



1979

Personality Traits of Alcoholic Subtypes

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PERSONALITY TRAITS OF ALCOHOLIC SUBTYPES

by

John M. Zivich

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

April

1979

ACKNOWLEDGEMENTS

The generous assistance given by Dr. Frank Kobler and Dr. James Johnson of Loyola University of Chicago is sincerely appreciated.

The author is indebted to Miss Phyllis K. Snyder, Director of Chicago's Alcoholic Treatment Center, the staff of that institution, and its patients for their cooperation throughout this research project.

The author is also indebted to Dr. Vincent J. Nerviano, Veterans Administration Hospital, Lexington, Kentucky, who graciously provided a copy of the computer program, TYPOL, used in the statistical analysis of his previous study.

Special thanks go to my wife, Susan, for her patience, support, and assistance throughout this project.

VITA

The author, John M. Zivich, was born in East Chicago, Indiana, on September 27, 1944.

He attended Bishop Noll High School in Hammond, Indiana, graduating in June, 1962 as valedictorian of his class. In June, 1966, he received a Bachelor of Arts degree in philosophy from Holy Cross College, LaCrosse, Wisconsin, again valedictorian of his class. He studied at the University of Louvain in Belgium between 1966 and 1970, receiving a Bachelor of Arts in Religion in June, 1968, and a Master of Arts in Religion and an S.T.B. degree in Theology in June, 1970, all degrees being awarded with honors.

He served as a priest in the Diocese of Gary from 1970 to 1972, teaching in both a grade school and high school and counseling in a parish setting. From 1972 to 1974 he worked as a counselor in the Department of Patient and Family Counseling, Little Company of Mary Hospital, Evergreen Park, Illinois. During this period he also studied psychology at Purdue University, Hammond, Indiana. In September, 1974, he enrolled in the Doctoral Program in Clinical Psychology at Loyola University of Chicago. He completed a clerkship in Clinical Psychology at Hines

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CHAPTER I

INTRODUCTION

This research follows along lines suggested in the Second Special Report to the U.S. Congress on Alcohol and Health from the Secretary of Health, Education and Welfare (1974). The report states that problems have arisen where alcoholic treatment programs have attempted to make the patient fit the treatment modality they wished to offer. The report is likewise critical of the opposite approach, where programs throw a hodgepodge of treatments at each patient in the hopes that something might work. It suggests that what is needed is a matching of certain types of patients to the most suitable types of helping facilities, agencies, or methods of treatment. The report further states programs should maximize their effectiveness by identifying the type of alcoholic population they propose to serve, the goals most feasible for that population, and suitable methods to achieve those goals with that population. As part of such a process, the report says, "To create successful treatment programs it is necessary to identify the characteristics of alcoholic subpopulations in order

arrive at appropriate methods and goals" (p. 145).

It is to this necessary preliminary step, the identification of characteristics of alcoholic subpopulations, to which this study directs itself. More specifically, it will employ psychological measurement of personality variables in an attempt to identify patterns of such variables that are characteristic of particular alcoholic subtypes.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

A great deal of previous research involving personality measurement and alcoholics has had as its goal the identification of "the alcoholic personality." Whether such a personality is a forerunner or an outgrowth of alcoholism has been a subject of controversy. Countless measures have been administered to both alcoholic and nonalcoholic populations and the results scrutinized in the hopes of delineating the personality features characteristic of the alcoholic. Although individual personality variables have on occasion been found that differentiate the two groups in a particular study, the cumulative picture presented from the various studies reveals a great deal of diversity present in the personality structure found among alcoholics (e.g., see reviews by Skinner, Jackson, & Hoffman, 1974; Sutherland, Schroeder, & Tordella, 1950; Syme, 1957). The homogeneity of alcoholics' symptoms does not flow from a single, shared personality. Rather, abuse of alcohol seems to be a behavior adopted by people manifesting a variety of traits and needs.

Further, even the successful identification of alcoholics as a group does not provide the information needed to tailor treatment to best meet the needs of members within that group. Yet we find in the literature studies indicating that different types of treatment centers draw different types of alcoholics, that different types of alcoholics indicate varying forms of treatment are beneficial, and that certain personality variables in alcoholics can be related to willingness to continue treatment. English and Curtin (1975) report success in differentiating alcoholics from a half-way house, a state hospital, and a Veterans Administration hospital on the basis of MMPI profiles. Price and Curlee-Salisbury (1975) were able to sort patients into three groupings on the basis of their responses as to what aspects of a treatment program had helped them and then were able to identify different MMPI profile patterns for the groups. The first group found inpatient treatment and individual counseling helpful and had a sociopathic-emotionally unstable MMPI pattern. The second group found hospitalization helpful but not individual counseling. Their MMPI pattern was labelled depressive-neurotic. The third group felt their hospitalization had little therapeutic value and had an MMPI pattern labelled depressive-psycho physiologic. In their study, Allen and Dootjes (1968) report that

alcoholics who were less autonomous and more self-abasing were more willing to continue in treatment as it was constituted at the clinic in their study. Such a subgroup difference interacting with type of treatment can be critical, as evidenced by the fact that Armor, Polich and Stambul (1976) report amount of treatment as having a very significant effect relative to treatment outcome.

Previous Attempts At Delineating Subtypes

Clinicians working directly with alcoholics have long had a sense that they were not dealing with a uniform population. One long-standing attempt at division using personality features is the essential-reactive differentiation introduced by Knight (1937). Essential alcoholics were said to be marked by an early onset of drinking in the absence of any precipitating events and a basic orality. They were seen as immature, emotionally dependent, and unable to maintain relationships. Reactive alcoholics were somewhat more developmentally advanced and began their drinking at a later age, usually after a precipitating event.

Rudie and McGaughran (1961) devised their Essential-Reactive Alcoholism Scale in an attempt to provide an objective instrument for establishing the above distinction. Employing it, they divided alcoholics

into two types. Essential alcoholics were reported as generally operating on a more primitive developmental level. Their responses reflected a more psychopathic adjustment pattern, a preoccupation with self-comfort, and the presence of unmonitored feeling and emotion. Reactive alcoholics were seen to possess more complex defense systems, to experience anxiety and guilt to a greater degree, to show greater ability to successfully conduct interpersonal relations, and to have assimilated more cultural values.

Sugarman, Reilly, and Albahary (1965) hypothesized that a general maturity dimension would underlie the essential-reactive distinction in the same fashion that Zigler and Phillips (1962) had found it to underlie the process-reactive distinction in schizophrenia. Sugarman, et al. did find a positive relationship between the Essential-Reactive Scale scores and maturity as measured by the Phillips-Zigler social competence index.

Levine and Zigler (1973) confirmed the finding that the Essential-Reactive Scale is related to a general maturity dimension on the Phillips-Zigler index. They see the essential alcoholic as resembling the lower developmental individual described by Phillips and Zigler (1964) whose life style is characterized by self-indulgence and turning against

others, and the reactive alcoholic as the more developmentally advanced individual whose life style is characterized by turning against the self. They go beyond this to state that the result of their administration of the Essential-Reactive Scale, exclusive of the items referring directly to alcohol, constitutes a better measure of maturity level than the Phillips-Zigler index.

A subdivision of alcoholics mentioned here for the prominence it has achieved in the literature, though it itself is not based on personality structure, was proposed by Jellinek (1960). He viewed alcoholism as a disease of a progressive nature and delineated four types of alcoholics. He described alpha alcoholics as manifesting psychological dependence on alcohol but not loss of control, beta alcoholics as manifesting physiological complications but not physiological or psychological dependence, gamma alcoholics as manifesting psychological loss of control in drinking and physiological tolerance to alcohol, and delta alcoholics as the same as gamma plus manifesting an inability to abstain from drinking. His subdivision proved to be quite influential and the literature is filled with allusion to his types. Walton (1968) did examine two of the types in regards personality differences. He sorted

alcoholic admissions into gamma and delta types and then evaluated differences in the personality attributes of the two groups by means of ward-behavior ratings and personality tests. Gamma alcoholics (loss of control) were rated as self-punitive, more hostile with the aggression directed toward themselves, depressed, less stable emotionally, less extroverted, and less apt to distort their replies to create a favorable impression. They differed most from delta alcoholics in their fear of potentially disruptive, precariously controlled impulses. Delta alcoholics (inability to abstain) were relatively free from self-blame. Today Jellinek's conception that alcoholism as a disease of a progressive nature with the physiological effects of alcohol triggering uncontrolled drinking is the subject of controversy. For example, Merry (1966) found no increase in the level of self-reported "craving" when alcohol was secretly added to a "vitamin" mixture administered to alcoholics. Marlatt, Demming, and Reid (1973) reported that the individual's expectancy of the alcoholic content of a drink determined his drinking rate, rather than the actual presence of alcohol, as one would expect if loss of control drinking in alcoholics was a physiological response.

The MMPI and Subtypes

The Minnesota Multiphasic Personality Inventory has been used to identify alcoholic subtypes in a number of studies. Brown (1950) found he could subdivide an alcoholic population into neurotic (high D) and psychopathic (4-9) types based on their MMPI profiles.

Rohan, Tatro, and Rotman (1969) found two major subgroups of alcoholics in their studies of MMPI profiles, a depressed neurotic group and a psychopathic group. They made a further distinction within the psychopathic group between the psychopathic-reaction type, whose scale 4 score lowered with treatment, and the structural psychopathic personality, whose scale 4 score remained high.

As part of his study, Price (1975) identified a sociopathic group, a depressive-neurotic group, and a group he labelled depressive-psychophysiologic on the basis of their MMPI results.

Goldstein and Linden (1969) felt most previous approaches to the classification of alcoholics suffered from being dichotomous in nature, with the exception of Jellinek's division for which there has been little support in the form of quantitative research. Studies working with a dichotomous approach have generally found one homogenous group and the remainder formed a

second somewhat heterogeneous group. However, reviewing previous studies revealed the existence of a number of such groups. Goldstein and Linden's study was undertaken to attempt to establish quantitative support for multiple alcoholic types. Using the MMPI, they identified four types. The profile of Type I with only scale 4 above 70, they state was commonly associated with the diagnosis of psychopathic personality, emotional instability. Type II, a 2-7 profile, usually is diagnosed psychoneurosis, involving either anxiety reaction or reactive depression. Type II had no scales above 70, the three highest being 4-9-2, which is most commonly associated with a primary diagnosis of alcoholism. Type IV also has a 4-9 profile, but the configuration of the overall profile differentiates it from Type III. Goldstein & Linden concluded that their study supports the contention that people exhibiting addictive behavior are grossly similar only in terms of overt behavioral symptomology and that attempts at treatment should not ignore the differences in underlying personality dynamics for which the addictive behavior may have been symptomatic. It should be noted that Goldstein & Linden found that at least part of the Type II group change over time to yield a Type I profile, the neurotic profile becoming a more characterological one as neurotic symptoms are reduced. They

also caution that the Type IV profile only occurred 10 times out of a total sample of 497 cases, but was included as it appeared in both the original and replication sample.

Whitelock, Patrick, and Overall (1971) reported finding four profile patterns in their sample of MMPI records of alcoholics. Three of these matched the first three of Goldstein and Linden (1969) above, but the last profile pattern differed from Type IV of which Goldstein and Linden had found so few cases. Like Goldstein and Linden, they had one profile pattern that could be described as anxious-depressive neurotic and three that were associated with psychopathic personality patterns suggestive of hostility and impulse control problems. Whitelock, et al. note that the amount of self-reported alcohol abuse was much higher in the neurotic group. They propose that alcohol-abusing patients could be divided into two groups representing severe abuse and less severe abuse. They hypothesize that those with the neurotic pattern will be found to be the more severe abusers. Whitelock, et al. note that those men who experience greater subjective discomfort may be the most severe abusers of alcohol, although, since they fit other diagnostic categories, they may not represent the preponderance of those given the diagnosis of alcoholism.

Berzins, Ross, English, and Haley (1974) found two addictive personality patterns on MMPI profiles among opiate addicts. Type I showed elevations on Scales 2, 4, and 8. Type II had a single peak on Scale 4. The two types represented approximately 40% of the total population, a classification rate similar to that of Goldstein and Linden (1969) above.

Mogar, Wilson, and Helm (1970) identified four distinct personality types from MMPI profiles of patients at a state hospital. These types were labelled passive-aggressive, depressive-compulsive, schizoid-pre-psychotic, and passive-dependent. Mogar, et al. further noted that young men (ages 21 to 31) were concentrated in the passive-aggressive group and middle-aged men were most frequently depressive-compulsive. There were no passive-dependent types in either the youngest (21-30) or oldest (51-60) age groups. The schizoid-pre-psychotic and the depressive-compulsive groups seemed to show the greatest disturbance, and the passive-aggressive group the least.

Bean and Karasievich (1975) used cluster analysis of MMPI profiles to identify four personality types in an alcoholism treatment unit at a V.A. hospital. The types were labelled psychotic (6-8), latent schizophrenic (8-1-2), neurotic (2-1-4), and psychopathic (4-9).

Mozdzierz, Macchitelli, Planek, and Lottman (1975)

used the MMPI in conjunction with the Guilford-Zimmerman Temperament Survey (GZTS) to examine personality differences between alcoholics who had had one or two traffic accidents versus those that had had five or more. The high accident group was higher on the Ma and lower on the D scales of the MMPI. They scored higher on the ascendance scale and lower on the Restraint and Personal Relations scales of the GZTS. The low accident group's responses indicated submissiveness, comfort-seeking through group identification, a tendency to internalize conflict, and overcontrolled mode of expression. The high accident group showed tendencies of domination, impulsivity and recklessness, a high level of energy, and an external mode of expression.

The use of the MMPI to identify alcoholic subtypes has encountered certain difficulties. There have been some problems with cross-validation studies and, as can be seen, a certain lack of agreement amongst the various studies. In looking for consistency across the various studies, it seems that a division between profiles associated with a psychopathic personality and profiles associated with other varying psychopathologies repeatedly appears. The latter group seems most often to show a neurotic pattern, either depressed or anxious. There are indications of the existence of other groups, smaller

in size and less stable in composition. Their appearance may depend on how high a percentage of the total population the researcher is attempting to classify. Further, members of groups other than the psychopathic personality group may show different patterns either as a result of treatment or increasing age.

In addition to the varying results and relative instability introduced when trying to use the MMPI to achieve more than a two-way classification, the ability of the MMPI to classify a sufficient percentage of the overall alcoholic population has been questioned (e.g., Fowler and COyle, 1968, who reported that the major MMPI actuarial systems classify only about 25% of alcoholics into types).

Finally, some research has already been done looking for possible relationships between personality as measured by the MMPI and treatment outcome, and the results have not been encouraging. Kish and Hermann (1971) report finding no relation between improvement as determined by questionnaire at three, nine and twelve months after treatment and personality as measured by the MMPI. Heilbrun (1971) found only that a patient could be classified a better risk if Sc was 59 or less and Ma 53 or less. Cripe (1974) reported finding only a lower L score on admission and a greater increase in K after treatment as more often present in treatment success. Krasnoff (1976) reported the

opposite with completers of a treatment program scoring slightly higher on L. The L score for both groups in both studies was very close to the mean for the general population. Gellens, Gottheil, and Alterman (1976) using Rohan's classification system for alcoholics based on the MMPI (see Rohan, et al., 1969 and above) found no relation between personality and drinking behavior at time of treatment, at six months, at one year, and at two years after treatment.

Other Personality Inventories and Subtypes

Such research findings have encouraged investigation into whether other global personality measures might be better suited to the task of classifying alcoholic subtypes. Partington and Johnson (1969) used the Differential Personality Inventory along with case history and demographic data to distinguish five personality types. Type I, representing 20% of the patients, is described as composed of young, unstable, antisocial alcoholics. Type II, 19% of the patients, is composed of relatively intelligent, conforming, and light-drinking patients who sometimes lose cognitive and emotional control. Type III, 10% of the patients, were described as older, more neurotic, and possessed of poor motivation for abstinence. Type IV, 24% of the population, was described as more defensive and less antisocial than any other group. Type V, 28% of those checked, were described

as the heaviest and most frequent drinkers, but otherwise best adjusted.

Skinner, et al. (1974) report establishing and cross-validating eight distinct bipolar personality dimensions, defining a cluster of persons at each pole of each dimension through the use of the Differential Personality Inventory and the MMPI. The five most clearly established dimensions were (1) acute anxiety vs. denial and blunted affect, (2) antisocial attitudes vs. hypochondrial preoccupation, (3) hostile-hallucinatory syndrome vs. neurotic depression, (4) neurotic disorganization vs. hostile paranoid, and (5) emotional instability vs. interpersonal conflict and depression. The authors note that the subject's MMPI profiles correspond to the profiles of other types of psychiatric patients, suggesting that alcoholics might be classified according to general personality types. Hoffman, Jackson, and Skinner (1975) presented a factor analysis of this same data. They reported seven factors which accounted for 65.7% of the variance. They were (1) hypochondriacal complaining, (2) denial vs. anxiety, (3) depressed withdrawal, (4) interpersonal conflict and social alienation, (5) persecutory ideas, (6) cognitive dysfunction, and (7) response bias.

Golightly and Reinehr (1969) used the Sixteen

Personality Factor Questionnaire (16-PF) to assign diagnoses to alcoholics by comparison of their results to criterion patterns established by the Institute for Personality and Ability Testing. Of the 59 men, 38 were classified as neurotic, 12 as psychotic, and 9 as character disorders.

Lawlis and Rubin (1971) identified three groups of alcoholics by use of the 16-PF. Group I is described as inhibited and neurotic, Group II as sociopathic, and Group III as aggressive neurotic. Two attempts at replication were made. Representatives of Groups I & III were found in all three samples, but in one sample a schizoid group seemed to emerge in place of the sociopathic Group II. Zelhart (1972) examined the traffic records of some of the subjects from the Lawlis and Rubin study. He found that Group I, inhibited neurotic, had the fewest violations and Group III, aggressive, had the most.

Hoy (1969) had investigated differences between those who remained and those who left an eight-week treatment program as reflected by their 16-PF scores. Those who left were found to have scored significantly higher than those who stayed on Extroversion and Surgency.

Nerviano (1973) working with two samples, each

containing 200 alcoholics, was able to use the 16-PF to delineate two subtypes in the first sample and replicate his finding in the second. The first group encompassed 26% of the sample and was described as highly anxious and introverted. The second group, comprising 5% of the sample, was described as dependent and conforming.

Nerviano (1974) reported a factor analysis of the scores on the 16-PF of 400 alcoholics in his 1973 study. He found two main factors. Factor I, Cattell's Adjustment vs. Anxiety factor accounted for 20.3% of the total variance. The factor's loading differed from what is encountered in the general population in the strong relationship present between anxiety and Factor G, Expediency vs. Conscientiousness. Nerviano states the results suggest that the interaction of stress and anxiety in some alcoholics may produce behaviors which seem indicative of an asocial personality, but are really due to anxiety and a neurotic lifestyle. Factor II was identified as Cattell's Introversion vs. Extroversion factor. It accounted for 11.9% of total variance and its loadings were quite similar to what is found in the general population.

Nerviano (1976) attempted to classify alcoholics by the use of Murray's need dimensions as measured by the Personality Research Form (PRF) in conjunction with

Cattell's trait dimensions as measured by the 16-PF. Factor analysis yielded 5 factors from the PRF, impulse control, social ascendancy, defendency, intellectual-aesthetic interests, and dependency. The 16-PF yielded 2 factors, anxiety and extroversion. Clustering procedures produced seven profile types which classified 49% of the population and which could be labelled with general psychiatric diagnoses. The profiles are characterized as (1) obsessive-compulsive (14.5%), (2) impulsive (8.5%), (3) aggressive-paranoid (8%), (4) passive-dependent or inadequate personality (6%), (5) avoidant-schizoid personality (6%), (6) asocial schizoid or asthenic (3.1%), and (7) passive-independent or narcissistic (3%).

Conclusions and Implications

In surveying this review of previous research, several key points for the current study seem readily apparent. They are: a) the heterogeneity of personalities present in alcoholic populations, b) the ability of personality measures to reveal constellations of personality features indicative of various subtypes of alcoholics, and c) the at least partial overlap of a sizeable portion of alcoholic populations with general psychiatric populations when compared on the basis of personality features. Brown (1950) noted that the MMPI

profiles of his neurotic alcoholics resembled those of psychopaths in general more than the two alcoholic groups resembled each other. Levine and Zigler (1973) found support for the idea that a general developmental dimension underlies the process-reactive distinction in schizophrenia and the essential-reactive distinction in alcoholics, and is also usable to make discriminations in psychiatric and normal populations.

Certainly, there have been previous studies where an alcoholic population has been classified by use of diagnostic categories. For example, Devito, Flaherty, and Mozdierz (1970) as part of their study examined an alcoholic population in terms of assigned DSM-II diagnoses. However, the diagnoses could be made only after individual psychiatric interviews and extensive staff observation of the subjects while in the treatment facility. In addition to the staff time required and the necessary time lag entailed between admission and the point at which a diagnosis is made, the subjectivity present in the diagnostic process makes comparability of such a study difficult.

Skinner et al. (1974) using standardized instruments, the Differential Personality Inventory and the MMPI, to classify alcoholics, speculated that, aside from uncontrolled drinking behavior, alcoholic patients may be little different from other types of psychiatric patients. The researchers indicate an alternate

possibility would be the presence of a substantial portion of the alcoholic population that could be described with psychiatric diagnoses plus the delineation of several personality patterns unique to alcoholism. Skinner, Reed, and Jackson (1976) investigated the degree to which the eight modal profiles derived from the first study with alcoholics would generalize to other psychiatric and normal populations. They found the greatest degree of similarity of classification among male prison inmates and psychiatric patients who had been repeatedly hospitalized. However, they found several of the profiles pervasive even among college students. They see such attempts as laying a foundation for an objective diagnostic system of psychopathology.

Nerviano's study (1976) seemed a promising approach in that such a procedure could yield information early enough into treatment that the information could be used in treatment planning. The approach is further recommended by the fact that the results of his analysis closely paralleled that arrived at by Devito et al. (1970). Devito's methodology had required more time-consuming evaluation procedures that were more demanding on staff, more subjective in nature, and less usable by the time the classifications were achieved. However, Nerviano's study has not been cross-validated. Also, he employed the PRF, Form AA, which was designed to be used with a

college population (Jackson, 1974) as opposed to the newer PRF, Form E, that was designed to extend the use of the PRF to populations other than college populations. Form E contains the same 22 scales which were, in fact, derived from items from the older parallel forms through the use of improved item-analysis procedures. Wording has been simplified to extend its range of usefulness to less educated and less intelligent populations (Jackson, 1974). One must suspect that Nerviano's success with the college form was related to the fact that he indicated the mean estimated I.Q. of the alcoholic population he tested was 107.

Scope of Current Study and Hypothesis

The current study would undertake to classify an alcoholic population into subtypes using the PRF, Form E, and the 16-PF, Form A. The use of PRF, Form E, opens the possibility of future use of the procedure to a broader range of alcoholic populations. Form A of the 16-PF is the same as used in Nerviano's study, and will be retained as both Cattell and Eber (1972) and Hoy (1969), working specifically with alcoholics have warned of poor equivalence between Forms A and B. The study may provide a much needed cross-validation of a promising but as yet unproven approach. In addition to answering whether the same types will appear in a new alcoholic population as such, the current study would

be conducted in a municipal treatment center, whereas Nerviano worked with a population in a Veterans Administration hospital. As mentioned previously, English and Curtin (1975) reported different institutions attracting different populations for treatment to the point where they could differentiate the populations of a V.A. hospital, a state hospital, and a half-way house on the basis of MMPI profiles. Thus the ability of the alcoholic subtypes to cross-validate to another form of treatment setting would be indicated. Finally, if the technique is to have general applicability, the use of PRF, Form E, is dictated. The effect of its use on the subtypes would be manifest.

Specifically, then, this study will investigate whether the personality patterns found in adult male alcoholics by Nerviano (1976), and which closely parallel those found by Devito, et al. (1970) arrived at by entirely different research methods, will again emerge in the new population under consideration. Those patterns are (1) obsessive-compulsive, (2) impulsive, (3) aggressive-paranoid, (4) passive-dependent or inadequate personality, (5) avoidant-schizoid personality, (6) asocial schizoid or asthenic, and (7) passive-independent or narcissistic. It is hypothesized by this researcher that such patterns are characteristic of particular alcoholic subtypes, and

as such will again emerge in the current research,
offering a cross-validation of previous findings.

CHAPTER III

METHOD

Subjects

The subjects of this study were 102 male alcoholic inpatients at Chicago's Alcoholic Treatment Center.

Chicago's Alcoholic Treatment Center is an inpatient facility for persons requesting treatment for alcoholism. It operates under the auspices of Chicago's Commission for Rehabilitation of Persons and is supported by the City of Chicago.

The treatment program at the Center stresses milieu therapy involving patients in self-government and group therapy. Patients are required to attend the following activities: a) all orientation meetings; b) daily ward meetings; c) group therapy sessions; d) educational meetings; e) one social security meeting; f) daily calisthenics; and g) work details. Optional activities include: a) Alcoholics Anonymous meetings; b) Board of Education Program; c) recreational and craft activities; d) religious discussions; e) vocational counseling sessions; and f) a married couples group.

All English-speaking males admitted between

February 13 and May 8, 1978 were approached after the completion of one week in the treatment program and encouraged to participate in the study. There was a total of 248 male admissions during this period. Of this total, 17 men were excluded as non-English-speaking and 49 men had left the Center prior to the beginning of the second week of treatment. Thus 182 men were asked to take part in the study. 84% of those asked, or 152 men, agreed to participate. Of this total of 152, 102 men were tested and are the subjects of this study, 20 men left the Center before finishing testing, 13 men changed their minds and decided to not participate, 10 men submitted invalid protocols, 4 men found they could not see the print adequately without prescription eyeglasses, and 3 men found the level of reading of the test inventories too difficult for them. The 102 subjects represent 67% of those who agreed to be in the study and 56% of those who were originally asked to participate.

As for the demographic characteristics of the sample, 55.9% were black, 42.2% were white, and 2% were Hispanic. This is comparable to the racial composition of the overall population at the Center during that period when the sample was drawn, with the exception of the fact that Hispanics are under-represented due to the English-speaking requirement

for sample inclusion. The overall population was 55% black, 35% white, and 10% Hispanic.

The average age of subjects in the sample was 38.7 years, with a range from age 20 to age 64. The average age of the overall population is an almost identical 38.9 years.

The average number of years of education for the sample was 11.4. The average for the overall population was 10.5. 70.6% of the sample and 70.1% of the overall population indicated a gross family income of under \$3000 for the past year. 86.3% of the sample and 88.5% of the population were not currently employed. 59.6% of the sample and 54.6% of the overall patient population lived alone. Less than one-fifth of the sample and population were married. A picture of overall instability in life style emerges, with little education, unemployment, and lack of family ties.

In terms of variables more specifically related to alcohol, 26.4% of the sample and 28.2% of the overall patient population reported having an immediate family member with a drinking problem. 56.9% of the sample had never received inpatient treatment for alcoholism before, 21.6% were readmissions to this Center, and 36.3% had prior affiliation with Alcoholics Anonymous. Again, the figures for the overall patient population are comparable. The average length of treatment for

men who comprise the sample was 34.4 days, with a range extending from 15 to 42 days.

In addition to the information provided on the characteristics of the sample, the preceding seems to indicate that the sample drawn, with the exception of the previously noted underrepresentation of Hispanics, is fairly representative of the overall patient population at the Center from which it was drawn.

Instruments

All the subjects were administered the Personality Research Form, Form E, and the Sixteen Personality Factor Test, Form A.

The PRF consists of 20 content scales and 2 validity scales. The starting point for the development of the scales was Henry Murray's personality variables. The scales are truly bipolar and a low score is not indicative simply of the absence of a need, but is as significant as a high score.

In the test manual, Jackson (1974) presents reliability data for the PRF-E for both psychiatric and college populations. The figures for all scales for both populations fall in a range between 0.50 and 0.91 with the single exception of a 0.29 reliability for cognitive structure in the psychiatric sample. However, some change over time on the cognitive structure scale with a psychiatric population might be expected.

In terms of validity in the manual, Jackson (1974) shows that the scales of the PRF-E show appropriate correlations to similar measures in the Jackson Personality Inventory, the Jackson Vocational Interest Survey, and the Bentler Psychological Inventory (BPI). For example, orderliness on the BPI has a correlation of 0.81 with order and 0.61 with cognitive structure on the PRF. The Bentler Interactive Psychological Inventory (BIPI), which employs behavior ratings of persons who know the target individual and thus provides a hetero-method check, again showed appropriate correlations, e.g. orderliness on BIPI showed a correlation of 0.52 on order and 0.42 on cognitive structure on the PRF. Jackson had previously presented convergent validity data on the PRF-AA and BB using both behavior ratings and a trait rating form on which the subjects indicated the presence or absence of a trait in themselves. Median correlations for both methods were above 0.50. Discriminant validity was offered in the form of a factor analysis which revealed that the PRF scales load an appropriate factor. As the PRF-E is based on the PRF-AA and BB and thus there is a very high part-whole correlation between them which would necessitate similar findings, Jackson has not recomputed multitrait-multimethod validity for the PRF-E.

In use with alcoholics, the PRF has shown

negligible desirability bias (Hoffman & Nelson, 1971) and adequate test-retest reliability with a range of 0.56 to 0.95 (Hoffman, 1971). Originally, Hoffman (1970) did report a relationship between an alcoholic's age and a number of scales. However, Gross and Nerviano (1973) were unable to replicate this finding even if a .10 probability level were employed. They did find in their sample that Understanding and Aggression were positively related to I.Q. and Abasement negatively related. In view of this, a replication of Nerviano's study (1976) with possibly less intelligent alcoholics is all the more needed.

Form E of the PRF was selected for use as most appropriate for the patient population. Form E was designed to extend the use of the PRF to other than college populations. It contains all 22 scales which were, in fact, derived from the older parallel forms through the use of improved item-analytic procedures. Wording has been simplified to extend the range of usefulness to less educated and less intelligent populations (Jackson, 1974). To assure that this instrument was appropriate for the subjects of this study, a pre-testing was done on a separate sample of 22 patients from the Center. All 22 were able to complete the test validly, none recording a score on the infrequency scale that would indicate poor

comprehension, passive non-compliance, or confusion (see Appendix A).

The 16-PF is designed to measure Cattell's primary trait dimensions. Any one item contributes to the score of only one of the sixteen factors and correlations among the scales are low, each making a separate contribution. In terms of reliability, the manual (Cattell & Eber, 1972) reports the dependability coefficient, defined as the correlation between two administrations of the same test when the lapse of time is insufficient for the people themselves to change with respect to what is being measured. For male subjects on Form A with retesting within seven days, the figures for the various scales range between 0.58 and 0.83. In terms of validity, the manual indicates the test was designed for construct validity, with items chosen as being good measures of personality factors as represented in research analysis. A direct measure of such validity is obtained by correlating the scale score with the pure factor it was designed to measure. Such correlations for Form A range from 0.35 to 0.92. The 16-PF has been used by itself in the classification of alcoholics (see above Golightly & Reinehr, 1969; Hoy, 1969; Lawlis & Rubin, 1971; Nerviano & Gross, 1973; and Nerviano, 1974).

Procedure

The experimenter met with all new male admissions after they had completed their first week in treatment. It was explained that he was attempting to learn more about alcoholics. Men who volunteered to take part in the study would be asked to fill out two questionnaires. The men were assured that their results would be regarded as confidential and that they would be assigned a code number for use on their answer sheets. The experimenter agreed to meet individually and discuss the results of the testing with each man who elected to participate and so wished. Interest in securing such information about themselves helped secure participation in this voluntary project, 84% of those asked electing to participate. The shared interest in the results also contributed to a generally serious and conscientious attitude toward the testing procedure.

Previous research indicates that the time of test administration must be taken into consideration. Ends and Page (1959), Rohan, Tatro, and Torman (1969), and Shaffer, Hanlon, Wolf, Foxwell, and Kurland (1962) report significant changes on the MMPI testing before and after treatment, especially on the depression scale. Wilkinson, Prado, Williams and Schnadt (1971), testing during the first and eleventh week of treatment, found significant differences on virtually all MMPI scales.

In general, personality test scores will show increased improvement the longer the period of abstinence and treatment prior to testing. Libb and Taulbee (1971) report that MMPI profiles are more malignant if testing is done before detoxification. Frankel and Murphy (1974) record such results using the MMPI and testing before and after an eighty-four day alcoholic treatment program. Hoffman, Nelson, and Jackson (1974), using the Differential Personality Inventory, found significant test-retest differences on 19 of 27 personality scales for groups tested on the first and then the twelfth day after admission, and also on the same 19 scales for a group tested on the 14th and again on the 26th day after admission. Gibson and Becker (1973) reported such changes testing during the first, third, fourth, fifth, sixth, and tenth week of treatment using the Beck and Zung depression scales, and Smith and Layden (1972) recorded similar changes testing after one and six weeks with a mood-adjective check list. Clearly length of abstinence and time in treatment affect personality test results.

Chess, Neuringer, and Goldstein (1971) and Smith and Layden (1972) report that the most significant changes tend to occur between admission and the period of approximately one to three weeks of treatment.

Secondly, the studies note that the changes occur



where measures are exploring the psychotic and neurotic dimension as opposed to measures of personality and character disorder (Frankel & Murphy, 1974; Hoffman et al., 1974; Rohan et al., 1969; Smith & Layden, 1972).

There is some previous research involving the particular instruments in this study. Hoffman (1971), using the PRF with alcoholics in their second week of treatment and again four weeks later, found statistically significant differences on eight of twenty-one scales. However, the differences were so small that the author himself describes them as "statistically significant, but of such a small magnitude that they are not meaningful" (p. 950). Test-retest reliabilities ranged from 0.56 to 0.95. Hoffman's distinction between statistical significance and sufficient magnitude to indicate meaningful differences bears noting. In their previously reported study using the DPI, Hoffman et al. (1974) found statistically significant differences on nineteen of twenty-seven scales, but reported that the rate of change was slower after detox, that test-retest reliability for all scales fell in the acceptable range, and that all subjects maintained similar rankings within their group.

Hoy (1969) used the 16-PF with alcoholics before and after treatment and reported low test-retest reliability, -0.04 to 0.68, but he did his initial

testing prior to detoxification. Also, his results are based on retesting not only after a lapse of time and intervening treatment, but with alternate forms A and B in addition. Hoy acknowledges that Cattell himself had reported relatively low equivalence coefficients between the forms, and Hoy's research, too, led him to agree that such was the case. The fact that Hoy tested before detoxification, that he was using the test to seek change brought about by treatment, and that he retested with what is not a truly parallel form make his results more understandable.

In summary, change can be expected with increasing periods of abstinence and treatment, psychotic and neurotic features will diminish whereas features of personality and character disorder will show greater stability, and the most significant amount of change might be expected to occur between admission and one to three weeks of treatment. For purposes of the present study in a center with a six-week treatment program, it can be seen that it was impossible to select a time of administration so that no subsequent change could be expected. The time selected, after two to three weeks of abstinence and one to two weeks of treatment, should have allowed time for the most significant amount of expected change to occur. Additional delay could unduly bias the sample by the further exclusion of men who

drop out of the program in the earlier stages of treatment. Time of admission was uniform for all subjects and the caution must be borne in mind that the results are reflective of alcoholics in the early stages of treatment. It should be noted that Nerviano (1976), who derived the subtypes that study is attempting to cross-validate, also delayed test administration until the subjects had been detoxified and stabilized for at least one week (see Appendix B for more detailed data on time of test administration for this study).

The replication, itself, was divided into two parts involving first a factor analysis and then a cluster analysis. In order to prevent differences due to statistical handling of data from being confounded with differences due to the new sample in this attempt to cross-validate, statistical procedures employed were identical to those employed by Nerviano (1976). Nerviano chose to base his derivation of typology on the PRF scales and to employ information provided by the 16PF as a source of information for further elaboration of the derived types. To determine the factor structure of the PRF, he used a principle components extraction and varimax rotation. This produced five factors, four of which Nerviano judged to be clinically relevant. He then chose the best marker scales for the four clinically relevant factors, and employed subject

profiles composed of those 12 marker scales in his cluster analysis.

For the cluster analysis, Nerviano employed the Lorr correlational clustering procedure (TYPOL). It first intercorrelated all the profiles composed of the twelve marker scales. It then determined which of the profiles had the largest number of profiles correlated with it above 0.50, a correlation significant at the 0.05 level. To this pivot profile were added profiles that had the highest average correlation to those in the cluster, until all profiles outside the cluster had average correlations with the clustered profiles that were below 0.50. To insure adequate separation of types, all unclustered profiles that had an average correlation with the established cluster above 0.40 (p. less than 0.10) were eliminated. Subsequent types were derived, in sequence, by reselecting the best pivot profile from the remaining profiles and repeating the process.

The current study employed the same statistical procedures, and a comparison of the results follows.

CHAPTER IV

RESULTS

Factor Analysis

The varimax rotated factor matrix of the 21 PRF need scales is given in Table 1.

Nerviano (1976) described his first factor as contrasting scales that reflect spontaneity (Impulsivity, +.79; Play, +.63) with those indicative of restraint and inhibition (Cognitive Structure, -.79; Order, -.72). He labelled the factor Impulsive Control.

The first factor in the analysis of the data from the current study defines the same dimension, with the sign values of all scales simply reversed due to a different positioning of the rotated axes. Thus we see spontaneity (Impulsivity, -.84; Play, -.52) again contrasted with restraint (Cognitive Structure, .74; Order, .78).

Nerviano described his third factor as dealing with responsivity to threat and labelled it Defendancy. It displayed the following loading: Defendancy, +.81; Aggression, +.70; Abasement, -.66. The second factor of the current study, loading on Defendence (+.75), Aggression (+.69), and Abasement (-.63) seems clearly

TABLE 1
VARIMAX ROTATED FACTOR MATRIX - PRF

PRF Scale	FACTOR					
	I	II	III	IV	V	VI
Abasement	-.254	-.631	-.084	.252	.343	-.120
Achievement	.298	-.018	.172	.747	.064	-.024
Affiliation	.080	-.336	.032	.143	.361	.687
Aggression	-.348	.686	.037	.113	-.110	-.000
Autonomy	-.309	.220	.184	.194	-.609	-.086
Change	-.064	-.063	.768	.056	-.155	.094
Cognitive						
Structure	.739	-.022	-.083	.191	.100	-.115
Defendence	-.039	.751	-.072	.024	.037	-.009
Dominance	.017	.239	.147	.701	.098	.247
Endurance	.266	-.158	.264	.707	-.235	.110
Exhibition	-.117	.191	.163	.185	.127	.777
Harmavoidance	.132	-.042	-.735	-.035	.336	-.134
Impulsivity	-.837	.201	.052	-.104	-.089	.049
Nurturance	.143	-.218	.042	.301	.559	.082
Order	.778	.173	.016	.014	.069	-.022
Play	-.519	.181	-.017	-.082	-.069	.463
Sentience	-.034	.334	.677	.204	.292	-.027
Social						
Recognition	-.152	.449	-.035	.343	.509	.108
Succorance	.099	.055	-.063	-.113	.767	.148
Understanding	.108	-.182	.690	.311	.094	-.021
Desirability	.636	-.284	-.011	.288	.078	.284

to be defining the same area.

The fourth factor that emerged from Nerviano's data was labelled by him Intellectual/Aesthetic Interests, and tapped Understanding (+.72), Sentience (+.65), Achievement (+.57), Nurturance (+.50) and Change (+.49). The area represented by this factor in Nerviano's data seems divided among two factors in the current study. Factor Three loads on Understanding (+.69), Sentience (+.68), and Change (+.77) and is additionally distinguished by Harmavoidance (-.74), while Factor Four loads on Achievement (+.75) and is also marked by Endurance (+.71) and Dominance (+.70).

The fifth factor that Nerviano found was labelled Dependency and was represented by the high need for Succorance (+.81) in contrast with the low need of Autonomy (-.64). Factor Five in the current study (Succorance, +.77; Autonomy, -.61) reveals presence of the same dimension in the current data.

Finally, Nerviano described his second factor as reflecting social participation and extroversion (Exhibition, +.75; Affiliation, +.73; Dominance, +.59). Factor Six from the replication data loads on Exhibition (+.78), Affiliation (+.69), and to a lesser degree on Dominance (+.25).

The results of the factor analysis in the replication seems to parallel quite closely Nerviano's

factor analysis. All five dimensions found by him are represented in the current data. One of his dimensions is split among two factors in the current analysis, and thus there are six as opposed to five factors. Even the ordering of the factors is the same, with the exception that his second factor, Social Ascendancy, is of much lower significance in the data from the replication sample, becoming the sixth factor.

Cluster Analysis

As mentioned previously, Nerviano (1976) decided to restrict the derivation of the typology to the 12 best marker scales for the four factors emerging from the analysis of the PRF that he felt clinically relevant. He discarded the factor Intellectual/Aesthetic Interests as not of sufficient clinical importance with the population under consideration. Thus the clustering was done with profiles composed of the following 12 scales: Impulsivity, Cognitive Structure, Order, and Play (from the Impulse Control factor); Exhibition, Affiliation, and Dominance (from the Social Ascendancy factor); Defence, Aggression, and Abasement (from the Dependency factor) and Succorance and Autonomy (from the Dependency factor). The remaining 9 PRF scales and the 16-PF scales were used for elaboration of the types after their derivation. Table 2 presents the clusters derived from the analysis of the data from

TABLE 2

Mean Z Score On Each Scale For Each Cluster

PRF Scale	CLUSTER				
	1	2	3	4	5
Abasement	-0.90	-0.55	0.85	-1.04	0.58
Affiliation	-1.29	-0.47	0.38	-0.79	-0.16
Aggression	1.16	-0.02	0.09	0.77	0.01
Autonomy	0.38	-0.74	-1.07	0.91	-0.45
Cognitive Structure	-0.52	0.99	-0.23	0.73	0.87
Defendence	1.48	0.91	0.34	0.83	0.34
Dominance	-0.71	-0.10	-0.59	-0.13	-0.39
Exhibition	-0.01	0.16	1.15	0.70	-1.23
Impulsivity	1.33	-0.51	1.28	-0.58	0.37
Order	-1.13	0.61	-1.38	0.88	-0.21
Play	0.80	-1.30	0.02	-1.14	-0.41
Succorance	0.24	1.21	0.41	-1.31	0.41

the replication as characterized by their mean Z score on each of these 12 scales.

Nerviano describes his subtypes in terms of being high (+) or low (-) on a given scale relative to the mean. The first type derived in the replication (n=16, 15.7%) bears strong resemblance to his Type C to which Nerviano attached the diagnostic label aggressive/paranoid personality or explosive personality. He described them as moderately impulsive (Impulsivity+, Cognitive Structure-, Order-). The current Type 1 shows the same configuration, Impulsivity+, Cognitive Structure-, and Order-. The earlier study indicated this group to be markedly extropunitive (Defendency - Defendence+, Aggression+, Autonomy-). Again the current Type 1 matches, Defendence+, Aggression+, and Autonomy-. Nerviano indicated his type to be emotionally independent (Dependency - Succorance-, Autonomy+). The current group is fairly nondescript on this dimension, slightly positive on Autonomy (0.38) but also on Succorance (0.24). Both the original and the replication type is below the mean on Affiliation, but the current group is nondescript on Exhibition (-0.01) and slightly below the mean on Dominance (-0.71), whereas the original type was above the mean on these scales.

Type 2 derived in the current study (n=13, 12.7%) also shows good correspondence to one of the original types, Type A, labelled by Nerviano obsessive-compulsive

personality. Nerviano describes this type as characterized by highly pervasive Impulse Control (Impulsivity-, Cognitive Structure+, Order+, Play-). This forms a perfect match with Type 2 from the replication. Also both types are above the mean on Exhibition (Exhibition+), tend to inhibit aggression (Aggression-), and fall below the mean on Autonomy (Autonomy-). Difference is apparent only on the Dominance and Affiliation scales, where Nerviano's type was above the mean and the replication type falls slightly below the mean (Dominance, -0.10; Affiliation, -0.47).

The means from the third cluster (n=4, 3.9%) in the current study delineate a subtype that parallels Nerviano's Type B, impulsive trait disorder. Nerviano stated Type B subjects were characterized by a broad lack on Impulse Control (Impulsivity+, Cognitive Structure-, Order-, Play+). The subjects in this study's third cluster correspond in all regards. Nerviano additionally noted that his subjects tend to be less dominant (Dominance-) and have need for assistance from others (Succorance+). The replication subjects show the same qualities.

Type 4 from the current study (n=5, 4.9%) fits Nerviano's description for his Type E, schizoid personality. He describes these men as avoiding social interaction (Affiliation-, Dominance-), prepared

for harm from others (Defendence+) and desiring to be unattached (Autonomy+), all equally true of Type 4 in the replication. One difference does appear in that the original group was below the mean on exhibition, whereas the replication group is slightly above (exhibition, +0.70).

Finally, the fifth cluster derived in the replication (n=4, 3.9%) pairs with Nerviano's Type D, passive-dependent personality. He describes these men as submissive (Dominance-), seeking control from others (Autonomy-), and self-abasing (Abasement+). While the original group was below the mean on Aggression, the replication group scored right at the mean (Z of 0.01) and, unlike Nerviano's group, was slightly above the mean on Defendancy (0.34).

Nerviano's study did derive two additional clusters that did not emerge as clusters in the replication, Type F, labelled asthenic personality, and Type G, labelled narcissistic personality. However, it should be noted that Nerviano was working with a much larger sample (366 subjects) and that neither of the missing types represented more than 3% of his sample. For such types to not be represented in sufficient quantities to form clusters in a sample the size of the one used in the current study, 102 subjects, seems readily understandable.

The five types, based on Nerviano's five largest

clusters, seemed to be clearly represented in the sample of the replication study. Nerviano followed a procedure whereby after the pure types were derived, he hand assigned some untyped profiles which almost met the inclusion criteria to the appropriate types. He achieved a classification of 49% of his total sample. In the current study, 41.2% of the total sample was classified without benefit of hand assigning untyped profiles that almost met the inclusion criteria. It was decided to refrain from this procedure because the purpose of the study was not to attempt to achieve the highest classification rate possible, but to see if the alcoholic subtypes would, in fact, replicate and to prepare the way for research concerning the characteristics of those subtypes. It was felt the pure types would better serve such research purposes.

Another related point of particular significance to any subsequent research concerns the composition of the untyped group. Nerviano had described these profiles as nondescript, typically having average values on all measures. As explained previously, the TYPOL analysis, in order to achieve separation of types, eliminates profiles that correlate highly with an established cluster, but not highly enough to warrant inclusion in that cluster. A case by case inspection

of data from the current study revealed that such eliminated profiles often highly correlated with other subsequently derived subtypes, but were not considered because of their high correlation with the previously derived subtype. Such profiles, showing high correlation to more than one subtype, remain untyped, even though they are quite different from profiles unclustered because all scores on them were near the mean. In the current study, 34 profiles showed low correlations to all of the subtypes and had near average scores on the various scales. These, it is suggested, are best considered as true notypes. However, the remaining 26 unclustered profiles were found to be so because of high correlations to more than one subtype. One pattern, correlating both with the Type 2 profile, obsessive-compulsive, and the Type 5 profile, passive-dependent, appeared with enough frequency, six profiles, to suggest it might be worth investigating as a distinct subtype whose clinical picture did not lend itself to the either/or format of the current analysis. The remaining 20 profiles again present a mixed picture, however with no pattern appearing with sufficient frequency to justify separate consideration. Nevertheless, it is strongly felt that it would be unproductive to lump these profiles with the true notypes

and their more average scores, and future researchers may do well to retain such profiles in a separate, mixed category.

CHAPTER V

DISCUSSION

The strong replication of Nerviano's earlier findings (1976) through both factor analysis and cluster analysis supports this study's hypothesis that the patterns that emerged are reflective of alcoholic subtypes that can be expected to be found among diverse alcoholic populations. In emerging in the current study, the subtypes have shown their presence in two fairly divergent alcoholic samples. Nerviano's sample was drawn at a Veteran's Administration hospital. The current sample is from a municipal treatment center. His sample had a mean age of 44 years, while the current sample has a mean age of 38.7 years. His sample was described as mostly White, while a majority of the current sample is Black. Nerviano used Form AA of the PRF, while this study used the simplified Form E. In spite of all these differences, five subtypes that can be described as (1) aggressive, (2) obsessive-compulsive, (3) impulsive, (4) schizoid, and (5) passive-dependent were once again found to be clearly present.

The repeated discovery of the presence of these

widely different personality patterns among men who commonly go undifferentiated, simply bearing the designation "alcoholic," further suggests that research examining possible interactions between type of treatment and the various alcoholic subtypes might aid in increasing treatment effectiveness. Were it not for the alcoholic label, it is doubtful that the same treatment plan would be used for men with such different psychological makeups. For example, those men who are true notypes seem to be rather well-balanced psychologically, and alcohol abuse may be a reaction to an environmental event or condition. Treatment for these men might place more stress on environmental issues and contain more emphasis on educating the men about the dangers of alcohol abuse. Passive-dependent alcoholics might do particularly well if linked directly into an AA program. Consideration might be given to whether drinking is the primary problem of the schizoid group, or whether referral to a mental health agency might be more beneficial. Emphasis on individual or group therapy may be found to be more effective for a particular group. Further research may allow future programs to match those forms of treatment found to be most effective with each of the subtypes. Such research may reveal instruments that can detect the characteristics of the various subtypes with greater economy of time for ease of treatment assignment. Finally, further work need be done to disentangle the structure of the mixed residual group which shows such diverse symptomology.

SUMMARY

A review of previous research pointed toward the presence of a diversity of personality patterns among alcoholics, as opposed to a single "alcoholic personality." However, amongst this diversity it also seemed clear that certain patterns did seem to frequently occur. This study represented an attempt to replicate the earlier findings of Nerviano (1976) concerning specific personality patterns on two personality inventories, the 16-PF and the PRF, that he contended represented potential alcoholic subtypes.

The attempt at replication was divided into two parts. First the data from the replication sample was factor analyzed. Nerviano's sample had earlier yielded five factors, labelled Impulse Control, Social Ascendancy, Dependency, Intellectual/Aesthetic Interests, and Dependency. These same dimensions were found in the new data with four matching factors and two factors dividing the same area defined by his Intellectual/Aesthetic Interests factor. The results of the factor analysis were used to select scales to be used in a cluster analysis of patient profiles. Twelve scales of the PRF were used in the cluster analysis. Nerviano had identified seven subtypes. The current study found

five of his subtypes: (1) aggressive, (2) obsessive-compulsive, (3) impulsive, (4) schizoid, and (5) passive-dependent. Two of Nerviano's subtypes, asthenic personality and narcissistic personality, each of which only represented 3% of his larger sample, were not found as clusters in the smaller sample of this study. The composition of the unclustered group in the current study, representing both profiles showing multiple correlations and high mean scale scores and those that are quite nondescript, is discussed. Implications for further research and possible implications for treatment are discussed.

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APPENDIX A

APPENDIX A

Data On Pre-Testing With The PRF

Educational Background of Sample		Infrequency Scale Scores Recorded ^a	
<u>Highest Grade Completed</u>	<u>Frequency</u>	<u>Score</u>	<u>Frequency</u>
3	1	0	7
8	3	1	11
2	2	2	3
10	1	3	1
11	4	4 or more	<u>0</u>
12	6		n=22
13	2		
14	2		
17	<u>1</u>		
	n=22		

^a Score of 4 or higher
indicates invalid protocol.

APPENDIX B

APPENDIX B

Data On Time Of Test Administration

Number Of Days After Admission Testing Initiated^a

Mean	Standard Deviation	Median	Mode
12.9	2.3	13	12

^a n=102

APPROVAL SHEET

The thesis submitted by John M. Zivich has been read and approved by the following committee:

Dr. Frank J. Kobler, Director
Professor, Psychology, Loyola

Dr. James E. Johnson
Associate Professor, Psychology, Loyola

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the Committee with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the degree of Master of Arts.

April 23, 1979

Date

Frank J. Kobler

Director's Signature