions to their problems and when this is not easily obtained, they sabotage treatment, thus prognosis for therapeutic gain is poor (Duckworth, 1979). As a type these women had a mean age of 25.7 years and had lived in Minnesota a mean of 17.00 years. Their mean Chronological Quotient was 96.25. Two of these women were single, one was married and three were separated/divorced. Within this type, two women were Catholic, one was Lutheran and three endorsed a religion other than

the previously mentioned. Two of the group came from their own residence, one from jail, and three from other residences (see Table 6).

Type three (N = 9). The profile associated with this type women point to women who hold to traditional feminine activities and values (see Figure 7) and are seeking help by endorsing symptoms of severe mental illness. These individuals are often seen as angry, rebellious, and suspicious. Individuals with such a profile act out and may exhibit violent behavior. Heavy drinking may be a factor in these episodes. At this time, the individual is overwhelmed by her problems and in therapy may present as anxious and open. Similar profiles are frequently seen in people who voluntarily seek help for their problems (Duckworth, 1979). This type was represented by a mean age of 23.9 years and had resided in Minnesota a mean of 19.22 years. Their mean chronological quotient was 105.6. Five women were single, four endorsed "other marital category", one was Baptist and four each fall within the categories of Catholic and Lutheran. Eight came from their own home and one from jail directly to treatment (see Table 6).

Type four (N = 18). This type's profile is often seen in individuals who are undergoing a situational crisis (see Figure 8). The person usually processes enough ego strength to deal with the situation. After the crisis has past, the profile will probably return to normal limits (Duckworth, 1979). The mean age for this type was 39.50 years, mean length of residence in Minnesota was 36.889 years and the mean chronological quotient was 90.7. Six of these

women were married, four were single, seven were separated/divorced, and one was "other marital status". In terms of religion, nine were Catholic, two were Baptist, five were Lutheran, one endorsed a religion other than the above and two did not endorse a religion. Fourteen of these women came to treatment directly from their own home, one from jail, and three from "other" residences (see Table 6).

White Males

This group was represented by four types. The White male group had the significant demographic variables for age (years), I.Q., marital status, parents' marital status, religion, occupation (professional, laborer), income level and residence prior to admission (see Table 7).

Type one (N = 20). Individuals with a profile similar to the profile in this type are viewed as depressed, anxious, and angry (see Figure 9). Characteristically, they feel alienated from others and are overly sensitive to others' opinion to the point of suspiciousness. Social relationships are shallow and these individuals may be withdrawing from contact. They are often unduly concerned about physical health and have great difficulty handling stress and making decisions (Duckworth, 1979). The men in this type had a mean age of 40.70 years. The mean IQ was 110.41. In terms of marital status, five were single, six were married, and nine were separated or divorced. When parents' marital status was analyzed, four had parents who were married, three had separated or divorced parents, five had fathers who were deceased and eight had parents

whose marital status was other than the above. Eleven of the men were Lutheran, three were Catholic, four endorsed "other" religion and two did not endorse a religion. In this type, fourteen were laborers, four had no occupation and two were "other occupation". In terms of income, thirteen reported no income, four low income, one was of middle income and two did not complete this question. Thirteen of this group came to treatment from their own home, six from jail, and one from "other" (see Table 7).

Type two (N = 38). The profile representative of this type (see Figure 10) characterizes individuals viewed as impulsive, sensitive to others opinions, and resentful. They are probably encountering a situational crisis, perhaps due to drinking or valid somatic problems. Prognosis for improvement is good, as the person processes ego strength to deal with crises and usually feels adequate in handling his problems (Duckworth, 1979). The mean age for this type was 34.63 years. The mean I.Q. was 102.5. Sixteen of these men were single, twelve were married and ten were separated or divorced. In terms of parental marital status, thirteen had married parents, five had parents who were separated or divorced. Within this type, six had fathers who were deceased, four had mothers who were deceased and ten had parents whose marital status fell into "other" category or did not mark an answer. Within this group fifteen were Catholic, eleven were Lutheran, eight endorsed "other" religion and four stated that they had no religious affiliation. In regard to occupation, thirty-three were laborers, one was a professional, one had no

occupation and three did no complete the question. Seventeen of this group stated that they had no income, nine were classified as low income, five had a middle range income and seven failed to answer this question. Within this type, thirty came to treatment directly from their own home, three from jail and five from other residences (see Table 7).

Type three (N = 22). The profile which represents this type, (see Figure 11) is characteristic of men who are traditional in their lifestyles. People with a profile similar to this type are often facing a situational crisis and are using alcohol. Prognosis for therapy is fair due to minimal repression of feelings, a willingness to admit common human faults and adequate ego strength to deal with problems (Duckworth, 1979). The mean age for this type was 25.64 years. The mean I.Q. was 99.26. Within this type eighteen were single, two were married, and two were separated or divorced. For this type, ten had parents who were married, seven had separated or divorced parents, two had a father who was deceased, one had a mother who was deceased and two fell within the category of "other". Fourteen men were Catholic, three were Lutheran, four belonged to a religion other than the above, and one had no religious affiliation. This type consisted of twenty laborers, one professional and one who did not answer this question. Twelve reported that they had no income, while ten were within the low income level. Upon admittance to treatment, twelve came directly from their own home, seven from jail, and three from "other" residence than the above (see Table

seven).

Type four (N = 5). This average profile is indicative of people who are overly sensitive to the criticisms of others (Figure 12). This sensitivity causes the person to be suspicious and withdraw from interpersonal relationships. In addition, a strong need to repress feelings and deny problems make for a poor prognosis for therapeutic gain. People with this profile are easily offended and may express their anger by inadvertently arranging events to victimize others. The poor self-concept of these individuals adds to an inability to handle problems (Duckworth, 1979). This group had a mean age of 34.40 years and a mean I.Q. of 113.50. There were three men who were separated or divorced and one in each of the categories of single and married. In terms of parental marital status, two had separated or divorced parents, one had a deceased father and two endorsed the category of "other" category. Within this type, one was Catholic, one was Lutheran, and three had no religious affiliation. Four were laborers with two having no income and one in each of the categories of low and middle income and the fifth did not answer this question. Four of the men came to treatment from their own homes and one from other than home or jail (see Table 7).

Native American Males

This group had the largest number of types with seven. All profiles within this groups were interpreted through the use of norms based upon Whites. The eight significant variables were age (years),

length of residence in Minnesota, marital status, parents' marital status, income level (high, middle, or low), referral source, residence prior to admittance and followup referral (see Table 8).

Type One (N = 9). Men with this profile (see Figure 13) are usually interested in traditionally masculine pastimes such as sports. In addition, they may be psychologically naive or may deny unfavorable traits. They possess adequate resources to handle life stresses (Duckworth, 1979). Within this group the mean age was 40.7 years of age and mean length of residence in Minnesota was 40.22 years. Two of these mean were single, five were married, one was separated or divorced and one had marked "other" marital status. In terms of parental marital status three had deceased fathers, one had parents who were separated or divorced and the remainder fell within "other" category. Income level for these men included five within the no income category and four within the low income category. Six of these men came from their own home, two from jail, and one from "other" residence to treatment. Within this type four had been referred to treatment by a legal agency and two by a counselor and the remaining three were referred by other agencies. Upon discharge five received a referral to other than regular agency and four did not (see Table 8).

Type two (N = 12). The profile of this type is representative of men who (see Figure 14) are often preoccupied with being macho. They readily talk about behaviors such as alcohol use and prefer to be with others than alone. They are usually active and often are involved in many projects. They are able to recover from most

setbacks. Therapeutic improvement may be hindered due to lack of concern about their behavior and a tendency to blame other people for their problems (Duckworth, 1979). The mean age of the men in this group was 25.58 years and they had resided in Minnesota for a mean length of 25.58 years. Ten of these men were single, one was married and one was separated or divorced. In regards to parental marital status, eight had married parents, one had a father who was deceased, one had a mother who was deceased and two fell within the "other" category. Nine of these men stated that they had no income, two were within the low income level and one did not answer this question. The referral source for this group included two who were referred by a counselor and ten who were referred by a legal agency. Five of these men came to treatment directly from their own homes, four from jail and three from another residence. Six of these men received a discharge referral to other than a regular agency and six did not (see Table 8).

<u>Type three (N = 13)</u>. Individuals with a similar profile (see Figure 15) are often seen as angry, hard-working, interested in traditionally male pursuits and also have a tendency to blame others for their problems. They may be faced with either a situational crisis or may have adjusted to a long-term difficulty. They have valid somatic complaints and may think somewhat differently from other people. They prefer not to think about unpleasant circumstances but do have sufficient ego strength to deal with difficulties that arise (Duckworth, 1979). The mean age for this group was 31.00 years with a

mean length of Minnesota residence of 29.00 years. Within this type, nine were single, one was married, and three were separated or divorced. In regard to parental marital status, three had a deceased father and two endorsed each of the categories of married, separated or divorced, or mother deceased and four within the category of "other". One of these men fall within the middle income range while six were within the low income range and six stated that they did not have an income. Seven of this group were referred to treatment by a counselor, four by a legal agency and one by a hospital. Five came to treatment directly from their own home, three from jail, and four from a residence other than the above. Four received a discharge referral to other than a regular agency and nine did not (see Table 8).

<u>Type four (N = 5)</u> . People with a similar profile (see Figure 16) often have valid physical complaints. They tend to be traditional males who are conforming and self-controlled. This profile is indicative of an anxious and overly self-critical person who may be reacting to a situational crisis. In addition, people with this profile are viewed as severely depressed. Prognosis for therapy is good (Duckworth, 1979). For this group both the mean age and mean length of Minnesota residence was 33.60 years. Three were single, one was married, and one was separated or divorced. Parental marital status for this type included two who had married parents and one who had separated or divorced parents. Four of these men had no income and one was of middle income. In terms of referral source, two were referred by a counselor, and three were referred by a legal agency.

Four of these men came to treatment from their own residence and one from jail. Upon discharge, four did not receive a special referral and one did receive a referral to other than a regular agency (see Table 8).

Type five (N = 16). The profile of this type, (see Figure 17) indicate individuals who often feel that they are not as well off as others. At the time of testing these individuals may be asking for help in dealing with their problems. They are characterized as anxious, angry, and rebellious. They have a poor self-concept and are overly sensitive to the criticism of others and thus often result in feeling alienated and misunderstood. They may be dealing with a situation crisis or a long-standing difficulty which they do not have the psychological resources to deal with adequately. They tend to use alcohol or other drugs to cope with life stresses (Marks, Seeman, & Haller, 1974). The mean age for this group was 24.19 years and they had a mean length of residence in Minnesota of 23.44 years. In terms of marital status, fourteen men were single and two were separated or divorced. Within this type, seven sets of parents were married, four had parents who were separated or divorced, three had fathers who were deceased and two endorsed "other". Thirteen reported no income, one fell within the low income range and two did not respond to this question. Referral sources for this group included eleven by a legal agency, two by a counselor, two by a hospital and one by "other" agency. Upon admittance to treatment, ten had come from their own home, four had come from jail, and two had come from another

residence. A discharge referral to other than a regular agency was given to three of these men and thirteen did not receive this referral (see Table 8).

Type six (N = 8). Individuals within this type have a profile (see Figure 18) which indicates that they are worried about an area of life such as health or a specific situational crisis. They may be somewhat passive and prefer to be alone or with one or two others rather than in a crowd. They often have many projects which they are punctual in completing. This group had a mean age of 31.13 years and a mean length of residence in Minnesota of 26.88 years. In this type there were two men who were single, three who were married, and three who were separated or divorced. One man had married parents, four had parents who were separated or divorced and three endorsed "other" categories. Three reported no income and five were within the low income range. Five had been referred to treatment by a counselor and three by a legal agency. Five came to treatment from their own home, one from jail, and two from another residence besides their own or jail. None of the individuals within his type received a referral to other than a regular agency (see table eight).

Type Seven (N = 11). Individuals with this profile (see Figure 19) are impulsive, irritable, and narcissistic and act without regard for the consequences of their behavior. They often engage in delinquent acts such as fighting and use of drugs and alcohol. They are restless and overactive and may become depressed if they are unable to keep busy. They have a poor self-concept and are immature

and insecure. They do not learn from past experiences and tend to blame others for their difficulties. They are incapable of deep emotional ties but rather engage in superficial relationships. Prognosis for therapeutic gain is poor (Marks, Seeman, & Haller, 1974). The mean length of Minnesota residence and years of age was 28.73. Within this type seven were single, one was married, and three were separated or divorced. In terms of parental marital status, two noted that their parents were married, one had parents who were separated or divorced, three had fathers who were deceased one had a mother who was deceased and four fell into the "other" categories. Seven of these men were without an income, one was within the low income level and three did not answer the question. Three of these men came to treatment from their own home, five from jail, and three from another residence than the above. Upon discharge four received a special referral and seven did not (see Table 8).

CHAPTER V

DISCUSSION

In this study, a hierarchical classification analysis was used to obtain a series of profile types for each of four groups: Native American females, white females, Native American males and white males. Differences in profile types were found both within sex and race. As noted in the literature review, treatment for alcoholism which follows a single paradigm is not the treatment of choice for all alcoholics (Costello, 1975). The differences found between alcoholics in the present study, could be important in formulating individual treatment strategies, which would be the most appropriate for the individual's problems.

Basic differences were seen in terms of psychological insight and ability to face up to and deal with problems. For some, (see Figures 3, 8, 10, 11, and 15) ego strength, which is a measure of the individual's adaptability and personal resourcefulness in solving problems (Duckworth, 1979), is sufficient to deal with problems they face. Whereas, other individuals (see Figures 1, 12, 17, and 19) may benefit from therapy which focuses on developing the individual's ability to cope with, rather than be debilitated by, his/her problems (Duckworth, 1979).

Other profiles (see Figures 11, 14, and 18) point to the use of

alcohol as the primary problem. These profiles show elevations on the MacAndrew Scale, which was devised to distinguish alcoholism from other psychological difficulties, that may be associated with alcoholism (Patterson, Sobell & Sobell, 1977).

Other profiles (see Figures 2, 4, 7, 8, 16, and 17) point to the need for treatment which focuses on dealing with depression and/or anxiety, along with focusing upon the drinking behavior. Another feature which some profiles (see Figures 1, 2, 3, 5, 7, 9, and 10) have in common indicate that the individual has difficulties in dealing with social judgment and relationships.

As noted above there were differences between the groups. These differences may have important ramifications in terms of providing appropriate treatment for the individual. In order to further assess these differences, the following section will examine each of the groups in terms of similarities and differences both within the group and between the groups.

<u>Native American Females</u>

In general, this group was represented by three profile types. All of the Native American females' profiles show an elevation on Scale 4 (psychopathic) which is indicative of a person who is unable to learn from past experiences, is impulsive, and has difficulty in following social mores (see Figures 1 through 4). Out of this group, seven had been in jail immediately preceding admission to the hospital (see Table 5). For these individuals, treatment which would aid them

in development of impulse control may be beneficial. In two of the profiles Scale 2 (depression) was elevated, which is seen in people who are experiencing depression, which may point to the need for therapy which focuses upon the reasons for depression, in addition to their alcoholism.

Two of the profiles differed from the other profiles in the group, (see Figures 1 and 2) in that they evidenced elevations on multiple clinical scales, with Scales 4 (psychopathic), 2 (depression), 7 (psychasthenia), 8 (schizophrenia), and 6 (paranoia) elevated on profile type #1. Scales 4 (psychopathic deviate), 1 (hypochondriasis), 6 (paranoia), 2 (depression), and 8 (schizophrenia) were elevated on profile type #4. These two profiles were similar to three of the profiles found in the white female group (see Figures 5, 6, and 7).

All four Native American female profiles were similar to profiles found within the white and Native American male groups. A difference was noted, in that the Native American females were the only group which did not have a representative profile in which the clinical scales were within normal limits.

White Females

The analysis of the white female group yielded four representative profiles types, with one of these a within-normal limits profile (see Figure 8), i.e. none of the scales had a T score over 70.

The remaining three types show indications of impulsivity, difficulties in logical thinking, anxiety and suspiciousness (see Figures 5, 6, and 7). The majority of women in this group were unmarried (see Table 6).

In most respects the profiles from this group are similar to profiles found in the other three groups. One difference in the white female group, is that it does not have a representative profile with elevation on only Scale 4 (psychopathic deviate), whereas the other three groups did(Figure 3, Figure 10, and Figure 15).

White Males

The analysis of the white male group produced a within normal limits profile on the ten clinical scales, with an elevation on the MacAndrew Scale. This is similar to profiles found within the Native American male group (see Figure 11, Figure 14, and Figure 18). A second profile common to all groups, is an elevation on Scale 4 (psychopathic deviate; see Figure 10) which is indicative of impulsivity and inability to learn from past experiences. The remaining two profiles have in common elevations on Scales 4 (psychopathic deviate), 6 (paranoia), 8 (schizophrenia), and F (see Figures 9 and 12). These profiles are often characteristic of people who are impulsive, anxious, paranoid, feel isolated, and who have difficulties in logical thinking.

In addition to the above characteristics, individuals with profile type #1 (see Figure 9) have a somatic component and are often

unduly worried about physical complaints. Furthermore, this profile shows indications of depression which may need to be addressed within therapy.

Native American Males

Seven representative profiles were obtained for the Native American group. Of these seven, two profiles were within normal limits, (none of the scales had elevations over a T score of 70), with the exception of the MacAndrew Scale which was elevated (see Figures 14 and 18). A third profile was within normal limits on all scales (see Figure 13).

Other profiles show an elevation on Scale 4 (psychopathic deviate; see Figure 15) and Scale 9 (hypomania; see Figure 19). A third type of profile seen within this group was a spike 2 (depression) which is indicative of a feeling of hopelessness, which may warrant therapeutic intervention. This profile was unique to the Native American male group. As a group, they were predominantly single and reported no source of income (see Table 8).

The last representative profile showed elevation on Scales 8 (schizophrenia), 7 (psychasthenia), 4 (psychopathic deviate), 2 (depression), F, MacAndrew, and 6 (paranoia). Similar profiles are often seen in individuals who are anxious, impulsive, isolated and who utilize alcohol abusively. As noted previously, these individuals would probably require therapy which focused upon treatment of both their alcoholism and other presenting problems as well. Similar

elevations on these scales were noted in all four groups.

Comparison of the Present Study With Past Studies

The results of this study partially replicated the findings of past researchers. Goldstein and Linden (1969) used multivariate cluster analysis to delineate four personality subgroups in male alcoholics. Their results were later replicated by others (Loberg, 1981; Skinner, Jackson & Hoffman, 1974; Whitelock, Overall & Patrick, 1971). The Goldstein and Linden Type I, which is made up of elevations on Scale 4 (psychopathic deviate), L and K and Type II, which is composed of elevations on Scales 2 (depression), 7 (psychasthenia), and 4 (psychopathic deviate) were not replicated in the present study. Although not completely replicated, similar profiles were obtained in Native American males and females and white males (see Figures 3, 10, 15, and 16). Scale 4 (psychopathic deviate) was the only elevation on three of the profiles, whereas a fourth profile showed a marked elevation on Scale 2 (depression).

The third type found by past researchers, Type III, which is less represented in the literature, is a normal limits profile with relative high points on Scales 4 (psychopathic deviate), 9 (hypomania), and 2 (depression). This type was replicated in this study in the Native American males group (see Figure 14). Type IV, which is found in the literature, is composed of profiles with elevations on Scales 4 (psychopathic deviate) and 9 (hypomania). In this study, both Native American males and females had these

elevations as a representative type (see Figures 2 and 19).

Kline, Rozynko, Flint and Roberts (1973) found elevations on Scales 4 (psychopathic deviate), 2 (depression), and 8 (schizophrenia) in a sample of Native American male alcoholics. This finding was not directly replicated in this study, although elevations on these scales were common in seven types among Native American females and white males and females.

The Native American females' profiles showed elevations on a number of scales. One representative profile (see Figure 1) evidenced elevations on Scales 4 (psychopathic deviate), 7 (psychasthenia), 2 (depression), 8 (schizophrenia) and 6 (paranoia). The second representative profile (see Figure 4) was composed of elevations on Scales F, 4 (psychopathic deviate), 1 (hypochondriasis), 6 (paranoia), 3 (hysteria), 9 (hypomania), and 2 (depression).

The three white females' representative profiles which are not represented in the literature share elevations on Scales F, 4 (psychopathic deviate), 7 (psychasthenia), and 8 (schizophrenia). However, these profiles evidenced elevated scales which are unique to the other white females profiles; with elevations on Scales 4 (psychopathic deviate), 2 (depression), 7 (psychasthenia), 8 (schizophrenia) and F seen on profile #1 (see Figure 5). A similar profile type noted elevations on scales 8 (schizophrenia), F, 4(psychopathic deviate), 6 (paranoia), 9 (hypomania), 7 (psychasthenia), 3 (hysteria), and 1 (hypochondriasis; see Figure #6). The third profile for the white females showed elevations on Scales 4

(psychopathic deviate), 8 (schizophrenia), 6 (paranoia), F, 9 (hypomania), and 7 (psychasthenia; see Figure 7).

Two of the representative profiles for white males were unique to this study. Both of these profiles showed elevations on Scales F, 4 (psychopathic deviate), 6 (paranoia), 8 (schizophrenia), and 9 (hypomania; see Figures 9 and 12). In addition to these elevations, profile #1 showed elevations on Scales 2 (depression), 7 (psychasthenia), 1 (hypochondriasis), 3 (hysteria), and 5 (masculinity-femininity; see Figure 9).

The remaining four profiles were comprised of a normal limits profile, and were found within the white female groups (see Figure 8), the white males (see Figure 11) and the Native American males (see Figures 13 and 18).

Conjunctive Categories Versus Disjunctive Categories In The Present Study

The results of this study indicate that alcoholics may be classified into many conjunctive categories. The refinement of a broad disjunctive category into narrower conjunctive categories could result in optimal treatment procedures for the specific problems faced by the individual. Rather than approaching treatment for alcoholism as a unidimensional concept, the results of this study point to the need for a multi-dimensional treatment approach to effectively assist the individual in recovery from alcoholism, in addition to his/her other presenting problems,such as depression or anxiety.

The need to match therapy and patients has been recognized since Bowman and Jellinek (1941). Wallerstein et al. (1957) reported on four different treatment methods: disulfiram, conditioned reflex therapy, group hypnotherapy and "milieu therapy" for a control group. Follow-up data pointed out that all treatment methods benefitted a number of the patients with disulfiram being the most successful treatment. However, treatment with disulfiram was not a panacea, as nearly 50 percent of the patients in this group were not helped.

This finding led Bowman and Jellinek to further analyze the data. They found that certain types of patients met with success when matched to appropriate treatment. Of the patients who benefitted from disulfiram treatment, the dimension of compulsiveness was a good predictor of success. Schizoid patients responded to hypnotherapy during treatment but did not maintain their level of therapeutic progress after discharge. The depressed or borderline patient responded most favorably to milieu therapy. Finally the patient with overt depression had a good prognosis when treated with conditioned reflex therapy.

Bowman and Jellinek also noted that prognosis was better in patients who could form a relationship with the therapist and others. On the other hand, patients who exhibited strong aggressive tendencies had a poor prognosis regardless of treatment method. This finding strongly points out the need to address the individual's problems with a treatment approach which takes into account his/her strengths and weaknesses.

The above studies points to the increased success rate when patients are appropriately matched to treatment. Others have also pointed to the need for individualized, tailored treatment. Costello (1975) reviewed a number of treatment programs and found that indiscriminate use of multiple treatment strategies produced the lowest rehabilitation rates.

Future research endeavors should focus on the replication of the profile types found in this study, using larger samples of alcoholics. Following the substantiation of these profiles, research should expand the use of these profiles to other groups, for example, other ethnic and class groups.

A second focus for future research, which has been pointed out in the previously mentioned studies, (Bowman & Jellinek, 1941; Costello, 1975; Wallerstein et al., 1957) would be to use the obtained profiles to match individuals to appropriate treatment strategies. This would allow for the testing of hypothesis which base treatment for the individual upon his/her specific problems. Research which studies both the course of, and the outcome of individualized treatment would benefit the field of alcoholism treatment.

APPENDICES

APPENDIX A

Tables

Table 1

Demographic Variables for White Males

Variable	N	Mean	Standard Deviation	Minimum Value	Maximum Value
Age (years)	89	33.820	13.130	18.000	66.000
Years of Education	88	11.602	1.644	6.000	17.000
Length of Residence in Minnesota (years)	88	27.284	14.562	1.000	66.000
Number of Admittances for Chemical Dependency	89	19.090	24.209	1.000	131.000
Chronological Quotient (CQ)	76	98.289	16.985	60.000	157.000
IQ	77	103.909	11.480	74.000	135.000

Table 2

Demographic Variables for Native American Males

Variable	N	Mean	Standard Deviation	Minimum Value	Maximum Value
Age (years)	82	29.078	10.078	17.000	60.000
Years of Education	82	11.073	1.817	8.000	17.000
Length of Residence in Minnesota	82	28.415	11.480	1.000	60.000
Number of Admittances for Chemical Dependency	82	19.415	25.795	1.000	151.000
Chronological Quotient (CQ)	70	94.386	15.536	57.000	121.000
IQ	73	99.425	11.583	70.000	124.000

Table 3

Demographic Variables for White Females

Variable	N	Mean	Standard Deviation	Minimum Value	Maximum Value
Age (years)	56	32.446	13.002	20.000	72.000
Years of Education	56	11.304	1.858	7.000	16.000
Length of Residence in Minnesota (years)	56	27.196	16.434	1.000	72.000
Number of Admittances for Chemical Dependency	56	11.000	14.397	1.000	61.000
Chronological Quotient (CQ)	41	96.242	16.186	62.000	130.000
IQ	43	100.860	11.271	76.000	123.000

Table 4

Demographic Variables for Native American Females

Variable	N	Mean	Standard Deviation	Minimum Value	Maximum Value
Age (years)	72	29.500	9.640	18.000	64.000
Years of Education	72	10.903	2.196	6.000	17.000
Length of Residence in Minnesota (years)	68	28.368	11.105	2.000	64.000
Number of Admittances for Chemical Dependency	72	15.444	21.617	1.000	121.000
Chronological Quotient (CQ)	61	99.557	16.764	67.000	137.000
IQ	63	99.345	10.850	73.000	120.000

Table Five

Significant Demographic Variables Among Types: Native American Females

			Type One	Type Two	Type Three	Type Four
Education	Mean		12.67	11.38	11.00	9.00
p = .0414	S.D.		2.65	1.36	2.11	3.00
Parents'	freq	Married	1	7	8	3
Marital	freq	Separated-divorced	0	2	5	0
Status						
p = .0271*	freq	Father deceased	4	2	3	0
	freq	Mother deceased	1	2	2	1
Residence	freq	Own home	4	10	16	2
Prior to	freq	Jail	0	2	5	0
Admittance	freq	Other	2	4	2	1
p = .0086*						

* based on Roy's Greatest Root

Table Six

Significant Deomgraphic Variables Among Types: White Females

		Type One	Type Two	Type Three	Type Four
Age (years) p = .0029	Mean	28.00	25.67	23.89	39.50
	S.D.	5.15	4.13	4.37	14.36
Length of Residence in Minnesota (years) p = .0035	Mean	15.40	17.00	19.22	36.89
	S.D.	12.28	13.46	11.16	16.95
Chronological Quotient (CQ) p = .0372	Mean	107.40	96.25	105.36	90.07
	S.D.	19.59	12.84	10.89	13.09
Marital Status p = .0429*	freq Single	3	2	5	4
	freq Married	0	1	0	6
	freq Separated/ divorced	2	3	0	7
Religion p = .0137*	freq Catholic	0	2	4	9
	freq Baptist	1	0	1	2
	freq Lutheran	2	1	4	5
	freq Other	2	1	0	1
Residence Prior to Admittance p = .0086*	freq Own home	4	2	8	14
	freq Jail	0	1	1	1
	freq Other	1	3	0	3

* based on Roy's Greatest Root

Table Seven

Significant Demographic Variables Among Types: White Males

			Type One	Type Two	Type Three	Type Four
Age (years)	Mean		40.79	34.63	25.66	34.40
p = .0013	S.D.		14.35	12.41	7.87	11.93
IQ	Mean		110.41	102.15	99.26	113.50
p = .0054	S.D.		8.05	12.84	9.19	6.61
Marital Status	freq	Single	5	16	18	1
p = .0005*	freq	Married	6	12	2	1
	freq	Separated/ divorced	9	10	2	3
Parents' Marital Status	freq	Married	4	13	10	0
	freq	Separated/ divorced	3	5	7	2
p = .0329*	freq	Father deceased	5	6	2	1
	freq	Mother deceased	0	4	1	0
Religion	freq	Catholic	3	15	14	1
p = .0070*	freq	Lutheran	11	11	3	1
	freq	Other	4	8	4	0
	freq	None	2	4	1	3
Occupation	freq	None	4	1	0	0
p = .0237*	freq	Laborer	14	33	20	4
	freq	Professional	0	1	1	0
Income Level	freq	None	13	17	12	2
p = .0952*	freq	Low	4	9	10	1
	freq	Middle	1	5	0	1
Residence Prior to Admittance	freq	Own home	13	30	12	4
	freq	Jail	6	3	7	0
p = .0002*	freq	Other	1	5	3	1

* based on Roy's Greatest Root

Table Eight

Significant Demographic Variables Among Types of: Native American Males

			Type One	Type Two	Type Three	Type Four	Type Five	Type Six	Type Seven
Age (years)	Mean		40.67	25.58	31.00	33.60	24.19	31.13	28.73
	S.D.		14.30	8.16	9.76	11.55	7.29	4.49	9.96
Length of Residence in Minnesota (years)	Mean		40.22	25.58	29.00	33.60	23.44	26.88	28.73
p = .0184	S.D.		15.03	8.16	12.83	11.55	8.20	9.52	9.96
Marital Status	freq	Single	2	10	9	3	14	2	7
	freq	Married	5	1	1	1	0	3	1
p = .0020*	freq	Separated/ divorced	1	1	3	1	2	3	3
Parents' Marital Status	freq	Married	0	8	2	2	7	1	2
	freq	Separated/ divorced	1	0	2	1	4	4	1
p = .0126	freq	Father deceased	3	1	3	0	3	0	3
	freq	Mother deceased	0	1	2	0	0	0	1
Income Level	freq	None	5	9	6	4	13	3	7
	freq	Low	4	2	6	0	14	5	1
p = .0808*	freq	Middle	0	0	1	1	0	0	0

Table Eight -- continued

			Profile One	Profile Two	Profile Three	Profile Four	Profile Five	Profile Six	Profile Seven
Referral Source p = .0019	freq	Counselor	2	2	7	2	2	5	1
	freq	Legal agency	4	10	4	3	11	3	9
	freq	Hospital	0	0	1	0	2	0	0
Residence Prior to Admittance p = .0001*	freq	Own home	6	5	5	4	10	5	3
	freq	Jail	2	4	3	1	4	1	5
	freq	Other	1	3	4	0	2	2	3
Discharge Referral to Other than Regular Agency	freq	No	4	6	9	4	13	8	7
	freq	Yes	5	6	4	1	3	0	4

* based on Roy's Greatest Root

Table Nine

Problem Areas Prior To Admission*

	White Female	Native American Female	White Male	Native American Male
Self	10	7	5	3
Family	10	7	5	3
Employer	4	1	2	0
Legal	15	33	58	65
Other	6	6	5	6

*Clients could endorse more than one problem area.

Table Ten

Referral Source

	White Female	Native American Female	White Male	Native American Male
Self	11	10	17	2
Family Member	6	2	2	2
Therapist	25	29	25	22
Legal Agent	14	28	42	47
Hospital	2	3	1	6
Total	58	72	88	79

Table Eleven

Childhood Community

	White Female	Native American Female	White Male	Native American Male
Rural	26	11	49	19
Small Town	15	11	13	21
City	15	3	19	6
Reservation	1	45	2	33
Total	57	70	83	79

Table Twelve

Parents' Marital Status

	White Female	Native American Female	White Male	Native American Male
Single	1	1	2	1
Married	22	27	28	26
Separated	0	1	1	0
Divorced	11	9	17	16
Father Deceased	12	14	15	14
Mother Deceased	4	7	5	4
Both Deceased	1	1	0	1
Total	51	60	68	62

Table Thirteen

Residence Upon Discharge

	White Female	Native American Female	White Male	Native American Male
No	11	4	12	5
Yes	43	63	71	73
Don't Know	2	1	1	2
Total	56	68	84	80

Table Fourteen

Marital Status

	White Female	Native American Female	White Male	Native American Male
Unmarried	23	38	42	50
Married	12	14	22	15
Separated	3	1	6	4
Divorced	15	17	19	12
Widowed	5	2	0	1
Total	58	72	89	82

APPENDIX B

Figures

Figure One

Native American Females
Type One

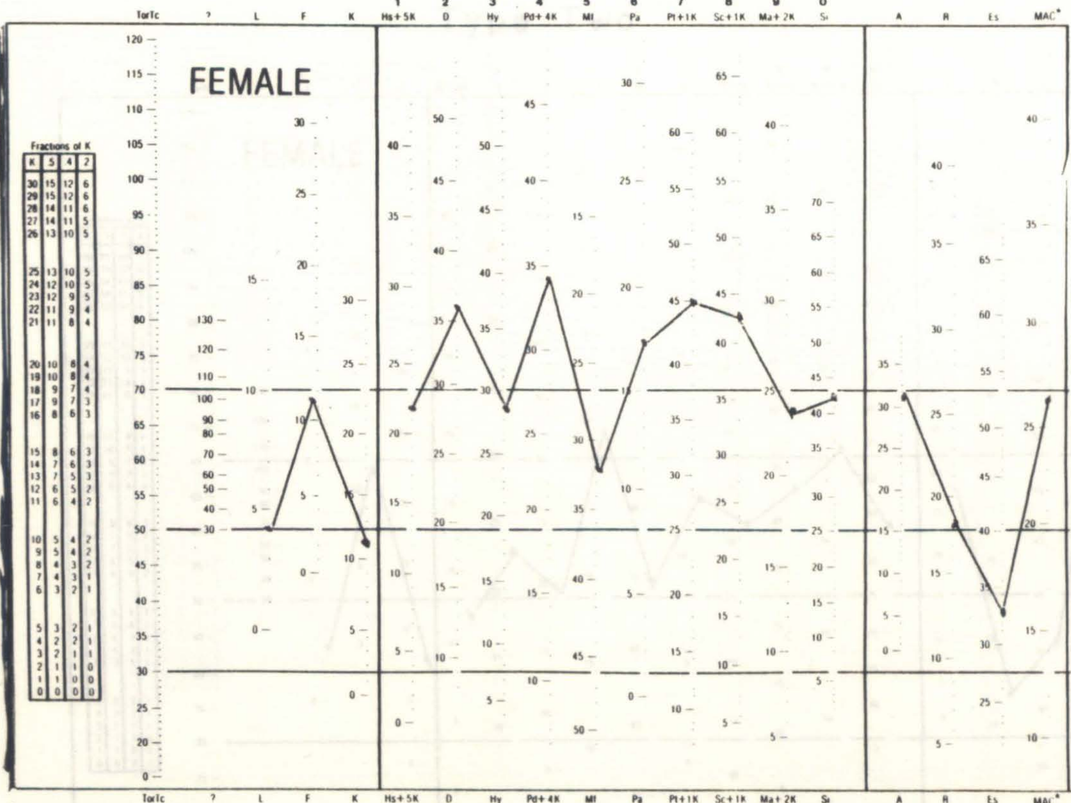

Figure Two

Native American Females

Type Two

FEMALE

T or Tc | ? | L | F | K | 1 Hs+5K | 2 D | 3 Hy | 4 Pd+4K | 5 Mf | 6 Pa | 7 Pt+1K | 8 Sc+1K | 9 Ma+2K | 0 Si | A | R | Es | MAC*

Fractions of K

Figure Three

Native American Females
Type Three

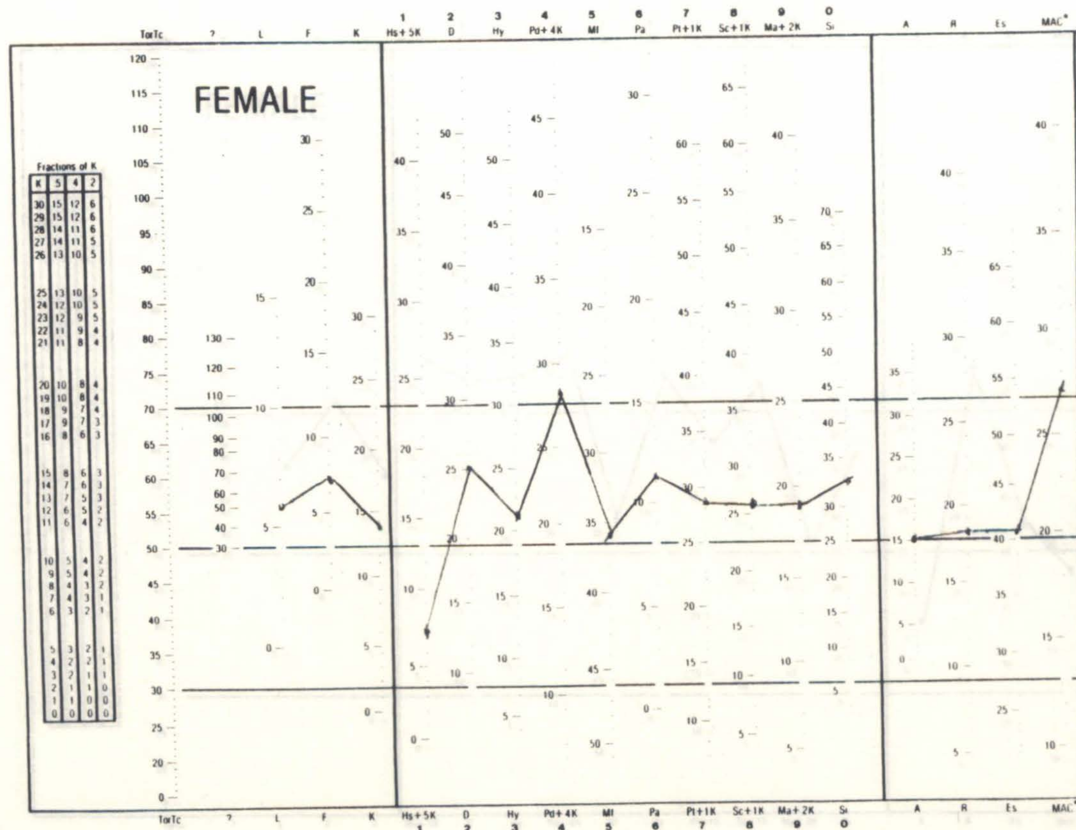

Figure Four

Native American Females

Type Four

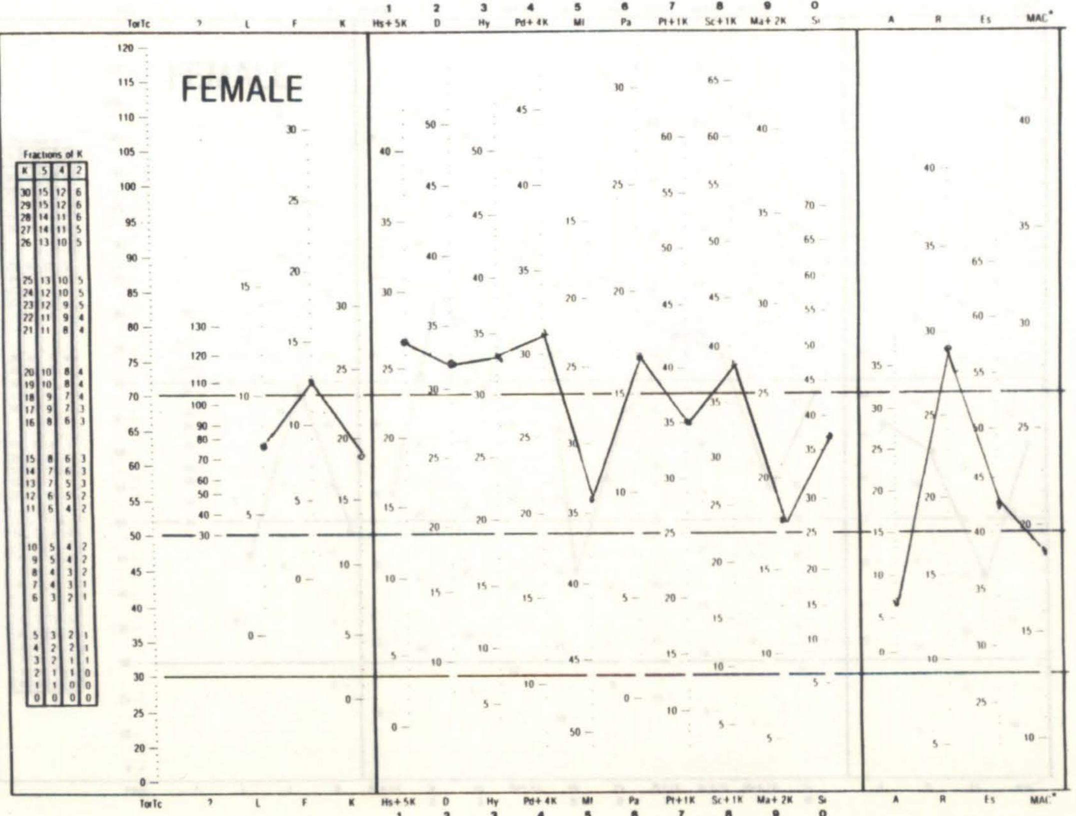

Figure Five
White Females
Type One

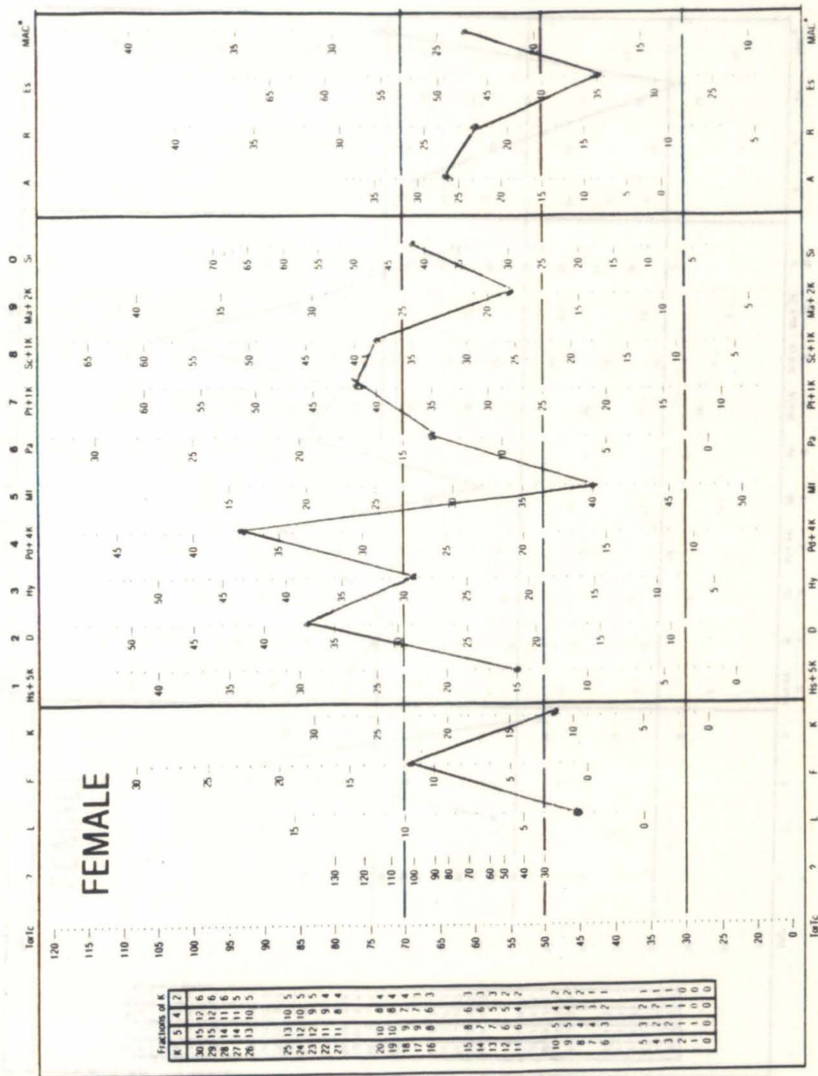

Figure Six

White Females

Type Two

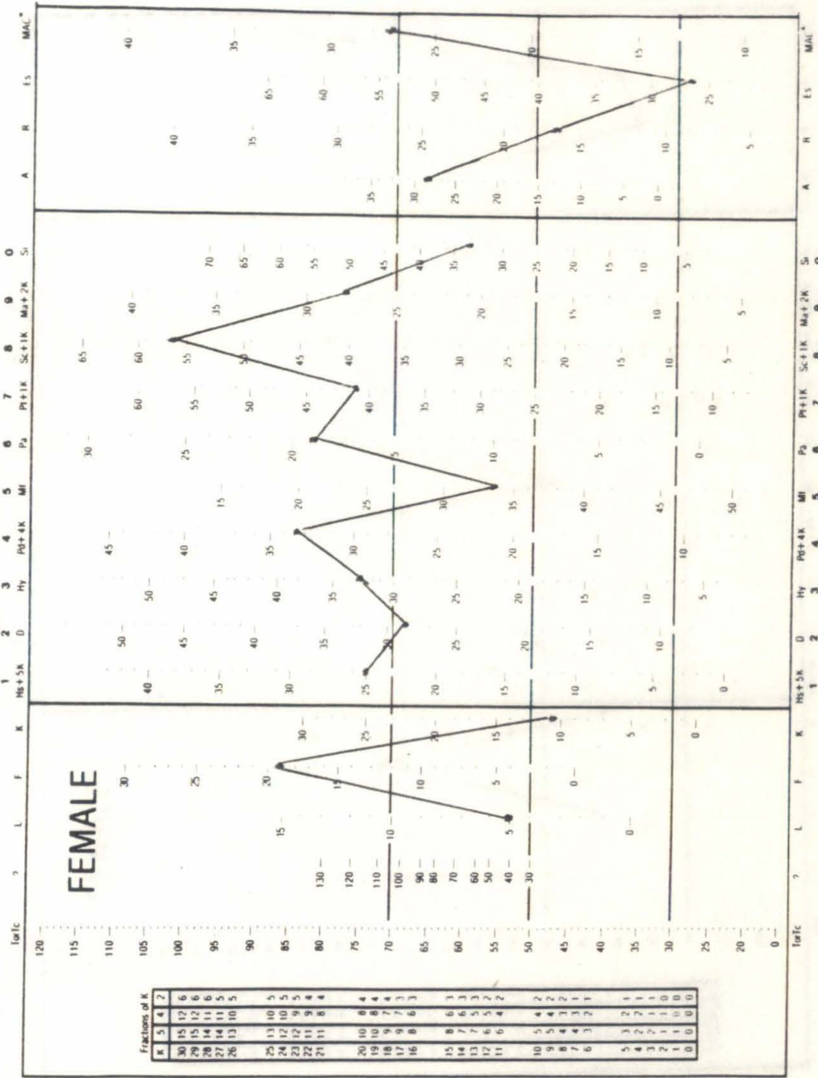

Figure Seven

White Females

Type Three

Figure Eight
White Females
Type Four

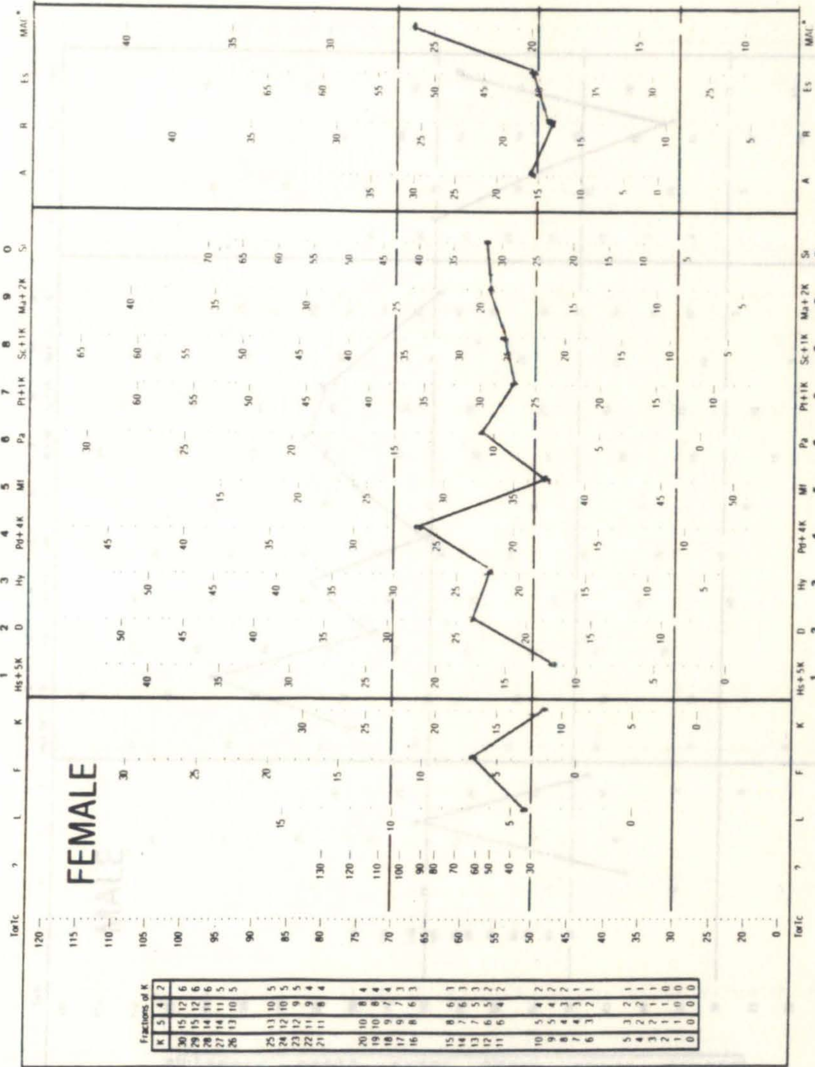

Figure Nine

White Males

Type One

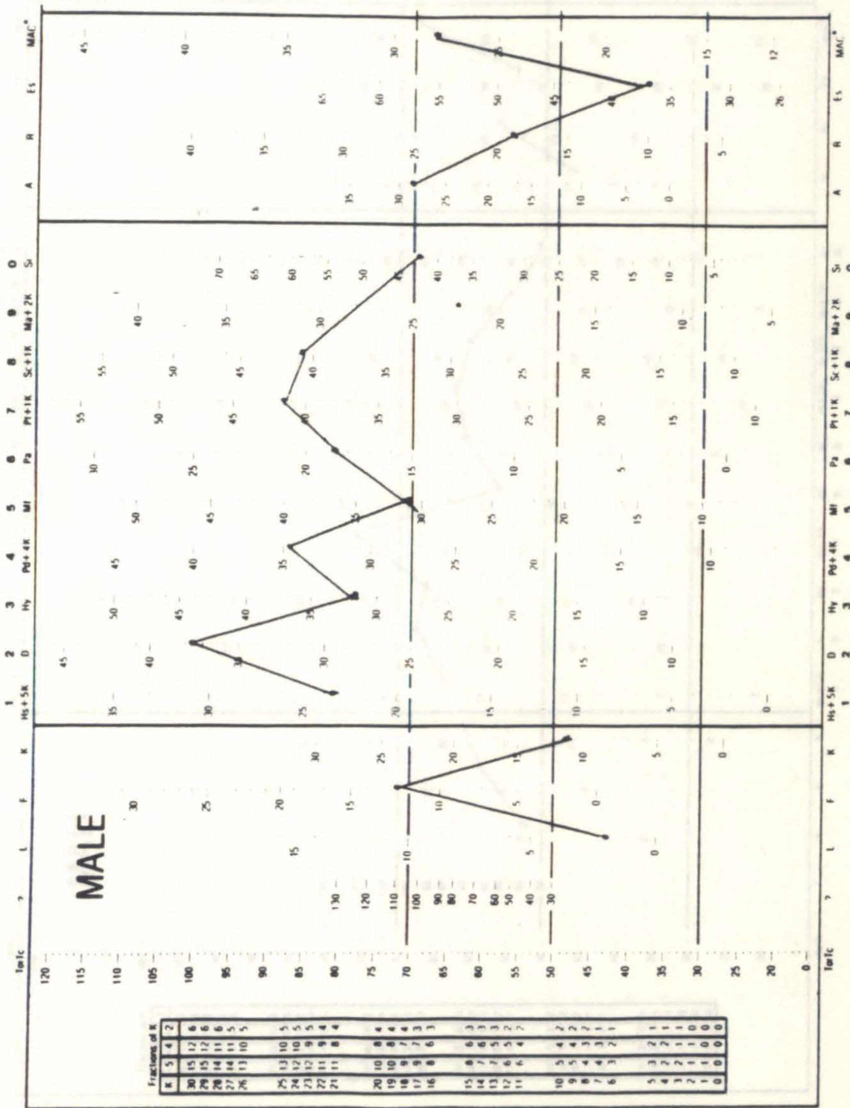

Figure Ten

White Males

Type Two

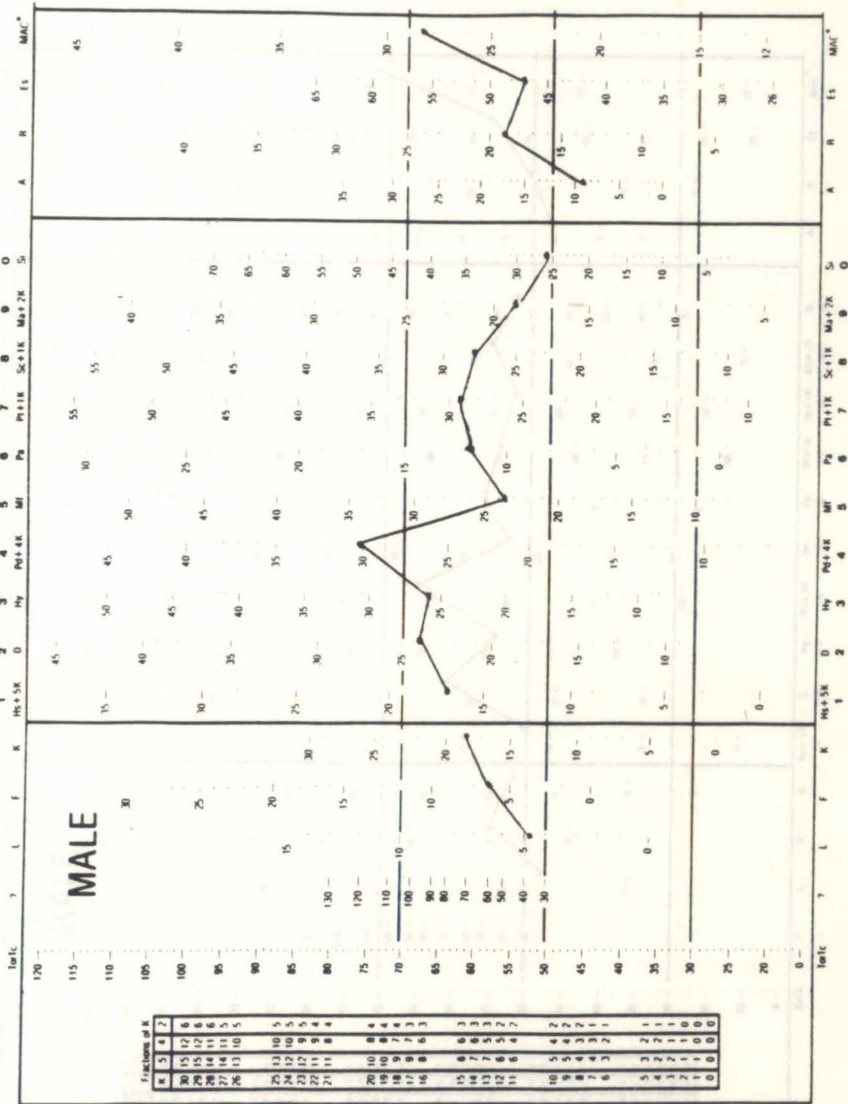

Figure Eleven

White Males

Type Three

MALE

Figure Twelve

White Males

Type Four

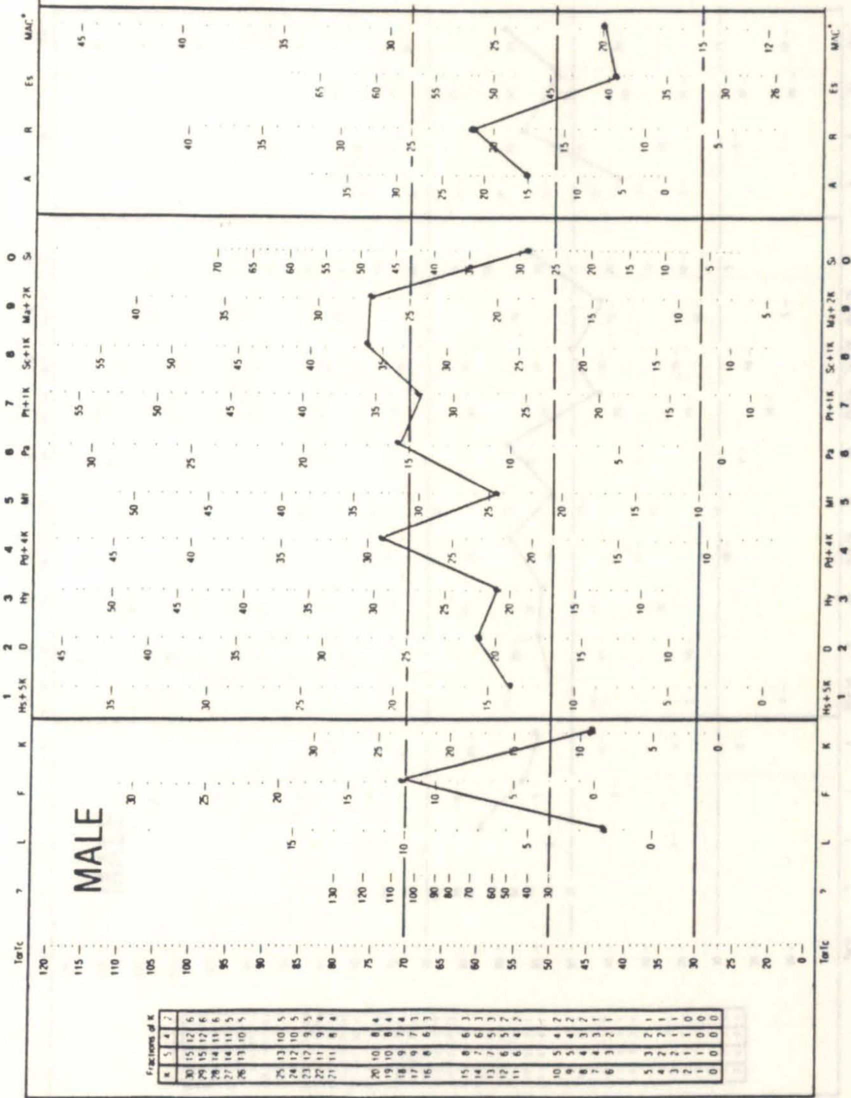

Figure Thirteen

Native American Males

Type One

Figure Fourteen

Native American Males
Type Two

MALE

T or Tc | ? | L | F | K | 1 Hs+5K | 2 D | 3 Hy | 4 Pd+4K | 5 Mf | 6 Pa | 7 Pt+1K | 8 Sc+1K | 9 Ma+2K | 0 Si | A | R | Es | MAC*

Fractions of K

Figure Fifteen

Native American Males

Type Three

Figure Sixteen

Native American Males

Type Four

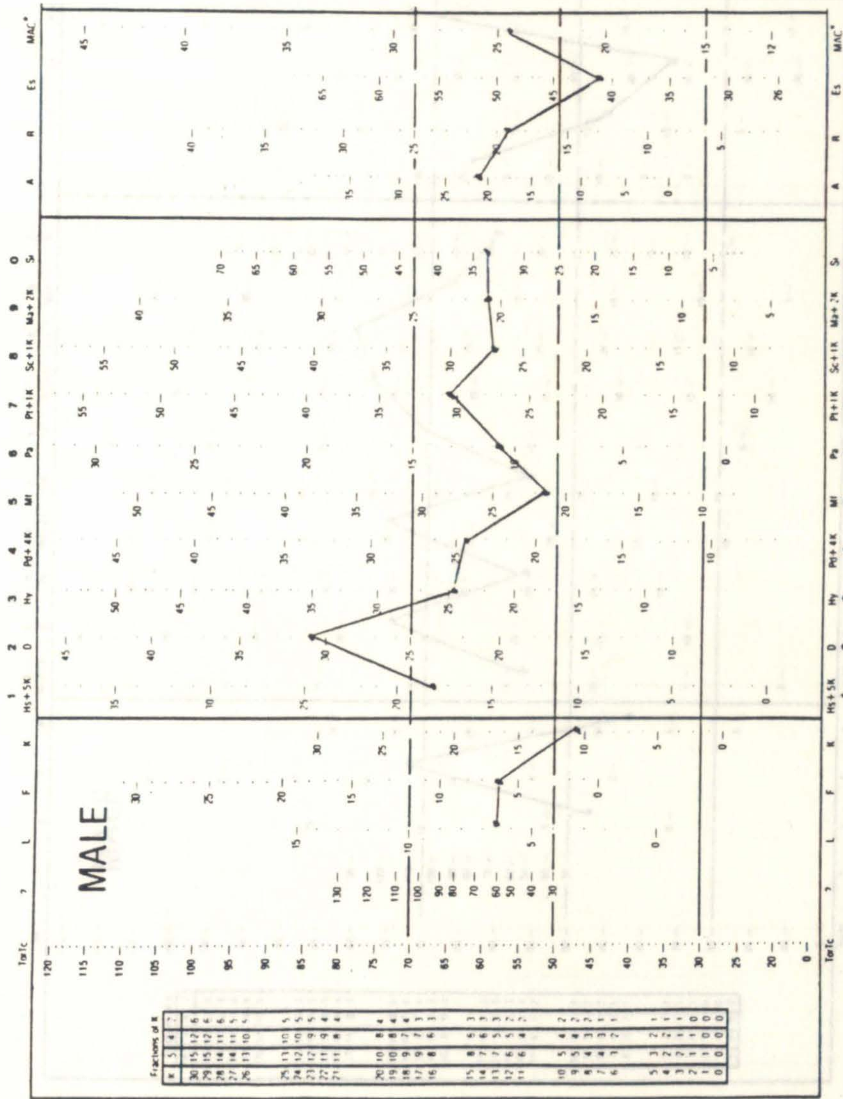

Figure Seventeen

Native American Males

Type Five

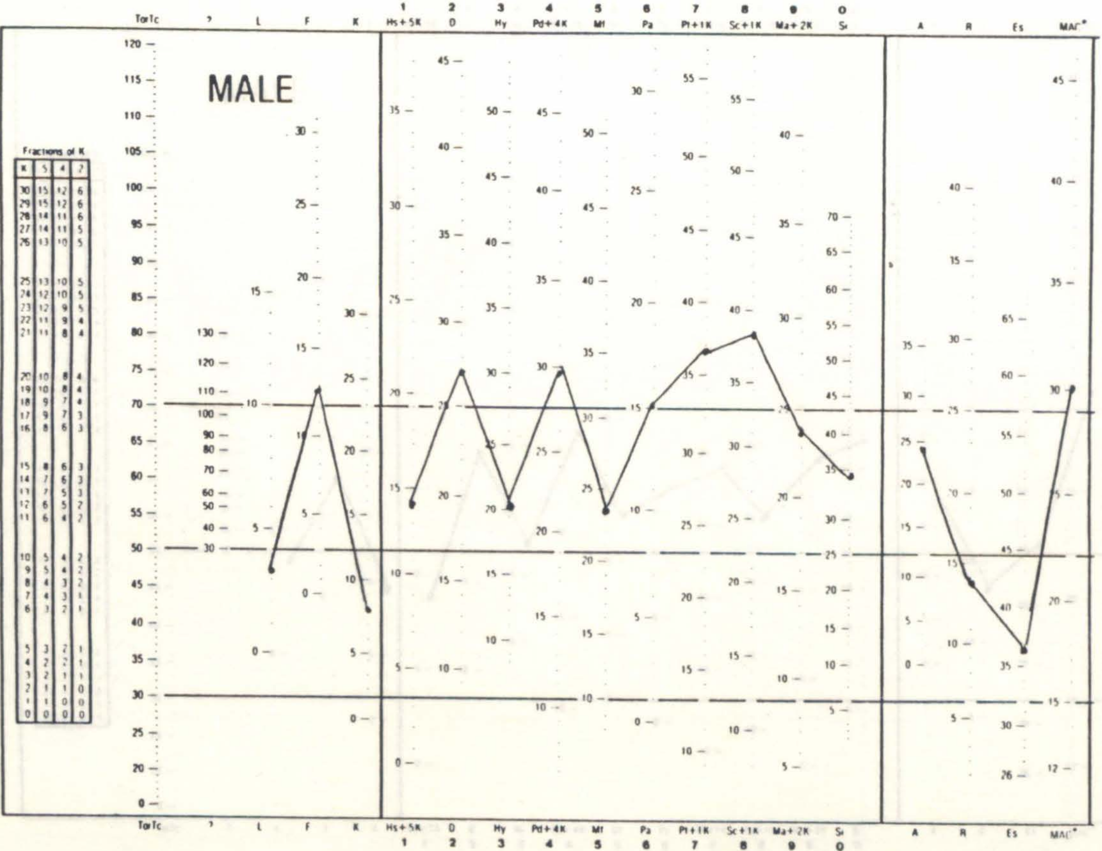

Figure Eighteen

Native American Males

Type Six

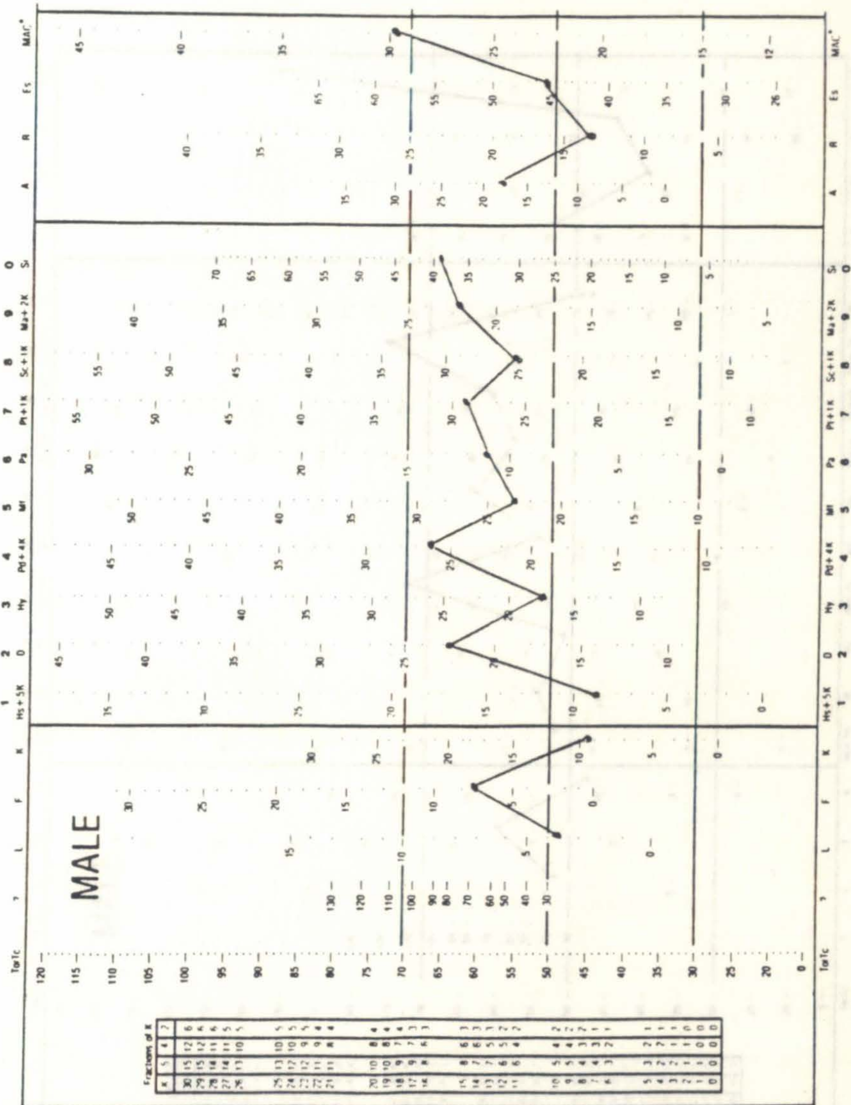

Figure Nineteen

Native American Males

Type Seven

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