RECOVERING ALCOHOLICS: DEPRESSION, ANGER, AND ASSERTIVENESS

A Thesis

by

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ABSTRACT

RECOVERING ALCOHOLICS: DEPRESSION, ANGER,
AND ASSERTIVENESS. (November 1983)

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A 2 x 3 factorial analysis of variance design was used to investigate the effects of Length of Sobriety and Relapse on depression, anger, and assertiveness. Measurements used to test the dependent variables were the Zung Depression Scale, Speilberger's Anger Expression Scale, and the Rathus 30 Item Schedule for Assessing Assertive Behavior. Two hundred twenty-one subjects who had completed the 28 day private inpatient program at Charlotte Treatment Center during the past 2 years and 8 months were used. All subjects carried the sole diagnosis of alcoholism and were presently experiencing sobriety, either continuous since their discharge or following a relapse. In addition to completing the test measurements, each subject completed a biographical data questionnaire which assessed their present status as well as aftercare involvement.

There was no significance found in Length of Sobriety and Relapse on the measures of anger and assertiveness. A significant

interaction ($p < .01$) was found between Length of Sobriety x Relapse on the measure of depression. Subjects who had less than 4 months sobriety following a relapse had higher depression scores than those subjects who had not experienced a relapse during the same time period.

Alcoholics Anonymous was used as a support program by 79.6% of the subjects with the mean number of meetings per month for all subjects at 10.56. Significant difference ($p < .01$) was found between the Relapsers, who attended an average of 6.23 meetings per month during the first 3 months of sobriety and the Nonrelapsers who averaged attending 16.27 meetings during the identical time period. Intense initial involvement with AA seems to be related to the probability of continuous sobriety after discharge.

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REVIEW OF LITERATURE

Over the years different theories regarding alcoholism and its treatment have surfaced. Jellinek (1960) advocated the disease concept of alcoholism believing that loss-of-control drinking occurs whenever the alcoholic consumes even a small amount of alcohol. The presence of alcohol in the bloodstream is thought, by Jellinek, to trigger a physiological addictive mechanism experienced by the drinker as an irresistible craving for more alcohol. Thus loss-of-control drinking is viewed as an involuntary symptom of an addictive disease. There are those, however, who believe that some alcoholics can return to controlled or nonproblem drinking. Sobell and Sobell (1982) suggest that persons who have less serious drinking problems on their entry into treatment are more likely to acquire a post-treatment pattern of nonproblem drinking. This belief is also supported, in part, in the "Rand Report" (Armor, Polich, & Stambul, 1976) which suggests that controlled drinking may be a more appropriate goal than abstinence for individuals who are not severely physically dependent on alcohol. The report also states, however, that for those individuals who are older and show signs of chronic physical dependence, abstinence may be the treatment goal of choice. The development of contemporary behavioral programs (Hay & Nathen, 1982; Marlatt, 1979; Miller & Mastria, 1977) teach individuals not only controlled-drinking skills but also intervention strategies.

These strategies include the development of alternative responses to situations that might otherwise lead to excessive drinking, cognitive restructuring, stress management training, and life-style change.

As the years passed, however, it became obvious that just attaining abstinence was not the final answer as a large portion of treated and abstinent alcoholics would return to drinking after a period of time. Apparently abstinence alone did not assure a positive outcome in other areas of functioning (Gerard, Saenger, & Wile, 1962; Foster, Horn, & Wanberg, 1972; Cronkite & Moos, 1980; Finney, Moos, & Mewborn, 1980). Just like the progressiveness of alcoholism, recovery is also progressive (Kurtines, Ball, & Wood, 1978). In light of the nature of recovery, it becomes especially imperative to look at the stages of recovery, the difficulties that alcoholics can experience during recovery, how they cope with these difficulties as well as what the alcoholic finds most helpful in assisting him or her to remain in the recovery process without a return to drinking.

In a 2½-5½ year follow-up study, van Dijk and van Dijk-Koffeman (1973) contrasted the physical health, mental condition, housing, social adjustment, and family, work and financial situations of 65 patients who became abstinent or returned to infrequent, minimal drinking with those of 135 patients who continued to experience frequent episodic alcohol abuse. On each of these parameters the abstinent patients tended to improve while patients who continued to abuse alcohol deteriorated in physical, mental, or social respects.

In a similar study by Pokorny, Miller, and Cleveland (1968) the postdischarge life adjustment of 22 abstinent patients was compared with three matched groups of patients with increasingly severe current drinking histories. In every category of life adjustment, the abstinent patients fared best and the heaviest drinkers fared worst. Abstinence was associated with progressive social improvement, whereas continued alcohol abuse was associated with progressive deterioration of social, occupational, and physical well-being.

Kish and Hermann (1971) conducted a follow-up study of patients who had completed an 8 week inpatient program which was oriented primarily around Alcoholics Anonymous (AA) concepts, lectures, and taped discussions on alcoholism, films, and discussions relevant to alcoholism. Follow-up was done at 3, 6, and 12 month intervals. Of the 173 patients, 22% were much improved (abstinent 14.5%, one relapse 7.5%) at the end of 12 months. They found positive relationships between improvement and marital status, employment, and AA attendance.

In 1962, Gerard et al., completed a follow-up study of alcoholics who had been seen at outpatient clinics 2, 5, and 8 years after initial intake. One of the groups of patients they studied was those individuals who had been abstinent for at least 1 year prior to follow-up. From this abstinent group they formed four subgroups: the Overtly Disturbed, the Inconspicuously Inadequate Personality, Alcoholic Anonymous successes, and Independent successes. The overtly Disturbed made up 54% of the abstinent group; their complaints ranged from tension, anger, dissatisfaction,

resentfulness, aggressive attitudes, inability to relax, avoidance of conflicts, or overtly psychiatrically ill. Although this is a high percentage of unstable abstinent alcoholics, it should be noted that they were not screened for other disorders prior to intake for alcoholism. The subgroup of the Inconspicuously Inadequate Personalities, 24%, was characterized by meagerness of their involvement with life and living. While there was nothing grossly wrong in their lives, there also was no positive sense of excitement, purpose, or interest in life. The subgroup Alcoholic Anonymous successes, 12%, consisted of those who had made a spectacular shift in their lives through a successful identification with AA. They had acquired a sense of purpose and value in life through their AA membership, which strongly encouraged the totality of their lives, their family relationships, and their occupational adjustment. The fourth group, 10% of abstainers, were the Independent successes who had achieved a state of self-respecting independence, of personal growth and self-realization independently rather than through the AA group processes. Even though Gerard et al. have identified different "coping" styles of abstinence, the group as a whole still functioned better than those alcoholics still drinking.

Active alcoholism hinders the total life situation of the individual, his or her physical health, his or her ability to obtain and keep a job, to sustain a family, and to engage in satisfactory social relations inside and outside the family. Although an alcoholic may become abstinent, he or she may not be functioning better or well in other areas of his or her life. The alcoholic may be no

better prepared to cope with the demands of work and family than he or she was during the course of his or her active drinking (Vaillant, 1983; Foster et al., 1972).

Foster et al. (1972) have speculated that such posttreatment experiences in the family environment, stressful life events, and corresponding coping responses are important influences on a patient's adjustment after discharge from a residential program. They claim that abstinence, like alcoholism, is a unitary phenomenon affecting all aspects of a person's life pattern in an interdependent fashion. Hore (1971) reported a slight temporal association between significant life events and relapse on a small sample (14) of alcoholic patients.

Finney et al. (1980) examined the group level stability of 113 posthospitalized patients from five residential treatment programs at 6 month and 24 month intervals following discharge. Drinking measures and other indices of treatment outcome (physical symptoms, depression, social functioning, and occupational functioning), as well as the stability of such other factors as family social environment, family functioning, positive and negative life change events, and work environments were examined. They found that patients who experienced more posttreatment stressors or negative life change events showed poor treatment outcome. In general, there was greater overlap among drinking, physical symptoms, and depression than among drinking and social and occupational functioning. This pattern suggests that a reduction in drinking tends to be

associated with improvement in intrapersonal or endogenous domains, but is less closely tied to improved exogenous functioning.

Stressors and coping responses were found to be strongly related to outcome two years after treatment in a study conducted by Cronkite and Moos (1980). The findings imply that for certain types of outcome criteria, the occurrence of stressful events, such as death of a family member, marital conflict, separation, and legal or financial problems, may trigger a relapse, whereas the use of positive coping mechanisms may facilitate the recovery process. Cronkite and Moos believe that this delicate interplay between a patient's functioning and such posttreatment factors points to the importance of offering treatment aimed at helping patients minimize the likelihood of stressful situations where possible and developing coping skills for effectively dealing with problematic situations.

Litman, Eiser, and Rawson (1977) outlined the results of an empirical investigation into alcoholic relapse. The results of a "principal components" analysis indicated that there was a direct interaction among situations which are dangerous for the alcoholic in that they may precipitate relapse, the availability of coping strategies within the individuals repertoire to deal with these situations, and the effectiveness and appropriateness of these coping behaviors. Dangerous situations were described as unpleasant mood states such as anxiety or depression, external situations and euphoric feelings, social anxiety, and lessened cognitive vigilance and rationalizations.

Kurtines et al. (1978) studied two groups of abstinent alcoholics, a short-term or dry recovered group who had at least 3 weeks but less than 4 months abstinence and a long-term or sober recovered group who had a minimum of 4 years continuous abstinence and a mean length of abstinence being 8.9 years. All members of the sober group were active participants in AA. These two groups were compared with a nonalcoholic control group. The California Psychological Inventory (CPI) and a biographical data sheet were administered to all subjects. The short-term sober alcoholics exhibited an extremely depressed profile indicating a generally poor level of adjustment. The group was characterized by strong antisocial tendencies and impulsiveness; they also exhibited a sense of interpersonal inadequacy, low self-esteem, feelings of guilt, and self-blame. The long-term sober alcoholics, although socially inhibited, were relatively self-accepting, had a strong sense of well-being, and were free from excessive health concerns. The overall results of the analyses indicated the existence of differential patterns of adjustment and coping strategies at each stage of recovery.

Vaillant (1983) cites one of the problems regarding abstinence quite well:

> To give up the sick role and to be expected to function independently in a world for which they feel poorly prepared represents an enormous stress to both recovering alcoholics and consumptives. Once abstinent, the alcoholic may resemble a child who, having missed years of school due to physical illness, now returns in adulthood to the classroom. Not only are there problems of self-esteem, but there are also tangible deficits in life experience that must be made up. Both clinicians and recovering alcoholics report that emotional growth may stop or even regress during the years spent abusing

alcohol. Losses have gone ungrieved, social supports have gone untended; age-appropriate advances in occupational proficiency have not taken place. Even when family structure has remained intact, the alcoholic has often evolved into a stranger to his family. It is a small wonder that many alcohol clinic patients, when first sober, function poorly. (p. 215)

STATEMENT OF PROBLEM

The initial step in the treatment of alcoholism is the recognition by the alcoholic of his or her disease with the goal of acquiring abstinence. According to the disease model, alcoholism is not curable thus making the recovering alcoholic vulnerable at all times to having a relapse or a return to uncontrolled drinking. While an individual is drinking uncontrollably, he or she is likely to experience depression, problems being assertive or difficulty expressing anger in an appropriate manner (Gibson & Becker, 1973; Weingold, Lachin, Bell, & Coxe, 1968; Freedberg & Johnston, 1979; Hirsch, von Rosenberg, Phelan, & Dudley, 1978; Miller, Hersen, Eisler, & Hilsman, 1974). Once the alcoholic becomes abstinent these difficulties may not automatically resolve but rather the alcoholic may experience an intensifying effect since he or she no longer has alcohol to use as an anesthetic (Kurtines et al., 1978). In light of the difficulties encountered adjusting to sobriety, it would appear that a support program, such as AA, would prove beneficial. The alcoholic may be able to stay abstinent without a support program but the above mentioned problems are likely to remain.

In light of the alcoholic's vulnerability to relapse, it is important to examine what the recovering alcoholic considers most important in helping him or her maintain sobriety and how effective it is in the areas of depression, assertiveness, and anger

expression as well as the length of continuous sobriety that has been achieved. It is anticipated that the levels of depression, assertiveness, and anger expression will be significantly lower in those individuals with the longest continuous sobriety and who are actively participating in a support program such as AA than in those individuals with either short-term sobriety or those newly sober. Individuals who have maintained abstinence without an active support program are anticipated to have levels of depression, lack of assertiveness and anger expression similar to those who are newly sober or have short-term sobriety.

METHOD

Design

The design used was a 2 x 3 factorial analysis of variance. The independent variables were Relapsers and Nonrelapsers and Length of Sobriety (1-3 months, 4-12 months, and 13+ months). Several dependent variables were employed including measures of depression, assertiveness, anger expression, and a biographical data questionnaire aimed at assessing present status and aftercare involvement. In addition, there was a checklist which assessed factors associated with sobriety.

Subjects

Two hundred twenty-one subjects were used in this study. All subjects carried the sole diagnosis of alcoholism and had completed, during the past 2 years and 8 months, the 28 day private inpatient program for the treatment of alcoholism at Charlotte Treatment Center in Charlotte, North Carolina. This treatment center subscribes to the disease model of alcoholism and bases recovery on total abstinence and active involvement in AA following discharge. All subjects were voluntarily admitted and while there each attended lectures regarding the disease concept of alcoholism, group and individual therapy, and attended five AA meetings per week. While in treatment each subject completed the first 5 steps of the 12 step recovery program of AA. Family members were strongly urged to

attend the 4 day Family Program while their relatives were in treatment. Each family member was exposed to the disease concept of alcoholism, viewed educational films, attended group, individual, and family therapy, and attended Al-Anon. Upon discharge all subjects were urged to attend 90 AA meetings in 90 days; all were given the name of an AA contact person in their home community. Following discharge the subjects were asked to attend 10 weekly sessions of aftercare follow-up at Charlotte Treatment Center if at all possible. All subjects remained abstinent during treatment.

The samples were divided by the length of their continuous sobriety since discharge from the treatment center. Group I consisted of those who currently had 1 through 3 months of continuous sobriety. Group II consisted of those who currently had 4 through 12 months of continuous sobriety while Group III were those individuals who currently had 13 or more months of continuous sobriety. Each group was then divided according to whether or not their sobriety had been continuous since discharge, i.e., Relapsers and Nonrelapsers. All subjects were abstinent at the time the study was done. Individuals were excluded for the following reasons: diagnosis of drug addiction; dual addiction; organic brain syndrome or depression; deceased; discharged against medical advice (AMA); detox only; absence of signed release of information form; illiterate; overseas address. All subjects were between the age of 21 and 72 years with a mean age of 48.2 years.

Materials

A biographical data questionnaire was administered to all subjects. In addition to obtaining general background information, the questions were geared to obtaining specific information regarding their aftercare involvement since their discharge from the treatment center. Questions included their longest period of continuous sobriety since discharge, if they were currently sober, whether or not they had one or more relapses, if they attended AA, how frequently and finally a checklist asking each to specify the items most important in helping them maintain their sobriety.

In addition to the biographical data questionnaire, each subject completed three self-report personality measures which tested levels of depression, assertiveness, and anger expression. The Zung Depression Scale was selected due to its brevity (20 items), its reliance on the use of affective, vegetative, psychological signs and symptoms and the fact that it correlates .70 with the MMPI D scale (Zung, 1965). Certain safeguards are incorporated in the construction of this rating scale. The patient is unable to discern a trend in his or her answers because half of the statements are worded symptomatically positive and half are worded symptomatically negative. Additionally, an even rather than an odd number of columns is used to offset any possibility of a subject's checking middle columns in order to look average.

Chosen as the measure for assertiveness was the Rathus Assertiveness Scale (RAS), a 30-item self-report attitudinal measure that is based in part on questions previously used by Wolpe and Lazarus.

The instrument contains items that describe a variety of social situations requiring assertive behavior and a particular course of action within each of these situations. Subjects are asked to rate the extent to which the described behavior is typical of their own. Each statement is rated with a Likert Scale ranging from -3 ("very much not like me") to +3 ("very much like me"), which generates a range of scores from -90 to +90. Rathus (1973) has reported moderate to high test-retest (r = .77, p < .01) and split-half reliabilities (r = .77, p < .01) of the RAS, suggesting that the quality measured by the RAS possesses at least moderate homogeneity. In addition, Rathus has established the validity of the RAS by comparing self-reported RAS scores with two external measures of assertiveness.

The Anger Expression (AX) Scale (Spielberger, 1982) was chosen as the instrument to measure anger. This 20 item self-report questionnaire is a trait scale with two 8-item subscales for measuring Anger/In (suppressed) and Anger/Out (aggressive) and an Anger Expression score based on all 20 items. The range of possible scores on the AX-Total can vary from a minimum of 20 to a maximum of 80. On the Anger/In and the Anger/Out subscales the range of possible scores can vary from a minimum of 8 to a maximum of 32. The brevity of the questionnaire along with the four column range of answers which offsets the possibility of the subject trying to appear average were factors considered in the selection of this instrument.

Procedure

Approval to conduct this study was obtained from Charlotte Treatment Center. The Aftercare department at the treatment center

agreed to mail out the research instruments to all subjects who had been discharged upon completion of the 28 day inpatient program during the past 2 years and 8 months. Only subjects carrying the diagnosis of alcoholism were solicited. A cover letter, written on treatment center stationery, accompanied the questionnaire. Each subject was advised that completing the enclosed information would assist the treatment center in the future planning of aftercare services.

All mailings, which included a stamped, addressed return envelope, were mailed on the same day. At the end of approximately 2 weeks, a second letter was sent to a random sample of 50% of those subjects who had not yet returned their forms requesting them to do so as soon as possible. Data collection was terminated at the end of 6 weeks.

RESULTS

Survey Procedure and Response Rate

The charts of all patients who were admitted to Charlotte Treatment Center from January, 1981 through June, 1983 were reviewed. Only patients with the sole diagnosis of alcoholism who had completed the 28 day inpatient program were used. The remaining patients were excluded from this survey for the following reasons: diagnosis of drug addiction; dual addiction; organic brain syndrome or depression; deceased; discharged AMA; detox only; illiterate; absence of signed release of information form; overseas address.

On September 4, 1983 a cover letter from Charlotte Treatment Center explaining the purpose of the survey, the research instruments, and a stamped, addressed return envelope was mailed to 688 individuals.

On September 23, 1983 a second mailing including a follow-up letter from Charlotte Treatment Center and the above mentioned enclosures was sent to 227 individuals. This number was obtained by selecting alternating subjects from the remaining number who had not responded to the initial mailing. In that more subjects were needed to fill Group I (individuals with 1 - 3 months continuous sobriety), an initial mailing was sent to those individuals who had been discharged from Charlotte Treatment Center in July and August, 1983. The 38 individuals met the same qualifications as the 688 individuals

who received the September 4, 1983 mailing; they also were sent an identical letter and enclosures.

The total number receiving the initial letter and enclosures was 726. Those receiving a follow-up letter and enclosures totaled 256. A breakdown of the response rate is as follows: no response (384), returned for wrong address (52), refused to participate (4), questionnaires incomplete (20), drinking at time of completing survey (8), completed questionnaires returned past date of data collection (37), and completed questionnaires (221). Those completing the questionnaires within the assigned time (N = 221) were used in this study.

Demographic Data

Of the 221 subjects surveyed the mean age was 48.2 years with the total age range from 21 years to 72 years. Of the 157 males and 64 females the majority, 92.8%, were Caucasian while 5.9% were Black and .5% were classified as Other. One subject declined to answer the question of race. The majority, 79.6%, were employed; 20.4% were either unemployed or retired. The mean educational level attained was 13.8 years. Marital status was composed of 67.9% married, 14.9% divorced, 5.0% presently separated, and 12.2% single. Subjects listing no change in marital status since discharge equaled 88.2%. Of the 11.8% indicating a change in marital status since discharge, the changes were cited as separation, divorce, death of spouse, improved or worsened marital conditions, or remarriage. Those subjects having had no previous treatment prior to Charlotte Treatment Center totaled 77.8%; 22.2% had experienced previous

treatment for alcoholism. The majority of respondents, 63.3%, had one or more family members attend the Family Program during their treatment; 36.7% had no family involvement. Seeking additional treatment after discharge was cited by 4.1% while the majority, 95.5% did not receive further treatment. AA was attended by 79.6% of those surveyed while 20.4% cited nonattendance. The number of AA meetings attended per month ranged from 1 to 60 with the mean being 10.5. Those subjects using an AA sponsor totaled 52.0%; 48.0% did not use an AA sponsor. Subjects working the Twelve Steps of AA totaled 72.9%; 27.1% were not working the Steps. Professional counseling since discharge was used by 12.7% while 87.3% had not sought counseling. At the time of the survey all subjects were experiencing sobriety; however, 24.9% had experienced one or more relapses since discharge. The majority of subjects, 75.1%, had experienced continuous sobriety since discharge. The mean length of time for all subjects since discharge was 15.8 months.

Dependent Variables

Depression. The Zung Depression Scale was used to measure levels of depression in Relapsers and Nonrelapsers over the length of their continuous sobriety. The main effect of Length of Sobriety, $F(2,212) = 1.83$, $p = .16$ and the two-way interaction of Length of Sobriety and Relapse, $F(2,212) = 1.01$, $p = .37$ were not significant. Table 1, Appendix E, contains the ANOVA summary data as well as the means and standard deviations for the groups.

The main effect of Relapse on depression was significant, $F(1,212) = 8.57$, $p < .01$. The overall mean depression score was

31.65 while means for Relapsers and Nonrelapsers were 34.66 and 30.69 respectively. As can be seen in Figure 1, the larger differences occurred in Group I which represents 1 - 3 months of continuous sobriety. In Group II and III, the Relapsers had an overall higher level of depression than the Nonrelapsers; however, the magnitude of differences was small.

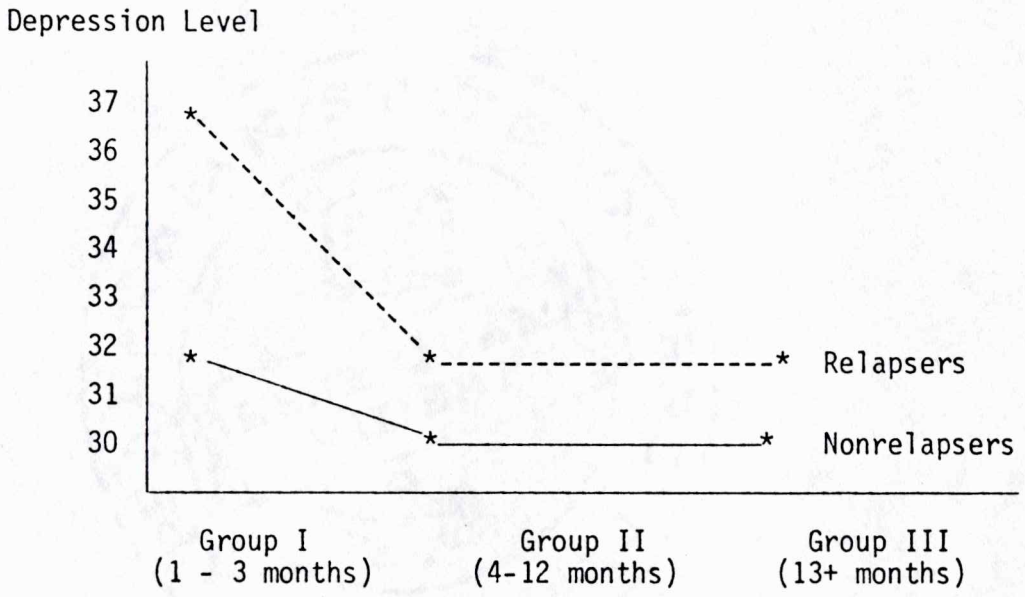


Figure 1. Main effect of relapse on depression.

Anger. Spielberger's Anger Expression Scale was used to measure Anger In and Anger Out for the Relapsers and Nonrelapsers over the length of their continuous sobriety. For Anger In the main effect of Length of Sobriety was nonsignificant, $F(2,209) = 1.13$, $p = .32$ as was Relapse, $F(1,209) = .00$, $p = .98$. The two-way interaction of Length of Sobriety and Relapse also proved nonsignificant, $F(2,209) = 9.37$, $p = .66$. Mean for the total number was 14.23 with

means for Relapsers and Nonrelapsers being 14.49 and 14.15 respectively. ANOVA summary data and means and standard deviations are found in Table 2, Appendix E.

Likewise no significance was found with the main effect of Length of Sobriety on Anger Out, $F(2,209) = .71$, $p = .49$ or with the main effect of Relapse on Anger Out, $F(1,209) = .06$, $p = .81$. Again the two-way interaction of Length of Sobriety and Relapse was nonsignificant as $F(2,209) = .48$, $p = .62$. Total mean was 13.4 while mean for Relapsers was 13.21 and Nonrelapsers was 13.53. ANOVA summary data and means and standard deviations are presented in Table 3, Appendix E.

Assertiveness. The Rathus 30 Item Schedule for Assessing Assertive Behavior was used to measure assertive behavior for Relapsers and Nonrelapsers over the length of their continuous sobriety. Both the main effect of Length of Sobriety on assertiveness, $F(2,212) = 1.43$, $p = .24$ and the main effect of Relapse on assertiveness, $F(1,212) = .35$, $p = .55$ were nonsignificant. The two-way interaction between Length of Sobriety and Relapse, $F(2,212) = .68$, $p = .51$ also proved to be nonsignificant. Mean for the total number was 3.65 with means for Relapsers and Nonrelapsers being 3.60 and 3.66 respectively. ANOVA summary data and means and standard deviations are found in Table 4, Appendix E.

Although the measures used for depression, anger, and assertiveness showed minimal overall significance in the analysis of variance, all measures were significantly correlated. Significant positive correlation was found between Depression and Anger In

(r = .43, p < .001), Depression and Anger Out (r = .19, p < .01), Anger In and Anger Out (r = .20, p < .01) and Anger Out and Assertiveness (r = .24, p < .001). Significant negative correlation was found between Depression and Assertiveness (r = -.29, p < .001) and Anger In and Assertiveness (r = -.38, p < .001). From a theoretical standpoint the relationships between these variables are reliable as the directions of these correlations support the construct validity of these measures. The correlational coefficients for Depression, Anger In, Anger Out, and Assertiveness measures are presented in Table 5, Appendix E.

Factors Associated With Sobriety

Sixteen items were listed from which each subject chose the three most important items in helping him or her maintain sobriety. Higher Power, which is an integral part of the AA program was cited the most frequently with 74.7% of all subjects choosing this as having significance. Attending AA (64.3%) and Family (38.0%) were listed second and third in frequency. Items listed at a frequency of less than 2% were Sports (1.9%), Professional Counseling (1.5%), Hobbies (1.4%), and Medication (.5%). A complete listing is found in Table 6.

All subjects were asked whether or not they attended AA and if so, how many meetings they averaged attending per month. Of the respondents 79.6% attended AA while 19.9% did not. Total range of number of meetings attended per month was from 1 to 60. A 2 x 3 analysis of variance was conducted to determine if there was any significance of Length of Sobriety or of Relapse on the average

Table 6

Factors Associated With Sobriety

Rank	Item	Percentage
1	Higher Power	74.7
2	Attending Alcoholics Anonymous	64.3
3	Family	38.0
4	Self-Will and Determination	32.5
5	Other Recovering Alcoholics	24.8
6	Personal Health	23.1
7	Job	9.5
8	Friends	8.2
9	Sponsor	6.8
10	Church	4.6
11	Other	3.6
12	Twelfth Step Work	2.7
13	Sports	1.9
14	Professional Counseling	1.5
15	Hobbies	1.4
16	Medication	.5

number of meetings attended. The main effects of Length of Sobriety, $F(2,209) = .26$, $p = .76$ and of Relapse, $F(1,209) = 1.47$, $p = .22$ were nonsignificant; however, the two-way interaction of Length of Sobriety and Relapsers/Nonrelapsers was significant, $F(2,209) = 5.26$, $p < .01$. Total mean number of meetings was 10.56 per month with the mean for Relapsers being 9.24 and Nonrelapsers being 10.98. Table 7, Appendix E, contains the ANOVA summary data as well as means and standard deviations for the groups.

As is seen in Figure 2, the most significant variation in the number of meetings attended occurred in Group I which represents 1 - 3 months continuous sobriety. The Nonrelapsers immediately became active in AA following discharge attending an average of 16 meetings per month for the first 3 months; they leveled out at 10 meetings per month through the remainder of their sobriety. The Relapsers, however, had limited involvement in AA during the first 3 months of sobriety following their relapse averaging only 6 meetings per month. During the remainder of their sobriety, however, they showed an increase to approximately 12 meetings per month which may indicate their recognized need for a continuing support program in order to remain sober.

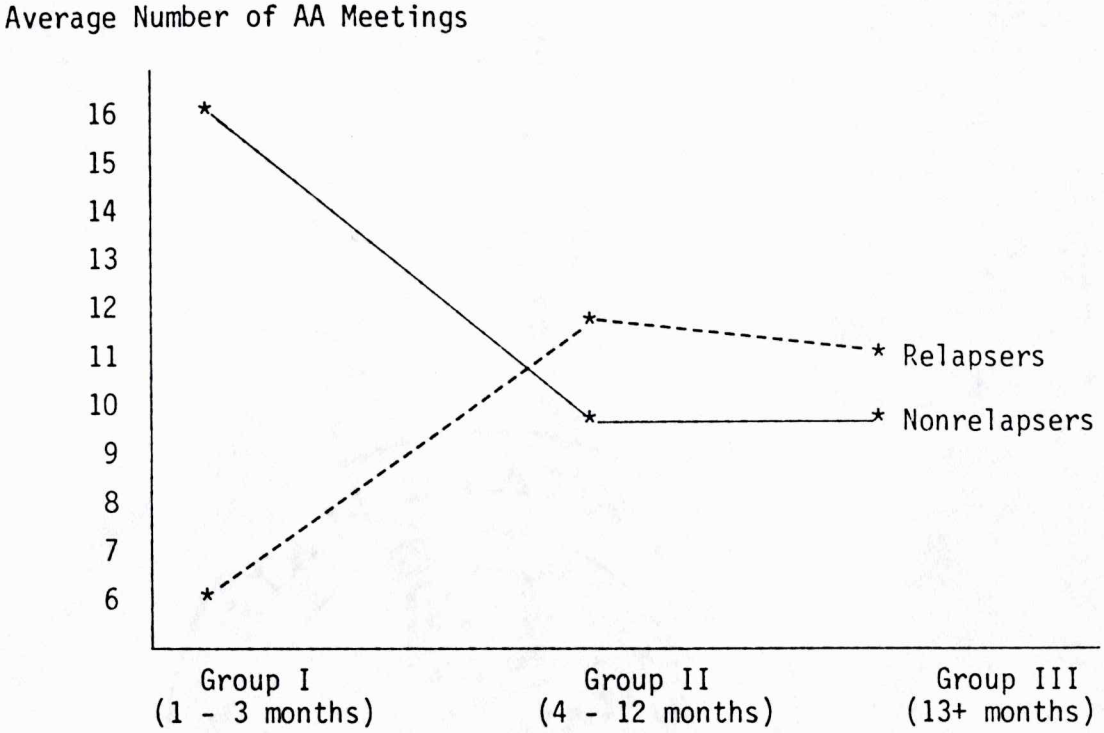


Figure 2. Main effect of length of sobriety x relapser/ nonrelapsers on average number of AA meetings.

DISCUSSION

As was anticipated the 221 subjects who responded to the survey were experiencing sobriety anywhere from 1 month to 2 years 8 months since their discharge from Charlotte Treatment Center. Of this total number 166 had experienced continuous sobriety while 55 reported having one or more relapses since discharge but with a return to sobriety thereafter. Along with the 221 subjects who responded, 57 additional subjects were experiencing sobriety but their data was not included either due to incorrect completion of the questionnaire or returning the questionnaire past date of data collection. Thus of the 726 subjects surveyed, 278 or 38.29% were reported as experiencing sobriety. It can be assumed that many of the nonrespondents are not experiencing sobriety at this time. This assumption is supported by Gerard et al. (1962) who found only 18% abstinent at 2, 5, and 8 year follow-up and by Kish and Hermann (1971) who found only 22% of their subjects abstinent at 3, 6, and 12 month intervals.

Analysis of data does not support the prediction that recovering alcoholics, will have significantly higher levels of depression, anger expression, and lack of assertiveness during the early phase of their recovery than those long term recovering alcoholics. As a whole there was no progression of recovery documented as the levels of depression, anger, and assertiveness showed little variation during the course of continuous sobriety. The levels of anger and

assertiveness in Relapsers and Nonrelapsers alike showed no significant change during the three phases of continuous sobriety, 1 to 3 months, 4 to 12 months, and 13 months upward. There was a significantly higher level of depression experienced by the Relapsers during the first 3 months of sobriety following their relapse than that experienced by the Nonrelapsers during the same time period. This difference between the Relapsers and Nonrelapsers was minimal in the second and third phases of sobriety.

Although Kurtines et al. (1978) and Gerard et al. (1962) found abstinent, nonattenders of AA to be having difficulty with depression, anger, stress, and feelings of inadequacy, they also found that abstinent AA attenders reported a positive emotional adjustment to sobriety. This latter finding concurs with the results of this survey. Of the subjects in this research 79.6% attend AA. Although there was significant variation overall in the number of meetings attended per month, 1 to 60, the total mean was 10.56 meetings per month. This mean number of meetings per month for the Relapsers, 9.24 and 10.98 for the Nonrelapsers was similar over the length of continuous sobriety. A significant difference, $\underline{p} < .01$, however, occurred during the first phase, 1 - 3 months, of sobriety between the two groups. The Nonrelapsers averaged attending 16.27 meetings while the Relapsers averaged only 6.23 meetings per month. This was also during the same time period the Relapsers reported a higher level of depression than the Nonrelapsers. Interestingly, the Relapsers experienced an increase in the number of meetings attended per month during the second (4 to 12 months) and third (13 months

upward) phase of continuous sobriety reporting an average number of meetings of 12.33 and 11.78 respectively. The Nonrelapsers noted a decrease in the number of meetings attended during the second and third phase of continuous sobriety in reporting the average number of meetings attended per month as 10.

The overall positive emotional adjustment found in the subjects may be indicative of the importance AA plays in adjusting to and maintaining sobriety. This belief is supported by Kurtines et al. (1978), Gerard et al. (1962), and Kish and Hermann (1971) who found AA involvement to be a positive indicator of favorable outcome. The subjects cited Higher Power, which is an integral part of the AA program, most frequently (74.7%) and attending AA second in frequency (64.3%) as being most important in helping them maintain sobriety. Intentionally Higher Power was listed separately from Church so as to prevent the combination of the two items. Church was cited by only 4.6% of the subjects as having significance in helping them maintain sobriety.

It was also anticipated by the current research that alcoholics who had maintained abstinence without an active AA support program would have increased levels of depression, anger expression, and lack of assertiveness. This prediction was supported by Kurtines et al. (1978) and Gerard et al. (1962) who found abstinent alcoholics who did not attend AA to report significant emotional difficulties during sobriety. Althouh 20.4% of the abstinent alcoholics in this research were not attending AA, the data results were confounded in that all subjects were exposed to the AA program and principles of

recovery during their inpatient treatment. Although they did not attend AA meetings, it is possible they could be applying the AA principles of recovery to help them maintain sobriety.

Suggestions for Future Research

The majority of subjects in this research used AA as a support program in helping them maintain sobriety. It is not possible, however, to determine if the positive level of adjustment these subjects reported was attributed to AA, inpatient treatment, or both. Further research could be done with recovering alcoholics who have not received inpatient treatment but rather initiated sobriety through the AA program. To compare the levels of adjustment of those alcoholics who have received inpatient treatment and those who initiated sobriety through AA could prove interesting. Also the investigation of those who only "attend" AA as opposed to those who work the program of recovery might prove beneficial.

REFERENCES

REFERENCES

Armor, D. J., Polich, J. M., & Stambul, H. B. (1976). Alcoholism and treatment. Santa Monica, CA: Rand Corporation.

Cronkite, R. C., & Moos, R. H. (1980). Determinants of the posttreatment functioning of alcoholic patients: A conceptual framework. Journal of Consulting and Clinical Psycholgy, 48, 305-316.

Finney, J. W., Moos, R. H., & Mewborn, C. R. (1980). Posttreatment experiences and treatment outcome of alcoholic patients six months and two years after hospitalization. Journal of Consulting and Clinical Psychology, 48, 17-29.

Foster, M. F., Horn, J. Z., & Wanberg, K. W. (1972). Dimensions of treatment outcome. Quarterly Journal of Studies on Alcohol, 33, 1079-1098.

Freedberg, E. J., & Johnston, W. E. (1979). Behavioral change in a short-term, intensive multi-modal alcoholism treatment program. Psychological Reports, 44, 790-797.

Gerard, D. L., Saenger, G., & Wile, R. (1962). The abstinent alcoholic. Archives of General Psychiatry, 6, 83-95.

Gibson, S., & Becker, J. (1973). Alcoholism and depression. Quarterly Journal of Studies on Alcohol, 34, 400-408.

Hay, W. M., & Nathan, P. E. (Eds.) (1982). Clinical case studies in the behavioral treatment of alcoholism. New York: Plenum.

Hirsch, S. M., von Rosenberg, R., Phelan, C., & Dudley, H. K. (1978). Effectiveness of assertiveness training with alcoholics. Quarterly Journal of Studies on Alcohol, 39, 89-97.

Hore, B. D. (1971). Life events and alcoholic relapse. British Journal of Addiction, 66, 83-88.

Jellinek, E. M. (1960). The disease concept of alcoholism. New Brusnwick, NJ: Hillhouse Press, 1960.

Kish, G. B., & Hermann, H. T. (1971). The Fort Meade alcoholism treatment program. Quarterly Journal of Studies on Alcohol, 32, 628-635.

Kurtines, W. M., Ball, L. R., & Wood, G. H. (1978). Personality characteristics of long-term recovered alcoholics: A comparative analysis. Journal of Consulting and Clinical Psychology, 46, 971-977.

Litman, G. L., Eiser, J. R., & Rawson, N. S. B. (1977). Towards a typology of relapse: A preliminary report. Drug and Alcohol Dependence, 2, 157-162.

Marlatt, G. A. (1979). Alcohol use and problem drinking: A cognitive-behavioral alanysis. In P. C. Kendall & S. D. Hollon (Eds.), Cognitive-behavioral interventions: Theory, research, and procedures. New York: Academic Press.

Miller, P. M., Hersen, M., Eisler, R. M., & Hilsman, G. (1974). Effects of social stress on operant drinking of alcoholics and social drinkers. Behavior Research and Therapy, 12, 67-72.

Miller, P. M., & Mastria, M. A. (1977). Alternatives to alcohol and drugs. Champaign, IL: Research Press.

Pokorny, A. D., Miller, B. A., & Cleveland, S. E. (1968). Response to treatment of alcoholism: A follow-up study. Quarterly Journal of Studies on Alcohol, 29, 364-381.

Rathus, S. A. (1973). A 30 item schedule for assessing assertive behavior. Behavior Therapy, 4, 398-406.

Sobell, M. B., & Sobell, L. C. (1982). Controlled drinking: A concept coming of age. In K. R. Blanstein & J. Polivy (Eds.), Self-control and self-modification of emotional behavior. New York: Plenum.

Spielberger, C. D., Johnson, E. H., & Jacobs, G. A. (1982). Self-analysis questionnaire anger expression scale (AX).

Vaillant, G. E. (1983). The natural history of alcoholism. MA: Harvard University Press.

van Dijk, K. W., & van Dijk-Koffeman, A. (1973). A follow-up study of 211 treated male alcoholic addicts. British Journal of Addiction, 68, 3-24.

Weingold, H. P., Lachin, J. M., Bell, A. H., & Coxe, R. C. (1968). Depression as a symptom of alcoholism: Search for a phenomenon. Journal of Abnormal Psychology, 73, 195-197.

Zung, W. W. K. (1965). A self-rating depression scale. Archives of General Psychiatry, 12, 63-70.

APPENDIX A

Initial Survey Letter

Charlotte Treatment Center

P.O. BOX 240197
1715 SHARON ROAD WEST
CHARLOTTE, NORTH CAROLINA 28224
TELEPHONE (704) 554-8373

EXECUTIVE DIRECTOR
James F. Emmert

MEDICAL DIRECTOR
Hoyt H. Taggart M.D.

September 4, 1983

Dear :

As part of our continuing effort to improve our services to alcoholic and chemically dependent people and their families, we are conducting a survey in association with Virginia Knouse, a graduate student at Appalachian State University.

As you well know, recovery from alcoholism is not only just being "dry," but also involves many other aspects, including how feelings are handled and the daily stresses of dealing with family, relationships with others, and the work place. Because you are our most important resource in telling us what recovery has been like for you, we ask that you spend a few minutes today to answer the enclosed questionnaire and return it in the stamped envelope provided. There are no right or wrong answers to these questions--only your honest appraisal of how you feel. Please be sure to answer all the questions and be assured that your questionnaire is confidential. Your questionnaire is identified by number so that your name is not associated with your response.

Your willingness to participate in this survey will help us to continue improving our services to others who will some day have the opportunity to receive treatment for their alcoholism.

We thank you in advance for your cooperation.

Sincerely,

Jack Barville
Program Director

APPENDIX B

Biographical Data Questionnaire

Age: _____

Sex: Male _____ Female _____

Race: Caucasian _____ Black _____ Other_____

Employed: Yes _____ No _____ Educational level attained: _____

Marital Status: Single _____ Married _____ Separated _____ Divorced _____

Has there been a change in marital status since discharge: Yes _____ No _____

If yes, please specify: _____

Had you received inpatient treatment for alcoholism prior to Charlotte Treatment Center: Yes _____ No _____

Date of discharge from Charlotte Treatment Center: _____

Did any family members attend the Family Program: Yes _____ No _____

Your longest period of continuous sobriety since your discharge: _____ years _____ months

Have you had one or more relapses since discharge: Yes _____ No _____

If yes, are you currently experiencing sobriety: Yes _____ No _____

If yes, how long have you currently been sober: _____ years _____ months, or _____ days

Have you received additional inpatient treatment: Yes _____ No _____

Do you attend Alcoholics Anonymous: Yes _____ No _____

If yes, how many meetings, on an average, per month: _____

Do you use a sponsor: Yes _____ No _____

Are you working the Steps: Yes _____ No _____

Have you received professional counseling since discharge: Yes _____ No _____

Please rank the top three (3) items you consider most important for maintaining your sobriety with No. 1 being the most helpful:

_____ Personal Health	_____ Self will and determination	_____ Attending AA
_____ Professional counseling	_____ Medication	_____ Family
_____ Sports	_____ Job	_____ Church
_____ Sponsor	_____ Higher Power	_____ 12th Step Work
_____ Hobbies	_____ Other recovering alcoholics	_____ Friends

_____ Other _____

APPENDIX C

Self-Report Personality Measures

Speilberger Anger Expression Scale

Zung Depression Scale

Rathus 30 Item Schedule for Assessing Assertive Behavior

DIRECTIONS: A number of statements which people have used to describe themselves when they feel angry or furious are given below. Read each statement and then check the appropriate column on the answer sheet to indicate how often you feel or act in the manner described. There are no right or wrong answers. Do not spend too much time on any one statement. For each item check the column which seems to best describe how you generally act or feel when you are angry or furious.

WHEN ANGRY OR FURIOUS	Almost Never	Some-times	Often	Almost Always
1 I control my temper				
2 I express my anger				
3 I keep things in				
4 I make threats I don't really mean to carry out				
5 I pout or sulk				
6 I withdraw from people				
7 I make sarcastic remarks to others				
8 I keep my cool				
9 I do things like slam doors				
10 I boil inside, but I don't show it				
11 I argue with others				
12 I tend to harbor grudges that I don't tell anyone about				
13 I strike out at whatever infuriates me				
14 I am secretly quite critical of others				
15 I am angrier than I am willing to admit				
16 I calm down faster than most other people				
17 I say nasty things				
18 I am irritated a great deal more than people are aware of				
19 I lose my temper				
20 If someone annoys me, I am apt to tell him or her how I feel				

Directions: Read each statement and then check the column which seems to best describe how you generally feel.

	None OR a Little of the Time	Some of the Time	Good Part of the Time	Most OR all of the Time
1 I feel down-hearted, blue and sad				
2 Morning is when I feel the best				
3 I have crying spells or feel like it				
4 I have trouble sleeping through the night				
5 I eat as much as I used to				
6 I enjoy looking at, talking to and being with attractive women/men				
7 I notice that I am losing weight				
8 I have trouble with constipation				
9 My heart beats faster than usual				
10 I get tired for no reason				
11 My mind is as clear as it used to be				
12 I find it easy to do the things I used to				
13 I am restless and can't keep still				
14 I feel hopeful about the future				
15 I am more irritable than usual				
16 I find it easy to make decisions				
17 I feel that I am useful and needed				
18 My life is pretty full				
19 I feel that others would be better off if I were dead				
20 I still enjoy the things I used to do				

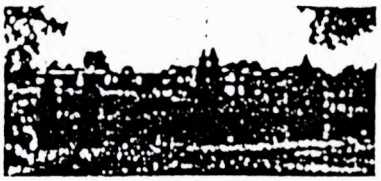
(Please Complete Both Sides)

Directions: Indicate how characteristic each of the following statements is of you by checking the appropriate column.

	very characteristic	rather characteristic	somewhat characteristic	somewhat uncharacteristic	rather uncharacteristic	very uncharacteristic
1. I have hesitated to make or accept dates because of shyness.						
2. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.						
3. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured.						
4. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time in saying "No."						
5. When I am asked to do something, I insist upon knowing why.						
6. There are times when I look for a good, vigorous argument.						
7. I strive to get ahead as well as most people in my position.						
8. To be honest, people often take advantage of me.						
9. I enjoy starting conversations with new acquaintances and strangers.						
10. I often don't know what to say to attractive persons of the opposite sex.						
11. I will hesitate to make phone calls to business establishments and institutions.						
12. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.						
13. I find it embarrassing to return merchandise.						
14. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance.						
15. I have avoided asking questions for fear of sounding stupid.						
16. During an argument I am sometimes afraid that I will get so upset that I will shake all over.						
17. If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.						
18. I avoid arguing over prices with clerks and salesmen.						
19. When I have done something important or worthwhile, I manage to let others know about it.						
20. I am open and frank about my feelings.						
21. If someone has been spreading false and bad stories about me, I see him or her as soon as possible to "have a talk" about it.						
22. I often have a hard time saying "No."						
23. I tend to bottle up my emotions rather than make a scene.						
24. I complain about poor service in a restaurant and elsewhere.						
25. When I am given a compliment, I sometimes just don't know what to say.						
26. If a couple near me in a theatre or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.						
27. Anyone attempting to push ahead of me in a line is in for a good battle.						
28. I am quick to express an opinion.						
29. There are times when I just can't say anything.						
30. Most people seem to be more aggressive and assertive than I am.						

APPENDIX D

Follow-up Letter



Charlotte Treatment Center

P O BOx 240197
1715 SHARON ROAD WEST
CHARLOTTE NORTH CAROLINA 28224
TELEPHONE (704) 554-8373

EXECUTIVE DIRECTOR
James F Emmert

MEDICAL DIRECTOR
Hal R Teggart M D

September 23, 1983

Dear :

About two weeks ago, we sent you a survey concerning your progress since leaving our treatment program. We are trying to better understand what types of activity and changes help with the recovery process.

At this point in time, we have not received your questionnaire. Could we impose on you to take ten minutes to fill out these forms? We have enclosed another copy of the questionnaire along with a prepaid envelope.

I want to thank you in advance for your helpful cooperation.

Sincerely,

Jack Harville

Enclosure

P. S. If you have recently mailed the completed survey, please disregard this letter. Thanks for your help.

APPENDIX E

Tables

Table 1

ANOVA Summary Tables and Means and Standard Deviations for Depression

a. ANOVA Summary

Source	Sum of Squares	DF	Mean Square	F
Length of Sobriety	161.90	2	80.95	1.83
Relapse	380.07	1	380.07	8.57*
Length x Relapse	89.47	2	44.74	1.01
Error	9399.16	212	44.34	

b. Means and Standard Deviations

	Length of Sobriety by Months		
	Group I (1 - 3)	Group II (4 - 12)	Group III (13+)
Relapsers	36.73 (8.33)	32.17 (7.53)	33.67 (6.14)
Nonrelapsers	31.50 (6.67)	30.30 (5.78)	30.80 (6.69)

(standard deviations are presented in parentheses)

*$p < .01$

Table 2

ANOVA Summary Tables and Means and Standard Deviations for Anger In

a. ANOVA Summary

Source	Sum of Squares	DF	Mean Square	F
Length of Sobriety	32.38	2	16.19	1.13
Relapse	0.005	1	0.005	0.000
Length x Relapse	18.75	2	9.37	0.66
Error	2981.97	209	14.27	

b. Means and Standard Deviations

	Length of Sobriety by Months		
	Group I (1 - 3)	Group II (4 - 12)	Group III (13+)
Relapsers	15.15 (4.40)	13.61 (2.66)	14.33 (2.60)
Nonrelapsers	15.00 (4.10)	14.40 (4.41)	13.85 (3.42)

(standard deviations are presented in parentheses)

Table 3

ANOVA Summary Tables and Means and Standard Deviations for Anger Out

a. ANOVA Summary

Source	Sum of Squares	DF	Mean Square	F
Length of Sobriety	16.84	2	8.42	0.71
Relapse	0.66	1	0.66	0.06
Length x Relapse	11.46	2	5.73	0.48
Error	2466.85	209	11.80	

b. Means and Standard Deviations

	Length of Sobriety by Months		
	Group I (1 - 3)	Group II (4 - 12)	Group III (13+)
Relapsers	13.04 (4.09)	13.55 (3.65)	13.00 (2.00)
Nonrelapsers	13.25 (3.85)	13.03 (3.44)	13.88 (3.15)

(standard deviations are presented in parentheses)

Table 4

ANOVA Summary Tables and Means and Standard Deviations for Assertiveness

a. ANOVA Summary

Source	Sum of Squares	DF	Mean Square	F
Length of Sobriety	1211.87	2	605.93	1.43
Relapse	148.49	1	148.49	0.35
Length of Relapse	580.21	2	290.11	0.68
Error	89881.25	212	423.97	

b. Means and Standard Deviations

	Length of Sobriety by Months		
	Group I (1 - 3)	Group II (4 - 12)	Group III (13+)
Relapsers	.85 (21.91)	6.89 (18.88)	5.00 (16.85)
Nonrelapsers	2.87 (21.41)	-.18 (24.66)	6.07 (17.87)

(standard deviations are presented in parentheses)

Table 5

Correlation Coefficients for Depression, Anger In, Anger Out, and Assertiveness Measures

	Depression	Anger In	Anger Out	Assertiveness
Depression	-	.43**	.19*	-.29**
Anger In	-	-	.20*	-.38**
Anger Out	-	-	-	.24**
Assertiveness	-	-	-	-

*$p < .01$

**$p < .001$

Table 7

ANOVA Summary Tables and Means and Standard Deviations for Average Number of AA Meetings

a. ANOVA Summary

Source	Sum of Squares	DF	Mean Square	F
Length of Sobriety	45.72	2	22.86	0.26
Relapse	127.82	1	127.82	1.48
Length x Relapse	910.90	2	455.45	5.26*
Error	18103.11	209	86.62	

b. Means and Standard Deviations

	Length of Sobriety by Months		
	Group I (1 - 3)	Group II (4 - 12)	Group III (13+)
Relapsers	6.23 (7.47)	12.33 (11.09)	11.78 (10.05)
Nonrelapsers	16.27 (9.59)	10.78 (8.83)	10.25 (9.48)

(standard deviations are presented in parentheses)

*$p < .01$

VITA

Virginia Horsman Knouse was born in Madison, New Jersey on March 29, 1943. In 1953 she moved with her family to Greensboro, North Carolina. She attended elementary schools in that city and graduated in June, 1961 from Grimsley Senior High School. The following September she entered The University of North Carolina at Greensboro and in June, 1965, she received a Bachelor of Arts degree in Sociology.

In the fall of 1965 she began employment with the Caldwell County Department of Social Services in Lenoir, North Carolina as a social worker. During her nine years there, she specialized in foster care services. In November, 1974 she left the Department of Social Services to take a job as clinical social worker with Foothills Mental Health Center in Lenoir, North Carolina where she is currently employed.

She entered Appalachian State University and was awarded a Master of Arts degree in Psychology in December, 1983.

The author has attended numerous workshops in the field of alcoholism including the Fifth Southeastern Conference on Alcohol and Drug Abuse in 1980 and the North Carolina School of Alcohol and Drug Studies at the University of North Carolina at Wilmington, in July, 1981.

Ms. Knouse lives with her husband, Ron, and her son at 3110 Lyndhurst Drive, Lenoir North Carolina.