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SHORT TERM REHABILITATION (STR) STUDY

INTERIM ANALYSIS OF STR PERFORMANCE AND EFFECTIVENESS

12-month analyses

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16. Abstract

The present report describes the status of the NHTSA Short Term Rehabilitation Study (STR) as of December, 1977, and summarizes the progress of data collection efforts by the eleven participating ASAP projects.

Outcome measures considered as indicative of treatment program effects include: (1) indices of accident and arrest recidivism reflective of the accomplishment of direct traffic safety objectives; (2) direct measures of drinking/alcohol ingestion comparable to criteria employed in NIAAA assessments of treatment programs, and (3) two sets of factor analytically derived scales designed to assess client status in a number of life adjustment dimensions.

Site reported characteristics of STR treatment programs are used to configure a number of quasi-experimental program level designs which pool data from the several STR sites. Designs permitting assessment of the effects of alcohol safety schools, PMT, and a variety of structural treatment variations are reported.

The results of interim STR effectiveness analyses within eight separate program level designs show no consistent evidence of treatment effect for any of the treatment groupings considered.

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Chapter I

CURRENT STATUS OF THE STR STUDY

The Short Term Rehabilitation (STR) Study was initiated by the NHTSA in 1974 to provide an empirical demonstration of the effectiveness of alcohol treatment programs for problem drinker-drivers. This study was designed to overcome methodological shortcomings of similar countermeasure activities employed as a part of the series of 35 NHTSA sponsored Alcohol Safety Action Projects (NHTSA, 1974; Ellingstad & Springer, 1976; and Ellingstad & Struckman-Johnson, 1977). Eleven of these ASAP projects have participated in the STR study during the 1975-1977 period. Within each of these sites an explicit experimental design calling for the random assignment of convicted DUI subjects to treatment and control groups has been implemented, to provide for direct empirical assessment of the effects of treatment countermeasures. A large battery of criterion measures has been developed to permit assessment of treatment outcome in terms of a number of distinct dimensions of client behavior (including both traffic safety and client adjustment criteria). Finally, the study has been designed to provide for intensive follow-up of clients during an 18 month period subsequent to their entry into the ASAP system.

The present report provides an interim assessment of the effectiveness of STR treatment programs at the conclusion of 12 of the scheduled 18 follow-up months. The focus of this report is a set of program level assessments of treatment effectiveness which are accomplished by pooling data from the eleven individual site designs. The remainder of the present chapter summarizes the current status of assignment and follow-up procedures at the eleven STR sites, and describes the success of data collection activities. Chapter II identifies the outcome measures which are used in the present assessments of treatment effect and describes the data collection instruments from which these measures are derived. Chapter III considers the questions of treatment and client taxonomy and defines the program level quasi-experimental designs which are used in the present set of effectiveness analyses accomplished at this interim point in the STR study.

STR ASSIGNMENTS

Table 1 contains a summary of assignment to alternative STR treatment/control conditions at the eleven ASAP sites. Across sites a total of 3,666 DUI clients have participated in the study. A total of 2,465 of these individuals have been assigned to a variety of alcohol treatment programs, while the remaining 1,201 clients were assigned to no-treatment control groups or minimum exposure conditions. Table 1 also indicates, for each of the 11 sites, the number of distinct alcohol treatment alternatives included in the site's experimental design, and whether or not the site's treatment alternatives included Power Motivation Training. PMT is a short duration treatment modality

TABLE 1. SUMMARY OF STR ASSIGNMENTS BY SITE

Site	Total STR Clients	Treatment	Control/ Minimum Exposure	Number of Treatment Alternatives	PMT
Denver	342	227	115	4	Yes
Fairfax	587	509	78	5	Yes
Kansas City	437	311	126	2	Yes
Minneapolis	159	107	52	2	Yes
New Orleans	339	222	117	4	Yes
Phoenix	351	231	120	2	Yes
San Antonio	295	205	90	3	Yes
South Dakota	200	112	88	1	No
New Hampshire	201	100	101	1	No
Oklahoma City	402	194	208	1	No
Tampa	353	247	106	2	No
TOTAL	3666	2465	1201		

developed by McBer and Company alcohol treatment researchers (Boyatzis, 1973; and Cutter, McClelland, Boyatzis & Blancy, 1975) and tailored to the experimental plan of the STR study.

FOLLOW-UP PROCEDURES

The design of the STR study provided for the collection of a battery of measures from each subject on four successive occasions. Within each of the ASAP sites individuals convicted of DUI who were found eligible for the study (the subject pool included individuals diagnosed as mid-range problem drinkers) and selected for participation were first exposed to these data collection procedures at the time of initial assignment. Data collection included administration of interview and questionnaire instruments (see Chapter II) in a face-to-face contact with site data collection personnel, as well as the conduct of a check of police and motor vehicle department records. These data collection procedures were scheduled to be repeated six months subsequent to assignment, and again at both 12 and 18 months from assignment to an STR study condition (either treatment or no-treatment assignment). Record search information has been obtained, for each of these follow-up periods, for all of the 3,666 STR study subjects. Success in obtaining interview and questionnaire follow-up information is summarized, by site, in Table 2. Inspection of this table shows a relatively substantial level of success in obtaining extended follow-up data from STR clients. Across sites the success rate was 75.6% at six months, 68.3% at 12 months, and 62.4% at 18 months subsequent to initial assignment. It must be noted, in connection with the 18 month success rate, that data collection has not been completed at one site (Oklahoma City), and that no 18 month follow-up data were collected from two sites (South Dakota and Tampa). It should also be reiterated that 100% follow-up success, at each interval, has been attained with respect to information obtained from searches of police and motor vehicle department records.

Table 3 provides a more detailed breakdown of data collection performance at six month (Table 3A), 12 month (Table 3B) and 18 month (Table 3C) intervals. As indicated previously, the design of the data collection procedure provided that interview and questionnaire data be obtained in face-to-face contact with STR study clients. In general this was the procedure followed in the collection of the follow-up data, and the entries in the row labeled "complete cases" represent interview and questionnaire data collected in this manner. In some instances, however, it was necessary to provide other mechanisms for the retrieval of these data. Row 2 of Tables 3A-3C shows the use of a procedure which permitted subjects to complete a questionnaire at home and return it to the project by mail. In these cases (30 at six months, 48 at 12 months and 39 at 18 months), no interview data were collected. In other instances a telephone interview was conducted, and no questionnaire data were available (Row 3 of Tables 3A-3C). This mechanism was utilized for seven 6 month, eleven 12 month, and eight 18 month cases.

TABLE 2. SUMMARY OF STR FOLLOW-UP SUCCESS

Site	Initial	6 Month		12 Month		18 Month	
	N	N	%	N	%	N	%
Denver	342	277	80.9	267	78.0	260	76.0
Fairfax	587	359	61.1	284	48.3	220	37.6
Kansas City	437	328	75.0	288	65.9	283	64.7
Minneapolis	159	144	90.5	133	83.6	92	57.8
New Orleans	339	285	84.0	286	84.3	269	79.3
Phoenix	351	257	73.2	236	67.2	216	61.5
San Antonio	295	235	79.6	264	89.4	265	91.0
South Dakota	200	117	58.5	119	59.5	0	0.0
New Hampshire	201	152	75.6	124	61.6	117	58.2
Oklahoma City	402	345	85.8	277	68.9	122	49.3
Tampa	353	274	77.6	228	64.5	0	0.0
TOTAL	3666	2773	75.6	2506	68.3	1844	62.4

TABLE 3A. SUMMARY OF 6 MONTH FOLLOW-UP DATA AVAILABILITY

	Denver	Fairfax	Kansas City	Minneapolis	New Orleans	Phoenix	San Antonio	South Dakota	New Hampshire	Oklahoma City	Tampa	Total
Complete Cases	277	359	328	144	285	257	235	117	152	345	274	2773
Mailed Questionnaire (Only)	3	14	4	0	0	2	6	0	1	0	0	30
Phoned Interview (Only)	0	6	1	0	0	0	0	0	0	0	0	7
Mailed Questionnaire and Phoned Interview	2	1	1	0	0	0	1	0	1	0	0	6
No Questionnaire or Interview	60	207	103	15	54	92	53	83	47	57	79	850
No Follow-Up Loaded	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	342	587	437	159	339	351	295	200	201	402	353	3666

TABLE 3B. SUMMARY OF 12 MONTH FOLLOW-UP DATA AVAILABILITY

	Denver	Fairfax	Kansas City	Minneapolis	New Orleans	Phoenix	San Antonio	South Dakota	New Hampshire	Oklahoma City	Tampa	Total
Complete Cases	267	284	288	133	286	236	264	119	124	277	228	2506
Mailed Questionnaire (Only)	1	11	7	0	0	23	4	0	1	0	1	48
Phoned Interview (Only)	1	6	0	0	0	1	2	0	1	0	0	11
Mailed Questionnaire and Phoned Interview	2	0	0	0	2	0	2	0	0	0	0	6
No Questionnaire or Interview	71	286	142	26	51	91	23	81	75	125	124	1095
No Follow-Up Loaded	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	342	587	437	159	339	351	295	200	201	402	353	3666

TABLE 3C. SUMMARY OF 18 MONTH FOLLOW-UP DATA AVAILABILITY

	Denver	Fairfax	Kansas City	Minneapolis	New Orleans	Phoenix	San Antonio	South Dakota	New Hampshire	Oklahoma City	Tampa	Total
Complete Cases	260	220	283	92	269	216	265	0	117	122	0	1844
Mailed Questionnaire (Only)	1	4	5	2	1	25	1	0	0	0	0	39
Phoned Interview (Only)	2	2	0	0	0	3	1	0	0	0	0	8
Mailed Questionnaire and Phoned Interview	8	0	2	0	7	0	2	0	0	5	0	24
No Questionnaire or Interview	71	359	147	65	62	107	22	0	84	120	0	1037
No Follow-Up Loaded	0	2	0	0	0	0	4	0	0	155	0	161
TOTAL	342	587	437	159	339	351	295	0	201	402	0	3113

A final variation involved the conduct of a telephone interview, coupled with the client's return of a mailed questionnaire. This occurred for six 6 month, six 12 month, and twenty-four 18 month cases. Follow-up failure is indicated in Row 5 of Table 3, with entries in this row showing the number of clients who could not be contacted at each follow-up point. Row 6 of these tables contains non-zero entries only for the 18 month follow-up point (Table 3C). These entries represent cases for which data collection has not yet been completed by the sites.

Table 4 summarizes the reasons provided by the sites for client attrition at 6 (Table 4A), 12 (Table 4B) and 18 (Table 4C) month follow-up intervals. The "other" category, which appears as the most frequently cited reason for follow-up non-availability, includes those cases in which clients repeatedly failed to appear for scheduled appointments as well as cases in which the client could not be located. The other major reasons for follow-up attrition were client refusals to appear for interview, and instances in which the client had changed his address subsequent to initial contact.

TABLE 4A. FOLLOW-UP ATTRITION SUMMARY REPORT FOR 6 MONTH FOLLOW-UP

Site	Death	Refused	Moved	Temp-Out	Other	Total
Denver	1	2	12	6	44	65
Fairfax	1	69	17	14	126	227
Kansas City	1	72	6	7	23	109
Minneapolis	1	1	2	2	9	15
New Orleans	1	2	8	0	43	54
Phoenix	2	7	17	38	30	94
San Antonio	0	1	3	0	56	60
South Dakota	0	8	21	4	50	83
New Hampshire	2	15	7	1	24	49
Oklahoma City	4	2	15	0	36	57
Tampa	0	8	24	5	42	79
TOTAL	13	187	132	77	483	892

TABLE 4B. FOLLOW-UP ATTRITION SUMMARY REPORT FOR 12 MONTH FOLLOW-UP

Site	Death	Refused	Moved	Temp-Out	Other	Total
Denver	3	7	19	1	45	75
Fairfax	2	73	38	1	189	303
Kansas City	2	98	5	6	38	149
Minneapolis	1	0	2	0	23	26
New Orleans	3	3	10	2	35	53
Phoenix	2	20	26	2	64	114
San Antonio	0	5	9	2	15	31
South Dakota	0	10	40	3	28	81
New Hampshire	3	14	13	0	47	77
Oklahoma City	6	10	25	1	83	125
Tampa	0	17	14	3	91	125
TOTAL	22	257	201	21	658	1159

TABLE 4C. FOLLOW-UP ATTRITION SUMMARY REPORT FOR 18 MONTH FOLLOW-UP

Site	Death	Refused	Moved	Temp-Out	Other	Total
Denver	5	10	19	2	47	83
Fairfax	2	78	43	7	235	365
Kansas City	4	78	6	1	65	154
Minneapolis	2	8	9	0	48	67
New Orleans	5	2	4	1	58	70
Phoenix	3	17	43	2	70	135
San Antonio	2	6	4	2	14	28
South Dakota	0	0	0	0	0	0
New Hampshire	3	55	21	0	5	84
Oklahoma City	3	30	5	0	88	126
Tampa	0	0	1	0	0	1
TOTAL	29	284	155	15	630	1113

Chapter II

MEASURES OF TREATMENT OUTCOME

The goals of the alcohol treatment programs, whose efficacy is the concern of the STR study, are multifaceted and complex. On the one hand, the delivery of these rehabilitative services to court referred DUI clients within eleven Alcohol Safety Action Projects emphasizes a set of traffic safety objectives. ASAP rehabilitation countermeasures were designed and implemented as components of larger driver control systems whose overall objective was to reduce the frequency and severity of alcohol related motor vehicle accidents. The "success" of a treatment program from this perspective must necessarily be measured in terms of client behavior known to be strongly associated with the incidence of alcohol related motor vehicle accidents. On the other hand, many of the alcohol treatment modalities included within the STR study are intended to accomplish broader goals with respect to their expected effects on client behavior, adaptation and adjustment. All of the STR treatment programs are designed to treat mid-range (and in two cases serious) problem drinkers, and non-problem or social drinkers are explicitly excluded from the STR design. Furthermore, many of the STR treatment programs are provided by agencies and practitioners outside the traffic safety system. Success from these perspectives is usually considered in terms of measures which directly reflect a client's status with respect to problem drinking, rather than problem driving.

In the design of the STR study it was considered essential to include, as criteria for successful outcomes, measures reflective of the accomplishment of both of these sets of objectives. To accomplish this purpose a data collection battery called the Life Activities Inventory was developed for use in the follow-up of clients assigned to treatment and no-treatment conditions at each of the eleven sites. Included in this battery are instruments designed to yield criterion measures sensitive to the accomplishment both of traffic safety objectives (modification of driving behavior) as well as more general alcohol treatment program objectives. The remainder of the present chapter describes the data collection instruments used for these purposes, and enumerates the criterion measures utilized in the interim assessments of treatment effectiveness which are presented in Chapter IV. A comprehensive discussion of the development of these instruments and criterion measures has been presented previously (Ellingstad & Struckman-Johnson, 1977).

DATA COLLECTION INSTRUMENTS

The Life Activities Inventory consists of a set of four data collection instruments designed to be administered to each STR client by data collection personnel of each of the eleven sites. The Life Activities Inventory was administered to each of the 3,666 STR clients at the point

of their initial assignment to the study, and follow-up contacts were scheduled at points 6, 12, and 18 months subsequent to initial assignment. A total of 104 individuals performed these data collection functions at the eleven ASAP sites. Table 5 shows the number of data collection personnel employed by each site, with separate counts provided for personnel assigned the responsibility for conduct of face-to-face administration of the LAI interview/questionnaire instruments, and for individuals assigned the responsibility of securing police and motor vehicle department records search data. Data collection activities of each site were supported by the central evaluation contractor and NHTSA through: (1) the preparation of a periodically updated Life Activities Inventory Data Collection/Interview Manual (Struckman-Johnson & Strawn, 1976), (2) the implementation of a management information system providing frequent communication between the sites and central evaluation contractor personnel to monitor follow-up scheduling and data collection performance, and (3) by a series of workshops (Denver, Colorado - April 21-23, 1975, and February 16-20, 1976; and Custer, South Dakota - September 8-10, 1976) designed to provide training in data collection procedures and a forum for the interaction of data collection personnel from the eleven sites.

The four instruments which comprise the Life Activities Inventory include the following:

1. LAI SECTION I: Mortimer-Filkins Questionnaire

   This 58 item questionnaire was developed for the NHTSA by the University of Michigan Highway Safety Research Institute under contract FH-11-7615. This instrument was used only in the initial interview of STR clients to provide an index of drinking problem severity of clients assigned to the STR study.

2. LAI SECTION II: Questionnaires

   Two questionnaire instruments were included in this section of the Life Activities Inventory. Both the 82 item Current Status Questionnaire, and the 151 item Personality Assessment Survey were developed by the Fort Logan Mental Health Center in Denver, Colorado, as part of their ongoing treatment evaluation program, and incorporated in the LAI by permission. The CSQ was designed as a follow-up instrument which would be sensitive to client adaptation and adjustment in a number of areas affected by problem drinking. Its inclusion was intended to provide for the measurement of outcomes relevant to the general objectives of alcohol rehabilitation programs (non-traffic safety criteria). The PAS was designed to assess personality concomitants of problem drinking; its inclusion in the STR data collection battery was intended both to provide for a thorough description of STR clients, and as a source of criteria reflective of client adjustment.

TABLE 5. NUMBER OF STR DATA COLLECTION PERSONNEL BY SITE

Site	Interview	Records Checks*	Total
Denver	9	0	9
Fairfax	10	3	13
Kansas City	5	0	5
Minneapolis	1	0	1
New Orleans	6	0	6
Phoenix	10	2	12
San Antonio	5	0	5
South Dakota	10	1	11
New Hampshire	11	1	12
Oklahoma City	13	2	15
Tampa	15	0	15
TOTAL	95	9	104

*Separate count of individuals responsible for records checks, if different from interviewers.

3. LAI SECTION III: Life Activities Interview

The 81 item Life Activities Interview was developed explicitly for the STR study by the central evaluation contractor. This interview protocol was designed to obtain measures of client adaptation, adjustment and behavior reflective of the accomplishment of the same general types of outcomes as those provided by the CSQ. This instrument was designed to be administered in a face-to-face interview between site data collection personnel and individual clients, rather than as a self-completed questionnaire.

4. LAI SECTION IV: Records Check

The records check document completed at initial assignment, and at 6, 12, and 18 month follow-up points served as the primary basis for the collection of data pertinent to the traffic safety objectives of STR treatment programs. At initial contact, records check data were collected covering clients' traffic offense, criminal offense, and accident involvement during the four years prior to assignment in the STR study. These data were collected to fully describe the traffic safety related background of STR subjects, and to provide a set of covariates for use in analyses of treatment effect. Conduct of traffic, criminal and accident records searches at the 6, 12, and 18 month follow-up intervals provided the basis for derivation of the traffic safety related outcome measures for the STR study. At each follow-up point a search of police, court, and motor vehicle department records was conducted by site records check personnel. Each arrest, conviction and accident appearing in these official records was recorded as a separate event. Each entry on the records check document included an indication of the type of offense, source of information, arrest/conviction/accident date, an indication of alcohol involvement (including BAC in the case of DUI offenses), and details of driver license actions (e.g., suspension or revocation) triggered by the offense or accident. As indicated in Chapter I, these data were obtained for each of the 3,666 STR clients at each follow-up interval.

TRAFFIC SAFETY CRITERIA

Searches of traffic, criminal, and accident records, conducted at each of the three follow-up intervals, provide the basis for the computation of a set of outcome measures designed to provide for the assessment of treatment effects on those aspects of STR client behavior which pertain to the traffic safety objectives of the ASAP projects. In each case the incidence of an officially recorded event (arrest or accident) forms the basis for the measure of client performance. The following measures have been calculated for each STR client, and are used to support the analyses of STR treatment effectiveness reported in Chapter IV.

1. Accident Recidivism: This measure of client performance is computed as the total number of reported accidents recorded for a particular client between the time of his assignment to the STR study and the last follow-up period for which data are available. Accident counts utilized in the present report represent accidents recorded for the entire 18 month follow-up period for all STR clients except for 2 Fairfax, 4 San Antonio, and 155 Oklahoma City clients for whom data collection is not yet complete; and the 200 South Dakota and 353 Tampa clients for whom 18 month follow-up data collection was not performed.

2. A/R Traffic Offenses: Two criterion measures based on the reported incidence of A/R traffic offenses (DUI and lesser A/R traffic offenses) are used in analyses of treatment effectiveness. The first of these measures represents the total number of A/R offenses recorded between the time of initial STR assignment and the last available follow-up period. As with accident recidivism counts, 18 month follow-up data are available for all STR clients with the exception of the 161 clients for whom scheduled data collection has not been completed, and the 553 clients (South Dakota and Tampa) for whom 18 month follow-up was not provided. The second measure of A/R traffic offense recidivism was computed as the time interval between initial assignment and the date of the first A/R traffic arrest. This measure was used to support the survival rate analyses reported in Chapter IV.

3. Serious Traffic Offenses: This criterion measure is computed as the total number of DUI, lesser A/R, and Reckless Driving offenses recorded between the time of initial STR referral and the last follow-up contact. The terminal contact represented 18 months follow-up for 2,952 STR clients, and 12 months follow-up for the remaining 714 individuals.

4. Total Traffic Offenses: The total number of DUI, lesser A/R, Reckless Driving, and Hazardous Moving Violation arrests between the date of STR assignment and the terminal follow-up period formed this criterion measure. It should be noted that this index provides a general measure of driving performance rather than a specific index of drinking-driving behavior of the STR clients.

5. Non-Traffic (Criminal) Offenses: This criterion measure consists of a count of the number of reported arrests/convictions for property crimes, assault crimes, sex crimes, and "other" criminal offenses. Public Intoxication arrests/convictions are not included in this measure because of variations in public intoxication statutes between sites. Although this criterion does not bear directly on the traffic safety objectives of the STR study, it is included in this section due to its origin in the records check documents.

DIRECT INDICES OF DRINKING BEHAVIOR

An explicit objective of many alcohol treatment programs is the modification of a client's level or pattern of consumption of alcoholic beverages. On the one hand, many treatment programs aspire to achieve total abstinence as a therapeutic goal. Other treatment philosophies argue that successfully rehabilitated problem drinkers can adopt a pattern of "controlled drinking" (Davies, 1962; Kendell, 1968; Pattison, 1966; Sobell & Sobell, 1973; and Armor, Polich & Stambul, 1976). In either case a successful outcome is considered to be reflected by modified levels or patterns of drinking. A set of outcome measures explicitly related to client drinking behavior are derived from specific questions contained in the Life Activities Interview and the Current Status Questionnaire. This subset of measures is designed to match, as closely as possible, the outcome measures utilized in assessments of the effectiveness of NIAAA alcohol treatment programs (Armor, et al., 1976; and Eagleston, Rittenhouse, Towle and Wiegand, 1974). The principal rationale for the inclusion of these measures in the assessment of STR modalities is to provide a specific point of comparison between the present study and other research in the alcohol treatment field. The following criterion measures are intended to accomplish this purpose:

1. Number of Days Abstinent: This measure of drinking behavior is derived from a question in the CSQ which solicits the client's self report of the number of days since the client's last drink. This index of days abstinent is recorded for each administration of the CSQ (initial, 6, 12, and 18 month follow-up).

2. Average Level of Alcohol Consumption: This measure is obtained from a LAI question and is computed as the mean number of ounces of ethanol consumed per day during the week prior to administration of the interview. This self report index was also obtained at each administration of the LAI.

3. Drinking Behavior: An overall index of self reported drinking behavior was derived from a set of LAI and CSQ items and was calculated as a three category index which could assume one of three values:

    1 = complete abstinence for 30 days or more,
    2 = a pattern of "normal drinking" during the preceding 7 days, or
    3 = a pattern of excessive or abusive drinking during the preceding 30 days.

A more detailed description of the computations involved in the development of these measures has been reported previously (Ellingstad & Struckman-Johnson, 1977).

LAI/CSQ INDICES OF ADJUSTMENT

Both the Life Activities Interview and the Current Status Questionnaire were designed to assess client adjustment in several areas potentially affected by problem drinking. These instruments have been subjected to an extensive series of analyses designed to produce distinct scales capable of providing measurement of client status along a number of behavioral dimensions (Ellingstad & Struckman-Johnson, 1977). Based upon these analyses, five composite LAI/CSQ factor scores, 2 CSQ scales and 1 LAI scale score were calculated for each STR client based on his responses to LAI and CSQ questions at each interview point. These measures reflect the following client attributes:

1. LAI/CSQ Factor I: Current Quantity/Frequency of Drinking. This factor score provides an index of the client's current pattern of drinking behavior. Individuals scoring high on this dimension provide self-reports of high quantity and frequency of drinking in the recent past, and relatively short periods of abstention.

2. LAI/CSQ Factor II: Employment/Economic Stability. The second LAI/CSQ scale score reflects the client's employment stability and economic productivity. Clients achieving high scores on this dimension exhibit greater income production and stability of employment. Low scores would be indicative of problems in this life status dimension.

3. LAI/CSQ Factor III: Current Physical Health Problems. Self-reports of physical health problems are reflected in this scale score. A high scale score represents the report of substantial numbers of physical health complaints, while low scores reflect self-diagnosis of health and well-being.

4. LAI/CSQ Factor IV: Social Interaction. The fourth factor score represents a social withdrawal versus social interaction dimension of client behavior. The individual scoring high on this scale would tend to be outgoing, gregarious, and socially active; while the low scoring individual would tend to be withdrawn and alienated from others.

5. LAI/CSQ Factor V: Current Drinking Problems. The measure represents a broad index of self reported drinking problems. High scores are indicative of the presence of such problems while low scores appear to represent relative freedom from these difficulties.

6. CSQ Factor I: Marital Problems. The factor, specific to the CSQ instrument, represents marital problems with high scoring individuals reporting a high degree of client-spouse conflict or marriage difficulty. It should be noted that this measure was only available for the approximately one-half of the STR clients who were married.

7. CSQ Factor V: Residential Stability. This CSQ factor represents the client's residential stability, with high scores reflective of a greater degree of permanence of living arrangements.

8. LAI Factor III: Family Status (Marriedness). The factor, specific to the Life Activities Interview provides an index of family status or stability. High scores are obtained by married individuals who live with and care for others and tend to engage in activities with the family group.

INDICES OF PERSONAL ADJUSTMENT, PAS SCALES

Like the LAI and CSQ, the Personality Adjustment Scale has been subject to an extensive series of factor analytic treatments in order to provide for the computation of scale scores which may serve as a measure of client adaptation in several dimensions. Although a primary purpose of including the PAS in the STR data collection battery was to provide a comprehensive description of STR clients and produce covariates which might be useful in analyses of treatment effectiveness; there appear to be a number of PAS scales which reflect attributes subject to modification by successful alcohol treatment programs. The following PAS scales are used in the present report as criterion measures in analyses of treatment effect:

1. PAS Factor II: Anxiety, Depression and Tension. High scores on this scale are indicative of self-admission of greater numbers of anxiety/depression symptoms than low scores.

2. PAS Factor III: Projection of Attributes/Trust of Others. Individuals obtaining low scores on this scale exhibit tendencies to project negative attributes and ill intent to others and be suspicious of the motives of other people. High scores, on the other hand, suggest a willingness to trust the integrity of others.

3. PAS Factor VI: Self Image. A high score on this scale suggests an insecure, indecisive, self debasing individual while a low score is suggestive of self assurance and a positive self image.

4. PAS Factor VIII: Group Attraction. A high score on this scale is indicative of group independence and negative feelings toward others, while a low score indicates group attraction and positive feelings toward other people.

5. PAS Factor IX: Introversion/Extroversion. High scores on this scale reflect responses characteristic of outgoing, socially bold individuals, while low scores are characteristic of a shy, retiring person.

6. PAS Factor XI: Emotional Control. A high score on the scale appears to be indicative of a lack of emotional control and an easily angered individual. Low scores would appear to reflect a high degree of emotional control and an easy-going nature.

Chapter III

CLASSIFICATIONS OF STR TREATMENTS AND CLIENTS

Within each of the eleven ASAP sites the STR study was designed as a true experiment. The population of eligible clients was defined, at each site, by reasonably objective selection criteria based on the particular ASAP's problem drinker diagnosis system. Random assignment procedures were implemented which permitted assignment of this client pool to either a control condition or to a circumscribed set of alcohol treatment programs. Within each of these site designs the assessment of treatment effectiveness is a relatively straightforward matter, subject only to empirical demonstration that the experimental procedures (e.g., random assignment) were carried out as planned. Description of a site's treatment alternatives are, of course, useful in identifying the characteristics of effective treatments; and description of client characteristics are important considerations in the generalization of the findings of site specific analyses.

On the program level the issues of treatment and client characteristics assume much greater importance to analyses of treatment effectiveness which must pool data from the various site designs. Although relatively substantial effort has been expended in assessing the equivalence of STR treatments between the eleven sites, and in examining the characteristics of clients between and within the eleven STR subject pools, this work is not yet complete and the results reported in the present chapter must be considered to represent preliminary ways of categorizing treatments and clients. The remainder of this chapter describes the general methodology applied to the categorization of STR treatment programs, identifies preliminary treatment taxonomies which serve as the basis of program level estimates of treatment effect (Chapter IV), describes the client characteristics of individuals included in these program level designs, and describes the methodological approach which is currently being followed in attempts to identify client types.

STR TREATMENT TAXONOMY

Collectively the eleven STR sites have implemented an impressive variety of short duration alcohol treatment programs. Table 6 identifies the STR assignment groups, and the treatment modalities (or combinations of modalities) which make up each of these site specific assignment conditions. With the exception of three treatment assignment conditions at Fairfax, and two treatment and one control group assignment at New Orleans, site assignment procedures provided for inclusion only of "Mid-Range" problem drinkers in the STR client pool. Both non-problem (social) drinkers, and serious problem (alcoholic)

TABLE 6. SUMMARY OF STR ASSIGNMENT CONDITIONS AND MODALITIES

Site	Assignment ID	Modality ID	N	Description
Denver	01	36	111	Power Motivation Training Only
	02	02	115	Minimum Exposure Control
	03		116	Traditional Treatment (Group Therapy)
		03	38	Fort Logan Mental Health Center
		04	48	Denver General Hospital
		05	30	Bethesda Hospital
Fairfax	01	37 & 13	77	Power Motivation Training and Weekend Driver Improvement School
	03	37	146	Power Motivation Training Only
	05		77	Fairfax Alcohol Community Education and Weekend Driver Improvement School
		06 & 43	*	AOC FACE + Weekend DIS
		07 & 13	*	FACE + Weekend DIS
	06		67	"Other Treatment" and Driver Improvement School (Level III PDs Only)
		08 & 12	*	Washington Hospital + DIS
		09 & 12	*	Fairfax Division of Alcoholism Services (DAS) + DIS
		10 & 12	*	Alexandria DAS + DIS
	08	37 & 12	71	Power Motivation Training and Driver Improvement School (Level III PDs Only)
	09		71	FACE + DIS (Level III PDs Only)
		06 & 12	*	AOC FACE + Weekend DIS
		07 & 12	*	FACE + Weekend DIS
	10	--	78	Probation Only Control Group (Level II PDs Only)
Kansas City	01	38	128	Power Motivation Training Only
	02	14	115	Community Alcohol Programs (Group Therapy)
	03		103	Minimum Exposure Control
		16	*	Minimum Exposure I
		32	*	Minimum Exposure II
	04	38 & 15	38	PMT Plus Antabuse
	05	14 & 15	30	CAP Plus Antabuse
	06		23	Minimum Exposure Plus Antabuse
		16 & 15	*	Minimum Exposure I + Antabuse
		32 & 15	*	Minimum Exposure II + Antabuse

Table 6. Summary of STR Assignment Conditions and Modalities (Continued)

Site	Assignment ID	Modality ID	N	Description
Minneapolis	01	17	55	Chalk Talks (Alcohol Safety School)
	02	--	52	No Treatment Control Group
	03	39 & 17	52	PMT and Chalk Talks
New Orleans	03	--	52	Probation Control (Mid-Range PDs)
	05	21 & 20	51	Alcohol Safety Action School and Group Therapy A (Mid-Range PDs)
	06	21 & 40	50	Alcohol Safety Action School and Power Motivation Training (Mid-Range PDs)
	07		65	Probation Control (Serious PDs)
	10	21 & 18 & 19	61	Alcohol Safety Action School, Group Therapy B, and Antabuse (Serious PDs)
	11	21 & 40 & 19	60	Alcohol Safety Action School, Power Motivation Training and Antabuse (Serious PDs)
Phoenix	01	41	122	Power Motivation Training Only
	02	23	109	Therapy Workshops
	03	22	120	Home Study (Minimum Exposure)
San Antonio	01	--	90	No Treatment Control Group
	02		90[1]	Alcohol Treatment Program (ATP)
		30	54	Individual Therapy
		31	28	Group Therapy
		30 & 31	1	Individual & Group Therapy
	06		114[2]	ATP and PMT
		30 & 42	56	Individual ATP and PMT
		31 & 42	47	Group ATP and PMT
		30 & 31 & 42	2	Individual and Group ATP and PMT
South Dakota	01	--	88	No Treatment Control Group
	02		112	Problem Drinker Driver Course (School)
		34	*	Statewide PDDC
		35	*	Sioux Falls PDDC
New Hampshire	01	--	101	No Treatment Control Group
	02		100	Driver Retraining School
		24	*	DRS I
		33	*	DRS II

Table 6. Summary of STR Assignment Conditions and Modalities (Continued)

Site	Assignment ID	Modality ID	N	Description
Oklahoma City	01	25	100	Rehabilitation Only (Group Therapy)
	02	--	108	Control (No Treatment-No Punitive Sanctions)
	03	--	100	Control (Punitive Sanctions Only)
	04	25	94	Rehabilitation and Punitive Sanctions
Tampa	01	29 & 26	143	Short Term Group Therapy and School
	02	26	104	Problem Drinker School
	03	27	106	Read Only (Minimum Exposure)

[1] Includes 7 No Shows Who Received No Specific ATP Assignment.
[2] Includes 9 No Shows Who Received No Specific ATP Assignment.
* Client Assignment Reports Collected From the Sites Do Not Specify Which of These Specific Conditions Within the General Assignment Category Was Used.

drinkers were thus eliminated from consideration in the STR study. The exceptions noted above provided for assignment of serious problem drinkers to STR treatment conditions in the Fairfax (Level III Problem Drinkers) and New Orleans (Problem Drinkers) designs. An additional exception which may be noted upon inspection of Table 6 is the use of disulfiram (Antabuse) as a concomitant treatment condition to the two serious problem drinker treatment assignments in the New Orleans design, and as a separate set of treatment assignments (combined with other modalities) in the Kansas City design. Because these two aspects of STR treatment programs (assignment of serious problem drinkers, and the use of disulfiram) were site specific conditions the clients assigned to serious problem drinker treatment conditions and to disulfiram therapy are <u>not</u> considered in the present report.

STR Modality Description Questionnaire

In order to provide for an adequate definition of the characteristics of the various STR assignment conditions, and to identify similarities between the treatment alternatives of the eleven sites, each site was asked to complete a structured questionnaire for each of the alcohol treatment modalities included in their STR assignment conditions. The format of this questionnaire is shown in Appendix A. These data were collected from each site during the January to May, 1977, period.

Part A of the Modality Description Questionnaire was designed to collect information pertinent to the organization and structure of each of the STR treatment alternatives and to provide information relative to the costs involved in providing a particular treatment program as well as the procedural mechanisms employed by the sites to ensure client retention in a particular treatment assignment. Part B addressed the characteristics of the treatment process of particular modalities and included questions pertinent to: (1) the general orientation of the treatment program (Questions B.1 to B.5), (2) the focus of the treatment program (Questions B.7 to B.10), (3) the goals of the treatment modality (Questions B.12 and B.13), and (4) the role of the instructor or therapist (Questions B.11 and B.14 to B.17). It should be noted that for modalities characterized (by the sites) as alcohol safety schools, data were provided only for Questions B.1 to B.5 of Part B. Part C of the questionnaire provided information concerning the background, training and experience of each of the instructors or therapists responsible for the conduct of an STR treatment alternative. The data collected with this instrument provide the basis for the description of the STR treatment programs presented in the present chapter and were used to group similar treatment assignments for the purpose of accomplishing interim assessments of treatment effectiveness.

Analysis of Questionnaire Data

Although the primary use of the Modality Description Questionnaire data in the present report is related to simple descriptions of the treatment program structure and process of various arbitrary groupings of modalities into quasi-experimental program level designs; a limited number of analyses have been conducted with these data in order to assess the similarities of STR assignment conditions along several dimensions. These attempts to form empirical groupings of similar treatment conditions have included efforts to construct adequate indices of similarity; followed by the application of hierarchical clustering algorithms to provide the actual grouping of like treatments.

Definition of appropriate measures of relevant treatment program attributes have involved the application of principal components analysis to the questionnaire data. Table 7 shows a rotated principal components solution based on questions pertaining to the structural characteristics of the treatment programs (Questions 1-6, Part A), and to general characteristics of the treatment process (Questions 1-5, Part B). Descriptions of a total of 36 separate STR treatment conditions were the "subjects" for this analysis. The first root of this solution is defined almost exclusively by those variables derived from Part B of the questionnaire which relate to the orientation of the treatment program. The second root is principally determined by three variables (number of sessions, average session length, and treatment program duration) which relate to the amount of treatment exposure provided by the assignment conditions. The third root shows substantial loadings only for two variables which reflect the size of the client group involved with the treatment program. Factor scores corresponding to these three roots were computed for each of the STR treatment programs included in this analysis (N = 36). Calculation of the factor score for each dimension utilized an unweighted salients procedure which involved assignment of unit weight to each variable contributing to a given factor (the underscored loadings in Table 7 indicate the salient variables for each of the three dimensions) and a zero weight to the remaining variables. Scores on each variable were standardized prior to the computation of these factor scores. To simplify the measures of these treatment program attributes, decile ranks were calculated for each treatment program on each of the three factors, and these measures (ranging in value from 0 to 9) were used in clustering analyses applied to these treatment programs. Table 8 shows the three factor scores (in decile ranks) for the nineteen non-school STR treatment modalities designed for mid-range problem drinkers (serious problem drinker modalities from Fairfax and New Orleans are eliminated from this list).

Tables 9 and 10 and Figure 1 summarize the results of a hierarchical clustering analyses applied to the structural factors of the nineteen non-school, mid-range problem drinker treatment modalities listed in Table 8. The clustering technique employed is based on the algorithm described by Johnson (1967) and implemented in the Statistical Analysis System (SAS) (Barr, Goodnight, Sall & Helwig, 1976). This procedure

TABLE 7. PRINCIPAL COMPONENTS ANALYSIS OF STRUCTURAL AND GENERAL GROUP PROCESS DATA FOR 36 STR TREATMENT PROGRAMS. (SCHOOLS AND SERIOUS PD TREATMENTS INCLUDED).

Variable	First Principal Component	Second Principal Component	Third Principal Component
Number sessions	.104	.687	-.217
Length of session	.032	-.861	.050
Treatment duration	.534	.729	-.049
Number of clients	.071	.104	.905
Number of instructors	.490	-.410	.568
Instructor versus counselor rating	.707	.262	-.064
% time information transmission	-.714	.394	.335
% time didactic approaches	-.878	.290	.236
% time participant/ leader discussion	.783	-.124	-.055
Rating of uniqueness of program to leaders	-.529	-.392	-.451
% variance	32.20%	24.01%	15.72%

TABLE 8. FACTOR SCORES (IN DECILE RANKS) OF 19 NON-SCHOOL STR TREATMENT MODALITIES ON GROUP PROCESS, STRUCTURE I (EXPOSURE), AND STRUCTURE II (SIZE) FACTORS. (SERIOUS PD TREATMENTS EXCLUDED).

Site	Modality	Group Process	Structure I	Structure II
Denver	PMT	0	1	6
	Ft. Logan Group Therapy	1	6	9
	Denver General Group Therapy	5	7	9
	Bethesda Group Therapy	2	4	3
Fairfax	PMT	4	1	8
	FACE (AOC)	4	3	2
	FACE	6	6	3
Kansas City	PMT	7	2	6
	CAP	8	9	1
Minneapolis	PMT	N/A	1	4
New Orleans	PMT	3	1	6
	Group Therapy A	9	5	4
Phoenix	PMT	0	1	6
	Therapy Workshops	2	3	2
San Antonio	PMT	2	1	7
	ATP Individual	6	5	0
	ATP Group	5	3	7
Oklahoma City	Rehabilitation (Group Therapy)	9	8	3
Tampa	Didactic Group Therapy	1	4	5

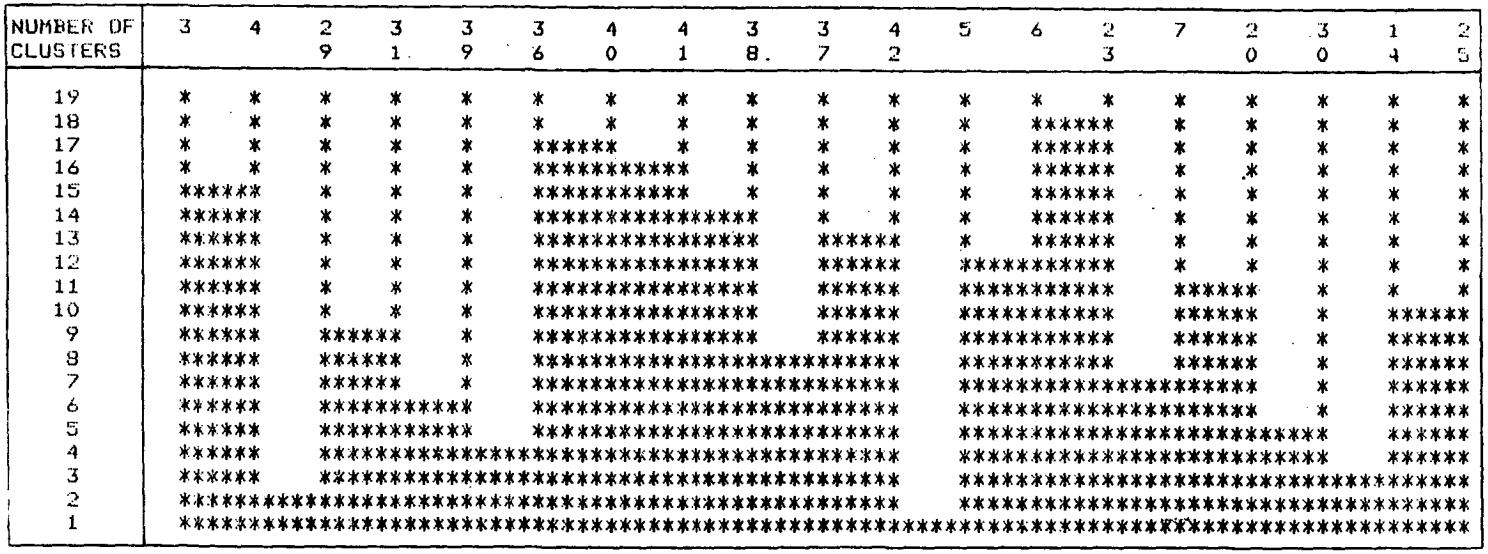
TABLE 9. CLUSTER ANALYSIS SUMMARY - SUCCESSIVE WITHIN CLUSTER DISTANCES

NUMBER OF CLUSTERS	MAXIMUM DISTANCE WITHIN A CLUSTER	NUMBER OF DISTANCES WITHIN <= MAXIMUM	NUMBER OF DISTANCES IN ALL <= MAXIMUM	RATIO
19	0.00000000	0	4	0.00000
18	0.00000000	1	4	0.25000
17	0.00000000	2	4	0.50000
16	0.00000000	4	4	1.00000
15	0.07760102	5	12	0.41667
14	0.07760102	8	12	0.66667
13	0.07760102	9	12	0.75000
12	0.15520203	11	19	0.57895
11	0.15520203	12	19	0.63158
10	0.38800514	13	38	0.34211
9	0.38800514	14	38	0.36842
8	0.38800514	22	38	0.57895
7	0.77601027	28	58	0.48276
6	1.00881290	30	65	0.46154
5	1.24161625	35	69	0.50725
4	1.39681816	53	78	0.67949
3	2.87123775	65	126	0.51587
2	4.73366261	83	153	0.54248
1	8.76891613	171	171	1.00000

TABLE 10. DISTANCES WITHIN AND BETWEEN CLUSTERS - MAXIMUM/AVERAGE/MINIMUM

NUMBER OF POINTS	CLUSTER	1	2	3	4
2	1	0.07760102	4.73366261	6.59608746	5.66487503
		0.07760102	2.65999047	4.04818670	4.22925591
		0.00000000	1.00881290	2.01762676	2.87123775
9	2	4.73366261	1.39681816	6.20808220	8.76891613
		2.65999047	0.40524977	2.05498986	5.21220202
		1.00881290	0.00000000	0.15520203	1.55202007
6	3	6.59608746	6.20808220	1.24161625	2.87123775
		4.04818670	2.05498986	0.51734017	1.66842183
		2.01762676	0.15520203	0.00000000	0.31040412
2	4	5.66487503	8.76891613	2.87123775	0.38800514
		4.22925591	5.21220202	1.66842183	0.38800514
		2.87123775	1.55202007	0.31040412	0.00000000

FIGURE 1. CLUSTER MAP



utilizes Euclidean distances (standardized distance matrix) as the measure of similarity and begins by forming a separate cluster for each case (treatment program) in the analysis. At each successive iteration the two closest clusters are combined into a single cluster, until after N iterations all of the cases have been combined into a single cluster. Between cluster distance at each stage is defined as the maximum distance between an observation in one cluster and an observation in the other cluster.

Table 9 shows maximum within cluster distances at each successive step in the amalgamation procedure. Four clusters were chosen as the last point at which this index did not increase substantially at the next iteration. Table 10 shows maximum, average, and minimum within and between cluster distances for the four group solution. The diagonal entries in this matrix show within cluster distances (maximum, average and minimum), while the off diagonal entries show between cluster distances. Figure 1 shows the graphic map of this clustering solution. The numeric codes for the nineteen non-school, non-serious problem drinker modalities are those listed in Table 6. In this four cluster solution, two of the Denver treatment conditions (Fort Logan and Denver General) form the first cluster. All of the PMT conditions (modality codes 36-42) as well as San Antonio's ATP Group Therapy and Tampa's Didactic Group Therapy comprise Cluster 2. Cluster 3 includes Denver's Bethesda Group Therapy (5), Fairfax FACE (6 and 7), New Orleans' Group Therapy A (20), Phoenix Therapy Workshops (23), and San Antonio's ATP Individual (30). The final cluster is formed by Kansas City CAP (14) and Oklahoma City Rehabilitation (25). This cluster solution was arbitrarily altered, upon inspection of the structure data, by moving the two non-PMT modalities from Cluster 2 to Cluster 3 (San Antonio ATP Group and Tampa Didactic Group Therapy). This arbitrary adjustment of the empirical clustering solution was done for a variety of reasons. First, STR assignments in San Antonio do not separate ATP Individual and ATP Group Therapy and it was necessary to treat these clients as a single group. Second, it was considered appropriate upon inspection of the structural data to segregate the seven PMT treatment programs which were explicitly designed to be structurally identical. Table 11 summarizes the structural characteristics of the four groups of treatment modalities with respect to the two factor scores on which the clusters were based, and the raw data from which these factor scores were derived. The structural taxonomy achieved by this process was combined with a priori treatment categorizations to provide a set of program level designs which are described in the next section of this chapter. Although similar approaches have been taken to the empirical grouping of STR treatments according to other indices of similarity contained in the Modality Description Questionnaire, clear clusters of treatments have not yet been achieved. It should be noted that the structural taxonomy achieved through this clustering algorithm considered the characteristics of individual STR treatment modalities, rather than assignment conditions. Although single modality assignments are used in some of the sites, it is also common within site designs to expose clients to combinations of treatment modalities.

TABLE 11. SUMMARY OF THE STRUCTURAL CHARACTERISTICS OF THE FOUR CLUSTER GROUPS

Group	Site	Number	Modality Name	Factor Scores I	Factor Scores II	Number of Sessions	Session Length (minutes)	Exposure Duration (days)	Number Clients	Number Instructors
I N=2	Denver	03	Ft. Logan GT	6	9	12	120	75	18	2
	Denver	04	Denver General	7	9	15	120	147	120	3
			Mean	6.50	9.00	13.50	120.00	111.00	69.00	2.5
II N=7	Denver	36	PMT	1	6	4	480	9	12	2
	Fairfax	37	PMT	1	8	4	480	9	16	2
	Kansas City	38	PMT	2	6	4	420	9	12	2
	Minneapolis	39	PMT	1	4	4	480	9	10	2
	New Orleans	40	PMT	1	6	4	480	9	12	2
	Phoenix	41	PMT	1	6	4	480	9	12	2
	San Antonio	42	PMT	1	7	4	480	9	15	2
			Mean	1.14	6.14	4.00	471.43	9.00	12.71	2.00
III N=8	Denver	05	Bethesda	4	3	6	90	37	7	2
	Fairfax	06	AOC (FACE)	3	3	10	150	35	13	1
	Fairfax	07	FACE	6	3	18	90	70	19	1
	New Orleans	20	Group A	5	4	10	90	64	9	2
	Phoenix	23	Therapy Workshop	3	2	7	150	23	13	1
	San Antonio	30	ATP Individual	5	0	8	60	50	1	1
	San Antonio	31	ATP Group	3	7	8	150	50	15	2
	Tampa	29	Didactic Group	4	5	6	60	36	11	2
			Mean	4.12	3.37	9.12	105.00	45.62	11.00	1.5
IV N=2	Kansas City	14	CAP	9	1	25	60	180	10	1
	Oklahoma City	25	Rehabilitation	8	3	24	60	162	8	2
			Mean	8.50	2.00	24.50	60.00	171.00	9.00	1.5

Program Level Designs - Treatment Taxonomies

A variety of program level designs have been configured, within which interim assessments of treatment effectiveness can be accomplished. Although the previously described clustering process serves as a basis for the development of some of these designs, a number of a priori groupings of STR treatment assignments are also utilized. Within each design the performance of clients exposed to STR treatment conditions was compared to the performance of individuals assigned to control or minimum exposure treatment conditions.

Before considering these program level designs, it may be useful to briefly consider the characteristics of these control conditions. Table 12 summarizes the control or comparison group assignments of each of the STR sites. For purposes of the present analyses the serious problem drinker control condition of the New Orleans design, and the minimum exposure plus antabuse control condition of the Kansas City design are eliminated. As indicated in Table 12, four sites were forced to employ minimum treatment exposure rather than true no-treatment conditions as a means of establishing comparison groups. In Denver this "minimum exposure condition" involved a single session alcohol safety school of four hours duration. In Kansas City two varieties of minimum exposure were utilized. The first was a three session (1 hour per session) alcohol safety school, while the second was a single session, 3 hour school. In both Phoenix and Tampa the minimum exposure condition consisted of short, single sessions at which literature pertaining to alcohol traffic safety issues was distributed, and no instructional or therapeutic intervention was attempted.

The following eight program level designs were configured to test the effects of STR treatment on client behavior. Each of these designs provides for the comparison of one or more treatment group with the performance of control or minimum exposure clients. In each design, clients from a number of STR sites are pooled to form the required treatment and control groups.

Taxonomy 1 - Total Treatment vs. Control

The first program level design attempted in the present report consists of comparisons of the performance of clients exposed to any type of STR treatment to those assigned to control or minimum exposure conditions. The only clients excluded from consideration in this design are the serious problem drinkers included within the Fairfax and New Orleans site designs, and the disulfiram conditions of the Kansas City design. Although the potential for masking or confounding of treatment effects is substantial in this arbitrary taxonomy, this design is included as an "overall" test of STR treatment effectiveness. Contributions of clients to treatment and control conditions of this design, by site, are shown in Table 13.

TABLE 12. STATUS OF STR CONTROL OR MINIMUM EXPOSURE ASSIGNMENT CONDITIONS

Site	Comparison Assignment Name	Number of Sessions	Session Length	Exposure Duration
Denver	Minimum Exposure	1	240	1
Fairfax	Probation Only	0	0	0
Kansas City	Minimum Exposure I	3	60	15
	Minimum Exposure II	1	180	1
Minneapolis	No Treatment Control	0	0	0
New Orleans	Probation Control	0	0	0
Phoenix	Home Study	1	30	1
San Antonio	No Treatment Control	0	0	0
South Dakota	No Treatment Control	0	0	0
New Hampshire	No Treatment Control	0	0	0
Oklahoma City	No Treatment/No Sanctions	0	0	0
	Punitive Sanctions Only	0	0	0
Tampa	Read Only	1	15	1

TABLE 13. SUMMARY OF PROGRAM LEVEL DESIGNS

Site	Total Treatment		School Only		PMT Only		PMT + School		Single Modality		Multiple Treatment	
	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
Denver	115	227			115	111			115	227		
Fairfax	78	230			78	76	78	77	78	76	78	154
Kansas City	103	334			103	128			103	243		
Minneapolis	52	107	52	55			52	52			55	52
New Orleans	52	101					52	50			52	101
Phoenix	120	231			120	122			120	231		
San Antonio	90	204							90	82	90	114
South Dakota	88	112	88	112								
New Hampshire	101	100	101	100								
Oklahoma City	208	194							208	194		
Tampa	106	247	106	104							106	143
TOTAL	1113	2087	347	371	416	437	182	179	714	1053	381	564

Note:

1. All New Orleans PDs and Fairfax Level IIIs excluded from all designs.
2. Kansas City Minimum Exposure plus Antabuse excluded from all designs except Total Treatment. Considered treatment in that design.

Table 13. Summary of Program Level Designs (Continued)

Site	Taxonomy #7					Taxonomy #8		
	Control	Treatment #1	Treatment #2	Treatment #3	Treatment #4	Control	Treatment #1	Treatment #2
Denver	115	68	111	48				
Fairfax	78		76			78	77	77
Kansas City	103		128		115			
Minneapolis						55	52	
New Orleans						52		
Phoenix	120		122	109			50	51
San Antonio	90			89				
South Dakota								
New Hampshire								
Oklahoma City	208				194			
Tampa						106		143
TOTAL	714	68	437	246	309	291	179	271

Taxonomy 2 - Alcohol Safety School Only

Four sites employed alcohol safety schools as a single treatment assignment condition: Minneapolis, South Dakota, New Hampshire, and Tampa. Table B.1 (Appendix B) summarizes the information pertinent to the structural and procedural characteristics of these treatment conditions, as reported in the Modality Description Questionnaires. The four schools included in this taxonomy are homogeneous in terms of structural and process characteristics, and true no-treatment control conditions are available from three of the four sites. The remaining site, Tampa, employed a minimum exposure condition which consisted of only a single 15 minute literature distribution session. Treatment and control condition Ns are shown in Table 13.

Taxonomy 3 - Power Motivation Training Only vs. Control

The Power Motivation Training programs employed by the seven sites utilizing this modality are clearly similar in structural characteristics. Four sites utilized this treatment condition as a single modality assignment condition: Denver, Fairfax, Kansas City, and Phoenix. This taxonomy is clearly a homogeneous grouping of like treatment assignments. Two of the sites employed true no-treatment assignments as comparison groups (Fairfax and Phoenix) while the other two sites utilized a school format, minimum exposure condition (Denver and Kansas City). Table 13 shows numbers of clients assigned to the treatment and no-treatment conditions within this design. Table B.2 (Appendix B) summarizes the Modality Description Questionnaire data for these PMT conditions.

Taxonomy 4 - PMT Plus School vs. Control

Three of the seven PMT sites combined PMT with an alcohol safety school as a multiple modality treatment assignment: Fairfax, Minneapolis, and New Orleans. Tables B.3 and B.4 (Appendix B) summarize the Modality Description Questionnaire data for the PMT conditions and school assignments of these three sites. The control group assignment conditions employed by all three of these sites represent true no-treatment conditions. Table 13 shows the contribution of clients to this design by each of the three sites.

Taxonomy 5 - Single Modality Assignment vs. Control

This taxonomy was created of those STR treatment assignments which involved a single non-school treatment modality. Table 13 shows the contribution of each site to this design and Table 14 lists the treatment conditions which are pooled to form this taxonomy. A summary of the structural and procedural characteristics of these treatment conditions (Modality Description Questionnaire) is contained in Table B.5 (Appendix B). This design pools a relatively

TABLE 14. TAXONOMY 5 TREATMENT AND COMPARISON GROUPS

Treatment Group: Single Modality Assignments		
Denver	03	Ft. Logan Group Therapy
	04	Denver General Group Therapy
	05	Bethesda Group Therapy
	36	Power Motivation Training
Fairfax	37	Power Motivation Training
Kansas City	14	CAP
	38	PMT
Phoenix	23	Therapy Workshops
	41	PMT
San Antonio	30	ATP Individual
	31	ATP Group
Oklahoma City	25	Rehabilitation

Control Group: No Treatment/Minimum Exposure	
Denver	Minimum Exposure
Fairfax	Probation Only
Kansas City	Minimum Exposure I
	Minimum Exposure II
Phoenix	Home Study
San Antonio	No Treatment Control
Oklahoma City	No Treatment/No Sanctions
	Punitive Sanctions Only

heterogeneous variety of treatment programs whose principal similarity lies in the fact that a single therapeutic (as opposed to educational) treatment intervention was applied as the treatment of interest.

Taxonomy 6 - Multiple-Modality Assignment vs. Control

Table 15 identifies the treatment conditions which are grouped to form this taxonomy, consisting of STR treatment assignments which coupled an alcohol safety school with a therapy condition. Clients allocated to this design, by site, are shown in Table 13. The characteristics of the therapy component of these assignments are shown in Table B.6 and the characteristics of the school portion of the assignment are shown in Table B.7 (Appendix B). As with Taxonomy 6, this grouping of assignment conditions pools clients exposed to a heterogeneous collection of therapeutic conditions. The common characteristic shared by these assignment conditions is that each involves a multi-modality assignment.

Taxonomy 7 - Single Modality Structural Groups vs. Control

The design created by this taxonomy combines the arbitrary division of STR treatment assignments as a function of the number of separate modalities included in the assignment condition, with the empirical clustering of treatment modalities on the basis of structural characteristics. In contrast to Taxonomies 1-6, this design provides for comparisons of the relative effectiveness of alternative groups of STR assignments since four taxonomic groupings are compared with one another and with a no-treatment/minimum exposure condition. Table 16 identifies the five groups whose performance is compared in this design and Table 13 shows the contribution of the individual sites to the client pool. Tables B.8-B.11 (Appendix B) summarize the site reported structural and process related characteristics of the four treatment groups included in this design.

Taxonomy 8 - Multi-Modality Structural Groups vs. Control

The final treatment taxonomy considered in the present report also provides for assessment of relative (as well as absolute) effectiveness of a variety of STR treatment assignments. Table 17 identifies the three groups whose performance is compared under this design, and Table 13 shows the contribution of the individual sites to the client pool involved in analyses of treatment effectiveness. The two treatment groups included in this design share the common characteristic of multiple-modality assignment conditions and represent Clusters 2 and 3 of the structural types discussed in connection with the hierarchical clustering analyses. Tables B.12-B.15 (Appendix B) summarize the structural and process related characteristics of the therapy and school programs included in this design.

TABLE 15. TAXONOMY 6 TREATMENT AND COMPARISON GROUPS

Treatment Group: Multiple Modality Assignments		
Fairfax	13 & 6	Weekend DIS plus FACE (AOC)
	13 & 7	Weekend DIS plus FACE
	13 & 37	Weekend DIS plus PMT
Minneapolis	17 & 39	Chalk Talks plus PMT
New Orleans	21 & 20	ASAS plus Group Therapy A
	21 & 40	ASA plus PMT
Tampa	26 & 29	PD School plus Didactic Group
Control Group: No Treatment/Minimum Exposure		
Fairfax		Probation Only
Minneapolis		No Treatment Control
New Orleans		Probation Control
Tampa		Read Only

TABLE 16. TAXONOMY 7 TREATMENT AND COMPARISON GROUPS

Treatment Group I: Structural Type I - Single Modality		
Denver	03	Ft. Logan Group Therapy
	04	Denver General Group Therapy
Treatment Group II: Structural Type II - Single Modality		
Denver	36	PMT
Fairfax	37	PMT
Kansas City	38	PMT
Phoenix	41	PMT
Treatment Group III: Structural Type III - Single Modality		
Denver	05	Bethesda Group Therapy
Phoenix	23	Therapy Workshops
San Antonio	30	ATP Individual
	31	ATP Group
Treatment Group IV: Structural Type IV - Single Modality		
Kansas City	14	CAP
Oklahoma City	25	Rehabilitation
Control Group: No Treatment/Minimum Exposure		
Denver		Minimum Exposure
Fairfax		Probation Only
Kansas City		Minimum Exposure I
		Minimum Exposure II
Phoenix		Home Study
San Antonio		No Treatment Control
Oklahoma City		No Treatment/No Sanctions
		Punitive Sanctions Only

TABLE 17. TAXONOMY 8 TREATMENT AND COMPARISON GROUPS

Treatment Group I: Structural Type II - Multiple Modality		
Fairfax	13 & 37	Weekend DIS plus PMT
Minneapolis	17 & 39	Chalk Talks plus PMT
New Orleans	22 & 40	ASAS and PMT
Treatment Group II: Structural Type III - Multiple Modality		
Fairfax	13 & 6	Weekend DIS plus FACE (AOC)
New Orleans	21 & 20	ASAS plus Group Therapy A
Tampa	26 & 29	PD School plus Didactic Group
Control Group: No Treatment/Minimum Exposure		
Fairfax		Probation Only
Minneapolis		No Treatment Control
New Orleans		Probation Control
Tampa		Read Only

STR CLIENT TYPOLOGY

Critical examination of the characteristics of the individual clients observed in the STR study is considered important for a number of reasons. First, such assessments of the attributes of those DUI clients selected for participation in the study are vital to the specification of the population(s) to which the results of program and site level evaluations of treatment effect may reasonably be generalized. Second, the formulation of program level designs which selectively pool clients from different of the eleven STR sites requires attention to the comparability of the clients in treatment and no-treatment groups making up these designs. In general, these program level designs must be considered to represent quasi-experiments within which the criteria for pooling clients (from different sites) may have introduced bias in the establishment of treatment and control groups. Third, measures of client characteristics, and identification of classes or categories of clients on the basis of these attributes, are important in order to identify and account for potential interactions between types of clients and types of treatment.

Specification of the general characteristics of the population from which the STR clients have been selected has been at least briefly addressed in two previous reports (Ellingstad & Struckman-Johnson, 1977; and Ellingstad, 1977) and will not be considered in the present interim report. Descriptions of the characteristics of clients allocated to the various program level designs discussed earlier in this chapter has been a primary focus of present analysis and these data will be discussed later in the present chapter. The problem of developing typologies of clients which will permit investigation of client X treatment interaction is an issue which has accounted for significant effort, but which as yet has not been completed. Two general strategies have been pursued in these efforts to produce satisfactory client typologies. The first strategy attempts to form a priori groups or clusters of clients according to measures of similarity derived from demographic data, prior arrest/conviction records, and indices of "initial condition" derived from initial (pre-assignment) LAI, CSQ and PAS administrations. The identification of client "types" in this approach employs clustering algorithms similar to those discussed previously in connection with the development of treatment taxonomies.

A second approach to the problem of discriminating groups or categories of STR clients utilizes a series of a posteriori procedures which attempt to: (1) identify "successful" and "unsuccessful" outcomes as represented by client performance on the battery of criterion measures discussed in Chapter II, (2) categorize clients as "successes," "failures" or "unchanged," and (3) isolate demographic, background, and initial condition variables which discriminate between the "success" groups. As indicated previously, work on this problem has not been completed.

Characteristics of Clients Included in Program Level Designs

Table 18 summarizes the major demographic and background characteristics of clients allocated to treatment and control groups in the eight program level designs considered by the present report. In the first six designs a single treatment and control group are compared, and, in general, inspection of Table 18 shows no substantial dissimilarity between groups on the basis of the twenty indices considered. Taxonomies 7 and 8, however, provide for comparisons between a single control group and more than one treatment group. The groups (5 in Taxonomy 7 and 3 in Taxonomy 8) are clearly not as homogeneous as the treatment and control groups of the other designs. In most instances these differences between groups (e.g., racial and religious composition of the groups) are apparently introduced by site specific characteristics.

Table 19 provides a summary of the non-rehabilitative treatments to which treatment and control groups within each design were exposed. Once again, treatment and control groups within the first six taxonomies are at least roughly equivalent with respect to these process variables, while dissimilarity is observable between the treatment and control groups of the final two designs.

TABLE 18. CROSSTABULATION OF DEMOGRAPHIC VARIABLES BY PROGRAM LEVEL DESIGN

	TOTAL TREATMENT			SCHOOL			PMT ALONE			PMT PLUS SCHOOL		
	Control	All Treatment	Total	Control	School	Total	Control	PMT	Total	Control	PMT Plus School	Total
Mean Age	33.7	34.5	34.2	32.1	34.0	33.1	32.1	32.9	32.5	33.4	32.9	33.2
Sex:												
% Male	94.1	95.6	95.1	87.9	89.2	88.6	100.0	100.0	100.0	97.3	97.8	97.5
Race:												
% White	73.6	71.9	72.5	92.2	91.4	91.8	72.7	73.9	73.3	74.9	79.3	77.1
% Black	11.9	12.8	12.5	3.2	4.0	3.6	13.4	11.0	12.2	23.0	18.4	20.7
% Mexican American	10.9	12.8	12.1	0.6	0.5	0.6	11.5	13.1	12.3	1.1	1.1	1.1
Mean Years Education	11.5	11.7	11.6	11.7	11.5	11.6	11.9	12.0	12.0	12.1	13.0	12.5
Employment:												
Mean Monthly Income	830	862	850	791	753	771	877	925	908	1091	1263	1169
% Blue Collar	49.1	48.9	49.1	51.3	48.9	50.1	43.3	42.4	42.8	42.6	37.7	40.2
% Not Working	18.2	18.5	18.4	14.7	17.1	15.9	25.0	24.4	24.7	12.0	8.4	10.2
Marital Status:												
% Married	44.8	43.9	44.2	32.9	37.7	35.3	46.0	41.9	43.9	44.3	46.6	45.4
% Divorced/Separated	24.8	26.2	25.7	25.1	24.1	24.6	22.6	25.2	23.9	18.6	16.9	17.7
Religion:												
% Protestant	51.8	49.3	50.2	58.5	48.9	53.6	46.0	49.9	48.0	47.5	50.6	49.0
% Catholic	30.1	31.6	31.1	30.8	32.6	31.7	29.5	26.9	28.2	33.3	34.3	33.8
Mean Mortimer-Filkins Questionnaire	15.7	16.8	16.4	15.4	16.3	15.8	16.4	16.2	16.3	13.4	13.3	13.3
Prior Arrests/Accidents:												
% 1 or More A/R Arrests	25.2	33.6	30.7	15.9	20.2	18.1	33.7	39.4	36.6	9.3	7.3	8.3
% 1 or More Serious Traffic Arrests	9.5	14.2	12.6	22.2	25.1	23.7	37.5	44.6	41.1	22.0	25.1	23.5
% 1 or More Total Traffic Arrests	33.0	31.3	31.9	51.0	50.4	50.7	79.1	80.5	79.8	49.5	45.8	47.6
% 1 or More Total Accidents	20.3	20.1	20.1	25.4	22.4	23.8	17.3	19.5	18.4	4.9	0.6	2.8
% 1 or More Total Criminal Arrests	18.8	19.2	19.1	4.9	4.0	4.5	30.2	27.9	29.0	14.2	13.4	13.8
Prior Treatment Entry:												
% 1 or More Entries	12.9	17.7	16.0	10.1	13.7	12.0	22.5	26.8	24.7	3.8	5.0	4.4
Mean Arrest BAC	.19	.19	.19	.20	.19	.20	.19	.19	.19	.17	.17	.17
Number of Clients	1113	2087	3200	347	371	718	416	437	853	182	179	361

Table 18. Crosstabulation of Demographic Variables by Program Level Design (Continued)

	SINGLE MODALITY ASSIGNMENT			MULTIPLE MODALITY ASSIGNMENT			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP						MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP			
	Control	Single Modality Assignment	Total	Control	Multiple Modality Assignment	Total	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	Total	Control	Structural Group-1	Structural Group-2	Total
Mean Age	34.1	34.7	34.5	33.4	34.2	33.9	34.1	32.4	32.9	33.8	38.6	34.5	33.1	32.8	36.9	34.4
Sex:																
% Male	96.6	97.5	97.1	94.7	95.6	95.2	96.6	100.0	100.0	100.0	91.3	97.1	93.1	97.8	92.3	93.9
Race:																
% White	68.5	69.0	68.8	67.5	65.4	66.2	68.5	45.6	73.9	56.5	77.3	68.8	81.3	79.3	74.5	78.3
% Black	11.5	11.6	11.6	14.8	17.7	16.6	11.5	17.6	11.0	6.5	15.2	11.6	17.4	18.4	24.4	20.2
% Mexican American	16.4	16.2	16.3	17.2	16.1	16.6	16.4	31.8	13.1	34.6	2.3	16.3	0.7	1.1	0.7	0.8
Mean Years Education	11.6	11.7	11.6	11.6	12.0	11.8	11.6	11.2	12.0	11.6	11.4	11.6	11.9	13.0	11.7	12.1
Employment:																
Mean Monthly Income	858	840	848	915	1002	967	858	692	925	692	873	848	996	1260	988	1059
% Blue Collar	56.7	58.9	58.0	61.6	59.9	60.6	56.7	63.2	53.9	63.8	61.2	58.0	56.6	53.1	59.0	56.6
% Not Working	19.5	22.0	21.0	12.4	11.0	11.6	19.5	19.1	24.4	19.1	21.7	21.0	13.5	8.4	13.7	12.3
Marital Status:																
% Married	49.4	44.9	46.7	43.9	46.2	45.3	49.4	38.2	41.9	51.0	45.6	46.7	40.6	46.1	45.4	43.7
% Divorced/Separated	25.1	28.3	27.0	23.5	22.7	23.1	25.1	32.4	25.2	23.7	35.6	27.0	24.0	16.9	26.9	23.3
Religion:																
% Protestant	48.7	50.0	49.4	43.6	47.6	46.0	48.7	35.3	49.9	36.5	63.8	49.4	53.1	51.2	61.8	55.8
% Catholic	29.1	29.9	29.5	39.8	36.4	37.8	29.1	44.1	26.9	53.1	12.6	29.5	28.8	34.3	21.8	27.6
Mean Mortimer-Filkins Questionnaire	16.0	17.1	16.7	15.1	15.6	15.4	16.0	15.7	16.2	18.7	17.5	16.7	14.3	13.2	15.5	14.5
Prior Arrests/Accidents:																
% 1 or More A/R Arrests	30.5	41.8	37.3	19.8	20.0	20.0	30.5	33.8	39.4	48.4	41.7	37.3	13.9	7.3	16.2	13.1
% 1 or More Serious Traffic Arrests	12.3	19.5	16.6	28.3	29.3	28.9	12.3	4.4	17.6	20.7	24.6	16.6	24.7	25.1	23.6	24.4
% 1 or More Total Traffic Arrests	43.3	44.6	44.6	53.4	53.9	53.7	43.3	27.9	41.6	44.7	55.7	44.6	57.6	45.8	60.9	56.0
% 1 or More Total Accidents	23.4	23.3	23.3	24.1	24.5	24.3	23.4	5.9	19.5	22.1	33.3	23.3	20.1	7.3	29.2	20.3
% 1 or More Total Criminal Arrests	25.1	26.9	26.2	10.1	11.2	10.7	25.1	23.5	27.9	25.2	27.5	26.2	9.0	13.4	7.0	9.3
Prior Treatment Entry:																
% 1 or More Entries	3.8	5.3	4.7	6.1	5.9	5.9	3.8	2.9	4.6	5.7	6.5	4.7	8.0	5.0	8.1	7.3
Mean Arrest BAC	.18	.19	.19	.19	.18	.19	.19	.19	.19	.20	.19	.19	.18	.17	.19	.18
Number of Clients	714	1060	1774	378	564	942	714	68	437	246	309	1774	288	179	271	738

TABLE 19. CROSSTABULATION OF PROCESS VARIABLES BY PROGRAM LEVEL DESIGN

	TOTAL TREATMENT			SCHOOL			PMT ALONE			PMT PLUS SCHOOL		
	Control	All Treatment	Total	Control	School	Total	Control	PMT	Total	Control	PMT Plus School	Total
Index Arrest Disposition:												
DWI Conviction	46.7	45.8	46.1	92.5	91.9	92.2	36.4	35.6	35.9	52.5	49.7	51.1
Reduced Charge	35.7	38.4	37.5	7.5	8.1	7.8	58.6	60.2	59.4	45.4	49.2	47.2
No Conviction	17.6	15.8	16.4	0.0	0.0	0.0	5.1	4.3	4.7	2.2	1.1	1.7
Arrest to Conviction Lag (Mean Days) *	57.9	66.6	63.5	40.8	41.6	41.2	71.5	70.4	70.9	96.8	108.2	102.5
Conviction to Treatment Entry (Mean Days) *	25.2	32.4	30.4	38.5	34.4	39.5	32.8	35.9	34.4	4.0	10.0	7.6
Index Arrest to Initial Interview (Mean Days)	81.6	87.6	85.5	58.7	59.7	57.7	65.5	64.8	65.1	101.7	104.6	103.1
Index Arrest to 6 Month Interview (Mean Days)	267.8	278.2	274.5	247.0	247.7	246.3	255.7	253.5	254.6	291.2	300.0	295.7
Index Arrest to 12 Month Interview (Mean Days)	445.4	460.6	455.2	440.5	438.4	439.4	422.5	428.1	425.3	468.7	472.9	470.9
Mean Jail Sentences (Days):												
Sentenced	31.3	41.4	37.9	14.9	16.4	15.7	25.8	31.9	28.9	26.1	30.1	28.1
Imposed	0.1	0.9	0.7	0.4	0.4	0.4	0.0	0.1	0.1	0.1	0.0	0.0
Mean Fine Sentences (Dollars):												
Sentenced	128.6	121.1	123.7	165.6	172.9	169.4	96.3	96.5	96.4	121.5	121.2	121.3
Imposed	104.8	105.4	105.2	150.1	152.1	151.1	94.0	93.5	93.7	99.6	82.3	91.0
Mean License Suspension (Days):												
Sentenced	63.2	73.3	69.8	92.7	101.9	97.5	87.1	96.4	91.8	22.4	11.5	16.8
Imposed	62.8	73.8	70.0	92.7	99.5	96.2	86.8	97.7	92.3	24.3	9.6	16.8
% Reporting Probation	24.5	29.6	28.2	0.0	0.0	0.0	45.9	42.8	44.3	60.0	42.5	49.8
Number of Clients	1113	2087	3200	347	371	718	416	437	853	182	179	361

* Excludes Fairfax, Phoenix, and San Antonio Clients

Table 19. Crosstabulation of Process Variables by Program Level Design (Continued)

	SINGLE MODALITY ASSIGNMENT			MULTIPLE MODALITY ASSIGNMENT			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP						MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP			
	Control	Single Modality Assignment	Total	Control	Multiple Modality Assignment	Total	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	Total	Control	Structural Group-1	Structural Group-2	Total
Index Arrest Disposition:																
DWI Conviction	21.0	28.8	25.7	48.4	44.9	46.3	21.0	98.5	35.7	21.5	9.4	25.7	63.5	50.3	60.1	59.1
Reduced Charge	51.5	51.0	51.2	27.2	34.8	31.8	51.5	1.5	61.3	35.8	59.5	51.2	35.8	49.2	39.9	40.5
No Conviction	27.5	20.2	23.1	24.3	20.2	21.9	27.5	0.0	3.0	42.7	31.1	23.1	0.7	0.6	0.0	0.4
Arrest to Conviction Lag (Mean Days) *	65.6	70.6	68.7	76.4	87.4	82.8	68.7	65.6	69.4	69.9	104.1	64.2	76.4	106.4	77.4	82.8
Conviction to Treatment Entry (Mean Days) *	0.0	33.9	33.9	0.0	35.0	35.0	0.0	23.5	35.9	27.3	36.5	33.9	0.0	22.2	41.9	35.1
Index Arrest to Initial Interview (Mean Days)	87.5	84.5	85.7	131.2	114.8	121.4	87.5	55.2	66.7	128.8	80.7	85.7	93.5	102.9	94.2	96.1
Index Arrest to 6 Month Interview (Mean Days)	274.0	271.1	272.3	315.6	307.7	310.9	274.0	255.5	253.0	310.7	266.1	272.3	274.8	297.6	284.0	283.9
Index Arrest to 12 Month Interview (Mean Days)	442.3	448.5	445.9	508.7	492.8	499.2	442.3	420.3	428.1	488.9	445.8	445.9	463.1	472.9	469.7	467.9
Mean Jail Sentences (Days):																
Sentenced	43.7	46.6	45.4	42.0	45.3	44.0	43.7	7.8	32.9	62.2	62.0	45.4	15.9	28.2	13.4	18.0
Imposed	0.0	0.3	0.2	0.1	1.5	0.9	0.0	0.0	0.1	0.6	0.3	0.2	0.2	0.1	0.1	0.1
Mean Fine Sentences (Dollars):																
Sentenced	112.8	108.8	110.4	122.0	116.6	118.8	112.8	57.4	96.8	99.5	143.3	110.4	124.6	125.0	114.7	121.1
Imposed	82.0	89.2	86.3	111.2	102.4	106.0	82.0	57.4	94.0	100.0	81.3	86.3	110.9	87.3	111.6	105.4
Mean License Suspension (Days):																
Sentenced	51.0	81.4	69.1	51.4	43.7	46.7	51.0	287.1	98.8	60.9	25.9	69.1	66.4	11.4	80.6	58.2
Imposed	51.2	81.3	69.2	52.3	42.7	46.5	51.2	284.3	100.1	54.0	31.1	69.2	67.6	9.6	79.8	57.9
% Reporting Probation	46.2	35.5	38.5	42.2	43.1	42.9	46.2	98.5	42.8	49.2	0.6	38.5	42.2	43.0	28.4	36.5
Number of Clients	714	1060	1774	378	564	942	714	68	437	246	309	1774	288	179	271	738

* Excludes Fairfax, Phoenix, and San Antonio Clients

Chapter IV

INTERIM ESTIMATES OF TREATMENT EFFECTIVENESS

INTRODUCTION

A series of statistical analyses which focus on client behavior in the twelve month period subsequent to STR assignment are considered in this chapter. A large number (23) of treatment effectiveness indicators are considered in each of eight quasi-experimental designs. Both the dependent measures and quasi-experimental designs have been discussed previously (Chapters II and III respectively) and will be briefly reviewed below. Also contained in this chapter is a description of the statistical procedures applied to the variety of dependent measures.

METHODS OF ANALYSIS

Quasi-Experimental Designs

The effectiveness of STR intervention is addressed in a series of eight quasi-experimental designs. These designs correspond to the eight treatment taxonomies described in detail in Chapter III. Specific details of the derivation and composition of these groups will not be repeated here. The reader will recall that six of the eight taxonomies involve comparison of a single treatment grouping to a corresponding control group: Total Treatment versus control, School Alone versus control, PMT Alone versus control, School Plus PMT versus control, Single Modality Assignments versus control, and Multiple Modality Assignments versus control. The two remaining taxonomies involve comparison of more than one treatment grouping to a single control group and the comparison of treatment groups with each other: Single Modality Structural Groups versus control and Multiple Modality Structural Groups versus control. The first six taxonomies allow for the assessment of the absolute effectiveness of six treatment groupings. The latter two taxonomies allow for the assessment of both absolute and relative effectiveness of treatment groupings.

A word of caution is necessary concerning the taxonomies designed to test both absolute and relative treatment effectiveness. In each of the six taxonomies dealing with only absolute treatment effectiveness, a treatment from a particular site is "balanced" by a control group from the same site. The situation is somewhat different for the two multiple treatment group taxonomies. For these taxonomies a single control group with clients corresponding to clients in all of the treatment groups is employed. For example, if Treatment Group I contains clients from sites A and B, and Treatment Group 2 contains clients from sites C and D, then the control group contains clients from sites A, B, C, and D. This situation can result in an imbalance

of comparison groups relative to site specific characteristics such as client demographics and law enforcement levels. To test the relative effectiveness of Treatments I and II, clients from sites A and B are compared to clients from sites C and D. To test the absolute effectiveness of Treatment I, clients from sites A and B are compared to clients from sites A, B, C, and D. To test the absolute effectiveness of Treatment II, clients from sites C and D are compared to clients from sites A, B, C, and D. This circumstance allows for the possibility of confounded results to the extent that site specific characteristics influence effectiveness measures. More will be said about this problem in the discussion of results specifically affected.

Criterion Measures

Twenty-three different criterion measures were employed within each of the eight experimental designs described above. The measures fall in three general categories: 1) Direct Traffic Safety Measures (including Criminal Activity), 2) Direct Drinking Measures, and 3) Life Status Indicators. The nature and development of each of these 23 measures has been detailed in Chapter II. To briefly review, however, the measures are listed below.

Direct Traffic Safety Measures:

1) Accidents Subsequent to STR Assignment
2) A/R Traffic Arrests Subsequent to STR Assignment
3) Time to First A/R Traffic Arrest Subsequent to Treatment Entry
4) Serious Traffic Arrests Subsequent to STR Assignment
5) Total Traffic Arrests Subsequent to STR Assignment
6) Non-Traffic (Criminal) Arrests Subsequent to STR Assignment

Direct Drinking Behavior Measures:

1) Number of Days Abstinent Prior to a Data Collection Interview
2) Average Quantity of Alcohol Consumed Per Day for the Week Prior to a Data Collection Interview
3) Drinking Behavior Category

Life Status Indicators:

1) LAI/CSQ - 1: Current Quantity/Frequency of Drinking
2) LAI/CSQ - 2: Employment/Economic Stability
3) LAI/CSQ - 3: Current Physical Health Problems
4) LAI/CSQ - 4: Social Interaction
5) LAI/CSQ - 5: Current Drinking Problems

6) CSQ - 1: Marital Problems
7) CSQ - 5: Residential Stability
8) LAI - 3: Family Status
9) PAS - 2: Anxiety, Depression, Tension
10) PAS - 3: Projection of Attributes
11) PAS - 6: Self Image
12) PAS - 8: Group Attraction
13) PAS - 9: Introversion/Extroversion
14) PAS -11: Emotional Control

Statistical Procedures

Three distinctly different statistical procedures were employed in assessing treatment effectiveness within each of eight treatment taxonomies described above. Survival Rate Analysis techniques were used for time to rearrest data. Analysis of Covariance was applied to arrest and accident data, and Profile Analysis was employed in analyses of direct drinking and life status measures. Each of these statistical procedures is described below in the context in which it is applied.

Survival Rate Analysis. Survival Rate Analysis (Cutler and Ederer, 1958) was originally developed for evaluating treatments of usually fatal chronic diseases. The application of the technique to alcohol rehabilitation is relatively straightforward if a DWI recidivist event is considered analogous to the death of a chronic patient. Those persons who do not become recidivists during the follow-up period are considered survivors. It follows that survival rate is simply 1 minus recidivism rate. The basic application of the technique involves division of the follow-up period into a number of intervals and computation of a cumulative survival rate for each treatment or control group at each interval. For the analyses present later in this chapter, the 18 month follow-up period was divided into 19 periods each 4 weeks long. Time to rearrest was computed for the first arrest subsequent to treatment entry. Arrests between STR assignment and treatment entry are excluded from computations, but noted in supplementary data tables. Survival rates can then be tested for differences at each interval by means of Student's t statistic. The advantage of the Survival Rate technique relative to simple recidivism rates or recidivist arrest counts is that time to rearrest is incorporated in the analysis. A survival rate for each group is available for each interval of the follow-up period. A further advantage of the technique is that it allows for inclusion of subjects with follow-up for less than the complete period of observation. In the present case, this means that clients from Tampa and South Dakota, Oklahoma City, San Antonio, and Fairfax with only 12 months of follow-up may be included in analyses along with clients who have 18 months of follow-up. The reader interested in a more complete explanation of the computational details of the technique is referred to the source article referenced above or Struckman-Johnson and Mushill, 1976.

Analysis of Covariance. Traditional Analysis of Covariance techniques were applied to arrest and accident count data (direct traffic safety measures and criminal activity). For each of the eight taxonomies a simple one factor design was employed for each of the event counts (a total of five analyses per taxonomy). In each case, a treatment group or groups and a control group formed the levels of the factor. The covariates were exposure to rearrest in months (either 12 or 18) and the appropriate prior arrest count (prior A/R offenses, prior accidents, etc.) for all analyses.

Profile Analysis. If the direct drinking and life status data in the present study were to be analyzed with traditional repeated measures techniques, the design would be a straightforward treatment by time design with subjects repeated across time. A treatment group or groups and a control group would form the levels of the treatment factor for each of the eight taxonomies. Initial, six, and twelve month contacts would form the levels of the time factor for all analyses. A problem exists, however, with the repeated measures technique in that the validity of the results are dependent in part on the assumption that there is equal correlation between all cells in the design, i.e., that the correlation between the control group at the initial interview and the six month follow-up interview is the same as the correlation between the control group at the initial interview and the twelve month follow-up interview and is the same as the correlation between the control group at the six month follow-up interview and the twelve month follow-up interview, etc. Evidence suggests that this assumption is frequently violated, especially when a treatment effect is present. Profile Analysis is a multivariate technique which yields the same tests of effects (treatment main effect, time main effect, and treatment by time interaction) as the traditional repeated measures design without the necessity of equal correlations among all cells of the design.

The application of profile analysis involves the computation of difference scores based on the data repeated across time. In the present case, two difference scores were computed for each direct drinking and life status measure: 1) initial contact minus six month follow-up and 2) six month follow-up minus twelve month follow-up. Also required is the computation of the sum of the differences scores. In the present case, that is the sum of the two difference scores described above. Three separate tests are performed in the execution of a profile analysis: a test of parallel profiles, a test of equal levels, and a test of slope.

The test of parallel profiles corresponds to the traditional repeated measures test of interaction. Computationally, this multivariate test is rather complex. Conceptually, however, it is relatively simple. It may be viewed as a test of whether or not the pattern of difference scores across time is the same for each group under consideration. In the present case, it is a test of whether the control group behaves the same as the treatment group across time. (In the two designs with more than one treatment group, it is a test

of differences between control and treatment groups and between treatment groups.) The test of parallel profiles is then the test of primary interest in our analyses. In the presence of a treatment effect, the treatment group would be expected to act differently across time. It should be noted that the actual null hypothesis tested by the parallel profiles test is that the group profiles are parallel. Therefore, a significant test is indicative of non-parallel profiles. Just as in the analogous repeated measures ANOVA, a significant parallel profiles (interaction) test requires post hoc tests to determine the nature of the groups by time interaction. In the present case, t tests were employed as the technique of choice. In each case where a test of parallel profiles was significant, t tests were performed between groups at initial, six and twelve month contacts to clarify the nature of the effect. Since treatment effects were not, a priori, assumed positive, two tailed t tests were utilized, i.e., it was assumed that treatment could be either beneficial or detrimental.

The test of equal levels corresponds to the repeated measures ANOVA test of group effect. Just as in the traditional repeated measures case, the test of equal levels is only valid in the absence of a significant test of parallel profiles (interaction). Computationally, the test is a simple t test (or one way analysis of variance) comparing control and treatment group difference score sums. In the present case, the test of equal levels is not of particular interest. A significant test of equal levels (in the absence of a significant parallel profiles test) is simply indicative of an initial difference between control and treatment groups which remained at six and twelve month follow-up. The major value of the test would be to call attention to possible random assignment problems as indicated by initial differences in treatment and control groups.

The test of slope is analogous to the traditional repeated measure test of the time main effect. Computationally, the procedure is a simultaneous test of all difference scores against zero (Hotelling's T^2 for the more technical reader.) Again, the test of slope is only valid in the absence of a significant test of parallel profiles (interaction). Given this precondition, a significant test of slope is indicative of a similar change across time for both control and treatment groups. In the present context, a significant test of slope simply indicates a change across time attributable to something other than a treatment effect. As such, it is not of particular interest.

For the more technical reader, a detailed description of Profile Analysis may be found in Morrison (1967).

RESULTS

Total Treatment

Survival Rate Analysis. Shown in Table 20 are data which serve as a useful adjunct to interpretation of the survival rate curves for the Total Treatment and corresponding control group shown in Figure 2. The details of the survival rate analysis are provided in Appendix C. The survival curves show no evidence of differences in A/R recidivism rates between the total treatment and control groups. As would be expected from the near coincidence of the two curves, t tests (shown in Appendix C) indicated no significant differences between groups at any of the 19 time (4 week) periods.

Rearrest Analyses. A summary of the analyses of covariance applied to rearrest and accident counts for the Total Treatment design is shown in Table 21. Although the covariates account for a statistically significant proportion of the variance for each of the five dependent measures, none of the tests for treatment effects are significant. These analyses provide no evidence for treatment effect as measured by direct traffic safety or criminal activity data.

Profile Analyses. Table 22A provides group means for the Total Treatment and corresponding control group at initial, six and twelve month contact for each of the 17 direct drinking and life status measures. A summary of the profile analyses performed on these data is presented in Table 22B. As was indicated previously in the methods section of this report, the tests of parallel profiles are of primary interest in determining treatment effect. It may be noted that two of the tests of parallel profiles shown in Table 22B are significant for an alpha of .10: Drinking Behavior and LAI/CSQ - 4.

Group means for Drinking Behavior are shown graphically in Figure 3. It may be seen that while the treatment and control groups are reasonably similar at initial contact, the treatment group has noticeably higher drinking behavior scores at six and twelve month follow-up. T test comparisons at each contact point indicated that the differences at six and twelve month follow-up were significant for an alpha of .10 ($t = 1.77$ and 1.80 respectively, $df = 2013$. Because a high score on this measure is indicative of abusive drinking, this is a negative result. It should be noted that while the differences at six and twelve month follow-ups are statistically significant, they may be so small as to be of little practical significance. Further, it may be observed that the improvement for both treatment and control groups from initial to six and twelve month follow-ups is much greater than the differences between the two groups.

TABLE 20. SUPPLEMENTAL DATA FOR TOTAL TREATMENT SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	1113	2087	3200
Mean Index Arrest to Initial Interview Lag in Days	81.8	88.8	86.3
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	35 (3.1%)	68 (3.3%)	103 (3.2%)
Mean Initial Interview to Treatment Start Lag in Days	----	21.8	21.8
Mean Initial Interview to Treatment Completion Lag in Days	----	102.6	102.6
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	133 (11.9%)	274 (13.1%)	407 (12.7%)
2 or More Rearrests	20 (1.8%)	54 (2.6%)	64 (2.0%)
3 or More Rearrests	6 (0.5%)	11 (0.5%)	16 (0.5%)

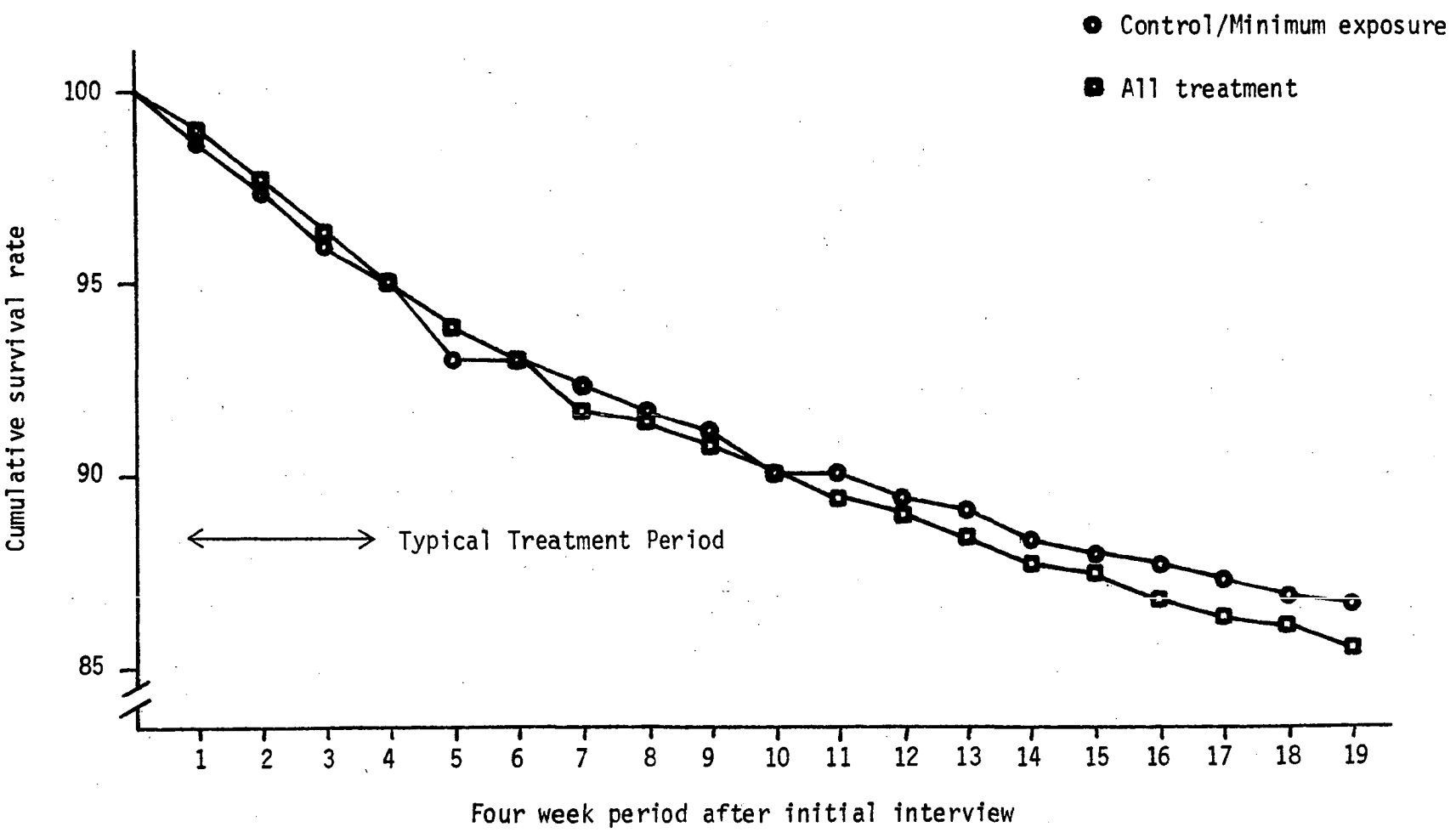


FIGURE 2. CUMULATIVE SURVIVAL RATES FOR TOTAL TREATMENT GROUPS

TABLE 21. SUMMARY OF RECIDIVISM ANALYSES FOR TOTAL TREATMENT

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.180	0.197	0.10	0.750	30.43	0.001	3196
Serious Traffic Offense Arrests	0.206	0.231	1.02	0.312	20.50	0.001	3196
Total Traffic Offense Arrests	0.469	0.487	0.70	0.406	92.32	0.001	3196
Total Accidents	0.127	0.110	1.68	0.194	15.48	0.001	3196
Total Criminal Arrests	0.179	0.198	0.73	0.394	265.08	0.001	3196

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 22A. GROUP MEANS FOR PROFILE ANALYSES OF TOTAL TREATMENT

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	17.712	17.496	45.629	42.229	65.873	59.756
Average Quantity	0.562	0.626	0.583	0.579	0.584	0.585
Drinking Behavior	2.190	2.178	1.977	2.034	1.970	2.028
LAI/CSQ - 1	489.157	495.429	476.659	481.585	473.205	477.498
LAI/CSQ - 2	486.284	485.208	494.497	499.993	499.866	502.361
LAI/CSQ - 3	517.019	515.855	510.509	509.099	509.453	507.027
LAI/CSQ - 4	492.530	488.211	504.709	505.693	498.961	503.464
LAI/CSQ - 5	492.479	501.364	465.494	470.337	464.070	470.366
CSQ - 1	483.839	492.073	484.217	485.619	487.243	489.300
CSQ - 5	509.379	515.428	518.591	523.611	521.471	526.567
LAI - 3	500.130	501.301	499.186	498.843	498.704	500.893
PAS - 2	495.647	499.595	483.804	487.027	478.818	482.267
PAS - 3	504.911	502.719	510.777	503.250	515.378	506.201
PAS - 6	505.004	502.086	497.677	498.880	496.883	498.638
PAS - 8	502.116	500.170	502.025	505.333	512.095	508.736
PAS - 9	490.974	496.044	497.898	501.698	497.257	500.266
PAS - 11	497.807	499.380	498.404	499.631	493.321	495.228

TABLE 22B. SUMMARY OF PROFILE ANALYSES FOR TOTAL TREATMENT

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	1806	0.608	0.546	1	1807	0.99	0.321	2	1806	156.100	0.001
Average Quantity	2	2012	1.978	0.138	1	2013	0.27	0.603	2	2012	1.115	0.327
Drinking Behavior	2	2012	2.396	0.091	1	2013	1.78	0.181	2	2012	64.272	0.001
LAI/CSQ - 1	2	1946	0.085	0.919	1	1947	1.42	0.231	2	1946	29.026	0.001
LAI/CSQ - 2	2	2013	0.812	0.446	1	2014	0.37	0.542	2	2013	19.254	0.001
LAI/CSQ - 3	2	2017	0.027	0.973	1	2018	0.13	0.718	2	2017	5.438	0.004
LAI/CSQ - 4	2	1946	2.528	0.080	1	1947	0.01	0.913	2	1946	37.303	0.001
LAI/CSQ - 5	2	1970	0.502	0.607	1	1971	4.47	0.035	2	1970	135.661	0.001
CSQ - 1	2	942	0.801	0.449	1	943	0.59	0.443	2	942	1.537	0.215
CSQ - 5	2	1969	0.038	0.963	1	1970	2.57	0.108	2	1969	16.645	0.001
LAI - 3	2	2016	0.368	0.693	1	2017	0.06	0.804	2	2016	0.780	0.460
PAS - 2	2	1957	0.015	0.985	1	1958	0.90	0.342	2	1957	38.212	0.001
PAS - 3	2	1961	1.481	0.227	1	1962	2.36	0.124	2	1961	4.911	0.007
PAS - 6	2	1962	0.617	0.540	1	1963	0.00	0.983	2	1962	3.330	0.036
PAS - 8	2	1952	1.624	0.197	1	1953	0.02	0.883	2	1952	10.589	0.001
PAS - 9	2	1961	0.167	0.846	1	1962	0.96	0.327	2	1961	6.822	0.001
PAS - 11	2	1959	0.013	0.987	1	1960	0.19	0.660	2	1959	3.340	0.036

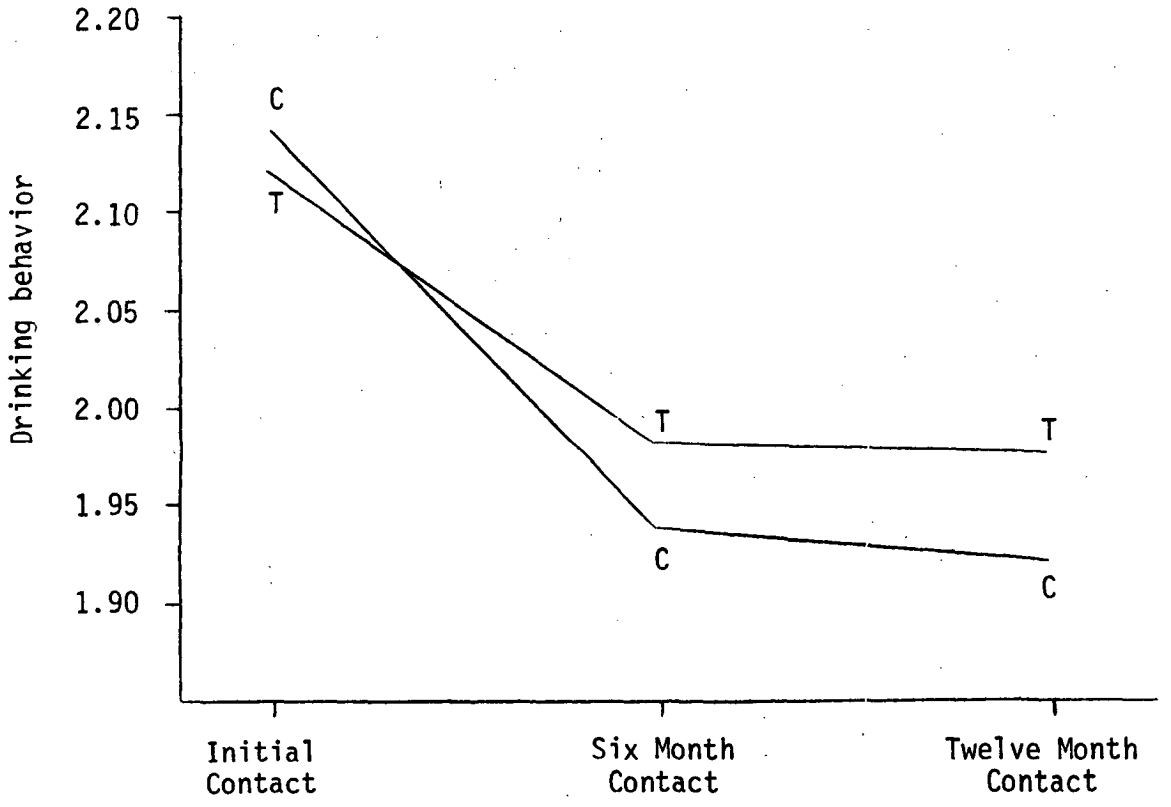


FIGURE 3. GROUP MEANS FOR DRINKING BEHAVIOR WITHIN TOTAL TREATMENT DESIGN

Inspection of the group means for LAI/CSQ - 4 (Figure 4) shows a pattern similar to that observed for drinking behavior. The control group score was higher than the treatment group score at initial contact, but lower than the treatment group score at six and twelve month follow-up. In this case, however, since a high score on the LAI/CSQ - 4 factor is desirable, this is a positive result. T test comparisons of treatment and control group means at each contact point yielded no significant results. This indicates that the significance of the test for non-parallel profiles was the result of the reversal of the relative position of the treatment and control groups across time. One must realize, then, that while there was a statistically significant change in the relative scores of the treatment and control group from initial contact to twelve month follow-up, the two groups were not significantly different at twelve month follow-up.

Conclusions. The presence of only two statistically significant differences among the 23 dependent variables tested provides little evidence for treatment effect in the Total Treatment design. Further, the fact that the two significant findings are in conflict (one positive and one negative effect), must result in a conclusion of no treatment effectiveness within the framework of the Total Treatment design.

School Alone

Survival Rate Analysis. Shown in Table 23 are data which serve to supplement the interpretation of the survival rate curves for the School Alone and corresponding control groups presented in Figure 5. The details of the survival rate analysis are shown in Appendix C. Although the two curves show some separation in survival rates at several of the time periods, t test comparisons indicated that the curves were not significantly different at any of the time periods. (See Appendix C for the t tests.)

Rearrest Analyses. The five analyses of covariance applied to rearrest data for the School Alone design are summarized in Table 24. Covariates accounted for a significant proportion of variance in three of the five analyses, but none of the dependent variables showed significant differences between treatment and control groups. The results presented in Table 24 provide no evidence for treatment effect.

Profile Analyses. Means for the School Alone and corresponding control groups are shown in Table 25 at initial, six, and twelve month contacts for each of the 17 direct drinking and life change measures. A summary of the profile analyses corresponding to these data is shown in Table 25B. It may be noted that three tests for parallel profiles are significant for an alpha of .10: Days Abstinent, PAS - 6, and PAS - 8. Further, one test of parallel profiles is significant for an alpha level of .01: Average Quantity.

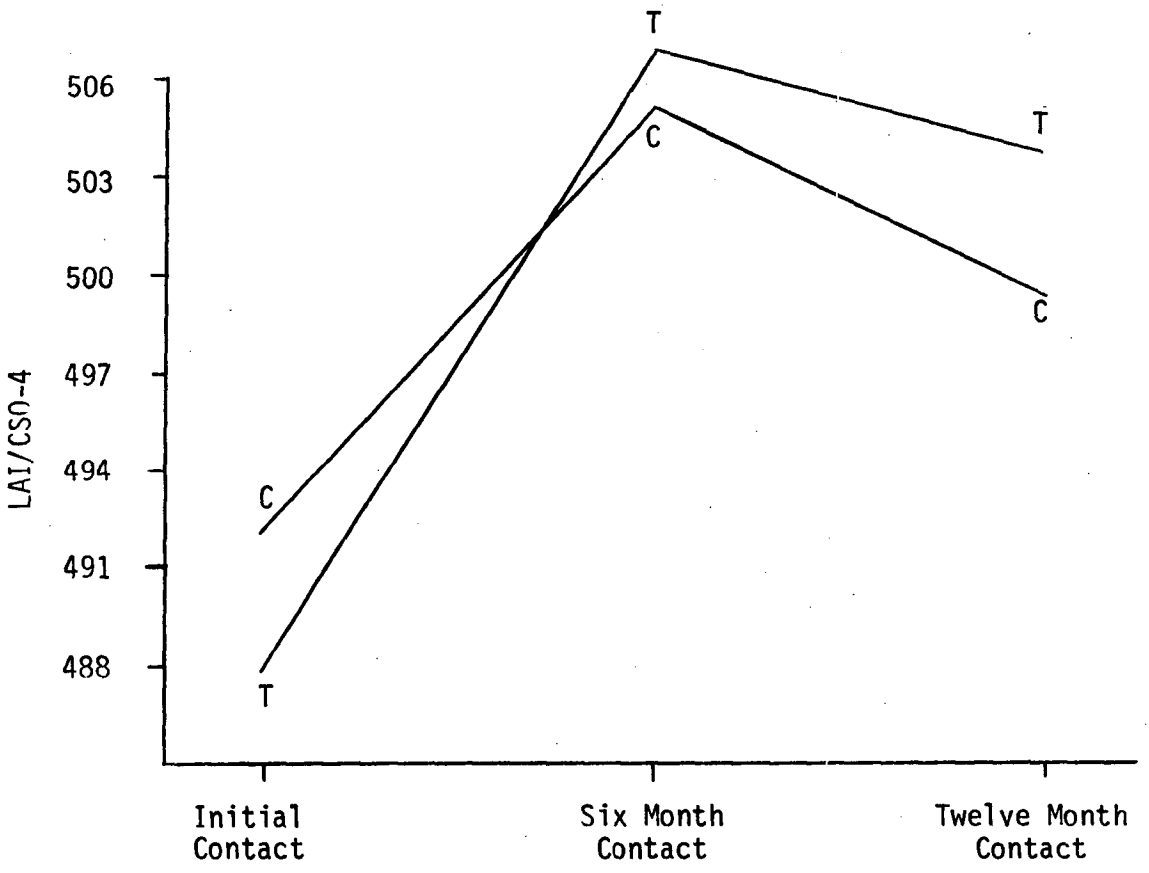


FIGURE 4. GROUP MEANS FOR LAI/CSQ-4 WITHIN TOTAL TREATMENT DESIGN

TABLE 23. SUPPLEMENTAL DATA FOR SCHOOL ALONE SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	347	371	718
Mean Index Arrest to Initial Interview Lag in Days	59.8	58.1	58.9
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	2 (0.6%)	4 (1.0%)	6 (0.8%)
Mean Initial Interview to Treatment Start Lag in Days	----	23.4	23.4
Mean Initial Interview to Treatment Completion Lag in Days	----	52.5	52.5
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	36 (10.4%)	36 (9.7%)	72 (10.0%)
2 or More Rearrests	4 (1.2%)	4 (1.1%)	8 (1.1%)
3 or More Rearrests	0 (0.0%)	1 (0.3%)	1 (0.1%)

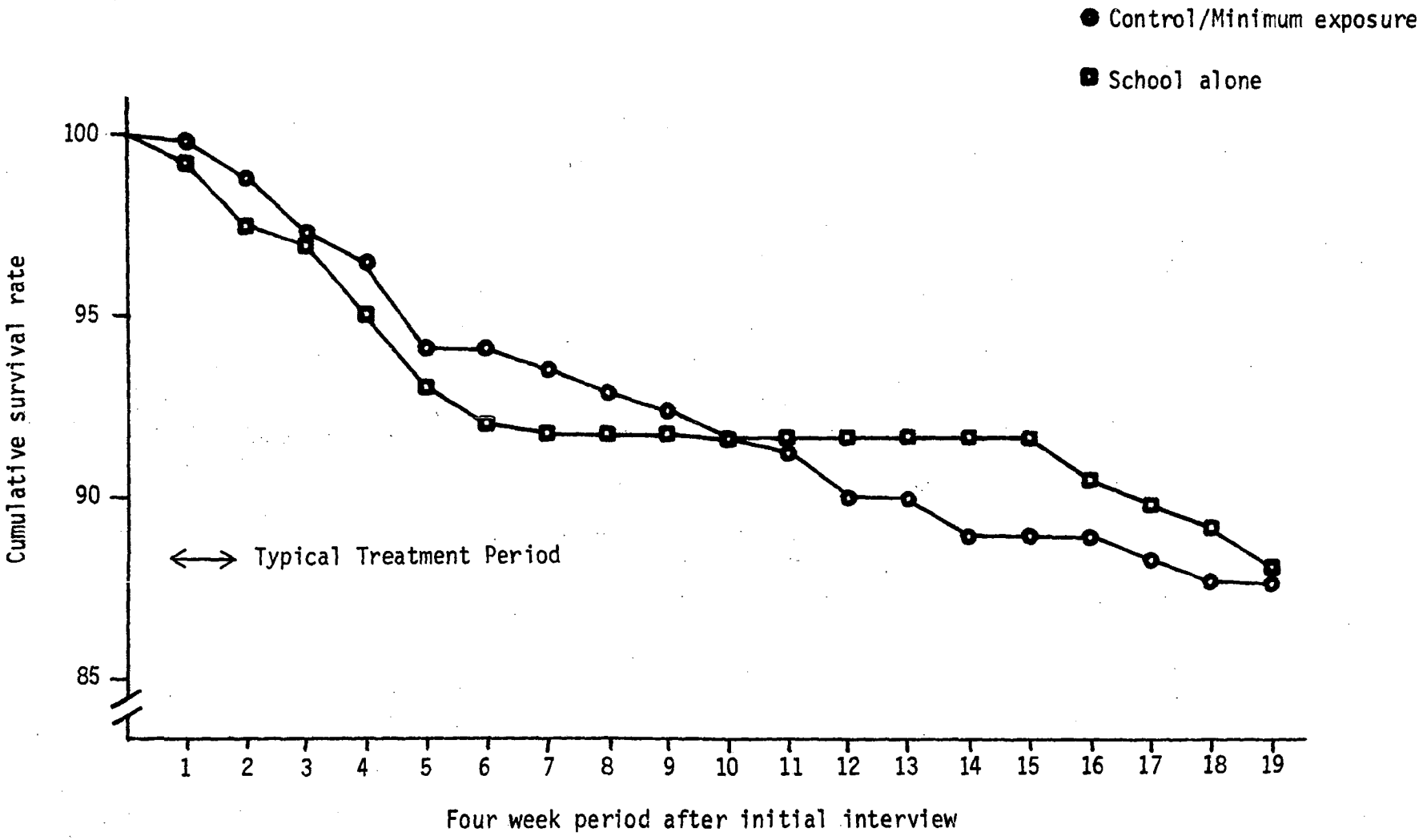


FIGURE 5. CUMULATIVE SURVIVAL RATES FOR SCHOOL ALONE GROUPS

TABLE 24. SUMMARY OF RECIDIVISM ANALYSES FOR SCHOOL ALONE

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.121	0.124	0.00	0.951	0.38	0.681	714
Serious Traffic Offense Arrests	0.150	0.148	0.01	0.942	0.19	0.825	714
Total Traffic Offense Arrests	0.303	0.286	0.10	0.747	7.34	0.001	714
Total Accidents	0.086	0.067	0.50	0.481	7.16	0.001	714
Total Criminal Arrests	0.032	0.040	0.46	0.498	29.99	0.001	714

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 25A. GROUP MEANS FOR PROFILE ANALYSES OF SCHOOL ALONE

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	11.837	9.431	22.584	32.042	37.247	42.300
Average Quantity	0.526	0.649	0.641	0.558	0.537	0.464
Drinking Behavior	2.360	2.350	2.137	2.034	2.043	2.049
LAI/CSQ - 1	500.543	507.330	503.854	496.517	490.401	479.278
LAI/CSQ - 2	484.236	485.383	485.543	490.660	493.708	496.048
LAI/CSQ - 3	513.307	510.704	508.420	518.938	510.099	511.704
LAI/CSQ - 4	508.977	500.158	517.090	502.129	511.882	508.876
LAI/CSQ - 5	486.720	501.915	463.488	473.316	458.280	465.646
CSQ - 1	470.551	496.351	481.565	494.308	486.275	492.266
CSQ - 5	521.190	531.491	521.484	537.109	522.446	543.132
LAI - 3	475.321	485.742	478.401	491.598	476.566	497.048
PAS - 2	488.948	506.191	484.337	494.653	476.849	491.771
PAS - 3	514.517	495.543	524.796	514.486	534.237	511.629
PAS - 6	497.104	510.828	500.711	499.723	484.332	503.469
PAS - 8	484.228	493.086	485.090	505.967	499.545	501.014
PAS - 9	505.389	491.738	508.654	492.238	505.782	498.052
PAS - 11	493.895	509.885	494.345	509.268	488.120	508.732

TABLE 25B. SUMMARY OF PROFILE ANALYSES FOR SCHOOL ALONE

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	368	2.284	0.103	1	369	0.63	0.427	2	368	22.485	0.001
Average Quantity	2	414	4.709	0.010	1	415	0.04	0.850	2	414	5.333	0.005
Drinking Behavior	2	414	1.507	0.223	1	415	0.57	0.450	2	414	39.908	0.001
LAI/CSQ - 1	2	418	2.024	0.133	1	419	0.23	0.633	2	418	9.578	0.001
LAI/CSQ - 2	2	418	0.091	0.913	1	419	0.12	0.732	2	418	1.903	0.150
LAI/CSQ - 3	2	418	0.671	0.512	1	419	0.10	0.755	2	418	0.113	0.893
LAI/CSQ - 4	2	418	1.370	0.255	1	419	1.06	0.304	2	418	1.120	0.327
LAI/CSQ - 5	2	420	0.430	0.651	1	421	2.81	0.095	2	420	29.792	0.001
CSQ - 1	2	160	1.007	0.368	1	161	1.42	0.235	2	160	0.226	0.798
CSQ - 5	2	420	0.936	0.393	1	421	6.49	0.011	2	420	1.459	0.234
LAI - 3	2	418	1.222	0.296	1	419	2.87	0.091	2	418	0.220	0.085
PAS - 2	2	418	0.378	0.686	1	419	2.66	0.103	2	418	5.159	0.006
PAS - 3	2	418	1.290	0.276	1	419	4.05	0.045	2	418	9.476	0.001
PAS - 6	2	417	2.468	0.086	1	418	1.68	0.196	2	417	2.721	0.067
PAS - 8	2	418	2.908	0.056	1	419	1.70	0.193	2	418	3.195	0.042
PAS - 9	2	418	0.829	0.437	1	419	2.23	0.136	2	418	0.400	0.671
PAS - 11	2	415	0.215	0.807	1	416	4.96	0.027	2	415	0.356	0.701

Group means for Average Quantity of ethanol consumed per day are depicted graphically in Figure 6. A near linear decline in average quantity for the treatment group from initial to twelve month follow-up is apparent. The control group, however, shows an increase in this measure from initial to six month contact followed by a decrease at twelve month follow-up to a level slightly above the initial contact. T tests indicated that the groups were significantly different only at initial contact ($t = 1.71$, $df = 415$, $p < .10$). Since the treatment group moved from an average quantity of alcohol which was significantly greater than the control group to an average quantity which was not significantly different than the control group, this is a positive result. We would be remiss in accepting this result without considering the implication of a significant between group difference in average quantity at initial contact. One could expect that such a difference was the result of random assignment problems which yielded non-comparable treatment and control groups. Review of demographic and process variables for the School Alone and corresponding control group (Tables 18 and 19) indicates an excellent match between these two groups for the variables considered. This fact suggests that random assignment problems are not a likely cause for the observed difference in average quantity at critical contact. A more likely explanation for the initial difference is chance deviation. Even properly executed random assignment will occasionally result in chance differences between groups for certain characteristics. This appears to be one of those occasions. As a result, we believe the result to be legitimate.

Group means for Days Abstinent are plotted in Figure 7. Although the pattern of means shown in the figure is clearly in favor of the treatment group, t tests indicated that group means were not significantly different at any contact. The lack of significant t values indicates that the significant F value for the test of parallel profiles was the product of the reversal of the relative positions of the treatment and control groups. Since this change was in favor of the treatment group, the result may be interpreted as positive despite non-significant t values.

Initial, six, and twelve month contact group means are shown in Factor 6 of the PAS in Figure 8. It will be remembered that PAS - 6 is a measure of self image with high scores indicative of insecurity, indecisiveness, and self debasement. T tests at each contact point indicated that treatment and control groups were significantly different only at twelve month follow-up ($t = 2.00$, $df = 418$, $p < .05$). Despite the appearance of the plots in Figure 8, then, the data must be interpreted as showing no significant differences between groups at initial and six month contact with a significant difference favoring the control group at twelve month follow-up.

PAS Factor 8 (group attraction) group means for initial, six, and twelve month contact are shown graphically in Figure 9. Initial inspection of the pattern in Figure 9 would suggest that the treatment group remained relative constant with respect to this measure while the

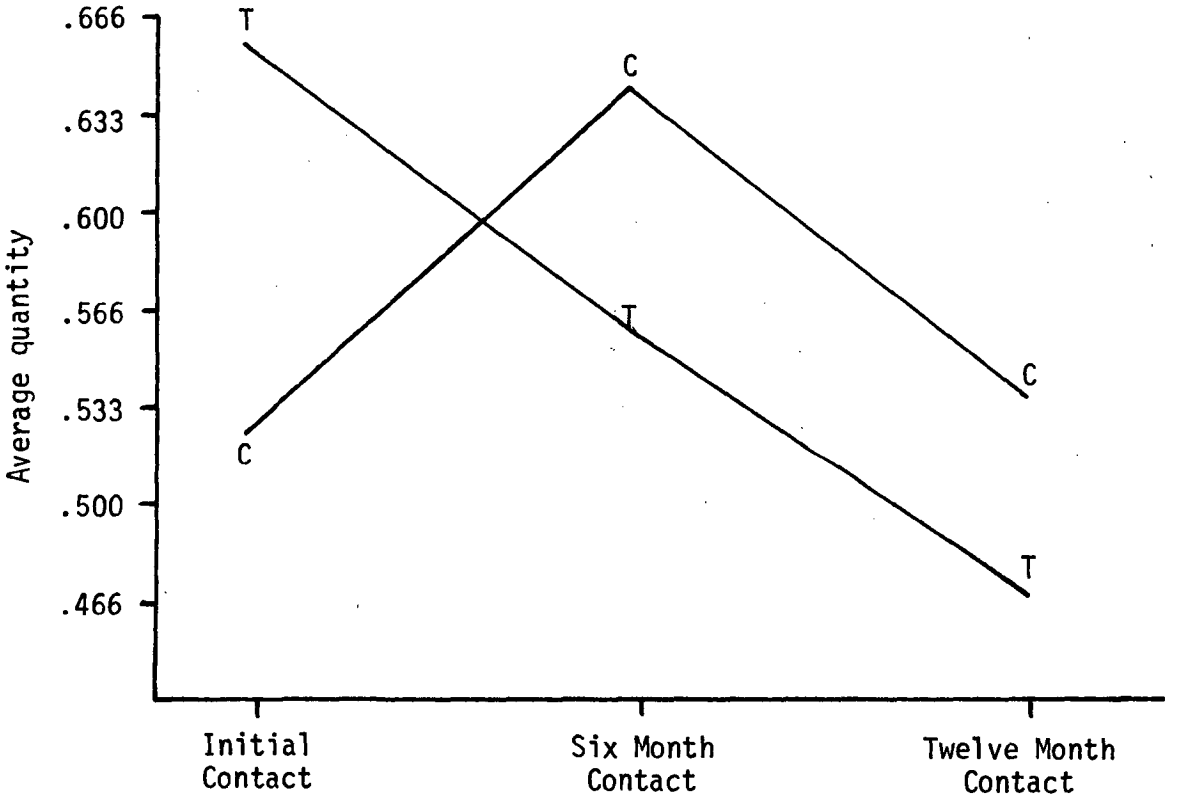


FIGURE 6. GROUP MEANS FOR AVERAGE QUANTITY WITHIN SCHOOL ALONE DESIGN

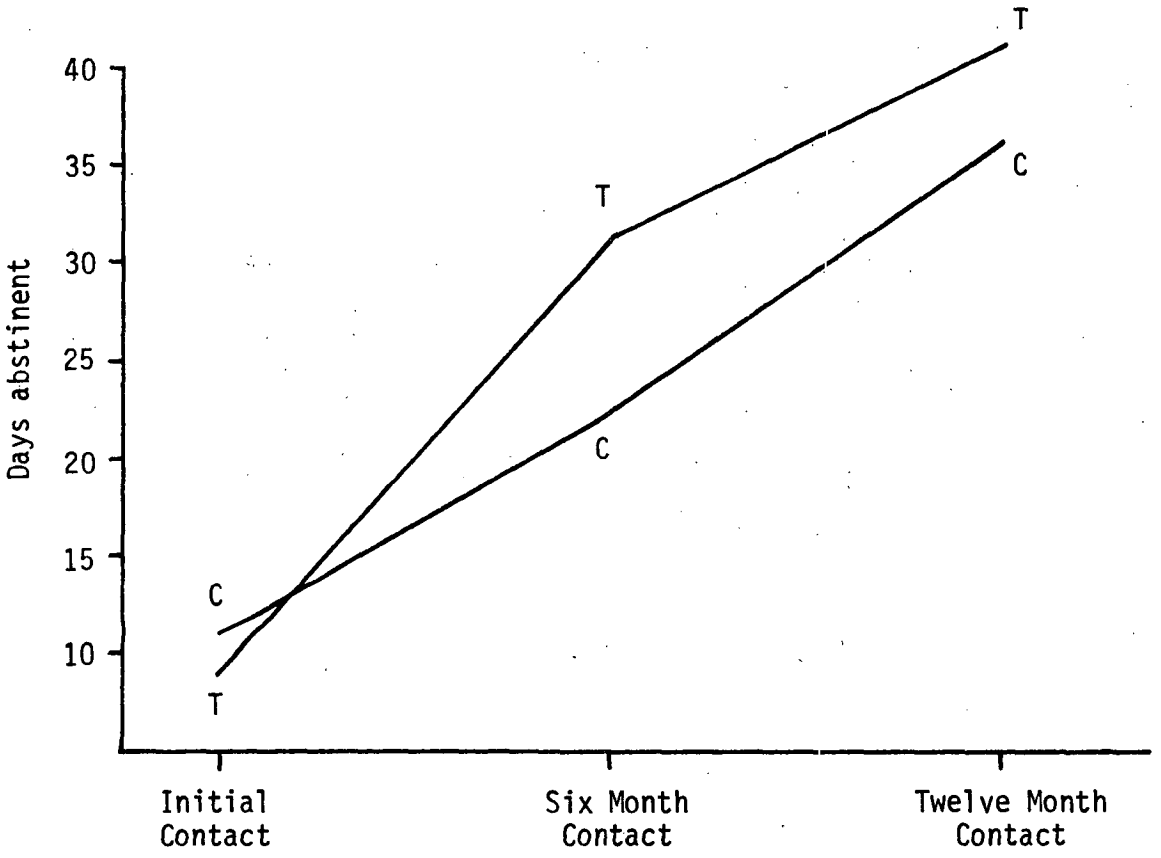


FIGURE 7. GROUP MEANS FOR DAYS ABSTINENT WITHIN SCHOOL ALONE DESIGN

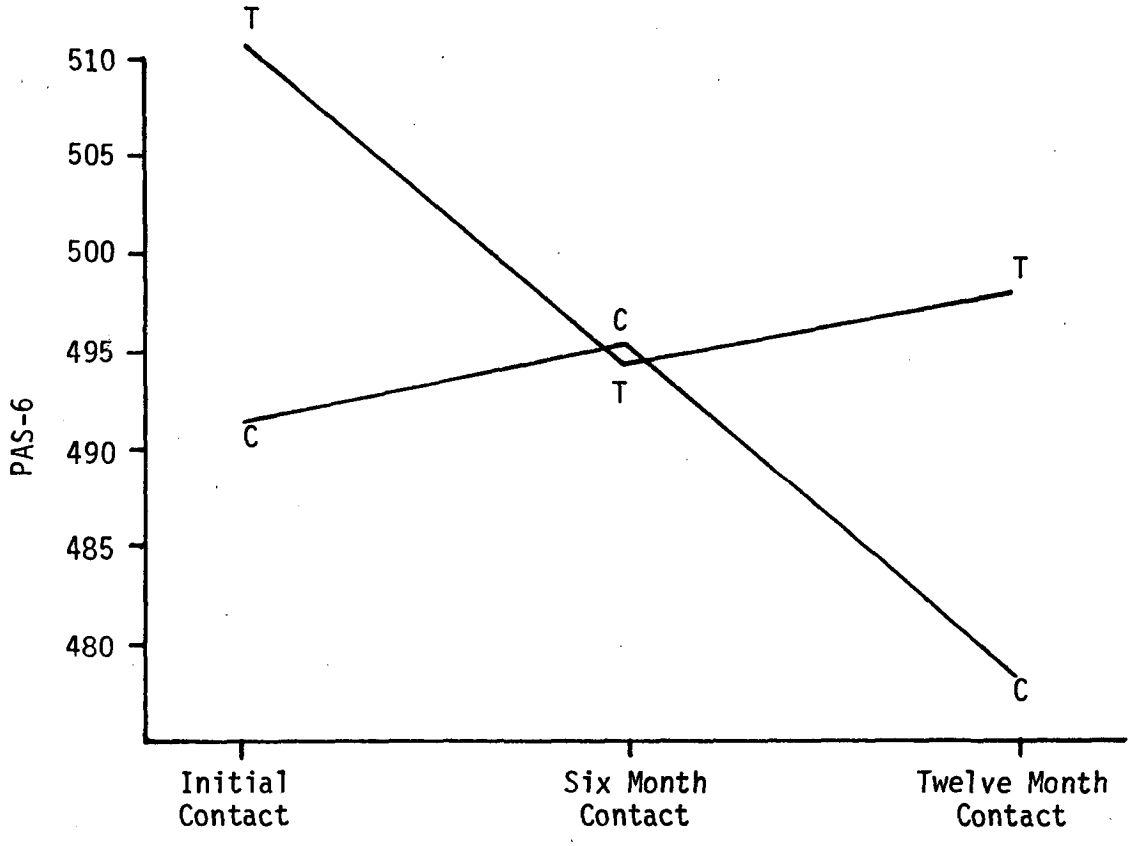


FIGURE 8. GROUP MEANS FOR PAS-6 WITHIN THE SCHOOL ALONE DESIGN

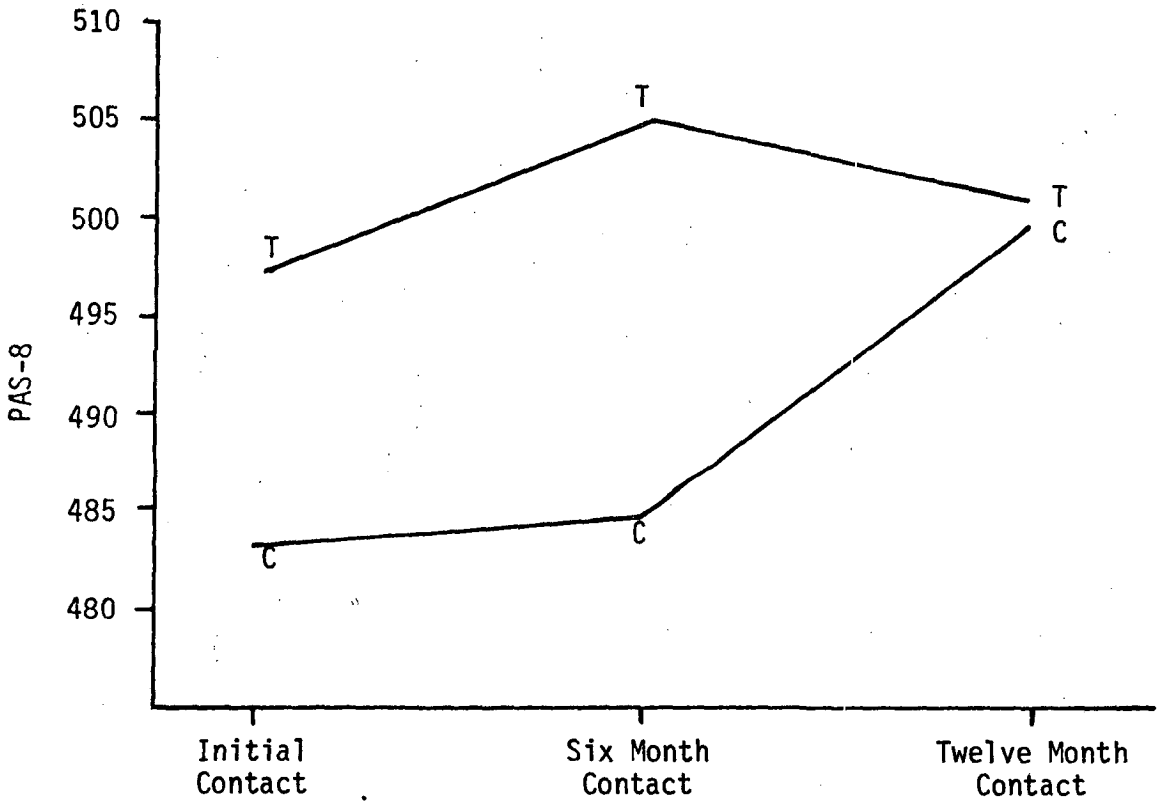


FIGURE 9. GROUP MEANS FOR PAS-8 WITHIN THE SCHOOL ALONE DESIGN

control group exhibited an increase in this construct from the six to twelve month contact. T tests at each contact point indicated that the groups were significantly different only at six month follow-up ($t = 2.29$, $df = 419$, $p < .05$). This result suggests a somewhat different interpretation of the data. The treatment group moved from a score not significantly different than the control group at initial contact to a score significantly higher than the control group at six month follow-up and then back to a score not significantly different than control at twelve month follow-up. Because PAS - 8 is negatively valanced, the change from initial to six month contact is a negative effect, and the change from six month to twelve month contact is a positive effect.

Conclusions. Taken together, the four significant results described above are somewhat puzzling. Significant differences for two of the three direct drinking measures are strongly suggestive of a positive effect on drinking for Alcohol Safety Schools. This effect is similar to one observed with only six months of follow-up data available (Ellingstad and Struckman-Johnson, 1977. This conclusion is, however, in conflict with life status indicators as reflected in PAS roots 6 and 8. Because the direct drinking measures are more directly related to the objectives of the STR project, it seems reasonable to conclude that there is some evidence for Alcohol Safety School effectiveness. This evidence is not, however, as strong as that present when only six months of follow-up data were available (Ellingstad and Struckman-Johnson, 1977).

PMT Alone

Survival Rate Analysis. Shown in Table 26 are data which serve as an adjunct to the interpretation of the survival rate curves shown in Figure 10. Details of the survival rate analysis are given in Appendix C. Inspection of the figure shows a noticeably higher survival rate for the control group for most of the follow-up period. T tests at each follow-up interval indicated that the survival rates were significantly different ($p < .05$ or $p < .10$, see Appendix C) for periods 6 through 13, 16, and 19. This result is reasonably strong evidence for a negative PMT effect with respect to subsequent drinking/driving behavior.

Rearrest Analyses. Analyses of covariance applied to the five rearrest counts are summarized in Table 27. Although the covariates account for a significant proportion of variance in all but the "total accidents" analyses, none of the tests of treatment effect are significant. The lack of significance for the test of "alcohol related traffic arrests" is somewhat surprising in view of the survival rate analysis results presented above. It must be remembered, however, that the analyses are conducted with somewhat different data. The survival rate analysis deals with only first recidivist arrests and incorporates time to rearrest. The analysis of covariance deals with a count of rearrests not just the first. Further, time to rearrest is not incorporated in the analysis.

TABLE 26. SUPPLEMENTAL DATA FOR PMT ALONE SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	416	437	853
Mean Index Arrest to Initial Interview Lag in Days	66.2	66.7	66.5
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	10 (2.4%)	11 (2.5%)	21 (2.5%)
Mean Initial Interview to Treatment Start Lag in Days	----	31.0	31.0
Mean Initial Interview to Treatment Completion Lag in Days	----	44.7	44.7
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	53 (12.7%)	73 (16.7%)	126 (14.8%)
2 or More Rearrests	9 (2.2%)	18 (4.1%)	27 (3.2%)
3 or More Rearrests	4 (1.0%)	2 (0.5%)	6 (0.7%)

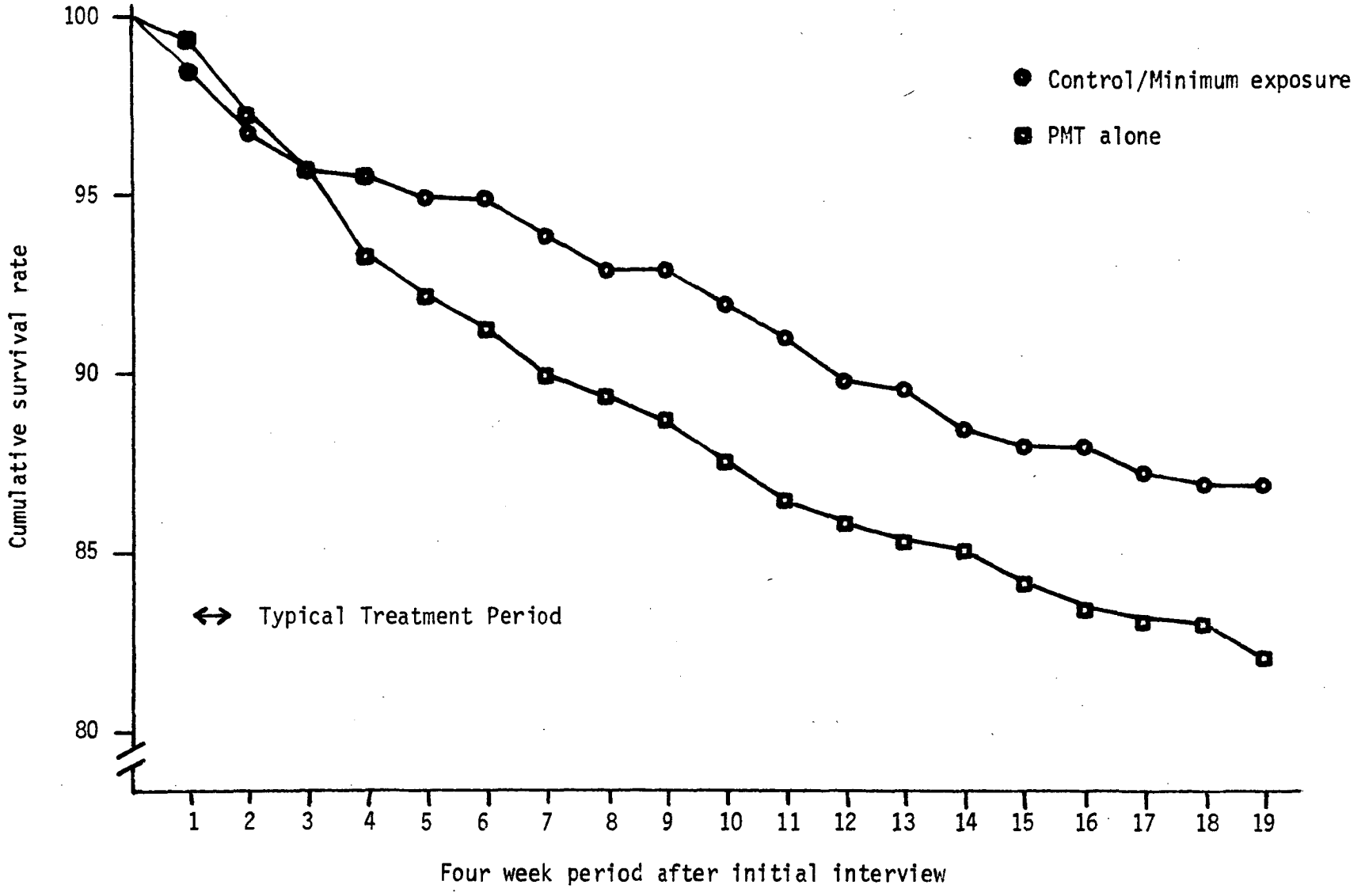


FIGURE 10. CUMULATIVE SURVIVAL RATES FOR PMT ALONE GROUPS

TABLE 27. SUMMARY OF RECIDIVISM ANALYSES FOR PMT ALONE

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.192	0.243	1.02	0.313	28.38	0.001	849
Serious Traffic Offense Arrests	0.228	0.286	1.03	0.311	16.61	0.001	849
Total Traffic Offense Arrests	0.594	0.602	0.08	0.774	50.83	0.001	849
Total Accidents	0.106	0.110	0.01	0.905	2.20	0.111	849
Total Criminal Arrests	0.346	0.314	0.03	0.871	76.61	0.001	849

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

Profile Analyses. Group means for each of the 17 direct drinking and life change measures within the PMT Alone design are presented in Table 28A. Profile analyses applied to these measures are summarized in Table 28B. Inspection of the tests of parallel profiles presented in the table reveals no significant result. These results are indicative of a lack of effect for PMT Alone with respect to life change measures.

Conclusions. The results of the survival rate analysis are certainly suggestive of a negative effect for PMT Alone. It must be remembered also, however, that the negative results of the survival rate analysis are not supported by significant differences in any of the other dependent measures. We feel it would, therefore, be unwise to draw very strong negative conclusions about the effectiveness of PMT Alone.

PMT Plus School

Survival Rate Analysis. Supplemental data for the PMT Plus School survival rate analysis are shown in Table 29. Plots of the PMT Plus School and corresponding control group survival rates are presented in Figure 11. Details of the survival rate analysis are shown in Appendix C. Inspection of the survival rate plots reveals minimal differences at each of the follow-up intervals. This apparent lack of differences is confirmed by non-significant t values for survival rate comparisons at all follow-up intervals (see Appendix C). The results of the survival rate analysis provide no evidence for treatment effect.

Rearrest Analyses. A summary of analyses of covariance applied to rearrest and accident counts for the PMT Plus School design may be found in Table 30. It may be noted that the covariates account for a significant proportion of the variance in all five of the analyses. Further, two of the analyses show statistically significant treatment effects: Total Traffic Offenses [$F = 3.69$, $df = (1, 357)$, $p < .10$] and Total Accidents [$F = 15.49$, $df = (1, 357)$, $p < .001$].

Inspection of the group means in Table 30 reveals that while the control group had a mean of 0.390 traffic arrests per client during the follow-up period, the PMT Plus School group had an average of 0.525 traffic arrests per client during the same period. This is quite clearly a negative effect. Group means for Total Accidents are, surprisingly, in the opposite direction as those for Total Traffic Offense Arrests. While there was an average of 0.104 accidents per control group client, the average for PMT Plus School clients was only 0.050. This is clearly a positive effect. The reason or reasons for these two apparently opposite results is not clear at this point in time. It should be noted, however, that although both measures are traffic safety related, they both include alcohol related as well as non-alcohol related incidents.

TABLE 28A. GROUP MEANS FOR PROFILE ANALYSES OF PMT ALONE

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	12.091	12.512	24.027	27.340	32.562	47.661
Average Quantity	0.841	0.692	0.838	0.736	0.959	0.761
Drinking Behavior	2.401	2.366	2.163	2.191	2.190	2.150
LAI/CSQ - 1	522.075	513.572	511.614	502.663	513.851	494.771
LAI/CSQ - 2	469.833	469.951	493.873	490.943	495.568	490.407
LAI/CSQ - 3	521.127	529.980	509.972	511.065	506.853	501.008
LAI/CSQ - 4	507.710	494.400	524.307	516.244	515.311	511.818
LAI/CSQ - 5	514.037	518.668	477.454	477.749	480.551	478.932
CSQ - 1	493.928	504.195	493.432	503.876	500.672	496.796
CSQ 5	498.595	502.026	517.543	512.928	517.765	514.434
LAI - 3	510.532	497.389	496.401	484.223	498.373	483.360
PAS - 2	498.687	508.430	486.947	498.128	480.667	491.898
PAS - 3	507.732	499.251	515.484	498.758	510.459	503.834
PAS - 6	502.748	505.490	495.077	501.928	495.065	505.613
PAS - 8	502.808	514.375	504.328	504.702	509.914	515.477
PAS - 9	488.898	475.945	498.329	489.226	499.915	481.983
PAS - 11	502.573	498.490	498.228	506.098	501.106	502.192

TABLE 28B. SUMMARY OF PROFILE ANALYSES FOR PMT ALONE

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	447	1.767	0.172	1	448	1.74	0.188	2	447	22.465	0.001
Average Quantity	2	495	0.417	0.659	1	496	3.47	0.063	2	495	1.353	0.259
Drinking Behavior	2	495	0.836	0.434	1	496	0.10	0.751	2	495	25.355	0.001
LAI/CSQ - 1	2	469	1.084	0.339	1	470	2.22	0.137	2	469	4.361	0.013
LAI/CSQ - 2	2	495	0.094	0.911	1	496	0.10	0.750	2	495	9.466	0.001
LAI/CSQ - 3	2	496	0.926	0.397	1	497	0.03	0.873	2	496	8.200	0.001
LAI/CSQ - 4	2	468	0.790	0.454	1	469	1.11	0.292	2	468	13.785	0.001
LAI/CSQ - 5	2	479	0.241	0.786	1	480	0.03	0.871	2	479	50.219	0.001
CSQ - 1	2	235	1.372	0.256	1	236	0.25	0.616	2	235	0.005	0.995
CSQ - 5	2	479	0.505	0.604	1	480	0.04	0.833	2	479	8.051	0.001
LAI - 3	2	496	0.121	0.886	1	497	2.53	0.112	2	496	10.070	0.001
PAS - 2	2	478	0.023	0.978	1	479	2.28	0.132	2	478	10.507	0.001
PAS - 3	2	478	1.084	0.339	1	479	2.00	0.158	2	478	0.536	0.586
PAS - 6	2	478	0.447	0.640	1	479	0.85	0.357	2	478	0.890	0.412
PAS - 8	2	476	1.142	0.320	1	477	0.51	0.478	2	476	2.524	0.081
PAS - 9	2	478	1.302	0.273	1	479	2.50	0.114	2	478	6.523	0.002
PAS - 11	2	478	1.115	0.329	1	479	0.05	0.827	2	478	0.073	0.930

TABLE 29. SUPPLEMENTAL DATA FOR PMT PLUS SCHOOL SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	182	179	361
Mean Index Arrest to Initial Interview Lag in Days	101.7	102.9	102.3
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	4 (2.2%)	6 (3.4%)	10 (2.8%)
Mean Initial Interview to Treatment Start Lag in Days	----	18.1	18.1
Mean Initial Interview to Treatment Completion Lag in Days	----	75.1	75.1
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	14 (7.7%)	10 (5.6%)	24 (6.6%)
2 or More Rearrests	2 (1.1%)	1 (0.6%)	3 (0.8%)
3 or More Rearrests	0 (0.0%)	0 (0.0%)	0 (0.0%)

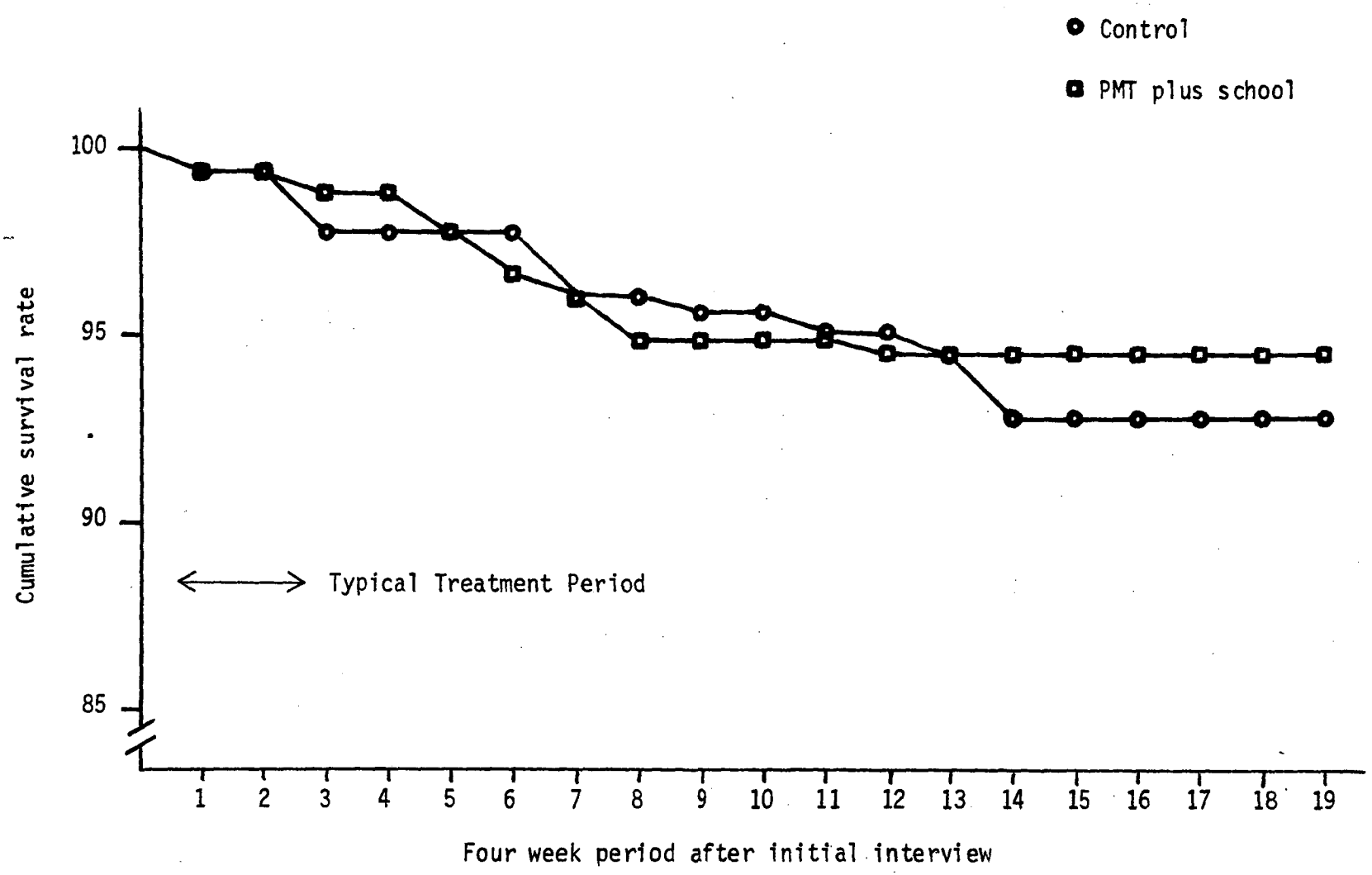


FIGURE 11. CUMULATIVE SURVIVAL RATES FOR PMT PLUS SCHOOL GROUPS

TABLE 30. SUMMARY OF RECIDIVISM ANALYSES FOR PMT PLUS SCHOOL

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.110	0.095	0.55	0.461	7.77	0.001	357
Serious Traffic Offense Arrests	0.143	0.151	1.33	0.249	5.31	0.005	357
Total Traffic Offense Arrests	0.390	0.525	3.69	0.056	6.17	0.002	357
Total Accidents	0.104	0.050	15.49	0.001	7.76	0.001	357
Total Criminal Arrests	0.099	0.145	2.46	0.117	29.05	0.001	357

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

Profile Analyses. Group means for each of the 17 life status and direct drinking measures within the PMT Plus School design may be found in Table 31A. A summary of the profile analyses performed for these measures is provided in Table 31B. Two of the tests for parallel profiles shown in the table are significant: Drinking Behavior [$F = 2.922$, $df = (2, 231)$, $p < .10$)] and LAI/CSQ - Factor 2 [$F = 2.528$, $df = 2,231$), $p < .10$].

Group means for Drinking Behavior are shown graphically in Figure 12. It may be seen that while the mean Drinking Behavior score for the treatment group remains virtually unchanged across time, the mean score for the control group drops noticeably from initial contact to six month contact and increases only slightly at the twelve month contact. T tests at each of the three contact points indicated that the groups were not significantly different at any of the contacts. The significant test of parallel profiles in conjunction with the non-significant t values indicates that the reversal in relative position of the two groups is the cause for significance. This reversal is a negative effect since drinking behavior is a negatively valenced scale.

Group means for LAI/CSQ Factor 2 (Employment/Economic Stability) are plotted, for each contact, in Figure 13. Despite what appear to be relatively large between group differences in Figure 13, t tests revealed no significant between group differences at the three contact points. The absence of between group differences at any contact point indicates that the significance of the parallel profiles test resulted from the reversal of the relative position of the two groups from initial contact to twelve month follow-up. Since LAI/CSQ - 2 is a positively valenced scale, this result must be interpreted as a negative effect.

Conclusions. While three of the four significant treatment effects are in the negative direction, the positive finding with respect to Total Accidents prevents a firm negative conclusion relative to PMT Plus School Effectiveness. At present, the explanation for the contradictory results is unclear. We feel that it is best to draw no firm conclusions about the effectiveness of PMT Plus School as a treatment condition.

Single Modality Treatment Assignments

Survival Rate Analysis. Table 32 provides supplemental information for the Single Modality Treatment Assignment Survival Rate Analysis. The details of the analysis are contained in Appendix C. Shown in Figure 14 are the survival rate curves for the Single Modality Treatment Assignment and corresponding control groups. A separation in the curves is apparent beginning at period 6. This separation is statistically significant ($p < .10$) at period 13 and for periods 16 through 19 (see Appendix C). This result suggests a negative treatment effect for Single Modality Treatment Assignments with respect to A/R survival rate.

TABLE 31A. GROUP MEANS FOR PROFILE ANALYSES OF PMT PLUS SCHOOL

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	6.149	9.428	31.287	26.161	31.821	36.177
Average Quantity	0.616	0.557	0.636	0.572	0.605	0.679
Drinking Behavior	2.209	2.137	2.045	2.145	2.073	2.129
LAI/CSQ - 1	527.642	519.067	511.110	512.361	515.706	515.269
LAI/CSQ - 2	509.636	527.774	520.982	528.508	537.873	525.621
LAI/CSQ - 3	500.482	502.976	511.282	512.589	497.700	514.573
LAI/CSQ - 4	511.165	550.605	532.027	560.958	532.477	559.589
LAI/CSQ - 5	462.676	463.554	458.036	456.252	460.369	461.168
CSQ - 1	478.755	473.857	497.321	476.464	498.019	501.161
CSQ - 5	533.703	531.857	533.225	535.008	536.883	539.512
LAI - 3	486.964	500.105	484.936	497.379	480.300	503.959
PAS - 2	463.927	474.863	477.400	468.350	469.891	470.060
PAS - 3	528.306	522.152	520.072	525.466	526.027	518.280
PAS - 6	478.883	470.916	485.784	472.294	487.360	467.008
PAS - 8	488.045	472.069	497.754	469.586	499.836	476.259
PAS - 9	519.108	539.602	523.081	550.686	517.667	539.407
PAS - 11	470.454	492.568	487.282	483.771	478.291	487.602

TABLE 31B. SUMMARY OF PROFILE ANALYSES FOR PMT PLUS SCHOOL

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	208	0.984	0.376	1	209	0.01	0.917	2	208	11.396	0.001
Average Quantity	2	231	1.517	0.221	1	232	0.04	0.836	2	231	0.897	0.409
Drinking Behavior	2	231	2.922	0.056	1	232	0.24	0.626	2	231	2.361	0.097
LAI/CSQ - 1	2	225	0.526	0.592	1	226	0.06	0.812	2	225	2.621	0.075
LAI/CSQ - 2	2	231	2.528	0.082	1	232	0.27	0.604	2	231	1.608	0.202
LAI/CSQ - 3	2	231	0.561	0.572	1	232	0.34	0.558	2	231	1.235	0.293
LAI/CSQ - 4	2	225	0.922	0.399	1	226	7.32	0.007	2	225	6.448	0.002
LAI/CSQ - 5	2	227	0.068	0.934	1	228	0.00	0.996	2	227	0.881	0.416
CSQ - 1	2	106	2.175	0.119	1	107	0.24	0.629	2	106	5.056	0.008
CSQ - 5	2	227	0.123	0.885	1	228	0.01	0.910	2	227	0.585	0.558
LAI - 3	2	231	1.118	0.329	1	232	2.14	0.145	2	231	0.173	0.841
PAS - 2	2	224	2.241	0.109	1	225	0.01	0.937	2	224	0.338	0.714
PAS - 3	2	226	1.007	0.367	1	227	0.07	0.791	2	226	0.167	0.847
PAS - 6	2	227	0.724	0.486	1	228	1.74	0.188	2	227	0.324	0.724
PAS - 8	2	223	0.654	0.521	1	224	3.53	0.061	2	223	1.203	0.302
PAS - 9	2	226	0.407	0.666	1	227	4.09	0.044	2	226	2.674	0.071
PAS - 11	2	225	2.129	0.121	1	226	0.76	0.385	2	225	0.172	0.842

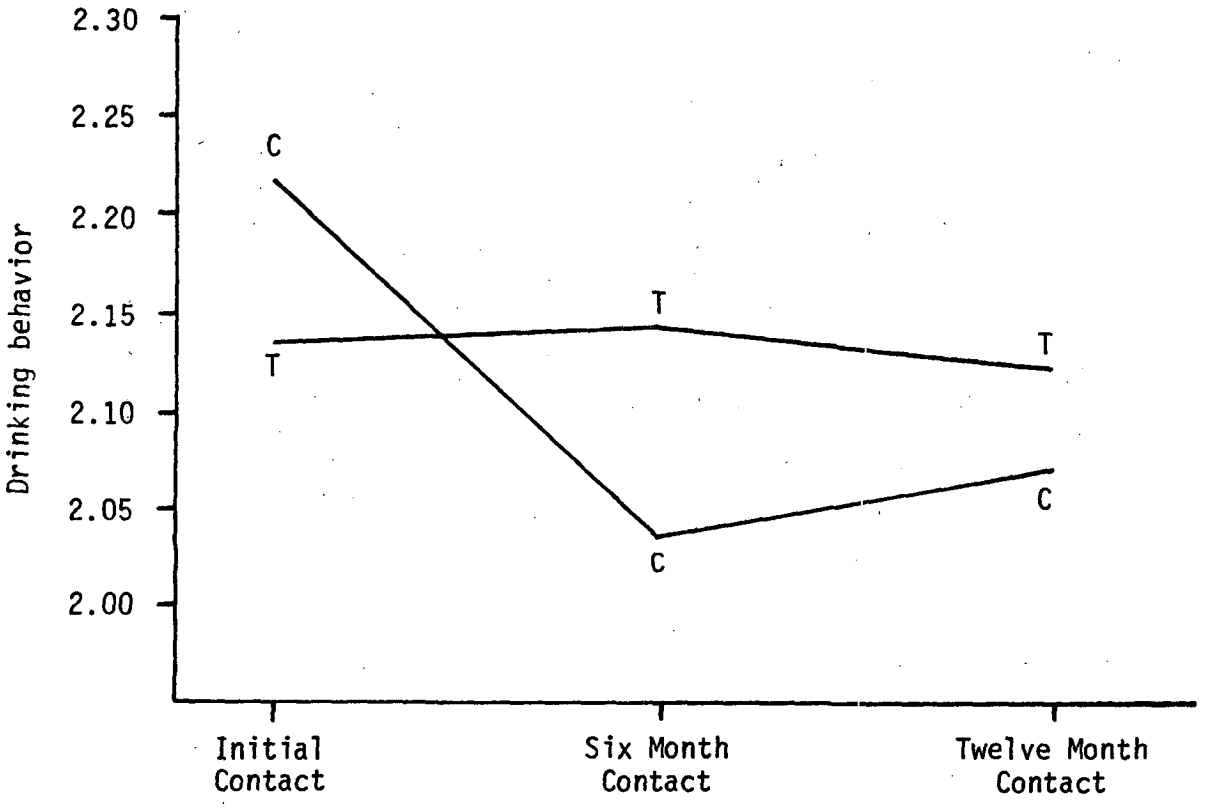


FIGURE 12. GROUP MEANS FOR DRINKING BEHAVIOR WITHIN THE PMT PLUS SCHOOL DESIGN

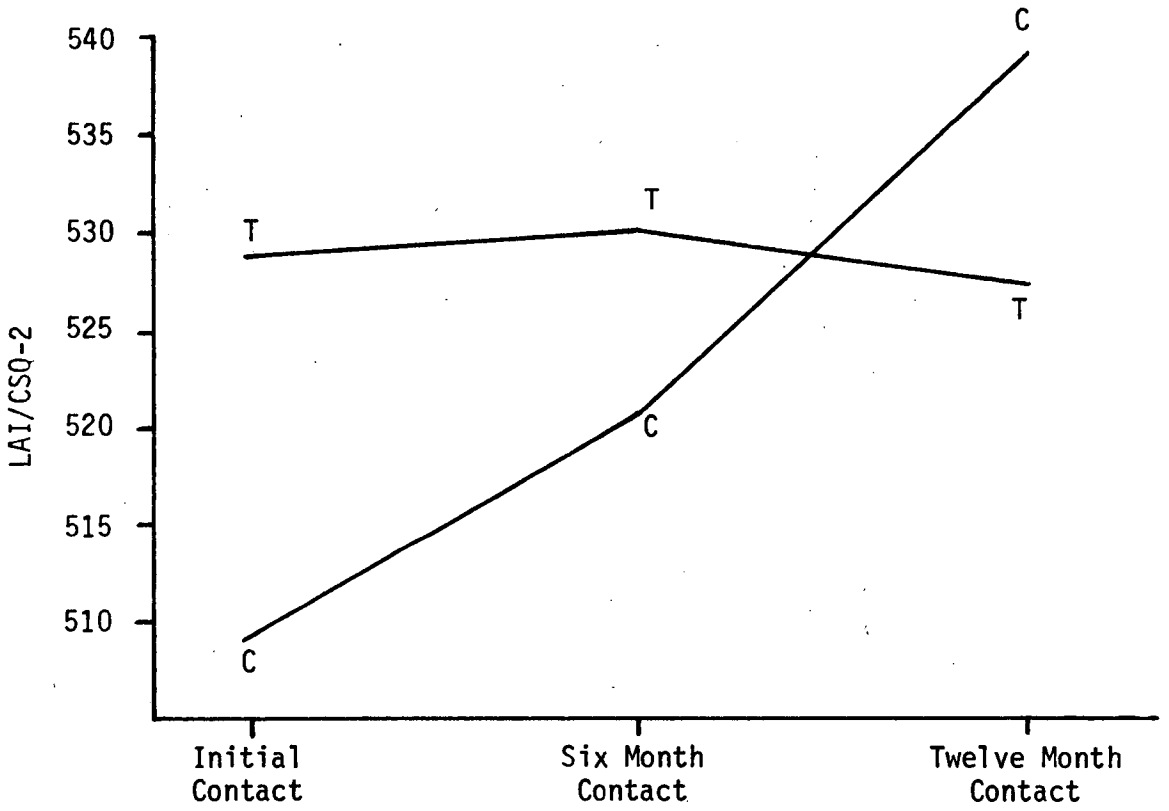


FIGURE 13. GROUP MEANS FOR LAI/CSQ-2 WITHIN THE PMT PLUS SCHOOL DESIGN

TABLE 32. SUPPLEMENTAL DATA FOR SINGLE MODALITY ASSIGNMENT SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	712	1060	1772
Mean Index Arrest to Initial Interview Lag in Days	87.5	84.5	85.7
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	30 (4.2%)	34 (3.2%)	64 (3.6%)
Mean Initial Interview to Treatment Start Lag in Days	----	24.9	24.9
Mean Initial Interview to Treatment Completion Lag in Days	----	102.8	102.8
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	91 (12.8%)	170 (16.0%)	261 (14.7%)
2 or More Rearrests	16 (2.2%)	35 (3.3%)	51 (2.9%)
3 or more Rearrests	6 (0.8%)	6 (0.6%)	12 (0.7%)

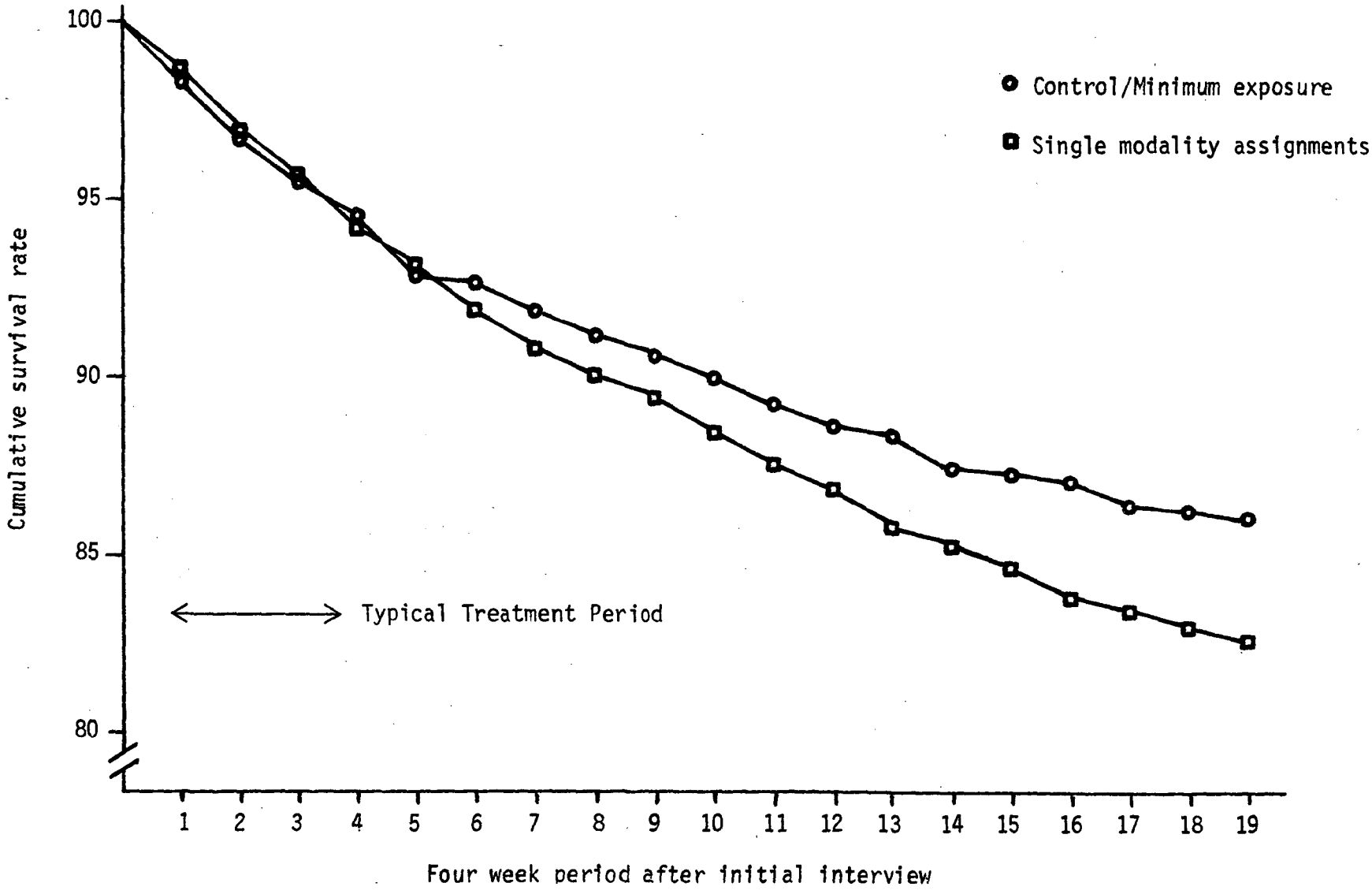


FIGURE 14. CUMULATIVE SURVIVAL RATES FOR SINGLE MODALITY ASSIGNMENT GROUPS

Rearrest Analyses. A summary of recidivism analyses for the Single Modality Assignment design is provided in Table 33. Covariates account for a significant proportion of variance for four of the five dependent measures. None of the treatment effects is statistically significant. The lack of significance for the test of alcohol related traffic arrests may seem to conflict with the significant differences in survival rates noted above. It must be remembered, as was noted in a similar circumstance within the PMT Alone design, that both the criterion measure and the analytic technique are different in the two analyses.

Profile Analyses. Group means for each of the 17 life status and direct drinking measures within the Single Modality Treatment Assignment design are contained in Table 34A. Survival Rate Analyses applied to the life status and direct drinking data are summarized in Table 34B. Perusal of the information displayed in the table reveals only one significant test of parallel profiles: Days Abstinent [$F = 2.483$, $df = (2, 1028)$, $p < .10$].

Group means for Days Abstinent at each contact point are plotted in Figure 15. T tests at each contact point indicated that the groups were significantly different only at six month follow-up ($t = 2.52$, $df = 1029$, $p < .05$). Because Days Abstinent is a positively valenced scale, the initial contact to six month follow-up reflects a negative effect. That is, the treatment group moved from a position not significantly different than the control group to a position significantly worse. By the same reasoning, the change from a significantly lower score at six month follow-up to a score not significantly different at twelve month follow-up reflects a positive change for the treatment group. It may also be observed that both groups showed a noticeable increase in mean days abstinent from initial to twelve month follow-up.

Conclusions. The negative survival rate results in combination with the mixed results of the profile analyses for Days Abstinent might be suggestive of a negative effect for Single Modality Treatment Assignments. It should be noted that the Single Modality Assignment design included as a subset the entire PMT Alone design. This circumstance may offer an explanation for the negative survival rate results. (This situation is addressed in greater detail in the discussion section of this chapter.) In the absence of any other confirmatory results, it is probably wise to draw no firm conclusions.

Multiple Modality Treatment Assignments

Survival Rate Analysis. Supplemental data for the Multiple Modality Treatment Assignment survival rate analysis are found in Table 35, while details of the analysis are shown in Appendix C. Survival curves for the Multiple Modality Assignment and corresponding control groups are plotted in Figure 16. Although some differences in the survival curves are apparent, t tests at each follow-up interval

TABLE 33. SUMMARY OF RECIDIVISM ANALYSES FOR SINGLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.209	0.239	0.39	0.536	0.39	0.536	1770
Serious Traffic Offense Arrests	0.231	0.274	1.76	0.183	8.24	0.001	1770
Total Traffic Offense Arrests	0.553	0.567	0.08	0.777	45.74	0.001	1770
Total Accidents	0.150	0.121	2.54	0.111	7.69	0.001	1770
Total Criminal Arrests	0.249	0.289	1.46	0.225	98.74	0.001	1770

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 34A. GROUP MEANS FOR PROFILE ANALYSES OF SINGLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	21.179	18.616	54.244	41.291	78.544	65.551
Average Quantity	0.581	0.673	0.568	0.612	0.628	0.642
Drinking Behavior	2.128	2.186	1.925	2.068	1.946	2.034
LAI/CSQ - 1	482.292	492.003	464.994	477.860	465.964	473.489
LAI/CSQ - 2	487.079	475.687	498.470	496.735	500.590	500.843
LAI/CSQ - 3	518.451	517.584	510.635	507.440	508.561	505.540
LAI/CSQ - 4	488.193	484.568	501.943	503.923	495.424	496.132
LAI/CSQ - 5	498.696	512.381	466.658	473.089	466.775	475.180
CSQ - 1	489.092	495.555	484.672	487.432	487.036	489.003
CSQ - 5	502.356	506.174	516.225	515.857	520.267	519.326
LAI - 3	511.217	504.115	508.404	499.368	508.807	495.436
PAS - 2	502.591	503.099	482.910	491.212	480.077	484.893
PAS - 3	500.850	504.642	508.228	501.440	509.148	505.598
PAS - 6	510.171	505.738	496.965	502.870	502.288	503.200
PAS - 8	507.844	503.702	505.979	506.450	514.958	513.376
PAS - 9	482.708	491.859	492.363	497.630	493.459	494.430
PAS - 11	503.756	497.798	499.731	499.660	497.006	496.317

TABLE 34B. SUMMARY OF PROFILE ANALYSES FOR SINGLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	1028	2.483	0.084	1	1029	4.75	0.030	2	1028	102.126	0.001
Average Quantity	2	1129	0.701	0.496	1	1130	1.05	0.305	2	1129	1.733	0.177
Drinking Behavior	2	1129	2.020	0.133	1	1130	7.11	0.008	2	1129	28.879	0.001
LAI/CSQ - 1	2	1091	0.584	0.558	1	1092	2.86	0.091	2	1091	16.634	0.001
LAI/CSQ - 2	2	1129	1.324	0.266	1	1130	0.69	0.406	2	1129	16.391	0.001
LAI/CSQ - 3	2	1130	0.061	0.940	1	1131	0.17	0.677	2	1130	5.244	0.005
LAI/CSQ - 4	2	1090	0.695	0.499	1	1091	0.00	0.953	2	1090	24.673	0.001
LAI/CSQ - 5	2	1109	1.005	0.366	1	1110	5.06	0.025	2	1109	111.322	0.001
CSQ - 1	2	557	0.177	0.838	1	558	0.34	0.559	2	557	1.698	0.184
CSQ - 5	2	1108	0.392	0.676	1	1109	0.03	0.859	2	1108	14.605	0.001
LAI - 3	2	1129	1.058	0.347	1	1130	2.92	0.088	2	1129	3.494	0.031
PAS - 2	2	1104	1.084	0.338	1	1105	0.88	0.348	2	1104	30.799	0.001
PAS - 3	2	1105	2.022	0.133	1	1106	0.18	0.670	2	1105	1.373	0.254
PAS - 6	2	1106	1.569	0.208	1	1107	0.03	0.872	2	1106	3.127	0.044
PAS - 8	2	1100	0.368	0.692	1	1101	0.11	0.743	2	1100	7.054	0.001
PAS - 9	2	1106	1.704	0.182	1	1107	0.92	0.339	2	1106	5.835	0.003
PAS - 11	2	1106	0.709	0.492	1	1107	0.22	0.639	2	1106	1.137	0.321

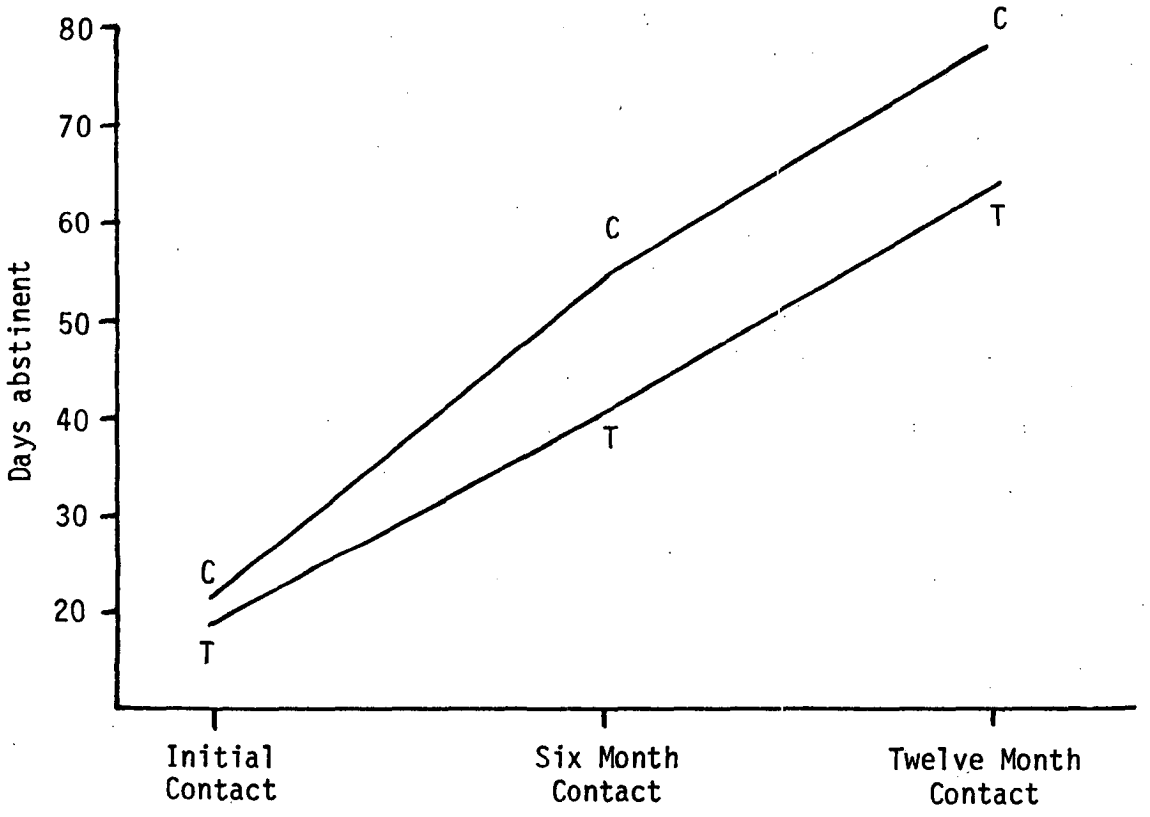


FIGURE 15. GROUP MEANS FOR DAYS ABSTINENT WITH THE SINGLE MODALITY TREATMENT ASSIGNMENT DESIGN

TABLE 35. SUPPLEMENTAL DATA FOR MULTIPLE MODALITY ASSIGNMENT SURVIVAL RATE ANALYSIS

	TREATMENT GROUP		
	Control	All Treatment	Total
Number of Clients	378	564	942
Mean Index Arrest to Initial Interview Lag in Days	131.2	114.8	121.4
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial	15 (4.0%)	26 (4.6%)	41 (4.4%)
Mean Initial Interview to Treatment Start Lag in Days	----	17.5	17.5
Mean Initial Interview to Treatment Completion Lag in Days	----	117.6	117.6
Number of Recidivist Arrests After Initial Interview - Clients With:			
1 or More Rearrests	37 (9.8%)	48 (8.5%)	85 (9.0%)
2 or More Rearrests	5 (1.3%)	5 (0.8%)	10 (1.1%)
3 or More Rearrests	0 (0.0%)	1 (0.2%)	1 (0.1%)

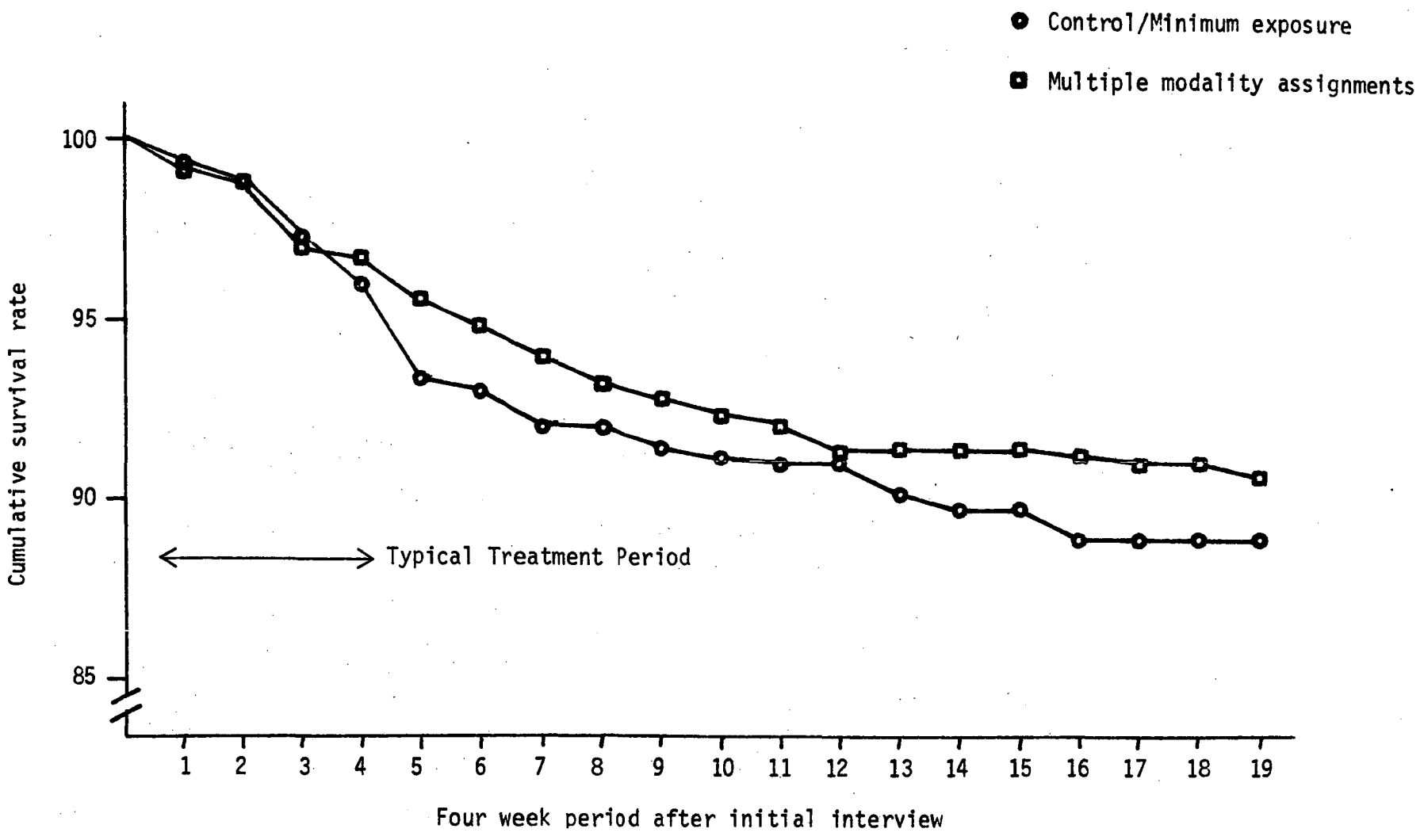


FIGURE 16. CUMULATIVE SURVIVAL RATES FOR MULTIPLE MODALITY ASSIGNMENT GROUPS

revealed no statistically significant differences (see Appendix C). As such, the survival rate analysis provides no evidence for treatment effect.

Rearrest Analyses. Table 36 contains a summary of analyses of covariance applied to rearrest and accident count data for the Multiple Modality Treatment Assignment design. Although covariates accounted for a statistically significant proportion of variance in all five analyses, none of the tests of treatment effects were statistically significant. It must be concluded that no evidence for treatment effect is present in the analyses summarized in Table 36.

Profile Analyses. Group means for life status measures within the Multiple Modality Treatment Assignment design are shown in Table 37A. Profile analyses performed for these 17 measures are summarized in Table 37B. Inspection of the results presented reveals two statistically significant tests for parallel profiles: LAI Factor 3 [$F = 3,617$, $df = (2, 623)$, $p < .05$)] and PAS Factor 2 [$F = 4.030$, $df = (2, 609)$, $p < .05$].

Group means for LAI Factor 3 (Family Status) are presented graphically in Figure 17. T test comparisons of the treatment and control group at each contact point revealed no significant differences. Since this is a positively valenced scale, the behavior of the treatment group is essentially unchanged from initial contact to six month contact and slightly improved from six month to twelve month contact. On the other hand, the control group behavior is slightly improved from initial to six month contact and slightly worse from six month to twelve month contact. In combination, this suggests a negative effect from initial contact to six month follow-up and a positive effect from six month follow-up to twelve month follow-up. This interpretation must, of course, be tempered by the lack of significant differences at any contact point.

Figure 18 is a graphic presentation of group means for PAS Factor 2 (Anxiety, Depression, Tension) within the Multiple Modality Treatment Assignment design. As might be expected the relatively large difference between the treatment and control group at initial contact is statistically significant ($t = 2.73$, $df = 610$, $p < .01$). Differences at six and twelve month contact are not statistically significant. Since PAS-2 is negatively valenced, the results of the t tests were interpreted as indicative of a positive treatment effect. The treatment group moved from a position significantly more anxious than the control group at initial contact to a point not significantly different than the control group at both six and twelve month follow-up. The reason for the initial difference in levels of the treatment and control groups is unknown. We believe the most likely explanation, however, is random deviation as explained in the context of a similar initial difference for Average Quantity in the School Alone Design.

TABLE 36. SUMMARY OF RECIDIVISM ANALYSES FOR MULTIPLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS		TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Treatment	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.151	0.145	0.05	0.818	8.48	0.001	938
Serious Traffic Offense Arrests	0.188	0.186	0.00	0.982	8.23	0.001	938
Total Traffic Offense Arrests	0.471	0.459	0.10	0.755	8.97	0.001	938
Total Accidents	0.159	0.126	1.46	0.226	5.14	0.006	938
Total Criminal Arrests	0.69	0.076	0.00	0.973	50.72	0.001	938

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 37A. GROUP MEANS FOR PROFILE ANALYSES OF MULTIPLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	MEAN SCORES					
	Initial Contact		6 Month Follow-up		12 Month Follow-up	
	Control	Treatment	Control	Treatment	Control	Treatment
Days Abstinent	15.577	18.450	32.968	37.378	39.802	46.933
Average Quantity	0.579	0.538	0.645	0.568	0.610	0.590
Drinking Behavior	2.159	2.083	2.111	2.102	2.083	2.067
LAI/CSQ - 1	504.789	499.408	503.140	493.367	501.363	491.742
LAI/CSQ - 2	502.218	505.180	508.925	509.930	517.187	509.021
LAI/CSQ - 3	498.869	510.677	501.754	504.505	502.266	508.364
LAI/CSQ - 4	494.072	491.765	508.363	513.197	505.809	515.352
LAI/CSQ - 5	473.090	477.967	465.475	464.722	466.290	464.959
CSQ - 1	474.333	482.415	486.504	477.691	492.486	489.166
CSQ - 5	524.235	522.915	524.208	527.289	528.079	528.857
LAI - 3	495.802	503.979	506.012	503.805	502.191	512.444
PAS - 2	468.500	488.201	474.012	474.427	468.091	472.260
PAS - 3	515.581	506.145	507.392	500.075	519.938	507.708
PAS - 6	488.165	488.906	486.039	489.288	487.184	486.659
PAS - 8	491.666	497.073	495.315	502.148	507.658	504.070
PAS - 9	511.941	510.699	517.706	518.914	513.608	515.036
PAS - 11	481.079	494.108	491.364	492.453	483.893	485.408

TABLE 37B. SUMMARY OF PROFILE ANALYSES FOR MULTIPLE MODALITY ASSIGNMENTS

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	2	558	0.121	0.886	1	559	0.79	0.375	2	558	25.092	0.001
Average Quantity	2	623	0.478	0.620	1	624	0.81	0.369	2	623	1.591	0.204
Drinking Behavior	2	623	0.886	0.413	1	624	0.71	0.401	2	623	1.333	0.264
LAI/CSQ - 1	2	608	0.226	0.798	1	609	1.32	0.250	2	608	1.287	0.277
LAI/CSQ - 2	2	622	0.958	0.384	1	623	0.05	0.821	2	622	1.892	0.152
LAI/CSQ - 3	2	623	0.546	0.580	1	624	0.87	0.352	2	623	0.229	0.795
LAI/CSQ - 4	2	609	1.615	0.200	1	610	0.29	0.593	2	609	21.221	0.001
LAI/CSQ - 5	2	615	0.625	0.536	1	616	0.03	0.853	2	615	8.328	0.001
CSQ - 1	2	289	1.639	0.196	1	290	0.02	0.885	2	289	2.317	0.100
CSQ - 5	2	615	0.219	0.804	1	616	0.03	0.874	2	615	1.080	0.340
LAI - 3	2	623	3.617	0.027	1	624	0.52	0.473	2	623	3.223	0.040
PAS - 2	2	609	4.030	0.018	1	610	1.80	0.180	2	609	3.549	0.029
PAS - 3	2	612	0.258	0.772	1	613	1.82	0.178	2	612	4.218	0.015
PAS - 6	2	613	0.155	0.856	1	614	0.03	0.858	2	613	0.117	0.890
PAS - 8	2	608	1.253	0.286	1	609	0.16	0.686	2	608	4.265	0.014
PAS - 9	2	611	0.110	0.895	1	612	0.00	0.945	2	611	3.201	0.041
PAS - 11	2	610	1.575	0.208	1	611	0.66	0.415	2	610	2.362	0.095

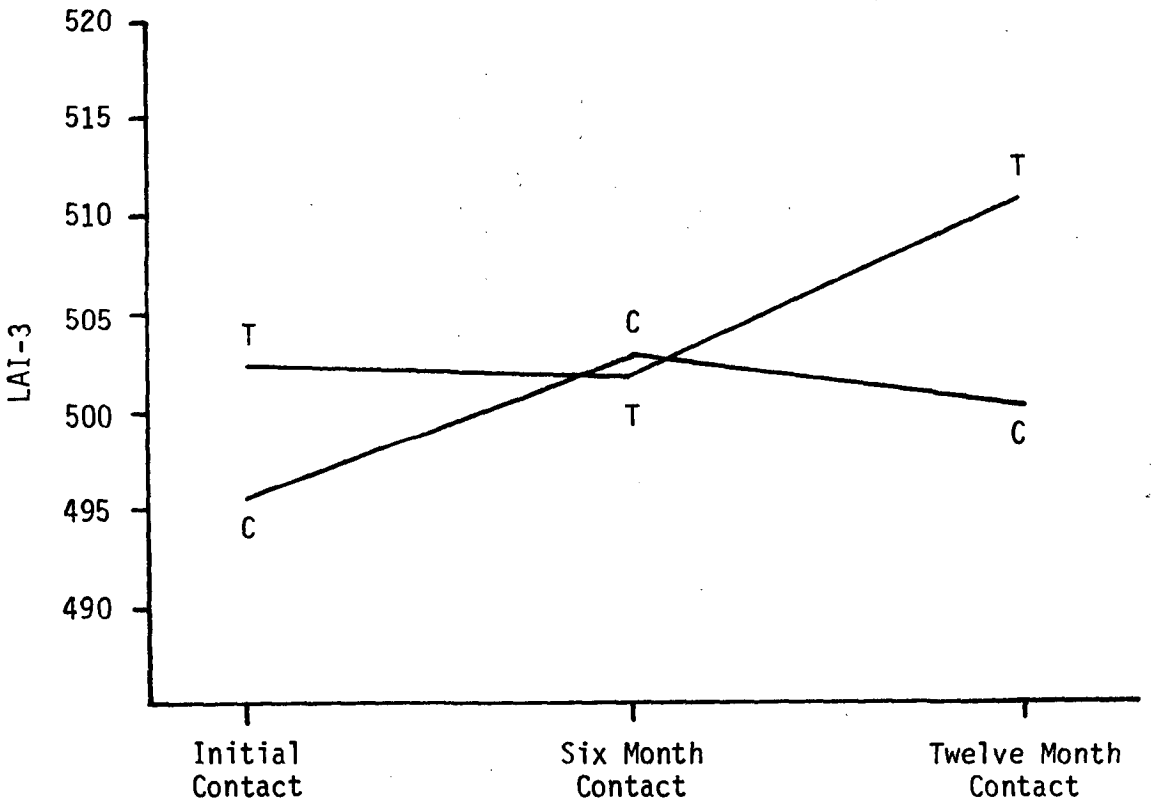


FIGURE 17. GROUP MEANS FOR LAI-3 WITHIN THE MULTIPLE MODALITY TREATMENT ASSIGNMENT DESIGN

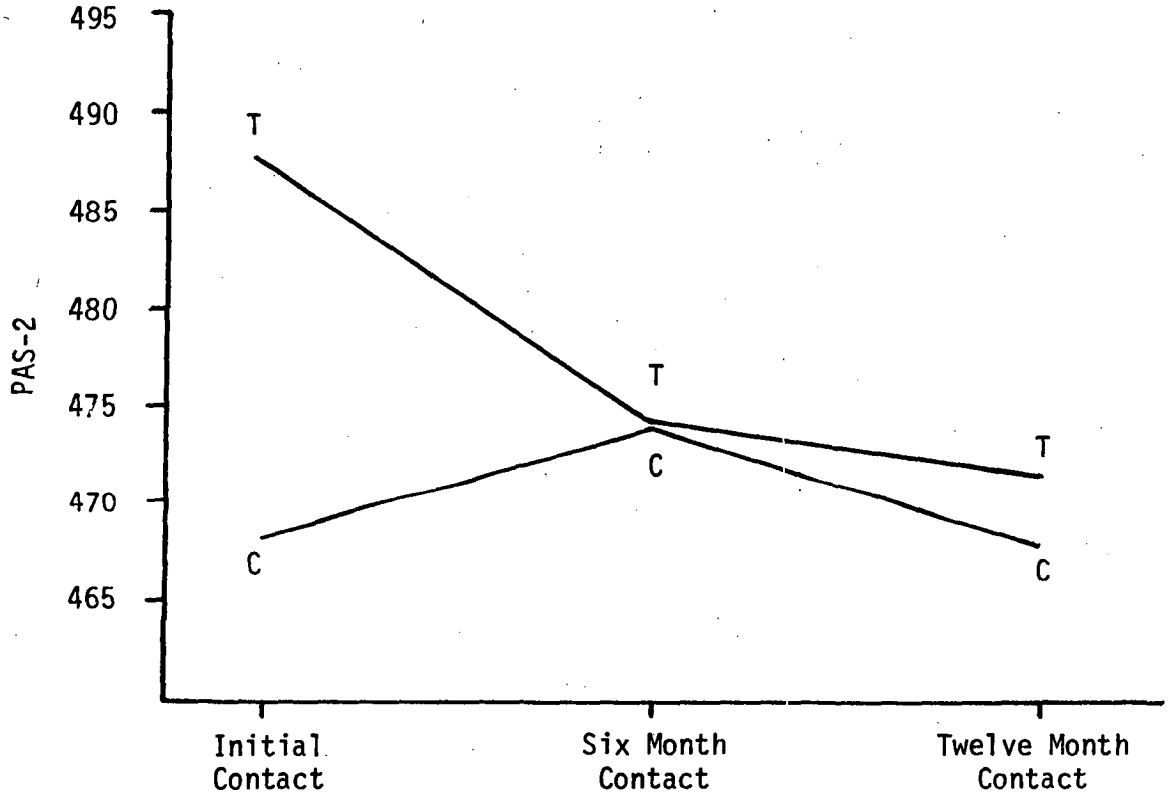


FIGURE 18. GROUP MEANS FOR PAS-2 WITHIN THE MULTIPLE MODALITY TREATMENT ASSIGNMENT DESIGN

Conclusions. A mixed effect was indicated by PAS - 2 and a positive effect was indicated by PAS - 3. Although there were two statistically significant tests of parallel profiles within the Multiple Modality Treatment Assignment design, a pattern cannot be considered as established. Further, it should be considered that PAS scale scores are the most tenuously related to the ultimate STR objectives.

Single Modality Assignment Structural Groups

The reader will recall several cautions concerning the Single Modality Assignment Structural Group design made previously in this report. An apparent mismatch of treatment and control groups based on dissimilar process and demographic variable profiles was noted in Chapter III. An imbalance of clients from particular sites in treatment and control groups was noted previously in this chapter. In reviewing the results of the analyses conducted within the Single Modality Assignment Structural Groups design, it became clear, as the result of numerous significant differences between control and treatment groups at initial contact, that the problems identified previously had seriously damaged the integrity of the design. We, therefore, feel that the results of the analyses are potentially misleading and merit only minimal discussion. They are presented briefly below.

Survival Rate Analysis. Supplemental data for the survival rate analysis are presented in Table 38, while details of the analysis are contained in Appendix C. Survival curves for the control group and each of the four treatment groups are shown in Figure 19. T tests compared each of the four treatment group survival rates to the control group (see Appendix C). The t tests revealed the following: Structural Group 2 had a survival rate significantly below the control group at period 19 only ($p < .10$); Structural Group 3 had a survival rate significantly above the control group at period 5 only ($p < .10$); and Structural Group 4 had a survival rate significantly below the control group for periods 13 through 19 ($p < .05$ for all tests).

Rearrest Analyses. Analyses of covariance applied to accident and rearrest count data for the Single Modality Structural Group design are summarized in Table 39. All covariates and the total criminal arrests main effect were statistically significant ($p < .01$ in all cases). Post hoc tests revealed that Structural Group 1 had a significantly higher mean number of criminal arrests than the control or any other treatment group. No other structural groups were significantly different than the control or from each other.

Profile Analyses. Group means for each of the 17 direct drinking and life status measures are provided in Table 40A. A summary of profile analyses applied to these data is provided in Table 40B. Tests of parallel profiles were significant for the following variables: Days Abstinent ($p < .01$), Drinking Behavior ($p < .05$), LAI/CSQ - 4 ($p < .10$), LAI/CSQ - 5 ($p < .10$), and PAS - 8 ($p < .10$). T tests were executed

TABLE 38. SUPPLEMENTAL DATA FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP SURVIVAL RATE ANALYSIS

	TREATMENT GROUP					
	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	Total
Number of Clients	714	68	437	246	309	1772
Mean Index Arrest to Initial Interview Lag in Days	87.5	55.2	66.7	128.8	80.7	85.7
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	30 (4.2%)	3 (4.4%)	11 (2.5%)	12 (4.9%)	8(2.6%)	62 (3.5%)
Mean Initial Interview to Treatment Start Lag in Days	----	32.2	30.9	23.4	15.7	24.9
Mean Initial Interview to Treatment Completion Lag in Days	----	134.4	44.7	87.3	190.7	102.7
Number of Recidivist Arrests After Initial Interview - Clients With:						
1 or More Rearrests	91 (12.7%)	10 (14.7%)	73 (16.7%)	33 (13.4%)	54 (17.5%)	261 (14.7%)
2 or More Rearrests	22 (3.1%)	2 (2.9%)	20 (4.6%)	6 (2.4%)	13 (4.2%)	63 (3.6%)
3 or More Rearrests	6 (0.8%)	0 (0.0%)	2 (0.5%)	2 (0.8%)	2 (0.6%)	12 (0.7%)

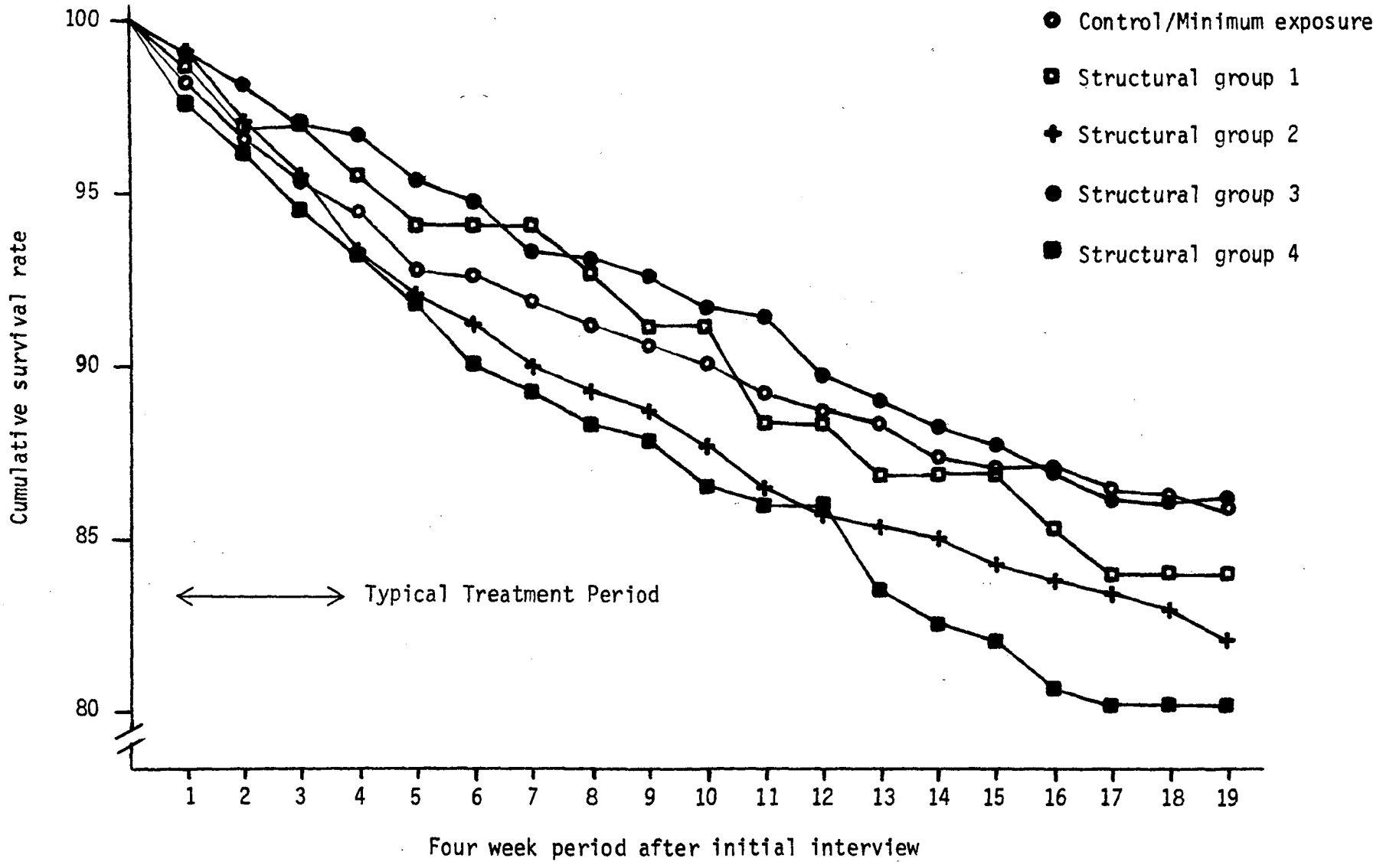


FIGURE 19. CUMULATIVE SURVIVAL RATES FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

TABLE 39. SUMMARY OF RECIDIVISM ANALYSES FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS					TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.209	0.221	0.243	0.224	0.249	0.32	0.867	16.36	0.001	1767
Serious Traffic Offense Arrests	0.231	0.324	0.286	0.252	0.262	1.09	0.358	8.92	0.001	1767
Total Traffic Offense Arrests	0.553	0.588	0.602	0.654	0.443	1.14	0.334	43.28	0.001	1767
Total Accidents	0.150	0.074	0.110	0.146	0.126	1.13	0.336	7.43	0.001	1767
Total Criminal Arrests	0.249	0.618	0.314	0.199	0.252	5.73	0.001	99.82	0.001	1767

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 40A. GROUP MEANS FOR PROFILE ANALYSES OF SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	MEAN SCORES														
	Initial Contact					6 Month Follow-up					12 Month Follow-up				
	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4	Control	Structural Group-1	Structural Group-2	Structural Group-3	Structural Group-4
Days Abstinent	21.179	16.446	12.512	20.115	25.734	54.244	51.966	27.340	39.812	58.293	78.544	91.519	47.661	50.827	96.421
Average Quantity	0.581	0.434	0.692	0.889	0.514	0.568	0.264	0.736	0.684	0.472	0.628	0.403	0.761	0.749	0.450
Drinking Behavior	2.128	2.239	2.366	2.315	1.825	1.925	1.913	2.191	2.149	1.873	1.946	1.957	2.150	2.161	1.788
LAI/CSQ - 1	482.292	483.000	513.572	515.131	444.243	464.994	443.304	502.663	491.179	441.831	465.964	454.696	494.771	486.679	438.079
LAI/CSQ - 2	487.079	477.826	469.951	482.244	476.804	498.470	487.282	490.943	513.274	491.873	500.590	504.109	490.407	507.643	507.587
LAI/CSQ - 3	518.451	500.913	529.980	504.833	516.778	510.635	484.196	511.065	500.268	514.736	508.561	515.217	501.008	508.863	506.154
LAI/CSQ - 4	488.193	472.739	494.400	493.310	466.571	501.943	485.348	516.244	509.715	487.243	495.424	461.152	511.818	491.810	488.944
LAI/CSQ - 5	498.696	484.933	518.668	532.723	491.369	466.658	451.822	477.749	478.098	467.475	466.775	450.667	478.932	486.601	465.380
CSQ - 1	489.092	472.727	504.195	485.141	500.122	484.672	474.136	503.876	466.071	490.211	487.036	472.273	496.796	478.082	493.622
CSQ - 5	502.356	477.022	502.026	509.272	516.011	516.225	504.622	512.928	508.411	529.804	520.267	502.956	514.434	515.942	533.214
LAI - 3	511.217	506.413	497.389	525.643	493.155	508.404	500.848	484.223	529.715	491.787	508.807	513.348	483.360	518.304	486.484
PAS - 2	502.591	508.977	508.430	497.176	500.347	482.910	481.093	498.128	482.702	492.693	480.077	475.930	491.898	484.287	478.430
PAS - 3	500.850	508.884	499.251	501.244	513.967	508.228	483.628	498.758	505.599	505.246	509.148	494.674	503.834	500.332	515.598
PAS - 6	510.171	510.773	505.490	502.832	507.620	496.965	498.523	501.928	504.704	503.414	502.288	497.591	505.613	506.564	498.179
PAS - 8	507.844	483.442	514.375	496.390	501.560	505.979	511.907	504.702	512.669	501.401	514.958	518.721	515.477	515.942	506.797
PAS - 9	492.708	500.818	475.945	503.686	499.185	492.363	499.727	489.226	509.907	496.352	493.459	490.182	481.983	503.012	503.570
PAS - 11	503.756	491.500	498.490	502.430	493.989	499.731	489.568	506.098	504.413	489.123	497.006	505.864	502.192	502.221	480.587

TABLE 40B. SUMMARY OF PROFILE ANALYSES FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	8	2050	2.609	0.008	4	1026	6.56	0.001	2	1025	103.190	0.001
Average Quantity	8	2252	1.344	0.216	4	1127	5.47	0.001	2	1126	1.737	0.176
Drinking Behavior	8	2252	2.433	0.013	4	1127	16.91	0.001	2	1126	29.106	0.001
LAI/CSQ - 1	8	2176	1.238	0.272	4	1089	13.52	0.001	2	1088	16.680	0.001
LAI/CSQ - 2	8	2252	0.996	0.439	4	1127	1.19	0.312	2	1126	16.355	0.001
LAI/CSQ - 3	8	2254	1.473	0.161	4	1128	0.45	0.772	2	1127	5.264	0.005
LAI/CSQ - 4	8	2174	1.871	0.061	4	1088	3.14	0.014	2	1087	24.622	0.001
LAI/CSQ - 5	8	2212	1.781	0.076	4	1107	5.69	0.001	2	1106	112.094	0.001
CSQ - 1	8	1108	0.635	0.749	4	555	1.83	0.122	2	554	1.698	0.184
CSQ - 5	8	2210	0.742	0.656	4	1106	2.05	0.085	2	1105	14.605	0.001
LAI - 3	8	2252	1.523	0.143	4	1127	4.98	0.001	2	1126	3.495	0.031
PAS - 2	8	2202	0.999	0.435	4	1102	0.85	0.495	2	1101	30.774	0.001
PAS - 3	8	2204	1.375	0.202	4	1103	0.62	0.648	2	1102	1.371	0.254
PAS - 6	8	2206	0.776	0.624	4	1104	0.02	0.999	2	1103	3.120	0.045
PAS - 8	8	2194	1.838	0.066	4	1098	0.27	0.900	2	1097	7.047	0.001
PAS - 9	8	2206	1.607	0.117	4	1104	2.18	0.070	2	1103	5.840	0.003
PAS - 11	8	2206	1.042	0.400	4	1104	1.15	0.331	2	1103	1.139	0.320

at each contact point for each of these variables, but the results of the tests still left questions concerning the interpretation of several of the analyses. We feel that we can state with some confidence that the profile analyses provided no clear evidence for treatment effect--either negative or positive.

Multiple Modality Assignment Structural Groups

A problem similar to that described for the Single Modality Structural Group design exists for the Multiple Modality Structural Group Design. Evidence for non-comparability of treatment and control groups is sufficient to prompt a conclusion that the results of analyses may be misleading. The reader is cautioned to keep this conclusion in mind when considering the results presented briefly below.

Survival Rate Analysis. Table 41 contains data to supplement the interpretation of the survival rate analysis applied to the Multiple Modality Assignment Structural Group design. Details of the analysis are shown in Appendix C. Survival curves for the control and two treatment groups are shown in Figure 20. T tests were conducted to compare each of the two treatment groups to the control group (see Appendix C). The results of the tests indicated that Structural Group 2 had a significantly higher survival rate than the control group at intervals 3 through 7, 11, and 14 through 19. Structural Group 1 was not significantly different than the control group at any follow-up point.

Rearrest Analyses. A summary of analyses of covariance applied to arrest and accident count data within the Multiple Modality Assignment Structural Group design is provided in Table 42. Covariates were statistically significant except in the Total Accidents analysis. The only statistically significant main effect was for Alcohol Related Traffic Offenses. Post hoc tests revealed that neither treatment group was significantly different from the control group, but rather that the two treatment groups were significantly different from each other.

Profile Analyses. Table 43A contains group means for each of the 17 direct drinking and life status measures at each contact point. Profile analyses applied to the drinking and life status measures are summarized in Table 43B. Tests of parallel profiles were significant for the following variables: Average Quantity ($p < .05$), LAI/CSQ - 3 ($p < .10$), LAI/CSQ - 4 ($p < .05$), LAI - 3 ($p < .05$), PAS - 2 ($p < .05$). T tests were performed at each contact point for each of these variables. As was the case for the Single Modality Assignment Structural Group design, however, the tests did not completely clarify the results for all analyses. Again, we feel most confident in limiting our conclusions to a statement suggesting no clear treatment effects as indicated by the results of the profile analyses.

TABLE 41. SUPPLEMENTAL DATA FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP SURVIVAL RATE ANALYSIS

	TREATMENT GROUP			
	Control	Structural Group-1	Structural Group-2	Total
Number of Clients	288	179	271	738
Mean Index Arrest to Initial Interview Lag in Days	93.5	102.9	94.2	96.1
Number of Persons With 1 or More Recidivist Arrest(s) in Index Arrest to Initial Interview Lag	6 (2.1%)	6 (3.4%)	12 (4.4%)	24 (3.3%)
Mean Initial Interview to Treatment Start Lag in Days	----	18.1	18.9	18.6
Mean Initial Interview to Treatment Completion Lag in Days	----	75.1	127.8	105.9
Number of Recidivist Arrests After Initial Interview - Clients With:				
1 or More Rearrests	30 (10.4%)	10 (5.6%)	29 (10.7%)	69 (9.3%)
2 or More Rearrests	3 (1.0%)	1 (0.6%)	2 (0.7%)	6 (0.8%)
3 or More Rearrests	0 (0.0%)	0 (0.0%)	1 (0.4%)	1 (0.1%)

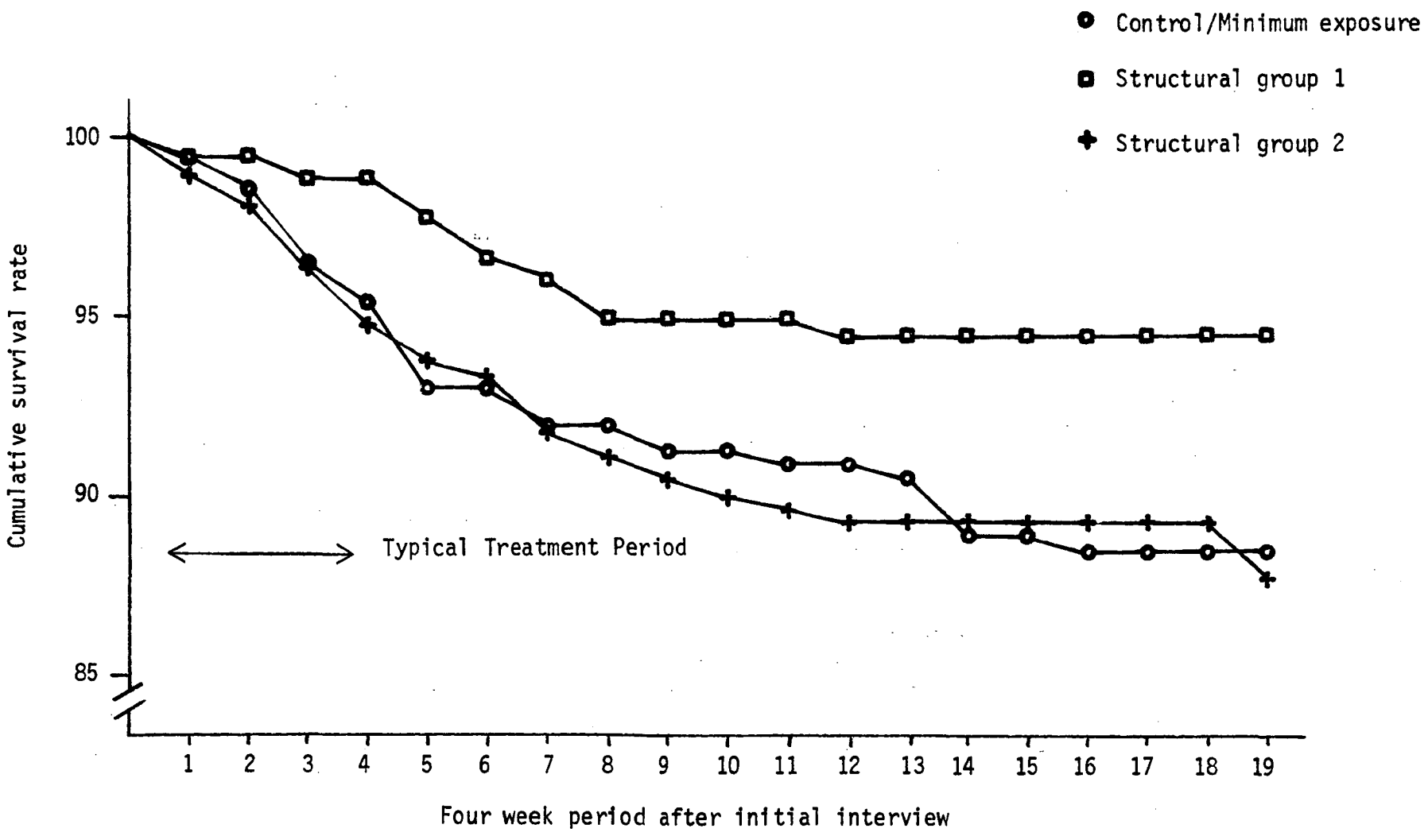


FIGURE 20. CUMULATIVE SURVIVAL RATES FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

TABLE 42. SUMMARY OF RECIDIVISM ANALYSES FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	MEAN NUMBER OF ARRESTS			TREATMENT EFFECT		COVARIATES[1]		df ERROR
	Control	Structural Group-1	Structural Group-2	F Ratio	p	F Ratio	p	
Alcohol Related Traffic Arrests	0.135	0.095	0.116	0.20	0.818	10.74	0.001	733
Serious Traffic Offense Arrests	0.181	0.151	0.210	0.10	0.906	8.88	0.001	733
Total Traffic Offense Arrests	0.392	0.525	0.376	2.49	0.083	12.37	0.001	733
Total Accidents	0.108	0.050	0.111	0.77	0.465	1.69	0.185	733
Total Criminal Arrests	0.063	0.145	0.037	2.01	0.134	57.04	0.001	733

[1] Covariates for all analyses are exposure to rearrest in months and count of the appropriate prior arrest.

TABLE 43A. GROUP MEANS FOR PROFILE ANALYSES OF MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	MEAN SCORES								
	Initial Contact			12 Month Follow-up			18 Month Follow-up		
	Control	Structural Group-1	Structural Group-2	Control	Structural Group-1	Structural Group-2	Control	Structural Group-1	Structural Group-2
Days Abstinent	7.987	9.428	23.295	32.872	26.161	47.569	37.108	36.177	65.307
Average Quantity	0.608	0.557	0.449	0.668	0.572	0.392	0.599	0.679	0.355
Drinking Behavior	2.197	2.137	2.000	2.082	2.145	1.932	2.066	2.129	1.888
LAI/CSQ - 1	513.605	519.067	488.321	505.962	512.361	468.536	506.165	515.269	462.026
LAI/CSQ - 2	499.563	527.774	493.625	504.159	528.508	495.244	517.399	525.621	500.163
LAI/CSQ - 3	507.088	502.976	532.423	515.011	512.589	511.951	508.317	514.573	514.988
LAI/CSQ - 4	510.517	550.605	471.066	527.583	560.958	504.327	524.792	559.589	508.406
LAI/CSQ - 5	467.718	463.554	462.825	460.902	456.252	443.929	460.973	461.168	442.422
CSQ - 1	473.320	473.857	479.506	490.613	476.464	468.418	496.880	501.161	476.025
CSQ - 5	525.506	531.857	531.332	525.234	535.008	539.624	529.093	539.512	532.253
LAI - 3	480.410	500.105	487.230	488.273	497.379	488.125	482.383	503.959	503.615
PAS - 2	471.099	474.863	487.457	480.427	468.350	464.285	474.295	470.060	465.716
PAS - 3	520.440	522.152	498.395	516.022	525.466	498.790	526.288	518.280	506.862
PAS - 6	482.185	470.916	493.474	486.674	472.294	479.198	481.348	467.008	483.033
PAS - 8	481.104	472.069	507.338	488.099	469.586	506.967	500.814	476.259	505.636
PAS - 9	520.065	539.602	503.497	522.114	550.686	513.027	516.614	539.407	512.596
PAS - 11	472.830	492.568	482.125	487.154	483.771	478.862	478.176	487.602	471.954

TABLE 43B. SUMMARY OF PROFILE ANALYSES FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUPS

DEPENDENT VARIABLE	TEST OF PARALLEL PROFILES				TEST OF EQUAL LEVELS				TEST OF SLOPE			
	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p	df Hyp.	df Error	F Ratio	p
Days Abstinent	4	832	0.773	0.543	2	417	4.94	0.008	2	416	27.195	0.001
Average Quantity	4	928	2.686	0.030	2	465	7.89	0.001	2	464	0.066	0.936
Drinking Behavior	4	928	0.983	0.416	2	465	8.39	0.001	2	464	5.085	0.007
LAI/CSQ - 1	4	900	1.261	0.284	2	451	10.59	0.001	2	450	5.473	0.004
LAI/CSQ - 2	4	926	0.794	0.529	2	464	5.67	0.004	2	463	1.675	0.188
LAI/CSQ - 3	4	928	2.026	0.089	2	465	0.54	0.586	2	464	0.098	0.907
LAI/CSQ - 4	4	900	2.622	0.034	2	451	16.55	0.001	2	450	18.678	0.001
LAI/CSQ - 5	4	906	1.605	0.171	2	454	3.08	0.047	2	453	7.031	0.001
CSQ - 1	4	412	1.839	0.120	2	207	0.51	0.599	2	206	2.905	0.057
CSQ - 5	4	906	0.653	0.625	2	454	1.02	0.362	2	453	0.630	0.533
LAI - 3	4	928	2.867	0.022	2	465	1.33	0.266	2	464	2.535	0.080
PAS - 2	4	894	3.021	0.017	2	448	0.14	0.871	2	447	1.593	0.204
PAS - 3	4	900	1.018	0.396	2	451	2.59	0.076	2	450	1.009	0.365
PAS - 6	4	902	1.046	0.382	2	452	1.53	0.217	2	451	0.650	0.522
PAS - 8	4	892	1.467	0.210	2	447	5.28	0.005	2	446	2.495	0.084
PAS - 9	4	898	0.938	0.441	2	450	5.61	0.004	2	449	2.501	0.083
PAS - 11	4	896	1.555	0.184	2	449	0.69	0.500	2	448	0.821	0.441

DISCUSSION AND CONCLUSIONS

The results of the Survival Rate Analyses performed for each of the eight quasi-experimental designs are summarized in Table 44. Significant differences at particular follow-up periods are indicated by asterisks according to the following scheme: Single asterisks for an alpha level of .10, double asterisks for an alpha level of .05, and triple asterisks for an alpha level of .01. A plus sign is used to denote positive effects with respect to control, i.e., treatment group survival rate higher than control group survival rate. Negative signs denote the opposite effect. If the results of the analyses reported for the Single Modality Structural Groups and Multiple Modality Structural Groups designs are ignored (which we believe is wise), significant results remain for two of the designs. For both of these designs, PMT Alone and Single Modality Assignments, the effects are negative. Before drawing firm conclusions, however, it may be useful to consider the composition of the treatment group within the Single Modality Assignment design. Of the 1,053 clients in this treatment group, 437 or 41.5% were exposed to PMT only. It seems reasonable to assume, then, that the PMT only clients within the Single Modality Assignment design would have a relatively important effect on the outcome of analyses applied to the Single Modality Assignment design. We believe that influence of PMT may be responsible for the negative effect which exists for the Single Modality Assignment design. Although separate analysis for non-PMT single modality assignments would confirm or disprove this hypothesis, time constraints prevented such an analysis for the present report. In any case, the Survival Rate Analyses summarized in Table 44 provide no evidence for positive treatment effects.

A total of 184 separate Profile Analyses treating 23 outcome measures within 8 quasi-experimental designs were conducted in the performance of this interim assessment of the effectiveness of STR treatment modalities. These analyses are summarized in Table 45. This significance of these analyses and the direction of significant differences is indicated by the same scheme described above in relation to the summary of Survival Rate Analyses. If the results of analyses applied within the Single Modality Assignment Structural Group and Multiple Modality Assignment Structural Group designs are dismissed on the basis of a high probability of bias, a total of 138 analyses remain. There were two results significant at the .01 level, two results significant at the .05 level, and nine results significant at the .10 level within the remaining analyses. Prior to an attempt to interpret these results, the reader is reminded that chance alone would be expected to yield one result significant at the .01 level, six results significant at the .05 level and seven results significant at the .10 level for 138 analyses. Inspection of Table 45, and of analyses presented in the previous section shows no absolutely clear pattern of results indicative of a treatment induced difference between treatment and control groups. The pattern of results within the School Alone and PMT Plus School designs, however, may suggest treatment effects despite the reduced study-wise protection level.

TABLE 44. OVERALL SUMMARY OF STATISTICALLY SIGNIFICANT DIFFERENCES IN SURVIVAL RATE ANALYSES

TREATMENT TAXONOMY	FOUR WEEK PERIOD AFTER INITIAL INTERVIEW																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Total Treatment																			
School Alone																			
PMT Alone						**-	**-	*-	**-	**-	**-	*-	*-			*-			*-
PMT Plus School																			
Single Modality Assignment													*-			*-	*-	*-	*-
Multiple Modality Assignment																			
Single Modality Structural Groups:																			
Group-1																			
Group-2																			*-
Group-3					*+														
Group-4													**-	**-	**-	**-	**-	**-	**-
Multiple Modality Structural Groups:																			
Group-1			*+	**+	**+	*+	*+				*+			**+	**+	**+	**+	**+	**+
Group-2																			

Note: All comparisons are treatment versus control.
* = p < .10
** = p < .05
*** = p < .01
+ = Positive Effect
- = Negative Effect

TABLE 45. OVERALL SUMMARY OF STATISTICALLY SIGNIFICANT DIFFERENCES IN RECIDIVISM AND PROFILE ANALYSES

DEPENDENT VARIABLE	TREATMENT TAXONOMY							
	Total Treatment	School Alone	PMT Alone	PMT Plus School	Single Modality Assignments	Multiple Modality Assignments	Single Modality Assignment Structural Groups	Multiple Modality Assignment Structural Groups
Alcohol Related Traffic Arrests								
Serious Traffic Offense Arrests								
Total Traffic Offense Arrests				*-				*R
Total Accidents				***+				
Total Criminal Arrests							***-R	
Days Abstinent		*+			*±		***-R	
Average Quantity		***+						**+R
Drinking Behavior	*-			*-			**? R	
LAI/CSQ - 1								
LAI/CSQ - 2				*-				
LAI/CSQ - 3								*?
LAI/CSQ - 4	*+						* +/? R	**?R
LAI/CSQ - 5							* -/? R	
CSQ - 1								
CSQ - 5								
LAI - 3						**±		**+
PAS - 2						**+		**+?
PAS - 3								
PAS - 6		*-						
PAS - 8		*±					*?	
PAS - 9								
PAS - 11								

Note: * = $p < .10$
** = $p < .05$
*** = $p < .01$
+ = Positive Effect with Respect to Control
- = Negative Effect with Respect to Control
R = Relative Effect Between Treatment Groups

The positive results within the School Alone design for two of the three direct drinking measures alone are certainly suggestive of a positive School Alone treatment effect. When these effects are considered in conjunction with the results of analyses on PAS Factors 6 and 8, the suggestion of effect is necessarily diminished. Because of the more clear relationship of the direct drinking measures to STR objectives, we believe a reasonable conclusion with respect to School Alone effectiveness is that there is some evidence to support a hypothesis of positive impact.

The three results within the PMT Plus School design which indicate a negative treatment effect with respect to the control group would seem to suggest a pattern, were it not for the positive result for Total Accidents. It would be tempting to conclude that there is evidence for a negative effect in the series of profile analyses applied within the PMT Plus School Design. The positive effect for Total Accidents, however, indicates the need for further analysis before firm conclusions are drawn.

Taken at face value, the results of the present series of analyses are certainly not encouraging with respect to the apparent capacity of STR treatment programs to affect the behavior of DUI clients referred by the courts. A number of explanations may be suggested to account for these results. Four alternative influences which might be offered to account for the observed effects, or lack of effects, are summarized below. The intent of this discussion is not to provide excuses or apologies for a failure to discover evidence supportive of the hypotheses of treatment program impact. Rather, these considerations are intended to focus attention to issues which must be addressed as the conduct of the STR study continues.

Adequacy of the Quasi-Experimental Designs

A total of eight quasi-experimental designs were employed for analyses in this report. Six of these designs were based on treatment taxonomies derived by what we consider "informed judgment." That is, the treatment groupings were formed according to our judgment, but our judgment was based on a relatively complete knowledge of at least the structural characteristics of the STR modalities. Our judgment was further influenced by at least partial knowledge of treatment goals, objectives, and processes. We feel taxonomies based on a judgment possess several desirable characteristics. For example, they have high face validity for the reader, and they incorporate salient factors not directly related to treatment characteristics such as a balance between treatment and control groups by STR site. It is anticipated that future analyses will focus on the judgmental groupings used in this report as well as additional treatment groupings based on informed judgment.

Two of the designs in this report (Single Modality Treatment Assignment Structural Groups and Multiple Modality Treatment Assignment Structural Groups) were based on rather complex factor analytic and cluster analysis techniques. These two designs were clearly less useful than was originally anticipated. Our inability to incorporate non-modality related information (such as site specific client characteristics) in the statistical procedures is one obvious explanation for the problems associated with these designs. Further, there is some reason to suspect the data supplied by the individual STR sites on the modality description questionnaires. For example, there are relatively large between-site differences in the statement of goals, objectives, and focus for PMT. One would expect that perceptions of these attributes should be nearly identical since the modality was theoretically well structured, well documented, and all therapists were trained by personnel of McBer and Company. It is anticipated that, in the absence of new developments, activity in the generation of treatment taxonomies such as the Single Modality Assignment Structural Groups and Multiple Modality Assignment Structural Groups will be minimal for future reports.

Client by Treatment Interactions

It seems reasonable to suppose that particular types of treatment may be differentially effective for different types of individuals. Within a particular experimental design which compares the performance of clients exposed to treatment X with a corresponding control group not exposed to treatment X, the two groups might be composed of some individuals who are susceptible to the effects of the treatment, and others who are not. In order to attain overall significance in such a comparison, it is necessary that the treatment effect exhibited by those individuals for whom the treatment works be sufficiently large that it is not masked by the lack of effect for the remaining subjects. The efforts described in Chapter III to develop a typology of STR clients are intended to focus on this issue, and will serve as a basis for process evaluations concerned with identifying relationships between client characteristics and outcome criteria.

Client Capacity for Change

An additional issue which must be considered in the evaluation of STR treatment effectiveness concerns the status of the STR population with respect to the outcome criteria utilized in assessments of treatment effectiveness. Comparisons of the STR population to other populations of individuals subjected to alcohol rehabilitation programs discussed in the report of interim analyses of effectiveness made after six months of follow-up (Ellingstad and Struckman-Johnson, 1977), suggested that the DUI clients who constitute the STR client pool are in many respects more similar to "normal drinking age adults" than to the problem drinkers and alcoholics encountered by treatment agencies.

It is necessary to consider the possibility that less "room-for-improvement" exists for STR clients than for other client populations. Further comparisons of the STR client pool with other populations is anticipated in order to address this issue.

The Issue of Treatment Effectiveness

Finally, the possibility that rehabilitation countermeasures do not work must be seriously entertained as an explanation of non-significant results. Although it is intended that every effort will be expended to discover valid effects and to eliminate or control for extraneous influences which are capable of masking such effects, the serious evaluation of program effectiveness cannot arbitrarily preclude the option of deciding in favor of the null hypothesis if the empirical evidence justifies such a decision.

APPENDIX A

STR MODALITY DESCRIPTION QUESTIONNAIRE

SHORT TERM REHABILITATION STUDY

STR Modality Description Questionnaire

SITE: _____ MODALITY NAME: _____

(If more than one actual treatment program is classified under a given modality name, complete an entire questionnaire for each.)

PART A. STRUCTURAL CHARACTERISTICS OF TREATMENT PROGRAM:

1. What is the total number of treatment sessions for this modality? (If variable, indicate the average number.) _____

2. What is the average duration of each session? (in minutes) _____

3. How frequently are sessions scheduled? (If variable, indicate the average frequency.) _____

4. What is the average duration of client exposure to this treatment program from entry date to termination date? (in days) _____

5. What is the average number of clients per session of this treatment program? _____

6. How many instructors or therapists interact with clients at each session? (If variable, indicate the average.) _____

7. How many different instructors or therapists at your site are trained to provide this treatment program? _____

8. What is the average cost to each of the following for each client's participation in this treatment program? (If client costs are on a sliding scale, indicate average client payment.)

   a. The client himself: $_____

   b. ASAP: $_____

   c. NIAAA: $_____

   d. Other (specify) _____: $_____

   Total Treatment Cost: $_____

Part A. Structural Characteristics of Treatment Program (Continued)

9. What is the approximate total cost of providing one complete treatment program (e.g., If a given treatment program exposes an average of fifteen clients to four 2-hour sessions, what is the total cost of providing this service?). $_____

10. Who is responsible for the conduct of this treatment program (e.g., ASAP, Safety Council, Mental Health Center)?

_____

11. What percentage of the clients attending each treatment program are STR study clients (e.g., For treatment programs run exclusively for STR clients the appropriate response would be 100%.)? _____%

12. Handling of treatment no-shows. (Indicate the percentage of STR clients subject to each of the following courses of action in the event of their failure to appear for the treatment program.)

    a. No consequences - no major effort to reschedule: _____%

    b. Rescheduling only: _____%

    c. Imposition of jail or fine after attempt to reschedule fails: _____%

    d. Imposition of jail or fine without attempt to reschedule: _____%

    NOTE: The sum of items a, b, c, and d = 100%

13. Handling of treatment dropouts. (Indicate the percentage of STR clients subject to each of the following courses of action in the event of their failure to maintain enrollment in the treatment program.)

    a. No consequences - no major effort to reschedule: _____%

    b. Rescheduling only: _____%

    c. Imposition of jail or fine after attempt to reschedule fails: _____%

    d. Imposition of jail or fine without attempt to reschedule: _____%

    NOTE: The sum of a, b, c, and d = 100%

PART B. DESCRIPTION OF TREATMENT PROCESSES

1. Rate on the 10 point scale below to what extent the leader's role is that of teacher-instructor versus therapist-counselor.

   Instructor 0 1 2 3 4 5 6 7 8 9 10 Counselor

2. The percentage of time utilized by this modality for each of the following purposes:

   a. to convey information (e.g., on drinking and driving) to participants: _____ %

   b. to help participants with their social, emotional, and behavioral problems: _____ %

   Total should equal 100%

3. The percentage of time spent in each of the following approaches:

   a. didactic approaches such as providing lectures, films, speakers, etc.: _____ %

   b. discussion between participants and the leader(s): _____ %

   c. discussion among the participants themselves: _____ %

   Total should equal 100%

4. Is a standard or formal program syllabus/outline used to guide this treatment program? _____ Yes _____ No

   If so, specify the nature and origin of the program syllabus/outline.

   _____

   _____

5. To what extent is the content of the treatment program tailored to the characteristics of individual instructors or therapists? Rate on the 10 point scale below:

   Program unique to each instructor 1 2 3 4 5 6 7 8 9 10 Program identical for all instructors

Items 6 through 17 pertain to non-school treatment modalities only.

6. What is the theoretical basis for this treatment program (e.g., psychoanalytic, behavioral, client-centered, confrontation, etc.)? _____

   _____

Part B. Description of Treatment Processes (Continued)

Focus of Therapy

7. Rate the extent to which this treatment program focuses on client behavior versus client feelings.

Focus on behavior	1	2	3	4	5	6	7	8	9	10	Focus on feelings

8. Rate the extent to which this treatment program is focused on drinking/alcohol problems versus the general spectrum of client life problems.

Focus exclusively on drinking problems	1	2	3	4	5	6	7	8	9	10	Focus on general problems

9. Rate the extent to which this treatment is focused on personal versus interpersonal functioning.

Focus on personal functioning	1	2	3	4	5	6	7	8	9	10	Focus on interpersonal problems

10. Indicate the percentage of time during the course of the treatment program which is devoted to discussion or consideration of each of the following three areas (the sum of the three should equal 100%):

    a. past problems/historical antecedents of present problem or condition: _____ %

    b. current client status or problems: _____ %

    c. future client behavior, coping, etc.: _____ %

    _____ 100%

Goals of Therapy

11. Rate the extent to which therapeutic goals are established by the therapist versus the client(s).

Established by therapist	1	2	3	4	5	6	7	8	9	10	Established by client(s)

Part B. Description of Treatment Processes (Continued)

12. Rate the extent to which abstinence from drinking is considered an essential goal of this treatment program.

Abstinence essential to successful outcome	1	2	3	4	5	6	7	8	9	10	Normal social drinking indicative of successful outcome

13. Rate the extent to which each of the following alternative goals are considered important within this treatment program, and also rank order these goals in the order of their importance by assigning a "1" to the most important, a "6" to the least important, etc. (What is sought is an indication of the relative emphasis placed on these alternative therapeutic objectives.)

Goal	Rank Order	Rating: Unimportant									Very Important
a. Development of specific behavioral skills	_____	1	2	3	4	5	6	7	8	9	10
b. Reduction of undesired behaviors	_____	1	2	3	4	5	6	7	8	9	10
c. Reduction of conflict	_____	1	2	3	4	5	6	7	8	9	10
d. Self actualization	_____	1	2	3	4	5	6	7	8	9	10
e. Development of insight	_____	1	2	3	4	5	6	7	8	9	10
f. Interpersonal adjustment	_____	1	2	3	4	5	6	7	8	9	10

14. Rate the extent to which discussion/interaction is determined by the therapist versus the client(s).

Content determined by client(s)	1	2	3	4	5	6	7	8	9	10	Content determined by therapist

Part B. Description of Treatment Processes (Continued)

15. What percentage of the verbal interchange in an average therapy session is contributed by:

    a. therapist: _____%

    b. client(s): _____%

    Total should equal 100%

16. Rate the frequency with which specific advice, directions, or behavioral instruction is provided by the therapist.

Therapist never provides direct advice/ instruction	1	2	3	4	5	6	7	8	9	10	Therapist usually provides direct advice/ instruction

17. Rank in order of their importance or relevance to this treatment program the following alternative therapist role descriptions. (1 = the most important or relevant, 4 = the least important or relevant)

    ____ a. analyst

    ____ b. teacher/counselor

    ____ c. sounding board

    ____ d. friend/confidant

STR MODALITY DESCRIPTION QUESTIONNAIRE

SITE: _____ MODALITY NAME: _____

PART C. INSTRUCTOR/THERAPIST CHARACTERISTICS

(Fill out a separate Part C for each instructor or therapist responsible for providing this treatment modality.)

Demographic Information (Optional)

Age: _____
Sex: _____ Male _____ Female
Marital Status: _____
Race: _____
Religious Preference: _____
Recovered Alcoholic: _____ Yes _____ No
Member of AA: _____ Yes _____ No

Formal Educational Background

Highest academic degree _____, Area of study: _____
Year of degree: _____

Other specialized training [describe nature and duration, include year(s) taken]: _____

_____

_____

Instructional/Therapeutic Experience

Is alcohol rehabilitation/instruction your primary occupation? _____

Specify years of experience relevant to the provision of alcohol rehabilitation or treatment. _____

Modality Specific Training

Has specific training been provided for the conduct of this STR treatment modality? _____

If yes, describe the nature, duration and dates of such training:

_____

_____

_____

SHORT TERM REHABILITATION STUDY

Probation Description Questionnaire

SITE: _____ PROBATION TYPE: _____

(If more than one type of probation is being employed for STR clients, complete an entire questionnaire for each type. Answer questions in relation to STR clients only.)

PART A. PROBATION DESCRIPTION

1. Does probation involve client contact? _____ Yes _____ No

   If yes, describe your probation system. Include at a minimum:

   a. the type of contact (no contact, mail contact, phone contact, in person visits, etc.),

   b. the frequency of contacts (weekly, monthly, etc.),

   c. the average length for each type of contact,

   d. the average number of each type of contact during a complete probation period,

   e. the sequence of probation contacts (e.g., one mail contact, followed by eight phone contacts, followed by an in person exit interview).

Part A. Probation Description (Continued)

2. Total duration of probation period in days? (Indicate average, if variable.) _____ days

3. Is probation ever revoked? _____ Yes _____ No

   If yes, answer 4 and 5. If no, skip to 6.

4. What behavior is likely to cause revocation of probation? (Check as many as are applicable. If multiple behaviors are checked, rank in order of frequency.)

   _____ Rearrest for DWI (or equivalent)
   _____ Rearrest for other traffic offense
   _____ Non-abstinence
   _____ Not complying with rehab referral
   _____ Other, specify: _____

5. What are the typical consequences of a revoked probation? (Check as many as are applicable. If multiple consequences are checked, rank in order of frequency.)

   _____ None
   _____ Imposition of probated jail sentence
   _____ Imposition of probated fine sentence
   _____ Other, specify: _____

6. Is a probationer assigned to a specific probation officer?
   _____ Yes _____ No

7. Do probation officers have "officer of the court" status?
   _____ Yes _____ No

8. Is probation for STR clients:

   _____ handled along with regular cases by a "regular" (in existence before ASAP) probation office?
   _____ handled by special ASAP probation officers in a "regular" (in existence before ASAP) probation office?
   _____ handled by a special ASAP probation office (in existence only because of ASAP)?

9. In general, is counseling a function of probation officers in addition to normal supervisory functions? _____ Yes _____ No

10. If yes, in what % of the cases is counseling provided? _____%

Part A. Probation Description (Continued)

11. Who pays the cost of probation? Indicate the average cost per client to each of the following (costs must sum to the total cost of probation for one client).

$_____ client
$_____ ASAP
$_____ governmental agency (city, county, court, etc.)
$_____ other, specify: _____

SHORT TERM REHABILITATION STUDY

Probation Description Questionnaire

SITE: _____ PROBATION TYPE: _____

PART B. PROBATION OFFICER CHARACTERISTICS

(Fill out a separate Part B for each probation officer in contact with STR clients.)

Demographic Information (Optional)

Age: _____
Sex: _____ Male _____ Female
Marital Status: _____
Race: _____
Religious Preference: _____
Recovered Alcoholic: _____ Yes _____ No
Member of AA: _____ Yes _____ No

Formal Educational Background

Highest academic degree _____, Area of study: _____
Year degree earned: _____

Other specialized training [describe nature and duration, include year(s) taken]: _____

_____

_____

Relevant Experience

Is probation work your primary occupation? _____ Yes _____ No

How many years have you been actively engaged in probation work?
_____ Years

How many years of experience do you have dealing with persons with alcohol problems (as opposed to probation experience in general)?
_____ Years

Counseling Activity (Answer the following questions in relation to STR clients only.)

Do you view counseling, as opposed to normal supervisory functions, as a part of your responsibilities? _____ Yes _____ No

Part B. Probation Officer Characteristics (Continued)

If yes, answer the following:

What percentage of client contact time is devoted to counseling activities? _____%

What percent of counseling time (not total contact time) is spent in each of the following areas? (Percentages must total 100%.)

_____% marital/family problems
_____% employment
_____% alcohol problems
_____% legal problems
_____% other, specify: _____

100%

Is any attempt made to refer STR clients to additional rehabilitation?
_____ Yes _____ No

If yes, which rehabilitation modality(s) is (are) most frequently recommended? (check one or more)

_____ AA
_____ group therapy
_____ individual therapy
_____ inpatient therapy
_____ chemotherapy
_____ other

APPENDIX B

SUMMARY OF STR TREATMENT PROGRAM CHARACTERISTICS FOR MODALITIES INCLUDED WITHIN THE EIGHT PROGRAM LEVEL QUASI-EXPERIMENTAL DESIGNS

Data presented in these tables were derived from STR Modality Description Questionnaires completed for each distinct STR treatment program.

TABLE B-1. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR THE ALCOHOL SAFETY SCHOOL ONLY TREATMENT CONDITION

Descriptor Variable	Minneapolis Chalk Talk	South Dakota PDDC 1	South Dakota PDDC 2	New Hampshire DRS 1	New Hampshire DRS 2	Tampa PD School	Mean
STRUCTURAL CHARACTERISTICS:							
Number of Sessions	6	4	2	5	5	4	4.33
Session Length (min.)	45	90	150	150	150	120	117.50
Exposure Duration (days)	70	22	8	29	16	22	27.83
Clients per Session	55	9	9	8	8	20	18.17
Instructors per Session	1	1	1	1	1	1	1.00
Total Instructors	5	9	9	12	12	6	8.83
PROGRAM COSTS:							
Cost to Client ($)	0	0	0	60	60	40	26.67
Cost to ASAP ($)	0	6	6	0	0	0	2.00
Cost to NIAAA ($)	0	0	0	0	0	0	0.00
Cost to Others ($)	3	0	0	0	0	0	0.50
Total Cost per Client	3	6	6	60	60	40	29.17
Total Cost per Program	165	50	50	200	200	650	219.17
HANDLING OF NO-SHOWS:							
% No Consequence	0	20	20	0	0	0	6.67
% Reschedule Only	80	60	60	100	100	5	67.50
% Reschedule + Punitive	20	10	10	0	0	95	22.50
% Punitive Only	0	10	10	0	0	0	3.33
HANDLING OF DROP-OUTS:							
% No Consequence	0	20	20	100	100	0	40.00
% Reschedule Only	0	60	60	0	0	5	20.83
% Reschedule + Punitive	100	10	10	0	0	95	35.83
% Punitive Only	0	10	10	0	0	0	3.33
TREATMENT METHODS:							
Instructor vs. Counselor	1	3	3	7	7	1	3.67
% Time Info. Transmission	100	40	40	65	65	100	68.33
% Time Help with Problems	0	60	60	35	35	0	31.67
% Time Didactic Approaches	100	74	74	65	65	60	73.00
% Time Client-Leader Disc.	0	16	16	35	35	30	22.00
% Time Client-Client Disc.	0	10	10	0	0	10	5.00
Syllabus Used?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Extent Prog. Standardized	N/A	9	9	10	10	8	9.20

TABLE B-2. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR THE PMT ONLY TREATMENT CONDITION

Descriptor Variable	Denver	Fairfax	Kansas City	Phoenix	Mean
STRUCTURAL CHARACTERISTICS:					
Number of Sessions	4	4	4	4	4.00
Session Length (min.)	480	480	420	480	465.00
Exposure Duration (days)	9	9	9	9	9.00
Clients per Session	12	16	12	12	13.00
Instructors per Session	2	2	2	2	2.00
Total Instructors	7	14	8	6	8.75
PROGRAM COSTS:					
Cost to Client ($)	90	60	40	35	56.25
Cost to ASAP ($)	0	0	62	0	15.50
Cost to NIAAA ($)	0	0	20	0	5.00
Cost to Others ($)	90	0	0	19	27.25
Total Cost per Client	180	60	122	54	104.00
Total Cost per Program	1000	900	1464	998	1090.50
HANDLING OF NO-SHOWS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	90	80	100	92.50
% Reschedule + Punitive	0	10	20	0	7.50
% Punitive Only	0	0	0	0	0.00
HANDLING OF DROP-OUTS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	90	70	100	90.00
% Reschedule + Punitive	0	10	30	0	10.00
% Punitive Only	0	0	0	0	0.00
FOCUS OF THERAPY:					
Behavior vs. Feelings	4	5	5	5	4.75
Drinking vs. Gen. Problems	8	8	7	8	7.75
Personal vs. Interpersonal	8	5	3	7	5.75
% Time on Past Problems	40	10	20	50	30.00
% Time on Current Problems	20	60	30	25	33.75
% Time on Future Behavior	40	30	50	25	36.25

TABLE B-2. Summary of Treatment Program Characteristics for the PMT Only Treatment Condition (Continued)

Descriptor Variable	Denver	Fairfax	Kansas City	Phoenix	Mean
TREATMENT METHODS:					
Instructor vs. Counselor	2	5	8	3	4.50
% Time Info. Transmission	20	20	20	38	24.50
% Time Help with Problems	80	80	80	62	75.50
% Time Didactic Approaches	20	10	0	35	16.25
% Time Client-Leader Disc.	10	45	75	40	42.50
% Time Client-Client Disc.	70	45	25	25	41.25
Syllabus Used?	Yes	Yes	Yes	Yes	Yes
Extent Prog. Standardized	10	10	10	9	9.75
GOALS OF TREATMENT:					
Abstinence vs. Norm. Drnk.	7	6	9	5	6.75
Rank - Behavioral Skills	1	1	2	1	1.25
Rank - Reduce Undesired Behaviors	2	6	3	3	3.50
Rank - Reduce Conflict	6	4	5	5	5.00
Rank - Self Actualization	3	5	4	6	4.50
Rank - Develop Insight	5	3	1	2	2.75
Rank - Social Adjustment	4	2	6	4	4.00
INSTRUCTOR/THERAPIST ROLE:					
Content Determined by Client vs. Therapist	8	8	8	9	8.25
Goals Established by Therapist vs. Client	2	3	8	5	4.50
% Verbal Interchange by Therapist	70	40	50	55	53.75
% Verbal Interchange by Client	30	60	50	45	46.25
Extent to which Therapist Provides Direct Advice or Instruction	7	7	7	7	7.00

TABLE B-3. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR THE PMT COMPONENT OF THE PMT + SCHOOL DESIGN

Descriptor Variable	Fairfax	Minneapolis	New Orleans	Mean
STRUCTURAL CHARACTERISTICS:				
Number of Sessions	4	4	4	4.00
Session Length (min.)	480	480	480	480.00
Exposure Duration (days)	9	9	9	9.00
Clients per Session	16	10	12	12.67
Instructors per Session	2	2	2	2.00
Total Instructors	14	5	7	8.67
PROGRAM COSTS:				
Cost to Client ($)	60	0	0	20.00
Cost to ASAP ($)	0	184	40	74.67
Cost to NIAAA ($)	0	0	0	0.00
Cost to Others ($)	0	0	0	0.00
Total Cost per Client	60	184	40	94.67
Total Cost per Program	900	1840	480	1073.33
HANDLING OF NO-SHOWS:				
% No Consequence	0	0	0	0.00
% Reschedule Only	90	30	50	56.67
% Reschedule + Punitive	10	70	50	43.33
% Punitive Only	0	0	0	0.00
HANDLING OF DROP-OUTS:				
% No Consequence	0	0	100	33.33
% Reschedule Only	90	0	0	30.00
% Reschedule + Punitive	10	100	0	36.67
% Punitive Only	0	0	0	0.00
FOCUS OF THERAPY:				
Behavior vs. Feelings	5	N/A	4	4.50
Drinking vs. Gen. Problems	8	N/A	8	8.00
Personal vs. Interpersonal	5	N/A	5	5.00
% Time on Past Problems	10	N/A	33	21.50
% Time on Current Problems	60	N/A	33	46.50
% Time on Future Behavior	30	N/A	33	31.50

TABLE B-3. Summary of Treatment Program Characteristics for the PMT Component of the PMT + School Design (Continued)

Descriptor Variable	Fairfax	Minneapolis	New Orleans	Mean
TREATMENT METHODS:				
Instructor vs. Counselor	5	N/A	1	3.00
% Time Info. Transmission	20	N/A	20	20.00
% Time Help with Problems	80	N/A	80	80.00
% Time Didactic Approaches	10	N/A	7	8.50
% Time Client-Leader Disc.	45	N/A	56	50.50
% Time Client-Client Disc.	45	N/A	37	41.00
Syllabus Used?	Yes	N/A	Yes	Yes
Extent Prog. Standardized	10	N/A	10	10.00
GOALS OF TREATMENT:				
Abstinence vs. Norm. Drnk.	6	N/A	8	7.00
Rank - Behavioral Skills	1	N/A	1	1.00
Rank - Reduce Undesired Behaviors	6	N/A	5	5.50
Rank - Reduce Conflict	4	N/A	4	4.00
Rank - Self Actualization	5	N/A	2	3.50
Rank - Develop Insight	3	N/A	3	3.00
Rank - Social Adjustment	2	N/A	6	4.00
INSTRUCTOR/THERAPIST ROLE:				
Content Determined by Client vs. Therapist	8	N/A	8	8.00
Goals Established by Therapist vs. Client	3	N/A	1	2.00
% Verbal Interchange by Therapist	40	N/A	60	50.00
% Verbal Interchange by Client	60	N/A	40	50.00
Extent to which Therapist Provides Direct Advice or Instruction	7	N/A	8	7.50

TABLE B-4. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR THE SCHOOL COMPONENT OF THE PMT + SCHOOL DESIGN

Descriptor Variable	Fairfax W/DIS	Minneapolis Chalk Talk	New Orleans ASAS	Mean
STRUCTURAL CHARACTERISTICS:				
Number of Sessions	2	6	4	4.00
Session Length (min.)	480	45	120	215.00
Exposure Duration (days)	2	70	10	27.33
Clients per Session	20	55	50	41.67
Instructors per Session	2	1	1	1.33
Total Instructors	8	5	4	5.67
PROGRAM COSTS:				
Cost to Client ($)	59	0	15	24.67
Cost to ASAP ($)	0	0	0	0.00
Cost to NIAAA ($)	0	0	0	0.00
Cost to Others ($)	0	3	0	1.00
Total Cost per Client	59	3	15	25.67
Total Cost per Program	1180	165	600	648.33
HANDLING OF NO-SHOWS:				
% No Consequence	0	0	10	3.33
% Reschedule Only	65	80	90	78.33
% Reschedule + Punitive	35	20	0	18.33
% Punitive Only	0	0	0	0.00
HANDLING OF DROP-OUTS:				
% No Consequence	0	0	10	3.33
% Reschedule Only	65	0	90	51.67
% Reschedule + Punitive	35	100	0	45.00
% Punitive Only	0	0	0	0.00
TREATMENT METHODS:				
Instructor vs. Counselor	4	1	3	2.67
% Time Info. Transmission	80	100	90	90.00
% Time Help with Problems	20	0	10	10.00
% Time Didactic Approaches	70	100	90	86.67
% Time Client-Leader Disc.	20	0	10	10.00
% Time Client-Client Disc.	10	0	0	3.33
Syllabus Used?	Yes	Yes	Yes	Yes
Extent Prog. Standardized	8	N/A	10	9.00

TABLE B-5. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR SINGLE MODALITY THERAPY ASSIGNMENTS

Descriptor Variable	Denver 36	Denver 03	Denver 04	Denver 05	Fairfax 37	Kansas City 38	Kansas City 14	Phoenix 41	Phoenix 23	San Antonio 30	San Antonio 31	Oklahoma City 25	Mean
STRUCTURAL CHARACTERISTICS:													
Number of Sessions	4	12	15	6	4	4	25	4	7	8	8	24	10.08
Session Length (min.)	480	120	120	90	480	420	60	480	150	60	150	60	222.50
Exposure Duration (days)	9	75	147	37	9	9	180	9	23	50	50	162	63.33
Clients per Session	12	18	120	7	16	12	10	12	13	1	15	8	20.33
Instructors per Session	2	2	3	2	2	2	1	2	1	1	2	2	1.83
Total Instructors	7	4	3	4	14	8	10	6	20	10	10	7	8.53
PROGRAM COSTS:													
Cost to Client ($)	90	120	65	60	60	40	45	35	35	116	2	0	55.67
Cost to ASAP ($)	0	0	0	0	0	62	0	0	0	0	0	0	5.17
Cost to NIAAA ($)	0	0	0	0	0	20	125	0	0	270	18	58	40.92
Cost to Others ($)	90	120	0	240	0	0	0	19	0	0	4	134	50.58
Total Cost per Client	180	240	65	300	60	122	170	54	35	385	24	192	152.25
Total Cost per Program	1000	N/A	1500	1800	900	1464	1700	998	582	385	235	1456	1092.73
HANDLING OF NO-SHOWS:													
% No Consequence	0	0	0	0	0	0	0	0	0	0	0	0	0.00
% Reschedule Only	100	100	100	100	90	80	80	100	100	100	100	50	91.67
% Reschedule + Punitive	0	0	0	0	10	20	20	0	0	0	0	50	8.33
% Punitive Only	0	0	0	0	0	0	0	0	0	0	0	0	0.00

TABLE B-5. Summary of Treatment Program Characteristics for Single Modality Therapy Assignments (Continued)

Descriptor Variable	Denver 36	Denver 03	Denver 04	Denver 05	Fairfax 37	Kansas City 38	Kansas City 14	Phoenix 41	Phoenix 23	San Antonio 30	San Antonio 31	Oklahoma City 25	Mean
HANDLING OF DROP-OUTS:													
% No Consequence	0	0	0	0	0	0	0	0	0	0	0	0	0.00
% Reschedule Only	100	100	100	100	90	70	80	100	100	100	100	15	87.92
% Reschedule + Punitive	0	0	0	0	10	30	20	0	0	0	0	85	12.08
% Punitive Only	0	0	0	0	0	0	0	0	0	0	0	0	0.00
FOCUS OF THERAPY:													
Behavior vs. Feelings	4	4	3	6	5	5	3	5	6	5	5	6	4.75
Drinking vs. Gen. Problems	8	4	4	3	8	7	5	8	3	7	8	5	5.83
Personal vs. Interpersonal	8	3	5	4	5	3	8	7	4	5	9	7	5.67
% Time on Past Problems	40	10	5	25	10	20	20	50	10	20	20	10	20.00
% Time on Current Problems	20	30	75	50	60	30	50	25	70	60	40	80	49.17
% Time on Future Behavior	40	60	20	25	30	50	30	25	20	20	40	10	30.83
TREATMENT METHODS:													
Instructor vs. Counselor	2	4	7	5	5	8	8	3	6	9	2	7	5.50
% Time Info. Transmission	20	60	80	25	20	20	40	38	60	15	10	40	35.67
% Time Help with Problems	80	40	20	75	80	80	60	62	40	85	90	60	64.33
% Time Didactic Approaches	20	50	50	25	10	0	10	35	25	10	10	10	21.25
% Time Client-Leader Disc.	10	50	40	25	45	75	60	40	40	5	50	80	43.33
% Time Client-Client Disc.	70	0	10	50	45	25	30	25	35	85	50	10	36.25
Syllabus Used?	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	(67% Yes)
Extent Prog. Standardized	10	7	1	8	10	10	4	9	8	5	7	4	6.92

TABLE B-5. Summary of Treatment Program Characteristics for Single Modality Therapy Assignments (Continued)

Descriptor Variable	Denver 36	Denver 03	Denver 04	05	Fairfax 37	Kansas City 38	Kansas City 14	Phoenix 41	Phoenix 23	San Antonio 30	San Antonio 31	Oklahoma City 25	Mean
GOALS OF TREATMENT:													
Abstinence vs. Norm. Drnk.	7	7	3	N/A	6	9	5	5	3	3	4	6	5.27
Rank - Behavioral Skills	1	2	6	5	1	2	3	1	4	1	6	3	2.91
Rank - Reduce Undesired Behaviors	2	1	1	1	6	3	1	3	2	2	5	2	2.42
Rank - Reduce Conflict	6	5	5	2	4	5	6	5	5	3	1	5	4.33
Rank - Self Actualization	3	4	4	6	5	4	4	6	6	6	3	4	4.58
Rank - Develop Insight	5	6	2	4	3	1	2	2	1	5	4	6	3.42
Rank - Social Adjustment	4	3	3	3	2	6	5	4	3	4	2	1	3.33
INSTRUCTOR/THERAPIST ROLE:													
Content Determined by Client vs. Therapist	8	6	8	6	8	8	7	9	9	4	7	4	7.00
Goals Established by Therapist vs. Client	2	4	3	4	3	8	6	5	4	8	3	7	4.75
% Verbal Interchange by Therapist	70	60	30	25	40	50	40	55	65	20	40	30	43.75
% Verbal Interchange by Client	30	40	70	75	60	50	60	45	35	80	60	70	56.25
Extent to which Therapist Provides Direct Advice or Instruction	7	6	6	7	7	7	5	7	7	5	4	3	5.92

TABLE B-6. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR THERAPY COMPONENT OF MULTI-MODALITY ASSIGNMENTS

Descriptor Variable	Fairfax 37	Fairfax 6	Fairfax 7	Minneapolis 39	New Orleans 40	New Orleans 20	Tampa 29	Mean
STRUCTURAL CHARACTERISTICS:								
Number of Sessions	4	10	18	4	4	10	6	8.00
Session Length (min.)	480	150	90	480	480	90	60	261.43
Exposure Duration (days)	9	35	70	9	9	64	36	33.14
Clients per Session	16	13	19	10	12	9	11	12.86
Instructors per Session	2	1	1	2	2	2	2	1.71
Total Instructors	14	16	11	5	7	17	9	11.29
PROGRAM COSTS:								
Cost to Client ($)	60	55	60	0	0	0	33	29.71
Cost to ASAP ($)	0	0	0	184	40	90	0	44.86
Cost to NIAAA ($)	0	0	0	0	0	0	53	7.57
Cost to Others ($)	0	0	0	0	0	5	20	3.57
Total Cost per Client	60	55	60	184	40	95	106	85.71
Total Cost per Program	900	650	850	1840	480	800	1062	940.29
HANDLING OF NO-SHOWS:								
% No Consequence	0	0	0	0	0	0	0	0.00
% Reschedule Only	90	90	90	30	50	10	10	52.86
% Reschedule + Punitive	10	10	10	70	50	90	90	47.14
% Punitive Only	0	0	0	0	0	0	0	0.00

TABLE B-6. Summary of Treatment Program Characteristics for Therapy Component of Multi-Modality Assignments (Continued)

Descriptor Variable	Fairfax 37	Fairfax 6	Fairfax 7	Minneapolis 39	New Orleans 40	New Orleans 20	Tampa 29	Mean
HANDLING OF DROP-OUTS:								
% No Consequence	0	0	0	0	100	10	0	15.71
% Reschedule Only	90	90	90	0	0	50	10	47.14
% Reschedule + Punitive	10	10	10	100	0	40	90	37.14
% Punitive Only	0	0	0	0	0	0	0	0.00
FOCUS OF THERAPY:								
Behavior vs. Feelings	5	5	5	N/A	4	8	3	5.00
Drinking vs. Gen. Problems	8	3	4	N/A	8	8	4	5.83
Personal vs. Interpersonal	5	6	6	N/A	5	8	4	5.67
% Time on Past Problems	10	15	20	N/A	33	20	20	19.67
% Time on Current Problems	60	40	40	N/A	33	65	50	48.00
% Time on Future Behavior	30	45	40	N/A	33	15	30	32.17
TREATMENT METHODS:								
Instructor vs. Counselor	5	7	6	N/A	1	9	5	5.50
% Time Info. Transmission	20	50	50	N/A	20	10	50	33.33
% Time Help with Problems	80	50	50	N/A	80	90	50	66.67
% Time Didactic Approaches	10	25	35	N/A	7	0	50	21.17
% Time Client-Leader Disc.	45	45	50	N/A	56	70	25	48.50
% Time Client-Client Disc.	45	30	15	N/A	37	30	25	30.33
Syllabus Used?	Yes	Yes	Yes	N/A	Yes	No	Yes	(83% Yes)
Extent Prog. Standardized	10	8	5	N/A	10	3	6	7.00

TABLE B-6. Summary of Treatment Program Characteristics for Therapy Component of Multi-Modality Assignments (Continued)

Descriptor Variable	Fairfax 37	Fairfax 6	Fairfax 7	Minneapolis 39	New Orleans 40	New Orleans 20	Tampa 29	Mean
GOALS OF TREATMENT:								
Abstinence vs. Norm. Drnk.	6	4	4	N/A	8	4	7	5.50
Rank - Behavioral Skills	1	5	5	N/A	1	5	2	3.17
Rank - Reduce Undesired Behaviors	6	2	2	N/A	5	2	4	3.50
Rank - Reduce Conflict	4	6	6	N/A	4	4	5	4.83
Rank - Self Actualization	5	4	4	N/A	2	6	3	4.00
Rank - Develop Insight	3	1	1	N/A	3	3	1	2.00
Rank - Social Adjustment	2	3	3	N/A	6	1	6	3.50
INSTRUCTOR/THERAPIST ROLE:								
Content Determined by Client vs. Therapist	8	7	7	N/A	8	5	7	7.00
Goals Established by Therapist vs. Client	3	4	4	N/A	1	5	3	3.33
% Verbal Interchange by Therapist	40	40	50	N/A	60	50	40	46.67
% Verbal Interchange by Client	60	60	50	N/A	40	50	60	53.33
Extent to which Therapist Provides Direct Advice or Instruction	7	5	6	N/A	8	3	8	6.17

TABLE B-7. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR SCHOOL COMPONENT OF MULTI-MODALITY ASSIGNMENTS

Descriptor Variable	Fairfax 13	Minneapolis 17	New Orleans 21	Tampa 26	Mean
STRUCTURAL CHARACTERISTICS:					
Number of Sessions	2	6	4	4	4.00
Session Length (min.)	480	45	120	120	191.25
Exposure Duration (days)	2	70	10	22	26.00
Clients per Session	20	55	50	20	36.25
Instructors per Session	2	1	1	1	1.25
Total Instructors	8	5	4	6	5.75
PROGRAM COSTS:					
Cost to Client ($)	59	0	15	40	28.50
Cost to ASAP ($)	0	0	0	0	0.00
Cost to NIAAA ($)	0	0	0	0	0.00
Cost to Others ($)	0	3	0	0	0.75
Total Cost per Client	59	3	15	40	29.25
Total Cost per Program	1180	165	600	650	648.75
HANDLING OF NO-SHOWS:					
% No Consequence	0	0	10	0	2.50
% Reschedule Only	65	80	90	5	60.00
% Reschedule + Punitive	35	20	0	95	37.50
% Punitive Only	0	0	0	0	0.00
HANDLING OF DROP-OUTS:					
% No Consequence	0	0	10	0	2.50
% Reschedule Only	65	0	90	5	40.00
% Reschedule + Punitive	35	100	0	95	57.50
% Punitive Only	0	0	0	0	0.00
TREATMENT METHODS:					
Instructor vs. Counselor	4	1	3	1	2.25
% Time Info. Transmission	80	100	90	100	92.50
% Time Help with Problems	20	0	10	0	7.50
% Time Didactic Approaches	70	100	90	60	80.00
% Time Client-Leader Disc.	20	0	10	30	15.00
% Time Client-Client Disc.	10	0	0	10	5.00
Syllabus Used?	Yes	Yes	Yes	Yes	Yes
Extent Prog. Standardized	8	N/A	10	8	8.67

TABLE B-8. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE I THERAPY PROGRAMS (SINGLE MODALITY)

Descriptor Variable	Denver 03	Denver 04	Mean
STRUCTURAL CHARACTERISTICS:			
Number of Sessions	12	15	13.50
Session Length (min.)	120	120	120.00
Exposure Duration (days)	75	147	111.00
Clients per Session	18	120	69.00
Instructors per Session	2	3	2.50
Total Instructors	4	3	3.50
PROGRAM COSTS:			
Cost to Client ($)	120	65	92.50
Cost to ASAP ($)	0	0	0.00
Cost to NIAAA ($)	0	0	0.00
Cost to Others ($)	120	0	60.00
Total Cost per Client	240	65	152.50
Total Cost per Program	N/A	1500	1500.00
HANDLING OF NO-SHOWS:			
% No Consequence	0	0	0.00
% Reschedule Only	100	100	100.00
% Reschedule + Punitive	0	0	0.00
% Punitive Only	0	0	0.00
HANDLING OF DROP-OUTS:			
% No Consequence	0	0	0.00
% Reschedule Only	100	100	100.00
% Reschedule + Punitive	0	0	0.00
% Punitive Only	0	0	0.00
FOCUS OF THERAPY:			
Behavior vs. Feelings	4	3	3.50
Drinking vs. Gen. Problems	4	4	4.00
Personal vs. Interpersonal	3	5	4.00
% Time on Past Problems	10	5	7.50
% Time on Current Problems	30	75	52.50
% Time on Future Behavior	60	20	40.00

TABLE B-8. Summary of Treatment Program Characteristics for Structural Type I Therapy Programs (Single Modality) (Continued)

Descriptor Variable	Denver 03	Denver 04	Mean
TREATMENT METHODS:			
Instructor vs. Counselor	4	7	5.50
% Time Info. Transmission	60	80	70.00
% Time Help with Problems	40	20	30.00
% Time Didactic Approaches	50	50	50.00
% Time Client-Leader Disc.	50	40	45.00
% Time Client-Client Disc.	0	10	5.00
Syllabus Used?	No	Yes	(50% Yes)
Extent Prog. Standardized	7	1	4.00
GOALS OF TREATMENT:			
Abstinence vs. Norm. Drnk.	7	3	5.00
Rank - Behavioral Skills	2	6	4.00
Rank - Reduce Undesired Behaviors	1	1	1.00
Rank - Reduce Conflict	5	5	5.00
Rank - Self Actualization	4	4	4.00
Rank - Develop Insight	6	2	4.00
Rank - Social Adjustment	3	3	3.00
INSTRUCTOR/THERAPIST ROLE:			
Content Determined by Client vs. Therapist	6	8	7.00
Goals Established by Therapist vs. Client	4	3	3.50
% Verbal Interchange by Therapist	60	30	45.00
% Verbal Interchange by Client	40	70	55.00
Extent to which Therapist Provides Direct Advice or Instruction	6	6	6.00

TABLE B-9. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE II THERAPY PROGRAMS (SINGLE MODALITY)

Descriptor Variable	Denver 36	Fairfax 37	Kansas City 38	Phoenix 41	Mean
STRUCTURAL CHARACTERISTICS:					
Number of Sessions	4	4	4	4	4.00
Session Length (min.)	480	480	420	480	465.00
Exposure Duration (days)	9	9	9	9	9.00
Clients per Session	12	16	12	12	13.00
Instructors per Session	2	2	2	2	2.00
Total Instructors	7	14	8	6	8.75
PROGRAM COSTS:					
Cost to Client ($)	90	60	40	35	56.25
Cost to ASAP ($)	0	0	62	0	15.50
Cost to NIAAA ($)	0	0	20	0	5.00
Cost to Others ($)	90	0	0	19	27.25
Total Cost per Client	180	60	122	54	104.00
Total Cost per Program	1000	900	1464	998	1090.50
HANDLING OF NO-SHOWS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	90	80	100	92.50
% Reschedule + Punitive	0	10	20	0	7.50
% Punitive Only	0	0	0	0	0.00
HANDLING OF DROP-OUTS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	90	70	100	90.00
% Reschedule + Punitive	0	10	30	0	10.00
% Punitive Only	0	0	0	0	0.00
FOCUS OF THERAPY:					
Behavior vs. Feelings	4	5	5	5	4.75
Drinking vs. Gen. Problems	8	8	7	8	7.75
Personal vs. Interpersonal	8	5	3	7	5.75
% Time on Past Problems	40	10	20	50	30.00
% Time on Current Problems	20	60	30	25	33.75
% Time on Future Behavior	40	30	50	25	36.25

TABLE B-9. Summary of Treatment Program Characteristics for Structural Type II Therapy Programs (Single Modality) (Continued)

Descriptor Variable	Denver 36	Fairfax 37	Kansas City 38	Phoenix 41	Mean
TREATMENT METHODS:					
Instructor vs. Counselor	2	5	8	3	4.50
% Time Info. Transmission	20	20	20	38	24.50
% Time Help with Problems	80	80	80	62	75.50
% Time Didactic Approaches	20	10	0	35	16.25
% Time Client-Leader Disc.	10	45	75	40	42.50
% Time Client-Client Disc.	70	45	25	25	41.25
Syllabus Used?	Yes	Yes	Yes	Yes	Yes
Extent Prog. Standardized	10	10	10	9	9.75
GOALS OF TREATMENT:					
Abstinence vs. Norm. Drnk.	7	6	9	5	6.75
Rank - Behavioral Skills	1	1	2	1	1.25
Rank - Reduce Undesired Behaviors	2	6	3	3	3.50
Rank - Reduce Conflict	6	4	5	5	5.00
Rank - Self Actualization	3	5	4	6	4.50
Rank - Develop Insight	5	3	1	2	2.75
Rank - Social Adjustment	4	2	6	4	4.00
INSTRUCTOR/THERAPIST ROLE:					
Content Determined by Client vs. Therapist	8	8	8	9	8.25
Goals Established by Therapist vs. Client	2	3	8	5	4.50
% Verbal Interchange by Therapist	70	40	50	55	53.75
% Verbal Interchange by Client	30	60	50	45	46.25
Extent to which Therapist Provides Direct Advice or Instruction	7	7	7	7	7.00

TABLE B-10. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE III THERAPY PROGRAMS (SINGLE MODALITY)

Descriptor Variable	Denver 05	Phoenix 23	San Antonio 30	San Antonio 31	Mean
STRUCTURAL CHARACTERISTICS:					
Number of Sessions	6	7	8	8	7.25
Session Length (min.)	90	150	60	150	112.50
Exposure Duration (days)	37	23	50	50	40.00
Clients per Session	7	13	1	15	9.00
Instructors per Session	2	1	1	2	1.50
Total Instructors	4	20	10	10	11.00
PROGRAM COSTS:					
Cost to Client ($)	60	35	116	2	53.25
Cost to ASAP ($)	0	0	0	0	0.00
Cost to NIAAA ($)	0	0	270	18	72.00
Cost to Others ($)	240	0	0	4	61.00
Total Cost per Client	300	35	385	24	186.00
Total Cost per Program	1800	582	385	235	750.50
HANDLING OF NO-SHOWS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	100	100	100	100.00
% Reschedule + Punitive	0	0	0	0	0.00
% Punitive Only	0	0	0	0	0.00
HANDLING OF DROP-OUTS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	100	100	100	100	100.00
% Reschedule + Punitive	0	0	0	0	0.00
% Punitive Only	0	0	0	0	0.00
FOCUS OF THERAPY:					
Behavior vs. Feelings	6	6	5	5	5.50
Drinking vs. Gen. Problems	3	3	7	8	5.25
Personal vs. Interpersonal	4	4	5	9	5.50
% Time on Past Problems	25	10	20	20	18.75
% Time on Current Problems	50	70	60	40	55.00
% Time on Future Behavior	25	20	20	40	26.25

TABLE B-10. Summary of Treatment Program Characteristics for Structural Type III Therapy Programs (Single Modality) (Continued)

Descriptor Variable	Denver 05	Phoenix 23	San Antonio 30	San Antonio 31	Mean
TREATMENT METHODS:					
Instructor vs. Counselor	5	6	9	2	5.50
% Time Info. Transmission	25	60	15	10	27.50
% Time Help with Problems	75	40	85	90	72.50
% Time Didactic Approaches	25	25	10	10	17.50
% Time Client-Leader Disc.	25	40	5	50	30.00
% Time Client-Client Disc.	50	35	85	50	55.00
Syllabus Used?	Yes	Yes	Yes	No	(75% Yes)
Extent Prog. Standardized	8	8	5	7	7.00
GOALS OF TREATMENT:					
Abstinence vs. Norm. Drnk.	N/A	3	3	4	3.33
Rank - Behavioral Skills	5	4	1	6	4.00
Rank - Reduce Undesired Behaviors	1	2	2	5	2.50
Rank - Reduce Conflict	2	5	3	1	2.75
Rank - Self Actualization	6	6	6	3	5.25
Rank - Develop Insight	4	1	5	4	3.50
Rank - Social Adjustment	3	3	4	2	3.00
INSTRUCTOR/THERAPIST ROLE:					
Content Determined by Client vs. Therapist	6	9	4	7	6.50
Goals Established by Therapist vs. Client	4	4	8	3	4.75
% Verbal Interchange by Therapist	25	65	20	40	37.50
% Verbal Interchange by Client	75	35	80	60	62.50
Extent to which Therapist Provides Direct Advice or Instruction	7	7	5	4	5.75

TABLE B-11. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE IV THERAPY PROGRAMS (SINGLE MODALITY)

Descriptor Variable	Kansas City 14	Oklahoma City 25	Mean
STRUCTURAL CHARACTERISTICS:			
Number of Sessions	25	24	24.50
Session Length (min.)	60	60	60.00
Exposure Duration (days)	180	162	171.00
Clients per Session	10	8	9.00
Instructors per Session	1	2	1.50
Total Instructors	10	7	8.50
PROGRAM COSTS:			
Cost to Client ($)	45	0	22.50
Cost to ASAP ($)	0	0	0.00
Cost to NIAAA ($)	125	58	91.50
Cost to Others ($)	0	134	67.00
Total Cost per Client	170	192	181.00
Total Cost per Program	1700	1456	1578.00
HANDLING OF NO-SHOWS:			
% No Consequence	0	0	0.00
% Reschedule Only	80	50	65.00
% Reschedule + Punitive	20	50	35.00
% Punitive Only	0	0	0.00
HANDLING TO DROP-OUTS:			
% No Consequence	0	0	0.00
% Reschedule Only	80	15	47.50
% Reschedule + Punitive	20	85	52.50
% Punitive Only	0	0	0.00
FOCUS OF THERAPY:			
Behavior vs. Feelings	3	6	4.50
Drinking vs. Gen. Problems	5	5	5.00
Personal vs. Interpersonal	8	7	7.50
% Time on Past Problems	20	10	15.00
% Time on Current Problems	50	80	65.00
% Time on Future Behavior	30	10	20.00

TABLE B-11. Summary of Treatment Program Characteristics for Structural Type IV Therapy Programs (Single Modality) (Continued)

Descriptor Variable	Kansas City 14	Oklahoma City 25	Mean
TREATMENT METHODS:			
Instructor vs. Counselor	8	7	7.50
% Time Info. Transmission	40	40	40.00
% Time Help with Problems	60	60	60.00
% Time Didactic Approaches	10	10	10.00
% Time Client-Leader Disc.	60	80	70.00
% Time Client-Client Disc.	30	10	20.00
Syllabus Used?	No	No	No
Extent Prog. Standardized	4	4	4.00
GOALS OF TREATMENT:			
Abstinence vs. Norm. Drnk.	5	6	5.50
Rank - Behavioral Skills	3	3	3.00
Rank - Reduce Undesired Behaviors	1	2	1.50
Rank - Reduce Conflict	6	5	5.50
Rank - Develop Insight	2	6	4.00
Rank - Social Adjustment	5	1	3.00
INSTRUCTOR/THERAPIST ROLE:			
Content Determined by Client vs. Therapist	7	4	5.50
Goals Established by Therapist vs. Client	6	7	6.50
% Verbal Interchange by Therapist	40	30	35.00
% Verbal Interchange by Client	60	70	65.00
Extent to which Therapist Provides Direct Advice or Instruction	5	3	4.00

TABLE B-12. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE II THERAPY PROGRAMS IN MULTI-MODAL ASSIGNMENTS

Descriptor Variable	Fairfax 37	Minneapolis 39	New Orleans 40	Mean
STRUCTURAL CHARACTERISTICS:				
Number of Sessions	4	4	4	4.00
Session Length (min.)	480	480	480	480.00
Exposure Duration (days)	9	9	9	9.00
Clients per Session	16	10	12	12.67
Instructors per Session	2	2	2	2.00
Total Instructors	14	5	7	8.67
PROGRAM COSTS:				
Cost to Client ($)	60	0	0	20.00
Cost to ASAP ($)	0	184	40	74.67
Cost to NIAAA ($)	0	0	0	0.00
Cost to Others ($)	0	0	0	0.00
Total Cost per Client	60	184	40	94.67
Total Cost per Program	900	1840	480	1073.33
HANDLING OF NO-SHOWS:				
% No Consequence	0	0	0	0.00
% Reschedule Only	90	30	50	56.67
% Reschedule + Punitive	10	70	50	43.33
% Punitive Only	0	0	0	0.00
HANDLING OF DROP-OUTS:				
% No Consequence	0	0	100	33.33
% Reschedule Only	90	0	0	30.00
% Reschedule + Punitive	10	100	0	36.67
% Punitive Only	0	0	0	0.00
FOCUS OF TREATMENT:				
Behavior vs. Feelings	5	N/A	4	4.50
Drinking vs. Gen. Problems	8	N/A	8	8.00
Personal vs. Interpersonal	5	N/A	5	5.00
% Time on Past Problems	10	N/A	33	21.50
% Time on Current Problems	60	N/A	33	46.50
% Time on Future Behavior	30	N/A	33	31.50

TABLE B-12. Summary of Treatment Program Characteristics for Structural Type II Therapy Programs in Multi-Modal Assignments (Continued)

Descriptor Variable	Fairfax 37	Minneapolis 39	New Orleans 40	Mean
TREATMENT METHODS:				
Instructor vs. Counselor	5	N/A	1	3.00
% Time Info. Transmission	20	N/A	20	20.00
% Time Help with Problems	80	N/A	80	80.00
% Time Didactic Approaches	10	N/A	7	8.50
% Time Client-Leader Disc.	45	N/A	56	50.50
% Time Client-Client Disc.	45	N/A	37	41.00
Syllabus Used?	Yes	N/A	Yes	Yes
Extent Prog. Standardized	10	N/A	10	10.00
GOALS OF TREATMENT:				
Abstinence vs. Norm. Drnk.	6	N/A	8	7.00
Rank - Behavioral Skills	1	N/A	1	1.00
Rank - Reduce Undesired Behaviors	6	N/A	5	5.50
Rank - Reduce Conflict	4	N/A	4	4.00
Rank - Self Actualization	5	N/A	2	3.50
Rank - Develop Insight	3	N/A	3	3.00
Rank - Social Adjustment	2	N/A	6	4.00
INSTRUCTOR/THERAPIST ROLE:				
Content Determined by Client vs. Therapist	8	N/A	8	8.00
Goals Established by Therapist vs. Client	3	N/A	1	2.00
% Verbal Interchange by Therapist	40	N/A	60	50.00
% Verbal Interchange by Client	60	N/A	40	50.00
Extent to which Therapist Provides Direct Advice or Instruction	7	N/A	8	7.50

TABLE B-13. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR SCHOOLS ASSOCIATED WITH STRUCTURAL TYPE II MODALITIES IN MULTI-MODAL ASSIGNMENTS

Descriptor Variable	Fairfax 13	Minneapolis 17	New Orleans 21	Mean
STRUCTURAL CHARACTERISTICS:				
Number of Sessions	2	6	4	4.00
Session Length (min.)	480	45	120	215.00
Exposure Duration (days)	2	70	10	27.33
Clients per Session	20	55	50	41.67
Instructors per Session	2	1	1	1.33
Total Instructors	8	5	4	5.67
PROGRAM COSTS:				
Cost to Client ($)	59	0	15	24.67
Cost to ASAP ($)	0	0	0	0.00
Cost to NIAAA ($)	0	0	0	0.00
Cost to Others ($)	0	3	0	1.00
Total Cost per Client	59	3	15	25.67
Total Cost per Program	1180	165	600	648.33
HANDLING OF NO-SHOWS:				
% No Consequence	0	0	10	3.33
% Reschedule Only	65	80	90	78.33
% Reschedule + Punitive	35	20	0	18.33
% Punitive Only	0	0	0	0.00
HANDLING OF DROP-OUTS:				
% No Consequence	0	0	10	3.33
% Reschedule Only	65	0	90	51.67
% Reschedule + Punitive	35	100	0	45.00
% Punitive Only	0	0	0	0.00
TREATMENT METHODS:				
Instructor vs. Counselor	4	1	3	2.67
% Time Info. Transmission	80	100	90	90.00
% Time Help with Problems	20	0	10	10.00
% Time Didactic Approaches	70	100	90	86.67
% Time Client-Leader Disc.	20	0	10	10.00
% Time Client-Client Disc.	10	0	0	3.33
Syllabus Used?	Yes	Yes	Yes	Yes
Extent Prog. Standardized	8	N/A	10	9.00

TABLE B-14. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR STRUCTURAL TYPE III THERAPY PROGRAMS IN MULTI-MODAL ASSIGNMENTS

Descriptor Variable	Fairfax 6	Fairfax 7	New Orleans 20	Tampa 29	Mean
STRUCTURAL CHARACTERISTICS:					
Number of Sessions	10	18	10	6	11.00
Session Length (min.)	150	90	90	60	97.50
Exposure Duration (days)	35	70	64	36	51.25
Clients per Session	13	19	9	11	13.00
Instructors per Session	1	1	2	2	1.50
Total Instructors	16	11	17	9	13.25
PROGRAM COSTS:					
Cost to Client ($)	55	60	0	33	37.00
Cost to ASAP ($)	0	0	90	0	22.50
Cost to NIAAA ($)	0	0	0	53	13.25
Cost to Others ($)	0	0	5	20	6.25
Total Cost per Client	55	60	95	106	79.00
Total Cost per Program	650	850	800	1062	840.50
HANDLING OF NO-SHOWS:					
% No Consequence	0	0	0	0	0.00
% Reschedule Only	90	90	10	10	50.00
% Reschedule + Punitive	10	10	90	90	50.00
% Punitive Only	0	0	0	0	0.00
HANDLING OF DROP-OUTS:					
% No Consequence	0	0	10	0	2.50
% Reschedule Only	90	90	50	10	60.00
% Reschedule + Punitive	10	10	40	90	37.50
% Punitive Only	0	0	0	0	0.00
FOCUS OF THERAPY:					
Behavior vs. Feelings	5	5	8	3	5.25
Drinking vs. Gen. Problems	3	4	8	4	4.75
Personal vs. Interpersonal	6	6	8	4	6.00
% Time on Past Problems	15	20	20	20	18.75
% Time on Current Problems	40	40	65	50	48.75
% Time on Future Behavior	45	40	15	30	32.50

TABLE B-14. Summary of Treatment Program Characteristics for Structural Type III Therapy Programs in Multi-Modal Assignments (Continued)

Descriptor Variable	Fairfax 6	Fairfax 7	New Orleans 20	Tampa 29	Mean
TREATMENT METHODS:					
Instructor vs. Counselor	7	6	9	5	6.75
% Time Info. Transmission	50	50	10	50	40.00
% Time Help with Problems	50	50	90	50	60.00
% Time Didactic Approaches	25	35	0	50	27.50
% Time Client-Leader Disc.	45	50	70	25	47.50
% Time Client-Client Disc.	30	15	30	25	25.00
Syllabus Used?	Yes	Yes	No	Yes	(75% Yes)
Extent Prog. Standardized	8	5	3	6	5.50
GOALS OF TREATMENT:					
Abstinence vs. Norm. Drnk.	4	4	4	7	4.75
Rank - Behavioral Skills	5	5	5	2	4.25
Rank - Reduce Undesired Behaviors	2	2	2	4	2.50
Rank - Reduce Conflict	6	6	4	5	5.25
Rank - Self Actualization	4	4	6	3	4.25
Rank - Develop Insight	1	1	3	1	1.50
Rank - Social Adjustment	3	3	1	6	3.25
INSTRUCTOR/THERAPIST ROLE:					
Content Determined by Client vs. Therapist	7	7	5	7	6.50
Goals Established by Therapist vs. Client	4	4	5	3	4.00
% Verbal Interchange by Therapist	40	50	50	40	45.00
% Verbal Interchange by Client	60	50	50	60	55.00
Extent to which Therapist Provides Direct Advice or Instruction	5	6	3	8	5.50

TABLE B-15. SUMMARY OF TREATMENT PROGRAM CHARACTERISTICS FOR SCHOOLS ASSOCIATED WITH STRUCTURAL TYPE III THERAPY PROGRAMS IN MULTI-MODAL ASSIGNMENTS.

Descriptor Variable	Fairfax 13	New Orleans 21	Tampa 26	Mean
STRUCTURAL CHARACTERISTICS:				
Number of Sessions	2	4	4	3.33
Session Length (min.)	480	120	120	240.00
Exposure Duration (days)	2	10	22	11.33
Clients per Session	20	50	20	30.00
Instructors per Session	2	1	1	1.33
Total Instructors	8	4	6	6.00
PROGRAM COSTS:				
Cost to Client ($)	59	15	40	38.00
Cost to ASAP ($)	0	0	0	0.00
Cost to NIAAA ($)	0	0	0	0.00
Cost to Others ($)	0	0	0	0.00
Total Cost per Client	59	15	40	38.00
Total Cost per Program	1180	600	650	810.00
HANDLING OF NO-SHOWS:				
% No Consequence	0	10	0	3.33
% Reschedule Only	65	90	5	53.33
% Reschedule + Punitive	35	0	95	43.33
% Punitive Only	0	0	0	0.00
HANDLING OF DROP-OUTS:				
% No Consequence	0	10	0	3.33
% Reschedule Only	65	90	5	53.33
% Reschedule + Punitive	35	0	95	43.33
% Punitive Only	0	0	0	0.00
TREATMENT METHODS:				
Instructor vs. Counselor	4	3	1	2.67
% Time Info. Transmission	80	90	100	90.00
% Time Help with Problems	20	10	0	10.00
% Time Didactic Approaches	70	90	60	73.33
% Time Client-Leader Disc.	20	10	30	20.00
% Time Client-Client Disc.	10	0	10	6.67
Syllabus Used?	Yes	Yes	Yes	Yes
Extent Prog. Standardized	8	10	8	8.67

APPENDIX C

SUMMARY OF SURVIVAL RATE ANALYSES

TABLE C-1. SUMMARY OF SURVIVAL RATE COMPARISONS FOR TOTAL TREATMENT GROUP

	CONTROL/MINIMUM EXPOSURE GROUP			TOTAL TREATMENT GROUP				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.987421	0.003341	1112.9993	0.988972	0.002235	2087.0000	-0.38	3198
1	0.974341	0.004694	1112.9998	0.976521	0.003314	2086.9958	-0.29	3198
2	0.960467	0.005841	1112.9985	0.963584	0.004100	2086.9988	-0.44	3198
3	0.951483	0.006440	1113.0000	0.950647	0.004741	2087.0020	0.10	3198
4	0.932615	0.007514	1112.9990	0.936751	0.005328	2087.0042	-0.45	3198
5	0.931716	0.007561	1112.9998	0.928127	0.005654	2087.0037	0.38	3198
6	0.924529	0.007913	1113.0005	0.918543	0.005988	2087.0010	0.60	3198
7	0.918239	0.008213	1112.9988	0.912794	0.006176	2087.0022	0.53	3198
8	0.912848	0.008455	1112.9998	0.907523	0.006341	2087.0007	0.50	3198
9	0.904762	0.008793	1112.9993	0.901294	0.006529	2087.0027	0.32	3198
10	0.900270	0.009032	1113.0005	0.894586	0.006722	2087.0034	0.51	3198
11	0.893980	0.009229	1113.0015	0.889794	0.006855	2087.0034	0.36	3198
12	0.891055	0.009318	1110.0491	0.882267	0.007086	2068.8596	0.83	3177
13	0.882676	0.009731	1082.4517	0.878588	0.007214	2049.9614	0.34	3130
14	0.880356	0.009932	1076.4397	0.874297	0.007358	2029.7024	0.49	3104
15	0.878037	0.010001	1070.6606	0.867552	0.007577	2001.2134	0.84	3070
16	0.872237	0.010256	1057.4399	0.863874	0.007693	1987.1650	0.65	3043
17	0.869918	0.010363	1052.5654	0.861838	0.007787	1976.1633	0.70	3027
18	0.867601	0.010597	1022.9670	0.854699	0.008197	1848.4429	0.96	2869

TABLE C-2. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SCHOOL ALONE GROUP

Interval	CONTROL/MINIMUM EXPOSURE GROUP			SCHOOL ALONE TREATMENT GROUP			t	df
	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size		
0	0.997119	0.002878	346.9976	0.991914	0.004650	370.9980	0.95	716
1	0.988473	0.005730	347.0000	0.975741	0.007988	370.9998	1.30	716
2	0.974063	0.008533	346.9993	0.970350	0.008806	370.9995	0.30	716
3	0.965419	0.009809	346.9995	0.951483	0.011155	370.9995	0.94	716
4	0.942363	0.012511	346.9995	0.932615	0.013015	370.9995	0.54	716
5	0.942363	0.012511	346.9995	0.921333	0.013936	370.9998	1.10	716
6	0.936500	0.013092	346.9993	0.919137	0.014154	371.0000	0.91	716
7	0.930936	0.013621	346.9993	0.919137	0.014154	371.0000	0.60	716
8	0.925072	0.014133	346.9993	0.919137	0.014154	371.0000	0.30	716
9	0.916427	0.014857	346.9998	0.919137	0.014154	371.0000	-0.13	716
10	0.913545	0.015087	346.9998	0.916442	0.014367	371.0000	0.14	716
11	0.907781	0.015532	346.9998	0.916442	0.014367	371.0000	-0.41	716
12	0.903900	0.015966	341.0067	0.912647	0.014803	363.9634	-0.41	703
13	0.899988	0.018162	294.6958	0.912647	0.014800	363.9634	-0.93	657
14	0.899988	0.018162	294.6958	0.912647	0.014800	363.9634	-0.93	657
15	0.899988	0.018162	294.6958	0.900622	0.016031	330.7053	0.63	623
16	0.884412	0.019143	278.9128	0.899793	0.017157	306.3064	-0.60	583
17	0.877977	0.020063	266.1665	0.893366	0.018199	287.6428	-0.57	552
18	0.877977	0.020063	266.1665	0.880604	0.021962	217.9799	0.09	492

TABLE C-3. SUMMARY OF SURVIVAL RATE COMPARISONS FOR PMT ALONE GROUP

	CONTROL/MINIMUM EXPOSURE GROUP			PMT ALONE TREATMENT GROUP				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.985577	0.005946	416.0000	0.993135	0.003950	436.9998	-1.07	851.
1	0.969753	0.008531	416.0002	0.972540	0.007817	436.9995	-0.33	851.
2	0.959135	0.009707	416.0007	0.956522	0.009755	437.0000	0.19	851
3	0.946731	0.010976	416.0007	0.933638	0.011907	437.0000	1.49	851.
4	0.940513	0.011734	416.0010	0.922197	0.012814	436.9998	1.63	851.
5	0.940513	0.010734	416.0010	0.913043	0.013479	437.0000	2.12	851.
6	0.939904	0.011652	416.0007	0.901602	0.014248	437.0000	2.08	851.
7	0.933288	0.012486	416.0000	0.894737	0.014681	437.0002	1.84	851.
8	0.930288	0.012486	416.0000	0.887872	0.015094	437.0002	2.17	851.
9	0.920673	0.013250	416.0000	0.876430	0.015742	437.0000	2.15	851.
10	0.911058	0.013957	415.9998	0.864989	0.016347	437.0010	2.14	851.
11	0.909038	0.014771	416.0002	0.858124	0.016691	437.0007	1.84	851.
12	0.896635	0.014926	416.0005	0.853541	0.016914	436.9792	1.91	851
13	0.884615	0.015664	416.0002	0.851246	0.017023	436.9587	1.44	851.
14	0.878308	0.015944	416.0012	0.842068	0.017447	436.8818	1.60	851.
15	0.878308	0.015944	416.0012	0.837480	0.017651	436.8464	1.78	851.
16	0.872596	0.016347	416.0007	0.835185	0.017751	436.8296	1.55	851.
17	0.870192	0.016478	416.0012	0.830596	0.017948	436.7974	1.63	851.
18	0.870192	0.016478	416.0012	0.821469	0.018876	411.6277	1.94	826.

TABLE C-4. SUMMARY OF SURVIVAL RATE COMPARISONS FOR PMT PLUS SCHOOL GROUP

Interval	CONTROL GROUP			PMT PLUS SCHOOL TREATMENT GROUP			t	df
	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size		
0	0.994506	0.005479	181.9991	0.994413	0.005571	178.9993	0.01	359
1	0.994506	0.005479	181.9991	0.994413	0.005571	178.9993	0.01	359
2	0.978022	0.010968	182.0001	0.988827	0.007955	179.0002	0.81	359
3	0.978022	0.010968	182.0001	0.988827	0.007855	179.0002	-0.81	359
4	0.972527	0.012116	182.0002	0.977654	0.011048	179.0002	-0.31	359
5	0.972527	0.012116	182.0002	0.966480	0.013453	179.0003	0.33	359
6	0.961538	0.014255	182.0002	0.960894	0.014489	179.0003	0.03	359
7	0.961538	0.014255	182.0002	0.949721	0.016333	179.0005	0.55	359
8	0.956044	0.015195	182.0001	0.949721	0.016333	179.0005	0.28	359
9	0.956044	0.015195	182.0001	0.949721	0.016333	179.0005	0.28	359
10	0.950549	0.016071	182.0001	0.949721	0.016333	179.0005	0.04	359
11	0.950549	0.016071	182.0001	0.944134	0.017166	179.0003	0.27	359
12	0.945055	0.016891	182.0003	0.944134	0.017166	179.0003	0.04	359
13	0.928571	0.019090	182.0002	0.944134	0.017166	179.0003	-0.61	359
14	0.928571	0.019090	182.0002	0.944134	0.017166	179.0003	-0.61	359
15	0.923077	0.019752	182.0002	0.944134	0.017166	179.0003	-0.80	359
16	0.923077	0.019752	182.0002	0.944134	0.017166	179.0003	-0.80	359
17	0.923077	0.019752	182.0002	0.944134	0.017166	179.0003	-0.80	359
18	0.923077	0.019752	182.0002	0.944134	0.017166	179.0003	-0.80	359

TABLE C-5. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SINGLE MODALITY ASSIGNMENT GROUP

	CONTROL/MINIMUM EXPOSURE GROUP			SINGLE MODALITY ASSIGNMENT TREATMENT GROUP				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.993103	0.004811	714.0002	0.987736	0.003381	1059.9983	-0.77	1772.
1	0.967787	0.006638	713.9998	0.971693	0.005094	1060.0002	-0.47	1772.
2	0.951142	0.007743	713.9993	0.957547	0.006193	1060.0010	-0.24	1772.
3	0.945378	0.008504	714.0000	0.942453	0.007153	1060.0012	0.26	1772
4	0.928571	0.009638	714.0002	0.930189	0.007827	1060.0024	-0.13	1772.
5	0.927171	0.009725	714.0010	0.920755	0.008297	1060.0017	0.50	1772.
6	0.920168	0.010143	714.0007	0.909434	0.008915	1060.0022	0.80	1772.
7	0.913165	0.010538	714.0012	0.901887	0.009137	1060.0027	0.81	1772.
8	0.907563	0.010840	714.0010	0.895283	0.009404	1060.0024	0.86	1772.
9	0.899160	0.011269	714.0015	0.884906	0.009802	1060.0022	0.95	1772.
10	0.893557	0.011542	714.0007	0.876415	0.010108	1060.0020	1.12	1772.
11	0.886555	0.011869	714.0002	0.869811	0.010336	1060.0017	1.06	1772.
12	0.879096	0.011938	713.5808	0.857964	0.010746	1055.2917	1.69	1767.
13	0.875972	0.012383	708.5625	0.852783	0.010928	1051.2620	1.40	1758.
14	0.872930	0.012525	707.0642	0.846565	0.011139	1046.8196	1.57	1752.
15	0.871490	0.012595	706.3435	0.839312	0.011376	1042.1135	1.89	1746.
16	0.865326	0.012869	703.6377	0.834131	0.011539	1039.0266	1.80	1741.
17	0.863905	0.012936	703.0020	0.832059	0.011603	1037.8506	1.83	1739.
18	0.860760	0.013242	683.4285	0.827924	0.011908	1004.6204	1.84	1686.

TABLE C-6. SUMMARY OF SURVIVAL RATE COMPARISONS FOR MULTIPLE MODALITY ASSIGNMENT GROUP

	CONTROL/MINIMUM EXPOSURE GROUP			MULTIPLE MODALITY ASSIGNMENT TREATMENT GROUP				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.994709	0.003731	377.9985	0.992908	0.003534	563.9980	0.35	940.
1	0.989413	0.005263	377.9988	0.987589	0.004662	563.9985	0.26	940.
2	0.973545	0.008254	377.9998	0.973404	0.006775	564.0000	0.01	940.
3	0.960317	0.010041	377.9998	0.966312	0.007597	563.9995	-0.48	940.
4	0.933862	0.012733	378.0000	0.955674	0.008667	564.0000	1.41	940.
5	0.931217	0.013017	378.0000	0.948582	0.009299	564.0005	-1.09	940.
6	0.920635	0.013903	378.0000	0.939716	0.010022	564.0005	-1.11	940.
7	0.920635	0.013903	378.0000	0.932624	0.010555	564.0000	-0.69	940.
8	0.915344	0.014318	378.0000	0.927305	0.010933	564.0002	-0.66	940.
9	0.912698	0.014519	378.0005	0.923759	0.011175	564.0002	0.60	940.
10	0.910053	0.014716	378.0007	0.920213	0.011410	564.0000	-0.55	940.
11	0.910053	0.014716	378.0007	0.914894	0.011750	564.0002	-0.26	940.
12	0.907314	0.014977	375.9949	0.914894	0.011750	564.0002	-0.41	938.
13	0.896302	0.016026	361.8726	0.914894	0.011750	564.0002	-0.94	924.
14	0.896302	0.016026	361.8726	0.914894	0.011750	564.0002	-0.94	924.
15	0.889160	0.016675	354.4270	0.912554	0.011950	558.7756	-1.14	911.
16	0.889160	0.016675	354.4270	0.912554	0.011950	558.7756	-1.14	911.
17	0.889160	0.016675	354.4270	0.912554	0.011950	558.7756	-1.14	911.
18	0.889160	0.016675	354.4270	0.907886	0.012768	512.9648	-0.89	865.

TABLE C-7a. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 1

	CONTROL/MINIMUM EXPOSURE GROUP			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 1				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.993193	0.004811	714.0002	0.985294	0.014597	67.9998	-0.14	780.
1	0.986787	0.006608	713.9998	0.970588	0.020489	67.9999	-0.13	780.
2	0.955182	0.007743	713.9993	0.970588	0.020489	67.9999	-0.70	780.
3	0.945378	0.008514	714.0000	0.955882	0.024903	68.0000	-0.40	780.
4	0.928571	0.009638	714.0002	0.941176	0.028534	68.0000	-0.42	780.
5	0.927171	0.009725	714.0010	0.941176	0.028534	68.0000	-0.46	780.
6	0.920168	0.010143	714.0007	0.941176	0.028534	68.0000	-0.69	780.
7	0.913165	0.010538	714.0012	0.926471	0.031651	68.0000	-0.40	780
8	0.907563	0.010840	714.0000	0.911765	0.034396	68.0000	-0.12	780.
9	0.899160	0.011269	714.0015	0.911765	0.034396	68.0000	-0.35	780.
10	0.893557	0.011542	714.0007	0.882353	0.039071	68.0000	0.28	780.
11	0.886555	0.011869	714.0002	0.882353	0.039071	68.0000	0.10	780.
12	0.885036	0.011938	713.5808	0.867647	0.041095	68.0001	0.41	780
13	0.875972	0.012383	708.5625	0.867647	0.041095	68.0001	0.19	775.
14	0.872933	0.012525	707.0642	0.867647	0.041095	68.0001	0.12	773.
15	0.871409	0.012595	706.3435	0.852941	0.042949	68.0001	0.41	772
16	0.865326	0.012869	703.6377	0.838235	0.044655	68.0001	0.58	771.
17	0.863805	0.012936	703.0020	0.838235	0.044655	68.0001	0.55	769
18	0.860769	0.013242	683.4285	0.838235	0.044655	68.0001	0.48	749

TABLE C-7b. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 2

	CONTROL/MINIMUM EXPOSURE GROUP			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 2				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.983153	0.004811	714.0002	0.993135	0.003953	436.9998	-1.60	1149.
1	0.967787	0.006608	713.9998	0.972540	0.007817	436.9995	0.46	1149.
2	0.956182	0.007743	713.9993	0.956522	0.009755	437.0000	-0.11	1149.
3	0.945378	0.008534	714.0000	0.933638	0.011907	437.0000	0.80	1149.
4	0.924571	0.009638	714.0002	0.922197	0.012814	436.9998	0.40	1149.
5	0.927171	0.009725	714.0010	0.913043	0.013479	437.0000	0.85	1149.
6	0.921168	0.010143	714.0007	0.901602	0.014248	437.0000	1.06	1149.
7	0.913165	0.010538	714.0012	0.894737	0.014681	437.0002	1.02	1149.
8	0.907563	0.010840	714.0010	0.887872	0.015094	437.0002	1.06	1149.
9	0.899159	0.011269	714.0015	0.876430	0.015742	437.0010	1.17	1149.
10	0.893557	0.011542	714.0007	0.864989	0.016347	437.0010	1.43	1149.
11	0.890555	0.011869	714.0002	0.858124	0.016691	437.0007	1.39	1149.
12	0.885036	0.011938	713.5808	0.853541	0.016914	436.9792	1.52	1149.
13	0.875972	0.012393	708.5625	0.851246	0.017023	436.9587	1.17	1144.
14	0.872330	0.012525	707.0642	0.842068	0.017447	436.8818	1.44	1142.
15	0.871409	0.012595	706.3435	0.837480	0.017651	436.8464	1.56	1141.
16	0.865326	0.012869	703.6377	0.835185	0.017751	436.8296	1.37	1138.
17	0.863805	0.012936	703.0020	0.833596	0.017948	436.7974	1.50	1138.
18	0.860769	0.013242	683.4285	0.821469	0.018876	411.6277	1.70	1093.

TABLE C-7c. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 3

	CONTROL/MINIMUM EXPOSURE GROUP			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 3				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.983193	0.004811	714.0002	0.991870	0.005725	245.9998	-1.16	958.
1	0.967787	0.006608	713.9998	0.983740	0.008064	246.0000	1.53	958.
2	0.955192	0.007743	713.9993	0.971545	0.010601	246.0005	-1.25	958.
3	0.945378	0.008504	714.0000	0.967480	0.011309	246.0005	-1.56	958.
4	0.929571	0.009638	714.0002	0.955285	0.013177	246.0002	-1.64	958.
5	0.927171	0.009725	714.0010	0.947154	0.014264	246.0002	-1.16	958.
6	0.920168	0.010143	714.0007	0.934959	0.015722	246.0003	-0.79	958.
7	0.913165	0.010538	714.0012	0.930894	0.016171	246.0002	-0.92	958.
8	0.907563	0.010840	714.0010	0.926829	0.016604	246.0004	-0.97	958.
9	0.899160	0.011269	714.0015	0.918699	0.017425	246.0002	-0.94	958.
10	0.893557	0.011542	714.0007	0.914634	0.017815	246.0003	-0.99	958.
11	0.886555	0.011869	714.0002	0.898374	0.019265	246.0004	-0.52	958.
12	0.885036	0.011938	713.5808	0.890225	0.019933	245.9544	-0.22	958.
13	0.875972	0.012333	708.5625	0.882058	0.020571	245.8707	-0.25	952.
14	0.872930	0.012525	707.0642	0.877975	0.020876	245.8331	-0.21	951.
15	0.871409	0.012595	706.3435	0.869807	0.021466	245.7650	0.06	950.
16	0.865326	0.012869	703.6377	0.861640	0.022027	245.7048	0.14	947.
17	0.863805	0.012936	703.0020	0.861640	0.022027	245.7048	0.08	947.
19	0.860769	0.013242	683.4285	0.861640	0.022027	245.7048	-0.03	927.

TABLE C-7d. SUMMARY OF SURVIVAL RATE COMPARISONS FOR SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 4

	CONTROL/MINIMUM EXPOSURE GROUP			SINGLE MODALITY ASSIGNMENT STRUCTURAL GROUP 4				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.983193	0.004811	714.0002	0.977346	0.008465	308.9998	0.60	1021.
1	0.967767	0.006609	713.9998	0.961165	0.010991	309.0000	0.52	1021.
2	0.955182	0.007743	713.9993	0.944984	0.012971	309.0000	0.68	1021.
3	0.945378	0.008504	714.0000	0.932039	0.014318	308.9993	0.80	1021.
4	0.938571	0.009638	714.0002	0.919094	0.015513	308.9995	0.52	1021.
5	0.927171	0.009725	714.0010	0.906149	0.016590	309.0000	1.09	1021.
6	0.920168	0.010143	714.0007	0.893204	0.017570	309.0000	1.33	1021.
7	0.913165	0.010538	714.0012	0.883495	0.018251	309.0000	1.41	1021.
8	0.907563	0.010940	714.0010	0.877023	0.018683	309.0005	1.41	1021.
9	0.899160	0.011269	714.0015	0.864078	0.019496	309.0005	1.56	1021.
10	0.893557	0.011542	714.0007	0.860841	0.019690	309.0007	1.43	1021.
11	0.886555	0.011869	714.0002	0.860841	0.019693	309.0007	1.12	1021.
12	0.885096	0.011938	713.5808	0.834178	0.021505	299.1121	2.07	1011.
13	0.875372	0.012383	708.5625	0.824859	0.022251	291.7795	2.01	998.
14	0.872033	0.012525	707.0642	0.820198	0.022606	288.5181	2.04	994.
15	0.871409	0.012595	706.3435	0.810877	0.023292	282.6663	2.29	987.
16	0.865326	0.012869	703.6377	0.806217	0.023620	280.0310	2.20	982.
17	0.863395	0.012936	703.0020	0.806217	0.023620	280.0310	2.14	981.
18	0.860769	0.013242	683.4285	0.806217	0.023620	280.0310	2.01	961.

TABLE C-8a. SUMMARY OF SURVIVAL RATE COMPARISONS FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP 1

	CONTROL/MINIMUM EXPOSURE GROUP			MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP 1				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.993056	0.004893	287.9993	0.994413	0.005571	178.9993	-0.18	465.
1	0.986111	0.006836	288.0002	0.994413	0.005571	178.9993	-0.94	465.
2	0.965278	0.010788	288.0002	0.988827	0.007856	179.0002	-1.76	465
3	0.954861	0.012233	288.0005	0.988827	0.007856	179.0002	-2.34	465.
4	0.930555	0.014979	288.0005	0.977654	0.011048	179.0002	-2.53	465.
5	0.930555	0.014979	288.0005	0.966480	0.013453	179.0003	-1.78	465.
6	0.923139	0.015973	288.0011	0.960894	0.014489	179.0003	-1.69	465.
7	0.920139	0.015973	288.0010	0.949721	0.016333	179.0005	-1.29	465
8	0.913194	0.016590	288.0005	0.949721	0.016333	179.0005	-1.57	465.
9	0.913194	0.016590	288.0005	0.949721	0.016333	179.0005	-1.57	465.
10	0.909722	0.016987	288.0005	0.949721	0.016333	179.0005	-1.70	465.
11	0.909722	0.016887	288.0005	0.944134	0.017166	179.0003	-1.43	465.
12	0.905540	0.017319	285.1609	0.944134	0.017166	179.0003	-1.58	462.
13	0.889745	0.019269	264.2080	0.944134	0.017166	179.0003	-2.11	441.
14	0.889745	0.019269	264.2080	0.944134	0.017166	179.0003	-2.11	441.
15	0.884480	0.019861	259.0205	0.944134	0.017166	179.0003	-2.27	436.
16	0.884480	0.019861	259.0205	0.944134	0.017166	179.0003	-2.27	436.
17	0.884480	0.019861	259.0205	0.944134	0.017166	179.0003	-2.27	436.
18	0.884480	0.019861	259.0205	0.944134	0.017166	179.0003	2.27	436.

TABLE C-8b. SUMMARY OF SURVIVAL RATE COMPARISONS FOR MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP 2

	CONTROL/MINIMUM EXPOSURE GROUP			MULTIPLE MODALITY ASSIGNMENT STRUCTURAL GROUP 2				
Interval	Cumulative Survival Rate	Standard Error	Effective Sample Size	Cumulative Survival Rate	Standard Error	Effective Sample Size	t	df
0	0.993056	0.004993	287.9990	0.988930	0.006356	270.9990	0.51	557.
1	0.986111	0.006996	288.0002	0.981550	0.008175	270.9993	0.43	557.
2	0.965278	0.010798	288.0002	0.963100	0.011452	271.0000	0.14	557.
3	0.954861	0.012233	288.0005	0.948339	0.013445	271.0002	0.3	557.
4	0.930555	0.014979	288.0005	0.937269	0.014729	271.0002	-0.32	557.
5	0.930555	0.014979	288.0005	0.933579	0.015127	271.0005	-0.14	557.
6	0.920139	0.015973	289.0010	0.918819	0.016590	271.0002	0.06	557.
7	0.920139	0.015973	288.0010	0.911439	0.017258	271.0002	0.37	557.
8	0.913194	0.016590	288.0005	0.904059	0.017890	271.0002	0.37	557.
9	0.913194	0.016590	288.0005	0.900369	0.018194	271.0005	0.52	557.
10	0.909722	0.016387	288.0005	0.896679	0.018490	271.0007	0.52	557.
11	0.909722	0.016987	288.0005	0.892989	0.018778	271.0007	0.66	557.
12	0.905540	0.017319	285.1609	0.892989	0.018778	271.0007	0.49	554.
13	0.899745	0.019269	264.2080	0.892989	0.018778	271.0007	-0.12	533.
14	0.899745	0.019269	264.2080	0.892989	0.018778	271.0007	-0.12	533.
15	0.884490	0.019861	259.0205	0.892989	0.018778	271.0007	-0.31	528.
16	0.884490	0.019861	259.0205	0.892989	0.018778	271.0007	-0.31	528.
17	0.884490	0.019861	259.0205	0.892989	0.018778	271.0007	-0.31	528.
18	0.884490	0.019861	259.0205	0.878106	0.023638	191.5538	0.21	449.

REFERENCES

Armor, D. J., Polich, J. M. and Stambul, H. B. Alcoholism and treatment. Report No. R-1739-NIAAA. The Rand Corporation, Santa Monica, California, June, 1976.

Barr, A. J., Goodnight, J. H., Sall, J. P. & Helwig, J. T. A User's Guide to SAS 76. Raleigh, North Carolina: SAS Institute, 1976, pp. 72-79.

Boyatzis, R. E. Drinking as a manifestation of power concerns. Paper presented at the Ninth International Congress on Anthropological and Ethnological Sciences, Chicago, August, 1973.

Cutler, S. J. and Ederer, F. Maximum utilization of the life table method in analyzing survival. Journal of Chronic Diseases, 1958, 8, 699-712.

Cutter, H. S., McClelland, D. C., Boyatzis, R. E., and Blancy, D. D. The effectiveness of power motivation training for rehabilitating alcoholics. McBer and Company, Boston, 1975.

Davies, D. L. Normal drinking in recovered alcohol addicts. Quarterly Journal of Studies on Alcohol, 1962, 23, 94-104.

Eagleston, J. R., Rittenhouse, C. H., Towle, L. H., and Wiegand, V. K. Development of a pilot program for monitoring and evaluating the operation of ten DOT/NIAAA joint alcoholism programs--Evaluation of the ASAP/AC program. Phase II, Final Report. Stanford Research Institute, Menlo Park, California, September, 1974.

Ellingstad, V. S. Measurement of treatment outcome in the NHTSA short term rehabilitation study. Paper presented at the 1977 National Council on Alcoholism Forum, San Diego, California, April 29-May 4, 1977.

Ellingstad, V. S. and Springer, T. J. Program level evaluation of ASAP diagnosis, referral and rehabilitation efforts: Volume III - Analysis of ASAP rehabilitation countermeasures effectiveness. Prepared for U. S. Department of Transportation under Contract DOT-HS-191-3-759, Final Report. (NTIS Report No. DOT HS-802 044), September, 1976.

Ellingstad, V. S. and Struckman-Johnson, D. L. Short Term Rehabilitation (STR) Study, Interim analysis of STR performance and effectiveness. Prepared for U. S. Department of Transportation under Contract No. DOT-HS-6-01366, Interim Report, HFL No. HFL-77-3. (NTIS Report No. DOT-HS-802 569), June, 1977.

Johnson, S. C. Hierarchical clustering schemes. Psychometrika, 1967, XXXII, 241-254.

Kendell, R. E. Normal drinking by former alcohol addicts. Quarterly Journal of Studies on Alcohol, 1968, 29, 44-60.

Morrison, D. F. Multivariate Statistical Methods. New York: McGraw-Hill, 1967.

NHTSA, Office of Alcohol Countermeasures, Alcohol Safety Action Projects, Evaluation of operations - 1972, Volume II, detailed analysis: Chapter 6 - Evaluation of the rehabilitation countermeasure activities. Report No. DOT HS 800 874, Washington, D. C., 1974.

Pattison, E. M. A critique of alcoholism treatment concepts with special reference to abstinence. Quarterly Journal of Studies on Alcohol, 1966, 27, 49-71.

Sobell, M. D. and Sobell, L. C. Alcoholics treated by individualized behavior therapy: One-year treatment outcome. Behavior Research and Therapy, 1973, 11, 599-618.

Struckman-Johnson, D. L. and Mushill, E. F. Program level evaluation of ASAP diagnosis, referral and rehabilitation efforts: Volume II - Analysis of ASAP diagnosis and referral activity. Prepared for U. S. Department of Transportation under Contract DOT-HS-191-3-759. Final Report (NTIS Report No. DOT HS-802 043), September, 1976.

Struckman-Johnson, D. L. and Strawn, V. L. Life activities inventory data collection/interview manual. Contract DOT-HS-191-3-759, Human Factors Laboratory, University of South Dakota, October, 1976.