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Timothy P. McLaughlin (name of student) for the Master of Science (degree)

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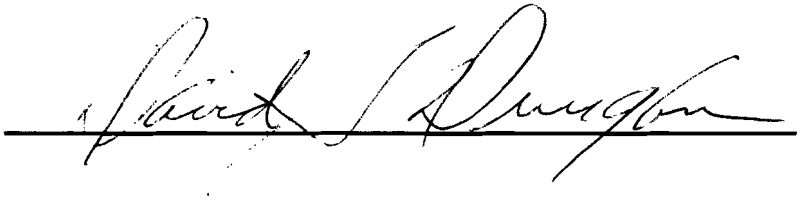
Title: A Validation Study to Determine the Usefulness of Five Alcoholism Scales in Identifying Alcoholics

Abstract approved: 

Past studies have attempted to determine the usefulness of alcoholism scales derived from the MMPI. Such studies have focused on differences between alcoholics and other non-alcoholic groups. None, however, have dealt with differences among alcoholics as well as other non-alcoholic groups.

The purpose of this study was to attempt to determine the usefulness of five alcoholism scales as reliable and valid tools in identifying alcoholics. Some of the alcoholics were court-committed and the others were self-committed to a treatment center. A third group consisted of non-alcoholic psychiatric subjects.

The results of a chi-square analysis demonstrated that one of the five scales was ineffective in performing the task for which it was designed. The other four scales demonstrated only limited success in differentiating among the groups. Thus, the results of this study question the usefulness of the application of these scales in a clinical setting and would lend support to that research which indicated that the scales are sensitive to personality characteristics other than those for which they were originally designed.

A VALIDATION STUDY TO DETERMINE THE USEFULNESS OF FIVE ALCOHOLISM SCALES IN IDENTIFYING ALCOHOLICS

A Thesis

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the Department of Psychology

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by

Timothy P. McLaughlin

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Stephen F. Haus
Approved for the Major Department

Harold E. Durst
Approved for the Graduate Council

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Chapter 1

INTRODUCTION

Alcoholism represents America's number one drug problem. The treatment of alcoholics is of primary concern and in order to effectively achieve this goal, an accurate method of determining those who need help must be established.

The Minnesota Multiphasic Personality Inventory (MMPI) is the most widely used of all psychological inventories. Its multiphasic nature and large number of items designed to reveal personality status and adjustment make it a valuable tool in psychodiagnosis and in personality research. One aspect of such research has been the development of a number of scales, each of which is comprised of selected items of the MMPI, and each of which is purported to be sensitive to the personality characteristics associated with alcoholism.

Related literature indicates that researchers of alcoholism utilizing the MMPI fall into two major categories which express contrasting assumptions and interpretations. Rosen concluded that there are no personality characteristics unique to alcoholics and rather supports a system comprised of the familiar neurotic, psychotic, and psychopathic disorders to which the usual clinical scales of the MMPI would be sufficient to yield a comprehensive view of an

alcoholic's personality. Rosen assumed this view because he believed alcoholism is nothing more than a symptom of other types of psychopathology.[1] MacAndrew and Geertsma concluded that alcoholism is far from a mere symptom but is instead a major category of disorder, and in order to measure unique personality characteristics of alcoholics it is necessary to assess them with alcoholism scales.[2] In keeping with this latter point of view MacAndrew reported developing an alcoholism scale that successfully differentiated male alcoholic outpatients from male non-alcoholic outpatients, therefore, providing evidence of an alcoholic personality.[3]

A study by Rich and Davis failed to obtain a similarly high percentage of success with the MacAndrew (Mac) scale as well as with three older scales, the Hampton (Ha), the Holmes (Ho), and the Hoyt and Sedlacek (H-S). Although percentages were not as high, the authors of this study found the scales useful in distinguishing between alcoholics and "normals."[4]

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[1]A. C. Rosen, "A Comparative Study of Alcoholic and Psychiatric Patients With the MMPI," Quarterly Journal of Studies on Alcohol, 21 (1960), 253-266.

[2]C. MacAndrew and R. H. Geertsma, "An Analysis of Responses of Alcoholics to Scale 4 of the MMPI," Quarterly Journal of Studies on Alcohol, 24 (1963), 23-38.

[3]C. MacAndrew, "The Differentiation of Male Alcoholic Outpatients From Non-Alcoholic Psychiatric Outpatients by Means of the MMPI," Quarterly Journal of Studies on Alcohol, 26 (1965), 238-246.

[4]C. C. Rich and H. G. Davis, "Concurrent Validity of MMPI Alcoholism Scales," Journal of Clinical Psychology, 25 (1969), 415-426.

In developing his alcoholism scale, MacAndrew concluded that the failure of the Hampton, Holmes, and the Hoyt-Sedlacek scales to discriminate alcoholics from non-alcoholic psychiatric patients in his study indicated that they were primarily measures not of alcoholism but of general maladjustment. Rosenberg challenged MacAndrew's conclusions by stating that an alcoholism scale that discriminates alcoholics from normals, but does not discriminate alcoholics from non-alcoholic psychiatric patients does not necessarily mean they are measures of general maladjustment, and further research is necessary to clarify what is being measured.[5]

Apfeldorf has conducted a study of MMPI research on alcoholism and concluded that although much of the research on alcoholism has yielded contrasting results, this should not obscure the more reliable and promising findings which suggest personality traits of alcoholics.[6] Yet, as Catanzaro indicated, many clinicians still do not diagnose alcoholism, preferring instead neurotic or psychotic diagnosis.[7] The need for such alcoholism scales is obvious in view of the large number of problem drinkers and alcoholics found among

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[5]N. Rosenberg, "MMPI Alcoholism Scales," Journal of Clinical Psychology, 28 (1972), 515-522.

[6]Mac Apfeldorf, "Contrasting Assumptions and Directions in MMPI Research on Alcoholism," Quarterly Journal of Studies on Alcohol, 35 (1974), 1375-1379.

[7]R. J. Catanzaro, "The Disease: Alcoholism" in Alcoholism, The Total Treatment Approach, ed. R. J. Catanzaro (Springfield, Ill.: Thomas, 1968), pp. 5-25.

populations in surveys by Cahalan.[8] However, the results of literature to date are inconclusive in regard to using the MMPI in identifying alcoholics. It is hoped that this study can help determine whether significant items from the MMPI can prove useful in identifying personality characteristics of alcoholics. Since so much about alcoholism remains unknown and the resources for dealing with alcoholic problems remain meager, the continuation and expansion of categorical programs seems essential.

The Problem

Validity research, conducted to determine the possibility of using the alcoholism scales in psychiatric settings for identifying patients who abuse alcohol, has been mixed. As a consequence of such mixed results, it has been speculated by some researchers/investigators that the scales are not sensitive to personality traits unique to alcoholics, but are measures of general maladjustment. Many studies have failed to yield results similar to the authors of the alcoholism scales, but to dismiss them as not useful diagnostic tools would be an overgeneralization since such a conclusion does not fit all the existing data. An examination of studies on validity research reflects poorly defined variables,

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[8]D. Cahalan, "Problem Drinkers" (San Francisco: Jossey-Bass, 1970).

non-random sampling, and ambiguous statistical conclusions, that have in part, contributed to the mixed results.

Past studies have focused on attempts to determine differences between alcoholics and other groups. In a further effort to determine whether the scales are sensitive to alcoholism or general maladjustment, it is feasible to determine if significant differences can be found among alcoholics as well as between alcoholics and other non-alcoholic groups. The selective factors that operate to bring alcohol-abusing patients into the proper treatment setting should be examined to determine the sensitivity of the scales to general maladjustment.

Statement of the Problem

Is there statistical evidence indicating the usefulness of five alcoholism scales derived from the MMPI as valid tools in identifying alcoholics?

Statement of the Hypothesis (Null)

There is no statistical evidence indicating the validity of the following alcoholism scales derived from the MMPI:

1. the MacAndrew scale
2. the Hampton scale
3. the Holmes scale
4. the Hoyt and Sedlacek scale
5. the Rosenberg scale.

Assumptions of the Study

If specific scales on a standardized personality inventory are efficient (valid) in measuring personality characteristics singular to alcoholics, then theoretically, these same items cannot differentiate between court-committed and self-committed groups since both are alcoholics.

Purpose of the Study

The purpose of this study was to investigate the responses to MMPI items that may be used in the identification of alcoholics and determining through close examination of the available scales, whether or not the scales are sensitive to alcoholism or merely general maladjustment. The study was used to help determine the usefulness of the scales as reliable and valid tools in identifying alcoholics.

Significance of the Study

Past studies have not investigated the combination of variables which this study investigated, that is, the study of court-committed and self-committed alcoholics utilizing the MMPI alcoholism scales. It is hoped that the alcoholics' psychological problems might be better understood through an examination of those aspects of personality not previously explored. It may be speculated that those alcoholics who have candid self-perception would be more likely to respond successfully to treatment than those who react defensively to self-perception. If combinations of variables can be found which will increase the accuracy of classifying

alcoholics such information could be used in an applied setting in terms of length, success, and nature of treatment.

Definition of Terms

The terms defined in this study are: alcoholic and non-alcoholic psychiatric.

Alcoholic

For purposes of this study an alcoholic is a patient who has been diagnosed as such by the Psychology Division of the Topeka Veterans Administration Hospital.

Non-Alcoholic Psychiatric

Non-alcoholic psychiatric patients are those patients whose hospital records indicate psychopathology with no history of alcoholic consumption of such severity that a diagnosis of alcoholism might reasonably apply, and had no history of illicit drug usage.

Limitations of the Study

This study was limited by the fact that in spite of efforts to the contrary, it was possible that some alcoholics "slipped through" to the non-alcoholic psychiatric group. Also, alcoholics volunteering for treatment with no outside coercion would be difficult to determine with absolute accuracy. There is always the possibility that a person or persons, not associated with the courts, exerted pressure

and influenced the alcoholic's decision to seek professional help.

This study was conducted on the basis of considering alcoholics as a homogeneous group. Jellinek, however, proposed a unidimentional concept by categorizing alcoholics into various types according to patterns of drinking behavior.[9] If, as Jellinek maintained, alcoholics are to be considered as members of a sequence of types, the alcoholism scales as utilized in this study might not have had an opportunity to demonstrate their full potential.

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[9]E. M. Jellinek, The Disease Concept of Alcoholism (New Haven, Connecticut: Hill-House Press, 1960), cited by Arnold H. Buss, Psychopathology (New York, London, Sydney: John Wiley & Sons, Inc., 1966), pp. 443-444.

Chapter 2

REVIEW OF RELATED RESEARCH

The Hampton, Holmes, and the Hoyt and Sedlacek alcoholism scales have successfully differentiated alcoholics from a normal comparison group; however, validity research that has examined the possibility of utilizing these three scales in psychiatric settings to identify patients who have abused alcohol have been mixed.

A study by Vega was conducted in an inpatient setting using the Hampton scale to identify alcoholism in psychiatric patients. Vega felt that further examination of the MMPI scales was necessary for two reasons. First, it was felt that if the scales could be shown to have validity in their ability to classify known groups of subjects it would provide the necessary justification for screening of patients whose drinking might be a significant problem. Also, if the original findings of differences between alcoholics could be duplicated, Vega felt it would help clarify the question of whether there exists personality characteristics unique to alcoholics that could be differentiated from general psychiatric disturbance.[1]

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[1]A. Vega, "Cross-Validation of Four MMPI Scales for Alcoholism," Quarterly Journal of Studies on Alcohol, 32 (1971), 791-793.

Vega examined the scores of two groups of male alcoholic patients: a group of psychiatric control subjects and a group of non-psychiatric control subjects on four scales of alcoholism on the MMPI (the MacAndrew Mac , the Hampton Ha , the Holmes Ho , and the Hoyt and Sedlacek H-S). There were twenty-seven patients in the psychiatric control group and thirty-one subjects in the normal control group. Although most of these were inpatients for non-psychiatric reasons (experipheral nerve injuries), the normal group could not be considered psychologically "healthy."[2]

As a result of this study, three of the four scales successfully identified inpatient alcoholics and control groups, both normal and psychiatric, therefore, replicating the original studies. However, the Hoyt and Sedlacek scale was completely incapable of discriminating between the groups. It was speculated that this inability might be due to the nature of the varied populations used to develop the scale. Vega believed that the remaining three scales were valid to the degree that their continued use in dealing with issues associated with alcoholism was justified. Vega determined that if such scales measured some personality or behavioral characteristic common to alcoholics, that the next logical step would be to attempt to accurately define these characteristics.[3]

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[2]Ibid.

[3]Ibid., p. 797.

Several studies have negated Vega's findings. The following study by MacAndrew and Geertsma discussed the subclass of MMPI derived scales which have been classified as "alcoholism scales" by the authors in an attempt to determine the extent to which they are useful in dealing with that problem. The study was designed to evaluate the relevance of these scales by determining their ability to differentiate diagnosed male alcoholics from non-alcoholic male psychiatric patients and to examine the extent to which the three scales agreed that information may be useful in determining the way(s) in which diagnosed alcoholics comprise a homogeneous class distinct from normals.[4]

MacAndrew and Geertsma used 300 male alcoholic outpatients and 300 non-alcoholic male psychiatric outpatients from the same treatment clinic (drawn from the greater Los Angeles metropolitan area). The average age was 41.8 and 34.7 years respectively.[5] The result of the three test scales (H-S, Ha, Ho) being administered to these groups was that none of them succeeded in differentiating diagnosed alcoholics from non-alcoholic psychiatric patients to any significant degree and, therefore, their value in clinical usage was questionable. These tests originally demonstrated their ability to distinguish between alcoholics and "normals."

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[4]C. MacAndrew and R. H. Geertsma, "A Critique of Alcoholism Scales Derived from the MMPI," Quarterly Journal of Studies on Alcohol, 25 (1964), 58-76.

[5]Ibid.

Their inability to discriminate between alcoholics and non-alcoholics implies that they are primarily measures of general maladjustment rather than measures of alcoholism, and therefore the question of whether alcoholics are substantially different or are simply neurotics who drink too much, remains undetermined.

Rotman and Vestre produced information concerning the validity of those scales on the MMPI used to identify alcoholics (Ha, Ho, and H-S), in distinguishing between psychiatric hospital patients with alcoholic problems and patients with no alcoholic problems. The sample used included all testable patients admitted to a Veteran's Administration neuropsychiatric hospital during a six-month period, which utilized 131 patients. To be labeled "alcoholic" a patient must have had any one of the following signs: (1) a diagnosis of alcoholism, (2) a psychiatrist's report indicating a drinking problem, or (3) a patient having checked the item "Drinking is a problem" on the Problem Check List (PCL). If none of these applied to the patient, he was labeled non-alcoholic. This resulted in the determination of sixty alcoholics and seventy-one non-alcoholics. The MMPI admission records of all the patients were then scored on the three alcoholism scales.[6]

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[6]S. R. Rotman and N. D. Vestre, "The Use of the MMPI in Identifying Problem Drinkers Among Psychiatric Hospital Admissions," Journal of Clinical Psychology, 20 (1964), 526-527.

The means of the alcoholic group were not significantly different from that of the non-alcoholic group on the scales. A second comparison between alcoholism and non-alcoholism requiring all three indicators to be present, resulted in significant mean differences on two (H-S and Ho) of the three scales. The evidence suggests that the third scale (Ha) was measuring psychopathology to a greater extent than the other two, and that this might explain its failure to differentiate alcoholic from non-alcoholic and from a psychiatric population.[7]

It appears that these special scales, especially the Ha, have little or no validity within a psychiatric population. Rotman and Vestre suggest that future development of scales for similar predictive purposes should include a psychiatric sample to insure that the intended criterion is being measured and not gross psychopathology.

The purpose of Ueker, Kish and Ball's study was to compare the alcoholics' scores on the H-S, Ha, and Ho scales with those of a general psychiatric sample but this time only after sufficient time had elapsed before the testing of the alcoholics to take into account acute alcoholism and individual factors. The sample of alcoholics consisted of 109 male veterans admitted to the V. A. Hospital in Fort Meade, South Dakota treatment unit for alcoholics. All were committed for treatment of alcoholism or had voluntarily

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[7]Ibid., p. 528.

entered the hospital for treatment. The non-alcoholic group consisted of fifty-six veterans admitted to the psychiatric units of the hospital during the same period of time. This group contained seventeen cases of schizophrenia, nine cases of depressive reaction, and seven cases of anxiety reaction. The remaining twenty-three were heterogeneous, however, nineteen were diagnosed as some form of personality disorder.[8]

The group form of the MMPI was administered to each alcoholic subject, but not until at least one month after his initial admission to the hospital. The non-alcoholic subjects, however, were tested shortly after admission. Means and standard deviations for each sample were performed for the H-S, Ho, and Ha scales.[9] The results were that the alcoholics scored significantly higher than the non-alcoholics on the H-S and Ho scales, and lower on the Ha scale but not to a significant degree.[10] These results differ from the Rotman and Vestre findings in which none of the scales differentiated problem drinkers from other psychiatric patients.

Ueker, Kish and Ball speculated that the different findings between their study and other studies, particularly

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[8]A. E. Ueker, G. B. Kish, and M. E. Ball, "Differentiation of Alcoholism from General Psychopathology by Means of Two MMPI Scales," Journal of Clinical Psychology, 25 (1969), 287-289.

[9]Ibid.

[10]Ibid.

the Rotman and Vestre study, may be due to the fact that alcoholism was more accurately defined. However, it was felt by the authors of this study that the main difference was due to the timing of the testing.[11]

The Rotman and Vestre study[12] found the Hoyt and Sedlacek scale to have limited capability in differentiating psychiatric hospital patients with alcoholic problems from those patients with no alcoholic problems. Other studies have indicated that this scale does not have validity with psychiatric patients.[13]

Although MacAndrew and Geertsma found the Holmes scale unable to differentiate outpatient alcoholics from non-alcoholic psychiatric outpatients, numerous other studies have shown this scale to successfully differentiate inpatient alcoholics from non-alcoholic psychiatric inpatients.[14] A study by Rich and Davis compared the validity of the MacAndrew scale with the three older MMPI alcoholism scales, Ho, Ha, and H-S, and a revised alcoholism scale that was constructed on the basis of item overlap between the

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[11]Ibid.

[12]Rotman and Vestre, loc. cit.

[13]MacAndrew and Geertsma, loc. cit.; Ueker, Kish, and Ball, loc. cit.; Vega, "Cross-Validation of Four MMPI Scales for Alcoholism," Quarterly Journal of Studies on Alcohol, 32 (1971), 791-793.

[14]Apfeldorf, "Contrasting Assumptions and Directions in MMPI Research on Alcoholism," Quarterly Journal of Studies on Alcohol, 35 (1974), 1375-1379; Rotman and Vestre, loc. cit.; Ueker, Kish, and Ball, loc. cit.; and Vega, loc. cit.

three older scales, which consisted of forty items common to at least two of the three older alcoholism scales. It was assumed that a valid alcoholism scale would differentiate between alcoholics and normals as well as between alcoholics and psychiatric patients.[15]

The Rich and Davis study involved three groups, each consisting of sixty males and sixty females. One group consisted of alcoholics selected from Big Spring State Hospital, the second group was psychiatric patients from the same hospital, and the third group of normals was selected from applicants to the hospital personnel office seeking employment and college student volunteers.[16]

The booklet form of the MMPI was administered to all subjects in each group. All alcoholic group means were high except the Hampton scale males, where the patient group mean was highest. The analysis showed the MacAndrew to be the most promising of the MMPI alcoholism scales. Furthermore, it showed that the validity of the MacAndrew scale was supported and that it is as valid with females as with males.[17]

When MacAndrew and Geertsma found the Ho scale, the H-S and the Ha scale all incapable of differentiating outpatient alcoholics from non-alcoholic psychiatric outpatients,

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[15]C. C. Rich and H. G. Davis, "Concurrent Validity of MMPI Alcoholism Scales," Journal of Clinical Psychology, 25 (1969), 415.

[16]Ibid., p. 424.

[17]Ibid., p. 426.

they reached the conclusion that all three of the scales were apparently measures of maladjustment.[18] This conclusion, however, is not supported by the Rotman and Vestre study[19] which showed nonsignificant and negative correlations between the three scales. Furthermore, other research has shown that different aspects of personality were measured by the three scales.

Korman attempted to determine what the Ha and H-S scales actually measure. He did this by examining their relationship to a number of variables reflecting the physical, psychological, and social adjustment of the alcoholic. The subjects were sixty-one patients who had undergone medical, psychiatric, and psychological evaluation at an outpatient alcoholism clinic. Holmes and Hoyt-Sedlacek scales were obtained from the short form of the MMPI, so only forty-three of the Holmes items (it contains fifty-nine) and fifty-two of the Hoyt-Sedlacek items (it contains sixty-eight) were used in this study. The variables used were: (1) scale for preoccupation with alcohol, (2) rapidity of development of "preoccupation" behavior, (3) total medical rating, (4) alcohol medical rating, (5) sum of MMPI clinical scales above seventy, (7) strength of need for alcohol, (8) total years, (9) frequency index, (10) number of drinking spells,

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[18]MacAndrew and Geertsma, loc. cit.

[19]Rotman and Vestre, loc. cit.

(11) social adjustment, (12) intellectual functioning and (13) intellectual deterioration.[20]

The result of the tests indicated that the Hampton scale seemed to reflect a stronger drive for alcohol, more severe psychological maladjustment, and a rapid development of alcohol related behavior. On the other hand, the Hoyt-Sedlacek scale seemed to be associated more with "less acute psychological symptomatology," and also a greater frequency of drinking behavior.[21] There was no indication, however, of a corresponding intense "need" to drink.

At the time Rosenberg's study was initiated there were four MMPI alcoholism scales: Mac, H-S, Ho, and Ha. Validity for these scales on a comparable basis had not been thoroughly evaluated, and the possibility that some combination of them would provide a better diagnostic scale had not been adequately investigated. The approach of this study was to focus on similarities of the scales.[22]

A sample was obtained from the V. A. Hospital, Fort Meade, South Dakota. The alcoholics consisted of 111 male veterans admitted both on a voluntary and on a committment basis to a special treatment unit for alcoholics in which

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[20]M. Korman, "Two MMPI Scales for Alcoholism; What Do They Measure?" Journal of Clinical Psychology, 16 (1960), 296-298.

[21]Ibid.

[22]N. Rosenberg, "MMPI Alcoholism Scales," Journal of Clinical Psychology, 28 (1972), 515-521.

those with psychotic symptoms, other than those due to acute alcohol intoxication or to withdrawal from alcohol, were excluded. The non-alcoholics consisted of fifty-six psychiatric patients (secondary alcoholism diagnosis was excluded) and included seventeen schizophrenics, nine depressive reactions, and seven anxiety reactions. The remaining twenty-three patients appeared heterogeneous in diagnosis, although fifteen had some type of personality disorder diagnosis.[23]

The Rosenberg Composite Scale consists of six MMPI items common to all three of the most promising scales (Mac, H-S, and Ho), as well as twenty-one items common to two of the three scales. The Rosenberg Composite Alcoholic Scale formed from items common to at least two of the scales showed validity only for items common to all three. MacAndrew and Hoyt-Sedlacek items were each valid, but did not intercorrelate, nor did they correlate with self-reported excessive drinking.[24] In other words, the clinical diagnosis of alcoholism may reflect personality variables other than excessive drinking.

MacAndrew devised an alcoholism scale comprised of MMPI items that differentiated alcoholics from non-alcoholic psychiatric outpatients. The study by MacAndrew cited the study by MacAndrew and Geertsma that demonstrated the three scales for alcoholism in the MMPI, that is, the Hampton,

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[23]Ibid., p. 522. [24]Ibid.

Holmes, and Hoyt and Sedlacek scales, were ineffective in distinguishing male alcoholic outpatients from non-alcoholic male psychiatric outpatients to any appreciable degree. This resulted in the conclusion that the scales were measures not so much of alcoholism but rather of maladjustment.[25] An attempt was made to answer the following question:

> Is it possible to develop a scale from the 566 550 items which comprise the MMPI which will differentiate outpatients to a degree sufficient to warrant its use in those contexts in which practical circumstances recommend the relevance of such a differentiation?[26]

Three-hundred males (volunteers) from a state-supported alcoholism clinic for help with their drinking problems were used in the MacAndrew study. The patients were from the greater Los Angeles metropolitan area. Their ages ranged from twenty-one to seventy with the average age being 41.8 years. The group was heterogeneous in terms of education, income, occupation, type of residence, and number of years the patient had been drinking. Non-Caucasians were minimal in number. There were also 300 males selected for the non-alcoholic psychiatric group who were outpatients from a state-supported psychiatric clinic located in the same facility. This group was also heterogeneous. Their average

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[25]C. MacAndrew, "The Differentiation of Male Alcoholic Outpatients from Non-Alcoholic Psychiatric Outpatients by Means of the MMPI," Quarterly Journal of Studies on Alcohol, 26 (1965), 238-240.

[26]Ibid.

age was 34.7 years and none had a history of drug use or "problem drinking."[27]

Chi-squares were computed on each of the items of the MMPI and all items significant at the .01 level (fifty-one items) were selected for the alcoholism scales. Since it was the purpose of this study to determine whether those persons labeled "alcoholics" were or were not simply neurotics who overindulged, it was decided to remove question number 215 "I have used alcohol excessively" and number 460 "I have used alcohol moderately, or not at all," therefore reducing the scale to forty-nine items. The forty-nine items successfully classified 81.5 percent of the combined cross-validation sample and provided evidence that it is possible to develop a scale which can correctly identify male alcoholics from non-alcoholic psychiatric outpatients and therefore significant differences between the two groups do exist.[28]

Research has shown the MacAndrew scale capable of differentiating alcoholic and non-alcoholic patients in a variety of treatment settings.[29] Rhodes cited the studies by MacAndrew and Geertsma, Rotman and Vestre, and Korman which cast doubt on the ability of the Hampton, Hoyt and

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[27]Ibid.

[28]Ibid., p. 244.

[29]Rich and Davis, "Concurrent Validity of MMPI Alcoholism Scales," Journal of Clinical Psychology, 25 (1969), 415; Vega, "Cross-Validation of Four MMPI Scales for Alcoholism," Quarterly Journal of Studies on Alcohol, 32 (1971), 791-793; Rosenberg, loc. cit.

Sedlacek and Holmes scales to differentiate between alcoholics and general maladjustment. It was as a result of these tests that MacAndrew developed his alcoholism scale that successfully differentiated between the two. However, a later test by Whisler and Cantor employed the use of the MacAndrew scale on a different patient population obtaining different results and therefore casting doubt as to its usefulness.[30]

Rhode's study duplicated the studies using subjects similar to those used by MacAndrew. The alcoholic group consisted of 200 patients from an outpatient alcoholism clinic. The ages ranged from twenty-two to sixty-five. The group, like MacAndrew's, was heterogeneous in education, income, occupation, type of residence, years of drinking, etc. The other sample consisted of 200 patients from a university outpatient psychiatric clinic whose ages ranged from twenty to sixty-nine. The booklet form of the MMPI was administered individually to all the subjects early in the processing and each was then scored using the MacAndrew scale.[31] Although there were significant differences between the scores within the groups (the MacAndrew study and the present one), what was more important was that there were striking differences between the mean scores of alcoholics

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[30]R. J. Rhodes, "The MacAndrew Alcoholism Scale: A Replication," Journal of Clinical Psychology, 25 (1969), 189-191.

[31]Ibid.

and non-alcoholics. The results compare favorably to the MacAndrew scale and therefore provide further support for its usefulness.

The study by Whisler and Cantor utilized 140 male veterans housed in a veteran's facility. Seventy-three members of this group were classified as non-alcoholic (NA). Their mean ages were 46.8 and 43.9 respectively.[32]

The authors speculated as to the possibility that an unknown number of alcoholics in the NA group might well have "slipped through" and contributed to the discrepancies. No significant differences were found in the means and standard deviations for MacAndrew's and the present studies samples. Therefore, it was concluded that the scale is probably a good predictor of alcoholic behavior.[33]

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[32]R. H. Whisler and J. M. Cantor, "The MacAndrew Alcoholism Scale: A Cross-Validation in a Domiciliary Setting," Journal of Clinical Psychology, 22 (1966), 311-312.

[33]Ibid.

Chapter 3

METHODS AND PROCEDURES

The problem investigated in this study was to determine if alcoholics who are court-committed and alcoholics who are self-committed to an alcoholic treatment program respond differently to the specific items of the MMPI which comprise the alcoholism scales. This chapter includes a description of this study including the sample analyzed, the alcoholism scales, the procedure used in collecting the data, and the statistical approach used in analyzing the data.

Population and Sampling

The data for this research is based on the MMPI results of subjects who were patients of the Veterans Administration Hospital in Topeka, Kansas during the period 1971-1977. Each of the patients was administered a battery of group tests, including the MMPI, within one week after admission to the hospital. The MMPI was administered to each subject by orally repeating the same instructions that appear on the cover of the MMPI examination booklet. There was no time limit for the completion of the test. The responses to the questions were placed on a separate answer sheet and were scored by computer. The Psychology Technician who

administered the test assigned a number to each subject. This assigned number was used to obtain random samples.

Subjects

Random samples were selected from three groups for this research investigation. One group consisted of sixty male alcoholics whose hospital records indicate that they began the alcoholic treatment program as a result of being ordered to do so by a court of law (court-committed). Another group consisted of sixty male alcoholics whose records indicate that they volunteered to enter the treatment program (self-committed). And a third group consisted of sixty male subjects whose records indicate psychopathology with no history of alcoholic consumption of such severity that a diagnosis of alcoholism might reasonably apply, and had no history of illicit drug usage (non-alcoholic psychiatric).

The table of random numbers, found on pages 133-136 in Fundamental Research Statistics for the Behavioral Sciences,[1] was used to obtain the samples. These numbers were coordinated with the number assigned to each subject by the Psychology Technician. Sixty protocols were randomly selected for each group.

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[1]J. T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences (New York: Holt, Rinehart, and Winston, 1969), pp. 133-136.

To date, five different MMPI alcoholism scales are available each of which is comprised of items from the MMPI. Each scale claims validity in its ability to differentiate between alcoholics and psychotics and is named after the author(s) of the scale, each scale has a cut-off score. A cut-off score is that score achieved on the scale which served as a dividing point between the alcoholic and non-alcoholic categories. For example, on a hypothetical alcoholism scale containing fifty items, a possible cut-off score might be twenty-five. A subject scoring above twenty-five would be classified as an alcoholic and a subject scoring below twenty-five would be classified as a non-alcoholic on that scale. The five scales consist of a different number of items and, therefore, each has a different cut-off score. The oldest of the alcoholism scales, the Hampton (Ha), was developed in 1953. This scale consists of 125 items and has a cut-off score of fifty-nine. The Holmes scale (Ho), developed in 1956, consists of fifty-nine items and has a cut-off score of thirty-four. The Hoyt and Sedlacek scale (H-S) was developed in 1958 and contains sixty-eight items with a cut-off score of twenty-four. The MacAndrew scale, developed in 1965, contains forty-nine items and it too has a cut-off score of twenty-four. The Rosenberg Composite scale, developed in 1969, consists of twenty-seven items. The cut-off score was not stated in the original study, but a cut-off score of twelve was obtained for this study by

suggestion from the author.[2] This scale is comprised of items selected from three older scales (Mac, H-S, and Ha). Each of these alcoholism scales used item analysis techniques in its development.

A cut-off score is obviously necessary in order to attain a distinction between alcoholic and non-alcoholic classifications. The use of such an arbitrary designation point, however, raises a question as to the fairness of such a system where an alcoholic or non-alcoholic designation may depend on only one point difference. Therefore, for purposes of this study, from one to five points below the recommended cut-off point on each scale was considered a category which is not purely a member of either of the two groups or categories. It was possible for every subject to be classified in one of three categories on each of the five scales. Any subject whose test results indicated a placement above the recommended cut-off point on any of the scales was classified as an alcoholic by that scale, and was designated by a "+" sign. Those subjects whose test results indicated a placement of from one to five points below the cut-off scores were placed into a category for which no alcoholic or non-alcoholic designation will be given, and was designated by a "?" sign. Those subjects whose test results indicated a placement from five points below the cut-off score to zero

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[2]Personal communication from Dr. Nathan Rosenberg, July 23, 1978.

were placed in the non-alcoholic category, designated by a "-" sign.

Data Analysis

Since there were three groups of subjects (alcoholic self-committed, alcoholic court-committed, and non-alcoholic psychiatric), three possible categories (+, -, ?), and five alcoholism scales, the data were presented on twenty 3 x 3 tables. These data involved categories rather than numerical scores and, therefore, the test results were analyzed by the chi-square statistical method. Therefore, if the scales are accurate both alcoholic groups should fit into the "+" category. The non-alcoholic psychiatric group should fit into the "-" category.

The value of chi-square is determined on the basis of the number of responses (observed frequencies) as compared to the number of expected responses (expected frequencies). Thus, chi-square is a nonparametric statistical tool that is used to determine if there is a statistical difference in the three groups (independent variable) and the manner in which they respond (dependent variable) to each item on the scales.

The formula[3] used for calculating the value of chi-square is:

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[3]N. M. Downie and R. W. Heath, Basic Statistical Methods (4th ed.; New York: Harper and Row, Publishers, 1974), pp. 188-190.

$$\chi^2 = \Sigma \frac{(O_f - E_f)^2}{E_f}$$

where, Σ = summation operator; O_f = observed frequencies, and, E_f = expected frequencies.

The observed frequencies (O_f) are simply based upon the total number of respondents in each category. The expected frequencies (E_f) for each cell are calculated on the basis of the row sums times the column sums divided by the total number of respondents (N), or E_f = (row sum)(column sum)/N.

In testing the null hypothesis, the value obtained for chi-square is tested against a chi-square table. In reading from a chi-square table, the degrees of freedom must be considered. The degrees of freedom are calculated by taking the number of rows minus one times the number of columns minus one, or df = (r-1)(c-1).

For this study the .05 level of significance was selected to test the null hypothesis. This may be interpreted as dependent upon whether or not the statistic (sample fact) falls within the established critical region. If the obtained value of chi-square is greater than or equal to the tabled value of chi-square at the .05 level of significance, chances are that ninety-five times out of one-hundred the large obtained value of chi-square is not due just to sampling error.

The Contingency Coefficient (C^2)[4]

The contingency coefficient is an index of measurement that is used to determine the degree of relationship that exists between the independent and dependent variables. The magnitude of chi-square is a function used in the determination of the contingency coefficient. The contingency coefficient formula is:

$$C = \sqrt{\frac{\chi^2}{\chi^2 + N}}$$

where, χ^2 = obtained value of chi-squares, and, N = total number of respondents to each individual item.

The quickest way to test the significance of C is to test the significance of χ^2. If the latter is significant, so is C. The absence of a relationship is denoted by a correlation coefficient of .00 or thereabouts.

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[4]Ibid., p. 201.

Chapter 4

ANALYSIS OF DATA

In this section the process in which the data were analyzed is discussed. Specifically, the response analysis and the statistical analysis is presented.

Response Analysis

As described in Chapter 3, there were a total of 180 subjects whose MMPI response frequencies to the alcoholism scales were analyzed. Of these, sixty were self-committed to a treatment program (SC), sixty were court-committed (CC) to the treatment program, and sixty were hospitalized non-alcoholic psychiatric patients (NA Psych.).

Statistical Analysis

The chi-square test of association was used to test the null hypothesis under investigation which was:

> There will be no statistical evidence indicating the usefulness of the alcoholism scales derived from the MMPI as valid tools in identifying alcoholics.

On the basis of the chi-square test of association on the Hampton scale a significant difference was found between court-committed and self-committed alcoholics. This scale found no significant difference between either court-committed alcoholics and non-alcoholic psychiatric patients,

or between self-committed alcoholics and non-alcoholic psychiatric patients.

The Holmes scale revealed no significant difference between court-committed and self-committed alcoholics. It indicated a significant difference between court-committed alcoholics and non-alcoholic psychiatric patients, but showed no significant difference between self-committed alcoholics and non-alcoholic psychiatric patients.

The MacAndrew scale demonstrated no significant difference between court-committed and self-committed alcoholics, but this scale also found no difference between court-committed and non-alcoholic psychiatric patients. The MacAndrew scale did however, find a significant difference between self-committed alcoholics and non-alcoholic psychiatric patients.

The hoyt and Sedlacek scale was unable to differentiate between alcoholics and non-alcoholics in this study, classifying almost all subjects as alcoholics.

The Rosenberg Composite scale indicated no significant difference between court-committed and self-committed alcoholics. This scale did show a statistically significant difference between court-committed alcoholics and non-alcoholic psychiatric patients, as well as between the self-committed alcoholics and the non-alcoholic psychiatric patients.

Table 1

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics, Self-Committed Alcoholics, and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Hampton Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
C.C.	37* (32.67)**	9 (6.67)	14 (20.67)	60
S.C.	34 (32.67)	2 (6.67)	24 (20.67)	60
N/A	27 (32.67)	9 (6.67)	24 (20.67)	60
Total	98	20	62	180

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

χ^2 = 9.74***

df = 4

C = 0.051

The obtained chi-square value of 9.74 was calculated for Table 1. The tabled chi-square value of 9.49 was needed to reject the null hypothesis at the .05 level of significance for four degrees of freedom (df = 4). Since the obtained value of chi-square was greater than the tabled value, rejection of the null hypothesis was indicated.

It was concluded that the observed frequencies differed significantly from the expected frequencies. Chances were ninety-five times out of 100 that the discrepancy was due to other factors than just random sampling error. There

was a significant relationship between the type of patient (independent variable) and the manner in which the patient responded to the selected items on the scale (dependent variable).

It can be observed from the preceding table (Table 1, page 33) that the greatest differences between the expected and observed frequencies was between the court-committed alcoholics and the non-alcoholic psychiatric patients.

Table 2

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Self-Committed Alcoholics with Respect to Classification: The Hampton Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
C.C.	37* (35.50)**	9 (5.50)	14 (19.00)	60
S.C.	34 (35.50)	2 (5.50)	24 (19.00)	60
Total	71	11	38	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

$\chi^2 = 7.21$***

df = 2

C = 0.057

Table 2 demonstrates that a statistically significant difference exists between court-committed and self-committed alcoholics with respect to the Hampton Alcoholism Scale.

The calculated chi-square value of 9.74 was obtained. The tabled value of 5.99 was needed to reject the null hypothesis for two degrees of freedom (df = 2). The null hypothesis was rejected since the obtained chi-square value was greater than the tabled value. Although the Hampton scale correctly classified the majority of each of the two alcoholic groups as alcoholic, it incorrectly classified a large number of the self-committed alcoholics as non-alcoholic.

Table 3

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Hampton Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	37* (32.00)**	9 (9.00)	14 (19.00)	60
N/A	27 (32.00)	9 (9.00)	24 (19.00)	60
Total	64	18	38	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 4.19***

df = 2

C = 0.15

Table 3 indicates that there was no statistically significant difference between the court-committed alcoholic and the non-alcoholic psychiatric groups. The chi-square value of 4.19 was obtained while a tabled value of 5.99 was

Table 4. The deviation of the observed frequencies from the expected frequencies is not significant. The chi-square value of 5.26 was obtained with a tabled chi-square value of 5.99 at the .05 level of significance with two degrees of freedom. As a result of this analysis the null hypothesis was accepted.

Table 5

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics, Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Holmes Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	38* (30.33)**	18 (20.67)	4 (9.00)	60
S.C.	32 (30.33)	20 (20.67)	8 (9.00)	60
N/A	21 (30.33)	24 (20.67)	15 (9.00)	60
Total	91	62	27	180

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

$\chi^2 = 12.69$***

df = 4

C = 0.066

The statistical analysis for court-committed alcoholics, self-committed alcoholics, and non-alcoholic psychiatric groups with regard to the Holmes Alcoholism

Scale is illustrated in Table 5. The calculated chi-square value of 12.69 was obtained with a tabled value of 9.488 needed to reject the null hypothesis at the .05 level of significance with four degrees of freedom. Since the obtained value of chi-square was greater than the tabled value rejection of the null hypothesis was indicated. It can be observed that the greatest differences between the expected and observed frequencies was between the court-committed alcoholics and the non-alcoholic psychiatric patients. It can also be observed from Table 5 that the majority of the observed responses of the non-alcoholic psychiatric patients were classified in the questionable (?) category.

The deviation of the observed frequencies from the expected frequencies for Table 6 was not significant and the null hypothesis was accepted. It was concluded that there was no statistically significant difference between court-committed alcoholics and self committed alcoholics in the way in which they responded to the items on the Holmes Alcoholism Scale. The obtained chi-square value of 1.95 was less than the tabled value of 5.99 at the .05 level of significance with two degrees of freedom. The null hypothesis was accepted. Table 6 also demonstrates that although the majority of the patients in both groups were correctly classified as alcoholics by the Holmes scale the vast majority of those classified as non-alcoholics fell into the questionable (?) category.

Table 6

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Self-Committed Alcoholics with Respect to Classification: The Holmes Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	38* (35.00)**	18 (19.00)	4 (6.00)	60
S.C.	32 (35.00)	20 (19.00)	9 (6.00)	60
Total	70	38	12	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 1.95***

df = 2

C = 0.016

The obtained chi-square value of 12.12, as shown on Table 7, was greater than the tabled value of 5.99 at the .05 level of significance with two degrees of freedom, and therefore rejection of the null hypothesis was indicated. The Holmes Alcoholism Scale revealed a significant difference between the way in which a court-committed alcoholic and a non-alcoholic psychiatric patient respond to the items on this scale. A closer examination of this table discloses that even though the majority of the non-alcoholic psychiatric patients were correctly diagnosed as non-alcoholic by the Holmes scale, the largest number of patients were placed into the questionable (?) classification.

Table 7

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Holmes Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	38* (29.50)**	18 (21.00)	4 (9.50)	60
N/A	21 (29.50)	24 (21.00)	15 (9.50)	60
Total	59	42	19	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

$\chi^2 = 12.12$

df = 2

C = 0.092

Table 8 indicates that there was no significant difference between self-committed alcoholics and non-alcoholic psychiatric patients at the .05 level of significance. The computed chi-square value of 4.78 was obtained while a tabled value of 5.99 was necessary to reject the null hypothesis with two degrees of freedom. Since there was no significant relationship between the type of patient and the manner in which they responded to the items on the Holmes scale the null hypothesis was accepted.

Table 8

Chi-Square and Contingency Coefficient Values Determined from the Responses of Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Holmes Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
S.C.	32* (26.50)**	20 (22.00)	8 (11.50)	60
N/A	21 (26.50)	24 (22.00)	15 (11.50)	60
Total	53	44	23	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 4.78***

df = 2

C = 0.038

The statistical analysis for court-committed alcoholics, self-committed alcoholics, and non-alcoholic psychiatric patients with regard to the MacAndrew Alcoholism Scale is illustrated in Table 9. The calculated chi-square value of 8.11 was obtained with a tabled value of 9.488 being needed to reject the null hypothesis at the .05 level of significance with four degrees of freedom. Since the obtained chi-square value was greater than the tabled value, rejection of the null hypothesis was indicated.

Table 9

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics, Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The MacAndrew Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Table
C.C.	39* (38.67)**	17 (17.00)	4 (4.33)	60
S.C.	45 (38.67)	10 (17.00)	5 (4.33)	60
N/A	32 (38.67)	24 (17.00)	4 (4.33)	60
Total	116	51	13	180

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 8.11***

df = 4

C = 0.043

The obtained chi-square value of 2.35, as shown on Table 10 was less than the tabled value of 5.99 and therefore the null hypothesis was accepted. The MacAndrew Alcoholism Scale did not reveal a significant relationship between court-committed and self-committed alcoholics at the .05 level of significance with two degrees of freedom. Out of one-hundred and twenty alcoholic patients, only nine were classified as non-alcoholic by this scale.

Table 10

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Self-Committed Alcoholics with Respect to Classification: The MacAndrew Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	39* (42.00)**	17 (13.50)	4 (4.50)	60
S.C.	45 (42.00)	10 (13.50)	5 (4.50)	60
Total	84	27	9	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 2.35***

df = 2

C = 0.019

Table 11 indicates that there was no statistically significant difference between court-committed alcoholics and non-alcoholic psychiatric patients at the .05 level with two degrees of freedom. The computed chi-square value of 1.89 was obtained with a tabled value of 5.99 which was needed to reject the null hypothesis. Since there was no significant relationship between the type of patient and the manner in which they responded to the items on the MacAndrew Alcoholism Scale, the null hypothesis was accepted.

Table 11

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The MacAndrew Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	39* (35.50)**	17 (20.50)	4 (4.00)	60
N/A	32 (35.50)	24 (20.50)	4 (4.00)	60
Total	71	41	8	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 1.89***

df = 2

C = 0.015

The results of the chi-square computed for the self-committed alcoholics and the non-alcoholic psychiatric patients with respect to the MacAndrew scale can be seen on Table 12. The differences between the observed frequencies and the expected frequencies are statistically significant. The chi-square value of 8.07 was obtained with a tabled value of 5.99 at the .05 level of significance with two degrees of freedom. As a result of this analysis the null hypothesis was rejected. As Table 12 indicates, the Mac Andrew scale incorrectly designated the majority of the non-alcoholic psychiatric group as alcoholic.

Table 12

Chi-Square and Contingency Coefficient Values Determined from the Responses of Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The MacAndrew Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
S.C.	45* (38.50)**	10 (17.00)	5 (4.50)	60
N/A	32 (38.50)	24 (17.00)	4 (4.50)	60
Total	77	34	9	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

χ^2 = 8.07***

df = 2

C = 0.063

The Hoyt-Sedlacek Alcoholism Scale did not disclose a statistically significant difference among court-committed alcoholics, self-committed alcoholics, and non-alcoholic psychiatric patients (Table 13). The calculated chi-square value of 1.01 was less than the tabled value of 9.488 at the .05 level of significance with four degrees of freedom. The null hypothesis was accepted. Table 13 demonstrates that all of the court-committed alcoholics were correctly classified, and all but one of the self-committed alcoholics were correctly classified. However, this scale also classified all but one of the non-alcoholic psychiatric patients as alcoholic. This table displays the apparent propensity

of the Hoyt-Sedlacek Alcoholism scale to classify all patients as alcoholic regardless of diagnosed classification.

Table 13

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics, Self-Committed Alcoholics, and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Hoyt and Sedlacek Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	60* (59.33)**	0 (0.67)	0 (0.00)	60
S.A.	59 (59.33)	1 (0.67)	0 (0.00)	60
N/A	59 (59.33)	1 (0.67)	0 (0.00)	60
Total	178	2	0	180

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 1.01***

df = 4

C = 0.008

Table 14 reveals no statistically significant difference between court-committed alcoholics and self-committed alcoholics. The chi-square value of 1.01 was less than the tabled value of 5.99 with two degrees of freedom at the .05 level of significance. The null hypothesis was accepted. The Hoyt-Sedlacek scale categorized all

but one of the 120 patients as alcoholic. The one exception in the self-committed alcoholic group was classified in the questionable (?) category.

Table 14

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Self-Committed Alcoholics with Respect to Classification: The Hoyt and Sedlacek Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
C.C.	60* (59.50)**	0 (0.50)	0 (0.00)	60
S.C.	59 (59.50)	1 (0.50)	0 (0.00)	60
Total	119	1	0	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 1.01***

df = 2

C = 0.008

The calculated chi-square value of 1.01 was obtained between court-committed alcoholics and non-alcoholic psychiatric patients with respect to the Hoyt-Sedlacek Alcoholism Scale (Table 15). This was less than the tabled value of 5.99 at the .05 level of significance with two degrees of freedom and the null hypothesis was accepted.

Table 15

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Hoyt and Sedlacek Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
C.C.	60* (59.50)**	0 (0.50)	0 (0.00)	60
N/A	59 (59.50)	1 (0.50)	0 (0.00)	60
Total	119	1	0	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 1.01***

df = 2

C = 0.000

Table 16 illustrates the inability of the Hoyt-Sedlacek scale to distinguish between alcoholic and non-alcoholic psychiatric patients. All but one patient in each of the self-committed alcoholic and non-alcoholic psychiatric groups were classified as alcoholic. No chi-square value could be calculated for this table (chi-square value 0.00) and therefore the null hypothesis was accepted.

The statistical analysis for court-committed alcoholics, self-committed alcoholics, and non-alcoholic psychiatric groups with regard to the Rosenberg Alcoholism Scale is revealed in Table 17, on page 50. The obtained chi-square value of 15.67 is greater than the tabled value

Table 16

Chi-Square and Contingency Coefficient Values Determined from the Responses of Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Hoyt and Sedlacek Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
S.C.	59* (59.00)**	1 (1.00)	0 (0.00)	60
N/A	59 (59.00)	1 (1.00)	0 (0.00)	60
Total	118	2	0	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Not significant at .05 level

χ^2 = 0.00***

df = 2

C = 0.000

of 9.488 at the .05 level of significance with four degrees of freedom. The null hypothesis was not accepted. It can be observed from this table that the Rosenberg scale incorrectly classified the majority of both the court-committed alcoholics and the self-committed alcoholics as non-alcoholic, the vast majority of which were placed into the questionable (?) category.

No statistically significant difference was indicated between court-committed alcoholics and self-committed alcoholics with regard to the Rosenberg scale (Table 18, on page 51). The chi-square value of 1.92 was less than the tabled value of 5.99 at the .05 level of significance

with two degrees of freedom. The null hypothesis was accepted. An examination of Table 18 discloses the fact that the questionable (?) category received the majority of the patients.

Table 17

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics, Self-Committed Alcoholics, and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Rosenberg Composite Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
C.C.	17* (14.67)**	38 (33.00)	5 (12.33)	60
S.C.	16 (14.67)	34 (33.00)	10 (12.33)	60
N/A	11 (14.67)	27 (33.00)	22 (12.33)	60
Total	44	99	37	180

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

$\chi^2 = 15.67$***

df = 4

C = 0.080

Table 19, on page 52, indicates a statistically significant difference between court-committed alcoholics and non-alcoholic psychiatric patients at the .05 level of significance with two degrees of freedom. The chi-square value of 13.85 is greater than the tabled value of 5.99 and

Table 18

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Self-Committed Alcoholics with Respect to Classification: The Rosenberg Composite Alcoholism Scale

Patient's Classification	Alcoholic +	Question-able ?	Non-Alcoholic -	Total
C.C.	17* (16.50)**	38 (36.00)	5 (7.50)	60
S.C.	16 (16.50)	34 (36.00)	10 (7.50)	60
Total	33	72	15	120

* O_f = observed requencies — χ^2 = 1.92***

** E_f = expected frequencies — df = 2

*** Not significant at .05 level — C = 0.016

therefore the null hypothesis was not accepted. Although proportionately few of the non-alcoholic psychiatric patients were classified as alcoholic, the majority of the patients comprising this group were placed into the questionable (?) category.

The Rosenberg scale disclosed a statistically significant difference between self-committed alcoholics and non-alcoholic psychiatric patients (Table 20, on page 53). The chi-square value of 6.23 was greater than the tabled value of 5.99 at the .05 level of significance with two degrees of freedom. The null hypothesis was not accepted.

Table 19

Chi-Square and Contingency Coefficient Values Determined from the Responses of Court-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Rosenberg Composite Alcoholism Scale

Patient's Classification	Alcoholic ?	Questionable ?	Non-Alcoholic -	Total
C.C.	17* (14.00)**	38 (32.50)	5 (13.50)	60
N/A	11 (14.00)	27 (32.50)	22 (13.50)	60
Total	28	65	27	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

χ^2 = 13.85***

df = 2

C = 0.103

Table 20

Chi-Square and Contingency Coefficient Values Determined from the Responses of Self-Committed Alcoholics and Non-Alcoholic Psychiatric Patients with Respect to Classification: The Rosenberg Composite Alcoholism Scale

Patient's Classification	Alcoholic +	Questionable ?	Non-Alcoholic -	Total
S.C.	16* (13.50)**	34 (30.50)	10 (16.00)	60
N/A	11 (13.50)	27 (30.50)	22 (16.00)	60
Total	27	61	32	120

* O_f = observed frequencies

** E_f = expected frequencies

*** Significant at .05 level

χ^2 = 6.23***

df = 2

C = 0.049

The questionable (?) category utilized in this study reveals the statistically misleading results of some of the scales. This is most obvious in regard to the Rosenberg Scale, where observance of the statistically significant findings alone would obscure the apparent vulnerability of the scale. The small number of items (twenty-seven) which comprise this scale could account, at least in part, for the inflated questionable category. Nevertheless such results casts skepticism in regards to the value of a clinical application of this scale.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Alcoholism represents this nation's number one drug problem. Many theories have been proposed suggesting reasons as to why people drink excessively. From the immense research on alcoholism one fact that emerges is that there are a multitude of factors which influence a person's becoming an alcoholic. In this study the efficacy of the alcoholism scales to identify these factors was investigated. In this section the results of the study are summarized. Conclusions from the data are discussed, and recommendations for further study are presented.

Summary

This investigation was conducted to determine if a significant relationship exists between the responses on the alcoholism scales of court-committed alcoholics, self-committed alcoholics, and non-alcoholic patients. From the results of the analysis performed (i.e., chi-square), one of the scales, (i.e., the Hampton), shows a significant relationship between self-committed and court-committed alcoholics. Three of the scales, (i.e., the Mac., Holmes, and Rosenberg) detected no meaningful difference between the groups. The Hoyt and Sedlacek scale was not found to be

a useful diagnostic scale in this study. The Rosenberg Composite Scale misclassified the majority of the alcoholics in both groups as non-alcoholics, the vast majority of which fell into the questionable (?) category.

The null hypothesis was accepted for two of the five alcoholism scales (i.e., the Holmes and the MacAndrew), and was rejected for the other three (i.e., the Hampton, the Hoyt and Sedlacek, and the Rosenberg).

Conclusions

The failure of the Hampton Scale to differentiate alcoholics from psychiatric patients is consistent with existing research findings cited previously in Chapter 2. The fact that this scale found a significant difference between the two groups of alcoholics suggests that this scale is sensitive to traits other than those for which it was designed to measure.

As previously cited (Chapter 2), the majority of validation studies have shown the Hoyt and Sedlacek Scale to be invalid with psychiatric patients. This study lends further support to those findings. This scale was developed by comparing the MMPI responses of hospitalized alcoholics with the responses of a "normal" sample and would appear to lack value when applied in a psychiatric setting.

The Rosenberg Composite Scale, constructed and validated by selecting items common to the other scales, found significant differences between each of the alcoholic

groups and the psychiatric group while mis-classifying the alcoholics as non-alcoholic. The other scales were developed by employing different samples including inpatients, outpatients, and "normals." The different samples used in the development of these scales contribute substantial differences in the types of valid alcoholism items selected by the different investigations. This study does not support the theory that the limitations present in the other scales can best be overcome by selecting valid items from these other scales.

The Holmes and the MacAndrew scales found no significant differences between the two alcoholic groups. However, the Holmes scale showed no significant difference between self-committed alcoholics and psychiatric patients, and the MacAndrew scale showed no significant difference between the court-committed alcoholics and the psychiatric patients.

The failure in whole or in part of the scales to find a significant difference between the alcoholics and the psychiatric group raises the question of whether or not these scales are sensitive to personality traits other than alcoholism. The majority of both groups of alcoholics diagnosed as non-alcoholics on the Rosenberg, Holmes and MacAndrew scales fell into the questionable category as opposed to the specifically non-alcoholic category. This positive aspect in their ability to differentiate is negated by the fact that the majority of non-alcoholic psychiatric

patients correctly diagnosed as non-alcoholics fell into the same questionable category on these same scales.

Although statistically significant differences were found between the alcoholic and non-alcoholic groups on two of the scales, a clinical application is still subject to question. The fact that oftentimes most of the subjects responded to the items in such a manner that only one response meant the difference between an alcoholic and a non-alcoholic designation does much to negate the statistically significant aspect of the findings.

Recommendations for Further Study

Libb, Wesley, and Taulbee pointed out that it is frequently noted that the MMPI is relatively sensitive to situational conditions. Their experience was that approximately forty percent of patients that were newly admitted to a psychiatric setting following excessive drinking produced psychotic-like MMPI profiles when such a condition was not detected in either the prehospitalizations or in later behavior.[1] It is therefore suggested that in regard to further research in this area the alcoholism scales be administered after a sufficient time has elapsed which would allow the alcoholics to become detoxified. Such a study

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[1]P. Libb, J. Wesley, and Earl S. Taulbee, "Psychotic-Appearing MMPI Profiles Among Alcoholics," Journal of Clinical Psychology, 27 (1971), 101-102.

could help determine the possibility that excessive drinking produces temporary conditions reflecting mental disorganizations.

Jellinek (cited previously in Chapter 1, page 8) described different patterns ranging from Alpha to Delta alcoholism. The Alpha pattern is characterized by a psychological dependence on alcohol, while both the Gamma and Delta patterns involve a physiological dependence.[2] An application of the alcoholism scales to each of the patterns or types described by Jellinek could provide a further opportunity to explore the sensitivity of the scales to various aspects of personality. A scale which failed to identify an alcoholic considered as a member of a homogeneous group could possibly demonstrate a sensitivity to those features which describe a particular type of alcoholic.

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[2]E. M. Jellinek, The Disease Concept of Alcoholism (New Haven, Connecticut: Hill-House Press, 1960), cited by Arnold H. Buss, Psychopathology (New York, London, Sydney: John Wiley & Sons, Inc., 1966), pp. 443-444.

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APPENDIX A

Mac Andrew Alcoholism Scale

APPENDIX A

MacAndrew Alcoholism Scale

Item Number	Item	Alcoholic Patients Response
215	I have used alcohol excessively	T
460	I have used alcohol moderately (or not at all)	F
156	I have had periods in which I carried on activities without knowing later what I had been doing	T
294	I have never been in trouble with the law . .	F
61	I have not lived the right kind of life . . .	T
140	I like to cook	T
263	I sweat very easily even on cool days	T
224	My parents have often objected to the kind of people I went around with	T
419	I played hooky from school quite often as a youngster	T
529	I would like to wear expensive clothes . . .	T
56	As a youngster I was suspended from school one or more times for cutting up	T
482	While in trains, buses, etc., I often talk to strangers	T
488	I pray several times every week	T
413	I deserve severe punishment for my sins . . .	T
251	I have had blank spells in which my activities were interrupted and I did not know what was going on around me	T
34	I have a cough most of the time	T
378	I do not like to see women smoke	F
120	My table manners are not quite as good at home as when I am out in company	F
243	I have few or no pains	T
94	I do many things which I regret afterwards (I regret things more or more often than others seem to)	T
6	I like to read newspaper articles on crime .	T
179	I am worried about sex matters	F
50	My soul sometimes leaves my body	T
483	Christ performed miracles such as changing water into wine	T
127	I know who is responsible for most of my troubles	T

APPENDIX A (continued)

Item Number	Item	Alcoholic Patients Response
128	The sight of blood neither frightens me nor makes me sick	T
335	I cannot keep my mind on one thing	F
118	In school I was sometimes sent to the principal for cutting up	T
562	The one to whom I was most attached and whom I most admired as a child was a woman. (Mother, sister, aunt, or other woman)	T
356	I have more trouble concentrating than others seem to have	F
57	I am a good mixer	T
116	I enjoy a race or game better when I bet on it	T
446	I enjoy gambling for small stakes	T
186	I frequently notice my hand shakes when I try to do something	T
58	Everything is turning out just like the prophets of the Bible said it would	T
477	If I were in trouble with several friends who were equally to blame, I would rather take the whole blame than to give them away	T
445	I was fond of excitement when I was young (or in childhood)	T
426	I have at times had to be rough with people who were rude or annoying	T
283	If I were a reporter I would very much like to report sporting news	T
86	I am certainly lacking in self-confidence . .	F
507	I have frequently worked under people who seem to have things arranged so that they get credit for good work but are able to pass off mistakes onto those under them . . .	T
500	I readily become one hundred per cent sold on a good idea	T
81	I think I would like the kind of work a forest ranger does	T
27	Evil spirits possess me at times	T
320	Many of my dreams are about sex matters . . .	F
173	I liked school	F
235	I have been quite independent and free from family rule	T
278	I have often felt that strangers were looking at me critically	F

APPENDIX A (continued)

Item Number	Item	Alcoholic Patients Response
149	I used to keep a diary	F
309	I seem to make friends about as quickly as others do	T
130	I have never vomited blood or coughed up blood	F

APPENDIX B

Hoyt and Sedlacek Alcoholism Scale

APPENDIX B

Hoyt and Sedlacek Alcoholism Scale

Item Number	Item	Alcoholic Patients Response
26	I feel that it is certainly best to keep my mouth shut when I'm in trouble	F
39	At times I feel like smashing things	F
46	My judgment is better than it ever was . . .	F
61	I have not lived the right kind of life . . .	T
94	I do many things which I regret afterwards. (I regret more or more often than others seem to)	T
95	I go to church most every week	F
100	I have met problems so full of possibilities that I have been unable to make up my mind about them	T
102	My hardest battles are with myself	T
127	I know who is responsible for most of my troubles	T
131	I do not worry about catching diseases . . .	T
140	I like to cook	T
144	I would like to be a soldier	F
145	At times I feel like picking a fist fight with someone	F
155	I am neither gaining nor losing weight . . .	F
215	I have used alcohol excessively	T
219	I think I would like the work of a contractor	T
222	It is not hard for me to ask help from my friends even though I cannot return the favor	T
237	My relatives are nearly all in sympathy with me	F
239	I have been disappointed in love	T
264	I am entirely self-confident	F
287	I have very few fears compared to my friends	F
289	I am always disgusted with the law when a criminal is freed through the arguments of a good lawyer	F
292	I am not likely to speak to people until they speak to me	F
294	I have never been in trouble with the law . .	F

APPENDIX B (continued)

Item Number	Item	Alcoholic Patients Response
300	There never was a time in my life when I liked to play with dolls	F
322	I worry over money and business	F
327	My mother or father often made me obey even when I thought that it was unreasonable	F
337	I feel anxiety about something or someone almost all the time	F
343	I usually have to stop and think before I act even in trifling matters	F
346	I have a habit of counting things that are not important such as bulbs on electric signs, and so forth	F
348	I tend to be on my guard with people who are somewhat more friendly than I had expected	F
351	I get anxious and upset when I have to make a short trip away from home	F
359	Sometimes some unimportant thought will run through my mind and bother me for days	F
361	I am inclined to take things hard	F
365	I feel uneasy indoors	F
366	Even when I am with people I feel lonely much of the time	F
375	When I am feeling very happy and active someone who is blue or low will spoil it all	F
378	I do not like to see women smoke	F
383	People often disappoint me	F
386	I like to keep people guessing what I'm going to do next	F
387	The only miracles I know are simply tricks that other people play on one another	F
411	It makes me feel like a failure when I hear of the success of someone I know well	F
415	If given the chance I would make a good leader of people	F
420	I have had some very unusual religious experiences	F
421	One or more members of my family is very nervous	F
427	I am embarrassed by dirty stories	T
432	I have strong political opinions	F
433	I used to have imaginary companions	F

APPENDIX B (continued)

Item Number	Item	Alcoholic Patients Response
436	People usually demand more respect for their own rights than they are willing to allow for others	F
437	It is all right to get around the law if you don't actually break it	T
446	I enjoy gambling for small stakes	T
459	I have one or more bad habits which are so strong that it is no use in fighting against them	F
460	I have used alcohol moderately or not at all	F
465	I have several times had a change of heart about my life work	T
472	I am fascinated by fire	F
473	Whenever possible I avoid being in a crowd	F
477	If I were in trouble with several friends who were equally to blame, I would rather take the blame than to give them away	T
483	Christ performed miracles such as changing water into wine	F
503	It is unusual for me to express strong approval or disapproval of the actions of others	T
505	I have had periods when I felt so full of pep that sleep did not seem necessary for days at a time	F
513	I think Lincoln was greater than Washington	F
516	Some of my family have quick tempers	F
524	I am not afraid of picking up a disease or germs from door knobs	T
533	I am not bothered by a great deal of belching of gas from my stomach	T
554	If I were an artist I would like to draw children	T
555	I sometimes feel that I am about to go to pieces	F
558	A large number of people are guilty of bad sexual conduct	F
560	I am greatly bothered by forgetting where I put things	F

APPENDIX C

Holmes Alcoholism Scale

APPENDIX C

Holmes Alcoholism Scale

Item Number	Item	Alcoholic Patients Response
215	I have used alcohol excessively	T
294	I have never been in trouble with the law . .	F
369	Religion gives me no worry	T
61	I have not lived the right kind of life . . .	T
460	I have used alcohol moderately (or not at all)	F
378	I do not like to see women smoke	F
155	I am neither gaining nor losing weight . . .	F
127	I know who is responsible for most of my troubles	T
46	My judgment is better than it ever was . . .	F
274	My eyesight is as good as it has been in years	F
183	I am against giving money to beggars	F
249	I believe there is a Devil and a Hell in afterlife	F
477	If I were in trouble with several friends who were equally to blame, I would rather take the whole blame than to give them away .	T
137	I believe that my home life is as pleasant as that of most people I know	F
348	I tend to be on my guard with people who are somewhat more friendly than I had expected	F
446	I enjoy gambling for small stakes	T
277	At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it	T
289	I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer	F
311	During one period when I was a youngster I engaged in petty thievery	T
483	Christ performed miracles such as changing water into wine	F
558	A large number of people are guilty of bad sexual conduct	F
21	At times I have very much wanted to leave home	T

APPENDIX C (continued)

Item Number	Item	Alcoholic Patients Response
365	I feel uneasy indoors	F
95	I go to church almost every week	F
506	I am a high strung person	T
239	I have been disappointed in love	T
101	I believe women ought to have as much sexual freedom as men	F
542	I have never had any black, tarry-looking bowel movements	F
240	I never worry about my looks	F
522	I have no fear of spiders	F
392	A windstorm terrifies me	F
41	I have had periods of days, weeks, or months, when I couldn't "get going"	T
5	I am easily awakened by noise	T
548	I never attend a sexy show if I can avoid it	F
115	I believe in a life hereafter	F
524	I am not afraid of picking up a disease or germs from door knobs	T
199	Children should be taught all the main facts of sex	F
9	I am about as able to work as I ever was	F
287	I have very few fears compared to my friends	F
170	What others think of me does not bother me	F
472	I am fascinated by fire	F
386	I like to keep people guessing what I'm going to do next	F
26	I feel that it is certainly best to keep my mouth shut when I'm in trouble	F
427	I am embarrassed by dirty stories	F
251	I have had blank spells in which my activities were interrupted and I did not know what was going on around me	T
351	I get anxious and upset when I have to make a short trip away from home	F
232	I have been inspired to a program of life based on duty which I have since carefully followed	F
387	The only miracles I know of are simply tricks that people play on one another	F
163	I do not tire quickly	F
98	I believe in the second coming of Christ	F
516	Some of my family have quick tempers	F

APPENDIX C (continued)

Item Number	Item	Alcoholic Patients Response
382	I wish I could get over worrying about things I have said that may have injured other people's feelings	T
80	I sometimes tease animals	F
395	The future is too uncertain for a person to make serious plans	F
343	I usually have to stop and think before I act even in trifling matters	F
481	I can remember "playing sick" to get out of something	T
398	I often think "I wish I were a child again" .	F
461	I find it hard to set aside a task that I have undertaken, even for a short time . . .	F
560	I am greatly bothered by forgetting where I put things	F

APPENDIX D

Rosenberg Alcoholism Scale

APPENDIX D

Rosenberg Alcoholism Scale

Item Number	Item	Alcoholic Patients Response
61	I have not lived the right kind of life . . .	T
127	I know who is responsible for most of my troubles	T
294	I have never been in trouble with the law . .	F
378	I do not like to see women smoke	F
446	I enjoy gambling for small stakes	T
477	If I were in trouble with several friends who were equally to blame, I would rather take the whole blame than to give them away .	T
26	I feel that it certainly is best to keep my mouth shut when I'm in trouble	F
46	My judgment is better than it ever was . . .	F
94	I do many things which I regret afterwards. (I regret things more or more often than others seem to)	T
95	I go to church almost every week	F
140	I like to cook	T
155	I am neither gaining nor losing weight . . .	F
239	I have been disappointed in love	T
251	I have had blank spells in which my activities were interrupted and I did not know what was going on around me	T
287	I have very few fears compared to my friends	F
289	I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer	F
343	I usually have to stop and think before I act even in trifling matters	F
348	I tend to be on my guard with people who are somewhat more friendly than I had expected	F
351	I get anxious and upset when I have to make a short trip away from home	F
365	I feel uneasy indoors	F
386	I like to keep people guessing what I'm going to do next	F
387	The only miracles I know of are simple tricks that people play on one another . . .	F
472	I am fascinated by fire	F

APPENDIX D (continued)

Item Number	Item	Alcoholic Patients Response
516	Some of my family have quick tempers	F
524	I am not afraid of picking up a disease or germs from door knobs	T
558	A large number of people are guilty of bad sexual conduct	F
560	I am greatly bothered by forgetting where I put things	F

APPENDIX E

Hampton Alcoholism Scale

APPENDIX E

Hampton Alcoholism Scale

Item Number	Item	Alcoholic Patients Response
555	I sometimes feel that I am about to go to pieces	T
61	I have not lived the right kind of life	T
133	I have never indulged in any unusual sex practices	F
70	I used to like drop-the-handkerchief	T
42	One or more members of my family is very nervous	T
230	I hardly ever notice my heart pounding and I am seldom short of breath	F
231	I like to talk about sex	T
12	I enjoy detective or mystery stories	F
413	I deserve severe punishment for my sins	T
362	I am more sensitive than most other people	T
140	I like to cook	T
472	I am fascinated by fire	T
410	I would certainly enjoy beating a crook at his own game	T
294	I have never been in trouble with the law	F
108	There seems to be a fullness in my head or nose most of the time	T
38	During one period when I was a youngster, I engaged in petty thievery	T
395	The future is too uncertain for a person to make serious plans	T
175	I seldom or never have dizzy spells	F
18	I am very seldom troubled by constipation	F
144	I would like to be a soldier	T
500	I readily become one hundred per cent sold on a good idea	T
102	My hardest battles are with myself	T
322	I worry over money and business	T
214	I have never had any breaking out on my skin that has worried me	F
488	I pray several times every week	T
100	I have met problems so full of possibilities that I have been unable to make up my mind about them	T

APPENDIX E (continued)

Item Number	Item	Alcoholic Patients Response
156	I have had periods in which I carried on activities without knowing later what I had been doing	T
499	I must admit that I have at times been worried beyond reason over something that really did not matter	T
545	Sometimes I have the same dream over and over	T
63	I have had no difficulty in starting or holding my bowel movement	F
266	Once a week or oftener I become very excited	T
124	Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it	T
554	If I were an artist I would like to draw children	T
340	Sometimes I become so excited that I find it hard to get to sleep	T
162	I resent having anyone take me in so cleverly that I have had to admit that it was one on me	T
105	Sometimes when I am not feeling well I am cross	F
481	I can remember "playing sick" to get out of something	T
232	I have been inspired to a program of life based on duty which I have since carefully followed	T
127	I know who is responsible for most of my troubles	T
282	Once in a while I feel hate toward members of my family whom I usually love	T
455	I am quite often not in on the gossip and talk of the group I belong to	T
3	I wake up fresh and rested most mornings	F
234	I get mad easily and then get over it soon	T
119	My speech is the same as always (not faster or slower, or slurring; no hoarseness	F
377	At parties I am more likely to sit by myself or with just one other person than to join in with the crowd	T
118	In school I was sometimes sent to the principal for cutting up	T

APPENDIX E (continued)

Item Number	Item	Alcoholic Patients Response
336	I easily become impatient with people	T
329	I almost never dream	T
561	I very much like horseback riding	F
361	I am inclined to take things hard	T
260	I was a slow learner in school	T
89	It takes a lot of argument to convince most people of the truth	T
442	I have had periods in which I lost sleep over worry	F
176	I do not have a great fear of snakes	F
86	I am certainly lacking in self-confidence . .	T
254	I like to be with a crowd who plays jokes on one another	F
449	I enjoy social gatherings just to be with people	F
164	I like to study and read about things that I am working at	F
215	I have used alcohol excessively	T
143	When I was a child I belonged to a crowd or gang that tried to stick together through thick and thin	T
397	I have sometimes felt that difficulties were piling up so high, that I could not overcome them	T
307	I refuse to play some games because I am not good at them	T
259	I have difficulty in starting to do things .	T
498	It is always a good thing to be frank	F
129	Often I can't understand why I have been so cross and grouchy	T
267	When in a group of people I have trouble thinking	T
41	I have had periods of days, weeks or months when I couldn't take care of things because I couldn't get going	T
238	I have long periods of such great restlessness that I cannot sit long in a chair . . .	T
468	I am often sorry because I am so cross and grouchy	F
319	Most people inwardly dislike putting themselves out to help people	T
217	I frequently find myself worrying about something	T

APPENDIX E (continued)

Item Number	Item	Alcoholic Patients Response
417	I am often so annoyed when someone tries to get ahead of me in a line of people that I speak to him about it	T
506	I am a high-strung person	T
310	My sex life is satisfactory	F
271	I do not blame a person for taking advantage of someone who lays himself open to it	T
418	At times I think I am no good at all	T
425	I dream frequently	F
212	My people treat me more like a child than a grown-up	T
94	I do many things which I regret afterwards (I regret things more or more often than others seem to)	T
463	I used to like hopscotch	T
375	When I am feeling very happy and active, someone who is blue or low will spoil it all	T
224	My parents have often objected to the kind of people I went around with	T
79	My feelings are not easily hurt	F
467	I often memorize numbers that are not important (such as automobile licenses, etc.)	T
466	Except by a doctor's order I never take drugs or sleeping powders	F
21	At times I have very much wanted to leave home	T
170	What others think of me does not bother me	F
513	I think Lincoln was greater than Washington	F
549	I shrink from facing a crisis or difficulty	T
95	I go to church almost every week	F
276	I enjoy children	F
387	The only miracles I know of are simply tricks that people play on one another	F
460	I have used alcohol moderately (or not at all)	F
251	I have had blank spells in which my activities were interrupted and I did not know what was going on around me	T
82	I am easily downed in an argument	T
542	I have never had any black, tarry-looking bowel movements	F
457	I believe that a person should never taste an alcoholic drink	T

APPENDIX E (continued)

Item Number	Item	Alcoholic Patients Response
411	It makes me feel like a failure when I hear of the success of someone I know well .	T
138	Criticism or scolding hurts me terribly . . .	T
370	I hate to have to rush when working	F
541	My skin seems to be unusually sensitive to touch	T
450	I enjoy the excitement of a crowd	F
142	I certainly feel useless at times	T
503	It is unusual for me to express strong approval or disapproval of the actions of others	T
380	When someone says silly or ignorant things about something I know about, I try to set him right	F
207	I enjoy many different kinds of play and recreation	F
166	I am afraid when I look down from a high place	T
429	I like to attend lectures on serious subjects	F
390	I have often felt badly over being misunderstood when trying to keep someone from making a mistake	T
313	The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it	T
117	Most people are honest chiefly through fear of being caught	T
531	People can pretty easily change me even though I thought my mind was already made up on a subject	T
414	I am apt to take disappointments so keenly that I can't put them out of my mind	T
365	I feel uneasy indoors	T
171	It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things	T
547	I like parties and socials	F
431	I worry quite a bit over possible misfortune	T
13	I work under a great deal of tension	T
145	At times I feel like picking a fist fight with someone	T

APPENDIX E (continued)

Item Number	Item	Alcoholic Patients Response
56	As a youngster I was suspended from school one or more times for cutting up	T
255	Sometimes at elections I vote for men about whom I know very little	F
152	Most nights I go to sleep without thoughts or ideas bothering me	F
391	I love to go to dances	F
439	It makes me nervous to have to wait	T
521	In a group of people I would not be embarrassed to be called upon to start a discussion or give an opinion about something I know well	F