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Drinking Among College Students & Personality Factors Related to Alcoholism

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Mills,

James M.

1979

DRINKING AMONG COLLEGE
STUDENTS AND PERSONALITY
FACTORS RELATED TO ALCOHOLISM

A Thesis

Presented to

the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by

James M. Mills

July, 1979

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DRINKING AMONG COLLEGE
STUDENTS AND PERSONALITY
FACTORS RELATED TO ALCOHOLISM

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DRINKING AMONG COLLEGE STUDENTS
AND PERSONALITY FACTORS RELATED TO ALCOHOLISM

James M. Mills

July 1979

33 pages

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The relationship between the drinking patterns of college students and personality factors, which have previously been shown to differentiate between alcoholic and non-alcoholic populations, was examined in this study. Subjects were categorized into six groups based on self-reports of the frequency and amount of alcohol consumption. The MacAndrew Alcoholism Scale and the 16PF personality test were administered to all subjects. Pearson Product-moment correlations were calculated to assess the relationship between levels of drinking and personality factors demonstrated by the subject population. It was found that the MacAndrew Alcoholism Scale score was significantly correlated with drinking level among young adults. This suggests that the MacAndrew Scale is potentially useful as a predictor of alcohol abuse and the findings are consistent with previous research in the area. Seven personality factors, measured by the 16PF, were found to be significantly related to the subjects' drinking levels. However, these factors were inconsistent with factors which have previously been shown to differentiate alcoholics from normal populations. The personality characteristics, which the young-adult heavy drinker demonstrated on the 16PF, appear more closely related to the antisocial personality type

than to the neurotic personality type, as previous research had indicated. Further research is needed, especially longitudinal studies, to assess fully the effects of specific personality characteristics on the etiology of alcoholism.

Introduction

In societies where its consumption is condoned, the excessive use of alcohol has led to catastrophic consequences. In the United States, for example, alcohol abuse has become the third largest health problem. It contributes to half the deaths on the nation's highways, a fourth of all suicides, and has been associated with the development of cancer and heart disease, among other physical illnesses (Hafen, 1977). In addition, the excessive use of alcohol has been associated with approximately 50 per cent of murders, 40 per cent of assaults, and 35 per cent of rapes (Coleman, 1976). Its cost to the nation's economy has been estimated at 25 billion dollars annually (Hafen, 1977). These factors, along with the personal suffering of both the alcohol abuser and his family, has led social scientists to the intense study of the phenomenon of alcoholism.

A major area to which many of these studies have been directed is that of the etiology of alcoholism. Many have proposed the existence of specific personality characteristics which would aid in the prediction of future problems with alcohol consumption. If the existence of these characteristics can be verified, then psychological tests designed to measure these traits can be used as an aid in the identification of potential problem-drinkers. Pre-

ventive measures could then be implemented rather than the after-the-fact treatment programs which have been less than satisfactory in dealing with the problem of alcoholism. Little research has been done to try to identify future alcoholics and to study their personality structure before the onset of long-term heavy drinking.

Early research in this area simply attempted to discover characteristics which distinguished alcoholics from nonalcoholics. This has led to a dilemma of cause and effect. Did the personality characteristics demonstrated exclusively by the alcoholic predate his alcoholism or are they a function of the long-term abuse of alcohol? While comparative studies have been useful in identifying those personality factors which differentiate the alcoholic from the nonalcoholic, the need seems apparent for an investigation examining the personality structure of those individuals who can be predicted to develop alcohol problems later, but who have not suffered from years of excessive alcohol consumption. Such a study should lead to insight into the role which the personality structure plays in the establishment of drinking patterns among young adults and its relationship to the etiology of alcoholism.

Review of Literature

Early efforts to identify personality characteristics exclusive to the alcoholic through the use of psychological personality tests were primarily conducted using projective techniques. The overwhelming majority of these studies employed the Rorschach Inkblot test (Bertrand and Masling, 1969; Billig and Sullivan, 1943; Buhler and Lefever, 1947; Schnadt, 1951; Sherehevski-Shere and Gotesfeld, 1953; Sherehevski-Shere and Lasser, 1952; Singer, 1950; Weiss and Masling, 1966).

While these studies did serve to initiate research in the area, they have added little to the body of knowledge concerning the alcoholic personality. For the most part, they were poorly designed and executed, and findings were contradictory. In many instances, control groups were not used; and when they were, the control groups differed from study to study, making comparisons difficult. This led to extreme difficulties in replication and extension.

While the value of these studies is somewhat dubious, they generally have agreed on several points. Personality characteristics which have been identified as specific to the alcoholic through the use of the Rorschach test are: (1) Alcoholics tend to be more psychopathic than neurotic. (2) They are intolerant of stressful situations. (3) They lack

perseverance. (4) They develop grandiose plans but generally fail to reach their goals. (5) They demonstrate high levels of guilt and anxiety. (6) They tend to be egocentric and have difficulty in maintaining deep emotional attachments. (7) They possess generally poor social skills. (8) They tend to be rigid in their thinking and pedantic in their attitudes. (9) They use regression as their primary defense mechanism (Neuringer and Clopton, 1976, p. 12).

While the Rorschach test has led in the usage of projective techniques, other such tests have been employed to differentiate alcoholics from other groups. The Thematic Apperception Test (TAT) has been widely used to identify alcoholic personality characteristics. Klebanoff (1947) reported that among the 17 alcoholic patients administered the TAT, there appeared a pattern of high anxiety over their drinking levels and a tendency to withdraw passively when faced with frustration. Roe (1946), however, could identify no fantasy content which differentiated alcoholic subjects from nonalcoholic subjects. Singer (1950) also found no significant differences in the responses elicited by alcoholics and nonalcoholics on the TAT. Likewise, Knehr, Wichery and Guy (1953) found that TAT results in this area were insignificant.

The Rosenzweig Picture Frustration Test (P-F) has also been used in attempting to identify alcoholic characteristics. These studies have resulted in little useful information. Brown and Lacey (1954), using the P-F responses of 36

alcoholics, 36 paranoid schizophrenics and 36 normals, could identify no useful differentiating response patterns. Murphy (1956) did find differences but they were of little value in diagnosing or predicting alcoholism.

During the 1950's, a shift from the projective techniques to the objective personality measures occurred in the effort to identify personality characteristics exclusive to the alcoholic. The Sixteen Personality Factor Questionnaire (16PF) has been used extensively to identify the personality characteristics of alcoholics. Studies with the 16PF have found that male alcoholics tend to be significantly less stable (Factor C), more shy (Factor H), more apprehensive (Factor O), and more tense (Factor Q4) (Cattell, Ebner, and Tatsuoka, 1970; Gross and Carpenter, 1971; Golightly and Reinehr, 1969; Fuller, 1966; Kirchner and Marzolf, 1974).

Fuller (1966) compared the 16PF profiles of alcoholics with a group of hospitalized neurotics. He found a striking resemblance between the two groups ($r=.62$). This suggests that alcoholism may be symptomatic of neurosis rather than a separate pathological entity. Nereriano (1974) concurred with this opinion and suggested that some behaviors exhibited by male alcoholics, such as self-indulgence and undependability, which have been assumed to indicate asocial character disorders, may actually be defenses to cope with high anxiety.

The Minnesota Multiphasic Personality Inventory (MMPI), designed by Hathaway and McKinley in 1940, has been one of the most widely used of the objective personality measures.

Efforts with the MMPI have been concentrated into two distinct areas. One area has been to identify alcoholic subjects through the profile configuration of the ten basic clinical scales and four validity scales. The second area has been to develop a criterion-oriented scale which will differentiate alcoholics from nonalcoholics by means of a cut-off score.

Brown (1950) examined the MMPI profiles of hospitalized alcoholics, neurotics and psychopaths. The author reported that alcoholic profiles fell into two distinct categories. One was similar to a neurotic profile, the other was similar to a psychotic profiles. Button (1956) found that the MMPI profiles of 64 hospitalized alcoholics had marked elevations on clinical scale 2 (depression), 4 (psychopathic deviance), 7 (psychasthenia), and 9 (mania). Other studies have repeatedly shown the 2 - 4 profile configuration to be present among alcoholic populations (Kammeier, Hoffmann, and Loper, 1973; Overall, 1973; Rohan, 1972; Spiegel, Hadley, and Hadley, 1970).

Several attempts have been made to develop an MMPI scale which discriminates between alcoholics and other clinical and normal groups. Holmes (in Button, 1956) developed a scale which was reported to differentiate between alcoholics committed to a state institution and those used in the normative sample used to standardize the MMPI (Dahlstrom, Welsh, and Dahlstrom, 1960). Button (1956) developed a 59-item scale which differentiated alcoholics, normals and

other clinical groups. Similarly, Hoyt and Sedlacek (1958) developed a scale which differentiated between alcoholic and other clinical subtypes.

Although each of these three scales differentiated alcoholics from normal comparison groups, validity studies have failed to verify their effectiveness in differentiating alcoholics from individuals having other psychopathologies (MacAndrew and Geertsma, 1964; Rotman and Vestre, 1964; Uechker, Kish, and Ball, 1969). Since these scales appeared to be able to differentiate alcoholics from normal comparison groups, but were unable to differentiate alcoholics from other clinical groups, MacAndrew and Geertsma (1964) suggested that they were measures of general maladjustment rather than measures of alcoholism.

In 1965, MacAndrew developed a scale using those items from the MMPI which differentiated alcoholic outpatients and nonalcoholic outpatients. By using a cutting score of 24, this 51-item scale successfully identified 81.5 per cent of the cross-validated sample. Finney, Smith, Skeeter, and Auvenshine (1971) reported that individuals who scored high on the MacAndrew Alcoholism Scale (MAS) tended to be uninhibited, sociable people who use repression and religion to control rebellious, delinquent impulses. In addition, the MAS has been found to differentiate alcoholics and nonalcoholics in a wide variety of treatment settings (Apfeldorf and Hunley, 1975; Rhodes, 1969; Rich and Davis, 1969; Vega, 1971; Whisler and Cantor, 1966; Williams, McCourt and Schnei-

der, 1971).

The MAS has also been shown to have predictive validity in its ability to identify individuals who will later develop addiction to alcohol. In a series of three studies, the MMPI scores of college freshman males, who were later hospitalized for alcoholism, were examined (Hoffmann, Loper, and Kammeier, 1974; Kammeier, et. al., 1973; Loper, Kammeier, and Hoffmann, 1973). The average time between college admission and hospitalization for alcoholism was 13 years. The college entrance MMPI profiles were compared with a group of male college students who had not developed problem drinking and with the MMPI profiles of the alcoholic men upon admission to the hospital. The prealcoholic profiles had significantly higher scores than did the nonalcoholic group on validity scale F and on clinical scales four and nine. In addition, with a cutting score of 26, the MAS identified as alcoholic 72 per cent of the prealcoholic group, 28 per cent of the comparison group, and 72 per cent of the alcoholics at time of admission into the hospital.

It is felt that the MAS has satisfactorily demonstrated its ability, not only to discriminate between alcoholics, but also to identify individuals predisposed towards alcoholism because of existing personality characteristics. However, no research is available which describes the personality characteristics of individuals who score high on the MAS prior to onset of alcoholism. Likewise, no information is available on early drinking habits of high scorers on the MAS.

One study which did focus on the question of the personality characteristics of prealcoholics was by Jones (1968). She conducted a longitudinal study using the California Q-set. She was able to identify specific characteristics which adolescent males, who later became alcoholics, demonstrated. Preproblem drinkers were described as being rebellious and self-indulgent. In addition, they tended to have high sexual interests and to act out and "push the limits". In 1971, Jones reported on a similar study using female subjects. Again, specific personality characteristics were identified among the prealcoholic group. The author described the adolescent prealcoholic female as being:

. . . full of adolescent self-doubt and confusion.

She fears and rejects life, is distrustful of others, follows a religion which accentuates judgement and punishment. She escapes into ultra-femininity.

Fillmore (1974) examined the drinking levels established in early adulthood and their relation to later drinking habits. In a longitudinal study, he compared the drinking patterns of men and women during early adulthood and in later life. The author summarized the results of his study as follows:

It could be concluded from these tentative findings in this small sample that almost regardless of quantity or frequency of drinking in youth (excluding abstinence), if an individual exhibits alcohol-related problems, it may be predicted beyond the operation of chance that he will ex-

hibit alcohol-related problems later in life.

Williams (1965) was also able to identify individual characteristics which heavy drinking college students and alcoholics have in common. By examining the self-concept of light drinking and heavy drinking college students, he concluded that the low self-evaluation that was found to be characteristic of the heavy drinkers has consistently been found to characterize alcoholics, also.

Statement of Problem.

While previous studies have identified personality characteristics which differentiate alcoholics from other control groups, little definitive information is available to determine if those personality characteristics are present prior to alcohol addiction or are a function of long-term alcohol abuse.

This study attempted to examine personality characteristics and drinking habits of individuals who, on the basis of a scale with demonstrated predictive validity, appeared to show a strong tendency toward alcoholism.

Method

Subjects.

The subjects were 203 college students who were enrolled in psychology classes at Western Kentucky University. Of the 203 subjects, 75 per cent were female. The subjects ranged in age from 18 to 30, with 95 per cent within the 18 to 24 year age range. There was no remuneration given for participation in this study. However, in some instances, the instructors of the individual classes selected to participate chose to give extra class credit for the students' participation.

After the subject group was selected, individual subjects were assigned to one of six categories based upon a self-report of personal drinking patterns.

Procedure.

The test instruments were group administered to subjects during regular class meetings. Standard instructions (see Appendix A) were read to them prior to the test administration and an explanation of the purpose of the study was given at the class meeting following the test administration.

The 16PF (1967-68 edition, Form A) was presented initially. This instrument is composed of 187 items made up of statements with multiple-choice alternatives. Standard instructions, which are presented on the front cover of the

test booklet, were used. Raw scores from the 16PF were converted to Sten scores using norms for female college students and norms for male students (Institute for Personality and Ability Testing, 1970). Results from this instrument provide a personality profile consisting of 16 personality characteristics (see Appendix B).

The second instrument to be administered was the MAS (see Appendix C). This 51-item scale was presented with forced-choice, true-false alternatives and items were presented in the order which they appear on the MMPI. Instructions were written on the top section of each instrument. Individual items were scored based on the directional scoring presented by MacAndrew (1965). The items responded to in the keyed direction were totaled for an overall test score.

The final instrument to be administered was a short self-report measure of alcoholic beverage consumption based on a measure of alcoholic beverage consumption presented by Cahalan, Cisin, and Crossley (1969). This questionnaire (see Appendix D) breaks down patterns of alcohol consumption into six levels based on frequency and quantity of alcohol consumed. Overall scores were based on rank order from one to six. Therefore, a subject who indicated that he drinks less than once a year or not at all, received a score of one, while a subject who indicated that he drinks nearly every day with five or more drinks per occasion at least once in a while, received a score of six.

Hypotheses.

This study sought to examine several hypotheses with regard to personality factors and levels of alcohol consumption among college students. The null hypotheses associated with this study were as follows:

1. There will be no significant relationship between the scores obtained on the MAS and the self-reports of drinking level.
2. There will be no significant relationship between the self-reported levels of alcohol consumption and the Sten scores of the 16PF.
3. There will be no significant relationship between the raw score on the MAS and the Sten scores obtained on the 16PF.

For these hypotheses, probability levels which were equal to or less than the .05 level were considered significant. Acceptance or rejection of the null hypotheses was based on this criterion.

Results

In order to evaluate the relationship between the scores obtained on the MAS and the drinking levels of the subjects, a Pearson Product-moment correlational procedure was used. This procedure resulted in a correlation coefficient of $r=.32$ with a chance probability of less than .001. These results indicate that the MAS and drinking level are in direct relation to each other; as one increases, the other also tends to increase. Therefore, on the basis of these findings, the null hypothesis associated with the relationship between the MAS and drinking was rejected.

In addition, a cutting score of 26 was used to categorize subjects as potential alcoholics or nonalcoholics. Subjects were then compared on the basis of their reported drinking level by means of a chi-square analysis. The results of this analysis are presented in table 1. The results, chi-square = 18.622 ($p<.002$), again indicate that individuals scoring high on the MAS have higher drinking levels than low scorers.

A Pearson Product-moment correlation analysis was also used in order to evaluate the relationship between the 16PF and both the reported drinking levels and scores on the MAS. The results of this analysis are presented in table 2. Based on this analysis, factors E (more aggressive), F (more enthusiastic), H (more venturesome), N (less socially polished), and Q2 (more group dependent) were significantly related to

both the level of drinking and the MAS, while factors G (less conscientious) and Q1 (more experimenting) showed a significant relationship to drinking level only. Thus, the null hypotheses were partially rejected in both instances.

Table 1

Subject count using MAS and actual drinking level

<u>Drinking Level</u>	MacAndrew Alcoholism Scale	
	25 and below	26 and above
Category		
1	42	1
2	33	6
3	28	5
4	34	8
5	25	15
6	4	2

Chi Square = 18.622 ($p \leq .002$)

Table 2

Pearson Product-moment correlations of the 16PF with
Drinking level and MacAndrew Scale Score

<u>16PF Factors</u>	<u>Drinking Level</u>	<u>MacAndrew Scale</u>
A	-.001	.000
B	.008	-.097
C	.090	.114
E	.141*	.263**
F	.343**	.315**
G	-.138*	-.107
H	.135*	.273**
I	-.114	-.097
L	.079	.088
M	-.007	.031
N	-.193**	-.200**
O	.026	-.040
Q1	.155*	.089
Q2	-.197**	-.150**
Q3	-.061	-.061
Q4	.029	-.013

* - $p \leq .05$

** - $p \leq .01$

Discussion

The results of this study concerning the relationship between the MAS and the level of alcohol consumption among college students lends support to the notion that the MAS is a potentially useful means of identifying individuals who are prone to heavy alcohol consumption and possible alcohol addiction, even at the college level. These findings thus appear to support the findings of Hoffmann, et. al. (1974), Kammeier, et. al. (1973), and Loper, et. al. (1973).

In turn, the underlying theory that potential alcoholics may have characteristics which make them identifiable before onset of addiction is supported. Yet, an examination of the relationship between the MAS scores and drinking level fails to identify those personality factors involved in promoting alcohol usage among heavy drinkers since the MAS yields only a numerical score and makes no attempt to identify specific personality characteristics. However, if one examines the interrelationship between the MAS, the 16PF, and drinking level, characteristics of prealcoholics may be described.

Within the context of this research project, the factors from the 16PF which appear significantly related to the MAS were factors E, F, H, N, and Q2. Therefore, at least with college students, the individuals who score higher on the MAS tended also to be aggressive, enthusiastic, genuine,

socially uninhibited, group dependent and, to a lesser degree, both experimenting and disregarding of social rules. In addition, of course, the study revealed they drink greater quantities of alcohol and drink more frequently than do those who score low on the MAS. This description of the college-aged heavy drinker is consistent with the findings of Finney, et. al. (1971).

The results concerning the relationship between drinking levels and personality factors measured by the 16PF were inconsistent with some findings regarding personality characteristics of alcoholics (Golightly, et. al., 1969; Fuller, 1966). Whereas Fuller found alcoholics demonstrated personality characteristics indicative of mental maladjustment on the 16PF, the results of this study suggest that the college drinker is fairly stable, emotionally. However, the heavy drinkers of the sample did demonstrate differences in their personality make-ups which seem to discriminate them from the light drinkers. The college-aged heavy drinkers show a pattern which suggests that they tend to be action-oriented, disregarding of rules, and more susceptible to peer pressure than their light-drinking contemporaries.

It is felt that the results of this study give general support to the theory that specific personality differences are seen in young adults who may be described as prealcoholic. While the MAS results appear to support previous research in differentiating alcoholics from non-alcoholics, the 16PF results failed to identify personality factors which the

alcoholic and college-aged prealcoholics have in common. This suggests that those personality factors which are demonstrated by the alcoholic may be the result of long-term alcohol abuse. In order to confirm the usefulness of the 16PF in identifying potential alcoholics, it is felt that longitudinal studies--similar to those of Hoffmann, Kammeier, and Loper--are necessary. This appears to be the only adequate means of separating those personality factors which exist prior to alcohol addiction and those which are an artifact of the alcoholism itself.

Within this study, several limitations are seen. A more adequate study would need to include a larger sample drawn from the general population rather than from the college population alone. It would be preferable to eliminate those individuals who have already established dependency on alcohol in the sample group to determine personality factors which clearly exist prior to onset alcohol abuse. It might also be useful to compare personality characteristics of heavy drinkers who score low on the MAS with those who score high on that scale.

Appendices

Appendix A

The following instructions were read prior to the administration of the proposed test battery.

I am going to hand out a packet of tests in a minute. These tests are basic personality measures that I am using in conducting a psychological research project. Participation in this study is strictly voluntary.

I will explain the purpose of my study after you complete the test material. I will be more than happy to explain any part of the test battery and answer any of your questions at that time. However, to do so now might influence the way you respond on the tests.

All the information you give will be held in strict confidence. To insure this, please use the last four digits of your social security number as your identification number.

The first test you will take is called the 16PF. The answer sheet is inside the first page of your test booklet. In the blank for your name, please put your ID number, the last four digits of your social security number. When you complete the 16PF, proceed to the next test in the packet. Instructions are at the top of the page. Move through the rest of the test packet in a similar manner.

It is important that you work as quickly as you can but not so quickly as to distort your responses. Is there anyone who does not wish to participate or has taken these tests in other classes?

Appendix B

The following factors are those measured by the 16PF as described on the 16PF profile (Institute for Personality and Ability Testing, 1972):

<u>Factor</u>	<u>Low Score Description</u>	<u>High Score Description</u>
A	Reserved, detached, critical, aloof, stiff.	Outgoing, warmhearted, easy-going, participating.
B	Less intelligent, concrete thinking.	More intelligent, abstract-thinking, bright.
C	Affected by feelings, emotionally less stable, easily upset, changeable.	Emotionally stable, mature, faces reality, calm.
E	Humble, mild, docile, easily led, accomodating.	Assertive, aggressive, stubborn, competitive.
F	Sober, taciturn, serious.	Happy-go-lucky, enthusiastic.
G	Expedient, disregards rules.	Conscientious, persistent, moralistic, staid.
H	Shy, timid, threat-sensitive.	Venturesome, uninhibited, socially bold.
I	Tough-minded, self-reliant, realistic.	Tender-minded, sensitive, clinging, over-protected.
L	Trusting, accepting conditions.	Suspicious, hard to fool.
M	Practical, "down-to-earth" concerns.	Imaginative, Bohemian, absent-minded.
N	Forthright, unpretentious, genuine but socially clumsy.	Astute, polished, socially aware.
O	Self-assured, placid, secure, complacent, serene.	Apprehensive, self-reproaching, insecure, worrying, troubled.

<u>Factor</u>	<u>Low Score Description</u>	<u>High Score Description</u>
Q1	Conservative, respecting traditional ideas.	Experimenting, liberal, free-thinking.
Q2	Group-dependent, a "joiner" and sound follower.	Self-sufficient, resourceful, prefers own decisions.
Q3	Undisciplined self-conflict, lax, follows own rules, careless of social rules.	Controlled, exacting willpower, socially precise, compulsive.
Q4	Relaxed, tranquil, unfrustrated, composed.	Tense, frustrated, driven, overwrought.

Appendix C

ID No. _____

Age: _____

Sex: _____

Listed below are a number of statements concerning personal attitudes and behaviors. Read each item and decide whether the statement is true or false as it pertains to you personally.

- T F 1. I like to read newspaper articles on crime.
- T F 2. Evil spirits possess me at times.
- T F 3. I have a cough most of the time.
- T F 4. My soul sometimes leaves my body.
- T F 5. As a youngster I was suspended from school one or more times for cutting up.
- T F 6. I am a good mixer.
- T F 7. Everything is turning out just like the prophets of the Bible said it would.
- T F 8. I have not lived the right kind of life.
- T F 9. I think I would like the kind of work a forest ranger does.
- T F 10. I am certainly lacking in self-confidence.
- T F 11. I do many things which I regret afterwards (I regret things more or more often than others seem to.)
- T F 12. I enjoy a race or game better when I bet on it.
- T F 13. In school I was sometimes sent to the principal for cutting up.
- T F 14. My table manners are not quite as good at home as when I am out in company.
- T F 15. I know who is responsible for most of my troubles.
- T F 16. The sight of blood neither frightens me nor makes me sick.
- T F 17. I have never vomited blood or coughed up blood.
- T F 18. I like to cook.

- T F 19. I used to keep a diary.
- T F 20. I have had periods in which I carried on activities without knowing later what I had been doing.
- T F 21. I like school.
- T F 22. I worry about sex matters.
- T F 23. I frequently notice my hand shaking when I try to do something.
- T F 24. I have used alcohol excessively.
- T F 25. My parents have often objected to the kind of people I went around with.
- T F 26. I have been quite independent and free from family rule.
- T F 27. I have few or no pains.
- T F 28. I have had blank spells in which my activities were interrupted and I did not know what was going on around me.
- T F 29. I sweat very easily even on cool days.
- T F 30. I have often felt that strangers were looking at me critically.
- T F 31. If I were a reporter I would very much like to report sporting news.
- T F 32. I have never been in trouble with the law.
- T F 33. I seem to make friends about as quickly as others do.
- T F 34. Many of my dreams are about sex matters.
- T F 35. I cannot keep my mind on one thing.
- T F 36. I have more trouble concentrating than others seem to have.
- T F 37. I do not like to see women smoke.
- T F 38. I deserve severe punishment for my sins.
- T F 39. I played hooky from school quite often as a youngster.

- T F 40. I have at times had to be rough with people who were rude or annoying.
- T F 41. I was fond of excitement when I was young (or in childhood).
- T F 42. I enjoy gambling for small stakes.
- T F 43. I use alcohol moderately (or not at all).
- T F 44. If I were in trouble with several friends who equally were to blame, I would rather take the whole blame than to give them away.
- T F 45. While in trains, buses, etc., I often talk to strangers.
- T F 46. Christ performed miracles such as changing water into wine.
- T F 47. I pray several times every week.
- T F 48. I readily become one hundred per cent sold on a good idea.
- T F 49. 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 F 50. I would like to wear expensive clothes.
- T F 51. The one to whom I was most attached and who I most admired as a child was a woman. (Mother, sister, aunt or other woman)

Appendix D

ID No. _____

Age: _____

Sex: _____

Please check the one statement which most accurately describes your current pattern of alcoholic consumption. Your response will be kept confidential. Please be sure to read all of the statements carefully before making a decision.

_____ I drink at least once a year, but less than once a month.

_____ I drink at least once a month, typically several times, but usually with no more than three or four drinks per occasion.

_____ I drink nearly every day with five or more drinks per occasion at least once in a while.

_____ I drink less than once a year or not at all.

_____ I drink about once a month, but typically only one or two drinks on a single occasion.

_____ I drink at least once a week with usually five or more drinks per occasion.

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