

ALCOHOLIC PERSONALITY TRAIT AND FAMILY  
DYNAMICS OF ALCOHOL MISUSERS

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Submitted to the Faculty of the Graduate College  
of the Oklahoma State University  
in partial fulfillment of the requirements  
for the Degree of  
DOCTOR OF PHILOSOPHY  
July, 1988



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## ACKNOWLEDGEMENTS

I wish to express my genuine appreciation to all of those who assisted me in this research, as well as encouraged me throughout my doctoral studies at Oklahoma State University. I am particularly grateful to my major advisor and chair of my dissertation committee, Dr. Judith Dobson, for her guidance and genuine support.

I also wish to express my gratitude to the other members of my committee, Dr. Al Carlozzi, Dr. Kenneth Sandvold, and Dr. Brent Snow, for their advisement in the course of this study.

My wife, Barbara, and my two daughters, Abbie and Julie, deserve a great deal of love and appreciation for their encouragement and perseverance during my graduate studies.

A final thanks to Dr. Liz Berger, Bruce Thompson, Dr. Al McCormick, and Dr. William Frederickson for their consultive support and friendships throughout this endeavor.

## TABLE OF CONTENTS

Chapter	Page
I.	INTRODUCTION . . . . . 1
	Statement of the Problem . . . . . 3
	Significance of the Study . . . . . 3
	Definition of Terms . . . . . 6
	Limitations . . . . . 8
	Null Hypotheses . . . . . 9
	Organization of the Study . . . . . 10
II.	REVIEW OF THE LITERATURE . . . . . 11
	Alcoholic Personality Trait . . . . . 11
	Definitions . . . . . 11
	Alcoholic Personality Trait . . . . . 14
	Family History of Substance Abuse . . . . . 17
	Previous Misuse History . . . . . 18
	Misuse and Drinking Pattern . . . . . 18
	Age . . . . . 20
	Family Cohesion . . . . . 20
	Definitions . . . . . 20
	Family History of Substance Abuse . . . . . 21
	Previous Misuse History . . . . . 22
	Misuse and Drinking Pattern . . . . . 23
	Age . . . . . 24
	Family Adaptability . . . . . 24
	Definitions . . . . . 24
	Family History of Substance Abuse . . . . . 25
	Previous Misuse History . . . . . 26
	Misuse and Drinking Pattern . . . . . 26
	Age . . . . . 27
	Summary . . . . . 28
III.	METHODOLOGY . . . . . 30
	Subjects . . . . . 30
	Instrumentation . . . . . 34
	The MacAndrew Alcoholism (MAC) Scale . . . . . 34
	Reliability . . . . . 35
	Validity . . . . . 35
	Family Adaptability and Cohesion
	Evaluation Scales (FACES) III . . . . . 36
	Reliability . . . . . 37
	Validity . . . . . 37

Chapter	Page
The Mortimer-Filkins Test for Identifying Problem Drinking Drivers - Questionnaire (Form-A) . . . . .	
	37
	38
	39
	39
	41
	41
IV. RESULTS . . . . .	43
Summary . . . . .	50
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS . . .	53
Summary . . . . .	53
Conclusions . . . . .	55
Recommendations for Future Research . . . . .	59
Implications for Counselors . . . . .	60
REFERENCES . . . . .	61
APPENDIXES . . . . .	70
APPENDIX A - VOLUNTEER CONSENT FORM . . . . .	71
APPENDIX B - INTAKE QUESTIONNAIRE . . . . .	73

## LIST OF TABLES

Table	Page
1. Within Cells Error Correlation Matrix for Alcoholic Personality Trait, Cohesion, and Adaptability . . . . .	44
2. Summary Table of Legal Status Main Effect for the Alcoholic Personality Trait . . . . .	45
3. Means and Standard Deviations of Alcoholic Personality Trait, Family Cohesion, and Family Adaptability of People Who Have Had One or More Arrests for DUI and People Who Have Not Received an Arrest for DUI . . . . .	45
4. Summary Table of Drinking Pattern Main Effect for the Alcoholic Personality Trait . . . . .	46
5. Means and Standard Deviations of Alcoholic Personality Trait, Family Cohesion, and Family Adaptability of Problem Drinkers and Social Drinkers . . . . .	46
6. Summary Table of Drinking Pattern Main Effect for Family Cohesion . . . . .	48
7. Summary Table of Drinking Pattern Main Effect for Family Adaptability . . . . .	49
8. Summary Table of Means and Standard Deviations for the Dependent Variables (MAC Scale Score, Absolute Adaptability Score and Absolute Cohesion Score) . . . . .	51

## LIST OF FIGURES

Figure	Page
1. Summary of Subjects' Demographic Information and Response Validity Scores . . . . .	31
2. Research Design . . . . .	42



## CHAPTER I

### INTRODUCTION

Alcohol is recognized as the most commonly abused mood altering drug in the United States (Bassuk, Schoonover & Glenberg, 1983). Weissman (1978) estimated that 95 million people use alcohol in the United States. Suggested estimates indicate that between 9 and 10 million people abuse alcohol extensively, half of whom are physically dependent on it (Bassuk et al., 1983; Weissman, 1978). Approximately 10% of the drinking population are believed to be problem drinkers, many of whom accumulate alcohol-related motor vehicle problems (Hazelden Foundation, 1983). The National Institute of Drug Abuse (1979) reported a disproportional level of greater-than-occasional use of alcohol among males versus females in a college age population. The potential for development of alcoholic type behavior appears highly evident among this age group (National Institute of Drug and Alcohol Abuse, 1979). Young adults (ages 18 to 34) reported greater frequency of consumption of alcohol than youth and other adults. The college age group is recognized as having higher daily consumption than other groups with greater incident of misuse of illicit substance than comparison groups (National Institute of Drug Abuse, 1979). Bassuk et al. (1983) suggested that repetitive misuse of psychoactive drugs often results in adverse consequences. Weissman (1978) commented that it is impossible to measure the total impact of substance misuse on society, however, youth and families are recognized as essential elements which are greatly affected. Geller, Russ and Delphos (1987) reported that, though greater than one million arrests for DUI are made annually, there has been no depreciable decline

in the involvement of heavy alcohol use in fatal crashes or those producing injury or property damage.

Barnes (1979), in a review of the literature, indicated that much research has been performed to determine what characteristics of alcoholics separate them from a non-alcoholic population. The research provides a vast overview of personality assessment as it relates to substance misuse. Such research appears to evidence various personality predispositions indicative of pre-alcoholism, however, causality remains uncertain. Beardslee and Vaillant (1984) found evidence to indicate the existence of a personality typology predictive of alcohol misuse. A variable related to the development of such typology appears to be previous alcohol misuse offenses (Mortimer, Filkins, Kerlan & Lower, 1973).

Glenn and Warner (1982) identified characteristics of individuals reared in resistant families that were found absent in families with patterns of drug and alcohol misuse. Killorin and Olson (1983) indicated that other members of misusers' families appear to develop addictive, dysfunctional behavior patterns that negatively impact the misusers. They stated:

Neither the addicted person nor the spouse is simply suffering from an inadequate personality or a characteriological disorder. They were perceived as part of the family system and suggested that treatment of any problem in the system must deal with the whole unit. (p. 99)

Glynn (1984) supported previous research regarding families of alcohol misusers, reporting on their structural types and interactive dynamics. A variable related to the development of such family dynamics appears to be history of alcohol related problems within the individual's family of origin (Moos & Moos, 1984).

Much of the research in this area has approached the concept of predictability of problematic misuse from single causal factors, using either

biological, psychological or, more recently, a family systems methodology (Pandina, Labouvie & White, 1984). An integration of these various suggested factors may enhance the effectiveness of assessment of substance misusers and their families. Killorin and Olson (1980) suggested the use of an integrated causal mode of conceptualization in assessment of misuser behavior. Such assessment may assist in the prevention and early treatment intervention of potential dysfunctional substance misuse. Possible ways to integrate such factors is through the use of multivariate analysis techniques (i.e., analysis of variance and multiple analysis of variance and covariance) developed to examine the affect of a variety of variables in such assessment (Eshbaugh, Tosi & Hoyt, 1978; Pandina et al., 1984; Stall, 1984).

#### Statement of the Problem

The etiology of substance misuse is complex and incorporates various aspects of an individual's physiological and psycho-social development. The research in this area of study has been developmental with beginning efforts focused on single source causality, progressing to multiple factor analysis. Limited research has been performed in the early detection of misuse by young adults which incorporates misuser personality traits and family environmental factors. Such extraneous variables as age, previous misuse history and misusers' family substance misuse history have been studied as isolated variables, however, not vastly incorporated in such multiple analysis research. Therefore, this study is designed to answer the following questions: Are there individual personality traits and family dynamics uniquely common to alcohol misusers? Are there similar elements unique to problem level drinkers? Are such elements unique to younger adults?

#### Significance of the Study

Barnes (1979), in a review of the literature, reported that individuals

seeking treatment of alcohol problems presented common personality patterns. Such patterns were believed to exist as a result of pre-alcoholic personality and the effects of a personal drinking history on one's personality (Barnes, 1979; Krammeier, Hoffman & Loper, 1973; Scoles, Fine & Steer, 1984). Regarding personality characteristics Korchin (1976) states:

If our concern is to assess enduring attributes of the individual, rather than his momentary state, it is important to distinguish the effects of such state variables on our trait measures. (p. 214)

The thrust of the literature in this area of research would lead one to view state characteristics (i.e., boredom, loneliness, etc.) and one's dysfunctional responses to such states as affecting the development of more enduring personality characteristics (traits). In pursuit of enhancing treatment regimes for persons with misuse problems, Eshbaugh et al. (1978) attempted to identify typological personality factors. Employing various standardized instruments (i.e., Cattell's Sixteen Personality Factor Questionnaire, Jackson's Personality Research Form and the Minnesota Multiphasic Personality Inventory) certain cluster factors were evidenced. This research tended to support proponents of heterogeneity in personality typology of misusers, however, common defense patterns appeared evidenced (i.e., repression and denial). Conley (1981) identified certain developmental patterns evidenced in four major categorical personality structures; neurotic, classic alcoholic, psychopathic and psychotic. The above studies utilized different personality inventories to identify common characteristics of people who evidenced alcohol problems. Many such characteristics appeared more state in nature, as they demonstrated significant change over treatment (Conley, 1981; Krammeier et al., 1973; Scoles et al., 1984). Also supported in the literature was the existence of a more enduring personality trait, present amongst alcohol misusers (MacAndrew, 1965).

MacAndrew (1965) reported evidence of an alcohol-like trait which was stable over time and treatment. Additional support for the existence of such a trait was found in pre-alcoholic stages of personality development (Apfeldorf & Hunley, 1975; Hoffman, Loper & Kammeier, 1974). The assessment of such a trait in young adults appears critical to prevention and early intervention.

A link between substance misusers and channels for identifying such persons has been a problem for researchers. Typically the research populations are representative of persons with existing dysfunctional patterns of misuse (i.e., hospital or inpatient treatment clientele). Scoles et al. (1984) found evidence to support a definition of high risk drivers as persons with commonly identified personality characteristics and clearly demonstrated patterns of alcohol or other substance misuse. They indicated that an increase in the number of D.W.I. (Driving While Intoxicated) arrests or other motor vehicle offenses were significantly related to an associated alcohol and emotional pathology. Geller et al. (1987) suggested drunk drivers' unwillingness to change driving plans is consistent with the impairment of judgement expected with heavy alcohol use. Jacobson (1976) reported that useful instrumentation was available to detect early stages and signs of persons at risk of developing alcohol related problems. A factor to be considered in such assessment is the offender's prior alcohol related driving offenses (Jacobson, 1976; Mortimer et al., 1973). Selzer, Vinokur and Wilson (1977) in a study of high risk drivers and normal drivers concluded that the association between drinking and driving, and emotional or addictive disorders should be considered in programs for management of problematic drivers.

A further characteristic for consideration is the impact of misusers' families on their development (Glenn & Warner, 1982; Schuckit, 1984). Glynn (1984) suggested that family structure (i.e., birth order, family size and family

make-up) should be considered in research of substance misuse. Of more importance are the elements of family dynamics, both formal and informal (i.e., parental roles, parent-child relationships, independence issues, marriage/partnerships, family and peer influence, child rearing and discipline issues, and communication patterns) (Glenn & Warner, 1982; Glynn, 1984; Killorin & Olson, 1983; Reilly, 1984; Schuckit, 1984). Reilly (1984) reported that young adults' misuse behavior is commonly a symptom of family of origin system dysfunction, including other family members' alcohol problem behaviors. This factor should to be considered in working with people with misuse problems (Reilly, 1984).

Glenn and Warner (1982), along with Kaufman and Borders (1984), identified characteristics of a healthy family that served to prevent substance abuse. Efforts to achieve a balance by youth and/or adults, in a dysfunctional family, frequently leads to unhealthy patterns including substance misuse (Satir, 1981). Killorin and Olson (1983) indicated that chemical dependency is not an isolated dynamic unique to one family member, but an integral part of a family system. They further indicated that substance misuse has a functional part in the family system which may vary infinitely from family to family. Their research supported functional roles of misuse in two general areas of family dynamics (i.e., cohesion and adaptability) and suggested their inclusion in further research with people with misuse problems.

In view of the current research in this area, it appears that a set of characteristics are present in both substance misusing individuals and their families, which may identify people with such problems. The focus of this study is to analyze the existing relationship of such variables through a blending of individual and family/environmental factors.

#### Definition of Terms

The following are definitions of terms used in this study.

Alcohol Misuser. An alcohol misuser is an individual whose use of alcohol results in conflict with societal norms, as evidenced by arrest for driving under the influence (D.U.I.) of alcohol, registering ten-hundredths (0.10) or more alcohol concentration, as shown by a breath or blood test.

Family Dynamics. Family dynamics are operationally defined by Olson, Russell and Sprenkle (1980) on two levels: cohesion and adaptability. Both factors are perceived to represent an integration of elements of family interaction. Cohesion includes emotional bonding, supportiveness, family boundaries, time and friends and common recreational interest. Adaptability includes leadership styles, control, discipline, and roles and rules. The integration of both factors are considered family dynamics.

Family Environmental Factors. Those elements of a family structure and dynamics which impact the members' individual and group development are considered family/environmental factors.

Family Misuse History. The number of family members (nuclear and extended) observed by the subject to have evidenced an alcohol misuse problem is considered family misuse history.

Family Structure. The birth order, family size, and total membership (i.e., family make-up) form the elements of family structure.

High Risk Drivers. High risk drivers are individuals with commonly identified problem personality characteristics and clearly demonstrated patterns of alcohol misuse (Scoles et al., 1984).

Non-Misusers. A non-misuser is operationally defined as a person who has never been arrested for D.U.I.. Such people are not restricted to any particular level of alcohol usage, including non-use.

Previous Misuse History. The number of incidents in which an individual was arrested for anti-social behaviors involving alcohol (i.e., D.U.I., Driving

While Intoxicated, public intoxication, etc.), excluding the current incident, is considered previous misuse history.

Problem Drinker. A problem drinker is operationally defined (Hazelden Foundation, 1983) as an individual who is consistently unable to refrain from drinking or to stop drinking before getting intoxicated. Abusive use of alcohol seriously and chronically impairs their emotional, social, physical, and economic functioning. The person may have developed a physical dependence on alcohol, characterized by craving alcohol and withdrawal symptoms when alcohol intake is stopped. Assessment indicates severe drinking problem.

Resistant Families. Families which appear to provide effective developmental, emotional and physical nurturance to their members, so as to insulate them from developing problem dependencies are considered resistant families (Glenn & Warner, 1982).

Social Drinker. A social drinker is operationally defined (Hazelden, 1983) as an individual whose drinking pattern does not usually impair emotional, social, physical, or economic functioning. Consistent ability for controlled, moderate drinking behavior is present. Drinking behavior frequently evidences socially accepted reasons and in socially acceptable ways, rather than moved by individual problems, anomalies, or disease.

#### Limitations

The following limitations are inherent in the study.

1. The generalizability of this research will be limited based on the range of demographic variables included in the study (i.e., age range, socio-economic status, and educational level of attainment of the sample).
2. It is assumed that the sample responded in a genuine, honest manner to the instruments utilized in this research. Methods of self report and use of



retrospective conceptualization of family dynamics may have a weakening impact on the validity of the results.

#### Null Hypotheses

1. There is no significant difference between the alcoholic personality trait of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

2. There is no significant difference between the alcoholic personality trait of problem drinkers and social drinkers.

3. There is no significant difference between the alcoholic personality trait of people between the ages of 18 to 29 years and people 30 or more years old.

4. There is no significant difference between family cohesion in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

5. There is no significant difference between family cohesion in families of origin of problem drinkers and social drinkers.

6. There is no significant difference between family cohesion of families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

7. There is no significant difference between family adaptability in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

8. There is no significant difference between family adaptability in families of origin of problem drinkers and social drinkers.

9. There is no significant difference between family adaptability in

families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

#### Organization of the Study

In this chapter, the reader has been presented with an introduction to the topic under study. The statement of the problem, significance of the study, definition of terms, limitations, and null hypotheses were stated. A review of the literature beginning with alcoholic personality and behavior patterns and continuing with issues involving dimensions of family dynamics, individual and family misuse history, and age are presented in Chapter II. The methodology and instrumentation used in conducting this study are discussed in Chapter III. Chapter IV includes the results of the statistical analyses, as well as the interpretation of the data collected. A summary, conclusions, recommendations, and implications for counselors are provided in Chapter V.

## CHAPTER II

### REVIEW OF THE LITERATURE

This chapter contains a review of literature relative to alcoholic personality trait, family cohesion, and family adaptability. These variables are reviewed as they relate to family history of substance abuse, previous misuse history, drinking pattern, and age.

#### Alcoholic Personality Trait

##### Definitions

While there has been research in the area of personality assessment of alcoholism, disagreement remains regarding the homogeneity versus heterogeneity of personality characteristics within alcoholic personality development (Apfeldorf, 1978; Barnes, 1979; Connelly, 1983; Eshbaugh, Dick & Tosi, 1982; Jellinek, 1960). Utilizing an orientation of personality development based on individual needs, Hoffman (1970) defined alcoholics as people having an increased need for personal contact, commonly unfulfilled due to a lack of self-confidence and low self-esteem; and an increased need for self-reliance, evidenced by a common dependence on others and lack of self-determination. Such people were further identified by (a) lack of achievement, (b) lack of endurance and ability to plan, (c) a rigid need for certainty, and (d) an avoidance of emotional pain (Hoffman, 1970).

Rohan (1972) used the clinical scales of the Minnesota Multiphasic Personality Inventory (MMPI) to identify evidenced anti-social and depressive characteristics (Psychopathic Deviate and Depression scales) in persons with alcoholic tendencies. His study suggested that evidence of these characteristics

plus anxiety and fearfulness (Hysteria and Psychasthenia scales) were present upon admission of persons with alcoholic tendencies to treatment programs. These characteristics evidenced lower clinical elevations following treatment, with the exception of anti-sociality.

Huber and Danahy (1975) suggested that a general character disorder with neurotic tendencies was commonly present among persons admitted to hospitals for alcohol treatment. Following treatment, such patients evidenced a shift in primary personality characteristics, indicated on the MMPI, from neurotic type to a more behavior disorder type. People evidencing a behavior disorder typology have indicated a general impulsive and irresponsible manner, in addition to a shallow and superficial interpersonal relationship style (Lachar, 1974). Employing a hierarchical factor analysis procedure in analysis of MMPI scores, Eshbaugh et al. (1978) determined that seven personality clusters typified an alcoholic tendency in personality development. These clusters were composed of fifteen characteristics: (a) Self-criticism, (b) impulsiveness accompanied by guilt, (c) passive-aggressiveness, (d) rebelliousness, (e) immaturity, (f) inhibition in interpersonal relationships, (g) low oral frustration, (h) inferiority-paranoia, (i) anxiety, (j) depression, (k) restlessness, (l) hyperactivity, (m) low frustration tolerance, (n) strong obsessionalism and over ideationalism, (o) low self-esteem, and (p) feelings of helplessness (Eshbaugh et al., 1978).

Conley's (1981) research with admissions, discharges and outcome comparisons of male alcoholics supported previous studies regarding clustering of MMPI scores (Eshbaugh et al., 1978; Goldstein & Linden, 1969). Conley (1981), utilizing the MMPI, identified the following four clusters: (a) Neurotic, (elevated Hypochondriasis, Depression and Hysteria scales); (b) classic alcoholic, (elevated Depression, Psychopathic Deviate and Psychasthenia scales); (c) psychopathic, (elevated Psychopathic Deviate and Hypomania scales); (d) psychotic, (elevated

Paranoia, Psychasthenia, Hypomania scales with extreme elevation on the Schizophrenia scale).

Barnes (1979) supported the concept that an alcoholic tendency in personality development evidenced a heterogeneous group composition, although indicating that persons with such a tendency share certain common characteristics. This research indicated that persons with alcoholic tendencies evidenced high levels of anti-social acting-out and depression along with those characteristics found commonly associated with the MacAndrew Alcoholism Scale (MAC) (MacAndrew, 1965) of the MMPI. Finney, Smith, Skeeters and Auvenshine (1971) identified the following characteristics evidenced by people with high scores on the MAC scale: (a) Boldness; (b) uninhibitedness; (c) self-confidence; (d) sociability; (e) impulsive rebelliousness and resentment of authority; (f) conservative religiosity; and (g) common use of repression, faith and inspiration to defend against their own delinquent impulsivity. This research was later supported by Apfeldorf and Hunley (1975) in their use of the MAC scale in differentiating misusers from a control group (non-alcoholics).

Eshbaugh et al. (1982), in an analysis of personality characteristics of drug dependent females, suggested that certain personality clusters exist within a heterogeneous population of substance misusers, as defined in previous research (Eshbaugh et al., 1978). Such homogeneous clusters were believed to exist in conjunction with an addictive trait, evidenced across the clustered characteristics (Eshbaugh et al., 1978). The evidence of such a trait on the MAC scale supported previous research (MacAndrew, 1965) and indicated a need for an integrated treatment plan inclusive of the various disorders and an alcoholic tendency (Eshbaugh et al., 1978). The existence of an addictive personality trait, captured by assessment in alcoholism scales, has been supported by the research in this area (Apfeldorf, 1978; Barnes, 1979; Finney et al., 1971; Hoffman et al.,

1974; Hoyt & Sedlacek, 1958; Korman, 1960; MacAndrew, 1965; Rich & Davis, 1969; Schwartz & Graham, 1979; Uecker, 1970; Vega, 1971).

### Alcoholic Personality Trait

Various characteristics of alcoholic tendency in personality development have been presented in the preceding survey of the literature. Lubin, Larsen and Matarazzo (1984), in their review of psychological test usage in the United States, report that the MMPI is the most widely used and thoroughly researched of the objective personality questionnaires available. The ability to differentiate alcoholics from non-alcoholics using various alcoholism scales of the MMPI has been evidenced (Apfeldorf, 1978; Button, 1956; Hoyt & Sedlacek, 1958; MacAndrew & Geertsma, 1964; Rich & Davis, 1969; Vega, 1971). MacAndrew (1965) suggested that a certain group of people evidenced an alcoholic tendency, identified as an alcoholic personality trait, assessible through the use of various items on the MMPI. MacAndrew (1965) criticized previous MMPI addiction scales as merely providing indices of general maladjustment, not alcoholism. Through research with clinical out-patient clientele, MacAndrew (1965) significantly differentiated non-alcoholic clinical patients from alcoholics, identifying their alcoholic trait. MacAndrew (1965) recommended a cutting score (raw) of 24 or more as indicative of alcoholism. Colligan and Offord (1987) reported comparable normative information on the MAC Scale based on the contemporary census-match sample (Colligan, Osborne, Swenson & Offord, 1984). They suggest researchers may need to take a more conservative approach in using the MAC Scale for alcoholism screening purposes than originally suggested by MacAndrew (1965). This research was later supported employing both non-clinical (normal) group populations and other clinical populations (Huber & Danahy, 1975; Rohan, 1972; Rohan, Tatro & Rotman, 1969; Vega, 1971). Colligan and Offord (1987) suggest that the MacAndrew Alcoholism Scale

(MacAndrew, 1965) is the most widely used and thoroughly researched of the numerous alcoholism scales for the MMPI. Indicated in this research was evidence of a trait versus state personality characteristic of alcoholic tendency. As suggested by Korchin (1976), such trait demonstrated a more enduring character trait than simply resulting from current use pattern.

Hoffman et al. (1974), employing the MAC Scale as an assessment and screening device, found an alcoholic trait indicative of a pre-alcoholic stage of personality development in college age students. Their research evidenced the constant nature of such a trait over both time and treatment (Hoffman et al., 1974). Apfeldorf and Hunley (1975) reported evidence of an alcoholic trait in older domiciled alcoholics, discriminating them from non-alcoholic normal (control) group members. The results of the two previous studies support the existence of an alcoholic trait over age. Hoffman et al. (1974) indicated that the personality component of an individual was merely one factor in the development of an alcoholic type condition, however, this factor was perceived as an essential component, thus no longer speculative.

The Diagnostic and Statistical Manual of Mental Disorders, Third Edition-Revised (DSM-III-R) (American Psychiatric Association, 1987) had been established as a common source of identifying criteria in diagnosis of alcoholic type personality by the American Psychiatric Association. Such criteria were included in various personality and character disorders on multiaxial diagnoses (i.e., determined across five axes) as many of these disorders had evidenced alcohol abuse as one of their diagnostic traits. The survey of literature in alcoholism studies supported the inclusion of an alcoholic trait in conjunction with varied clustered characteristics as evidenced in DSM-III-R diagnoses of such disorders (Apfeldorf, 1978; Apfeldorf & Hunley, 1975; Eshbaugh et al., 1982; Hoffman et al., 1974; Huber & Danahy, 1975; Rohan, 1972; Schwartz & Graham,

1979). Cernovsky (1985), in an attempt to discriminate characteristics of persons evidencing false negatives on the MAC Scale, reported that such individuals tend to be characterized by a higher degree of a repression defense than true positives and non-substance abusers in a psychiatric population. Two types of alcoholic personalities (primary and secondary) were suggested, with persons obtaining false negatives more inclined toward primary type. Such alcoholics tend to have begun to drink prior to the onset of psychological distress. Kennedy and McPeake (1987), in an attempt to replicate Cernovsky's (1985) study of MAC Scale false negative respondents, report contradictory findings regarding personality type receiving false negative, low MAC scores. Their results suggest such individuals to be rather homogeneous with neurotic-like characteristics. Such persons appear repressed, suppressed, and deny most of their feelings and problems. Such persons' orientation to the world is suggested (Kennedy & McPeake, 1987) as introspective, self-involved, or perhaps narcissistic. They further suggest that high MAC score respondents are a more heterogeneous group.

Though conflicting results appear in the literature regarding the determination of characteristics within the MAC Scale's alcoholic personality trait, an indication of an alcoholic trait has been found significantly discriminative of persons with an alcoholic tendency from persons without an alcoholic tendency, through use of the MAC scale (Apfeldorf, 1978; Apfeldorf & Hunley, 1975; Hoffman et al., 1974; Huber & Danahy, 1975; MacAndrew, 1965; Schwartz & Graham, 1979). Davis, Colligan, Morse and Offord (1985), in a validity study of the MAC Scale, suggested that the MAC Scale is not an adequate measure of general addiction proneness as earlier recommended (Lachar, Berman, Griselle & Schooff, 1976). Davis et al. (1987) stated the MAC Scale has been widely reported in the literature as more alcoholic specific. The



MAC scale appeared to yield a continuous measure of an alcoholic trait (MacAndrew, 1965) and was thus selected as a variable in this study.

#### Family History of Substance Abuse

An inherited alcoholic trait is an important constitutional factor in the development of alcoholism (Goodwin, Schulsinger, Hermansen, Guse & Winokur, 1973). Such inherited trait was suggested to be a significant variable influencing certain populations at risk of future alcoholism (Goodwin, 1979). Kandel, Kessler and Margulies (1978) reported that parental modeling of alcohol use during experimental stages of youth appeared to significantly influence the young people's choices in their use. Late-adolescent and early adulthood alcohol use patterns were more positively influenced with parental reasoning than through parental control (i.e., rules, limit setting and negative consequences), emphasizing the quality of parent-child relationships (Kandel et al., 1978).

Finney, Moos, Chronkite and Gamble (1983) suggested that persons in family environments characterized by substance abuse, experienced a greater probability of developing dysfunctional coping responses (i.e., avoidance behaviors, inappropriate emotional discharge). They indicated that positive adult role models were sparse, thus children learned ineffective adaptive skills. Finney et al. (1983) and Moos and Moos (1984) found that spouses of misusers were typically unavailable as positive roles, resulting in a breakdown in the family environment. Glenn and Warner (1982) suggested that family environment was the most significant area of a person's life, in which the majority of development took place. They indicated that the development of problem dependencies was significantly related to the lack of effective habilitation by the family. Such family emphasis on habilitation was later supported by Connelly (1983).

Schuckit (1984) reported that alcoholics with alcoholic relatives commonly evidenced: (a) Antisocial problems during adolescence, (b) low academic and occupational success, and (c) early onset and a more severe level of alcoholism than alcoholics without such family history. Schuckit (1984) further suggested that both early life stressors and higher levels of genetic loading for alcoholism may be significant factors in the development of alcoholism.

#### Previous Misuse History

Selzer and Weiss (1966) determined that persons who had been diagnosed as alcoholic or prealcoholic had far more prior convictions for intoxicated driving (DWI, DUI) than persons diagnosed as non-alcoholic. Alcoholics further exceeded prealcoholics in such convictions, indicating a progressive trend with increased alcoholic dysfunctionality. Selzer and Weiss (1966) additionally found that 45% of a fatal accident population had at least one prior arrest for drunk driving. Selzer et al. (1977) found that people with prior drunk driving arrest records evidenced similar social irresponsibility as persons diagnosed as alcoholic (Selzer et al., 1977). Small (1982) reported estimates from the Comprehensive Care Corporation indicating that 50% of first-time DWI offenders, 70% of second-time offenders and all third-time offenders were alcoholic. It was further suggested by Scoles et al. (1984) that increased incidence of intoxicated driving or other vehicle offenses evidenced more serious associated alcoholic or emotional pathology.

#### Misuse and Drinking Pattern

Scoles et al. (1984) suggested that alcohol misuse (DWI/DUI) was an area of research that would facilitate an understanding of the impact of alcohol on individuals and society. They indicated that misuse presented a complex phenomenon with an inherent need of differential diagnosis for effective treatment planning. Mischke and Venneri (1987) suggested that all persons

arrested for drunk driving have a problem with alcohol; however, a more radical diagnostic posture may be needed to accurately assess the individual's remedial needs along an educational-treatment continuum. They indicated that increased social and economic costs of both untreated problem drinking and unwarranted therapeutic interventions emphasize the need for accuracy in matching offenders and interventions. According to the World Health Organization alcohol misuse was perceived as the use of the drug alcohol in such a manner that it resulted in behavior exceeding the social norms of a particular community (Bassuk et al., 1983). Selzer and Weiss (1966) reported that one-half of a population involved in fatal traffic accidents were identified as having severe drinking problems and that 65% of this population were legally drunk during the time of their accident. Bradstock, Marks, Forman, Gentry, Hogelin, Binkin and Trowbridge (1987) reported a strong association between drinking-driving and both binge drinking and chronic heavy alcohol use, both being patterns associated with severe problem drinking. Selzer et al. (1977) indicated that drunk drivers were generally not people who happen to get caught on one occasion of intoxicated driving. They suggested that such persons were heavy drinkers, typically experienced troublesome effects from drinking, drank for tension relief, and were more depressed, less responsible, more paranoid and aggressive, and had lower self-esteem than non-misusers. The Hazelden Foundation (1983) further indicated that a certain portion of the misusing population (ranging from 40% to 65%) were problem drinkers functioning at a critical level of alcoholic behavior beyond their capability for control. Geller et al. (1987) suggest that persons operating at a problem drinking level are not likely to change patterns through intervention strategies that merely include educational and awareness messages. Other portions of this group (social drinkers) appeared to evidence less severe levels of dysfunction related to their alcohol use.

## Age

In a study of the relationship between alcoholism and traffic fatalities, Selzer and Weiss (1966) indicated that the age group of 22 to 40 years was the most representative group of alcoholic drivers. They further suggested that alcoholism is a developmental syndrome that evolves over time. Hoffman et al. (1974) reported from a national survey that 22% of men in the 21 to 24 age group were heavy drinkers and experienced the greatest prevalence of all drinking problems. They recommended that experimentation using the MAC scale should be used with college age individuals to assess potential alcohol problems. They suggested that prior to an addictive stage there exist characterological elements associated with persons who develop alcoholism (Hoffman et al., 1974).

## Family Cohesion

### Definitions

Wolman (1973) defined cohesion as the attraction a group holds for its members and which dictates the capacity of the group to resist dissolution. Theories of cohesion additionally indicate that the parts of a gestalt tend to acquire coherence (Wolman, 1973). Yalom (1975) dualistically defined cohesiveness as the effects of all the forces acting on the members to stay in a group, or the attractiveness of a group for its members.

Glenn and Warner (1982) suggested that family cohesion contributed to the development of positive perceptions of self (i.e., feeling significant and needed). They suggested that a lack of such cohesiveness enhances vulnerability to problem dependencies.

Olson, Sprenkle and Russell (1979) defined cohesion as the emotional bonding family members have for one another, and the degree of individual autonomy a person experiences in the family system. They further assessed the following variables to be found in the more global concept of cohesion as

emotional bonding, independence, boundaries, coalitions, time, space, friends, decision-making, and interest and recreation. Olson et al. (1980) suggested that moderately balanced levels of cohesion (neither high nor low) were most viable for family functioning. They identified four general levels of a continuous variable of cohesion (i.e., disengaged, separated, connected, and enmeshed). They suggested that individuals function most effectively in a central-balance zone, whereby they could experience a balance of independence from and connection with their families. This perception was supported by Glenn and Warner (1982) who viewed such balance as essential in understanding responsibilities in family relationships. The definition expressed in Olson et al. (1980) was selected for this study, as it provided a vehicle for continuous measurement.

#### Family History of Substance Abuse

McCord (1972) indicated that alcoholics appeared to be reared in less cohesive environments with maternal ambivalence and unclear expectations for their behavior. A lack of cohesion in such families was supported by Moos and Moos (1984). They indicated that families with more severely impaired alcoholic members show less cohesion, as one characteristic of their system, in comparison to non-alcoholic families. Glynn (1984) reported that families with misusing members often appeared emotionally isolated from each other (disengaged) and that among families with at least one addicted parent, there were higher reported incidences of neglect and abuse (disengagement, enmeshment).

Coleman (1982) indicated that a significant portion of chemical abusers had family histories of family intimacy dysfunction. Such family dynamics appeared to play a significant role in the etiology of their chemical abuse pattern. Coleman (1982) further noted that alcoholics frequently came from alcoholic

families in which marital problems (i.e., evidenced high and low cohesion levels) were common.

Reilly (1984), in a study of young adult misusers, suggested that parent enmeshment was significant in the development of a dysfunctional dependency by their children. The recommended treatment of such dependence included techniques for facilitating separation and individuation, thus helping families to ". . . resume the launch sequence" (Reilly, 1984, p. 389). Kaufman and Borders (1984) evaluated family dynamics across a multi-cultural perspective. They found that the following father-child cohesion dynamics were evidenced in substance abusing families: (a) Italian and Jewish fathers were enmeshed with their child; (b) White Anglo-Saxon Protestant (WASP) fathers were disengaged with their child; and (c) Irish fathers were disengaged from their child, with frequent absence. They suggest that weak communication and the lack of emotional cohesion, typified in some WASP families, may potentiate youths' vulnerability to negative peer influence. Kaufman and Borders (1984) suggested that a pattern of parental substance misuse in WASP families was complemented by adolescent substance misuse that served a functional position in such a family system.

#### Previous Misuse History

Selzer and Weiss (1966) suggested that suicidal ideations were a function of strained family relationships in a study of alcohol related vehicle fatalities. They were not able to determine if such relationships were present in the development of the alcoholic behavior or resultant of such behavior. Selzer et al. (1977) later indicated that people with drunk driving records had experienced less severe family relationship problems than a group of people with more progressive alcoholism. However, the relationship between these two variables seemed positively correlated as non-misusers indicated lower levels of family conflict than either of the previous groups. Moos, Bromet, Tsu and Moos (1979)

indicated that persons with substance abuse patterns generally came from family environments that indicated high degrees of conflict and control and show less emphasis on cohesion, expressiveness, active-recreational orientation, intellectual-cultural orientation and moral-religious values. Scoles et al. (1984) reported that a misusing group, with a 20.3% prior alcohol-related arrest record, experienced complicated life crises (including separation and divorce), various social problems (i.e., job loss, legal complications), and other family problems. It appeared evident that previous misuse history was closely related to a lack of cohesion by persons with substance abuse problems.

#### Misuse and Drinking Pattern

Alcoholic behavior patterns have been recognized as acted-out through DWI/DUI arrest, with greater pathology evidenced with more frequent and more dysfunctional levels of misuse (Scoles et al., 1984; Jacobson, 1976). Given that a lack of cohesion is frequently evidenced in families of alcoholics (McCord, 1972), assessment of family cohesion appears important to understanding misuse behavior. Moos et al. (1979) identified cohesion as an important variable in the positive outcome and long-term recovery of misusers. Orford, Oppenheimer, Egert, Hensman and Guthrie (1976) indicated that cohesion and family involvement in treatment can enhance the recovery process of misusers. Killorin and Olson (1983, 1980) emphasized the need for a balanced level of cohesion in the relationship of chemically dependent persons and their families. It was further evidenced that misusing populations appeared to function at extremes (low-disengaged or high-enmeshed). Such cohesion was evidenced to be the best predictive dimension of treatment outcome for alcoholism (Olson et al., 1980). Moos and Moos (1984) indicated that family environments of recovering alcoholics were equally as cohesive and conflictual as non-misusing families. Coleman (1982) indicated that a lack of balance intimacy boundaries of chemical

abusing persons significantly evidenced higher incidence of sexual dysfunction (i.e., incest, rape) than persons with more balanced boundaries. Glenn and Warner (1982) supported these findings in their suggestion that such behavior was a function of problem dependencies. They further indicated that cohesion was essential for the avoidance of problem dependencies and other misuse behavior.

### Age

The use of chemicals in avoidance behavior patterns negatively impacts on individuals' development of life skills (i.e., coping techniques) necessary to combat problem dependencies (Glenn & Warner, 1982; Weil & Rosen, 1983). Having acknowledged normal family tensions in parenting adolescents, Weil and Rosen (1983) suggested there was an increased sense of distrust and misunderstanding in families where misuse patterns were present. Such lack of closeness to parents appears to be as important a variable as peer influence in affecting misuse behavior in adolescents (National Institution on Drug Abuse, 1980). Hoffman et al. (1974) indicated that a similar developmental pattern was experienced by young adults, however cohesion (evidenced by less environmental conflict) appeared more constant at this developmental stage. Hoffman et al. (1974) suggest that cohesion as a function of age is a variable separate from misuse, however, affected by it.

## Family Adaptability

### Definitions

Adaptability was defined as people's ability to respond in socially appropriate adjustment to meet the demands of their environment (Wolman, 1973). Olson et al. (1979) defined adaptability as the ability of a marital/family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress. They further recommended that an adaptive family system required balancing both change (morphogenesis)



and stability (morphostasis). The following variables were identified as present in the more global concept of adaptability; assertiveness, control, discipline, negotiation styles, role relationships, relationship to rules and feedback (positive and negative) (Olson et al., 1980).

Glenn and Warner (1982) defined adaptability in relation to life skills, yielded from interaction with one's family, essential for resistance to problem dependencies. They suggested that adaptability (flexibility, well-developed situational skills) was an ability to modify behavior according to a situation in order to get one's needs met in a constructive manner.

Olson et al. (1980) indicated that moderate functional levels of adaptability served to balance families' interactional patterns. They identified four general levels of a continuous variable of adaptability (i.e., rigid, structured, flexible, and chaotic). They identified a central balanced level of adaptability of marital and family systems functioning focused on the ability of the systems to change. Glenn and Warner (1982) indicated that a person's ability to respond to change in situational and in more developmental crises was a predictor of resistance to alcohol and other problem dependencies. Family influence was identified as paramount in such life skills development (Glenn and Warner, 1982). The definition offered by Olson et al. (1980), supported by Glenn and Warner (1982), was selected for this study, as it provided a vehicle for continuous measurement.

#### Family History of Substance Abuse

Finney et al. (1983), in their evaluation of substance abusing families, indicated that both alcoholic impaired partners and spouse avoidance coping (ineffective adaptability behavior) were linked to negative family milieus. Conversely, the families of alcoholics appeared strongly affected by the levels of adaptation of the alcoholic (Moos & Moos, 1984). Wegscheider (1981) suggested that family members opt for preserving the dysfunctional level of their family

system when confronted with life's stressors. Wegscheider (1981) implied that encouragement of the alcoholic's dysfunctional misuse may be preferred by family members over more positive adaptive behavior, due to the inherent stress in change. Moos and Moos (1984) indicated that families of recovering substance misusers evidenced a clearly adaptive lifestyle over previous misuse related behavioral patterns. Such adaptive behaviors included engaging in fewer arguments, performance of more group household tasks and showed higher agreement about their joint task performance. Glynn (1984) indicated that substance addicted persons frequently experienced child-rearing and discipline with an authoritarian (rigid) matriarchal parent system.

#### Previous Misuse History

Kandel et al. (1978) indicated that prior misuse behavior was significant as a predictor of misuse, particularly as a function of conforming to peer expectations. Such peer pressure was suggested by Glenn and Warner (1982) to enhance problem dependencies where adaptability skills were deficient. Weil and Rosen (1983) suggested that the misuse of mood altering chemicals in early developmental periods, as an avoidance mechanism, was likely to potentiate such behavior in young adulthood.

#### Misuse and Drinking Pattern

As previously discussed, alcoholic behavior patterns were identified as being frequently acted out in DWI/DUI arrest (Scoles et al., 1984). Such behavior appears to be affected by a person's alcohol use level (Jacobson, 1976). Substance misuse was characterized by lack of coping (adaptive) behaviors resulting in lower degrees of assertiveness, autonomy and dominance (Hoffman, 1970). Alcoholics and drunk drivers appeared to resort more to oral substance use and less to other means of coping with tension and depression than control populations (Selzer et al., 1977). Assessment of people's adaptability styles, as a

function of family rearing, appears germane to understanding misuse behavior (Olson et al., 1980; Glenn & Warner, 1982).

Killorin and Olson (1980) identified misusers as functioning in relationships characterized by extreme levels of adaptability (i.e., extreme high-rigid, extreme low-chaotic). They suggested that efforts toward change typified a flipping from one extreme to the other thus lacking any real balanced adaptive dimension.

Beardslee and Vaillant (1984) suggested that the variable of young adult and mid-adult rigidity of superego was correlated to later alcoholic development. Such populations were suggested to function at increased risk of future alcoholism than persons with more balanced ego functioning.

Hurlburt, Gade and Fuqua (1984), in a study comparing alcoholics who used Alcoholics Anonymous and alcoholics who did not, reported that the groups differed on a dimension of adaptability. Non-Alcoholics Anonymous members appeared to wish to "tough it out" (Hurlburt et al., 1984, p. 171) while also remaining more introverted and less social in orientation than the Alcoholics Anonymous members.

### Age

Gliksmann and Smythe (1982) identified a developmental sequential pattern of alcohol misuse, influenced by peer relationships. Such involvement coincided with the general need for adaptive life skills supported by Glenn and Warner (1982). Pandina et al. (1984) supported the developmental perspective of substance misuse, indicated that an emergence and unfolding of young adult substance use behaviors interacts with other development dimensions (i.e., physical, psychological and social).

Minuchin and Fish (1981) suggested that family systems development included a dimension of adaptability. Such adaptive skills development was

perceived as both individual and systems age related (Minuchin & Fish, 1981). They suggested that the stages of a family system's development evidenced various levels of adaptability.

#### Summary

This chapter included a review of the related literature regarding general misuse of chemicals as it relates to three main variables (i.e., alcoholic trait, family cohesion and family adaptability) over age. The literature appeared to support a multi-dimensional evaluation of misuse behavior (Apfeldorf, 1978; Barnes, 1979; Connelly, 1983; Eshbaugh et al., 1982; Hoffman, 1970; Huber & Danahy, 1975; Rohan, 1972).

There was an evident heterogeneity of personality characteristics noted in the surveyed literature on alcoholic populations (Barnes, 1979; Eshbaugh et al., 1982; Jellinek, 1960). Support was evidenced for a distribution of such characteristics across the varied stages of alcoholic development resulting in varied homogeneous characteristic clusters (Conley, 1981; Eshbaugh et al., 1978). The ability to differentiate various personality and character disorders in conjunction with a common personality trait, specific to alcoholic development, was indicated (Eshbaugh et al., 1978; Finney et al., 1971; MacAndrew, 1965). The literature appears to support an influencing relationship of family misuse history and previous misuse on misuse behavior for people evidencing an alcoholic tendency (Finney et al., 1983; Glenn & Warner, 1982; Kandel et al., 1978; Schuckit, 1984; Selzer & Weiss, 1966; Selzer et al., 1977; Small, 1982).

Family dynamics of cohesion and adaptability were individually discussed as they relate to areas of alcohol misuse. Both variables were reviewed from a general developmental framework evidencing significant characteristics and levels of development related to misuse (Glenn & Warner, 1982; Olson et al., 1980). These family dynamics were reviewed as they relate to the covariates of

family misuse history and previous misuse records. The literature appears to support an influential relationship of such covariates on family dynamics (Coleman, 1982; Kaufman & Borders, 1984; McCord, 1972; Reilly, 1984; Selzer & Weiss, 1966). A bipolar framework was suggested in measuring both dimensions of family dynamics, with a central balanced dimension indicative of positive mental health (Killorin & Olson, 1980; Olson et al., 1980). The literature appears to support a relationship between misuse and family dynamics (Coleman, 1982; Glenn & Warner, 1982; Hoffman, 1970; Moos et al., 1979; Moos & Moos, 1984; Olson et al., 1980; Orford et al., 1976; Scoles et al., 1984; Selzer et al., 1977).

Age was discussed across individual trait and family dynamics. Various age appropriate developmental stages appeared to influence the development of an alcoholic trait and dysfunctional family dynamics (Glenn & Warner, 1982; Gliksman & Smythe, 1982; Hoffman et al., 1974; Pandina et al., 1984; Selzer & Weiss, 1966; Weil & Rosen, 1983).

The literature appears to support research measuring the level of alcoholic personality trait and family dynamics (cohesion and adaptability) across misuse behavior and age, with covariates of family misuse history and previous misuse behavior. Evidence for an alcoholic trait, and extreme functional levels of family cohesion and adaptability among substance misusers was presented. Such evidence leads this researcher into the following study.

## CHAPTER III

### METHODOLOGY

This chapter includes a discussion of subjects, procedures for selecting and assigning subjects, and instrumentation used in this study. The research design, procedures, and statistical design for reporting results also are included.

#### Subjects

The 200 subjects for this study were selected from the enrollment rosters of various Alcohol Drug Substance Abuse Course (ADSAC), court ordered alcohol counseling groups, and from the general population of two metropolitan areas in one Southwestern state. People who had not been arrested for Driving Under the Influence (DUI) were recruited from the following group settings: state national guard troops, three separate public and private colleges and universities, civic organizations, and other socially oriented groups (i.e., singles groups, square dancing clubs, etc.). Subjects were stratified on the following three variables: legal status (misuser or non-misuser), drinking pattern (problem drinker or social drinker) and age (18 to 29 years, 30 or more years). Subjects were placed in drinking pattern groups based on their responses to a screening questionnaire (Mortimer-Filkins Test for Identifying Problem Drinking Drivers-Questionnaire Form-A; Hazelden Foundation, 1983). Eight categorical groups were identified and matching procedures were used to assign subjects to groups to participate in this study. To enhance generalizability, efforts were taken to match subjects on the following extraneous variables: family history of substance misuse and previous misuse history. Further description of the subjects' demographic

information and validity of response to the assessment instruments was obtained (see Figure 1).

Variables	N	Family History Misuse Yes/No	Previous Misuse History Yes/No	Formal Education** 1,2,3,4	Gender M/F	Response Validity*** F-K L	
<b>Legal</b>							
DUI	100	48/52	24/76****	3,50,38,9	83/17	-10	64-T
Non-DUI	100	55/45	0/100	0,13,67,20	34/66	-9	57-T
<b>Drinking Pattern Problem</b>							
( $\bar{X}$ MFS=21.56)*	100	67/33	21/79	2,38,54,6	60/40	-7	65-T
<b>Social</b>							
( $\bar{X}$ MFS=6.79)*	100	36/64	3/97	1,25,51,23	57/43	-12	56-T
<b>Age</b>							
18 to 29 years ( $\bar{X}$ =23.21)	100	43/57	11/89	1,37,61,7	54/46	-8	62-T
≥ 30 years ( $\bar{X}$ =37.97)	100	60/40	13/87	2,32,44,22	64/36	-11	60-T

\*MFS=Mortimer-Filkins Test for Identifying Problem Drinking Drivers Questionnaire Form-A (Hazelden Foundation, 1983)  
 \*\*1 = < 8 years; 2 => 8 < 12 years; 3 => 12 < 16 years; 4 => 16 years  
 \*\*\*F-K raw score values; L T-score values (MMPI; Lachar, 1983)  
 \*\*\*\*DUI subjects with no previous misuse history evidenced a single offense of DUI

Figure 1. Summary of Subjects' Demographic Information and Response Validity Scores

The first group, (Group I: Misusing problem drinkers between 18 and 29 years of age), were operationally defined as individuals who have been referred to an educational alternative program as a result of an arrest for Driving Under the

Influence (DUI) of alcohol, ranging in age from 18 to 29 years. These individuals had been arrested for misusing alcohol and/or other drugs while operating a motor vehicle. This behavior pattern had resulted in referral for corrective consequences per their involvement with a judiciary system (i.e., municipal or county court). These people were assessed as functioning at a level of alcohol and/or other chemical use characterized by patterns of excessive use that may be partially outside of their control. This is accompanied by a growing pattern of physiological as well as psychological addiction (Hazelden Foundation, 1983).

The second group, (Group II: Misusing problem drinkers 30 or more years of age), were operationally defined as individuals who had been referred to an educational alternative program as a result of an arrest for Driving Under the Influence (DUI) of alcohol, 30 or more years old. These people had been arrested and identified as functioning at an alcohol use level similar to Group I.

The third group, (Group III: Misusing social drinkers between 18 and 29 years of age), were operationally defined as individuals who had been referred to an educational alternative program, similarly to Group I, for DUI by a judiciary system, 18 to 29 years old. These people were assessed as functioning at a level of chemical use characterized by maintaining control over their chemical consumption. Physiological and/or psychological addiction had not been markedly evidenced.

The fourth group, (Group IV: Misusing social drinkers 30 or more years of age), were operationally defined as individuals who had been referred to an educational alternative program, similar to Group I, 30 or more years old. These people had been assessed as functioning at an alcohol use level similar to Group III.

The fifth group, (Group V: Non-misusing problem drinkers between 18 and 29 years of age), were operationally defined as individuals who had never been



arrested for DUI, ranging in age from 18 to 29 years. These people had been assessed as functioning at a level of alcohol and/or other chemical use similar to Group I.

The sixth group, (Group VI: Non-misusing problem drinkers 30 or more years of age), were operationally defined as individuals who had never been arrested for DUI, 30 or more years old. These people had been identified as functioning at an alcohol use level similar to Group I.

The seventh group, (Group VII: Non-misusing social drinkers between 18 and 29 years of age), were operationally defined as individuals who had never been arrested for DUI, ranging in age from 18 to 29 years. These people had been identified as functioning at an alcohol use level similar to Group III.

The eighth group, (Group VIII: Non-misusing social drinkers 30 or more years of age), were operationally defined as individuals who had never been arrested for DUI, 30 or more years old. These people had been identified as functioning at an alcohol use level similar to Group III.

Gay (1981) suggests that randomization of group membership is not frequently attainable in causal comparative research involving large numbers of groups. Therefore, other control procedures were needed to enhance generalizability. This research used equal cell size, matching, and random discard of subjects in cells which evidenced more subjects than required (four of eight cells). Efforts were taken to match subjects on self-reported family history of abuse and previous misuse history. An attempt to balance these variables within groups was performed to minimize the influence of such extraneous variables.

A total of 25 subjects was obtained from each of the eight groups for a total of 200 subjects. Such cell size is consistent with Calfee's (1985) recommendation for obtaining meaningful treatment effect in behavioral research. Such cell size

is further consistent for obtaining medium treatment effect for research in the field of Counseling Psychology (Hasse, Waechter & Solomon, 1982).

#### Instrumentation

Two instruments were selected for identification of individual characteristics and family dynamics of the subjects. Additionally, a separate instrument was selected for placement of the misusers into two categorical fixed groups. The three instruments were the MacAndrew Alcoholism Scale (MAC) (MacAndrew, 1965), the Family Adaptability and Cohesion Evaluation Scale (FACES) III (Olson, Portner & Lavee, 1985), and the Mortimer-Filkins (Court Procedures for Identifying Problem Drinkers) Questionnaire (Form-A) (Hazelden Foundation, 1983).

#### The MacAndrew Alcoholism (MAC) Scale

The MAC Scale is a 49-item subscale of the Minnesota Multiphasic Personality Inventory (MMPI), and is administered as a function of the entire 566-item MMPI test (MacAndrew, 1965). The MAC Scale was selected because of its proven success in discriminating alcoholic and prealcoholic groups from non-alcoholic controls, within the age range 16 years through adulthood. It seems to be an accurate, stable and useful instrument which is not heavily loaded with items tapping general maladjustment or psychological distress. It appears to be the best current measure of a general personality of alcoholism (Huber & Danahy, 1975). The MAC Scale is a paper and pencil true-false test requiring 45 to 90 minutes for completion. The scale was developed at a sixth-grade reading level and can be scored by hand or by computer. Although special training in administration of the test is not required, clinical training is needed to assure accuracy in interpretation. The MAC Scale score was obtained by summing the subject's item responses that are consistent with the 37 true and 12 false MAC Scale items. Validity of each subject's score was determined by applying the

standard validity criteria of the full MMPI test (i.e., use of the validity scales; see Figure 1) (Lachar, 1983). Its flexibility as an individual or group administered instrument enhances its fit as a group administered instrument in this study.

Reliability. Vega (1971), in a study at the Oklahoma City Veterans Administration Hospital, determined that the MAC Scale revealed consistent test-retest reliability of  $r = .72$ . Rohan et al. (1969) and Rohan (1972), in studies of changes in MMPI scores of diagnosed alcoholics, reported non-significant variance in MAC Scale scores over ten-week treatment regimes (Pre  $\bar{X} = 28.2 \pm 4.5$ , Post  $\bar{X} = 28.9 \pm 5.0$ , dif =  $-.71$ ; Pre  $\bar{X} = 28.1 \pm 3.3$ , Post  $\bar{X} = 28.4 \pm 4.0$ , dif =  $-.30$ ). No correlational statistics were listed. This research evidenced a reliable assessment of a constant alcoholism tendency trait. Huber and Danahy (1975) suggested that the MAC Scale is stable over time, reporting pre-posttest scores following 90 days of treatment as follows: Pre  $\bar{X} = 29.8 \pm 4.4$ , Post  $\bar{X} = 30.2 \pm 3.9$ , dif =  $-.40$ . No correlational statistics were listed.

Validity. A point biserial correlation of  $r_{pb} = .64$  was found in a cross validation study by MacAndrew (1965). These results further indicate that the MAC Scale correctly classified 81.5% of a mixed alcoholic and non-alcoholic clinical out-patient population when a cut score of 24 was applied to 200 subjects. Rich and Davis (1969) provided evidence of concurrent validity of the MAC Scale as they significantly discriminated ( $\alpha = .01$ ) between previous diagnosed alcoholics and two control groups (i.e., normals and non-alcoholic psychiatric patients). They reported that the MAC Scale yielded correct classifications of 71%, with more false negatives than false positives. Apfeldorf and Hunley (1975) reported criterion-related validity of the MAC Scale, in a study which significantly differentiated previously diagnosed alcoholics from controls and non-alcoholic offenders. They reported that the MAC Scale correctly classified 62% of the subjects, misclassifying 7% false negatives and 30% false positives. In Vega's

(1971) assessment of two previously diagnosed alcoholic groups and two control groups (psychiatrics and non-psychiatrics) the MAC Scale significantly differentiated the alcoholic groups from the control ( $p = .01$ ; 71% correct identification, with 9.6% false negatives and 19% false positives).

### Family Adaptability and Cohesion Evaluation Scales (FACES) III

FACES III was selected for this study because of its ability to discriminate levels of family dynamics at two central dimensions (i.e., Cohesion and Adaptability). The scale was designed to measure family dynamics, thus the items attempt to focus on family system characteristics. The FACES III is a 20-item test scored from a Likert-type (Gay, 1981) scoring system, (1=Almost Never, 2=Once In A While, 3=Sometimes, 4=Frequently and 5=Almost Always) (Olson et al., 1985). The test can be administered individually or in a group format. The questions were developed at a seventh-grade reading level with a suggested completion time of 10 to 20 minutes. The scale contains 10 Cohesion items and 10 Adaptability items. The Cohesion dimension encompasses five concepts, (emotional bonding, supportiveness, family boundaries, time and friends, and interest recreation). The Adaptability dimension encompasses five concepts, (leadership, control, discipline, roles and rules).

The test yields three scores per general dimension, (perceived, ideal and satisfaction). The perceived dimension will be employed in this study. To obtain the Perceived Cohesion Score the examiner summed the total odd items on the Perceived Form of the FACES III. To obtain the Perceived Adaptability Score the examiner summed the total even items on the Perceived Form of the FACES III. The subjects were instructed to respond to the 20-item questionnaire as they perceived the function of their family of origin. Thus, responses yielded a score based on a retrospective perception of their family of origin. Sobell, Sobell, Riley, Schuller, Pavan, Concilla, Klajner and Leo (1988), in a study of reliability

of self-report by alcohol abusers, found reports about drinking and life events that occurred in the distant past are generally reliable. Their responses were scored on a continuous scale format ranging from a perceived low-extreme (i.e., Cohesion-Disengaged; Adaptability-Rigid) to a perceived high-extreme (i.e., Cohesion-Enmeshed; Adaptability-Chaotic). A score ranging in the central region of either dimension evidenced a more adaptive, balanced adjustment.

Reliability. To establish reliability, Olson et al. (1985) used two sample groups of subjects from a national survey of 2,412 individuals. Respondents were from "non-problem" families ranging across the life cycle from young couples with no children to retired couples whose families had left home. A rational equivalence reliability method (Issac & Michael, 1983) estimated internal consistency of the two subscales to be cohesion = .77, adaptability = .62.

Validity. Construct validity was established through factor analysis of the above sample groups' responses to the test items. The results indicated two independent and orthogonal dimensions yielding a Pearson correlation between the two scales of  $r = .03$ . Additional evidence of construct validity of the two scales was a high correlation of the items within each scale with the total scores of the respective scales (Olson et al., 1985).

The FACES III was developed in such a manner as to reduce social desirability. The correlation between adaptability and social desirability was reduced to zero (0). The correlation between cohesion and social desirability was maintained at  $r = .35$ , as this dimension was perceived as more culturally embedded as an ideal for families (Olson et al., 1985).

#### The Mortimer-Filkins Test for Identifying Problem Drinking Drivers - Questionnaire (Form-A)

This instrument was selected for its use in differentiating problem drinkers from social drinkers (non-problematic) in a D.U.I. population. The Questionnaire

(Form-A) is a portion of the entire Mortimer-Filkins Test for Identifying Problem Drinking Drivers. The full test includes an additional individual screening interview with the above mentioned questionnaire. The Questionnaire (Form-A) can be individually or group administered and thus was selected to be used in group assessment in this study. Jacobson (1976) suggested the Questionnaire (Form-A) was particularly suitable for use with populations which may have reason to conceal drinking problems as it is subtle, non-threatening, and without obvious face validity.

The Questionnaire (Form-A) is a paper and pencil test consisting of 58 items requiring a true-false response. Two separate scoring keys are used to tally responses from the two subscales. The first scoring key is used to tally the problem drinking items. The sum of key 1 must be multiplied by 2 to arrive at the proper weighted score. The second scoring key is used to tally neurotic (anxiety) items. Its score is weighted -1 and subtracted from the first sum to obtain the final questionnaire score (Jacobson, 1976). Categorical cut-off scores for problem drinkers and social drinkers, in a misuser population, were established for Questionnaire (Form-A) as follows: problem drinkers =  $\geq 16$ , SEM  $\pm 4$ ; social drinkers =  $\leq 11$ , SEM  $\pm 4$ . A third group (excessive drinkers) with scores of 12 to 16 were excluded from this study to enhance accuracy of categorical group placement. The above scores are based on the revised recommended cut-off scores for D.U.I. client classification (Filkins et al., 1973).

Reliability. The initial reliability studies are based on data from 192 known alcoholics and 297 control subjects. Internal consistency reliability was obtained using split-half correlation coefficients, corrected by the Spearman-Brown formula (Issac & Michael, 1983) were as follows: questionnaire scale 1 (problem drinking stems) = .95, questionnaire scale 2 (neurotic tendency stems) = .94 and overall Questionnaire (Form-A) = .90 (Filkins et al., 1973). A follow-up review of

three problem drinker screening instruments (Mischke & Venneri, 1987) reports lower internal consistency reliability than originally reported by Filkins et al. (1973) with questionnaire scale 1, questionnaire scale 2, and overall questionnaire as .79, .78, and .72, respectively.

Validity. To establish validity, criterion were identified from the literature as well as evidenced characteristics of known alcoholics/problem drinkers (i.e., drinking records, alcohol related medical problems and personality changes) to form items on the Questionnaire (Form-A). A total of 192 diagnosed alcoholics/problem drinkers and 297 control subjects were randomly assigned to two subgroups and tested. Items which significantly discriminated between alcoholics and controls were retained to form scoring keys for each of the subgroups. A cross validation procedure was employed whereby the scoring key developed for one of the subgroups was used to score the responses of the subjects of the other subgroup on the significant items identified in the validation study. The reversed procedure was also used. The point-biserial correlation coefficients between the entire, combined subgroups' scores and the criterion group membership indicated concurrent validity of  $r = .85$  for the Questionnaire (Form-A) (Filkins et al., 1973). Criterion validity reported in a follow-up review of three problem drinker screening instruments (Mischke & Venneri, 1987) evidenced a lower correlation ( $r=.46$ ) than reported above by Filkins et al. (1973).

#### Procedure

Volunteers were solicited for participation in this study from two metropolitan areas in one Southwestern state. People referred to educational alternative programs for drunk driving (ADSAC and court ordered alcohol counseling groups) along with the general public were solicited. To coordinate the participation from people in ADSAC and court groups, this researcher worked through the schools' administrators through an association of D.U.I. school

administrators and counseling center coordinators. To coordinate the participation from the general population this researcher contacted various organizations (i.e., national guard, civic clubs, universities, and other social groups). Specific times were established for group participation in screening and evaluation.

A total of 416 volunteers were administered a screening battery to assess their eligibility within the categorical groupings. The screening battery consisted of a demographic information and critical item questionnaire and the Mortimer-Filkins Questionnaire (Form-A). The specific critical items were directed toward determining group eligibility on the following two independent variables: (a) legal status (misuser vs. non-misuser) and (b) age (18 years to 29 years vs. 30 or more years). Additional critical items were included to assist in matching the groups on the following extraneous variables: (a) family history of substance abuse and (b) subjects' previous misuse history. The Mortimer-Filkins Questionnaire (Form-A) was used to determine group eligibility on the third independent variable, drinking pattern (problem drinker vs. social drinker). A majority of volunteers (334) were administered the full dependent variables evaluation at the same time of their administration of the screening battery to minimize attrition. A second strategy of scoring subjects' (N=82) prescreening batteries and recontacting selected subjects (N=15) was employed to complete subject placement in four of the eight groups (groups 3, 4, 5, and 6) This researcher scored all prescreening batteries to determine group eligibility of the volunteers. Volunteers were solicited until 25 subjects from each of the eight categorical groups for this study were obtained.

The dependent variables evaluation consisted of the MacAndrews Alcoholism Scale, through administration of the MMPI full 566 items, and the FACES III. The MMPI yielded the alcoholism personality trait dependent variable through its MAC



Scale Subscale. The FACES III yielded the family cohesion and family adaptability dependent variables through its Cohesion and Adaptability Subscales.

#### Research Design

The design used in this study is causal-comparative in nature. The stratification variables are legal status, drinking pattern, and age, matched on family history of substance abuse and subjects' previous misuse history. The design was selected because of the ex post facto nature of the independent variables, whereby manipulation is not feasible. Limitations to the generalizability of this design are inherent in loss of control over such variables. Despite its limitations, a causal-comparative design is useful in an attempt to establish the cause or reason for existing differences of comparison groups (Gay, 1981). (See Figure 2.)

#### Statistical Analysis

A three-way between subjects MANOVA (Tabachnick & Fidell, 1983) was originally planned to analyze the results of this study; however, upon examination of the error correlation matrix of the dependent variables, it was determined that a construct was not formed. Therefore, three totally random group analyses of variance were performed using each of the three dependent variables. The fixed independent variables were legal status (DUI, non-DUI), drinking pattern (problem, social), and age (18 to 29 years, 30 or more years). The dependent variables were alcoholic personality trait as measured by the MacAndrew Alcoholism Scale, and two measures of family dynamics, family cohesion and family adaptability, as measured by the Family Adaptability and Cohesion Evaluation Scale. Omega squared was the strength of association test performed on all significant results.

			Ind. Var. #1	Ind. Var. #2	Ind. Var. #3	Dep. Var. #1	Dep. Var. #2	Dep. Var. #3
Matching Variables	Groups		(Legal Status)	(Drinking Pattern)	(Age)	(Alcoholic Tendency)	(Family Cohesion)	(Family Adapt- ability)
M <sub>1</sub> M <sub>2</sub>	I		(X <sub>1</sub> )	(X <sub>3</sub> )	(X <sub>5</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub> M <sub>2</sub>	II		(X <sub>1</sub> )	(X <sub>3</sub> )	(X <sub>6</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub> M <sub>2</sub>	III		(X <sub>1</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub> M <sub>2</sub>	IV		(X <sub>1</sub> )	(X <sub>4</sub> )	(X <sub>6</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub>	V		(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>5</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub>	VI		(X <sub>2</sub> )	(X <sub>3</sub> )	(X <sub>6</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub>	VII		(X <sub>2</sub> )	(X <sub>4</sub> )	(X <sub>5</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>
M <sub>1</sub>	VIII		(X <sub>2</sub> )	(X <sub>4</sub> )	(X <sub>6</sub> )	○ <sub>MAC</sub>	○ <sub>Coh</sub>	○ <sub>Adpt</sub>

Symbols:

(X) independent variable; ( ) indicates no manipulation

○ dependent variable

M matching variables

X<sub>1</sub> Misuser

X<sub>2</sub> Non-Misusers

X<sub>3</sub> Problem Drinker

X<sub>4</sub> Social Drinker

X<sub>5</sub> 18 to 29 Years

X<sub>6</sub> ≥ 30 Years

○<sub>MAC</sub> MacAndrews Scale

○<sub>Coh</sub> Family Cohesion Scale

○<sub>Adpt</sub> Family Adaptability Scale

M<sub>1</sub> Family history of substance abuse

M<sub>2</sub> Subjects' previous misuse history

Figure 2. Research Design

## CHAPTER IV

### RESULTS

The results of the statistical analyses along with an interpretation of the data collected are presented in this chapter. A summary of the results is provided at the conclusion of this chapter.

An examination of the error correlation matrix of the dependent variables reported in Table 1 indicates that there were not enough correlation coefficients of large enough size ( $\geq .35$ ) to have formed a construct; therefore, rather than a MANOVA, three three-factor totally random group analyses of variance were performed using each of the three dependent variables, Alcoholic Personality Trait, Family Cohesion, and Family Adaptability. The three factor analyses of variance resulted in no two nor three way interactions for any of the three dependent variables. Statistically significant differences were evidenced ( $p < .05$ ) demonstrating the effect of both legal status and drinking pattern on the dependent variable alcoholic personality trait. Drinking pattern further evidenced an effect on the dependent variables of family cohesion and family adaptability. Patterns of significant main effects are presented separately for each hypothesis in the order of the presented independent variables.

Hypothesis 1: There is no significant difference between the alcoholic personality trait of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

For the legal status main effect the only dependent variable yielding significance was alcoholic personality trait. An examination of the summary

Table 1

Within Cells Error Correlation Matrix for Alcoholic  
Personality Trait, Cohesion, and Adaptability

	Alcoholic Personality Trait	Cohesion	Adaptability
Alcoholic Personality Trait	4.00	--	--
Cohesion	-.13	4.06	--
Adaptability	-.07	.14	6.15

table reported in Table 2 indicates a statistical significance,  $F(1,192)=33.66$ ,  $p < .05$ ; thus, Hypothesis 1 was rejected. An examination of the means reported in Table 3 shows that people who have received DUI arrest(s) have a higher degree of alcoholic personality trait ( $\bar{X}=25.47$ ) than people who have not received DUI arrest(s) ( $\bar{X}=22.19$ ). The strength of association as indexed by omega squared indicated that 14% of the variance in alcoholic personality trait was accounted for by legal status.

Hypothesis 2: There is no significant difference between the alcoholic personality trait of problem drinkers and social drinkers.

For the drinking pattern main effect the dependent variable alcoholic personality trait yielded a significant difference. An examination of the summary table reported in Table 4 indicates a statistical significance,  $F(1,192)=28.92$ ,  $p < .05$ ; thus, Hypothesis 2 was rejected. An examination of the means reported in Table 5 shows that problem drinkers have a higher degree of

Table 2  
Summary Table of Legal Status Main Effect  
for the Alcoholic Personality Trait

Source	SS	df	MS	F
Legal Status	537.92	1	537.92	33.66*
Within Groups (error)	3068.00	192	15.97	--
Total	3605.92	193	--	--

\*p < .05

Table 3  
Means and Standard Deviations of Alcoholic Personality Trait,  
Family Cohesion, and Family Adaptability of People Who  
Have Had One or More Arrests for DUI and People Who  
Have Not Received an Arrest for DUI<sup>a</sup>

Variable	DUI <sup>b</sup>	Non-DUI <sup>c</sup>
Alcoholic Personality Trait	25.47 <sup>d</sup> (4.12)	22.19 (3.82)
Family Cohesion	6.94 (5.78)	8.14 (6.36)
Family Adaptability	6.47 (4.19)	6.32 (3.88)

<sup>a</sup>N = 200

<sup>b</sup>n<sub>1</sub> = 100

<sup>c</sup>n<sub>2</sub> = 100

<sup>d</sup>Top value reports the mean; bottom value reports standard deviation

Table 4

Summary Table of Drinking Pattern Main Effect for the Alcoholic Personality Trait

Source	SS	df	MS	F
Drinking Pattern	462.08	1	462.08	28.92*
Within Groups (error)	3068.00	192	15.98	--
Total	3530.08	193	--	--

\*p < .05

Table 5

Means and Standard Deviations of Alcoholic Personality Trait, Family Cohesion, and Family Adaptability of Problem Drinkers and Social Drinkers<sup>a</sup>

Variable	Problem Drinkers <sup>b</sup>	Social Drinkers <sup>c</sup>
Alcoholic Personality Trait	25.35 <sup>d</sup> (4.21)	22.31 (3.71)
Family Cohesion	8.88 (6.74)	6.20 (5.40)
Family Adaptability	7.08 (4.05)	5.71 (4.03)

<sup>a</sup>N = 200

<sup>b</sup>n<sub>1</sub> = 100

<sup>c</sup>n<sub>2</sub> = 100

<sup>d</sup>Top value reports the mean; bottom value reports standard deviation

alcoholic personality trait ( $\bar{X}=25.35$ ) than social drinkers ( $\bar{X}=22.31$ ). The strength of association as indexed by omega squared indicated that 13% of the variance in alcoholic personality trait was accounted for by drinking pattern.

Hypothesis 3: There is no significant difference between the alcoholic personality trait of people between the ages 18 to 29 years and people 30 or more years old.

For the age main effect the dependent variable alcoholic personality trait yielded no significant difference. An examination of the results indicates no significant ( $p > .05$ ) difference between people 18 to 29 years of age and people 30 or more years of age; thus, Hypothesis 3 failed to be rejected.

Hypothesis 4: There is no significant difference between family cohesion in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

For the legal status main effect the dependent variable alcoholic personality trait yielded no significant difference. An examination of the results indicates no significant ( $p > .05$ ) difference between people who have received DUI arrest(s) and people who have not received DUI arrest(s); thus, Hypothesis 4 failed to be rejected.

Hypothesis 5: There is no significant difference between family cohesion in families of origin of problem drinkers and social drinkers.

For the drinking pattern main effect the dependent variable family cohesion yielded a significant difference. An examination of the summary table reported in Table 6 indicates a statistical significance,  $F(1,192)=9.50$ ,  $p < .05$ ; thus, Hypothesis 5 was rejected. An examination of the means reported in Table 5 shows that problem drinkers demonstrate an absolute greater variance from the balanced mid-range of family cohesion ( $\bar{X}=8.88$ ) than

Table 6

Summary Table of Drinking Pattern MainEffect for Family Cohesion

Source	SS	df	MS	F
Drinking Pattern	359.12	1	359.12	9.50*
Within Groups (error)	7257.44	192	37.80	--
Total	7616.56	193	--	--

\*p &lt; .05

social drinkers ( $\bar{X}=6.2$ ). The strength of association as indexed by omega squared indicated that 4% of the variance in family cohesion was accounted for by drinking pattern.

Hypothesis 6: There is no significant difference between family cohesion in families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

For the age main effect the dependent variable family cohesion yielded no significant difference. An examination of the results indicates no significant ( $p > .05$ ) difference between people ages 18 to 29 years old and people 30 years and older; thus, Hypothesis 6 failed to be rejected.

Hypothesis 7: There is no significant difference between family adaptability in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).



For the legal status main effect the dependent variable yielded no significant difference. An examination of the results indicates no significant ( $p > .05$ ) difference between people who have received DUI arrest(s) and people who have not received DUI arrest(s); thus, Hypothesis 7 failed to be rejected.

Hypothesis 8: There is no significant difference between family adaptability in families of origin of problem drinkers and social drinkers.

For the drinking pattern main effect the dependent variable family adaptability yielded a significant difference. An examination of the summary table reported in Table 7 indicates a statistical significance  $F(1,192)=5.70$ ,  $p < .05$ ; thus, Hypothesis 8 was rejected. An examination of the means reported in Table 5 shows that problem drinkers demonstrate an absolute greater variance from the balanced mid-range of family adaptability ( $\bar{X}=7.08$ ) than social drinkers ( $\bar{X}=5.71$ ). The strength of association as indexed by omega squared indicated that 2% of the variance in family adaptability was accounted for by drinking pattern.

Table 7

Summary Table of Drinking Pattern Main Effect for Family Adaptability

Source	SS	df	MS	F
Drinking Pattern	93.84	1	93.84	5.70*
Within Groups (error)	3158.40	192	16.45	--
Total	3252.24	193	--	--

\* $p < .05$

Hypothesis 9: There is no significant difference between family adaptability in families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

For the age main effect the dependent variable family adaptability yielded no significant difference. An examination of the results indicates no significant ( $p > .05$ ) difference between people ages 18 to 29 years and people 30 years and older; thus Hypothesis 9 failed to be rejected.

A summary of means and standard deviations for the dependent variables is presented in Table 8.

#### Summary

The results of this study were presented in this chapter which included the statistical analysis as well as the interpretation of the data collected. A three-way analysis of variance was performed on each of the three dependent variables since a multivariate analysis for this study was not appropriate as was indicated by the small values in the within cells error correlation matrix. The analyses of variance resulted in the rejection of null hypotheses 1, 2, 5, and 8, and in failure to reject hypotheses 3, 4, 6, 7, and 9. The results suggest that people with DUI arrest(s) evidence more of an alcoholic personality trait than people with no DUI arrest(s). The results also suggest that problem drinkers evidence more of an alcoholic personality trait, as well as greater absolute variance from balanced mid-ranges of family cohesion and family adaptability in families of origin. The results suggest no significant difference of the absolute variance from balanced mid-ranges of family cohesion and family adaptability in families of origin of people with DUI arrest(s) than people with no DUI arrest(s). The results also suggest no significant difference between age groups (18-29 years,  $\geq$  30 years) regarding alcoholic personality trait, and the absolute variance from balanced mid-ranges of family cohesion and family adaptability in families

Table 8  
Summary Table of Means and Standard Deviations for  
the Dependent Variables (MAC Scale Score, Absolute  
Adaptability Score and Absolute Cohesion Score

Variables	MAC Score		Absolute Adaptability Score		Absolute Cohesion Score	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Legal						
One of more DUI(s)	25.47	4.50	6.47	4.25	6.94	5.98
No DUI	22.19	4.02	6.32	3.99	8.14	6.51
Drinking Pattern						
Problem (MFS $\geq$ 16)*	25.35	4.61	7.08	4.07	8.88	6.73
Social (MFS $\leq$ 11)*	22.31	3.99	5.71	4.06	6.20	5.47
Age						
18 to 29 years	24.17	4.84	5.84	4.00	7.23	6.18
$\geq$ 30 years	23.49	4.27	6.95	4.17	7.85	6.36

\*MFS = Mortimer-Filkins Questionnaire (Form-A) Score

of origin. The results of omega squared strength of association test indicates a weak relationship between drinking pattern and family cohesion (.04). A weak relationship between drinking pattern and family adaptability (.02) is indicated. Stronger relationships between legal status and alcoholic personality trait (.14) and between drinking pattern and alcoholic personality trait (.13) were indicated. According to Linton and Gallo (1975), variance in the dependent variable of

greater than 10%, as a function of the independent variable, ranks above the average for most studies in the behavioral sciences.

CHAPTER V  
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to determine ways in which people arrested for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI), who were additionally identified as either problem or social drinkers, and either 18 to 29 years old or 30 or more years old differ in degree of alcoholic personality trait and two measures of family dynamics (cohesion and adaptability). This study involved eight groups of people from two major metropolitan cities in one Southwestern state. Specifically, the subjects were 200 adults ( $\geq 18$  years of age) who were distributed equally across eight groups as follows: 25 problem drinkers with one or more DUI arrests, 18 to 29 years old; 25 social drinkers with one or more DUI arrests, 18 to 29 years old; 25 problem drinkers with one or more DUI arrests,  $\geq 30$  years old; 25 social drinkers with one or more DUI arrests,  $\geq 30$  years old; 25 problem drinkers with no DUI arrests, 18 to 29 years old; 25 social drinkers with no DUI arrests, 18 to 29 years old; 25 problem drinkers with no DUI arrests,  $\geq 30$  years old; and 25 social drinkers with no DUI arrests,  $\geq 30$  years old. Participation was voluntary and the participants were requested to complete the MacAndrew Alcoholism (MAC) Scale (MacAndrew, 1965) through full administration of the MMPI, the Family Adaptability and Cohesion Evaluation Scales (FACES III) (Olson, Portner, & Lavee, 1985), the Mortimer-Filkins Test for Identifying Problem Drinking Drivers-Questionnaire (Form-A) (Jacobson, 1976), and a demographic information and critical items questionnaire. The eight groups were compared on a measure of

alcoholic personality trait and two measures of family dynamics, family cohesion and family adaptability.

Specifically, the nine hypotheses generated for this study were as follows:

**Hypothesis 1:** There is no significant difference between the alcoholic personality trait of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

**Hypothesis 2:** There is no significant difference between the alcoholic personality trait of problem drinkers and social drinkers.

**Hypothesis 3:** There is no significant difference between the alcoholic personality trait of people between the ages of 18 to 29 years and people 30 or more years old.

**Hypothesis 4:** There is no significant difference between family cohesion in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

**Hypothesis 5:** There is no significant difference between family cohesion in families of origin of problem drinkers and social drinkers.

**Hypothesis 6:** There is no significant difference between family cohesion of families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

**Hypothesis 7:** There is no significant difference between family adaptability in families of origin of people arrested one or more times for driving under the influence (DUI) and people not arrested for driving under the influence (non-DUI).

**Hypothesis 8:** There is no significant difference between family adaptability in families of origin of problem drinkers and social drinkers.

**Hypothesis 9:** There is no significant difference between family adaptability in families of origin of people between the ages of 18 to 29 years and people 30 or more years old.

Analyses of variance with an alpha level of .05 were used for the statistical analyses of the data. Statistically significant differences were found for four of the nine hypotheses. The people arrested one or more times for driving under the influence (DUI) were found to have more of an alcoholic personality trait than those never arrested for driving under the influence (non-DUI). The people identified as problem drinkers were found to have more of an alcoholic personality trait, as well as greater absolute variance from the balanced mid-range of two measures of family dynamics, family cohesion and family adaptability, than people identified as social drinkers. No statistically significant differences were found for people with DUI arrests and no DUI arrests on the two measures of family dynamics, family cohesion and family adaptability. No statistically significant differences were found between the two age groups of people between 18 to 29 years and 30 or more years old on alcoholic tendency and the two measures of family dynamics, family cohesion and family adaptability. Review of the omega squared results showed the strength of association between legal status and the dependent variable, alcoholic personality trait, to be .14. Omega squared results showed the strength of association between level of drinking pattern and the dependent variables to be .13 for alcoholic personality, .04 for family cohesion and .02 for family adaptability.

### Conclusions

Based on the findings of this study, the following conclusions are offered.

1. The results of this study support similar studies reviewed in the literature. For example, Selzer and Weiss (1966) determined that persons who had been diagnosed as alcoholic or pre-alcoholic demonstrated significantly more convictions for intoxicated driving than non-alcoholic groups. Selzer et al.'s (1977) study concluded that persons with prior drunk driving arrest records evidenced similar social irresponsibility as persons diagnosed as alcoholics. The

results of this study seem to indicate that persons arrested for one or more incidents of driving under the influence of alcoholic ( $BAC \geq .10$ ) demonstrate a personality trait consistent with alcoholic behavior. The demonstrated means of the two comparison groups in this study (DUI, non-DUI) were consistent with those reported by MacAndrew (1965) for differentiation of alcoholic and non-alcoholic personality tendency (alcoholic personality trait cut off score  $\geq 24$ ; see Table 8). The results of the omega squared strength of association test appear to indicate a strong relationship between legal status and alcoholic tendency (.14). It appears that a portion of our population, those receiving DUI arrest, may be experiencing a significant degree of loss of control over their use of alcohol. These same people may minimumly be experiencing an over reliance (dependency) on a mood altering substance in the routine management of their lives.

2. Problem and social drinkers from two metropolitan areas were tested for alcoholic personality trait. The results evidenced similarities to prior research. The Hazelden Foundation (1983) study suggested that 40 to 65% of the misusing population are problem drinkers who function at a critical level of alcoholic behavior. This research, using a design for similarly matched groups (50% problem drinkers, 50% social drinkers), to the Hazelden Foundation seems to support that problem drinkers evidence a greater critical level of alcoholic personality trait. Such a trait was again evidenced at a level of differentiation of alcoholic from non-alcoholic personality to MacAndrew (1965) recommended cut-off raw scores (see Table 8). An examination of the omega square strength of association seems to indicate a fairly strong relationship between drinking pattern and the dependent variable alcoholic personality trait (.13).

It seems that a portion of the people receiving DUI arrest, those identified as problem drinkers, may be functioning at a critical level of alcohol dependency. This research seems to support the need for differential application of social



consequences for people receiving DUI arrest. The current efforts to ensure all people arrested for DUI complete a ten-hour educational program may be an inadequate solution for a substantial portion of this group of offenders. This research seems to support the need for court required assessment of all people arrested for DUI to improve on the efficacy of remedial and rehabilitative services for such portion of our population.

3. Hoffman et al. (1974) suggested that personality characteristics of persons evidencing alcoholic behavior at an older age may be present in young adulthood. Other research (Selzer & Weiss, 1966) suggested an expected evolution and development of such trait over time. This research tends to support the former, demonstrating no significant difference in alcoholic personality trait over time. A slight inverse relationship was demonstrated (see Age means, Table 8).

4. This research failed to support the literature regarding lack of balanced cohesion in families of origin of people evidencing dysfunctional alcohol use patterns. The research design, including an equal distribution of social and problem drinkers per comparison group (problem drinkers N = 100, social drinkers N = 100), may have contributed to such results. Based on the sampling procedure used in this study (matching), it is this researcher's view that a random selection of subjects who have received DUI arrest would result in comparison groups ranging from 60% to 85% problems drinkers and 40% to 15% social drinkers. It is expected that such comparison groups would evidence greater variance in levels of family cohesion.

5. Coleman (1982) demonstrated that a lack of balanced intimacy boundaries of chemical abusing persons significantly evidenced higher incidents of social problems than persons with more demonstrated balanced boundaries. Killorin and Olson (1983, 1980) emphasized the need for a more balanced level of cohesion in the abuser's relationship to their family. The findings of this study

enhance and support the literature as they suggest a problem drinker's family of origin is an important contributor to current drinking patterns. This research suggests that problem drinkers view their family of origin as evidencing greater variance from a balanced mid-range of cohesion than social drinkers. Glenn and Warner (1982), from a developmental perspective, suggest that cohesion is essential for the avoidance of problem dependencies. This research seems to support the need for more effective understanding and application of those aspects of family cohesion (Olson, 1980) which enhance a balanced level of interaction with one's environment. Inclusion of such family relations components in remedial and rehabilitative services may potentiate a problem drinker's adjustment to former dysfunctional family patterns.

6. This research failed to demonstrate differences in family cohesion in families of origin of two separate age groups. This may indicate that no meaningful difference in patterns of family involvement in the families of origin exist over time.

7. This research failed to demonstrate differences in family adaptability in families of origin of two separate age groups. This may suggest that no meaningful difference in patterns of establishing and managing family rules in families of origin exist over time.

8. The results of this study lend support to Olson et al. (1980) and Glenn and Warner (1982) who suggest that assessment of people's adaptability styles, as a function of family rearing, appears germane to understanding alcohol misuse behavior. This research suggests that a problem drinker's family of origin has a substantial influence on their current drinking pattern. This research finds that problem drinkers view their family of origin as evidencing greater variance from a balanced mid-range of adaptability than social drinkers. Third, this study appears to support the need for better understanding and application, by problem drinkers,

of those aspects of family adaptability (Olson, 1980) which enhance a balanced level of responsibility to one's environment. Inclusions of such family rules components in remedial and rehabilitative services may potentiate a problem drinker's adjustment to former dysfunctional family patterns.

9. This research failed to demonstrate differences in family adaptability in families of origin of two separate age groups. This may indicate that no meaningful difference in patterns of establishing and managing family rules in families of origin exist over time.

#### Recommendations for Future Research

Based on these findings, the following recommendations for future research are made.

1. Random sampling should be used in future research to enhance generalizability of the results. A conscious effort was made in this study to obtain equal cell size for the variable drinking pattern (problem, social); however, a more true representation of the DUI population will additionally enhance generalizability.

2. Research using a more in-depth screening effort beyond the presented questionnaire will enhance the accuracy of discriminating the two levels of the independent variable, drinking pattern (problem, social). Such enhanced discrimination will support more efficient use of remedial alternatives.

3. Longitudinal research should be conducted to determine if treatment and other forms of remediation impact alcoholic tendency and current family dynamics of family cohesion and family adaptability, as compared to such family dynamics of one's family of origin.

4. Additional research directed toward determining specific characteristics of misusers' families of origin which continue to contribute to current misuse behavior may enhance remedial and rehabilitative services.

5. Research directed at assessing reliability of the MacAndrew Alcoholism Scale as a separate instrument outside of the entire MMPI may assist researchers in shortening the assessment time for volunteer subjects in similar alcohol research.

#### Implications for Counselors

Based on the findings of this study, the following recommendations for counselors are made:

1. Counselors working with individuals who have evidenced arrest for one or more DUIs should consider the probability that alcohol treatment issues may need to be addressed as a primary presenting concern, including all aspects of chemical dependency, before other therapeutic issues. Assessment for levels of chemical dependency is warranted.

2. Counselors working with individuals who have been identified as problem drinkers through courts' assessment programs should consider the pre-alcoholic or alcoholic behavior of the client and support related issues in treatment planning, beyond the frequently required educational/information services of alcohol, drug, substance abuse courses (DUI schools).

3. Counselors working with individuals who have been evaluated by the courts as problem drinkers should recognize the likelihood that such people have been reared in family systems that have evidenced disengaged and/or enmeshed levels of family cohesion. Similarly, such families have likely demonstrated rigid and/or chaotic levels of family adaptability. Counselors should consider the effects of being reared in such family systems on their clients and develop treatment strategies focused toward differentiating from such family patterns. Treatment goals should include strategies for assisting the individual to move toward a more balanced level of both family dynamics in their current family system.

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## APPENDIXES

APPENDIX A  
VOLUNTEER CONSENT FORM

Volunteer Consent Form

I, \_\_\_\_\_, hereby voluntarily consent to participate in all aspects of this research study. I understand that all information received from my participation in this study will be kept in a strict confidential manner. I further understand that all identifiable records will be destroyed once the research has been completed.

I have read the above consent statement and am of majority age, thus responsible for my decision to participate. I do so under no coercion or external obligation of this researcher or any other party.

Signature:

\_\_\_\_\_

Date:

\_\_\_\_\_



APPENDIX B  
INTAKE QUESTIONNAIRE

Intake Questionnaire

PERSONAL

Number: \_\_\_\_\_  
Age: \_\_\_\_\_  
Sex: \_\_\_\_\_  
Race: \_\_\_\_\_  
Profession: \_\_\_\_\_ Job Title: \_\_\_\_\_  
Other Technical Training Type: \_\_\_\_\_  
Level Achieved: \_\_\_\_\_  
Marital Status: Single \_\_\_\_\_ Married \_\_\_\_\_ Divorced \_\_\_\_\_ Widowed \_\_\_\_\_  
Number of times Married \_\_\_\_\_

FAMILY

I grew up in a family that had: \_\_\_\_\_ Both biological parents present  
\_\_\_\_\_ One biological parent present  
\_\_\_\_\_ One biological parent, Other parent lived elsewhere (divorced/separation)  
\_\_\_\_\_ Other: (explain) \_\_\_\_\_

I grew up in a family that had: # \_\_\_\_\_ Male children and # \_\_\_\_\_ Female children

I was the \_\_\_\_\_ child in the family in which I grew up.  
(Birth Order)

The following persons in my opinion have shown signs of having a problem(s) with their use of Alcohol and/or other Drugs:

\_\_\_\_ Father \_\_\_\_ Mother \_\_\_\_ Stepparent(s) \_\_\_\_ Grandparent(s) \_\_\_\_ Brother(s)  
\_\_\_\_ Sister(s)

ALCOHOL AND/OR DRUG HISTORY:

Number of times you have been arrested for D.W.I./D.U.I.: \_\_\_\_\_

Please list (to the best of your knowledge) the approximate Breathalyzer Readings that you obtained during these arrests:

1st \_\_\_\_\_ 2nd \_\_\_\_\_ 3rd \_\_\_\_\_ 4th \_\_\_\_\_ 5th \_\_\_\_\_  
(BAC) (BAC) (BAC) (BAC) (BAC)

At what age did you first use (consume) alcohol and/or drugs? \_\_\_\_\_

At what age did you use (consume) the greatest volume of alcohol and/or other drugs? \_\_\_\_\_

During the time of greatest volume use (consumption) my pattern of use was:

\_\_\_ Daily \_\_\_ 2 to 3 times per week \_\_\_ weekends \_\_\_ once or twice a month

\_\_\_ Holidays \_\_\_ less than once a year

ACADEMIC

Number of years of Education completed:

\_\_\_ Grade school

\_\_\_ High School

\_\_\_ College

\_\_\_ Graduate School

VITA

Paul Gerard Tobin

Candidate for the Degree of

Doctor of Philosophy

**Thesis:** ALCOHOLIC PERSONALITY TRAIT AND FAMILY DYNAMICS OF ALCOHOL MISUSERS

**Major Field:** Applied Behavioral Studies

**Specialization:** Counseling Psychology

**Biographical:**

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