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Sociopsychological Predictors of Affiliation with Alcoholics Anonymous

A Longitudinal Study of "Treatment Success"*

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Summary. Alcoholics Anonymous represent one of the few clearly successful treatment approaches for alcoholism. In an attempt to delineate the dynamics of this approach, six propositions were derived from previous research on A.A. and tested in a longitudinal study of post-discharge A.A. affiliation among 378 white males treated for alcoholism in a state hospital. Unlike previous studies, the present effort employed full-fledged affiliation with A.A. as the criterion for "success" in this post-discharge maintenance regimen. Through stepwise multiple regression, 24 variables emerged from a battery of 81 possible social and psychological predictors as the set of significant predictors. Propositions were tested by comparison with this set, indicating (1) affiliative needs, (2) experience of intensive labeling as an alcoholic, (3) physical stability prior to treatment, and (4) proneness to guilt to be significant predictors of successful affiliation. Propositions not supported by the data were (1) ego strength and self-reliance, (2) social stability previous to treatment, and (3) middle class background and experience. Results indicate the predictive prominence of psychological predispositions to be greater than social attributes, implying the importance of relatively fixed psychological accounting for success in a sociotherapeutic regimen.

Introduction

Crucial for improving the efficiency of psychiatric treatment is the identification of characteristics associated with success in various therapeutic regimens. Among the treatments and rehabilitation efforts employed with alcoholics, affiliation with Alcoholics Anonymous yields one of the highest rates of "treatment success," if "success" is defined as return to adequate role performance in social institutions. Crucial to maximizing the therapeutic benefits of A.A. as both a substitute for hospitalization and as post-discharge support is the isolation of the characteristics associated with success in this unique form of "treatment."

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A.A. typically functions outside the aegis of medical treatment and is primarily composed of local "self-help" groups. Numerous studies of the organization and its members have been conducted with an orientation to understanding the dynamics underlying A.A.'s success. The implication of some of these studies is that successful A.A. affiliates have personality characteristics different from those who do not successfully affiliate. Much less attention has been given to the sociopsychological "role demands" which underly successful affiliation with an A.A. group. For example, the interaction patterns in these groups may uniquely demand certain types of participation as well as certain types of tolerances. Likewise, the return to normal functioning in the community typically required of a successful affiliate may call for attributes that are not uniformly distributed in an alcoholic population.

The analysis reported here focuses upon variables which predicted successful A.A. affiliation within a hospitalized alcoholic population 18 months following discharge from the hospital. All members of the population were exposed in the hospital to a sociotherapeutic regimen which was presumed to set the stage for subsequent A.A. membership which would serve as supportive post-discharge therapy. This study involves both a partial replication of previous research in the characteristics of successful A.A. affiliates as well as providing the opportunity to test propositions regarding the role demands of successful affiliation.

Previous Research and Propositions

The vast majority of research on affiliation with A.A. has focused upon the characteristics associated with attraction to A.A. and initial induction into an A.A. group. What is associated with success in these initial steps may differ considerably from the determinants of full-fledged integration into these relatively unique forms of social groups. From these psychological studies, from research studies which have focused on the sociological characteristics of samples of A.A. members, and from extensive observation of the organization at all its levels of functioning, six propositions are derived and tested in this analysis. These propositions are tested in terms of characteristics associated with *successful affiliation* rather than attraction and initial induction. Three deal with the sociopsychological traits associated with affiliation while thee are focused on sociological attributes.

Proposition I. Successful A.A. affiliates are significantly characterized by affiliative needs and group dependency.

A relatively high "need for affiliation" has been associated with attraction to A.A. in previous research studies. Unlike most other forms of "treatment," A.A. clearly requires that an alcoholic become integrated into a relatively permanent social group to attain and maintain sobriety. In previous research, subsamples have been differentiated on the degree of affiliative orientation (Groesbeck, 1958); certain personalities are clearly resistant to affiliation with a group and absorption into it, while others are

highly responsive to such opportunities and experience "emotional deprivation" without them. This stems in part from differential willingness to surrender one's "freedom," to tolerate and accommodate the demands of other group members, and to openly share emotions and problems.

Three studies (Hanfmann, 1951; Trice, 1959; Mindlin, 1964) have clearly shown that those who affiliate with A.A. have higher "affiliation needs" than those who do not. Two related bodies of data (Button, 1956; Trice, 1957) indicate that those who join A.A. posses the social skills to cope with the spontaneous, emotion-sharing small group patterns which characterize A.A. Trice (1957) also found that those who join A.A. had conceptions of themselves as people who could readily share their problems with others and had experiences this intimate sharing of emotions in dyadic and group settings previous to coming to A.A.

In addition, two studies (Bonacker, 1958; Machover, 1959) have indicated that A.A. affiliates tend to be more feminine in their personality profiles; they readily open themselves to the demands of the group for emotional intimacy as well as rapidly becoming psychologically dependent on the group.

Voth (1965), who studied autokinesis (a trait indicative of high independence and low dependence) in an alcoholic population, found low autokinesis (high dependence) to typify alcoholics. He infers that the association of this trait with alcoholism may account for the success of A.A. in contrast to the relatively mediocre results of self-help groups for those with other disorders. Finally, Edwards et al. (1967) revealed trends toward higher extroversion scores among successful affiliates as compared with scores generated in non-alcoholic, "normal" samples.

Proposition II. Successful A.A. affiliates are significantly characterized by ego strength and self-reliance.

Although A.A. groups exhibit considerable interpersonal support in their internal functioning, the demands placed upon a member include his return to successful functioning in the family, job and community. Thus, although considerable support is available to him for the maintenance of sobriety, his successful "rehabilitation" may be largely dependent on his own sociopsychological "stamina." He must either undertake new statuses and roles in the family, occupation, or community, or return to the statuses he occupied previous to his addiction. Both these alternatives involve him in forming new relationships and/or repairing old ones; throughout this attempted "comeback" he risks social rejection (Phillips, 1963) and must exert considerable effort in the social presentation of his new sober self. These role demands clearly point to the necessity of considerable self reliance and ego control.

Furthermore, the organizational structure within which the local A.A. group is embedded is based largely on charisma rather than an established hierarchy of support (Bales, 1944). Thus the fate of a local group is in the hands of its members rather than the responsibility of a hospital or some other centralized authority. Therefore the group's existence as a viable social unit

depends on the efforts of its members. These structural circumstances also require ego control and self reliance.

Two previous studies have indirectly indicated these attributes to characterize those attracted to A.A. Seiden (1960) compared A.A. affiliates with non-A.A. alcoholics in terms of performance on the Bender-Gestalt test. He revealed A.A. members to have greater ego strength and to be more psychologically "healthy." Canter (1966) found that among hospitalized alcoholics free to choose therapeutic regimens, those who chose A.A. and who were inducted into it were more authoritarian than those who chose other regimens. Although authoritarianism is typically viewed as an undesirable personality trait, it is correlated with self-reliant coping abilities (Brown, 1965).

A study by Mindlin (1964) did not reveal significant differences in self-reliance between those who did and did not participate in A.A. Her A.A. members were not necessarily affiliates, however, since the criterion for placement in the A.A. group was merely attendance at ten or more meetings.

Proposition III. Successful A.A. affiliates are significantly characterized by a proneness to guilt.

Two interrelated propositions emerge from the observation of a clerked demand for the successful A.A. affiliate to accept the "repentant" role (Gusfield, 1967). This acceptance requires the rejection of one's recent past role performance, admission of transgression, and an avowal to "improve" one's future performance. The repentant role appears uniquely available within the context of American values, as they have been delineated by Williams (1960). Strong emphases upon self-reliance and self-control exist simultaneously with an emphasis on humanitarianism - allowing the wrongdoer to "return to the fold." In becoming affiliated with A.A. , the alcoholic renounces his previous behavior, his irresponsibility and his drunkenness. At the same time he vows to attempt conformity to norms of self-reliance, self-control, and sobriety.

Entrance into the repentant role requires both guilt over one's past behavior and recognition of one's deviance. Guilt and a "self-reaction" to transgression are mutually interdependent, in that either can precipitate the other: a proneness to guilt can accelerate a self-reaction; a self-reaction can accentuate guilt (Roman and Trice, 1969).

Previous research infers guilt-proneness and clearly indicates the occurrence of "hitting bottom" or recognizing one's transgressions as differentiating A.A. affiliates from non-affiliate alcoholics. Stern and Pittman, as quoted by Gynther and Brilliant (1967), report A.A. members are "More self-deprecatory" while at the same time holding "loftier ideals than controls." This extant discrepancy between behavior and ideals is compatible with an hypothesis of guilt-proneness. Similarly, Mindlin (1964) found significantly lower self-esteem among A.A. participants when contrasted to non-participants. On the other hand, Canter (1966) did not find significant differences in intrapunitive orientations between those who chose A.A. and those who chose other treatment modalities.

The conclusions of all these studies are tenuous, however, since the researchers did not employ longitudinal designs or use the criterion of successful affiliation rather than attraction to A.A. It should be noted that early stage participation in A.A. includes a heavy emphasis upon guilt and moral examination (The A.A. Fourth Step: "We made a searching and fearless moral inventory of ourselves"); data on guilt collected during this period might thus be contaminated.

Proposition IV. Successful A.A. affiliates are significantly characterized by intensive labeling by mandated societal agents.

This proposition stems from data on the closely related self-perceptions of "hitting bottom" or experiencing a "self-reaction" to one's deviance. Trice (1957) found successful affiliates believed they had arrived at a "turning point" in their lives previous to affiliation. This may have been a consequence of their relative isolation from their previous drinking groups (i.e., their extreme deviance had generated their rejection from the group or intervention by police or medical authorities had disrupted the group's structure). Furthermore, the successful affiliates were found by Trice to be relatively disengaged from such institutions as the family and the church so that A.A. had little "Competition" from other social networks.

An earlier study by McMahan (1942) yielded similar results. He found unsuccessful affiliates were clearly characterized by an inability to recognize the extent of their deviance, this being in part a function of their lacking the "degradation" experiences which were prominent in the recent histories of the successful affiliates. Edwards et al. (1967) also found a greater number of "severe" consequences of excessive drinking among successful A.A. affiliates, although the differences between them and non-affiliates were not in all cases significant. Likewise, in their comparative study of A.A. affiliates and hospitalized alcoholics, Trice and Wahl (1958) revealed significantly greater "complications due to drinking" among the affiliates. Mindlin (1964) found those who had begun affiliation with A.A. showed significantly greater "motivation to change" than non-affiliates, with "motivation" focused primarily upon dissatisfaction with one's current social roles and behavior.

Although not based upon representative samples of alcoholic patients, Tiebout's (1961, 1965) clinical observations of the necessity of "crisis" and "surrender" for initiating successful treatment of alcoholism bears mention. He argues that an intense form of "hitting bottom" and dissatisfaction with one's self and behavior are essential in setting the stage for behavioral change. Tiebout (1961) explicitly points to A.A. as a very effective milieu for this "surrender."

Other data indicate the finding of a high prevalence of "hitting bottom" among successful affiliates may be in part a consequence of the affiliation experience. Canter's (1966) study of the characteristics of patients choosing different types of therapy revealed a significantly greater acceptance of drinking problems and recognition of the need for change among those choosing disulfiram (Antabuse) or group therapy as compared to those who

chose A.A. On the other hand, Palola et al. (1961), who compared active alcoholics with A.A. members, found significantly greater acceptance of social roles and their "lot in life" among A.A. members, although they indicate a significantly greater acceptance of their problems with alcohol. Finally, Trice and Roman (1969) have pointed out that the social processing system within A.A. requires an emphasis upon "hitting bottom" and the length of the downward social mobility "trip" previous to affiliation, this in some cases resulting in an exaggeration of such experiences. The emphasis upon downward mobility is argued to be essential for the social "comeback" which is the core of A.A. success.

A precursor and correlate of "hitting bottom" may be the social experiences of "labeling" which mark the progressive development of psychophysiological addiction to alcohol. The sociological "labeling theory" basically holds that the course of a deviant "career" is determined in large part by the social reactions to the deviant actor (Becker, 1962; Lemert, 1951). Those who came to be clearly defined as deviants by the community, quite aside from the "intensity" of their original deviance, may undergo changes in self-concept and undertake patterns of differential association with fellow deviants such that their "careers" may become relatively permanent.

The intensity of the social reaction to a deviant and the isolation he experiences from "normal" society as a consequence of these social reactions are hypothesized to affect the clarity with which he regards himself as a deviant. This self-perception also may accentuate his realization of the extent of his transgression from the norms of the community. Thus those who have experienced intense labeling may be better candidates for "hitting bottom" and be more apt to admit their need for behavioral change. Intense labeling as a deviant may serve to accelerate "hitting bottom" or to "raise the level of bottom." Considering the proposition of a preponderance of middle class backgrounds among successful affiliates, it appears that intense labeling may more rapidly precipitate a recognition of transgression among those with a middle class background than would be the case among lower class persons whose normative backgrounds might be more compatible with deviance and deviant careers (Miller and Riessman, 1961).

Other than the extensive material on "hitting bottom" reviewed above, there are few data from previous research directly relevant to this formulation. In a study of A.A. success in Texas, "Bill C." (1965) found that over two-thirds of the successful affiliates had been hospitalized, this process being clearly reflective of a societal labeling and isolation process. Likewise, Bailey and Leach (1965) found nearly half of the successful affiliates in New York City had experienced hospitalization for alcoholism. Edwards et al. (1967) revealed 60 per cent of successful affiliates in London experienced hospitalization for their disorder. Conclusions from these data are problematic, however, since the studies do not include comparisons with the extent of hospitalization in an entire population of alcohol addicts. Furthermore, an early study (McMahan, 1942) indicated an average of 4.3 hospital admissions among unsuccessful affiliates as compared to 3.0 admissions among the successful affiliates. Finally, in a study focused on the

intensity of labeling among schizophrenics, no significant social differences were found across six groups representing different levels of intensity (Roman and Trice, 1967).

Proposition V. Successful affiliates are significantly characterized by social and physical stability previous to affiliation attempt.

Because of the requirement that affiliates return to successful role performances as part of their A.A. "success," considerable advantage would be gained from previous experience in such statuses. Thus those who had occupied "normal" roles in the job, family and community before the development of their addiction would presumably have better opportunity structures for return to successful functioning than those whose entire social histories were marked by instability.

Related to this is the degree of physiological damage rendered by the addiction process. Those who have been gravely impaired by alcohol by the time they enter treatment will have greater difficulty resuming the normal role performances required by successful affiliation than those who are relatively healthy.

Edwards et al. (1967) replicated the use of the social stability scale developed by Straus and Bacon (1951) and based upon occupational, residential and familial stability. Data on 217 male A.A. members in London revealed a mean social stability score of 2.5 at the time of affiliation. Although Edwards et al. did not employ a comparison group directly, they compared their data with that revealed in studies of the social stability of hospitalized alcoholics. Davies et al. (1956) reported a mean social stability score of 1.5 while Edwards (1965) found a mean of 2.4 among hospitalized patients. The numbers of respondents in the latter two studies were small (N=39, N=40), reducing the legitimacy of comparison. The trend does however indicate greater stability on the part of A.A. members at the time of affiliation. McMahan's (1942) study of affiliates and non-affiliates clearly indicated a greater degree of economic success among the affiliates. Finally Trice (1957) revealed a trend toward greater residential stability previous to addiction among successful affiliates as contrasted to those who were unsuccessful. These three studies comprised the only data on the pre-affiliation social stability of A.A. affiliates.

Proposition VI. Successful A.A. affiliates are significantly characterized by background and membership in the middle class.

Origin in the middle or upper social class is neither a necessary nor sufficient condition for the type of social stability discussed above. Such a background does however increase the opportunities for social stability. Not only is a broader range of occupational and community roles available to those from the middle class as a consequence of skills acquired during socialization, but also the values internalized during his upbringing motivate the member in the middle class in the direction of accepting these role responsibilities. Thus those of middle class origin appear to have greater opportunities for social class stability which in turn increases their chances for the "comeback" required in successful A.A. affiliation.

An equally relevant concern is the middle class nature of the interaction processes within A.A. Not only does the emphasis upon

the "comeback" reportedly underline central American values which by inference are middle class (Trice and Roman, 1969), but the verbal skills and "talking" therapy that are central to A.A. are more compatible with a middle or upper class background (Bailey and Leach, 1965). Furthermore, as Lemert (1951) infers, greater motivation for successful A.A. affiliation may be found among middle class alcohol addicts since their alcohol-related behavior has generated a greater degree of deviance from role expectations than is the case among lower status addicts.

Research data clearly indicate the socioeconomic backgrounds of A.A. members to be skewed towards the middle class. The clearest measures of social class of origin are those based on the subject's father's social class characteristics. None of the previous researchers in this area employed this technique; however their data do indicate without contradiction the significant presence of middle class experiences and value orientations in A.A. populations.

McMahan (1942) compared successful affiliates with non-affiliates and found higher levels of education and economic status among the former group. Trice and Wahl (1958), in comparing the characteristics of A.A. affiliates with hospitalized alcoholic non-affiliates, revealed a preponderance of white collar workers, higher educational levels, and higher income levels previous to addiction in the affiliate sample. Mindlin (1964) found significantly higher education levels among those who had initially affiliated with A.A. in contrast with non-affiliates.

Although not employing comparison groups, two other studies have indicated a large proportion of members of the middle class in affiliate populations. Using a five level classification, Edwards et al. revealed 86 percent of their sample of A.A. affiliates in London to be members of Classes I, II, and III. Likewise, Leach (1968) reported 73 percent of his sample of A.A. affiliates in New York City to be employed in white collar occupations. These data may be compared with those revealed in Straus and Bacon's (1951) study of 2,023 male alcoholic clinic patients comprising a sample fairly representative of treated alcoholics. Fifty-six percent of these patients had their "most recent steady job" in a blue collar occupational category and 46 percent had had a preponderance of their earlier jobs in blue collar categories. Thus affiliate populations are much more middle class than alcoholics in general.

A final caveat is in order before turning to the method and results. Like most research problems in social science, that of affiliation with A.A. has not been approached with the method of careful replication of research designs within various sampling frames. Thus previous research on this problem has not been cumulative in a strict sense. None of the studies has been conducted within a population that can be legitimately considered representative of all alcoholics or of all A.A. affiliates. Furthermore, the A.A. samples employed have not been uniform in terms of the extent of affiliation; these differential "starting points" further reduce the legitimacy of comparisons. Finally, it should be pointed out that the six propositions presented here are intertwined and at least partially interdependent. Their separation is for purposes of conceptual clarity.

Method

Data were collected from 378 white males admitted to a large state hospital in Maryland between 1960 and 1963 with a primary diagnosis of alcoholism. This comprised the entire white male alcoholic hospital population during this period. Demographic data indicate it was not a definitely not a "skid row" population, with the patients being mainly of middle class origin and having occupational histories typical of the middle and lower-middle social strata. This represented the first hospitalization for 53 per-cent of the research population.

Data were collected at the time of admission to the hospital, previous to any systematic contact with A.A.. In the hospital the patients were exposed to a sociotherapeutic treatment regimen, which may be summarily characterized as the "therapeutic community" approach. Exposure to A.A. and its therapeutic strategy was relatively intense, and opportunities to develop and continue affiliation with A.A. as a means of maintaining sobriety subsequent to discharge were emphasized. Many of the therapists and other staff in the alcoholism unit were members of A.A.

Data were collected on admission on a battery of 81 variables, of which 26 were social-demographic variables and 55 were psychological. The social-demographic sub-battery included educational, occupational, and familial items, drinking history, and adjustment previous to hospitalization. The psychological variables included: (1) scores on the *Minnesota Multiphasic Personality Inventory* scales; (2) scores on the factors derived from the *Cattell Sixteen Personality Factor Questionnaire;* factor scores from the *Clyde Mood Scale,* a descriptive forced-choice card sort designed to tap subjective feelings of the patient and psychiatric impressions; (4) verbal score on the *Wechsler Adult Intelligence Scale;* and (5) electroencephalogram (EEG) rating.

Patients were interviewed modally 18 months after discharge. Those who had been attending A.A. consistently for at least twice a week for a year were considered to be fully affiliated; i.e., were "succeeders."

The statistical method employed provides both the opportunity for testing hypotheses as well as actuarial information on the best predictors of success in a particular post-hospital maintenance regimen, in this case affiliation with A.A. Stepwise multiple regression analysis allows for competition within an array of possible predictors to produce the "best" set or combination of predictors of a given criterion or dependent variable. Variables cease to be added to the array of predictors when the F-ratio falls beneath the level required for statistical significance, in this case the 0,05 level.

The final array of predictors provide a profile of the "succeeders" in the circumstances of using multiple regression to predict a particular treatment outcome. Thus hypotheses may be tested by comparison with the array of significant predictors in this profile as well as by comparison with relevant variables among the non-predictors. Furthermore, the variables appearing on the predictive array may be employed by hospital administrators for the

preselection of patients for different treatment regimens, this in turn leading to an improvement in the overall treatment "success" rate.

Results

The results of the stepwise multiple regression analysis are indicated in Table !. The battery of significant predictors is comprised primarily of psychological variables. Together the battery of 24 variables accounts for 36 percent of the variance in the dependent variable, successful A.A. affiliation. We now turn to an examination of the six propositions, comparing them to the profile of a successful affiliate revealed in the array of predictors, and examining the relevance of the non-predictors for the validity of the hypotheses.

Affiliation Needs: The first proposition was a prediction that affiliative needs and group dependency would significantly characterize successful A.A. affiliates. Supporting this proposition are the presence of five significant correlates among the array of significant predictors in Table 1:(1) a positive correlation with Factor H of the Sixteen Personality Factors, indicating an individual who is friendly, responsive, and adventuresome; (2) a positive correlation with the patient's "friendly" sort on the Clyde Mood Scale, indicating a self-conception of being good-natured, pleasant, kind and warm hearted;

Table 1. *Predictors of successful Alcoholics Anonymous affiliation ($p < 0.05$)*

Predictor	Direction of correlation	Cumulative coefficient of multiple determination (R^2)
1. "Depressed" on psychiatrist's sort of Clyde mood scale	Negative	0.027
2. Factor O of the 16 personality factors	Positive	0.056
3. Factor F of the 16 personality factors	Negative	0.077
4. Factor H of the 16 personality factors	Positive	0.111
5. History of sibling alcoholism	Negative	0.132
6. "Friendly" on patient's sort of Clyde mood scale	Positive	0.155
7. Scale Am of the MMPI	Positive	0.174
8. "Aggressive" on psychiatrist's sort of Clyde mood scale	Negative	0.187
9. Number of prior state hospitalizations	Positive	0.202
10. Age at time of present hospitalization	Negative	0.214
11. Estimated years of alcoholism	Positive	0.228
12. American nativity generation of patient	Negative	0.241
13. Factor Q_2 of the 16 personality factors	Positive	0.254
14. Factor I of the 16 personality factors	Positive	0.270
15. Factor B of the 16 personality factors	Positive	0.278
16. Scale A of the MMPI	Positive	0.288
17. Occupational level of patient's father	Positive	0.297
18. "Sick" on psychiatrist's sort of Clyde mood scale	Positive	0.306
19. Prior exposure to alcoholism in family of orientation	Positive	0.318
20. Estimated health prior to present hospitalization	Positive	0.329
21. Time of follow-up contact	Negative	0.336
22. EEG pathology rating	Negative	0.344
23. "Aggressive" on patient's sort of Clyde mood scale	Negative	0.351
24. Scale D of the MMPI	Negative	0.359

(3) a negative correlation with the psychiatrist's "aggressive" sort of the Clyde Mood Scale, indicating an orientation to the feelings of others; (4) a positive correlation with Factor I of the Sixteen Personality Factors, indicating an individual who is effeminate, gentle, sensitive, and kindly; and (5) a negative correlation with the patient's "aggressive" sort of the Clyde Mood Scale. Although none of these factors taps directly into group dependency, together they indicate a profile of an individual whose makeup is clearly compatible with group affiliation as well as the demands for intense interpersonal sharing of emotions required by A.A. These correlates are very similar to those revealed in research on affiliative needs reviewed above.

However, the support for the proposition is not unequivocal. The revealed significant positive correlation with Factor Q_2 of the Sixteen Personality Factors indicates and individual who is self-sufficient and resourceful; a negative correlation with this scale would have indicated group dependency. Turning to the non-predictors, Factor A of the Sixteen Personality Factors is associated with sociability and interpersonal warmth; a significant positive association with this variable did not emerge. Likewise, the Si Scale of the MMPI measures social introversion and the expected significant negative association with this variable was not revealed. Furthermore, a significant positive association with the psychiatrist's "friendly" sort of the Clyde Mood Scale was expected and not revealed. Finally, a negative association with scale Mf of the MMPI indicates femininity and also did not appear.

However in, summary, this proposition appears to receive considerable support. Of the ten predictors associated with affiliation, five emerged as significant.

Ego Strength and Self-Reliance: The second proposition was the prediction of significant ego strength and self-reliance among successful A.A. affiliates. Of the six predictor variables used to measure ego strength and self-reliance, only two emerged as significant predictors. The significant positive association with Factor Q_2 of the Sixteen Personality Factors indicates an individual who is self-sufficient and resourceful. Likewise, the significant positive correlation with Factor B of the Sixteen Personality Factors indicates an individual who is conscientious, persevering, and intelligent.

Of the six possible predictors, the four which did not appear measure ego strength more directly than those which did emerge. Scale Es of the MMPI is a specific measurement of ego strength and was not revealed in the array. Likewise with Factor C of the Sixteen Personality Factors, also a direct measure of ego strength,. Factor G of the Sixteen Personality Factors is a measurement of superego strength and maturity and also did not appear. A positive association with Factor Q_3 of the Sixteen Personality Factors indicates an individual who is controlled, exacting, and who possesses a high degree of will power.

Therefore, with six possible predictors related to this proposition and only two emerging as significant, it does not appear that ego strength is a significant predictor of successful A.A. affiliation.

Proneness to Guilt:: The third proposition was a prediction of a significant degree of guilt-proneness among successful A.A. affiliates. Of the four predictors directly related to guilt-proneness which were included in the battery, two emerged as significant. The strong positive association with Factor O of the Sixteen Personality Factors indicates an individual who is guilt-prone, insecure, worried, and anxious. Likewise, the positive association with Scale A of the MMPI indicates an anxious individual.

However, a positive significant association was also expected with Scale K of the MMPI, indicating an individual who is characterized by self-criticism, and a positive association with Factor G of the Sixteen Personality Factors, which indicates superego strength and a strong sense of responsibility.

Finally, the significant negative correlation with depression indicated on the psychiatrist's sort of the Clyde Mood Scale and the significant negative correlation with Scale D of the MMPI are the reverse of the expected associations. However, it may be inappropriate to assume a direct association between guilt-proneness and depression, since the former may be functional as a motivating factor while the latter indicates a state of despair and inability to resolve one's difficulties (Beck, 1967).

Thus with two of the four possible direct predictors emerging as significant, this proposition is tentatively supported.

Intensive Labeling: The fourth proposition was a prediction that successful A.A. affiliates would be significantly characterized by intensive labeling by mandated societal agents. Of the four variables included in the array of predictors to measure this phenomenon, three emerged as significant. A significant positive correlation with the Holmes Scale Am of the MMPI indicates in part a self-conception of oneself as alcoholic (BUtton, 1956). The positive association with the number of previous state hospitalizations also is an index of contact with labeling agents. Although less direct, the significant positive association with years of alcoholism also is supportive of this proposition.

The one predictor expected which did not appear in the final array was the number of arrests, a direct indicator of contact with labeling agents.

Thus with three of a possible four predictors emerging as significant, this proposition is supported.

Physical and Social Stability: The fifth proposition was a prediction of greater physical and social stability at the start of hospitalization among those who subsequently became successful A.A. affiliates. The three variables tapping physical stability all emerged among the array of significant predictors. A significant positive association with estimated prior health and a significant negative association with EEG pathology rating were both revealed. Furthermore, a significant negative association with age at the time of admission is individually supportive of the proposition, assuming a rough negative correlation between age and overall health.

The significant positive correlation with the "sick" sort of the psychiatrist on the Clyde Mood Scale is in the opposite

direction from that expected, and indicates a patient who is dizzy, nauseated, shaky and jittery. This may however be a measure of anxiety rather than physical health.

Of the three predictors associated with social stability prior to admission, none emerged as significant. These variables were indices of marital stability, occupational adjustment, and residential stability.

Thus the data indicate clear support for the first portion of the proposition, the degree of physical stability prior to admission, but do not support the second portion, social stability prior to admission.

Middle Class Background: The sixth proposition was a prediction of a significant degree of middle class background and experience among successful affiliates. Of the five variables indicative of such experience, two emerged as significant, but one of these was in the opposite direction from that expected. A positive association with the level of the patient's father's occupation was revealed, but a negative association with generation of nativity appeared.

The three predictors associated with middle class experience which did not emerge as significant were level of the patient's occupation, his educational level, and his estimate of the economic condition of his family of orientation.

Therefore, although one of the five predictors emerged as significant in the expected direction, the absence of other predictors indicates a lack of support for this proposition.

Unrelated Predictors: Three predictors emerged in the array of significant variables which are relevant to none of the six propositions. These were: a negative correlation with the occurrence of sibling alcoholism, a positive association with the degree of overall exposure to alcoholism in the families of orientation and procreation, and a negative association with the time of follow-up contact. The former two predictors appear to partially cancel one another out. The latter predictor may be related to the degree of social stability subsequent to treatment, since those in stable social positions were more visible to follow-up interviewers than those who had entered unstable social contexts.

Discussion

Table 2 provides a summary of the degree to which the expected predictors were revealed in support of each proposition. Of the six propositions, three were supported, two received little support, and a portion of one received support. Taking these patterns into account as well as the other variables which emerged in the final array of predictors, the successful A.A. affiliate is characterized by affiliative and group dependency needs, a proneness to guilt, considerable experience with social processes which have labeled him as deviant, and relative physical stability at the same time of entrance into treatment. Ego strength, social stability at the time of entrance into treatment, and a middle class background are not significant characteristics of successful affiliates.

Table 2. *Expected and revealed predictors of successful A. A. affiliation*

Proposition	Expected predictors	Revealed predictors
I. Affiliation needs	Scale Mf of MMPI (−)	No
	Scale Si of MMPI (−)	No
	Factor A of 16 PF (+)	No
	Factor H of 16 PF (+)	Yes
	Factor I of 16 PF (+)	Yes
	Factor Q_2 of 16 PF (−)	No
	Clyde pt. aggressive (−)	Yes
	Clyde psy. aggressive (−)	Yes
	Clyde pt. friendly (+)	Yes
	Clyde psy. friendly (+)	No
II. Ego strength	Scale Es of MMPI (+)	No
	Factor B of 16 PF (+)	Yes
	Factor C of 16 PF (+)	No
	Factor G of 16 PF (+)	No
	Factor Q_2 of 16 PF (+)	Yes
	Factor Q_3 of 16 PF (+)	No
III. Guilt-proneness	Scale A of MMPI (+)	Yes
	Scale K of MMPI (+)	No
	Factor G of 16 PF (+)	No
	Factor O of 16 PF (+)	Yes
IV. Intensive labeling	Scale Am of MMPI (+)	Yes
	Number of hospitalizations (+)	Yes
	Years of alcoholism (+)	Yes
	Number of arrests (+)	No
V. Physical-social stability	Estimated prior health (+)	Yes
	EEG pathology (−)	Yes
	Age at admission (−)	Yes
	Marital stability (+)	No
	Residential stability (+)	No
	Occupational stability (+)	No
VI. Middle class experience	Father's occupational level (+)	Yes
	American nativity generation (+)	No
	Patient's occupational level (+)	No
	Patient's education level (+)	No
	Family's economic condition (+) (Family of orientation)	No

Each of the propositions was derived from previous research on affiliation with A.A.s mentioned previously, myriad designs were employed in previous research which reduces the validity of generalization. The present analysis differs from past studies by employing a specific criterion of actual affiliation with A.A. rather than attraction to the program or initial attempts at affiliation.

Furthermore, the use of a multiple regression strategy allows for specification of the strength and significance of certain characteristics; analyses based on the comparison of the characteristics of successful and unsuccessful affiliates indicate differences between the groups, but the predictive value of these differences is largely unknown. Thus if a statistical strategy of

comparison had been employed in the present analysis, all of the propositions might have been supported if the successful affiliates had been found to significantly differ in the predicted direction. However, this would not have indicated the relative importance of the numerous variables.

Looking at the data from a different perspective, psychological and physical characteristics appear to be better predictors of successful A.A. affiliation than sociological traits. Of the 24 significant predictors, only seven were primarily sociological.

This in turn indicates that certain personality traits, most of which may be regarded as relatively fixed outcomes of socialization experiences, are more crucial for successful A.A. affiliation than sociological background characteristics. This stands in considerable contrast to the criticisms of A.A. which indicate that a middle class background and social stability are essential for successful affiliation. This analysis indicates that although social experiences such as "hitting bottom," labeling, and acceptance of a self-definition of alcoholism may be necessary conditions for affiliation, they are far from sufficient, in light of the predictive prominence of the psychological traits of affiliative needs and proneness to guilt.

Finally, it is obvious that the propositions considered in this study are interrelated and it is inappropriate to assume the variables to be discrete. Further research on the process of successful affiliation with A.A. that focuses upon the precedence and sequence of these factors would provide a more clerked description and explanation of successful affiliation.

A clear implication of these results is that the determinants of success in sociotherapeutic regimens are not necessarily "social" but are in large part a function of personality predispositions. The design and evaluation of sociotherapeutic tactics in community psychiatry presently appears to be devoid of such considerations, with emphasis placed almost totally upon sociological factors, particularly social class. The inclusion of psychological factors in the design of such programs appears important in filling apparent "blind spots" in understanding the dynamics of therapeutic success and failure.

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