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A Comparative Study of Male and Female Alcoholics in Treatment as Measured by the MMPI

Jack H. Baukol

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A COMPARATIVE STUDY OF MALE AND FEMALE ALCOHOLICS
IN TREATMENT AS MEASURED BY THE MMPI

by
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Bachelor of Science, University of North Dakota 1962

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Submitted to the Faculty
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This Thesis submitted by Jack H. Baukol in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota is hereby approved by the Faculty Advisory Committee under whom the work has been done.

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Dean of the Graduate School

Permission

Title A COMPARATIVE STUDY OF MALE AND FEMALE ALCOHOLICS IN TREATMENT
AS MEASURED BY THE MMPI

Department PSYCHOLOGY

Degree MASTER OF ARTS

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CHAPTER I

INTRODUCTION

There are nearly as many conceptions of the alcoholic personality as there are psychological investigators of alcoholism. The scientific literature reveals a host of studies purporting to define the alcoholic personality. Most of these studies have been directed toward investigating the personality make-up and character structure which ostensibly predispose an individual to alcoholism. Summaries of the literature have been made by Landis (1945), Sutherland, Schroder, and Tordella (1950), and Syme (1957).

Two factors stand out to account for the diversity and inconsistency found in the literature: (1) numerous studies in the past have consisted of subjective generalizations formed by observers with little, if any, adequate data to support their conclusions; and (2) most of the investigators have approached the problem in terms of the specific psychological position to which they adhere with little regard for explanations differing from their point of view.

Psychoanalysis and the Alcoholic Personality

An illustration of this diversity of opinion while, at the same time adhering to specific theoretical framework is revealed in the psychoanalytical literature. Chafetz (1959) in summarizing the various formulations of psychoanalytical investigators stated:

Freud alluded to strong oral childhood influences as a cause of excessive drinking and considered change of mood the most valuable contribution of alcohol to the individual. His thesis was that under the influence of alcohol the adult regresses to a childhood level in which he derives pleasure from thinking which is unrelated to logic. In later papers Freud spoke of a reactivation of repressed homosexual traits and considered this to be the reason why men disappointed by women frequent bars.

Brill considered alcoholism as a flight from homosexual impulses, incestuous thoughts and masturbatory guilt. Jones suggested that alcoholism is a symptom of epilepsy and psychosis. Grover related addiction to sadistic drives and oedipal conflicts. Sachs viewed alcoholism as the compromise between hysterical and obsessive-compulsive neurosis, while Rado suggested that alcohol addiction is mainly a problem of depression, the alcohol producing a pharmacological and magical sense of elation, which the patient craves. Menninger emphasized the self destructive drives of the alcoholic and termed alcoholism chronic suicide. Feelings of inadequacy, internalized fears of failure and deficiencies in social relationships are the main forces operating in the alcoholic according to Klebanoff. Tiebout believes that the alcoholic has an unconscious need to dominate, together with feelings of loneliness and isolation, while Knight considers that the addicts suffer basically from a character disorder distinguished by excessive demands and inability to carry out sustained effort and feelings of hostility and rage, alcohol being utilized to satisfy and pacify the alcoholics frustrated needs.

Psychiatry and the Alcoholic Personality

Still other specific personality characteristics have been offered by the psychiatric investigators as to the development of alcoholism. Landis (1945) in reviewing the subtypes used to classify the alcoholic mentions the following: "the introverted and extroverted drinkers, the decadent, the impassioned, and the stupid and the self-aggrandizing drinkers."

Ruth Fox (1957) states that many different types of personality are capable of becoming alcoholics. Individuals when tested revealed: an extremely low frustration tolerance, feelings of isolation, devaluated self esteem, undue sensitiveness, a tendency to act impulsively, a repetitive "acting out" of conflicts, often an extreme narcissism and

exhibitism, a tendency towards masochistic self punitive behavior, sometimes a somatic preoccupation and hypochondriasis, and often extreme swings. In addition, there is usually consciously or unconsciously marked hostility and rebellion, and repressed grandiose ambitions with little ability to persevere. Most show strong (oral) dependent needs, frustration of which will lead to depression, hostility and rage.

Other characteristics mentioned throughout the literature as describing the alcoholic personality include emotional instability, lacking will power, anti-social, inability to meet adult responsibilities, emotionally immature, lacking self confidence, et cetera.

Various other categories used to describe or define the alcoholic are categories utilizing the classical textbook psychiatric nosology, i.e., neurotic, psychotic, schizophrenic, paranoid alcoholics et cetera, and categories such as pyknic, cyclothymic, or aesthenic body builds and personality types (Diethelm, 1955).

In reviewing the personality characteristics and types so far mentioned in this paper, presumed to be of significance in alcoholism, it appears obvious that there is no general agreement as to the personality make-up or the factors ostensibly predisposing one to alcoholism. Due to the fact that the conclusions drawn are not substantiated by adequate data, they achieve very little in the way of determining a unique group of characteristics that can be designated the "alcoholic personality."

Review of Relevant Research

A review of the more relevant research studies appears appropriate at this time. The focus of the majority of these studies centers on determining the permanent or basic personality characteristics and on differentiating the alcoholic from the non-alcoholic in terms of personality characteristics. Here again, as in previous investigations, the conclusions reached are diverse or incapable of identifying the alcoholic personality. Inadequate population samples and methodological errors have contributed to this lack of agreement.

The Rorschach test has been used extensively in studies to determine the personality characteristics of the alcoholic. Several summaries of the literature have been made by Buhler and LeFever (1947), Sutherland et al. (1950), and Syme (1957).

A representative picture of the type of personality said to represent the alcoholic may be obtained from critiques of several studies by Buhler and LeFever. In summarizing a Rorschach study by Billig and Sullivan (1943) they described the alcoholic as follows:

High ambition, and limited achievement; sensualization of personality difficulties, but lack of adaptation, withdrawing from environment and inability to smooth relation between self and reality; self-centered wish fulfillment furthered by a rich imagination, emotional maladjustment involving weak restraint, poor poise and stability, little control of mood swings and desires, lack of attention, hypochondrical ideas.

Another study investigated by Sliger and Cranford (1945) was summarized by Buhler and LeFever with the following description of the alcoholic:

Ambition and urge of self expression, but no ability to attain these because of lack of purpose and perseverance, hypersensitivity and paranoid traits, inability to adapt to social or personal

relations and tendency to flinch from adult responsibilities and seek escape from reality, strong to violent emotional forces; a self pampering tendency (I want what I want when I want it) which refuses to tolerate unpleasant states of mind; unreasoning demands for happiness, excitement.

Sutherland, et al. (1950) analyzed eleven Rorschach studies and stated: "The general conclusion from this survey of Rorschach studies of alcoholics is that the tests have not demonstrated any respect in which alcoholics differ from non-alcoholics."

Syme (1957) concluded from his analysis of the Rorschach studies that: "To date, then, Rorschach studies of alcoholics yield little or no specific information generally agreed upon. Further, no 'typical' alcoholic Rorschach pattern may be discerned or inferred from the available literature."

A more objective approach in evaluating the alcoholic has been by use of the Minnesota Multiphasic Personality Inventory (MMPI). These studies, for the most part, are comparative in nature in an attempt to distinguish the alcoholic from various other normal and abnormal population samples.

Harris and Ives (1947) matched nineteen chronic alcoholics with a control group of mixed psychoneurotics and concluded that the alcoholics had a general neurotic structure, with some specific features which distinguished them from the control group. The MMPI showed elevations on the Pd scale greater for the alcoholics than for the control group. Manson (1949) compared 314 male alcoholics with 222 male non-alcoholics on only the Pd scale and found that the alcoholics made a significantly higher score than the control group supporting Harris and Ives study. MacAndrew and Geertsma (1963) compared the results of

200 male alcoholic patients who voluntarily applied for treatment at an alcoholism clinic to 200 non-alcoholic males who voluntarily applied for treatment at an outpatient clinic located on the same premises. The results showed a mean Pd scale score significantly greater for the alcoholics than for the outpatient psychiatric patients. MacAndrew and Geertsma (1963) stated:

Although the mean difference in the total K-corrected Scale-4 scores between the two patient groups was statistically significant, these scores are found to be without value for classifying individual subjects into one or the other group. By a process of successive item removal it was found that the significant mean difference between the two patient groups disappeared after the three most discriminating items had been removed. Taken together, these three items were shown to provide a strikingly mundane insight into the "cause" of the characteristically significant elevation of alcoholics on Scale 4, vis., alcoholics say they have used alcohol excessively, have been in trouble with the law, and have not lived the right kind of life.

Brown (1950) using the MMPI to evaluate eighty male hospitalized alcoholics, concluded that a major part of the group could be subdivided according to profile pattern into a chronic alcoholic neurotic group and a chronic alcoholic psychopathic group. He concluded that the alcoholic group as a whole did not show a typical pattern which was readily distinguishable from the other groups. However, when differentiating them into those groups showing primarily neurotic and psychopathic patterns, they showed much greater similarity to the neurotics and psychopaths than they did to each other.

Button (1956), in a similar study, attempted to test the hypothesis that alcoholics differ strikingly within their group, showing greater similarity to neurotics and psychopaths who are not alcoholics. From the records of sixty-four patients he concluded that alcoholics

presented only one basic personality profile which showed a peak on Pd, a second peak on D, with a general elevation of "neurotic" scores over "psychotic" scores.

Rosen (1958) made a comparative study of alcoholic and psychiatric patients. He hypothesized that alcoholic patients would display the same range and spectrum as other psychiatric patients when drawn from comparable populations. The male samples included seventy-eight patients from an alcoholism clinic, seventeen from a skid row alcoholism clinic, sixty-four non-psychotic alcoholics from a state mental hospital and thirty-five psychiatric clinic patients. Female samples consisted of twenty-five patients from an alcoholism clinic, and fifty-six from a psychiatric clinic. The results revealed that the alcoholic clinic patients had the same or similar constellation of psychiatric symptoms and that these findings added further weight to previous studies which suggested that alcoholics do not represent a single personality type.

Holmes (1953), Hampton (1951), and Hoyt and Sedlacek (1958) each derived scales from the MMPI which purported to distinguish a homogeneous alcoholic profile. MacAndrews and Geertsma (1964) conducted a study of the above scales and stated: "Since each of these scales has previously demonstrated capable of discriminating alcoholics from normals, their present inability to discriminate alcoholics from non-alcoholic psychiatric outpatients indicates that they are primarily measures not of alcoholism, as they purport to be, but of general maladjustment."

As MacAndrew (1965) demonstrated that the previous scales provide indices not of alcoholism, but of general maladjustment, he then proceeded to develop a scale which would successfully differentiate between alcoholics and non-alcoholic psychiatric patients. This scale correctly classified 81.5 per cent of the cross validation sample.

Hill, Heartzen, and Davis (1962) made a study of alcoholics, narcotics addicts, and criminals with each sample composed of 200 male subjects. The composite profile comparisons of the three groups showed a marked similarity, with the similarities far exceeding the dissimilarities. The only difference which appeared to have practical as well as statistical significance was found on the D scale. Both alcoholics and addicts obtained higher scores on this scale than the criminals. The elevation on the psychopathic scale was the only personality characteristic which all three groups exhibited. They stated:

The present evidence suggests that, except for behavior that is peculiarly determined by the particular activity, no other personality characteristic is associated specifically with either alcoholism, narcotic addiction, or criminality. Social deviance appears to be the common characteristic. It is a general predictor of the various kinds of behavior being studied, but is not specific even to the addiction in general.

Whether this conclusion can be generalized to all groups of alcoholics, narcotics addicts and criminals in the United States is debatable.

Quaranta (1949) made a study of emotional maturity and homosexuality as related factors in compulsive drinking using the MMPI and the Willoughby Emotional Maturity Scale. Thirty male alcoholics (mostly members of Alcoholics Anonymous) and thirty controls with three women in each group were tested. The results yielded no significant differences between experimental and control groups. In a similar study, Botwinick and Machover (1951), examined the hypothesis that regards

alcoholism as a condition involving some homosexual component. The Mf scale of the MMPI and the Terman Miles Attitude Interest Analysis test were administered to thirty-nine patients in an alcoholics ward. The mean Mf scores were not statistically different from the means of the normative populations. It was concluded that insofar as the tests used in their study measure homosexuality, latent or otherwise, homosexuality cannot be an essential factor in alcoholism, although it may play a dynamic role in individual cases.

Hewitt (1943), in comparing the composite profiles of thirty-seven male alcoholics and nine female alcoholics, found that the women exhibited a consistently greater deviation on all traits except depression, hypochondriasis, and hysteria. In both groups the psychopathic deviate scale received the highest score. The male sample consisted of thirty-seven members of A.A. and the female sample consisted of seven chronic alcoholics and two members of A.A. Zelen, Fox, Gould, and Olson (1966) measured sex contingent differences. Two randomly selected groups of forty alcoholics each: a hospitalized group (twenty women) and a clinic group (twenty women) were tested. Mean t-tests revealed no significant differences between sexes on the MMPI, but the neurotic triad and the L scale were significantly higher for the women. Common to both sexes was the peak on the Pd scale.

The summaries of Sutherland et al., (1950) concluded that "no satisfactory evidence has been discovered that justifies the conclusion that persons of one type are more likely to become alcoholics than persons of another type."

Syme (1957) including Sutherlands et al. study, stated "There is no warrant for concluding that persons of one type are more likely to become alcoholics than persons of another type."

Subject of Present Study

A survey of the MMPI literature reflects an assumption that the alcoholic population is homogeneous in nature. Most of the studies have dealt with differentiating the alcoholic population from other normal or abnormal non-alcoholic populations. However, the opposite to the above assumption appears to be true. The results of this research in general, suggests that the composition of the alcoholic population is made up of a heterogeneous group of personality types. In other words, a randomly selected group of individuals afflicted with the illness of alcoholism, represents the population at large. Therefore, it would appear that a more meaningful picture of the alcoholic personality or personalities could be gained by separating the alcoholic population into more homogeneous sub-groups relative to personality characteristics. A greater variance may be expected within groups than between groups (Sutherland et al.).

Secondly, the literature indicates that a vast majority of the MMPI studies have dealt only with males. One major explanation for this is that at one time the majority of patients admitted to alcoholism clinics were men and treatment, evaluative procedures, and conclusions about personality structure were aimed predominately toward the male (Lisansky, 1957). A sizable increase in the number of women alcoholics entering treatment has drastically changed this picture and the obvious question arises: are male and female alcoholics, because they

have a similar form of behavior pathology, also similar in terms of personality characteristics? If there are differences between men and women alcoholics, in terms of personality characteristics, there may be a need for different treatment or other procedures.

Personality differences between male and female alcoholics as reflected in the Minnesota Multiphasic Personality Inventory will be the subject of this study.

The present investigator, in reviewing the MMPI studies, found only two which dealt directly with a comparison of male and female alcoholics: Hewitts' (1943) study and Zelen et al. (1966) study. Comments may be made regarding these studies. In Hewitts' (1943) study, the small number of women (nine) and the differing populations from which the samples were drawn, raises some doubt as to their comparability.

Both studies in attempting to determine the differences compared mean profiles. They both grouped a number of alcoholics with a variety of characteristics and reported mean test results for heterogeneous samples. However, since these two studies have made a comparison of mean profiles on men and women alcoholics it would be interesting to explore the differences, if any, of mean profiles in the present study also, while acknowledging the shortcomings of this procedure.

The observed differences found in this study, if any, may contribute to existing treatment procedures of men and women alcoholics and present a more meaningful picture of the addictive personality or personalities than in previous research.

Hypotheses

Hypothesis -- I. Women more frequently manifest neurotic symptomatology than do men as measured by scales 1-2-3, when these scales have higher elevations than all other clinical scales.

Hypothesis -- II. Women more frequently manifest the "bitchy syndrome" than do men as measured by scales 4-6, when these scales have higher elevations than all other clinical scales.

Hypothesis -- III. Men more frequently manifest the expansive, extroverted, independent, high energy level picture than do women as measured by scales 4-9, when these scales have higher elevations than all other clinical scales.

Hypothesis -- IV. Women manifest more extreme pathology than do men as measured by higher t-scores.

Hypothesis -- V. Compulsive, perfectionistic, unworthy feeling individuals are represented in men and women equally as measured by scales 2-7, when these scales have higher elevations than all other clinical scales.

Profile patterns 1-2-3, 4-9, 2-7, 4-6 are supported by the literature (Dahlstrom & Welsh, 1960).

Hypothesis I, II, III, and V are based on the author's observations in counseling with alcoholic men and women in treatment. Hypothesis IV is based on previous research (Lisansky, 1952).

CHAPTER II

METHODOLOGY

Sample

The subjects for the present study were patients between 1963 and 1968 at Hazelden Foundation, an alcoholic treatment center, located in Center City, Minnesota. A total of over 1200 patients were selected for this study and were categorized according to age and education.

Age groupings were as follows: below 18, 18 to 30, 31 to 40, 41 to 50, 51 to 60, 61 on up. It is hoped that these age groupings are reflective of successive maturation levels. One factor considered in controlling for age was the cultural influence affecting different generations. The views and attitudes of different generations are a function of culture and may be reflected in MMPI scores. Another factor in controlling for age is the fact that with increasing age there appears to be a decrease in fluctuation of test scores (McGinnis and Ryan, 1965).

Educational categories were the following: 8th grade and below, some high school, high school graduates, some college, and college graduates. The primary reason in controlling for this variable is that individuals with differing educational levels tend to score differently on the MMPI and variation in responses may be due to education rather than personality (Gough, 1954).

This defined population will be more reflective of the alcoholic population as a whole than the average treatment facility as Hazelden Treatment Center serves the entire population of the U.S., Canada, and parts of South America. There is a higher representation, of course, of Minnesota and of bordering states. It also may well be that this sample is more representative of a higher socio-economic class than the average alcoholic treatment population. All of these subjects have addictive personalities and were diagnosed as alcoholics by the Hazelden staff.

Instrument

The MMPI, used extensively in alcoholism research, was the instrument selected for use in this study. It is a paper and pencil test composed of 566 items and provides objective scoring. These items are scored to produce a profile which consists of four validity scales and ten clinical tests. There is a substantial amount of literature indicating its usefulness as a personality measure for differentiating between groups (Dahlstrom and Welsh, 1960).

Procedure

Each S was sorted according to the five educational categories and the six age categories. On the basis of these two variables, the investigator then paired the S's so that the age and education of the male member of each pair was equal or very nearly equal to the female member of the pair. Each pair was assigned a number from one to 398. All MMPI profiles were considered valid with the exception of profiles whose MMPI F-Scale score was above sixteen and/or whose profile

configuration did not clinically correlate with an elevated F-Scale, i.e., elevated 6-8 scales. Using this criterion, all invalid pairs were eliminated. Approximately ten pairs were eliminated using this procedure. Of the remaining pairs a sample of 120 pairs was selected using a table of random numbers as a selection procedure. The analyses in this study all are based on this sample of 120 pairs. The differences found, if any, may be found in other non-alcoholic populations. However, they do define differences between men and women alcoholics. Table 1 shows the distribution of matched pairs according to education and age.

TABLE 1

120 MATCHED PAIRS GROUPED ACCORDING TO FIVE EDUCATIONAL CATEGORIES AND SIX AGE CATEGORIES

	8th grade & below	Some high school	High School	Some College	College Graduate
18 - 29			1	3	
30 - 39		1	4	3	7
40 - 49		4	17	15	10
50 - 59	1	1	18	9	12
60 above	1	3	1	5	4

There were no matched pairs 18 or below. Educationally, the frequencies reflect that the population is predominately high school graduate level or above, with only eleven of the pairs not having completed high school. The largest frequency is represented by the high school

graduate level comprising forty-one pairs. The frequencies in Table 1 also reflect that the age categories 40 to 49 (46 pairs) and 50 to 59 (41 pairs) represent the majority of the subjects in this study. A combined frequency of only nineteen represents the age categories 18 to 29 and 30 to 39.

CHAPTER III

RESULTS

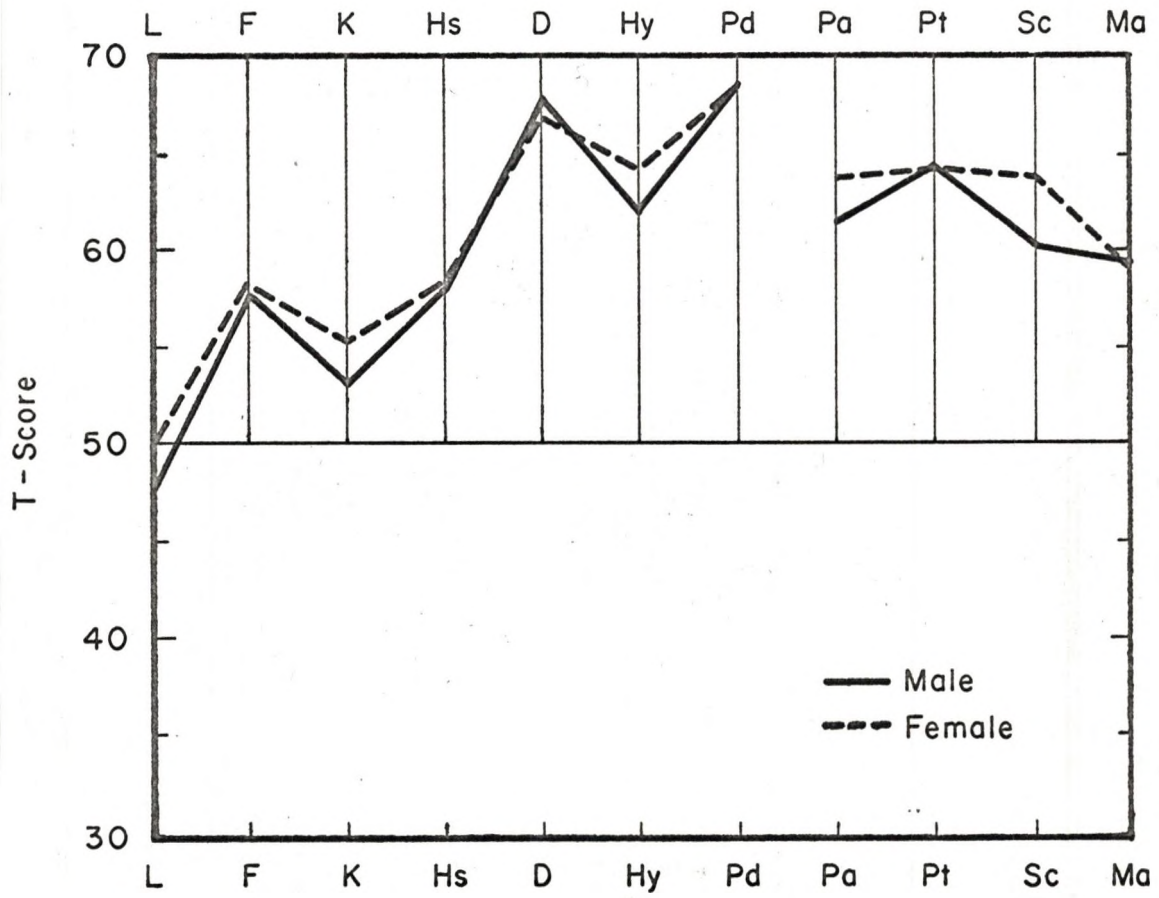
Means and standard deviations of T-scores for the 120 matched pairs of male and female alcoholics on the three validity scales and eight of the ten clinical scales, excluding the Mf and Si scales are given in Table 2.

TABLE 2
MEANS AND STANDARD DEVIATIONS ON THE ELEVEN
BASIC SCALES OF THE MMPI

Scale	Male		Female	
	Mean	S.D.	Mean	S.D.
L	46.98	5.56	49.85	7.74
M	57.86	8.34	58.29	8.42
K	53.09	9.25	55.41	8.42
Hs	57.79	12.11	57.85	11.50
D	67.75	14.04	66.69	12.67
Hy	62.16	10.28	63.98	10.69
Pd	68.45	10.98	68.53	11.27
Pa	61.50	11.03	63.60	9.21
Pt	64.53	12.11	64.28	11.82
Sc	59.88	12.94	63.51	11.45
Ma	59.23	11.44	58.84	10.81

As shown in Table 1 and Figure 1, the Pd and D scales reflect the highest mean T-scores for both males and females with the Pd scale showing the highest T-score for both sexes. The females reflected higher

Figure 1. Composite profiles of Mean T-scores of the MMPI for male and female alcoholics.



T-scores on eight of the eleven scales, the exceptions being the D, Pt, and Ma scales. Objectively, the observed differences between mean T-scores for males and females were minimal.

The analysis of variance for male and female alcoholics on the eleven scales of the MMPI chosen for this study are shown in Table 3.

TABLE 3.
ANALYSIS OF VARIANCE ON THE TWO GROUPS
OVER ELEVEN SCALES OF THE MMPI

Source of Variation	Sums of Squares	df	Mean Squares	F
Between Subjects	102,025			
Male & Female Groups	735	1	735	1
Subjects within Groups	101,290	138	733.9	
Within Subjects	284,159			
Scales	80,814	10	8081.4	9.5*
Scales by Sex	1,426	10	142.6	.16
Scales X Subjects within Groups	201,918	238	848.4	

*p. .01

The analysis of variance indicates that there are no significant differences between sex on the eleven scales. The F ratio (1) for between subjects variation reveals the males and females to be highly similar. There is significant variation in elevation for the MMPI scales. The F ratio (9.5) resulting from this variation is significant at the .01 level. The data in Table 3 also reflects that there is no interaction between the subjects within each of the two groups on any one of the eleven scales with the variation resulting in an F ratio of .16.

The frequencies of males and females reflecting the profiles described in Hypotheses I, II, III, IV, and V are shown in Table 4.

TABLE 4
FREQUENCIES OF MALE AND FEMALE ALCOHOLICS REFLECTING PROFILES DESCRIBED IN HYPOTHESES I, II, III, IV, AND V

Hypothesis	Male		Female	
	Yes	No	Yes	No
I	8	112	8	112
	16	224	16	224
II	7	113	10	110
	17	223	20	220
III	10	110	10	110
	20	220	20	220
IV	60	60	60	60
	120	120	120	120
V	8	112	8	112
	16	224	16	224
	120	120	120	240

In this sample of 120 matched pairs, eight males and eight females were judged by the investigator to reflect neurotic symptomatology (1-2-3) on the MMPI. A chi square test of independence using Yates correction for continuity did not support Hypothesis I. ($\chi^2 = .01$, $df. = 1$). Frequencies of seven males and ten females were judged to reflect the "bitchy syndrome" (4-6) on the MMPI. A chi square test of independence using the Yates correction for continuity did not support Hypothesis II ($\chi^2 = .25$, $df. = 1$). Frequencies of ten males and eleven females were judged to reflect the 4-9 profile described in Hypothesis III. A

chi square test of independence did not support this Hypothesis (chi sq. = .05, df. = 1). The investigator examined each matched pair of the 120 pairs and judged that in sixty of the pairs the females reveal the most extreme pathology and that in the remaining sixty pairs the males were judged to reflect the most extreme pathology. Frequencies of eight males and eight females were judged to reflect the 2-7 profile described in Hypothesis V. This individual analysis is consistent with the mean profiles shown in Table 2.

Eighty-eight one-way analysis of variance were computed examining each age, sex, and scale of the MMPI for the different educational levels. The few "statistically significant" F ratios were well within the number expected under the null hypothesis and no pattern of variables was apparent.

An additional eighty-eight one-way analysis of variance were computed examining each educational level, sex, and scale of the MMPI for the different age levels. All F ratios involving persons sixty years of age or older were significant. The extremely small number of cases in specific cells makes any generalizations hazardous. It does appear that older (61 to 70) alcoholics with some high school education may show MMPI patterns which are different from younger alcoholics with more education.

CHAPTER IV

DISCUSSION

In general, no sex differences in personality traits were discovered in this study of alcoholic men and women. Furthermore, there was no information in this study to suggest the existence of either an alcoholic personality or the existence of different alcoholic personalities for men or for women.

In the problem section of this paper the author suggested that if significant differences were found in personality characteristics of alcoholic men and women that these differences might have implications for treatment procedures in a treatment center. Since no differences in personality characteristics were found in this study there is, therefore, no reason to suggest different treatment procedures for alcoholic men and women.

Sutherland et al., (1950) and Syme (1957) in their reviews of the literature on alcoholism both concluded that there was no evidence to suggest in all the studies they reviewed that persons of one type are more likely to become alcoholics than persons of another type. This present study supports their conclusions. The fact that the four profile types that this author was investigating were spread quite evenly among the different profiles that were observed in this sample of 120 pairs suggest that there was no preponderance of any particular

personality trait or traits that one could consider as being indicative of an "alcoholic personality." In the results section one can see that in the chi square tests of Hypotheses I, II, III, and V that, without exception, the number of individuals who were categorized in any one particular profile type for males and females averaged about ten for each sex.

In Hewitt's 1943 study comparing the mean profiles of men and women alcoholics, he found that female alcoholics exhibited a consistently greater deviation on all traits except hypochondriasis, depression and hysteria. He, furthermore, found that in both groups the psychopathic deviate scale received the highest score. This study does not support Hewitt's conclusions. The results from this study indicate that women have slightly higher T-score means on eight of eleven MMPI scales used in this study. Furthermore, the chi square test of Hypothesis IV revealed absolutely no differences between men and women alcoholics in terms of judged pathology. The results also should be looked at from the standpoint of practical significance. The observed differences between the mean scores for men and women were so small as to have little or no practical sense in a clinical setting.

This study, in general, does support the 1966 study of Zelen et al. Their analysis of the differences between male and female alcoholics revealed no significant differences between the sexes on the clinical scores of the MMPI. The women did reflect higher scores on the L scale and the neurotic triad. In common to both sexes was the peak on the Pd scale. The present study shows that there were no significant differences in general on the clinical scales of the MMPI.

One way analysis of variance were computed examining each age level, sex and scale of the MMPI for the different educational levels. No pattern of variables was apparent. Also, one-way analysis of variance were compared for each educational level, sex and scale of the MMPI for the different age levels. All F ratios involving persons ages 61 to 70 were significant. However, the extremely small number of cases in specific cells makes any generalizations hazardous.

The results also show in common with Zelen et al., that both sexes show a peak on Pd. Although the Pd scale was the highest mean clinical scale for both sexes, the depression scale for both sexes was second highest in these data. This could probably be explained by the fact that all patients in this sample had been tested within approximately one week of intake at the treatment center.

In pairing men and women according to age and education categories, the investigator made the assumption that the effect of age and education was the same for men as for women. This assumption may not be founded in fact and should be investigated before further research, using this same design, is conducted. Another limitation that may have contributed to the negative findings of this study is the fact that all analyses were based on a heterogeneous sample of men and women across all age and education categories, even though the men and women in this sample of 120 pairs were matched.

Sutherland et al., in their review of the literature suggests that perhaps many negative findings are due to the fact that heterogeneous groups of alcoholics are studied. In this respect, men and women

were matched for age and education in this study. However, this study still has a limitation of looking for personality differences in a heterogeneous group.

With the above limitations in mind the investigator would like to suggest further research that could be conducted which, if designed properly, could eliminate the above limitations. When this study was initiated over 1,200 profiles of men and women alcoholics were available for analysis. Perhaps if matching had been ignored and these profiles had simply been categorized by variables such as age and education, one could have arrived at several homogeneous groups which would have been of sufficient sample size to allow one to analyze the differences between men and women within each of these groups. Such a design would make it unnecessary to make any assumptions about the effects of age and education since the total sample could be categorized on these variables. Analysis of the personality characteristics within each homogeneous group of men and women would bring to light differences, if any.

Specifically, further research may be warranted examining the older age groups at low levels of education in relation to the younger age groups at all levels of education.

CHAPTER V

SUMMARY

Personality differences between male and female alcoholics as reflected in the Minnesota Multiphasic Personality Inventory was the subject investigated in this study. Eleven MMPI scales (three validity, eight clinical) were the measurements of the MMPI investigated in the above study.

More than 1,200 patients were selected and were matched according to age and education. One hundred and twenty pairs were randomly selected from this group for use in this study.

An analysis of variance on the two groups over the eleven MMPI scales indicated that the two groups were very similar on these scales, and could not be significantly differentiated on this basis. The two groups were also compared according to four profile patterns and judged profile pathology. No significant differences were observed in this comparison. One-way analysis of variance were computed examining each age level, sex, and scale of the MMPI for the different educational levels. No pattern of variables was apparent. Also, one-way analysis of variance were computed examining each education level, sex, and scale of the MMPI for the different age levels. All F ratios involving persons ages 61 to 70 were significant. However, the extremely small number of cases in specific cells makes any generalization hazardous.

Further research may be warranted examining older individuals afflicted with alcoholism who have limited education and comparing this population with the younger, more educated population afflicted with alcoholism.

APPENDICES

APPENDIX A

Individual Standard Scores on Eleven MMPI Scales for Male

Alcoholics Grouped According to Categories of

Age and Education

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
2	3	44	86	40	59	75	73	79	94	100	113	88
2	4	44	55	55	47	58	60	64	62	66	65	43
		44	55	48	47	80	60	81	62	75	48	63
		63	76	44	41	60	45	76	94	66	92	78
3	2	40	50	57	54	72	55	64	53	75	73	55
3	3	53	60	51	59	63	51	64	41	50	48	58
		50	68	42	80	96	67	67	56	79	71	63
		56	50	62	54	56	60	64	59	71	55	53
		46	50	55	47	65	55	57	50	60	44	43
3	4	44	68	44	88	82	87	76	70	83	74	63
		46	55	57	44	53	65	64	65	56	50	65
		44	68	46	65	82	67	88	73	75	67	63
3	5	46	53	59	49	58	55	64	65	64	51	40
		44	55	51	52	68	60	79	59	62	55	58
		50	66	53	52	92	65	71	76	73	71	60
		40	66	44	62	75	67	62	65	89	80	65
		40	50	49	65	82	60	64	67	69	71	70
		50	60	55	49	80	58	60	65	69	61	45
		44	58	68	54	56	58	81	34	66	65	65
4	2	44	62	38	54	68	49	67	67	66	69	83
		44	84	46	95	87	89	95	76	93	109	96
		46	48	53	44	92	62	79	65	77	55	55
		46	48	65	49	63	60	53	62	58	73	58

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma		
4	3	40	64	57	57	89	69	88	67	75	61	63		
		50	64	57	54	56	67	90	56	56	55	58		
		53	70	48	67	68	73	71	70	62	59	58		
		46	62	57	70	65	69	79	67	81	78	83		
		46	62	49	54	68	56	79	62	77	65	73		
		40	64	36	52	82	47	57	70	58	57	50		
		53	58	57	49	60	62	64	50	54	50	48		
		40	80	48	47	87	49	60	44	77	61	45		
		46	64	51	72	77	73	93	53	73	57	65		
		46	50	46	67	96	65	60	70	54	59	55		
		46	60	57	59	70	65	67	65	71	51	30		
		56	55	64	62	58	69	79	62	69	67	70		
		60	58	53	59	53	45	46	53	52	42	43		
		46	60	36	44	53	45	46	59	52	51	60		
		53	62	59	54	75	71	88	76	69	67	60		
		40	80	44	57	60	64	79	67	66	63	65		
		46	58	66	57	77	73	90	62	71	69	58		
4	4	40	53	53	65	63	71	79	50	73	67	70		
		50	66	61	72	92	86	83	70	93	80	70		
		60	64	64	72	75	62	57	79	71	90	63		
		40	53	55	47	41	49	69	41	48	48	63		
		53	58	66	62	51	71	74	59	69	63	60		
		53	53	62	59	63	56	60	65	66	63	60		
		40	53	46	44	60	55	46	50	52	46	58		
		46	66	40	72	68	65	55	41	38	40	68		
		46	68	64	59	82	60	90	79	83	80	50		
		63	48	70	70	58	73	64	73	83	76	58		
		44	48	53	67	77	78	86	65	66	50	78		
		53	62	59	52	58	67	53	53	56	55	50		
		46	53	44	39	56	49	67	59	44	44	64		
		36	76	51	57	75	64	79	59	75	76	75		
		36	58	49	44	36	55	50	44	48	44	83		
		4	5	40	50	48	80	77	80	69	65	66	71	55
				44	55	42	49	75	62	79	62	75	63	73
44	50			51	65	56	67	60	50	52	46	63		
40	58			57	54	41	60	57	62	75	59	60		
46	62			44	52	63	64	76	70	60	53	53		
53	48			61	49	60	60	48	59	52	46	50		
40	55			14	59	65	55	60	62	46	50	60		
40	50			62	41	58	56	62	50	54	48	45		
40	50			57	54	72	55	64	53	75	73	55		
46	58			61	52	53	60	55	62	56	53	60		

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
5	1	50	55	48	41	70	51	48	59	50	48	40
5	2	40	55	40	77	108	67	86	70	83	74	45
5	3	46	53	57	70	70	65	57	67	81	63	55
		46	55	53	49	65	58	76	53	77	63	55
		50	68	46	75	75	67	57	56	56	50	65
		50	55	51	47	60	47	74	44	52	51	65
		46	53	51	44	58	40	41	62	54	46	68
		44	60	40	65	80	56	64	67	66	61	68
		50	50	62	47	53	55	53	62	48	51	53
		46	58	55	80	87	69	57	59	66	48	43
		46	50	61	54	70	65	60	65	64	55	35
		50	50	66	49	53	56	71	41	54	51	43
		40	48	51	44	65	44	57	47	46	42	35
		53	46	61	54	72	62	71	65	75	55	58
		50	55	49	52	68	62	69	62	64	51	58
		46	53	57	67	84	64	86	62	83	61	50
		44	68	49	62	75	78	79	65	73	71	73
		44	53	53	82	104	82	76	67	83	74	65
		50	50	49	36	29	36	46	56	42	38	53
		44	58	51	47	53	44	60	59	66	57	73
5	4	44	60	57	49	60	64	81	62	54	46	60
		44	53	49	54	75	69	99	67	66	53	58
		53	48	51	49	46	58	62	59	44	44	53
		46	48	68	57	53	60	67	65	54	59	53
		46	60	55	47	58	60	67	65	50	55	58
		46	53	42	72	82	83	65	59	54	48	55
		53	50	55	57	60	69	74	70	60	65	60
		44	53	68	57	48	65	86	56	52	57	53
		44	58	53	65	56	64	69	50	66	71	78
5	5	50	48	55	54	56	51	55	62	52	44	45
		40	53	55	62	68	60	76	53	69	55	63
		46	62	68	85	70	76	74	105	58	77	55
		44	64	48	54	87	65	71	62	73	67	75
		50	46	53	65	92	71	64	50	64	51	45
		44	53	57	72	70	67	60	41	60	53	65
		44	48	59	59	68	62	69	67	62	53	48
		53	53	53	47	72	78	71	47	42	46	55
		36	73	51	44	56	62	76	67	56	71	73
		50	53	72	62	65	69	81	53	64	59	43
		44	53	51	57	39	49	67	56	73	67	65
		50	46	68	54	44	60	70	58	57	53	63

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
6	1	40	60	36	39	63	44	60	67	62	59	65
6	2	53	73	38	49	75	44	41	59	64	59	50
		46	68	44	44	56	45	43	65	60	51	55
		53	64	48	47	77	45	57	65	73	58	58
6	3	56	58	57	106	87	78	74	59	73	67	73
6	4	50	44	35	67	63	53	60	53	64	57	60
		53	48	62	47	63	56	64	62	58	67	43
		53	55	55	70	72	69	57	56	52	44	55
		53	55	42	47	77	62	55	59	62	42	58
		60	64	70	72	82	75	83	73	91	80	45
6	5	46	58	53	59	70	65	76	50	54	50	78
		53	70	53	65	77	69	83	100	69	73	68
		40	53	64	59	56	69	76	62	54	59	53
		56	58	74	59	63	67	81	59	60	59	53

APPENDIX B

Individual Standard Scores on Eleven MMPI Scales for Female

Alcoholics Grouped According to Categories of

Age and Education

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
2	3	40	68	46	62	88	75	76	70	76	78	70
2	4	46	60	64	62	63	77	74	67	63	63	63
		40	68	40	78	88	68	76	59	78	86	60
		44	53	44	39	53	54	71	79	65	58	58
3	2	46	50	55	44	47	57	53	65	51	46	48
3	3	44	80	40	80	82	79	79	88	93	106	50
		50	55	62	58	61	68	67	59	63	66	60
		63	64	61	70	86	73	76	62	76	60	45
		63	55	70	48	47	56	62	65	51	55	50
3	4	46	70	53	62	82	68	88	82	84	86	81
		46	53	68	48	59	59	67	59	56	57	48
		46	60	48	62	61	64	62	62	68	71	70
3	5	44	58	49	37	53	52	76	62	58	60	58
		46	58	48	46	55	56	81	65	60	63	73
		53	76	55	54	78	70	83	70	66	83	60
		46	60	46	35	63	54	79	65	55	67	73
		50	55	53	56	71	33	74	76	65	64	50
		53	53	49	52	75	80	88	70	61	67	63
		46	48	53	48	59	50	62	53	56	52	65
4	2	53	55	61	66	71	68	71	59	61	57	53
		56	50	64	58	84	75	60	62	81	69	43
		44	60	46	52	67	73	83	67	61	69	81
		60	60	53	54	61	45	57	50	60	57	53

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma		
4	3	56	53	72	52	59	61	74	62	65	57	55		
		53	73	57	72	69	80	60	70	73	67	68		
		46	50	57	60	59	72	67	62	69	61	50		
		53	58	59	80	69	75	93	67	56	61	55		
		40	84	49	54	80	68	93	56	69	89	73		
		63	64	68	62	65	70	79	62	68	74	73		
		76	50	72	64	51	57	71	59	60	67	65		
		44	58	55	54	65	68	74	70	60	66	73		
		40	62	48	66	63	59	64	70	83	86	68		
		46	48	59	50	67	56	74	50	20	58	53		
		40	60	46	76	82	84	76	70	74	74	70		
		50	90	48	62	84	68	74	94	78	97	68		
		50	67	59	76	87	86	72	65	96	78	63		
		46	53	53	70	71	75	67	50	60	64	68		
		44	48	48	64	82	66	74	70	79	69	65		
		60	58	62	48	36	47	55	33	41	52	50		
		63	64	51	54	71	52	48	76	69	63	65		
4	4	40	64	53	82	86	86	83	67	78	84	73		
		50	60	46	37	47	49	71	97	55	49	88		
		56	55	62	54	67	64	83	65	65	57	55		
		46	50	49	54	51	56	55	62	60	58	65		
		46	66	55	56	51	56	74	65	68	71	96		
		56	64	51	58	71	64	69	56	79	72	70		
		50	60	44	74	80	86	60	62	60	68	63		
		46	55	49	42	55	43	60	67	60	60	55		
		53	58	48	56	69	70	60	56	56	54	65		
		46	60	49	50	69	70	74	73	73	66	70		
		50	62	53	61	69	68	53	56	71	55	30		
		40	58	64	56	80	75	90	62	83	75	58		
		50	50	64	50	44	63	64	53	51	54	58		
		50	80	76	62	75	77	67	70	86	84	75		
		40	60	48	74	92	77	71	70	86	80	55		
		4	5	52	48	57	60	71	70	60	56	58	52	50
				44	62	51	60	78	73	79	62	69	67	65
46	58			62	54	73	77	76	70	68	67	60		
40	60			53	56	59	64	93	70	63	71	78		
53	46			62	48	53	54	60	53	58	54	45		
40	50			59	44	53	54	48	67	60	51	60		
50	58			64	50	61	68	83	59	69	63	68		
46	48			72	50	55	63	76	53	56	61	65		
76	46			53	46	51	56	53	62	53	51	55		
46	58			62	58	63	61	88	67	69	63	50		

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
5	1	46	50	53	50	51	57	67	59	56	55	48
5	2	53	55	57	80	78	77	81	70	65	58	53
5	3	40	58	42	52	69	54	57	67	68	55	53
		53	53	74	52	51	64	79	59	56	57	50
		40	50	61	58	78	68	71	65	78	58	58
		50	53	57	72	76	73	69	62	81	63	38
		53	53	57	54	47	68	46	65	51	55	50
		46	60	64	62	55	61	64	47	55	66	55
		70	53	64	64	69	70	48	53	63	55	48
		44	55	42	31	55	47	79	70	53	54	60
		50	58	53	58	59	54	41	47	55	51	43
		53	60	49	62	84	68	64	59	74	57	60
		53	53	59	48	57	63	79	59	53	52	60
		53	53	53	58	73	66	67	50	43	44	50
		50	62	53	76	84	77	86	76	81	80	78
		44	50	46	60	86	70	55	70	71	72	45
		46	60	55	66	73	75	79	65	60	58	50
		56	88	51	82	92	64	88	97	78	87	50
		53	58	40	70	73	72	64	62	69	58	55
		66	55	62	62	69	64	76	62	73	64	55
5	4	50	56	53	58	55	67	57	56	74	54	45
		40	46	44	37	55	47	60	65	55	43	63
		46	62	62	66	61	68	71	56	55	55	48
		53	58	49	89	88	87	67	59	68	69	63
		56	60	62	46	47	49	67	65	58	71	58
		40	66	48	62	71	70	67	73	76	78	55
		46	55	53	44	59	52	57	62	50	51	45
		53	78	60	86	77	66	74	56	73	69	55
		50	60	40	78	80	73	71	62	71	69	60

Age	Ed.	L	F	K	Hs	D	Hy	Pd	Pa	Pt	Sc	Ma
5	5	60	50	70	56	51	68	67	59	53	55	48
		40	58	62	58	57	56	64	65	53	60	70
		56	48	69	48	76	57	74	73	69	60	48
		46	53	49	60	82	73	64	50	68	57	55
		50	50	59	50	61	61	60	56	51	58	60
		46	58	55	46	61	63	62	65	60	61	73
		60	55	61	66	84	82	76	56	83	77	75
		63	55	62	46	65	42	55	59	61	55	40
		44	66	53	58	78	57	74	65	76	80	55
		60	50	70	52	53	57	53	65	51	58	58
		46	55	72	56	53	63	64	59	55	58	65
		46	66	55	52	84	63	88	76	78	78	58
6	1	46	70	44	52	57	43	60	67	66	67	50
6	2	46	58	42	68	75	61	64	65	65	58	53
		44	64	44	64	73	68	74	67	65	69	75
		40	55	42	39	61	50	62	62	46	52	58
6	3	53	64	55	66	57	66	62	73	48	58	70
6	4	44	53	55	48	61	54	50	65	56	52	50
		53	48	66	46	57	57	60	62	55	54	53
		70	53	57	60	53	54	46	59	50	54	58
		53	44	66	64	63	68	60	53	55	55	40
		46	68	55	56	55	56	64	56	55	58	60
6	5	50	55	62	66	73	64	62	67	60	54	63
		50	60	44	39	51	42	57	44	45	37	50
		40	58	61	72	94	72	74	65	89	75	48
		70	58	59	44	59	47	46	59	56	52	48

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