

USING TFA SYSTEMS (tm) TO ASSESS BEHAVIOR PATTERNS
OF ALCOHOLICS WHO ACHIEVE SOBRIETY

by

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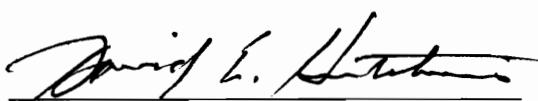
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(ABSTRACT)

The purpose of the study was to compare behavior patterns of alcoholics before and after they stopped drinking. Specifically, changes in the interactions of thinking, feeling, and acting behavior components of two groups of recovering, non-relapsed, alcoholics with 6 months or less and a third group with 5 or more years of sobriety were analyzed.

The study used TFA Systems (tm), an integrated and multidisciplinary theoretical model, to discern factors related to stopping drinking and maintaining sobriety. Research methodology included purposeful sampling from AA, residential, and outpatient substance abuse centers. The Hutchins' Behavior Inventory (HBI) was used to assess behavior in high risk drinking situations for: (a) before starting to drink behavior [Group 1]; (b) 6 months or less of short-term sobriety behavior [Group 2]; and (c) 5 years or more sobriety behavior [Group 3]. Results were analyzed using quantitative and qualitative methods. Responses from a structured interview were analyzed using methods from the TFA/HBI Analytic Guide and the askSam

data management system.

The short-term recovery groups differed in demographic factors from the group with 5 or more years of sobriety. Past drinking behavior was characterized with a Feeling-Acting-Thinking (F-A-T) sequential orientation. Those with six months or less sobriety had a Feeling-Thinking-Acting (F-T-A) orientation. People with five or more years of sobriety had a Thinking-Feeling-Acting (T-F-A) orientation with integrated and nearly balanced TFA triads. Qualitative measures indicated that with longer sobriety anticipatory thoughts about drinking changed to thoughts of positive alternatives and positive self-focus.

Results suggested that the first change to begin in recovery is to shift negative action toward positive thinking behavior. The next change appeared to occur in learning to integrate feelings and actions. Maintenance tasks appeared to focus on integrating and balancing all behavior components. How the TFA model met the need for a client adaptable and integrated model with assessment methods across phases of recovery was discussed.

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CHAPTER ONE

Introduction

The need to help persons overcome alcoholism has become more critical today than ever before. Alcohol abuse and dependence and related costs, mortality, and treatment issues are a major concern across nations and cultures (Ray, 1983 and Seventh Special Report to the U.S. Congress on Alcohol and Health from the Secretary of Health and Human Services, 1990). On a national level, statistics on use and costs are alarming. Goodman (1990) maintains that 13% of our population is alcoholic, the old standard was 10%. Based on a population of 260 million, that is 33,800,000 Americans.

Nace (1989) states "it is estimated that \$9.5 billion are spent annually on the treatment of alcoholism or the medical complication" (p. 56). In a very detailed account of the problem the U.S. Department of Health and Human Services (1985) provided the following economic costs: alcohol abuse cost the nation \$70.3 billion in 1985 and an estimated \$85.8 billion in 1988 (these costs include direct or indirect health related costs, crime, morbidity, and lost productivity); core costs (direct and indirect

health related costs) account for \$58.2 billion and adults aged 15-44 account for three-fifths of the total core cost; and morbidity costs, reduced or lost productivity, to \$27.4 billion, 39 percent of the total (pp. 22-23). Stated in the same report, "\$3.7 billion spent" is related to alcohol alone for public expenditures associated with the criminal justice system and drug traffic control (p. 145).

Tragically, the human costs are emphasized from statistics on accidents and deaths related to alcohol. Facts on File (1986-1988 from the National Highway Safety Administration) cited the following: every 22 minutes, one person dies in an alcohol-related crash; 23,632 persons died in 1987 constituting 51% of the 46,386 total traffic fatalities; and 3,259 teenagers died in alcohol-related crashes in 1987 which was nearly 49% of total teen vehicle deaths. Drunk driving is the most frequently committed crime in the nation today and DWI arrests in 1987 totalled 1,728,000, more than three times the total for all other violent crimes (FBI, 1988). McVernon (1987) indicated that chemical dependence is the number three killer of Americans (p. 2).

It is hard to believe that for a problem of this proportion we currently do not have agreement regarding whether treatment is effective, or even consensus

regarding the etiology and theoretical conceptualization of the disorder. Fingarette (1989a) stated that "almost everything that the American public believes to be the scientific truth about alcoholism is false, indeed the relevant scientific literature spans several decades of research that roundly contradicts popular beliefs and suggests an entirely new perspective on alcoholism and heavy drinking (not disease based). And yet the public, including many counselors and paraprofessionals working in treatment centers, remains in the dark, still holding, and encouraged to hold, beliefs that are forty years out of date" (p. 1).

The need for more effective treatment is apparent as relapse rates have been as high as 80% (Gorski, 1989b). Baekeland's study (cited in Gorski, 1989b) "completed an extensive literature review indicating that high prognosis patients, who had high socioeconomic status and social stability, had relapse rates between 32% and 68%, while low prognosis patients had relapse rates ranging from 88% to 100%". Gorski (1989b) reported that in a 1976 study of patients admitted to Hazelden, which is one of the country's top treatment facilities, of those who completed treatment, 39% relapsed in the first year, compared with 62% of those who did not complete treatment (p. 21). Hazelden is used as a model and clearinghouse for

treatment. Industry and business, insurance companies, employee assistance programs, and government agencies are very concerned about relapse, cost effectiveness, and quality of care.

Although Alcoholics Anonymous (A.A.) for years has been said to be the most effective treatment, Denzin (1987a) stated: "it is estimated that 7 out of 10 alcoholics who are treated for alcoholism relapse within the first six months of treatment. Of the alcoholics who come to A.A., it is estimated that 37% relapse within the first year" (p. 88).

New ways of researching alcoholism are developing (Marlatt, 1987; Lettieri, 1986; Fingarette, 1989a; Gabe, 1989; and Morrison, Knauf & Hayes, 1990) which suggest comprehensive and detailed, integrated, and multidisciplinary approaches. Support for multidisciplinary approaches in counseling and the treatment field in general is seen in work by Beitman (1989), Gabe (1989), Hutchins and Cole (1992), Lazarus (1989), Norcross and Grenavage (1989), Smith (1982), and Ward (1983). Shaffer (cited in Polcin 1992) "observed that the addictions field is in 'preparadigm' stage in its development as a discipline" (p. 376). Galizio and Maisto (1985) maintain "theoretical integration of the fast-accumulating literature in the substance abuse field

has been sadly lacking. Most theories have been developed from a single perspective or level of analysis, and in many cases they were inconsistent with data from other approaches on the day the theory was published" (p. 425).

A multiplicity of different theoretical orientations and treatment methods exist for alcoholism. Galizio and Maisto (1985) include several as follows: "Biological (Genetic, Biochemical, Pavlovian Conditioning, and Behavioral); Psychosocial (Cognitive, Personality, and Environmental); and Biopsychosocial". There are also Psychoanalytic, Sociocultural, Economic/Demographic, Medical Model and Revised Medical Model, as well as Social Learning and Family Systems approaches. Polcin (1992) writes "among the various modalities used to treat chemical dependency are the 'twelve step program' of AA, professional counseling and psychiatric care, family systems therapy, and therapeutic community treatment. Historically, these approaches have often been at odds with one another" (p. 376). From the shear number of these approaches, the need for integrative and multidisciplinary or a metatheoretical approach becomes clear. There is need for a directing paradigm (paradigm as described by Kuhn 1962).

Hutchins' Thinking-Feeling- Acting paradigm (1979, 1982, 1984b) and Hutchins and Vogler's (1988) TFA Systems

provide a comprehensive, integrative, and metatheoretical paradigm which has the ability to analyze critical behavior components needed for sobriety. TFA Systems is one of the few metatheoretical models that is accompanied by measurement instrumentation and is operational. The utility of TFA Systems has been found in its ability to parsimoniously organize the information a person might need to modify behavior in identified problem situations (Clow, Hutchins, and Vogler, 1992, p. 75).

We are specifically interested in analyzing effective personal behavior characteristics from the unified perspective of TFA Systems. The focus is not on what causes alcoholism, but is on how to effectively optimize sobriety based on the alcoholics' behavior characteristics devoid of single theoretical perspective influence. West's (1992) study of behavioral patterns of DUI second offenders using the TFA Systems suggested that drinking is typically the result of a decision making process with planned behavior. West further specified that thinking, feeling, and acting variables are interdependent and that the significance of analyzing behavior lies in the interaction of these variables.

Background

The conceptual framework of this study was how alcoholics' thinking (T), feeling (F), and acting (A)

variables encoded into the TFA Systems relate to the attainment and maintenance of sobriety. The study evolved from research in Counseling, Psychology, and Addictions fields. The study was based in two main areas: extant literature and Hutchins' TFA paradigm.

Field of Research

The field of alcohol research and treatment appears to be in a pre-paradigmatic crisis with numerous schools/theoretical orientations contending to be correct or the most effective. As referenced in the Introduction, there are at least 14 different orientations offering explanations and ways of study. Despite a continued proliferation of articles on the subject, we are plagued with unresolved debates and contrary results. One index alone for Psychology research, PsycLIT Disc 2 (1/83 - 12/91), which covers over 1,300 journals, had 6,173 computer records for "alcoholism" and 3,283 records for "alcoholic". However, this index only referenced 2 articles or records for dealing with "alcohol relapse", 20 articles for "characteristics of alcoholics", 18 for "behavior of alcoholics", 267 for "sobriety", none for "factors of sobriety", none for "recovering alcoholic behavior", none for "recovering behavior", none for "sobriety behavior", and none for "behavior characteristics of alcoholics" [Note: on all searches,

the researcher chose the reference wording]. The research tends to study whatever has already been studied (same theoretical approach, same variables as demographics or psychopathology, with little emphasis on greater specificity, or assessment, integration, or new ways to conceptualize clients or treatment. Many articles reviewed, such as Brown 1990, Cross 1990, Miller 1990, Schuckit 1990, and Williams 1986, fail to specify important individual and treatment variables within the context of treatment effectiveness and sobriety and abstinence. A sample of the extant literature is presented in Table 1. From the table it becomes clear that there are a number of unspecified variables and diverse approaches. There is little integration or assessment of individual behavior change. Many of the variables reported to be causal or predictive of abuse or relapse, such as severe stressors, poor coping skills, extroversive (meaning sensation seeking), drinking arrests, being single, unmarried, young in age, making the decision to drink, impulsivity, depression, etc. Table 1 and West, 1992 point to many characteristics that could change e.g., coping ability, decisions, behavior, and feelings, given the appropriate behavior change occurs. Using Hutchins and Vogler's TFA Systems the focus can be how to optimize sobriety based on alcoholic's behavior characteristics

Table 1

Sample of literature on variables optimizing sobriety

<u>Citation</u>	<u>Model</u>	<u>Finding</u>	<u>In TFA Terms</u>
(T, F, or A Emphasis)			
Brown et. al. 1990	Unspecified (stress)	Posttreatment severe stress elevates relapse	AA=(T), wide indivdual differences expected
Cross et. al. 1990	Unspecified	AA involvement predicted number of years of sobriety: demo- graphics did not	AA=(T)
Miller et. al. 1990	Unspecified (addiction)	At 6 months, 77% of Ss abstinent, 73% attended AA	Lack of info. AA=(T)
Schuckit et. al. 1990	Unspecified (medical)	Treatment history did not suggest panic or anxiety independent of heavy drinking	VA Center=(T)

Table 1 continued

Sample of literature on variables optimizing sobriety

<u>Citation</u>	<u>Model</u>	<u>Finding</u>	<u>In TFA Terms</u>
(T, F, or A Emphasis)			
Weiss et. al. 1988	Unspecified (medical)	Alcoholics more likely to have diagnosis of depression, antisocial, and family hx. of alcoholism	Treatment unspecified except for medication
Williams et. al. 1986	Unspecified	AA rated more important than reality therapy for sobriety	AA=(T) Reality=(T)
Woody et al. 1986	Supportive/ Expressive, Cognitive/Beh,	Drug counseling alone less effective than Support/Exp or Cognitive/Beh, Therapist differ. in all measures	Supportive=(F) Cognitive/Beh=(TA), Drug Counseling=(T)

devoid of perspective influence.

Lettieri (1986) states, "although the need for useful predictors of alcohol treatment program outcomes is obvious, research in the field has not adequately succeeded in isolating factors that will assess prospects for success" (p. 20). A trend in treatment is to be more comprehensive and multidisciplinary (Lettieri 1986, Marlatt 1987, and Gabe 1989). Morrison, Knauf, & Hayes (1990) realize "the effects of addiction are multifaceted, and therefore the treatment of addiction must be multidisciplinary" (p. 48). The need for an overarching, unifying paradigm, such as Hutchins' TFA approach is revealed.

There has been focus on treatment effectiveness or outcome as opposed to primary or eliciting variables, such as drinking behavior and individual determinants of drinking behavior. Unfortunately, it seems that the theoretical diversity associated with alcohol research has tended to focus effectiveness generically and based on similarities and not individual differences in behavior within a subgroup, such as culture, gender, personality, demographics, and AA attendance. Watson (1991) writes, "while there has been much research on treatment 'success' or 'failure' based upon an abstinence recidivism model there is a paucity of research into long-term cumulative

behavioral changes over time" (p. 854). Booth, 1989; Clow, 1989; Fingarette, 1989a; Hutchins & Cole, 1992; West, 1992; and others suggest that we focus more on behavior and that we need to more clearly specify the events/methods that cause and maintain behavior change.

TFA Systems (tm)

Drinking alcohol or the urge to drink is a very specific activity. Clow (1989) states "when Hutchins introduced the Hutchins Behavior Inventory (HBI) in 1984, it became possible for a therapist to quantitatively assess the levels of an individual's TFA orientation in a specified situation. The therapist became better able to intervene on behalf of the client because the level of thinking, feeling, and acting in the problem situation were known" (p. 3). The impetus and significance of specific client based variables for treatment direction were further clarified in methodology in Hutchins and Vogler (1988) enabling teaching "skills necessary to assess the levels of TFA, and make needed adjustments" (Clow 1989, p. 4). Applied to alcohol treatment this approach can provide assessment of individual alcoholic's needs for changes in thoughts, feelings, and actions in order to change the behavior of drinking in specific situations. West (1992) writes "the distinguishing characteristic of the TFA framework was the suggestion

that an individual's decision to drink and drive was based on the specific interaction of thoughts, feelings, and actions" (p. 5). It follows that the decision not to drink for persons in recovery/abstinence would also be based on thoughts, feelings, and actions. Abstinence requires behavior change (not drinking). There is a need to determine how and why this behavior change occurs from assessing thoughts, feelings, and actions of recovering persons.

Assumptions

1. Alcoholism has multidisciplinary features.
2. The TFA system accurately assesses thoughts, feelings, and actions.
3. Alcohol abuse and dependence is a treatable disorder, in other words, drinking behavior can change.
4. Most alcoholics can be considered to have successful sobriety with at least five years of abstinence.

Problem Statement

A review of extant literature strongly indicates a current lack of clear understanding, direction, and integration in the research and treatment of alcoholism. There is a need to change focus from unresolved debates over what causes alcoholism to better understanding of the mechanisms of how one attains and maintains sobriety. Only a very limited number of recent articles have

attempted to describe or assess in a unified, comprehensive, and integrated manner individual client variables and how their possible interrelations may optimize sobriety. The procedural problem was to analyze changes in the interaction of thoughts, feelings, and actions of alcoholics who achieve sobriety.

Purpose

The general purpose of the study was to compare the integrated (TFA) behavior patterns of alcoholics before and after they stopped drinking. In order to do this the study:

1. Synthesized the extant literature on the behavior characteristics or causal factors of successful and unsuccessful alcoholics. Successful meaning having maintained sobriety for at least five years.
2. Identified the TFA patterns (triads) of alcoholics in the situation of still drinking (retrospective study).
3. Identified the TFA patterns (triads) of alcoholics with six months or less of sobriety in the situation of having the urge to drink but maintaining sobriety.
4. Identified the TFA patterns (triads) of alcoholics who have maintained sobriety for five or more years in the situation of having the urge to drink but maintaining sobriety.
5. Codified the relationship between the three

groups' TFA patterns and interviews with those Ss who have maintained sobriety for five or more years.

Research Questions and Suppositions

These questions directed the research.

1. What are the TFA patterns (triads) of alcoholics, from retrospective reports of recovering alcoholics with less than 6 months of sobriety, before they stopped drinking?

Supposition: **Alcoholics with less than 6 months of sobriety do not have a characteristic or common TFA triad for drinking behavior.**

2. What are the TFA patterns triads of alcoholics, from current reports of recovering alcoholics with 6 months or less of sobriety, with short-term sobriety?

Supposition: **Alcoholics with less than 6 months of sobriety do not have a characteristic or common TFA triad for sobriety behavior.**

3. What are the TFA patterns (triads) of alcoholics, from current reports of recovering alcoholics with five or more years of sobriety, after they successfully stopped drinking?

Supposition: **Alcoholics with 5 years of sobriety do not have a characteristic or common TFA triad.**

4. What are the differences in the thoughts, feelings, and actions (TFA triads) of the three groups of

alcoholics?

Supposition: There is no difference in the behavior patterns (TFA triads of thinking, feeling, and acting interactions) of alcoholics with less than 6 months of sobriety and alcoholics with 5 years of sobriety.

5. What are the differences in the thoughts, feelings, and actions reported from the group with 5 years of sobriety in comparing their behavior before they stopped drinking and with their current sobriety?

Supposition: There is no difference in thoughts, feelings, and actions reported before stopping drinking and after 5 years of sobriety.

6. What specific behavior changes or factors are reported to be important for the attainment and maintenance of sobriety, as determined by TFA Structured Interviews with Ss having five or more years of sobriety?

Supposition: There are no specific behavior changes in thoughts, feelings, and actions in factors reported to be necessary for the attainment and maintenance of sobriety.

Delimitations

The following delimitations applied to this study:

1. Recovering alcoholics who live in or around an urban area of approximately 225,000 persons in Southwestern Virginia.

2. Recovering alcoholics who volunteer to be in the

sample as solicited by key AA persons or aftercare center directors. The defined population is alcoholics attending AA. Support group members may differ from the general population of alcoholics.

3. Reviewing extant literature available to the researcher and is not assumed to be exhaustive.

4. Focusing on issues of attainment and maintenance of sobriety and not on the etiology of alcoholism or different types of alcoholics or drinking patterns.

5. Recovering alcoholics who admit to being alcoholic or to have had a problem with drinking requiring abstinence.

6. Using the TFA system to assess personal behavior variables.

Note that there may be a difference between actual and retrospective reported drinking behavior. West (1992) found Ss were able to recall details. The study attempted to minimize some discrepancy in reports as the Ss taking the HBI in the when drinking condition actually could be considered to be still non-sober by not yet attaining one year of sobriety. One year is typically the required AA standard for doing volunteer work and discussing sobriety.

Limitations

There were four limitations which may have decreased the generalizability of results.

1. Although the TFA system's instrumentation has not been clinically applied to recovering alcoholics, it had been applied to DWI offenders.

2. The selection of subjects was based on purposeful sampling procedures to obtain Ss with different lengths of sobriety from accessible volunteers.

3. The data gathered came from self-report (although the literature maintains that alcoholics' self-reports appear valid (Sobell & Sobell 1978, and Thoreson, Budd, & Krauskopf 1986)).

4. The sample size was small and limited potential generalizability.

Definitions

Alcohol abuse - the essential feature of alcohol abuse is a pattern of pathological use for at least a month that causes impairment in social or occupational functioning (DSM III 1980, p. 169).

Alcohol dependence - dependence has also been called Alcoholism. The essential features of alcohol dependence are either a pattern of pathological use - impairment in social or occupational functioning due to alcohol, and either tolerance or withdrawal (DSM III 1980, p. 169).

Behavior - the interaction of thoughts, feelings and actions (Hutchins, 1984).

Hutchins' Behavior Inventory (HBI) - an instrument created by Hutchins (1984) to assess individual's TFA orientation in the TFA model (Clow 1989, and Mueller 1987).

Sobriety - the behavioral and physical state of not consuming alcohol, e.g. abstinence in this study for at least five years.

TFA approach/model - a theoretical model devised by Hutchins (1979, 1982, 1984) conceptually and graphically relating a person's level of thinking, feeling, and acting in a given situation (Clow 1989, Mueller 1987).

TFA Systems (tm) - an application of the TFA model in the form of a comprehensive approach to problem identification, description, intervention, and resolution (Hutchins & Vogler 1988).

Treatment for alcoholism - application of any of a variety or combination of methods, education, counseling, psychotherapy or support systems to effect a remission of alcohol use. Methods could be Medical, AA, individual or group counseling, etc., and occur inpatient (hospitalization) or outpatient.

Need for the Study

The study contributes to clinical knowledge of specific behavior variables which are important to overcoming alcohol dependence. The researcher believes

that interventions must be based on individual client variables within an integrated comprehensive system. Literature suggests that many theories and methods can be helpful despite continued etiological and theoretical debate.

After discussing a variety of approaches, Gabe (1989) states "we have failed to develop a comprehensive and integrated approach to this clinically complicated and highly complex phenomenon. Consequently, many treatment programs have been narrowly focussed and have seen limited success" (p. 45). Gorski (1989b) concludes, "we have not developed a treatment for chemical dependence which is 100% effective" (p. 21). O'Donnell (1984) states "in alcohol recovery programs the maintenance of behavior change is eventually a question of preventing relapse and thus determinants of relapse have proved to be the focus of recent research" (p. 257).

Smart, Allison, Cheung, Erickson, Shain, and Single (1990) asks "what types of treatment are best for what types of drug abusers?" (p. 122). In addition, they write that "matching patient characteristics to treatment is an important aspect for most medical and psychological disorders. However, it is rarely attempted in the drug abuse area. Successful matching would almost certainly improve treatment success rates, which are currently

rather low." Unfortunately, as noted previously, there is a lack of specificity, assessment of critical variables, and integration in current research.

Booth (1989) suggests that treatment for all addictions is the process of confronting the disease and monitoring the necessary changes in attitude and behavior" (p. 211). Hutchins' TFA system offers a way to map changes in thinking-feeling-acting (behavior) patterns in a specific situation, such as the urge to drink.

Importantly, TFA Systems offers a way to first assess what changes in thoughts, feelings, and actions must happen for the behavior change of sobriety to occur. West (1992) found that an individual decision to drink was based on the specific interaction of thoughts, feelings, and actions. Also in support of the need to use a multidimensional approach, Velicer, Diclemente, Rossi, and Prochaska (1990) investigated self-efficacy and relapse in an integrated manner. They advanced that addictive temptation to smoke can be simultaneously related to "positive/social, negative/affective, and habit/addiction parameters". Only thoughts were not clearly integrated in their model. In further support, Sussman, Horn, and Gilewski (1990) suggests that to prevent alcohol relapse memory modification is needed (decrease the possibility of relapse resulting directly

from thinking about drinking).

The study presents the TFA system as a situationally specific method for assessing and understanding alcohol drinking and potential non-drinking behavior from changes in thoughts, feelings and action. The study will help clinicians to determine the TFA system's utility for assessing interrelationships between personal behavior, behavioral change variables, and subsequent sobriety.

Organization of the Study

Chapter Two contains a review of the extant literature on overcoming alcoholism. The TFA system is reviewed.

Chapter Three reviews instrumentation and research design. Data collection forms and structured interviews are described.

Chapter Four presents an analysis of the study's findings. Results will be factually based.

Chapter Five contains a discussion of the results related to the literature, conclusions, and recommendations for future research.

CHAPTER TWO

Review of Literature

This chapter includes a review of extant literature in four parts as it applies to the purpose of this study. Issues related to alcoholism conceptualization and definition will be presented first. Second, research pertaining to personal or treatment factors which influence sobriety and relapse will be reviewed. Third, new integrative ways of researching alcoholism and sobriety will be discussed along with highlighting research problems and needs in the field. Lastly, the chapter will review TFA Systems as an integrative and multidisciplinary approach to be used in the study.

Alcoholism Conceptualization and Definition

Historically, there has never been consensus regarding what causes alcoholism, how to define it, or how to most effectively treat its' abuse or addiction. There are numerous different models of alcoholism and many current models date back to the 1930's - 1960's. The U. S. Department of Health and Human Services (1990) surmise that currently both alcohol abuse and dependence arise as a result of different, complex, and yet incompletely understood processes (p. xxi). Major theoretical models and their conceptualizations will be briefly summarized. Part II of this chapter will critically review research

from the competing models.

Heather and Robertson (1981) and Strug, Priyadarsini, and Hyman (1986) provide very good historical overviews. Excessive alcohol consumption was considered normal by American colonists. Alcohol use began to be seen as a problem when it began to interfere with work and economics. Levine (cited in Strug et al., 1986) noted that between 1785 and 1835 the 'liquor problem' became of interest to an economic and social elite increasingly concerned with the drinking of the poor (p. 1). Solutions were targeted toward people of the lower social class, such as workers and farm hands.

Early Disease Concept

Keller (1986) noted that Dr. Benjamin Rush in 1814 wrote of chronic drunkenness as a disease. In fact, he expressed the very modern idea that it 'resembles certain hereditary, family and contagious diseases'. For the treatment of 'recurrence of fits of drunkenness, and to destroy the desire for ardent spirits' Dr. Rush advocated three types of measures to have been demonstrated efficacious: religious, metaphysical (what we today call psychological), and medical (p. 27).

Heather and Robertson (1981) write that two physicians, Benjamin Rush in America and Thomas Trotter in Britain were chiefly responsible for developing the novel

concept of addiction by paying attention to the reports of many drunkards that they experienced irresistible and overpowering desires for alcohol (p. 2). Rush described the drunkard's behavior in terms close to modern descriptions of 'loss of control' (p. 2). Rush is usually credited with being the founder of the Temperance Movement in the U. S. An early parallel to Alcoholics Anonymous (A. A.), although not actually founded until the 1930's, was the Washingtonian movement of the 1840's which consisted of a paternal association of reformed drunkards whose self-imposed task was to rescue fellow sufferers from their plight. Meetings typically took the form of autobiographical accounts of the individual's struggle with alcohol and recitals of the events leading to the eventual victory over the unnatural appetite for drink (Heather & Robertson, 1981, p. 3). These authors note that there are important differences between early and later disease conceptions of alcoholism regarding the source of the addiction. In the Temperance perspective, the origin of addiction was in the substance itself, while many modern disease conceptions, including the A. A. model of alcoholism, locate the source of addiction in the individual person (p. 3). Heather and Robertson (1981) note further that the recent preference for total abstinence as a cure for alcoholism has its roots in

Temperance ideology (p. 3).

The A. A. Model

The Alcoholics Anonymous model begins with the assertion of a qualitative difference between the alcoholic and all other types of drinkers. In the Big Book of A. A. (Alcoholics Anonymous, 1939), the real alcoholic is unambiguously set apart from the moderate and hard drinkers who can stop or moderate their drinking (Heather & Robertson, 1981, p. 5). Alcoholics, then, are different from other people in that they cannot handle alcohol safely. A further crucial element of the A. A. model is the idea that this special vulnerability, whatever it might be, is present before the first intake of alcohol (Heather & Robertson, 1981, p. 5). The authors further emphasize that perhaps the most essential element of the model is the notion of irreversibility. Prominent in all A. A. publications is the statement that alcoholism is a disease, a progressive disease, which can be arrested by total abstinence but which cannot be cured (p. 6). As individuals, alcoholics are viewed as unable to control their drinking; but belonging to a group of other alcoholics, A. A., helps to sustain their abstinence (Strug et al., 1986, p. 5). A. A. was officially founded in the 1930's by a stockbroker named William Wilson, "Bill W.", and a physician named Robert Smith, "Dr. Bob", with

financial help from the Rockefellers (Strug et al., 1986, p. 5).

The core of A. A.'s approach is the Twelve Steps. Grateful Members (1990) state "we have found a way to help each other grow emotionally and spiritually and to help ourselves in the process - a way which does not require professional assistance . . . the way we have found makes use of the basic principles of psychology and psychiatry as well as all the fundamental principles of major world religions . . . these basic principles are so simple and so encompassing that we do not need professionals to interpret them for us they are simply summarized for us in the twelve simple steps" (pp. xiii-xiv). The Twelve Steps will be discussed further in Part II of this chapter. Although A. A. strictly endorses that alcohol is a progressive disease it also operates on the premise that an individual can learn control over drinking through abstinence.

Jellinek's Disease Conception

During the 1950's, Jellinek's work restricted the concept of alcoholism to those excessive drinkers characterized by physical or psychological pathology and whose rehabilitation primarily requires medical or psychiatric treatment (Heather & Robertson, 1981, pp. 7-8). Jellinek (cited in Heather & Robertson, 1981)

proposed there were two distinct types of alcoholics, "alcohol addicts" and "habitual symptomatic excessive drinkers". "Loss of control" occurred only for the alcohol addicts (p. 8). Heather and Robertson (1981) point out that, up to the point of discontinuity introduced by loss of control, Jellinek provided a basis for relating normal and abnormal functional uses of alcohol (p. 8). Jellinek proposed sequential phases of alcohol addiction, namely, Prealcoholic Symptomatic Phase (relief drinking); Prodromal Phase (preoccupied with drinking and blackouts); Crucial Phase (loss of control); and Chronic Phase (reduced tolerance and resistance) (pp. 8-9). Heather and Robertson (1981) surmise that Jellinek's conceptualization could accurately be described as a learning theory of alcoholism (a continuum in the functional use of alcohol for the relief of psychological stress) were it not for the crucial component of loss of control. It follows that the justification for a specifically disease conception turns on the empirical validity of this concept; 'loss of control' ceases to be merely a symptom of alcoholism and becomes a hypothesis upon which the entire disease conception depends (p. 10). Strug, et al. (1986) write: In the 1950's both the American Medical Association and the American Hospital Association officially accepted and endorsed the modern

disease concept of alcoholism pioneered by Jellinek, who made alcohol studies and the treatment of alcoholism respectable and legitimate by articulating them in scientific terms (p. 6).

Jellinek's Second Disease Concept

In the 1960's Jellinek proposed a second disease conception defining alcoholism as any use of alcoholic beverages that causes any damage to the individual or society or both (cited in Heather & Robertson, 1981, p. 10). Jellinek's (1960) book, The Disease Concept of Alcoholism, became a hallmark for alcohol conceptualization in medical and psychiatric services. Jellinek described and classified five species of alcoholism, including: Alpha (psychological dependence); Beta (physical complications); Gamma (addiction compatible with A. A.'s view); Delta (inability to abstain); and Epsilon (periodic alcoholism).

The 1960's and 1970's witnessed the development of a modern alcoholism constituency and of alcohol interest and lobby groups, such as the Highway Safety Act of 1966, National Center for the Prevention and Control of Alcoholism, and the National Institute on Alcohol Abuse and Alcoholism (NIAAA). The Uniform Alcoholism and Intoxication Act of 1971 removed many alcohol-related legal infractions from the criminal-justice system,

substituting medical treatment for punishment (Strug, et al., 1986, p. 7).

Jellinek's work served as a catalyst for the development or further advancement of modern day models in other fields, such as psychological and learning theory models. It is very noteworthy that many of the conceptualizations of the 1930's to 1950's have remained fairly intact today. Fingarette (1989) writes, almost everything that the American public believes to be the scientific truth about alcoholism is false . . . and yet the public - including many counselors and paraprofessionals working in treatment centers - remains in the dark, still holding, and encouraged to hold, beliefs that are forty years out of date (p. 1).

Biological and Genetic Models

Biological and genetic models generally focus on genetic transmission of vulnerability or genetic predisposition towards alcohol. The U. S. Department of Health and Human Services (1990b) points out that evidence for genetic transmission of vulnerability for alcoholism has been provided by twin and adoption studies (p. xxi). The mechanisms of genetic transmission are unknown, however, as are the specific environmental factors that interact with genetic predisposition in the development of alcoholism (p. xxi). Galizio and Maisto (1985) review

biological factors from four main areas of (1) genetics, (2) biochemical, (3) individual differences in tolerance and relapse, and (4) behavioral approaches to individual differences in drug taking behavior. Genetic factors focus on support from twin and adoption studies. Biochemical factors include psychopharmacological factors which affect the continuance of self-administration behavior. The ability of a drug to produce a positive affective state or reinforcement upon its initial administration. Individual differences in tolerance and relapse center on a Pavlovian Conditioning perspective account for environmental stimuli and events to affect the occurrence of relapse in detoxified addicts (Hinson, 1985, p. 101). Tolerance refers to a decrease in drug effect with repeated administrations of the drug. Generally, it has been found that tolerance is more pronounced if the drug injection is 'expected'. In relation, relapse is viewed to be more likely if detoxified addicts experience withdrawal-like symptoms. Behavioral approaches to individual differences in drug taking behavior emphasize that drug-taking behavior is not reflexive, rather, it is a goal-directed, purposeful, operant response (Barrett, 1985, p. 127). Importantly, Barrett (1985) states the present theory emphasizes that no single factor is sufficient to produce drug abuse. Rather this behavior is

causally related to multiple organismic and environmental determinants (p. 128).

Reflecting upon the brief review of biological factors, it seems that except for the genetic conceptualization, biochemical and individual differences in tolerance and relapse and drug-taking behavior focus on multidisciplinary factors (personal, psychological, behavioral, and social) interacting based upon the desired effect of the drug, whether to produce a more positive emotional/feeling state or to avoid unpleasant feeling/physical states.

Psychological Models

Poley, Lea, and Vibe (1979) include Psychoanalytic and Gestalt theory, Learning and Reinforcement theory, Predisposing Personality Traits and Individual Differences, and Humanistic-Phenomenological psychology in their review of psychological factors (pp. 34-38). They note at the beginning of their review that psychology incorporates a number of different "schools" (a "school" is a general orientation, model or theoretical framework). Once again, a multidisciplinary approach is more the reality that is rarely achieved. Psychoanalytic theory generally maintains that alcohol abuse is the result of inner conflicts between dependency drives and aggressive drives. Therapists are to assist the patient in gaining

insight into what alcohol symbolizes in their life. Learning and Reinforcement theory are based upon alcohol's reinforcing properties (relaxing, stress or inhibition reducing, etc.) and that ingestion of alcohol may be followed by other reinforcing events or stimuli which serve to reinforce the act of alcohol ingestion (social interactions, eating meals, etc.).

Concerning predisposing personality traits and individual differences, Poley et al. (1979) summarizes, while numerous factors are found which discriminate between patients (alcoholics) and non-patients, this type of research is poor for suggesting those factors which predispose individuals to alcohol dependency . . . in these studies a common pattern which predisposes individuals to alcohol dependency appears to be a set of traits related to assertive, extroverted and impulsive behaviors . . . a relationship has not been found between high trait anxiety and the subsequent development of alcoholism (p. 37).

Alcoholism in the context of Humanistic - Phenomenological psychology may be seen as a manifestation of blocked awareness, or thwarted growth. In particular, it is self-destructiveness and may be considered as a result of alienation from oneself and others. 'Getting in touch with' oneself and one's surroundings, then, would be

required to eradicate the problem (Poley et al., 1979, p. 38).

Generally, psychological theories appear to focus on individual comparisons and differences. Most of the models reviewed so far have focussed on similarities among all alcoholics or drug abusers.

Sociological and Sociocultural Models

Sociological perspectives have generally focussed on the question of how readily available is alcohol to a society and whether the values of the society encourage or discourage its consumption and how (Poley et al., 1979, p. 33). People tend to consume more alcohol to the extent that they have money available and availability is also related to the amount of alcohol produced by the alcohol industry or the distance a person has to travel to obtain it (Poley et al., 1979, pp. 33-34). Cultural attitudes and customs or norms surrounding drinking are very important. Often there are discrepancies between cultures, such as, religious groups where alcohol is prohibited and North American Indians where alcohol abuse has been severe. For many years research has found higher incidents of alcohol abuse and legal infractions/crimes for minorities. Sociological models tend to focus on economical and societal oppression as factors in abuse. Alcohol is viewed as a way to relieve frustration and

stress. Emphasis is on group as opposed to individual etiology. Strug's et al. (1986) review of sociocultural approaches includes the emphasis of group membership which expands some of the other sociological models. Group membership may be based on gender, treatment or recovery setting (A. A., half-way house, etc.) and the life setting, such as, skid-row or incarcerated alcoholics. Generally, emphasis is given to exploring group norms, attitudes and beliefs about alcohol use.

Psychosocial Model

Galizio and Maisto's (1985) review of psychosocial factors includes (1) cognitive factors, (2) personality correlates, (3) environmental factors: the microsetting, and (4) macroenvironmental factors. Cognitive factors in drug use has been guided by cognitive social learning theories of behavior. Adesso (1985) points out that the probability of a particular behavior is a function of three variables: (1) expectancy of an outcome or reinforcement; (2) the person's perception of the value of the outcome or reinforcement; and (3) the nature of the psychological situation in which the behavior is to occur (p. 179). Typically, drinkers expect changes in sexual and aggressive behavior (Adesso, 1985, p. 184). Interestingly, this author states that another widely held expectancy, at least among alcoholics, is that they are

unable to control their response to alcohol (p. 184). This perspective differs from the disease/addiction models where loss of control is seen to be a more physiological or genetic predisposition and not learned. Expectancy theory also includes individual difference variables including the setting (individual, interpersonal, environmental), the individual's drug history, predrinking emotional state, gender, and personality characteristics. Cox (1985) emphasizes that personality characteristics that covary with substance abuse may or may not act as causative factors. They may be antecedents, concomitants, or consequences of substance abuse (p. 209). Cox (1985) also notes that the published literature on personality correlates of substance abuse is voluminous. He writes that "across studies 'prealcoholics' have been consistently described as nonconforming, independent, undercontrolled, and impulsive individuals" (p. 213). Alcoholics have been found to have negative affect, low self-esteem, to be field dependent, augmenters, and sensation seekers (pp. 216-222).

McCarty (1985) writes environment is the microsetting and is differentiated from the larger and more distal legal, cultural, and economic environments as the macrosetting (pp. 247-248). Parallels can be seen here with the sociological (more macrosetting) and the

sociocultural (more microsetting), however, more attention is given to drug effects, comfortable versus uncomfortable settings, dependence and tolerance, age differences, setting attributes (indoor designs) and other factors such as entertainment and games with microsetting perspectives. Connors and Tarbox (1985) in discussing macroenvironmental factors add influences of government regulation of legal drinking age, types of sales outlets, legislative actions, occupational factors, and geographic setting in relation to degree of urbanization (fewer abstainers in more urban areas) (pp. 283-305).

Family Systems Perspective

A more contemporary model is family systems theory. Elkins (1984) describes his hypothesis that people get drunk in order to become powerful in interpersonal contexts (p. 20). He defines power as "the ability to dictate the context in which behavior occurs" (p. 21). Family therapists are concerned with the effects of alcohol on the interactional space between individuals and the systems they form. It would appear that a major function of alcohol is to alter boundaries (delineate a system from its surroundings) (Elkins, 1984, pp. 42-43). Drunkenness - in addition to relaxing boundaries - also allows people to enforce their boundaries and keep unwanted people out (Elkins, 1984, p. 44). Elkins

elaborates that if a person uses alcohol to feel more confident, more powerful, more able to enforce boundaries, more able to make social contact, he may naturally come to rely on this chemical support to help him get along in the world (p. 46). Generally, therapy goals are to help the family understand they are suffering from a condition that is physically and emotionally dangerous (Elkins, 1984, p. 79). More specific goals are to: (1) stop the drinking or isolate and lessen the drinker's impact on other members; (2) stop threatening behavior; (3) move children out of parental roles and sabotage inappropriate child-parent alliances; (4) help the parental alliance reform so that parental authority will be effective; and (5) assist whichever family members are in need of help or support them to obtain appropriate resources outside the family, such as, A. A., Al-Anon, Alateen, etc. (Elkins, 1984, p. 80).

Although family systems approaches offer unique perspectives on boundaries and power dynamics, there are influences of a blending of expectancy theory (decreasing social inhibitions, etc), A. A. (group support and education), and social learning theory (reinforcing consequences of drinking). Thus, although it is not said, there are multidisciplinary influences in the conceptualization of alcoholic behavior. The family is

also somewhat a combination of the microenvironment and unique sociocultural setting, with its own economy, religion, and government. With the exception of the disease model, many models have reference to factors discussed in other models emphasizing the reality of unrevealed multidisciplinary models.

Multidisciplinary and Integrative Models

Fairly recently, a few multidisciplinary approaches and, most recently, integrative approaches have been conceptualized, advanced and discussed in the literature. Interestingly, multidisciplinary by definition can add aspects from different models and may vary in the amount of actual theoretical integration. Poley et al. (1979) describes the former, "we can approach the problem by attempting to gain further understanding of its causes and using techniques developed by various disciplines and institutions within society for controlling or dealing with alcohol misuse. An obvious pitfall here, especially in regards to potential treatment, is that shear addition of preferred parts does not ensure for the integrity of the whole" (p. 4). Barrett (1985) provides some important illustrations: "the plethora of theories that attempt to account for substance abuse include a bewildering assortment drawn from a broad cross-section of the life sciences; recently, the National Institute on Drug Abuse

reviewed 43 contemporary theories of drug abuse, representing nine different disciplines . . . abbreviated titles such as life themes, family, neuropharmacological, bioanthropological . . . and interactive framework were described as representative selections from contemporary perspectives although some of the theories involved concepts from more than one discipline, few of them would qualify as truly multidisciplinary in approach" (p. 125). After reviewing several theories on addiction, Peele and Alexander (1985) emphasize the need for integration in the field by stating "a successful addiction model must synthesize pharmacological, experiential, cultural, situational, and personality components in a fluid and seamless description of addictive motivation. It must account for why a drug is more addictive in one society than another, addictive for one individual and not another, and addictive for the same individual at one time and not another." (p. 72).

Two examples of fairly well constructed multidisciplinary approaches will suffice for the purpose of this subsection. Two well respected authors in the field of alcohol research, Galizio and Maisto (1985) advance a Biopsychosocial theory of substance abuse which is multidisciplinary in conception. They draw upon the work of Ewing and Moos and Finney (cited in Galizio &

Maisto, 1985). Ewing's model advances the probability of a given individual's developing a substance abuse problem is given by the conjoint risk/protective values of each of four factors: availability (such as the cost of the substance); social factors; psychological factors; and constitutional factors (including genetic and biochemical variables (p. 426). This model appears to be very comprehensive which may impede its synthesis in treatment as the model would dictate considerable assessment and flexibility in treatment approaches.

The second example is Jacobson's (1989) comprehensive approach in evaluation. He includes medical and laboratory procedures, psychological and neuropsychological procedures, and personality, perception, and self-concept measures. Jacobson writes that multiple conceptualizations of alcoholism exist, and guide our understanding of, thinking about, and treatment of our patients. However, none of these conceptualizations are totally valid for all alcoholics or for all expressions of the alcoholisms. Nor have any of them been conclusively demonstrated to be irrelevant or unsupportable. We are well advised to consider them all (p. 55). Jacobson's approach is eclectic in nature. Miller and Hester (1989) endorse Jacobson's approach and add that it is possible to match individuals to optimal

treatments, thereby increasing treatment effectiveness and efficiency. It is inappropriate to offer some treatment for all individuals (p. 11). It should be noted that empirical knowledge on comprehensive assessment and matching is just beginning to be collected perhaps in response to the rigidity in the treatment field to preferred models of conceptualization and treatment. The work of Fingarette (1989) strongly advocates a multidisciplinary and integrative broad base comprehensive assessment (creation of an individual database) and very individualized treatment, which would include matching. He writes: no one method of treatment or help can be expected to prove effective for all drinkers. People who seek help need a program tailored to their personal characteristics (age, sex, marital status, socioeconomic and occupational class, cultural background), their particular drinking patterns and behavior, and their motives for drinking or ceasing to drink (p. 114).

The previous review of major models of alcoholism conceptualization is not intended to be exhaustive. Different writers have included other models, such as Hester and Miller's (1989) "Developmental History of Models of Addictive Behaviors which also includes Moral (spirituality), Educational (lack of knowledge and lack of motivation), General Systems (including Adult Children of

Alcoholics), and Public Health (interactions of host, agent, and environment) (p. 10). How various writers decide on what to include as models is unclear. This writer's focus was on models from major disciplines. The importance of the conceptual review involves how research is conducted in relation to a theory. The wide variety in research findings to be discussed in Part II is likely to be promoted by the wide variety in conceptualization. Although some of the models were noted to be actually multidisciplinary in reality, such as psychological models by Poley et al. (1979) and biological by Barrett (1985), there does not appear to have been major overt discussions on needs for integration or a paradigm in theory and eclecticism in treatment, except for the few previously noted as Fingarette (1989). Another important observation is that the few integrative models that have been advanced are in their infancy and largely lack empirical evidence for their utility and also lack standardized measurement instrumentation. Part III will review recent articles and research towards integration.

Definitions of Alcoholism

Alcoholism will be defined in relation to various conceptualization models. The review of major definitions will clearly show that consensus has not been reached on how to define alcoholism which certainly impedes the

research field to reach consensus. Different investigators are studying and measuring and often mixing different variables and concepts. It follows that cross-comparisons are likely to be lacking in crucial construct validity. Table 2 contains relevant definitions of alcoholism. It highlights the lack of consensus in the field.

Ray (1983) notes defining alcoholism gets harder every year, "since it has different meanings to different authorities, and there seems to be more and more authorities" (p. 173). Another problem is that the definition of both alcoholism and an alcoholic has been changing (p. 173). Some books, such as Israel et al. (1978), Poley et al. (1979), and Polich et al. (1981) do not even attempt to give a definition. Elkin (1984) does not provide a specific definition but does offer an explanation as to the difficulty in defining. He writes that "the most important characteristic of alcoholism is that it is extremely difficult to define or diagnose in its early, or even middle, stages. For this reason one so often hears terms like 'heavy drinker', 'alcohol abuser', or 'problem drinker'" (p. 39). There is a clear white area of the occasional social drinker and a clear black area of the chronic detoxification patient, but the gray area in between has no clear lines of demarcation (p. 39).

Table 2

Definitions of alcoholism

DSM III	Alcohol dependence has also been called <u>alcoholism</u> . The essential features of alcohol dependence are either a pattern of pathological use - impairment in social or occupational functioning due to alcohol, and either tolerance or withdrawal (1980, p. 169).
DSM III-R	Does not provide a specific definition, but specifies three main patterns of chronic alcohol abuse or dependence: (1) regular daily intake of large amounts; (2) regular heavy drinking limited to weekends; and (3) long periods of sobriety interspersed with binges of daily heavy drinking lasting for weeks or months (1987, p. 173).
A. A.	(1) Alcoholism is a chronic, progressive illness or disease (Denzin, 1987a, p. 9). (2) Alcoholism is a "dis-ease" of self and emotional feeling that touches every part of the alcoholic's life. A disease is a dis-ease, an uneasiness or unhealthiness of being (Denzin, 1987a, p. 9).

Table 2 continued

Definitions of alcoholism

	(3) Alcoholism differs from most ordinary diseases with which we are familiar in the fact that it has two entirely separate phases - it seems to be both physical and mental. It seems to consist of a physical susceptibility to alcohol plus a mental obsession or compulsion to drink (Intergroup Assoc. of A. A. of New York, Inc., 1984, p. 2).
	(4) The disease of alcoholism is a spiritual malady, a mental obsession, and a physical allergy (Alcoholics Anonymous World Services, Inc., <u>Big Book</u> (3rd ed.), 1986, p. 11).
Webster's II	Excessive consumption of and psychophysiological dependence on alcoholic beverages, and (2) a chronic pathological condition, chiefly of the nervous and gastroenteric systems caused by habitual excessive alcohol consumption (1988, p. 90).
Psychosocial	An alcoholic is an individual who uses alcohol to such an extent, and in such a way that interferes with his personal, social, or occupational behavior (Ray, 1983, p. 173).

Table 2 continued

Definitions of alcoholism

Learning	Alcohol abuse leading to psychological and physical dependence is learned; but not solely through the direct reinforcement that results from the tension reduction that alcohol provides (influences of beliefs and expectations may also be reinforcing variables) (Ellis et al., 1988, p. 18).
Alternatives	"Heavy drinking" as the general label for all forms of excessive consumption . . . Thus rather than seeing one disease (alcoholism) with one cure (abstinence), researchers are looking at heavy drinking as a behavior that serves different functions and fulfills different needs for various individuals (Fingarette, 1989, p. 6).
	"Problem drinking" as an entity. Relatively little emphasis has been put on how the actual amount and patterns of drinking interact with environmental reactions so as to produce alcohol problems (Makela, 1978, p. 304).

Maisto, Sobell, Sobell, Lei, and Sykora (1988) state that evidence from both clinical and nonclinical studies shows that drinking behavior, as represented by a broad array of measures, often fluctuates over time (p.4). Considering these views leads one to consider alternative definitions, such as, "problem drinker", "alcohol abuse" and "alcohol dependency". Fingarette (1989) notes that by far the greatest number of these problem drinkers do not fit any of the traditional diagnoses as alcoholics (p.6). Consequently, research may or may not include fluctuations in drinking behavior or compare individuals admitting to alcohol dependency to those of a different category/stage.

Researchers who are not accepting or endorsing a disease model of alcoholism are defining the alcoholism problem in new ways. Fingarette (1989) states, because there are so many different patterns of chronic alcohol abuse, I use the phrase 'heavy drinking' as the general label for all forms of excessive consumption, reserving the word 'alcoholism' for reporting the work of researchers who use that term in their studies (p.6). Heather and Robertson's (1981) book about controlled drinking also questions conceptualizations of alcoholism as a disease based upon the assumption of its' irreversibility and requirements of abstinence for treatment (pp. 1-2). They do not offer a definition

because some of the evidence is still incomplete about the success of controlled drinking. Makela (1978) prefers the term problem drinking. He states that "in social research, too, there has been a tendency to conceptualize alcoholism as a complex entity . . . relatively little emphasis has been put on how the actual amount and patterns of drinking interact with environmental reactions so as to produce alcohol problems" (p. 304). Peele (1985) provides a good review of alcoholism conceptualization and theories of addiction. In constructing a new addictive model, he advances that the basic idea is that "addiction is a response to socially and individually conditioned needs for specific psychophysiological, or experiential, states" (p. xi).

Summary of conceptualizations and definitions of alcoholism

On ending this section on conceptualization and definition of alcoholism a quote from Ellis, McInerney, DiGiuseppe, and Yeager (1988) seems most concise: "It is our belief that the present theories and research data on the etiology of alcoholism and other disorders are not yet sufficiently developed to effectively help therapists plan treatment" (p. 22). Theories of etiology can be taken as "excuses not to intervene because of the hypothesized etiological factors are so 'deep', or pervasive, or

biological" (McClearn, and Schuckitt cited in Ellis et al., 1988, p. 22). Fortunately, these and other researchers, such as Heather and Robertson (1981), Galizio and Maisto (1985), and Fingarette (1989), are not satisfied with traditional conceptualizations and research in the field.

Factors Which Influence Alcoholism, Relapse, and Sobriety

This review of factors reported to influence alcoholism, relapse, and sobriety will use research findings across disciplines with focus on the fields of addiction, counseling, psychology and psychiatry. In view of the current deficit of one agreed upon directing, integrative and multidisciplinary paradigm across these fields, the TFA system approach will be used to provide a framework to review the personal or treatment factors. Although TFA Systems (tm) will be reviewed more completely later in this chapter, a brief synopsis of the system is provided by Hutchins and Cole (1992). TFA stands for the thinking (cognitive), feeling (affective), and acting (behavioral) components of behavior (p. 4). Thinking approaches are associated with the work of Ellis, Beck, Burns, Meichenbaum, Maultsby, and others associated with rational or cognitive theories. Feeling approaches are associated with the work of Rogers, Maslow, Perls, and a

host of other espousing affective, humanistic, and existential theories. Acting approaches are most closely allied with the names of Skinner, Wolpe, Lazarus, Bandura, Krumboltz, Thoresen, and others who use behavioral theories (pp. 4-5). Behavior is defined as the interaction among thinking, feeling, and acting (Hutchins, 1984b). . . . The TFA model has proven to be an extremely useful way of conceptualizing a client's behavior in a specific problem situation (p. 6).

The majority of extant research studies on factors fall into the following categories: demographic; personal or patient characteristics; genetics; treatment factors; and factors correlated or predictive of relapse or sobriety. These factor categories are often not distinct and combinations often occur, without justification. For example, a relapse study may assess demographic, personal, and treatment variables in a matrix analysis. As previously mentioned, the categories tend to remain the same often duplicating what has already been studied from a particular theoretical base and not taking into account the suggestions for more multidisciplinary and integrated research needs. Very few factor interactional or multifactorial studies have been completed. However, a category of multifactorial and integrative factors will be provided. Replication studies often find different

results but do not necessarily improve upon the problems in the original research design, such as comparing different groups (sampling error), not accounting or controlling for other variables (years of drinking or stage, dual diagnoses, therapist effects, etc.), and not assessing possible interaction among factors. These methodological problems will be discussed in full detail in Part III of this chapter.

Demographic Factors

Westermeyer (1989), in a lengthy review of nontreatment factors affecting outcome, states pretreatment demographic factors (age, marital status, education, and occupational status) have been well studied vis-a-vis their subsequent effects on treatment outcome. These are well recognized as often predicting treatment outcomes better than treatment modalities themselves, which tend to correlate poorly with outcome (p. 13). The following demographic factors were reported to be predictive of outcome: married (Davies et al., Mindlin, Rudfield, & Pokorny et al., McLance et al., Choi, Zimberg, & Wilson, et al., Hoffman et al., and Poikolaniew et al., cited in Westermeyer, 1989); employment (Davies et al., Mindlin, Kissin et al., Gillis et al., Willems et al., Hoffman et al., Freedberg et al., Braunstein et al., Poikolaniew et al., and Elae-Lawerence et al., cited in

Westermeyer, 1989); higher status occupation (Mindlin, Kissin et al., Gillis et al., Willems et al., and Zimberg cited in Westermeyer, 1989); and attend church/community activities (Hoffman et al. cited in Westermeyer, 1989); and decreased absenteeism and lateness (Freedberg et al. cited in Westermeyer, 1989). (Note: 6 of the 16 studies were done in different countries, including Denmark, Scotland, U.K., Canada, and Finland). Table 3 summarizes some of the major findings for demographic factors.

Since all of the studies did not find all the same predictor factors one has to either assume that some of the studies did not find support for certain factors or the studies did not assess or measure the same factors. It is likely that most all the studies assess whether the alcoholics were married and employed. There appears to be a fairly narrow scope on demographic factors assessed. LaJeunese and Thoreson (1988) found that patient predictor variables for success included, among others, good marriage, 3 or less drinking arrests, involvement in A.A., one marriage, and not having job problems (p. 201). Interestingly, Miller (1990) using a very large sample of 1,627 Ss, making it more difficult to obtain significant differences from chance alone, did not report any significant correlations with demographic factors (sex, age, marital status, job status, religion) and abstinence

Table 3

Alcoholism outcome associated to demographic factors

Citation	Year	Factor(s)
Westermeyer	1989	Being married, employed, higher occupational status, good work record, living with others predicted favorable outcome.
LaJeunesse and Thoreson	1988	Predictors for success: good marriage, 3 or less driving arrests, involvement in A.A., and not having job problems.
Wiens and Menustik	1983	Being older (40+), and married for males not females related to more successful treatment outcome. No differential treatment outcomes based on educational level or occupational category.
Miller et al.	1990	Sex, age, marital status, job status, and religion not significant to abstinence.

Table 3 continued

Alcoholism outcome associated to demographic factors

<u>Citation</u>	<u>Year</u>	<u>Factor(s)</u>
Cross et al.	1990	Age, sex, social problems, or length of stay did not predict number of years of sobriety.
Ornstein and Cherepon	1985	Less prior hospitalizations and more likely to participate in aftercare more frequently predictive of favorable outcome.
Nathan and Skinstad	1987	Younger patients are better treatment prospects.
Waisberg	1990	Women and men seem to benefit from treatment to the same extent.
Herd	1990	Black and white men exhibit similar drinking patterns.
Kline	1990	No significant differences in alcohol expectancies across race or gender.

rates for the alcoholic group, or the alcohol and cocaine group, or alcohol and other drug group. Cross et al. (1990) reported that demographic variables of age, sex, social problems, severity of drinking problem, or length of treatment stay did not predict number of years of sobriety 10 years post-treatment (p. 169). There have been so many studies completed, it is likely up to the researcher to include or not include supportive or nonsupportive studies on any of the demographic factors. Emrick and Hausen (1983) provide clarity in stating although several demographic variables have been shown to be related to treatment outcome, none has correlated significantly and in the same direction every time it has been analyzed (cited in Waisberg, 1990).

Ornstein and Cherepon (1985) state those responding to treatment tended to be older, married, and employed at admission, had more days of prehospital abstinence, were less likely to have had prior hospitalizations, and were more likely to participate in aftercare and visit more frequently. However, only less prior hospitalizations and more likely to participate in aftercare and visit more frequently showed promising predictive ability (p. 425). Nathan and Skinstad (1987) describe several studies suggesting that younger patients are better treatment prospects than older patients (cited in Waisberg, 1990, p.

17). However, one must realize comparing treatment outcome may be different than abstinence or sobriety because treatment goals can include improved or lower drinking days, etc., and time frames of sobriety vary, whether at the end of treatment, 90 days, 6 months, etc.

Regarding gender, once in treatment women and men seem to benefit approximately to the same extent, although a few studies have suggested otherwise (Waisberg, 1990, p. 17). However, there is a lower rate of alcoholism among women than men and women are much less likely to enter treatment (Waisberg, 1990, p. 17). Miller, Hedrick, and Taylor (1983) found that at intake, women were more likely than men to be unmarried, married to a problem drinking spouse, or taking psychoactive prescription medication but less likely to be using illicit drugs, smoking, or gambling (p. 403).

Concerning race, Herd (1990) reported that on the whole, black and white men exhibit very similar drinking patterns. The proportion of abstainers, infrequent, frequent and heavy drinkers is very similar for the two groups. Frequent heavy drinking among white males is 'associated' to youthfulness, high income status, and living in wet areas. For black males the trend for frequent heavy drinking was 'associated' to older age and lower income (p. 221). Kline's (1990) study of both black

and white males and females found few gender or race specific expectancy drinking behavior relations. All Ss in the study expected alcohol to improve sociability and elevate mood (p. 175).

In conclusion, the only predictive variables of successful outcome that appears to hold up across studies are: fewer prior hospitalizations; and regular involvement in an aftercare program.

In applying the TFA paradigm to demographic factors, when one considers the contrary results of predictive factors a strong case can be made that individual differences within groups, in behavior and coping, are more important than belonging to a specific sex, race, age group, marital status group, or employment or occupational group on the whole. Hutchins (1984b), Hutchins and Cole (1992), and Hutchins and Vogler (1988) have maintained that behavior is very situation specific and that behavior is the interaction of thoughts, feelings, and actions. None of the studies reviewed for demographic factors attempted to assess specific situation or behavioral or intrapersonal interactions. The predictive variable of frequent involvement in an aftercare program makes sense if one believes that behavioral change takes time and that support/direction for change is helpful.

. Personal Factors

There is an extensive amount of research available on personal or patient factors related to alcohol abuse and dependence and treatment outcomes. The premier conceptual base for these studies is psychology, including personality, coping skills, cue exposure (learning theory), and reinforcing expectancies (cognitive - behavioral).

Personality variables

During the past twenty years the field has clarified that there is not an "alcoholic personality". Imlah (1989) points out that alcoholics are recruited from any one normal or abnormal personality type. In any series of alcoholics there are those without any noteworthy preexisting flaws in personality (p. 29). Years ago it is likely that samples contained persons in medical settings that had many different dual-diagnoses, especially psychiatric. Alcohol abuse was likely to have been a way many tried to find relief from their other life and personal difficulties. Imlah (1989) notes that while there are character traits that are more than chance part of the personalities of many alcoholics, such as self-indulgence, paranoid jealousy, immaturity, insecurity, depressive mood swings, other factors must be given equal weight. High among these are habit, genetic

endowment and biochemistry (p. 29). Furthermore, unlike the drug-misuser, the alcohol misuser has tended to be a conformer and has broken the law only after misuse and not before (Imlah, 1989, p. 29). Kunce and Newton (1989) found that problem drinking may be found among groups having distinctly different normal personality characteristics (p. 314). In contrast to Imlah (1989), and Kunce and Newton (1989), Weiss, Mirin, Griffin, and Michael (1988) found that alcoholics are likely to have an antisocial personality disorder (p. 510). Similarly, Fillmore (1990) found that an antecedent to serious alcohol problems is youthful antisocial behavior (conduct disorder) (p. 16). Berglund (1988) found that initial symptoms positively associated with later compulsory (court ordered) treatment included: slight cerebral dysfunction/personality change, antisocial/criminality, and impaired social and work performance (p. 19). Once again it should be pointed out that if a diagnosis of depression or an antisocial personality disorder is used the subject has a dual-diagnosis and comparison to alcoholics per se without a dual-diagnosis is erroneous. Table 4 summarizes the major findings reviewed concerning personal factors.

Related to the issue of dual-diagnoses, Zivich (1981) in a replication study of alcoholic subtypes (aggressive,

Table 4

Personal factors associated with alcoholism outcome

Citation	Year	Factor(s)
(Personality)		
Imlah	1989	Traits of many alcoholics include: self-indulgence, paranoid jealousy, immaturity, insecurity, and depressive mood swings. Misusers are conformers and have broken the law only after misuse.
Kunce and Newton	1989	Problem drinkers have different normal personality characteristics
Weiss et al.	1988	Alcoholics more likely to be depressed with melancholia and to have an antisocial personality (Note: dual-diagnoses).
Fillmore	1990	Youthful antisocial behavior (conduct disorder) is an antecedent to serious alcohol problems.
Frank et al.	1990	For men, poor conflict resolution skills and less adult work status accounted for excessive drinking;

Table 4 continued

Personal factors associated with alcoholism outcome

Citation	Year	Factor(s)
Frank et al. continued		for women, problem with intimacy accounted for use to alleviate emotional distress.
Hoffmann et al.	1987	Alcoholic DWI arrestees use more related to episodic social context and as a response to negative feelings than non-DWI alcoholics.
West	1992	Drinking is a planned event for the DUI second offender, promoted by feelings of acceptance and reward from socializing activities
(Coping Skills)		
Harrison and Hoffmann	1989	Most frequently cited impediment to recovery is unresolved emotional distress (boredom, anger, loneliness, or depression).
Billings and Moos	1981	Recovered alcoholics and nonalcoholic controls tend to use active-cognitive and behavioral coping responses. Relapsed

Table 4 continued

Personal factors associated with alcoholism outcome

Citation	Year	Factor(s)
Billings and Moos continued		patients tend to use avoidant coping responses.
Litman et al. 1979		Non-relapse positively correlated to flexibility of coping response as well as cognitive control, positive and negative thinking as coping behaviors.
(Cue-exposure)		
Kaplan et al. 1985		Alcoholics show a distinctive response (autonomic reactivity) and self-reported desire for alcohol to alcohol cues (sight and smell of alcohol).
Litt et al. 1990		Negative mood states may cue desire for alcohol independent of other cues. Reactivity to alcohol cues can be reduced by relaxation.
Sussman et al.	1990	Thinking about drinking can increase relapse potential

Table 4 continued

Personal factors associated with alcoholism outcome

Citation	Year	Factor(s)
Sussman et al. continued		unless the encoded alcohol - related stimuli in memory can be modified for older alcoholics.
		(Expectancies and beliefs)
Brown	1985	There is a negative linear relationship between alcohol expectancies and measures of treatment success. Limited beliefs that alcohol produces relaxation were associated with abstinence and nonproblem drinking.
Kline	1990	Expectancies that alcohol improves sociability and elevates mood were the best predictors of multiple negative drinking events.
Marlatt	1987	Alcoholic's expectancy profiles more global and positive (assertiveness and more physical and social pleasure).

Table 4 continued

Personal factors associated with alcoholism outcome

Citation	Year	Factor(s)
Rees	1985	Perceived severity of drinking problem, expectancies of improvement from treatment and satisfaction with initial doctor visit were strongly associated with compliance with treatment.
Wilkinson and LeBreton	1986	Subjective judgements about need for professional assistance in goal obtainment predicted treatment outcome. Ss low on self-reliance were more likely to have an unsuccessful outcome.
Klinger and Cox	1986	Positive motivation towards treatment and belief in obtaining goals to overcome alcohol dependence increased treatment success.

obsessive-compulsive, impulsive, schizoid and passive dependent). The least adjusted group, the schizoid, recorded the least improvement in alcohol consumption whereas the best adjusted group, the no-types, had the greatest significant improvement (p. 72). Because many samples of subjects come from inpatient settings, subjects with dual-diagnoses are more likely to be selected. Unfortunately, this is likely to decrease prognosis and subsequently increase potential for rehospitalization. Many of the samples reviewed are very heterogeneous. Svanum and McAdoo (1989) using a matched subjects design found that continued emotional turmoil (depression, anxiety and sleep problems) posttreatment was strongly related to failure among the psychiatric MMPI (Minnesota Multiphasic Personality Inventory) group (p. 222). Interestingly, many of the subjects had near normal MMPI scores and may not have had a dual-diagnosis. Within this group, only failure to engage in a continuing aftercare plan was associated with failure (p. 222). Treese and Khantzian (1986) add clarity to issues of psychiatric symptoms. They report that the vulnerabilities observed to characterize chronic substance abusers, presumed to also underlie the predisposition to drug dependency, are consistent with the psychology of character disorders (poor affective control, poor self-esteem, etc.) (p. 404).

Many studies reviewed contain alcoholics as well as other drug abusers in the samples.

Roy-Byrne (1989) reports that patients with anxiety disorders have an increased incidence of alcohol problems in their relatives and in themselves. There also appears to be a pattern of self-medication with alcohol by patients with phobic and anxiety symptoms. In patients who develop alcoholism, their self-medication with alcohol at first seems to help with anxiety symptoms, however, as alcoholism develops, it later makes symptoms worse (pp. 144-145). Frank, Jacobson and Tuer (1990) found that poor conflict resolution skills and less adult work statuses (unemployed, part-time, or job not related to career step or career goal) best accounted for men's excessive drinking, and problems with intimacy best accounted for women's use of alcohol to alleviate emotional distress. Occupational identity and intimacy maturity correlated with men's use of drugs rather than men's alcohol use (p. 770).

Hoffmann, Ninonuevo, Mozey, and Luxenberg (1987), in a study of court ordered DWI offenders who were all reported to be alcoholic but generally in a less advanced stage of alcoholism, found few outcome differences for outpatient treatment between DWI and non-DWI groups. However, DWI arrestees tended to be younger, unmarried and more likely

to complete treatment. They used alcohol more episodically in social context and use as a response to negative feelings (p. 591). These findings are similar to West's (1992) findings that DUI second offenders (some alcoholic and others being problem drinkers) have more marital instability and drink related to cognitive activity (planned event) regarding feelings of acceptance and reward from socializing activities (p. 210). However, West found more DUI recidivism occurring in the driving population over the age of 30 (p. 209). Prursch (cited in McVernon, 1987) emphasizes the important context of the socializing activity. He writes that chemical dependence is the illness of the inability to relate.

The majority of personality studies have used personality tests, such as the MMPI, to assess predictive variables. Two variables which should be taken into account are when tests are given (whether the person has had sufficient time to recover from detoxification) and the neuropsychological impact of alcohol itself. Chronic alcohol abuse can lead to the development of an organic personality syndrome. Denzin's (1986) description of "the alcoholic self" as, narcissistic and self-centered, the alcoholic self uses alcohol as a mirror, seeking in the self-reflection that alcohol offers a truer picture of itself. Yet alcohol, for the divided self, fuels

resentment towards others and an inner hatred of self . . . the alcoholic is unable to present a true picture of self to the other (p. 195) is similar to the DSM III-R's (1987) symptoms of affective instability, impaired social judgement, apathy or indifference and suspiciousness (p. 82) for an Organic Personality Syndrome.

Coping skills

Another subcategory of personal factors is coping skills behavior. Harrison and Hoffman (1989) investigated adult inpatient completers after one year. Their sample was quite large with 1,918 alcoholics. They found that the impediment to recovery cited most frequently by both relapsed and abstinent patients is emotional distress (boredom, anger, loneliness, or depression). Family stress and relationship problems are also among the commonly mentioned impediments to recovery (p. 32). Waisberg (1990) states that recovered alcoholics tend to use different coping skills than relapsed alcoholics to deal with stressful situations. Billings and Moos (cited in Waisberg, 1990) found that recovered alcoholics and non-alcoholic controls tended to use active-cognitive and behavioral coping responses (consider alternatives, talk to a friend, etc.), while relapsed patients tended to use avoidant coping responses, such as ignoring the problem or smoking more (p. 23). Litman, Eiser, Rawson, and

Oppenheim (cited in Waisberg, 1990) found that flexibility of coping responses as well as cognitive control - positive and negative thinking as effective coping behaviors - were positively correlated with successful outcome (not relapsing) (p. 23).

Cue exposure

Kaplan et al. (1985) found that consistent with conditioning models of relapse, alcoholics showed a distinctive response to alcohol cues (sight and smell of alcohol), characterized by autonomic reactivity and self-reported desire for alcohol (p. 267). In addition to alcohol cues (presentation of alcohol), Litt, Cooney, Kadden, and Gaupp (1990) induced negative mood states in the laboratory with alcoholics. They found that negative mood states may cue desire for alcohol independent of other cues and that reactivity to alcohol cues may be substantially reduced by relaxation (p. 137). Their sample of alcoholics did not respond to exposure of alcohol cues with desire for alcohol when they were in a relaxed, neutral mood state. This later study emphasizes that behavior is often an interaction of thoughts and feelings. In support of interactions of thoughts and feelings (urges), Sussman, Horn, and Gilewski (1990) concluded that by decreasing retrieval strength to cues (stored symbolically in memory) one might (1) decrease the

possibility that such cues elicit alcohol-related CCRs (urges), which may lead to drinking, and (2) decrease the possibility of relapse resulting directly from thinking about drinking. A memory modification approach may be effective with older alcoholics (p. 922).

Expectancies and beliefs

Generally, expectancies are the personal beliefs that alcoholics have regarding the outcome or result of drinking whether positive or negative, such as drinking alcohol will produce relaxation or that one drink will only lead to another drink. Brown (1985) found that more limited expectancies of alcohol-produced relaxation were associated with abstinence and nonproblem drinking. There was a consistent negative linear relationship between alcohol expectancies and measures of treatment success (p. 304). The greater the beliefs that alcohol would produce positive feelings and actions (sexual enhancement, social and physical pleasure, reduce tension and produce relaxation, increase feelings of power, etc.) the lower potential for successful treatment. Kline (1990) found that for both black and white males and females the expectancies that alcohol improves sociability and elevates mood were the best predictors of multiple negative drinking consequences. Marlatt (1987) similarly found that the typical expectancy profile for alcoholics

indicated more global, positive expectancies, more expectancy of increased interpersonal assertiveness, and more expectancy of physical and social pleasure than those of other populations tested (p. 12). Ludwig (1986) after reviewing Marlatt and Rohsenow's 1981 study, known as the 'think-drink effect' where those alcoholics and social drinkers who thought they were drinking vodka and tonic drank significantly more than those that thought they had only tonic, concludes that the expectations of alcoholics can exert a far greater influence on drinking behavior than the consumption of alcohol itself (p. 15).

Expectancies that alcoholics have regarding treatment and abstinence have yielded interesting results. Rees (1985) showed that beliefs and attitudes measured at the onset of treatment were predictive of adherence to treatment (p. 517). Elements found to be strongly associated with compliance included the perceived severity of their drinking problem, their expectations of improvement by remaining in treatment and their satisfaction with aspects of the doctor-patient relationship during the initial visit. Klinger and Cox (1986) found that successful treatment outcomes were significantly related to smaller size of community (treatment unit) concerns appetitive to treatment, lack of concern about avoiding alcohol, and expecting goal

attainments to occur sooner (p. 35). In other words, patients' positive motivations towards treatment and overcoming alcohol increased success. Wilkerson and LeBreton (1986) in addition to noting that pretreatment severity of drug use and multiplicity of problems negatively affected treatment outcome, found that clients' subjective judgments about the need for professional assistance in achieving their goals were predictors of treatment outcome. Clients low on self-reliance were more likely to have an unsuccessful outcome (p. 239). Waisberg (1990) adds important points regarding beliefs and success in stating that an alcoholic who believes that life-long abstinence is the solution to alcoholism and who develops mastery over abstinence should be able to remain abstinent longer than someone who does not have these outcome and efficacy expectations. However, if this person also has the outcome expectancy that return to drinking leads to relapse, he would be more likely to relapse if he had a drink after a period of abstinence (p. 24). As we know these beliefs are part of A.A. philosophy, perhaps part of A.A.'s ongoing success is that it focuses so very heavily on cognitive factors and changing beliefs about alcohol which changes behavior.

From the review of personal factors, the research tends to be very consistent with the findings of studies

focussing on coping skills, cue-exposure and expectancies. Only in personality research associated with alcoholism were there considerable contrary results. The discrepancies in the personality subcategory may relate to a number of research design and sampling problems including: trying to compare or generalize across different samples (some samples have "alcoholics", "problem drinkers", "alcohol abusers", dual-diagnoses populations, DWI offenders, etc.); using a variety of measuring instruments which may differ on validation construction (whether normed on psychiatric as the MMPI or alcoholic as the Alcohol Use Inventory and Substance Use Disorder Diagnosis Schedule (SUDDS), etc.); and heterogeneous samples on length of drinking problem, age, number of hospitalizations, the severity of the drinking behavior, and possible organic brain damage which might alter personality and other measurements.

The findings from research on alcoholic's coping skills, cue exposure responses and expectancies build a strong case for integrated personal factors and for an interaction of thoughts, feelings, and actions. For example, if a person believes that they can not control their emotional distress (low efficacy and poor coping skills) and need alcohol to elevate their mood (expectancy) when they are upset and exposed to alcohol

(cue-exposure) they will probably continue to drink. This relates to central themes of the TFA approach's emphasis on situation specificity and that behavior, in this case drinking behavior, is the interaction of the alcoholics' thoughts (beliefs and expectancies), feelings (low efficacy or feelings of distress), and actions (cue exposure to alcohol, or thinking about socializing and drinking). Therefore, to change the alcoholics drinking behavior one must change the situation or change the alcoholic's thoughts, feelings and actions in that situation. Regarding the role of craving for recovering alcoholics, Ludwig (1986) states that an individual responds differently at different times, represents the heart of the issue (p. 14). It is quite remarkable that the vast majority of studies reviewed in the category of personal factors did not attempt to focus on or clarify interactions or attempt to provide theoretical integration (Notable exceptions of Fillmore (1990), Ludwig (1986), Waisberg (1990), and West (1992)).

Genetic Factors

The review of genetic findings is limited to general findings. Schuckit (1985) concluded that as a group, children of alcoholics are likely to show signs of alcohol dependence at a younger age, escalate their use more rapidly, and experience more serious dependence than peers

whose parents are not alcoholic. Studies focussing on twins and the adopted children of alcoholic parents confirm the inheritability of a predisposition to alcohol abuse (p. 2614). The focus was on group comparison and not individual differences within the group and the predisposition was towards abuse, not alcoholism per se. Helzer (1987) reports that concerning adoption and cross-fostering studies, findings for daughters are equivocal, but the biological sons of alcoholic parents are 3-4 times more likely than the sons of nonalcoholics to develop alcoholism, whether they are raised by their biological parents or not (p. 288). Schuckit (cited in Helzer, 1987) states there is evidence of a gene x environment interaction in the development of alcoholism, and it appears that as many as one third or more of alcoholics have no evidence of any family history of alcoholism (p. 288). Helzer (1987) also points out that genetic or biological risk factors are variables that are associated with increased risk of a disorder and may not imply a causal relation . . . whereas increased familial risk can be due to either environment or genetic factors, there is little doubt that at least some of this familial tendency is genetic - disaggregating genetic from environmental influences is difficult (p. 288).

Lewis (1990) evaluated brain neurochemistry,

neuropharmacology, and genetic research data from the perspective of reinforcement mechanisms involved with alcohol addiction. He states that alcohol reinforcement seems to be primarily a function of euphoric and anxiolytic effects. Physical dependence apparently plays a relatively minor role in sustaining drinking. Genetic studies suggest that alcohol's various positive and negative reinforcing effects may differentially reinforce alcohol abuse in Type 1 and Type 2 alcoholics (Type 1 and Type 2 alcoholics from Cloninger's 1987 research) (p. 63). Type 1 alcoholics (also known as Milieu-Limited, over age 25, and representing about 75% of male alcoholics) may find the anxiolytic actions of alcohol quite rewarding and may binge when stress and anxiety levels are quite high. They may also secondarily desire the euphoric properties of alcohol when life-events provide few rewards (Lewis, 1990, p. 62). Type 2 alcoholics (also known as Male-Limited, under age 25, and representing about 25% of male alcoholics) on the other hand may be influenced by the activation during the euphoric actions of alcohol. This group, however, tends to be more active and, therefore, may drink for the depressant effects of alcohol which may 'normalize' their level of activity and impulsiveness. These speculations await more intensive research efforts with alcoholic populations, especially

sons of alcoholics (Lewis, 1990, p. 62). von Knorring, Palm, and Andersson (1985), in a study of the relationship between outcome and subtype of alcoholism in men, found there were significantly more Type 2 alcoholics among the exalcoholics and more Type 1 alcoholics among the active alcoholics. The results seem to indicate a better prognosis for Type 2 alcoholism (p. 388).

Fingarette (1988) comments on Cloninger's research, the most recent (and influential) adoptee genetic study, reported by Cloninger and his colleagues, concludes with these words: 'the demonstration of the critical importance of sociocultural influences in most alcoholics suggests that major changes in social attitudes about drinking styles can change dramatically the prevalence of alcohol abuse regardless of genetic predisposition' (p. 14). In the same article, Fingarette reviews a 1973 article by Donald Goodwin and his colleagues, and he states "now let's look at the same data from a different angle, and in a more meaningful context. As simple arithmetic tells us, if 18 percent of sons of alcoholics do become alcoholics, then 82% - more than four out of five - do not" (p. 13). Fingarette maintains that we already know that the great majority of alcoholics do not have alcoholic parents (p. 13). Cloninger, Bohman, and Sigvardsson's (1981) final conclusion regarded that further research into both the

biomedical and sociocultural aspects of alcohol abuse should take into account the heterogeneity in his study and focus on more clearly defined subgroups of alcoholics (p. 867). Consistent with studies on personality factors, genetic factor studies have subjects with varying degrees of alcohol severity.

In efforts to identify possible genetically influenced factors, Schuckit (1985, 1987) and Anthenelli and Schuckit (1990) have concluded that there is a decreased intensity of reaction to modest ethanol doses for sons of alcoholic, a decreased amplitude of certain brain waves of the event-related potential, and a different pattern of background cortical electroencephalograms for young men at high risk for future alcoholism. Blum (1990) in reviewing his gene research on alcoholism comments that chromosome II, the site of the dopamine D2 receptor gene has been implicated not only in alcoholism but also in other aberrant behaviors (manic-depressive and various compulsive pleasure-seeking behaviors including drug abuse, excessive sex, and eating disorders) (p. 45). Blum is responsible for developing the 'link' hypothesis for isoquinolines in the actions of alcohol and opiates, and for suggesting that opioid peptides are mediators in alcohol predisposition in animals and humans.

It is very interesting that some of the leading

authorities on genetic alcohol research appear very willing to emphasize integrated factors, such as Cloninger with sociocultural influences and Schuckit with gene x environment interactions. Rogosch, Chassin, and Sher (1990) advance that personality characteristics can be considered moderators of family history risk. In their study there was an interaction between family history of alcoholism and dispositional self-awareness (and between family history and presumed personality risk) in predicting alcohol consumption and alcohol-related social consequences (p. 315). In addition, Tarter, Alterman, and Edwards (1985) advance that the predisposing features can be accounted for on the basis of deviations in empirically established temperament traits, thereby supporting the viability of a behavior-genetic perspective for elucidating the susceptibility to alcoholism (p. 329). Generally, their temperament research strategy provides the basis for elucidating the intervening biological mechanisms linking the genetic predisposition with specific behavioral manifestations (p. 330). They also describe their model to be multifactorial.

In TFA translation, Hutchins' (1984b) definition of behavior is also multifactorial in that behavior is the interaction of thoughts (cognitive), feelings (affective), and actions (behavioral). Rogosch et al.'s (1990) study

is supportive of the TFA paradigm for drinking behavior because self-awareness of risk and possible drinking consequences are thoughts which influence actions of highly self-aware high risk subjects to drink in moderation. Cloninger's work also emphasizes decreasing risk by changing social attitudes and drinking styles regardless of genetic predispositions. The TFA approach clarifies that the way to change behavior is by changing the interaction of thoughts, feelings and actions in specific situations. The review of cue exposure research demonstrates that the high risk situations would be to see or smell alcohol in social situations, or be around others who are drinking.

Treatment Factors

There are ample studies regarding treatment factors and their effects on recovery from alcoholism. However, the majority of the studies generically include individual, group, family, or 12-step programs without specifying theoretical base(s), individual goals beyond sobriety, or the possibility of therapist effects or patient x treatment method x therapist interactions. Many of the studies complete pre and post measures of alcohol consumption, psychiatric severity, and social, employment, and marital/life adjustment measures. Table 5 provides a review of selected studies on treatment factors.

Table 5

Effects of treatment factors on alcoholism outcome

Citation	Year	Factor(s)
Maisto et al. 1985		No significant effects of interview style or treatment length on drinking behavior and employment outcomes.
McLellan et al.	1983a	No evidence of differential effectiveness from different treatments or from matching patients to treatments. Patients with midrange psychiatric severity showed outcome differences for different treatments.
McLellan et al.	1983b	Superior performance in treatment and an average of 19% better 6 month outcomes for matched Ss.
McLachlan	1972	Patients matched with therapists on conceptual level (CL, dependent or independent) for group therapy showed more improvement than mismatched Ss based on improvement ratings during treatment.

Table 5 continued

Effects of treatment factors on alcoholism outcome

Citation	Year	Factor(s)
Brown and Yalom	1977	50% showed moderate to marked improvement after at least 8 months of interactional group.
Kadden et al.	1989	Coping Skills group treatment more effective for Ss high in sociopathology and psychopathology, interactional group more effective for Ss low in sociopathology, both equally effective for Ss low in psychopathology.
Cooney et al.	1991	Two years post Kadden et al. 1989, Ss scoring high on sociopathy/global psychopathology did better in coping skills group therapy. Low sociopathy Ss did better in interactional group therapy. Ss with cognitive impairments did better in interactional group and Ss without cognitive impairments did better in coping skills group.

Table 5 continued

Effects of treatment factors on alcoholism outcome

Citation	Year	Factor(s)
Bowers and Al-Redha	1990	At end of treatment, no difference for individual versus conjointly (with spouse) treated. After 6 months, conjointly treated had sign. lower consumption; after 1 year, 'trend' for conjointly treated to drink less.
Woody et al.	1986	Ss in supportive (expressive or cognitive) treatment did better than those in drug counseling alone. Sign. differences between all therapists between and within all measures.
Williams et al.	1986	A.A. cited more important than individual outpatient reality therapy for sobriety.
Westermeyer	1989	Random assignment to A.A. not effective, association between A.A. attendance and better outcome

Types of treatment and matching

Maisto et al. (1985) in a study of possible outcome differences for inpatient male alcohol abusers, who were assigned randomly to one of four treatment groups (time-limited, open ended treatment length and data-oriented or person centered interviewer style), found no significant effects of follow-up interviews style (at 6, 12, or 18 months) or treatment length on drinking behavior and employment outcomes. Since no treatment control group was included in the design, it can not be stated that the subjects' improvement was a consequence of treatment (p. 145).

McLellan, Luborsky, Woody, O'Brien and Druley (1983a) found that although their samples of 460 male alcoholics and 282 drug addicts showed significant improvement, no evidence of differential effectiveness from different treatments or from matching patients to treatments (p. 620). Patients with low psychiatric severity improved in every treatment program. Patients with high psychiatric severity showed virtually no improvement in any treatment. Patients with mid-range psychiatric severity (60% of the sample) showed outcome differences for different treatments and especially from specific patient-program matches (p. 620). There were six possible rehabilitation programs at this Veterans Administration center ranging

from the Alcohol Treatment Unit (ATU) a 60 day program based on the principles of A.A.; Combined Treatment (COMB), a short-term 45 day program based on principles of A.A. or N.A. with ancillary individual therapy and educational material; Methadone Maintenance with medical, psychiatric and social work counseling; to Alcohol Outpatient (ADP), a variable length treatment program concentrating on medical, psychological, and social problems of the alcoholics. The problems in this study's design are not specifying theoretical bases within psychology, social work, etc., and the mixing of different types of alcoholics with different types of drug addicts compounded with psychiatric difficulties. The same problem occurs in Maisto et al.'s (1985) design where the "problem drinkers" included continuous and episodic abusers as well as alcohol dependent. Perhaps this is one of the reasons why Cloninger et al. (1981) suggests using more homogeneous samples or subgroups.

In a follow-up study on the same design, McLellan et al. (1983b) reported superior performance during treatment and an average of 19% better 6-month outcomes for the matched patients (N=80) than their mismatched counterparts (N=50). The matching effect was seen in both alcohol and drug-dependent samples and in all treatment programs (p. 597). Matching decisions were based on three levels:

alcohol or drug dependent; psychiatric severity; and severity of problems (employment, legal, family, etc.). A pioneering study on matching was McLachlan's (1972) study of benefit from group therapy as a function of patient-therapist match on conceptual level (CL). Low CL equates with a dependency phase of development and high CL equates to an independent and self-delineated phase. He found that matched patients in both low CL and high CL were more improved than mismatched patients (p. 321). Improvement was based on improvement ratings from patients and staff. It is unknown whether this study had a follow-up for after treatment.

Group therapy

Brown and Yalom (1977) reported that they found almost 200 articles on group therapy with alcoholics but only a few (8) dealt with an approach centering on interpersonal interaction of the members (p. 426). This is rather astounding as group therapy by definition is designed to be a interactional process. These researchers found that approximately 90% of patients remaining in therapy (interactional group) at least 8 months underwent slight to marked improvement. Approximately 50% were moderately to markedly improved. There was no difference in improvement rates between the alcoholics and neurotics (p. 431). The obvious concern here besides having only a 50%

moderate to marked improvement is with the length of time required as no insurance company today will pay for 8 months of outpatient alcohol treatment and individual costs would likely prohibit participation.

Kadden, Cooney, Getter, and Litt (1989) investigated patient - treatment matching. They found that coping skills group training was more effective than interactional group treatment for subjects high in sociopathy and psychopathology. Both were equally effective for subjects low in psychopathology and that interactional group was more effective for subjects low in sociopathology (p. 698). In a follow-up study, Cooney, Kadden, Litt, and Getter (1991) analyzed their two year outcome data for matching alcoholics to either coping skills training or interactional aftercare group treatment. They found that individuals scoring high on sociopathy or global psychopathology had better outcomes in coping skills treatment, whereas patients low on these dimensions had better outcomes in interactional group treatment. Patients with cognitive impairments had better outcomes in interactional treatment and patients without cognitive impairment did better in coping skills treatment (p. 598). Their measure of improvement was frequency of heavy drinking days. Seventy-six percent of the sample was abstinent at 24 months which is better than the

majority of effectiveness rates reported in Chapter 1.

Family involvement

Bowers and Al-Redha (1990), in a study of possible difference in outcome between alcoholics treated in individual therapy or conjoint therapy (treated with their spouse), found that at the end of therapy there was no difference between samples. However, after 6 months, the conjointly treated had significantly lower consumption. After one year, a "trend" for conjointly treated to drink less. This study emphasizes the importance of measurement differences at different time periods. No resource was found which clearly addressed this issue. It is known that most alcoholics are likely to relapse within the first four months after treatment/stopping . Ojehagan (1988) reported that alcoholics in recovery are most stable from 6 to 24 months. Wiens and Menustik (1983) also suggest that relapse rates are the highest the first 3 to 4 months. Kaufman and Reoux (1988) discuss and "early recovery phase being the first one-half to two years and an "advanced" recovery phase to be after one to five years of abstinence. Most of the studies reviewed did not specify why a certain time period was used (exception of longitudinal studies) but generally follow the work of others for the general common assessment periods of prior to treatment, at the end of treatment, at

three months or six months, and at one year. It is a common practice in treatment centers and A.A. that one year of abstinence is required to do volunteer work.

Janzen (1985) reports that a broad variety of programs provides services to families of alcoholics on an individual or group basis. There is concurrence among respondents that services are helpful to the alcoholic (p. 44). The majority of these services for families are based in educational and 12-step formats (Al-anon and Adult Children of Alcoholics).

Complexity of variables and measures

Kadden et al.'s (1989) and Cooney et al.'s (1991) studies emphasize the complexity of treatment issues. No matter what psychometric assessment is used, one could obtain different subgroups (sociopathic, cognitively impaired, dependent, independent, impulsive, etc.) with the already heterogeneous "alcoholic" population (episodic or continual, abusers, or problem drinkers, or alcohol dependent). West (1992) noted the variety of psychometric and personality and alcohol use tests/inventories used in just the DWI population (pp. 32-40).

In a classic study, Emrick (1975) reviewed 384 studies of psychologically oriented alcoholism treatment. He found that differences in treatment methods did not significantly affect long-term outcome (p. 88).

Abstinence rates did not differ between treated and untreated alcoholics, however, treated alcoholics improved (reduced drinking problems). There is a choice in selecting treatment outcome whether abstinence or improvement. The studies reviewed so far have primarily used the improvement criteria.

As recently as 1991 there are major publications which tend to limit the scope and complexity of treatment issues. The U.S. Department of Health and Human Services's Third Triennial Report (1991) of drug abuse research states that although in practice the two approaches, pharmacological and behavioral, are frequently combined, treatment can be usefully divided into two categories: pharmacological or behavioral (p. 3). Under pharmacological the headings of agonist substitution (for maintenance and detoxification), antagonist treatment, and symptomatic treatment (to alter the symptoms of drug abuse) are used. Under behavioral modalities the headings of verbal therapy, contingency management (use of consequences), conditioning therapy (controlled exposure to stimuli), therapeutic community (typically 6 months or longer of treatment in residential setting), skill development (job finding, social, assertiveness, and relaxation/stress management), and peer support self-help groups (A.A. and N.A.) (p. 49). This reports' conclusion

is that substantial advances continue to be made in understanding and treating drug abuse disorders. Both pharmacological and behavioral treatment modalities of demonstrated efficacy are now available. However, none of these is universally effective. Drug abuse remains a chronic relapsing condition usually requiring prolonged or repeated treatment (p. 58). From articles reviewed, it does not seem that the research field has clarity on efficacy and that most of the treatment does not include all the behavioral category headings or attempt to incorporate additional variables, such as individual needs/problems and how well they are resolved in particular individual or group treatment or potential therapist effects upon individual outcomes. There appears to be more research done on personal factors and outcomes than on specific treatment variables per se.

Therapist effects

Although as far back as 1972 McLachan (1972) found that matching patient and therapist predicted outcome, only three articles could be obtained specifically addressing the issue of therapist effect and alcohol treatment. Woody et al. (1986) found that significant differences occurred between therapists and between and within all measures of types of treatment (supportive/expressive, cognitive/behavioral, or drug

counseling only). Crits-Christoph, Beebe, and Connolly (1990) referenced only eight studies going back to 1965 dealing with therapist effects in general. Of the eight studies, only two references were cited that used substance abuse terminology in the title. The others dealt with therapist effect in general. They write that an overlooked issue in the design of psychotherapy outcome studies is the possibility of systematic differences between therapists (p. 39). After comparing the reported therapist effects of the different studies, they reported that notable is the large variability in therapist effects across studies (from zero to 29 - a very large effect) (p. 43). They added, stated simply, the issue is this: how many times is a false-positive treatment effect obtained when the incorrect analysis is performed, i.e., when the therapist factor is ignored (p. 45). They conclude that the presence of therapist effects may have led to conclusions that treatments differ when in fact they do not (p. 46). Fishman (1992) maintains that many family therapists are uncomfortable with approaches that minimize family involvement and they believe that a client must 'hit bottom' in order to become motivated for change. Consequently, substance abusers can receive strikingly different treatments depending on the theoretical orientation of the therapist involved (p. 83).

In relation to the TFA paradigm, therapist effects would be very important because of the specific beliefs the therapist might have which would impact on how much change would be required in the client's beliefs. For example, if the therapist believes that abstinence is the only way to recovery, the client would have to change his thoughts to "I can never drink" and then change behavior to abstain and not to lower consumption.

A.A.

Although the members of A.A. do not consider A.A. to be "treatment" (Booth, 1989, p. 5), a considerable number of studies include A.A. involvement as a treatment variable. Williams et al. (1986) reported that his inpatient sample rated A.A. more important than individual outpatient reality therapy for attainment of sobriety. Westermeyer (1989), after reviewing several studies incorporating A.A., concluded that although random assignment to A.A. has been shown not to be especially effective, descriptive studies show a regular association between A.A. attendance and better treatment outcome (p. 14). Cross et al. (1990) found that involvement in A.A. predicted abstinence suggesting that treatment bridge patients into A.A. involvement. McLatchie and Lomp (1988) found that pretreatment A.A. affiliation did not influence prognosis significantly. However, an infrequent or

irregular pattern of post-treatment A.A. attendance was associated with a much poorer prognosis than either regular attendance or nonattendance (p. 309).

Regarding the nature of the A.A. group, Denzin (1987b) writes the A.A. group is opposed to seriality, or separateness. Indeed, it is a premise of such groups that the loneliness of alcoholism requires interactional and interpersonal treatment in a group context (p. 102). Although the A.A. population has been viewed to be fairly homogeneous, Humphreys, Stofflemayr, and Stofflemayr (1991) accessed factors associated with attendance of self-help groups (A.A. and N.A.). They found that Blacks and women were more likely to attend with no significant differences between groups in marital status or education. Attenders also had significantly worse psychological, family/social, and substance abuse problems (pp. 592-593). They concluded that the notion that substance abuse self-help groups appeal more to persons of privilege and resources may not be generalizable to the treated population. On the contrary, it appears that members of disenfranchised groups are more likely to attend (p. 593). Although this article offers important consideration, upon close review the sample had all been treated in either outpatient or residential "public" substance abuse facilities. The authors did note this fact and stated, by

drawing a sample from a diverse set of communities, we were able to show the diverse appeal of self-help. The data demonstrate that N.A. and A.A. do appeal to Black and female substance abusers (p. 593).

In relation to the TFA paradigm, A.A.'s strict belief in abstinence is a strong emphasis on how one thinks about alcoholism and sobriety. A.A.'s effectiveness could well relate to the emphasis on changing the alcoholic's thoughts about drinking. West (1992) found that for second DUI offenders drinking was a consequence of the decision making process. The method of A.A. is generally considered by clinicians to be a very cognitive/educational approach. In order to more fully describe the method, Table 6 suggests (no empirical evidence to date) the orientation in TFA terms for the 12 steps of A.A. The orientations suggested in Table 6 are based on the researcher's clinical experience and conversations with A.A. members. A.A. appears to provide a very structured, long-term, and readily available resource for recovering alcoholics to discuss beliefs about alcoholism, their own life histories, and to interact with others. Suspecting that the A.A. program is very cognitive oriented, a hypothesis would be that many alcoholics who classically deny their feelings would be more cognitively oriented and match with A.A. Hutchins

Table 6

The twelve steps of A.A. put into TFA orientations

<u>Step</u>	<u>TFA orientation</u>
T=Thinking, F=Feeling, A=Acting	
1. We admitted we were powerless over alcohol . .	Belief = T
2. Came to believe that a Power greater than . .	Belief = T
3. Made a decision to turn our will and . .	Decision = T
4. Made a searching and fearless moral inventory . .	Belief = T
5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.	Meaning = T
6. Were entirely ready to have God remove all these defects of character.	Spirituality = T
7. Humbly ask Him to remove our shortcomings.	Action/faith = A&T
8. Made a list of all persons	Action = A

Table 6 continued

The twelve steps of A.A. put into TFA orientations

Step	TFA orientation
	T=Thinking, F=Feeling, A=Acting
we had harmed, and became willing to make amends to them all	
9. Made direct amends to such people wherever possible, except when to do so . .	Action = A
10. Continued to take personal inventory and when we were wrong promptly admitted it.	Analyze = T & A and Assertion
11. Sought through prayer and meditation to improve our conscious contact with God . .	Spirituality = T
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles . .	Practice = A

T = 58% TA/AT = 17% A = 25% F = 0% TFA = 0%

and Cole (1992) discuss how therapists should adapt their procedural methods/orientations to the clients' orientation. "As a working model, our experience indicates that the closer to one of the thinking, feeling, or acting vertices of the TFA triangle, the more effective it is to use techniques and strategies that emphasize characteristics . . ." (p. 157). A related question is how effective would A.A. be for Feeling-oriented or Action-oriented persons?

Relapse Factors

Harrison and Hoffman (1989) offer a fairly comprehensive study of relapse and abstinence. They state that the impediment to recovery cited most frequently by both relapse and abstinent patients is emotional distress, such as boredom, anger, loneliness, or depression. Family stress and relationship problems are also among the commonly mentioned impediments to recovery (p. 32). In addition, for relapsed patients, financial problems, craving alcohol or drugs, not really wanting to stop, and the belief that you are not chemically dependent resulted in significant differences with abstainers' perceptions of recovery impediments (p. 32). Earlier in the same report these researchers state that the following are correlates of abstinence/relapse (positive outcome) for pretreatment factors: being older; being married or widowed; and being

female. The difference between Black and white patients was not significantly different (p. 16). Using alcohol as opposed to other drugs or multi-drug use also predicted abstinence (p. 22). Not having a history of antisocial behavior before age 15 was predictive of abstinence as well as not having a criminal offense arrest during the year before treatment. However, history of traffic violation during the year before treatment was not (p. 26). Concerning treatment and post-treatment factors, the following were predictive of higher abstinence: family participation in treatment; and a longer amount of active involvement in A.A. aftercare program (none = 62% abstinence rate, 1 to 5 months = 54%, 6 to 11 months = 72%, and 12 months = 84%) (pp. 27-29). It is noteworthy that the group with 1 to 5 months of aftercare had the lowest abstinence rate. Explanation for this difference was not advanced. It is also noteworthy that this study included clients' perceptions of impediments to recovery. Once again, it appears that an important area to explore is what a person believes or thinks.

Most studies continue to assess relapse factors similar to factors already explored in demographic and personal factors. Table 7 outlines the findings of selected relapse studies.

Prevention planning

Gorski (1986) emphasizes the need for a "Relapse - Prevention Planning Tool" with consideration of the phases of recovery (pretreatment, stabilization, early recovery, middle recovery, late recovery, and maintenance period) derived from developmental and biopsychosocial models (p. 9). Time frames for the phases are not advanced. He also emphasizes the importance of learning to assess and deal with "trigger events" and predisposing factors in lifestyle or personality that lowers a person's resistance to stress (high-stress lifestyle or personality, social conflict or instability, poor health maintenance, multiple diagnoses, and an inadequate recovery program) (p. 10). During the pretreatment period Gorski cites the testing of personal control as the major cause of relapse (p. 10). The major causes of relapse during stabilization is lack of withdrawal management skills (p. 9). The primary cause of relapse during early recovery is the combination of direct social pressure to use alcohol; the absence of effective, sobriety-based, coping skills; and a buildup of chronic daily stress (p. 10). He reports the major cause

Table 7

Factors associated to relapse and lower abstinence rates

Citation	Year	Factor(s)
Harrison and Hoffmann	1989	Pretreatment: being younger (<30); separated/divorced or single; male; multi-drug use; anti-social behavior prior to age 15; and history of a criminal arrest the year before treatment. Treatment/Post-treatment: family not involved in treatment; and shorter length in aftercare (A.A.). Perception of recovery impediments: emotional distress; family or relationship stress; craving alcohol; not wanting to quit; and not believing they are chemically dependent.
Gorski	1986	Pretreatment: testing of personal control. Stabilization: lack of withdrawal management skills. Early recovery: social pressure

Table 7 continued

Factors associated to relapse and lower abstinence rate

Citation	Year	Factor(s)
		to use; lack of effective sobriety-based coping skills; and buildup of chronic daily stress.
		Middle recovery: stress of life change. Late recovery: inability to cope with stress of unresolved childhood issues or evasion of a functional, low-stress personality style.
Brown et al.	1990	Occurrence of severe stressors posttreatment elevates relapse.
Gilbert	1988	Improved aftercare therapy attendance did not improve treatment outcome.
Thoreson et al.	1986	Using a broad array of relapse prevention strategies and satisfaction with life was related to length of sobriety.

Table 7 continued

Factors associated to relapse and lower abstinence rate

<u>Citation</u>	<u>Year</u>	<u>Factor(s)</u>
Ojehagen	1988	Younger alcoholics with fewer abuse days had better prognosis than older alcoholics, post-treatment drinking outcome not related to background characteristics (demographics) or data on social and psychiatric functioning.
O'Donnell	1984	Multiple relapsers at first slip are characterized by dysphoric mood as an antecedent, drink in familiar company and places, and have a large number of drinks.

cause of relapse during middle recovery is the stress of life changes (p. 9). For the late recovery period, he reports the major cause is either the inability to cope with stress of unresolved childhood issues or evasion of the need to develop a functional, low-stress personality style (p. 9). During maintenance, persons must be aware they are alcoholics and can not safely use alcohol or drugs and guard against relapse warning signs . . .(p. 9).

He later discusses internal and external warning signs. Internal warning signs are inability to think clearly, recognize and manage emotional states, remember things, psychomotor coordination, sleep restfully, and manage stress (p. 10). External warning signs include problems related to work, social, family, and intimate functioning (external dysfunction usually begins with denial of internal dysfunction) (p. 10). Although Gorski's model makes sense and is tied to a multidisciplinary model he does not reference in the article empirical support for the relapse factors associated with phases of recovery.

In another article, Gorski (1989b) states that one-third to one-half of all relapse-prone persons eventually find permanent abstinence (p. 21). However, a case could be made for how they do this to still be a mystery. Gorski also notes that relapse rates reach a peak at 6 months and then decline (p. 21). From this, it

appears that the first months after treatment are the most critical to learn and implement effective ways to change old behaviors, especially thoughts and actions.

Stress and personal styles

It is generally accepted that there is correlation between posttreatment stressors and relapse (Hoffmann, 1991). However, several articles, such as Brown et al. (1990) fail to specify patient characteristics and differences in coping to stress or the specific elements in aftercare that were or were not beneficial. Contrary to previous findings, Gilbert (1988) found no one to one correspondence between improved aftercare therapy attendance and improved treatment outcome (p. 149).

Often, the variables that did improve or decrease relapse are not very well specified but are more generic in description. For example, Thoreson et al. (1986) found that using a broad array of relapse prevention strategies and satisfaction with life areas related to length of sobriety. However, the description of personal strategies, such as keeping sobriety a first priority, attend more meetings, a day at a time, etc. lack clarity as to how does one do this, whether changing coping skills or thoughts or actions and from what - to what?

Contrary results frequently occur in the relapse factors area just as have been described in the categories

of personal and treatment factors. For example, although using a Swedish sample, Ojehagen, Skjaerris, and Berglund (1988) found that instead of old patients having better outcomes, younger alcoholics having fewer abuse days had better outcomes/prognosis (p. 48). In addition, these researchers found that posttreatment drinking outcome (first 6 months) did not relate to background characteristics and data from the initial phase of therapy (drug taking evolution scale, DTES, includes severity of abuse, social functioning, social belonging, and psychiatric status) (p. 49). Only time after treatment strongly related to low number of abuse days. The authors interpret this as an effect of therapy and advocate the importance of a working "therapeutic alliance" as a base for treatment success (p. 49).

One study having a good deal of specificity, O'Donnell (1984), found that multiple relapsers circumstances when they take the first drink (after a period of abstinence) are characterized by the presence of dysphoric mood as an antecedent to the slip, by the location of their drinking in familiar company and places, and by the tendency to have a large number of drinks on that occasion (p. 260). West (1992) also supports these findings. Kaufman and Reoux (1988) emphasize an important but often overlooked confounding variable in early and perhaps middle recovery

is the physical or organic physical and cognitive consequences related to chronic abuse. They note long-term cognitive consequences may or may not resolve, but typically take weeks to months depending on the particular substance involved. The writer worked in a psychiatric inpatient setting where psychological testing for alcoholics/substance abusers was generally prohibited for the first 14 days and recommended to be repeated after one year of sobriety. Obviously, physical changes can influence how a person thinks, acts, and feels. Medical monitoring of organic and physical functioning should be included in relapse prevention plans.

TFA interpretations

In the relapse or sobriety research area, the TFA paradigm offers potential utility for specifying how alcoholics can learn how to change thinking, feeling, and acting interactions during a craving or trigger situation. Gorski (1989a) advances that craving is a complex interaction, a complex combination of obsession, compulsion, physical craving, and drug seeking behavior (p. 42). He defines obsession as mental or a morbid preoccupation with thinking about chemical use. He defines compulsion as an emotional state or an irrational urge to use. He states that drug-seeking behavior typically is unconscious behavior that increases exposure

to a drug. In relation to cue-exposure, expectancy and coping skills theories, the alcoholic needs to change the old behavior, which Hutchins (1984b) defines as the interaction of thoughts, feelings, and actions, whenever there are cravings, exposure to alcohol, thoughts about drinking or beliefs about abstinence, or when dealing with stressful situations.

Gorski (1990) states that most relapsers do not know what their warning signs are; they need to be guided through a process that will uncover them (p. 43). For example, a warning sign of feeling unable to cope with job stress to lead to a coping strategy of learning how to say no, limit work hours, and learn relaxation techniques. Put into TFA terms, to change the unwanted feeling (F) and old pattern of drinking by learning to become more cognitive (T) and action (A) oriented by taking assertive action, lowering expectations of self and work less (change thoughts about self and the job), and learn how to relax by changing either T, F, or A. Gorski proposed needs and strategies to prevent relapse appear to be sound, yet lack an integrated theoretical framework for scientific exploration and lacks a method to direct individual behavior change needs from an uniform approach, such as a measuring instrument like the Hutchins Behavior Inventory (HBI, 1984a).

Chiauzzi (1989) supports this process with writing, by monitoring the changes (often subtle) in behavior, thoughts and emotions that precede a relapse, they have a better chance of stopping themselves before they resort again to alcohol or drugs (p. 19). Finally, Ludwig (1986) discusses craving and the conditioned responses in alcoholics and states that an individual responds differently at different times represents the heart of the issue (p. 14). The TFA approach has consistently focussed on behavior and behavioral change in the specific situation (Hutchins, 1984a).

Multifactorial and integrative factors

There is substantially less research in this area related to alcohol use and relapse. Lex (1987) suggests that future research adopt multidisciplinary approaches to more fully characterize ethnopharmacological profiles of alcohol use and abuse among ethnic minorities (p. 293). She maintains that each minority group is heterogeneous in its drinking patterns, drinking problems, and psychological, medical, and social consequences of alcohol abuse. To date, no studies have systematically documented variations in drinking styles and factors that promote or maintain alcohol abuse (p. 293). She reviewed the extant research on alcohol problems among Black Americans, Hispanic Americans, and American Indians. Also

recommended is to systematically compare groups via a consistent multidisciplinary and prospective approach because alcohol use and abuse in any group (the general population) occurs in a multifaceted context (p. 299).

Concerning cognitive studies in alcoholism, Wilson (1987) concludes that treatment strategies have increasingly reflected the influence of cognitive-social learning theory, whereas cognitive-behavioral models of relapse and prevention following treatment have generated controversy, fresh ideas, and new research (p. 325). One of the fresh new ideas he presents is from the work of Bandura's cognitive-social learning theory (cited in Wilson, 1987). Wilson states that this focus on the maintenance of behavior changes, which had been neglected in treatment approaches, heralded a significant conceptual development (p. 329).

Kaufman (1990) advances a model of psychotherapy which integrates psychodynamic theory, A.A. and other 12-step groups, family therapy, and dual-diagnosis issues into a phase-specific method. This therapy is done in three stages: (1) dryness (assessment and detoxification); (2) sobriety (achieving stable abstinence); and (3) wellness (using sobriety as a basis for personal growth and intimacy) (p. 97). Tarter, Alterman, and Edwards (1985) advanced a behavior-genetic perspective on factors. They

maintain that the predisposing factors can be accounted for on the basis of deviations in empirically established temperament traits (p. 329). Their temperament model has six dimensions of: activity level; attention-span persistence; soothability; emotionality; reaction to food; and sociability. The perspective accommodates and systematizes the available findings on alcoholism vulnerability into a coherent framework (p. 336).

Galizio and Maisto (1985) and Zucker and Gomberg (1986) have both advanced biopsychosocial models in relation to multiple factors influencing drug use and dependence. Galizio and Maisto state that the relative contribution of the multiple factors may vary from drug to drug and along the continuum of substance abuse patterns or stages . . . that different factors may assume greater or lesser significance depending on the stage in the development of substance abuse patterns (pp. 427-428). They further explain that biological factors may be important in the continuation of use, genetic differences for drug metabolism and development of tolerance and the abstinence phenomena, and the reinforcing properties of the drug, while psychosocial and environmental factors may be most critical in cessation and relapse (p. 428). Consideration of different phases as well as Lex's (1987) statements regarding the heterogeneity within groups may

account for the frequency of contrary and opposing research results across the factors measured.

Another interesting reason for differences in personality and genetic studies was revealed by Rogosch, Chassin, and Sher (1990). They advance that personality variables can moderate family history risk for alcoholism. They state this was demonstrated by showing an interaction between family history of alcoholism and dispositional self-awareness (and between family history of alcoholism and presumed personality risk) in predicting alcohol consumption and alcohol-related social consequences (p. 315). Perhaps highly self-aware individuals are keenly aware of the consequences of their drinking and accordingly limit their alcohol involvement (p. 315).

Erickson and O'Neill (1990) maintain that the biochemical aspects of alcoholism is only part of the problem. Victims of this disease still must deal with arrested emotional growth, defensive behavior, damaged relationships, and other 'character defects' that are secondary, but none the less serious, consequences of pathological drinking (p. 32). In review of this article, from a problem standpoint, the factors are multifactorial and are likely to require multifactorial or integrated treatment approaches. The related problems unless resolved are likely to act as triggers for relapse. In

trying to resolve so many problems, short-term treatment is likely to be inherently ineffective.

A final coherent framework to assimilate multifactorial findings which has parallel dimensions to the TFA approach, is Velicer, Diclemente, Rossi, and Prochaska's (1990) Hierarchical Model. The model is based in Bandura's self-efficacy theory, relapse studies' efficacy expectations, and typologies of relapse situation. Although their article focusses on smoking cessation as an example, their research base was addictive behavior. The model includes three first order constructs (Positive/Social, Negative/Affective, and Habit/Addictive) and one general second order factor (p. 271). The second order factor is Confidence (from assessment with the Confidence Inventory) for the first study and Temptation (from the Temptation Scale for the second study. Results for both studies were comparable. All correlations are near zero (p. 278). All three primary factors loaded heavily on the single second order factor. First, a general level of confidence may exist which reflects a real individual difference . . . Second, the general factors may reflect a social desirability response distortion . . . Third, the general factor could represent a centrality response error . . . Fourth, some subset of the subjects may still be providing an extremity response

pattern (pp. 277-278). The results of this study provide a conceptual model for self-efficacy that is consistent with previous results. The resulting model is stable across alternative formats for item presentation and different samples of subjects. One result of this study is a short (17 item) measure of Self-efficacy and/or Temptation that has a well established structure (p. 281). An obvious parallel with the TFA System is the model is based in theory, and has a scale to measure its constructs. The TFA System has the Hutchins Behavior Inventory (HBI, 1984a) which similarly has a short format (75 items). Both emphasize three first order constructs and one second order construct. The second order construct on the HBI is the Behavior Pattern in a specific situation. Both have an Affective first order construct. Velicer et al.'s social and addictive constructs have feelings and thoughts in many different situations, such as when I see someone smoking, when I am desiring a cigarette, and when I realize that quitting smoking is an extremely difficult task. Advantages of the TFA approach are: the separation, as well as the integration, of thoughts, feelings, and actions in one situation; the assessment of how interaction patterns need to change; a stronger theoretical base; and more empirical evidence on its utility in matching treatment to client.

**Summary of findings on factors related to alcoholism
and relapse/sobriety**

Despite the considerable amount of extant research on factors related to alcoholism and successful outcome, whether improved or abstinent, there is not a high degree of consensus. From the research on demographic factors, the less number of prior hospitalizations and frequent aftercare attendance are most frequently predictive of positive outcome. The chief personal factors that appear to be most frequently predictive of negative outcome are: dual-diagnoses; unresolved emotional distress; using avoidant coping responses, opposed to active-cognitive and behavioral coping response; reactivity to alcohol cues; thinking about drinking in old ways; continuation of positive or global expectancies about alcohol; and lack of positive belief (expectancies) towards treatment and personal goal attainment. Genetic and biological studies emphasize the possibility of a gene x environment interaction and that alcohol reinforcement seems to be primarily a function of anxiolytic and euphoric effects. Several researchers in this area advance integrative and multifactorial factors, such as socio-cultural with genetic, family risk with self-awareness, and behavior-genetic temperament.

Research on treatment factors appears beset with methodological problems from a lack of specificity, samples from different "types" of drinkers or alcohol abusers versus alcohol dependents, variety and lack of clear direction on when to do assessments and outcome measures, and the possibility of confounding variables due to "phase" of the individual's drinking history, whether early or late/chronic. These and other research problems will be discussed in greater detail in part III of Chapter Two. Generally, there is support (although very few studies have been completed) for therapist effects and for matching patients with therapists and that type of treatment group benefit (coping skills or interactional) can be a function of the patient's psychopathology or cognitive impairment. Regular A.A. attendance is frequently associated with better treatment outcome. A.A. appears to be very cognitively oriented and may increase success by offering a way to change a person's belief system and thoughts about drinking and the need for abstinence.

Relapse studies often have the same methodological problems as treatment studies. Generally, it has been supported that alcohol use associated with other drug use is more relapse prone. Inability to effectively deal with posttreatment stress has been consistently reported to

elevate relapse. No family involvement in treatment, unresolved emotional distress, and failure to change behavior to alcohol cues (triggers) also predicts higher relapse rates. Long-term (at least 6 months) in an aftercare support group (usually A.A.) decreases relapse. There is a lack of a theoretical approach or paradigm, such as the TFA System to assimilate and direct treatment needs matching and relapse prevention planning on an individual basis. The TFA paradigm can help explain how to specifically improve and change an alcoholic's behavior pattern and coping skills/style in a trigger situation by assessing the interaction of old thoughts, feelings, and actions and mapping out strategies for the necessary changes in these interactions. Since the system is integrative, the therapist effects from single perspectives would be minimized.

Perhaps aware of the need for an integrated, theoretically based, and directing paradigm, several researchers have advanced multifactorial and integrative models and preliminary research studies. This area appears to offer great potential for increasing our understanding of alcoholism and helps to explain why there is so much inconsistency and contrary results in the research field. In these approaches, issues of heterogeneity, alcohol use phase-specific orientations,

the context in which drinking behavior occurs, integrated behavior and interactional factors (confidence or temperament), and bases in cognitive-social learning theory, self-efficacy theory, and cognitive-behavior models appear to be relevantly emphasized. These emphasized variables are very consistent with the TFA System's emphasis on the individual, the situation, the interaction of behavior, and mapping treatment strategies based on the interaction pattern.

Research Problems and New Ways of Study

Many authors have discussed research difficulties associated with investigating alcoholism. In response, a few researchers have advanced new ways to conceptualize, treat, or research alcoholism.

Research and methodological problems

Besides a frequent lack of specificity in the research regarding factors studied, the majority of problems fall within areas of sampling and measurement or treatment issues. Issac and Michael (1981) explain issues of validity and reliability in research and evaluation. They divide validity into three main areas of content, criterion-related, and construct (p. 119). Generally validity is used to indicate whether an instrument measures what it claims to measure (p. 119). Content validity concerns how well the test samples the issues for

which conclusions will be drawn, while criterion-validity concerns how well the test compares with with external variables considered to be direct measures of the behavior in question. Construct validity concerns the theory underlying the test and how this theory relates to performance on the test (p. 119). Reliability means the consistency between measures in a series or the accuracy (consistency and stability) of measurement by a test (pp. 123-125). Questions of validity and reliability are often interrelated, such as, when predictive validity is satisfactory, low reliability is not as serious a problem (Issac & Michael, 1981, p. 123). Generally, if there are problems with validity and reliability the generalizability of the results/findings may be in question. Issac and Michael (1981) state generalizability is the problem of external validity, having done research with satisfactory internal validity, to what other situations do the results apply (p. 82). Generalizability may concern results, selection of subjects, variation of the input or stimulus source, and observations (pp. 82-83). Howell (1987) is another resource on validity and measures of association (pp. 3-4, 253). The brief discussion of these factors will help to categorize the findings/recommendations of several researchers. Table 8 provides an overview of highlighted research about

Table 8

Research and methodological problems

Citation & Year	Finding(s)	Issue(s)
Helgason 1979	Epidemiological studies have their own definitions of alcohol. makes comparisons difficult	Construct validity & generalizability.
Nace 1989	Sample differences relate to: age, prognosis, chronicity of alcohol problem, & minimal treatment effect	Criterion-related validity & generalizability.
Lettieri 1986	Unidimensional view, lack of standard measuring instruments, heterogeneous samples, lack of multistage prediction, inability to assess treatment issues, 'developmental lag' in cyclic nature of disease	Criterion-related validity & generalizability.

Table 8 continued

Research and methodological problems

<u>Citation & Year</u>	<u>Finding(s)</u>	<u>Issue(s)</u>
Lex 1987	Disparate methodologies & instruments bias estimates, lack of consensus on definitions, & rarely use comparable interview schedules	Construct & criterion-related validity & generalizability.
Bruvold 1988	Present evidence for the validity of dependent variable measurement, use multiple outcomes measures including knowledge, attitude, behavioral intention & behavior, etc.	Criterion-related validity & reliability.
Maisto & Carey	Lack of consideration of variables singularly and in interaction that obscure results	Internal & external validity & generalizability.

Table 8 continued

Research and methodological problems

Citation & Year	Finding(s)	Issues(s)
Nathan & Skinstad 1987	Generalizability is limited by: not reporting dropouts, not matching therapists across treatments, lack of post 6 month follow-up, etc.	External validity & generalizability
Howard et al. 1990	An average of 24% of patients who completed treatment lost to follow-up.	External validity & generalizability
Heather & Tebbutt	Wide differences in how controlled drinking & even abstinence is defined	Construct validity & generalizability
Wells et al. 1988	To determine length and timing of follow-up periods use 'at risk' and not at risk' periods	External validity & reliability

methodological problems related to alcoholism studies.

Helgason (1979) states that in the case of alcoholism the lack of specificity is a major problem. Almost every epidemiological study in alcoholism has its own definition of the concept as well as different methods for case identification. Comparisons of results is therefore difficult and has often caused heated discussions . . . (p. 97). Nace (1989) discusses that complex methodological issues obscure clear results (p. 55). He includes issues of differences between samples (age, chronicity of alcohol problem, differences in clients' prognosis, and minimal treatment effects). It makes sense that a younger alcohol abuser who spends three days in treatment may do poorer than an older alcohol dependent who is asked to go to treatment by his employer for a full 28 days.

Lettieri (1986) states that five salient issues impede needed advances, namely: unidimensionality in our view of alcohol-dependent persons; a lack of standard measurement instruments and use of heterogeneous sample groups; 'development lag' related to the cyclic nature of the disease; the need for multistage prediction; and our inability to assess treatment issues (p. 20). Lex (1987) discusses the lacunae in current information (missing parts). She maintains that the use of disparate

methodologies and instruments may bias estimates. Additional variation stems from lack of consensus regarding key definitions . . . Investigators rarely use comparable interview schedules (p. 294). Lex concludes that groups need to be systematically compared via a consistent and multidisciplinary and prospective approach and to use advanced statistical techniques, such as multiple regression or path analysis (p. 299).

Moving towards the discussion of problems related to treatment issues, Bruvold (1988) organizes the recommendations for improving outcome evaluation studies mentioned in eleven articles on alcohol-tobacco intervention programs. These recommendations include: use an appropriate control or strong comparison group; employ pretest, posttest, and follow-up measures; present evidence for the validity of the dependent variable measurement; control for and report all attrition from pretest; employ statistical analyses appropriate for the research design; provide a full description of the program intervention; use multiple outcomes measures, including knowledge, attitude, behavioral intention and behavior; provide a full description of program participants; use a large representative sample; and use a placebo as an intervention (p. 23). Nathan and Skinstad (1987) discuss problems of external validity being compromised when the

generalizability of the data is limited. They cite the following to limit the generalizability : failure to account for treatment dropouts; failure to match therapist attributes across treatments in comparative outcome studies; failure to provide sufficient follow-up (3 or 6 months may be insufficient); and failure to ensure that subjects may benefit from treatment (sufficient time for post-withdrawal treatment) (pp. 332-333). Howard, Cox, and Saunders (1990) discuss missing data in comparative treatment research and include a review study by Riley and colleagues in 1987 who found an average of 24 percent of patients who completed treatment were lost to follow-up (p. 68).

Maisto and Carey (1987) discuss the influence of extratreatment variables on the maintenance of behavior changes that may be attributed reasonably to treatment. They state that the failure to find differential treatment effects in the short or long term may be explained in large part by a lack of consideration of variables singularly and in interaction that, when left uncontrolled or unassessed would tend to obscure or eliminate treatment effects (p. 207). Heather and Tebbutt's (1989) review of outcome studies revealed wide differences in how controlled drinking and even abstinence have been defined and this is partly responsible for striking variations in

rates reported in the literature (p. 83). Regarding the problem of lack of consensus on the length and timing of follow-up periods, Wells, Hawkins, and Catalano (1988) recommend that investigators report drug use data from both 'at risk' and 'not at risk' periods and that they choose methods for controlling for time 'at risk' which do not eliminate important drug use data from analyses (p. 875).

Although not mentioned in the available studies, it appears that another way to provide consistency in assessment of treatment outcome and follow-up and hence increase external validity, reliability, and generalizability would be to use a similar contractual or consulting firm, such as, CATOR (Comprehensive Assessment and Treatment Outcome Research), which is the largest evaluator of chemical dependency treatment outcomes in the world (CATOR, 1991-92, p. 1). Reliability and validity would be improved by using the same instruments, client data requirements, and conceptualizations across treatment outcome studies. Cost and decreasing the need for their own consulting services may prohibit more widespread use of an outside consultant/evaluator for many centers and researchers.

An initial inroad to overcoming and addressing the numerous problems and recommendations outlined above would

be to start with, as suggested by Lex (1987) and others, selecting an overarching integrative paradigm, such as TFA Systems (tm) (Hutchins, 1984, and Hutchins & Vogler, 1989), Velicer et al.'s (1990) Hierarchical Model, Kaufman's (1990) integrative model of psychotherapy, or Gorski's (1986) Prevention Planning Tool to direct the research field.

Although the field is not likely to select an integrative theoretical paradigm quickly, research could begin to use more standard theoretically based integrative models to study alcoholism. For example, from using TFA model the following benefits/components could be made: improve construct validity by focussing on drinking behavior and not alcoholism per se; improve criterion validity by considering all parts of drinking behavior whether cognitive, affective, or behavioral (this would also increase predictive validity and follow Bruvold's [1988] recommendations); provide a consistent and reliable measuring instrument (the HBI) to assess behavior as defined (per construct) as the interaction of thinking, feeling, and acting; and gathering more comprehensive data about clients' behavior from a standard structured interview format (as recommended by Lettieri [1986]). As it will be discussed in Part IV, the TFA approach has been used with clients having many different problems. Using a

model with an already existing empirical research base would decrease unidimensionality as prescribed by Lettieri (1986). All of the other integrative models reviewed lack empirical evidence not only in the area of alcoholism, but in a framework for other types of problems.

New ways of study

In view of the number of articles already reviewed, only a few have presented clear recommendations on ways to end the theoretical debate and proceed with new and also sound direction in the field. To recapitulate: Galizio and Maisto (1985) advanced a Biopsychosocial theory of substance abuse which is multidisciplinary drawing upon the work of Ewing, and Moos and Finney; Jacobson (1989) advanced a comprehensive approach in evaluation including medical, psychological, neuropsychological, personality, perception, and self-concept measures; Tarter et al. (1985) advanced a six dimension Temperament model from a behavior-genetic perspective; Gorski (1986) advanced the need for a comprehensive Relapse-Prevention Planning Tool, based on phases of recovery from developmental and biopsychosocial models; Kaufman (1990) advanced a psychotherapy model integrating psychodynamic theory, A.A./12-step, family therapy, and psychiatric issues in a phase-specific method; Velicer et al. (1990) advance a Hierarchical Model based on self-efficacy theory, relapse

studies, expectancies, and typologies of the relapse situation; and West (1992) advanced TFA Systems as a useful model for studying DUI second offenders with bases in the interaction of behavior and cognitive-behavioral approaches. As previously noted, these models have varied substantially in their true integrative nature (many are more multidisciplinary than integrative) and levels of empirical/theoretical support.

Although McLachlan (1972) advocated matching therapists with patients based on conceptual level, most of the more recent research on matching, McLellan et al. (1983a, 1983b), Kadden et al. (1989), and Cooney et al. (1991) tend to match on the basis of psychiatric difficulties or alcohol severity and type of treatment, whether inpatient or outpatient, or short or long-term. Cue exposure, expectancies, and coping skills research has offered some very worthwhile data on behavioral-cognitive and emotional (affective) interrelations but have not clearly said drinking behavior is interactional or offered an integrated paradigm with instrumentation to advance our research. The majority of the research has been rather unidimensional and beset with methodological problems. However, there continues to be a strong voice for more comprehensive, multidisciplinary and integrative approaches, such as, Lex (1987), Wilson (1987), Erickson

and O'Neil (1990), and Rogosch et al. (1990). Brennan (1990) advocates redefining alcoholism. Only a theory that views alcoholism as a 'disease of interaction' with numerous causes of varying degrees of influence is acceptable (p. 28). Burman and Allen-Meares (1991) state the practitioner should select theories that will enunciate roles to effect change at all interactional levels . . . (p. 389). Table 9 summarizes the new ways of conceptualizing and researching alcoholism.

In a more recent article on matching, McLellan and Alterman (1991) consider matching at different times: at the initiation of treatment based on patient-setting (outpatient or inpatient, etc.) or patient-intensity (drug, social, and psychiatric problems); during treatment (group or individual therapy, social services, etc.); and during posttreatment based on the patients' environments (pp. 123-129). They conclude that the clearest need within the area of patient-treatment matching is for the development of a reliable, valid, practical, and generalizable instrument to measure the types, amounts, and duration of treatment interventions applied to a patient during the course of rehabilitation (p. 131). Finney and Moos (1986) provide an outline of issues for new matching studies to address regarding conception and method for more process-oriented evaluations. The

Table 9

New ways of conceptualizing and researching alcoholism

<u>Citation & Year</u>	<u>Method/model</u>
Galizio & Maisto 1985	Advanced a Biopsychosocial model (multidisciplinary).
Jacobson 1989	Advanced a Comprehensive Evaluation (multidisciplinary).
Gorski 1986	Advanced a Relapse-Prevention Planning Tool (multidisciplinary & integrative).
Kaufman 1990	Advanced Integrative psychotherapy (integrative).
Velicer et al. 1990	Advanced a Hierarchical model (multidisciplinary).
West 1992	Used TFA Systems (multidisciplinary & integrative).
McLellan & Alterman 1991	Matching considered at initiation of treatment, during treatment, and posttreatment (multidisciplinary).
Kaczhowski & Zygmund 1991	Recovery period as grief resolution (multidisciplinary).

Table 9 continued

New ways of conceptualizing and researching alcoholism

<u>Citation & Year</u>	<u>Method/model</u>
Miller & Hester 1989	Treatment from an Informed Eclecticism (eclectic).
Ellis et al. 1988	RET methods to change addictive thinking (multidisciplinary).
Fingarette 1989	Using Heavy Drinking vs. term of alcoholism. Goal is to develop an integrative and satisfying life (multidisciplinary & integrative).
Finney & Moos 1986	Matching studies should include interaction effect methodology (eclectic and integrative).
Polcin 1992	Comprehensive model includes behavioral, social, familial, biological, psychological, & spiritual aspects (multidisciplinary).
Watson 1991	Emphasis on broad-based, long-term modalities to help cope with life holistically, cumulative behavioral changes (integrative).

conceptual issues are: selecting effective matching variables; specify the end result for matching to enhance; and determine stage(s) in treatment for matching to occur (p. 122). Regarding method, they recommend that possible interaction effects include: nonlinear interaction effects; higher order interaction effects; and multilevel interaction effects (p. 122). Their emphasis on possible interactions is a welcomed change from unidimensional approaches.

A rather novel approach, although its roots go back to 1949, is Kaczkowski and Zygmund (1991) conceptionalization of the grief resolution issues of the recovery process. They state however, the relationship between the surrender reaction (from Tiebout's observations in the 1940's and 1950's) and the grief process has not been adequately dealt with in the literature (p. 356). A surrender reaction can occur in an abrupt, often dramatic fashion, it can also occur as a gradual regenerative change in which individuals build, piece by piece, a new set of moral, emotional, and social habits (Ludwig cited in Kaczkowski & Zygmund, 1991, p. 357). The authors advance that resolution of grief issues need to occur in the middle recovery period (from Gorski, 1985) and to resolve these losses individuals need to accomplish four mourning tasks of: identify and accept the reality of the losses;

identify and express feelings associated; identify needs that were met through drinking; and make restitution for wrongs they committed while drinking (p. 357).

Miller and Hester (1989) advance that there is no single, outstandingly effective treatment for alcoholism (p. 11). Drawing upon their own work in patient matching and the work of Lazarus, Dimond et al., Goldstein and Stein, and Ewing, they advance that the field needs to develop an "informed eclecticism". The central assumptions of an informed eclecticism, however, appears to be the following general assertions: (1) there is no single superior approach to treatment for all individuals; (2) different types of individuals respond best to different treatment approaches; and (3) it is possible to match individuals to optimal treatments, thereby increasing treatment effectiveness and efficiency (p. 11). They conceive obstacles to developing an informed eclecticism to be: the unavailability of true alternatives; the absence of criteria for matching individuals to treatments; and factors related to the health care economy, such as, limited resources, professional bias, HMO's, and counselors' commitment to a particular approach (pp. 11-12).

Ellis et al. (1988) devotes a chapter to changing addictive thinking. The theoretical bases in this system

is Rational-Emotive Therapy (RET, originated by Ellis in 1955 and augmented by Maultsby, Dryden, and Bernard) and A.A. philosophy that once a person stops drinking, their problem is now their 'thinking' (p. 52). To change addictive thinking, the authors prescribe disputing irrational beliefs about alcohol and disturbed emotions and about self, instilling alternative rational beliefs, and planning to deal with self-defeating thoughts that may lend to relapse (pp. 58-71). The work of Ellis and his colleagues have parallels with West's (1992) findings using the TFA approach that second DUI offenders' drinking behavior was the result of a decision making process that related to thoughts and feelings. It has also been previously noted that the TFA model offers a way to map changes in thoughts as they interact with feelings and actions, similar to Ellis's focus on beliefs and emotions about alcohol, disturbed emotions, and self.

Fingarette (1989a) discusses new approaches to heavy drinking including understanding heavy drinking as a way of life, how to help the heavy drinker, and social policies to prevent and control heavy drinking (pp. 97-143). Fingarette's premise is basically that the empirical evidence and leading research authorities do not support the classic disease conceptualization of alcohol (pp.3-4). He maintains that by far the greater number of

these problem drinkers do not fit any of the traditional diagnoses as alcoholics (p. 6). Related to heavy drinking as "a way of life", he maintains it is a central activity to ineffectively cope with stresses and strains. To change drinking patterns the heavy drinker must reconstruct his way of life (pp. 110-111). To help the heavy drinker, the aim is to help the drinker begin to develop an integrated and satisfying way of life in which heavy drinking will no longer be central (p. 115). He recommends treatment to use matching (of the drinker, the therapist, and the setting), individualize behavioral approaches, and to use flexible measures of success (pp. 115-123). Although Fingarette does not commit to accepting either belief in controlled drinking or abstinence, he states, we need to develop more specific and nuanced ways of categorizing, measuring, and discriminating different patterns of drinking and associated phenomena (p. 128). He concludes that the new perspective on heavy drinking suggests that all aspects of treatment - methods, goals, measures of success - must be carefully chosen to reflect the individual drinker and his or her way of life . . . All the newer approaches also emphasize that the drinker must accept responsibility and play an active role in bringing about the desired change (pp. 128-129).

Madsen (1989) harshly criticizes Fingarette's work. He states, the hard scientific evidence from biology and medicine offered by Fingarette is tiny and insignificant. His portrayal of the findings of psychology and sociology as hard scientific fact is unpersuasive . . ." (p. 112).

Fingarette (1989b) in a rejoinder to Madsen states that regarding the published studies, "they constitute the most impressive biological evidence we have about alcoholism. I accept their results . . . but the data and conclusions of these studies have been only partially reported to the public, which has accordingly misunderstood them" (p. 119). Controversial new ideas often promote heated debate. Fingarette summarizes this observation in stating deep personal involvement often makes a threat to doctrine seem like a threat to personal identity (p. 121).

Polcin (1992) advances a comprehensive multidisciplinary model for adolescent chemical dependency treatment. Shaffer (cited in Polcin, 1992) observed that the addictions field is in 'preparadigm' stage in its development as a discipline (p. 376). Polcin's broad-based model is advanced to help settle the dispute. The model includes social, behavioral, familial, biological, psychological, and spiritual aspects of chemical dependency (p. 382). Watson (1991) also

addresses the need for broad-based approaches. She writes if planners keep the caveats of attention to long-term results, relapse prevention and employment of flexible, nondogmatic, forward thinking personnel in mind, the move away from a myopic, pathogenic attitude toward addiction into a frame of mind which is challenged and ready to consider broad-based, long-term modalities designed to help people cope with life holistically appears to be the most positive and efficacious direction toward relapse planning (p. 839). She concludes that while there has been much research on treatment 'success' or 'failure' based upon an abstinence-recidivism model, there has been a paucity of research into long-term, cumulative behavioral changes over time. People have different needs . . . (p. 854). Watson's emphasis on behavioral changes, holistic coping skills, and individual differences matches well to the TFA model's assessment of interactional behavioral factors in the drinking situation.

Radouco-Thomas, Garcin, Lacroix, and Radouco-Thomas's (1979) review of major concepts and trends in alcoholism is seldom emphasized although it appears to be a forerunner in advocating alcoholism as a multifactorial and multidimensional disorder. They describe the lack of consensus on the nosology of alcoholism and cite 21 different types of alcoholism reported, from alpha - beta

- gamma - delta - epsilon to continuous - intermittent - mixed (p. 35). In an earlier article they suggested an integrated classification of primary and secondary alcoholism with heterogeneous and homogeneous types/subsystems. As a multifactorial disorder, they write that alcoholism . . . as a multifactorial or more precisely, a biopsychosocial disorder resulting from multiple interactions between individual (biopsychosocial) and environmental (psychosociocultural and economic) factors. It is quite interesting that thirteen or more years ago there were researchers in a medical/psychiatric center in Canada advocating more modern day conceptualizations. Perhaps, this is evidence of how slowly the addiction field integrates new ideas and, more importantly, puts these new ideas into practice.

Summary of new ways of study

In summary, when one views the lack of consensus and preparadigm state of the hundreds of research articles on alcoholism in the past decade, these new and alternative ways to view alcoholism in eclectic, multidisciplinary, multifactorial, multidimensional, and integrative ways appear to be a very small but very strong and needed voice in the field. Of the group itself, there are considerably more multidisciplinary (combinations of methods) than truly integrative methods. The integrative TFA approach

has been applied to second DUI offenders (West, 1992) and demonstrated strong utility. The TFA model as well as Watson (1991), Polcin (1992), Fingarette (1989), Ellis (1988), and Gorski (1986) advocate to focus on specific behavior and behavioral change using a variety of approaches to help recovering individuals develop better coping skills and a satisfying life.

TFA Systems

When applied to alcoholism research, the integrative and multidisciplinary TFA model can provide a comprehensive theoretical and assessment method to address the recovery needs of alcoholics.

The TFA approach

When Hutchins (1979) first introduced the TFA model for more systematic counseling practices based on individual client needs, it was part of an emerging trend in the counseling field toward eclecticism, the development of comprehensive multidisciplinary models, and greater counselor effectiveness (L'Abate 1981, Smith 1982, Ward 1983, Hiebert 1984, Norcross & Grenavage 1989, and Hutchins & Cole 1992). A related and more recent trend in the alcohol treatment field is for treatment to be more comprehensive, effective, and multidisciplinary and integrative (Lettieri 1986, Marlatt 1987, Gabe 1989, and Morrison et al. 1990). Hutchins (1982) explains the

TFA/Matrix Systems is a practical process that builds on strengths of different approaches to counseling, describes critical aspects of client thinking, feeling, and acting, and integrates data in a manner that gives major strategy guidelines appropriate for each client (p. 427). Hutchins (1984b) states the TFA System is a method linking counseling theory and techniques to current eclectic practices in counseling and psychotherapy (p. 572). He provided detailed descriptions of clients' and counselors' behavior orientations, thinking, feeling, and acting oriented or TFA balanced (pp. 573-574). Thinking approaches are associated with rational or cognitive theories, feeling approaches are associated to affective, humanistic, and existential theories, while acting approaches are associated to behavioral theories (Hutchins & Cole, 1992, pp. 4-5). Importantly, since combined orientations, such as a thinking-acting client, initial intervention might use cognitive-behavioral approaches drawing upon the clients' strengths in these areas. Therefore, treatment strategy can be as integrated or interactive as the client needs it to be.

With the definition of behavior as the interaction among thinking, feeling, and acting (Hutchins, 1984b), the assessment of a client's problem behavior is assessed interactively and therefore prescribes multidisciplinary

or integrative approaches to match the behavior pattern. Put another way, Hutchins and Cole (1992) under integrating techniques in the problem solving process state, "the emphasis is on helping to change the clients's behavior so the client will think, feel, and act more productively" (p.7). Hutchins' TFA model is seen by many (Baruth, Huber, Cormier & Hackney, Ellis, and L'Abate [cited in Mueller, Hutchins, & Vogler, 1990]) as a useful method to integrate major counseling approaches (p. 211).

TFA Systems (tm) and The Helping Cycle

In TFA Systems (tm), Hutchins and Vogler (1988 and 1992) refined the intervention stemming from the TFA integrated approach to be the TFA Helping Cycle. The Helping Cycle is a six stage process with the following steps: (1) assess client behavior (TFA triad developed); (2) interpret triad (describing payoffs and tradeoffs); (3) intervene with the client (describe behavior strengths); (4) probe into client behavior (make known behavior limitations); (5) deliberate (synthesize consequences of current and new behavior); (6) commence (design action plan for new behavior) (Hutchins & Vogler, 1988, 1992).

The TFA triangle is an open ended triangular shaped figure with T (thinking), F (feeling), or A (acting) at each of the vertices. Each side of the TFA triangle is a

bipolar scale on which is recorded a range of behavior, reduced to three primary points. One's behavior in a specified situation on each side of the TFA triangle. These points are connected with each other, forming a closed figure called a TFA triad. Operationally, the TFA triad is a graphic representation of a person's behavior (interaction of thoughts, feelings, and actions) in a specific situation (Hutchins & Cole, 1992, p. 6).

Figure 1 provides an illustration of the TFA triangle with a Feeling-Acting triad.

Bipolar scale scores are obtained as follows: on the left side of the triangle, behavior ranges from 3 (thinking) to 1 (feeling), with 2 (the midpoint) indicating a blending of these two dimensions. Similarly, on the bottom the range is from 3 (feeling) to 1 (acting). On the right side of the triangle, the range is from 3 (acting) to 1 (thinking) (Hutchins & Cole, 1992, p. 6). From these descriptions, it becomes clear that behavior (the interaction among thinking, feeling, and acting in a given situation) is integrative and multifactorial. As mentioned previously in this chapter, multifactorial approaches to alcoholism conceptualization and treatment are serving to integrate the alcohol treatment field and provide a sounder approach (based on the findings from several approaches) towards treatment effectiveness and

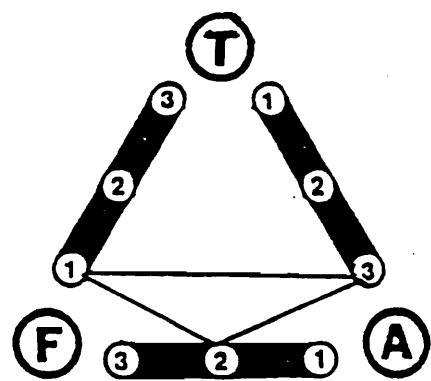


Figure 1. The TFA triangle with a Feeling-
Acting triad.

relapse prevention.

Hutchins Behavior Inventory (HBI)

The HBI was developed from the TFA conceptual framework and made it possible to quantitatively assess the levels of an individual's TFA orientation in a specified situation (Clow, 1989, p. 63). The HBI was first introduced by Hutchins (1984a) as an instrument designed to numerically measure thinking-feeling-acting orientations in specific situations. Described by Mueller, Hutchins, and Vogler (1990) the inventory consists of 25 word-pairs in each of three combinations: thinking-feeling, feeling-acting, and acting-feeling (p. 204). On each of the 75 items, the client is asked to select the one word from each pair that best describes the reaction to a specified situation (p. 204). On each of the 75 items, the client is asked to select the one word from each pair that best describes the reaction to a specified situation (p. 205). The HBI provides two types of scores. Intensity scores, denoted by T_i , F_i , A_i , are obtained from the intensity ratings on the items. Bipolar scores, denoted by T_f , F_a , and A_t , represent the number of thinking, feeling, acting words chosen in the T-F, F-A, and A-T categories. Bipolar scores can be used to graphically represent TFA orientations by labeling the T-F, F-A, and A-T continua from 0 to 25 and plotting T_f ,

Fa, At scores (p. 205). Studies on validity and reliability are provided in Hutchins Behavior Inventory (research edition manual) (Hutchins and Mueller, 1992, pp. 29-36). Walker (1984) found that the words used had good content validity. Wheeler (1986) found good test-retest reliability and construct validity of the HBI. Mueller et al. (1990) investigated convergent construct validity and common factor reliability and concluded that the study demonstrates good construct validity of the HBI with TFA theory and provided reliable results for the TFA assessments of residence hall counselors (p. 212).

The TFA/HBI Analytical Guide (2nd ed.) (Hutchins, 1992) was designed to assist advanced graduate students and researchers in developing, analyzing, and interpreting elements related to TFA Systems (tm) (p. 1). This guide will be used as a resource in Chapters 3 and 4.

TFA Systems (tm) clinical applications

In a fairly brief period of time, TFA Systems (tm) has shown to be an effective way to assess clients' problematic behavior and match treatment methods in order to facilitate effective behavioral changes in a variety of clinical settings. Regarding the TFA triangle, Hutchins and Cole (1992) state the triangle is also useful in looking at the helper's behavior and interaction with the client, identifying client concerns, establishing goals,

designing procedures, and evaluating progress (p. 6). Thus, in clinical settings the TFA Systems (tm) provides a systematic, comprehensive, and eclectic (multidisciplinary) method to match client-therapist, client-treatment, therapist-treatment method and discuss possible multifactorial and multidimensional interactions between and within client-therapist-treatment. Table 10 highlights the clinical applications of TFA Systems to a variety of client problems/counselor settings. These studies have provided important new insights into many problem behavioral patterns. For example, Clow (1989) and Clow, Hutchins, and Vogler (1992) found that most male spouse abusers do not distinguish the differences between thoughts and feelings, which are dangerously fused and twisted in pre-violent situations. Recognition that these are differences, and that the individual has the responsibility for choice and control, was a major new awareness for participants (Clow et al., 1992, p. 81). West (1992) found that behavior patterns prior to making a decision to engage in drinking behavior are thinking oriented but the nature of those thoughts are focussed on work and planning to drink. Positive feelings associated with an anticipated favorable drinking experience reinforces the thinking process (pp. 211-212). West also found that the TFA Clinical Interview was a useful

Table 10

Clinical applications of TFA Systems

<u>Citation</u>	<u>Year</u>	<u>Application</u>
Bundy	1991	Behavior assessments of pregnant adolescents.
Clow	1989	Group psychotherapy for male spouse abusers.
Hawkins	1988	Behavior patterns, personality and theoretical orientations of master's level counseling students.
Hayes	1992	Weight-loss behavior among dieters.
Mueller	1987	Effects of gender, socio-economic status, and situation specificity on thinking, feeling, & acting.
Tieman	1991	Group treatment for female incest survivors.
West	1992	Effects of incarceration on behavior patterns of DUI second offenders.

instrument in assessing the behavior patterns of DUI second offenders (p. 213).]

TFA Structured Clinical Interview

The TFA Structured Clinical Interview provides a systematic way to gather interpretive and diagnostic information across clinical settings. The information can be analyzed in qualitative or quantitative (weighted ratings of statements) ways. As previously mentioned, other quantitative measures in TFA Systems are found in the HBI's intensity and bipolar scores. Hutchins' (1992) analytic guide outlines TFA Systems quantitative and qualitative dimensions and its utility in pretest and posttest designs. The TFA Structured Clinical Interview begins with asking three critical questions to develop the TFA triad. Operationally, following the behavior dimensions on the three continua (T-F, F-A, and A-T), these questions are: (In the specific situation of _____) (1) were you more thinking (T) or feeling (F) or about in the middle?; (2) were you more feeling (F) or acting (A) or about in the middle?; and (3) were you more acting (A) or thinking (T) or about in the middle? The next step involves asking strategic intervention questions proceeding from strengths (from the triad) toward limited or less dominant areas. These questions get at the "what" (for thinking responses), "why" (for feeling responses),

and "how" (for acting responses of behavior). The interview has been expanded in the Helping Cycle (Hutchins & Vogler, 1992) to where the interviewer/counselor is able to determine strengths, as well and limitations (flaws and distortions) in the client's behavior and probe further with additional questioning into possible interactions and linkages of behavior dimensions and therefore giving the client insight and clarification into their behavior pattern.

Applications of TFA Systems towards the study of alcoholism outcome

TFA Systems can provide an integrative and multifactorial theoretical framework, a comprehensive and uniform assessment method and valid and reliable measuring instrument, and a systematic method to assess and map treatment approach methods to individual client needs therefore matching clients-treatments-therapists in working with the very heterogeneous alcohol abusing and dependent population. These characteristics of the TFA System meet the previously cited needs in the field for integration, uniform assessment, matching, and more detailed and situation specific understanding of relapse and non-relapse behavior (Gorski, 1990; Fingarette, 1989; Chiauzzi, 1989; Lex, 1987; Wilson, 1987; Erickson and O'Neill, 1990; and others).

Using TFA Systems components of the HBI and an adapted Structured Clinical Interview can provide new insight into the interaction of drinking and sober behavioral patterns. It offers a way to map how certain behavioral dimensions change from before and after sobriety status. More specifically, did an individual need to focus mainly on changing thinking, feeling, acting or combinations of these aspects in that specific situation in order to not drink alcohol? Helping the client to conceptualize drinking behavior in this manner also promotes more understanding of the implementation and maintenance of therapeutic and personal intervention strategies based on their individual needs.

Summary of TFA systems

In summary, TFA Systems provides a needed directing comprehensive paradigm for the assessment or treatment of alcohol abuse and dependence. Consistent with 12-step programs, it emphasizes client awareness and understanding and responsibility, with providing the tools for changing drinking behavior. Since TFA Systems (tm) has been used effectively in a variety of clinical settings, it can also be used in a multilevel or multi-problem manner for clients who have other related problems to drinking (as most alcoholics do), such as, alcoholics who have marital or work related problems, poor stress management or coping

skills, or become physically abusive. The TFA System would address each problem area and assess and match treatment strategies accordingly. Another advantage is that the very few integrative and multifactorial models advanced for treatment of alcohol problems have weaker theoretical bases, while the TFA model has a strong theoretical base, is truly integrative, and has assessment/measuring instruments that can be qualitatively and quantitatively analyzed.

CHAPTER THREE

Methodology

The purpose of this study was to analyze changes in the interaction of thoughts, feelings, and actions of alcoholics who achieve sobriety. This chapter includes: an overview; description of the research approach and design; description of pilot study; selection of participants; instrumentation; data collection; data analysis; methodological assumptions and limitations; and restatement of research hypotheses.

Overview

The descriptive study used purposeful sampling procedures [non-probability sampling] to obtain three sample groups of recovering alcoholics. Groups 1 and 2 consisted of volunteers with 6 or less months of sobriety. Group 3 consisted of volunteers with 5 or more years of sobriety. The two groups with 6 or less months of sobriety were obtained to gather different drinking and sobriety behavior information: (a) before starting to drink [Group 1]; and (b) with 6 months or less of short-term sobriety [Group 2]. Groups 1 and 2 were viewed to be in very early recovery with high relapse potential while Group 3 was viewed to have achieved and maintained successful sobriety. Drinking and sobriety behavior of the sample was gathered from the Hutchins' Behavior

Inventory (HBI) (Hutchins, 1984) and from a structured interview form. The HBI is described in detail under the Instrumentation section. From the three group design, the following data were collected:

- Group 1
- In AA or a treatment program with 6 or less months of sobriety
- (a) completed the HBI with the situation of: "Before you started on sobriety, how did you respond to a high risk drinking situation?"
(retrospective report) (b) basic demographic data given.
- Group 2
- In AA or a treatment program with 6 or less months of sobriety
- (a) completed the HBI with the situation of: "Now that you have maintained sobriety for 6 months or less, how do you respond to a high risk drinking situation?"
(current report) (b) basic demographic data given.
- Group 3
- In AA with 5 or more years of sobriety
- (a) completed the HBI with the situation of: "Now that you have maintained sobriety for 5 years, how do you respond to a high risk drinking situation?" (current

report) (b) basic demographic data given (c) completed structured interview.

These data were analyzed using descriptive quantitative methods and qualitative methods including the askSam data analysis computer program.

Research Approach and Design

This twelve week descriptive study used an in-depth structured interview format and a situation specific behavior assessment inventory, the Hutchins Behavior Inventory (HBI), as the methodological tools for data collection. The Interview Form (Appendix A) was used to gather information in the following categories:

- I. Demographic Information
- II. Drinking History
- III. TFA Structured Interview
- IV. Open-ended Questions
- V. Comments, Questions, and Observations

Since the design was intentional to gather in-depth information on behavior interactions optimizing sobriety, Groups 1 and 2, the groups with less than 6 months of sobriety, did not complete the interview but completed the HBI retrospectively, as when still drinking for Group 1, or with their current short-term sobriety for Group 2. All structured interviews, completed with Group 3, were

recorded on audio tape which allowed the researcher to review the data collected for accuracy in recording.

Procedural Steps

The following procedural steps were employed:

1. Volunteers for the three groups were recruited by key A.A. persons and treatment center directors.

2. Incentives included adding to the field's knowledge, helping others in the process of recovering, receiving testing feedback, and obtaining an abstract of the study.

3. All volunteers were given a Factsheet of the study for informed consent [See Appendix C] and signed a release of information [See Appendix D]. All volunteers were given a code number to ensure confidentiality.

4. Volunteers in Groups 1 and 2 completed the HBI following verbal administration directions from Hutchins and Mueller (1992). They were given West's (1992) definitions of HBI words for review if needed [See Appendix F]. After writing down a high risk situation for drinking, they completed the HBI as they would have responded in the situation immediately prior to drinking or with their current short-term sobriety. Upon completion, the HBIs were collected and checked for completeness and each volunteer was thanked for their participation. Groups 1 and 2 volunteers completed the

HBI on-site, if they were in a treatment program, or at a place of their choice. Demographic data was obtained for both groups.

5. Group 3 volunteers completed a HBI using the same procedures for Groups 1 and 2, but completed the HBI as they would have responded in a high risk situation with their current long-term sobriety. Group 3 volunteers completed the structured interview form prior to completing the HBI. Each volunteer was thanked for their participation. Interviews were conducted at the researcher's office. Key A.A. persons were given copies of the Factsheet, directions to the office [See Appendix E] and phone numbers for volunteers to call and schedule an interview date and time. Although a few volunteers in Group 1 and 2 were recruited by key AA persons, the majority of Ss in these groups were recruited by a program director at the facility they attended.

6. The HBIs were computer scored.

7. HBI, demographic, and interview data were analyzed within and between groups using quantitative and qualitative methods.

8. Research questions were answered and discussed in relation to the study's findings and extant literature.

Pilot Study

A pilot study refining instrumentation and data

collection procedures was completed using three recovering alcoholic volunteers. Their range of sobriety was from 1 year 6 months to 9 years 3 months. From the pilot study changes to the interview form were made in: (a) the ordering of drinking behavior recall, answering questions concerning current behavior in terms of thoughts, feelings, and actions improved ability to recall thoughts, feelings, and actions when drinking; (b) the addition of 10 of Gorski's (1986) warning signs of relapse, which are behaviors often associated to relapse; (c) increasing the spacing on the interview form for recording responses, many responses required several lines to record. The 10 items came from Gorski's list of 37 behaviors throughout different phases, such as, irregular attendance at treatment functions under the "Loss of control of behavior", that have often been associated with relapse. The items included were suggested by two counselors working in an alcohol treatment program. The pilot group was very verbal and interested in the study. The pilot also suggested refinements on recruitment methods of volunteers, by giving key A.A. persons Factsheets and directions to the researcher's office, and clarity to participant confidentiality, by adding that audio tapes of the interviews would be erased and destroyed on the Factsheet and release of information forms. The pilot

study further enabled specification of the amount of time required for volunteers to complete the interview and HBI, which averaged 50 minutes and 15 minutes respectively.

Selection of Participants

The accessible population for the study was recovering alcoholics affiliated with and/or attending A.A. or in an aftercare or outpatient substance abuse counseling program around an urban area in Southwestern Virginia. The population was defined as anyone who has recognized they are alcoholic and desires to stop drinking. Participants were between the ages of 21 and 67 who volunteered to participate in the study.

Volunteers in the three purposeful sampling groups were recruited through the coordinated efforts of the researcher with key A.A. persons and directors of area alcohol and drug treatment centers. Key A.A. persons were asked to volunteer and then to recruit other volunteers who they knew had approximately 5 years or more of solid sobriety or less than 6 months of sobriety. Treatment center directors were requested to allow access for behavior assessments using the HBI of persons without dual diagnoses in treatment. A dual diagnosis would have been having the diagnosis of alcoholism and a psychiatric diagnosis other than depression, such as an anxiety disorder or psychosis or personality disorder. The

recruiters were well informed of the purpose of the study, what the volunteers' participation was limited to, and of the safeguards for participant confidentiality.

The final samples, comprised of the three groups obtained by purposeful sampling procedures, included 48 volunteers, 32 had less than 6 months of sobriety and 16 had 5 or more years of sobriety. Twelve additional initial volunteers were excluded from the study because of their stating they did not want to complete the HBI or because their HBIs were unscorable. Four additional initial volunteers for Group 3 were excluded due to their not returning phone calls to schedule an interview. No participants' interviews were excluded due to having too many (6 or more) positive responses to the 10 items from Gorski's (1986) warning signs of relapse selected as a cross-check for validity of sobriety self-report. All volunteers were given a Factsheet for Informed Consent to participate (Appendix C) and signed a Release of Information (Appendix D). The different information obtained from the 3 purposeful samples is included under Data Collection.

Instrumentation

Interview Form

A structured interview form was developed which included items recommended from research for greater

multidiscipline specificity and items of particular interest to the study. Both categorical and open-ended questions were used to maximize descriptive data collection. Each interview sheet was coded with a participant number which was also written on their factsheet, release of information, and HBI.

The interview form was divided into the following five parts:

Demographic Information. Age, sex, race, educational level, occupation, income, job satisfaction, marital status, marital satisfaction, number and ages of children, and who resides with the participant. The extant research has obtained very contradictory results regarding demographic factors and relapse/sobriety outcome. Westermeyer (1989), and LaJeunesse and Thoreson (1988) and others have found that being older, married, employed, higher socioeconomic status and occupation, living with others, and job and marital satisfaction were associated to better alcoholism outcome. However, Wiens and Menustik (1983), and Miller et al. (1990) and others have found that educational level, occupational category, sex, age, and marital status did not associate to better outcome. Inclusion of these items led to obtaining more information about these factors with longer-term sobriety (5 years or more) (See Appendix A Part I). The same demographic

information was obtained for all three groups.

Drinking History. Age of onset, average daily consumption, preferred type of alcohol, years of drinking, past "other drug" use and amounts, present "other drug" use and amount, previous treatment and type, relatives with past or current drinking problems, spouse's drinking behavior, relapses (when, length, and why/how ended), length of current sobriety, high risk situations for drinking, history of DUIs or alcohol related legal problems, other addictions (types, amount, and treatment), and whether taking prescription medications (and for what condition). Fingarette (1989a), and Jacobson (1989) and others have strongly suggested including more detailed drinking history in research. Research in personal factors related to outcome has found that early onset, other drug use, relatives and spouse having drinking problems, numerous treatment attempts, numerous relapses, having had DUIs and legal problems have adversely related to outcome (Fillmore, 1990; Hoffmann et al., 1987; Imlah, 1989; Ornstein and Cherepon, 1985; and Waisberg, 1990). Also included in this part of the interview were ten of Gorski's (1986) phases and warning signals of relapse to serve as a validity check on the amount and quality of sobriety reported by the participant. The wording was "have you recently been . . ." apprehensive about your

well being, or adamant or defensive when talking about your recovery, etc. Obtaining positive responses to 6 or more of the 10 resulted in excluding the participant's data from the study because of questionable sobriety. (See Appendix A Part II).

The TFA Structured Interview. The TFA Structured Interview allowed the researcher to collect the same predetermined data about thoughts, feelings, and actions from all volunteers with 5 or more years of sobriety. Hutchins and Cole (1992) suggest the use of structured interviews for consistency in data collection. The TFA Structured Interview included the following steps:

The first step was to have participants answer the TFA Critical Questions. These questions were asked in relation to a specific high risk situation of the participant's choice, "with the urge to drink":

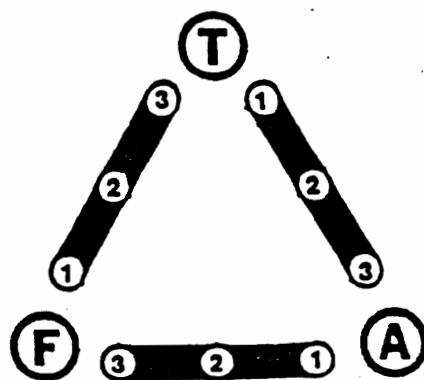
1. Were you more Thinking (T) or Feeling (F) or about in the middle?
2. Were you more Feeling (F) or Acting (A) or about in the middle?
3. Were you more Acting (A) or Thinking (T) or about in the middle?

Critical questions were asked first in the condition "with your current sobriety". These questions were asked a second time in the condition "when you were still

drinking/before sobriety". Therefore, current behavior information was gathered prior to retrospective information. This ordering decision was derived from the pilot study as volunteers said they better able to recall past behavior by first putting current behavior into TFA terms. Behavioral responses to the critical questions were marked on each side of the triangle as shown in Figure 2. The TFA Triangle is an open-ended scale framed by Thinking, Feeling, and Acting dimensions of behavior at the vertices. It is part of the TFA Systems (tm) developed by Hutchins and Vogler (1988). Responses to the critical questions on each side of the triangle were connected to form a TFA Triad, as shown in Figure 3 with sample descriptors. Operationally the TFA Triad is a graphic display of the interaction of the individual's thoughts, feelings, and actions in a specified situation. The TFA TRiads were constructed following the protocol from Hutchins and Vogler (1988) and Hutchins and Cole (1992). Following the first and second presentation of the TFA Critical Questions, TFA Triads were constructed from the two conditions: (1) with the individual's current sobriety; and (2) before they were sober and still drinking. The comparisons TFA Triads made it possible to examine possible changes in the interaction of thoughts, feelings, and actions in a high risk situation across the

Question 1

Were you more Thinking or Feeling
or about in the middle?

**Question 3**

Were you more Acting
or Thinking or about
in the middle?

Question 2

Were you more Feeling or Acting
or about in the middle?

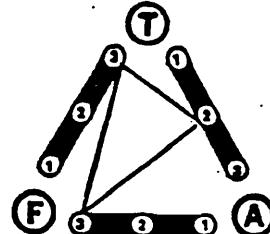
Figure 2. The TFA triangle and three critical questions

Condition 1: current sobriety.

Answers to critical questions:

1. More Thinking
2. More Feeling
3. The middle

Oh, Lord! - the panic
 Focussing on what made me mad
 A red flag - if I drink I'd lose



Feelings of abandonment
 Like all defenses are gone
 Angry spouse not considerate

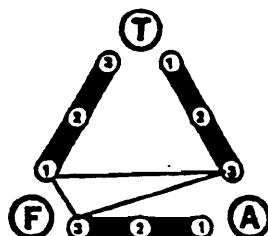
Acting in my parent
 Cross my arms
 Speak in loud tone

Condition 2: when drinking.

Answers to critical questions:

1. More Feeling
2. More Feeling
3. More Acting

What's going to happen to me
 I can't go on



Fear/paranoia
 Abandoned

Being aggressive
 Giving ultimatums

Figure 3. TFA Triads with sample descriptors from a subject (5+ years sober) answering: (1) in a high risk situation (argument with spouse) with current sobriety; and (2) in a high risk situation (conflict with ex-husband and kids) when drinking.

two conditions.

The second step included the completion of a structured Systematic Inquiry of TFA Critical Questions for all interview participants in follow-up to their responses to critical questions (See Appendix B). The inquiry began with the strongest response to critical questions e.g., the highest marked or skewed vertices, whether asking "What" for Thinking, "Why" for Feeling, or "How" for Acting. After specifying what their thoughts, feelings, and actions were in the situation, participants were probed further with asking: what triggered the thought, feeling, or action (antecedents); whether the thought, feeling, or action was "mild, moderate, or strong" in intensity; whether the thought, feeling, or action had a "positive, neutral, or negative" attribute; and what was the result (consequences) of the thought, feeling, or action. The same questions were repeated for all thoughts, feelings, and actions reported. The inclusion of behavioral antecedents and consequences were suggested by Hutchins and Vogler's (1988) "payoffs and tradeoffs" and by Hutchins and Cole's (1992) "comprehensive ABC model". Descriptions of intensity and attributes is a result of research finding that inability to deal with strong negative cognitive or emotional states greatly decreases ability to maintain sobriety (Harrison

and Hoffmann, 1989; Billings and Moos, 1981; Litman et al., 1979; Litt et al., 1990; and Sussman et al., 1990).

Open-ended Questions. Categories of interest in this interview section included:

(1) The kinds of factors which participants reported to account for changes in their thoughts, feelings, and actions in the same high risk situation but now that they do not drink.

(2) What kinds of methods or program components (whether personal or 12-step or other) helped to change thoughts, feelings, and actions.

(3) What were the most important factors in stopping drinking and to maintaining sobriety.

Support for the inclusion of these questions came from Hutchins and Cole, 1992; Clow, 1989; Fingarette, 1989a; Booth, 1989; and others stating that there is a need to focus more on behavior and more clearly specifying the events/methods that bring about and maintain behavior change. The questions also allowed for a TFA orientation assigned by judges for the reported change factors being more cognitive (T), affective (F), or behavioral (A) oriented or a combination. There were four judges, including three licensed professional counselors and a licensed clinical social worker. All four judges had experience in working with recovering alcoholics. They

were also trained in TFA Systems by the researcher. Their training included review of the TFA approach from Hutchins and Cole (1992) (pp. 4-6 and 16-17). Several researchers (Sussman et al., 1990; Litman et al., 1979; and West, 1992) and A.A. philosophy maintain that changing the way the alcoholic thinks about drinking is necessary to achieve and maintain sobriety.

Comments, Questions, and Observations. The researcher recorded comments and questions not elsewhere recorded in the interview. Participants were encouraged to give feedback about the interview and interview process. The researcher's observations about the participant's behavior during the interview, their responses, and behavior change patterns were noted for reference and integration in Chapter 4.

Hutchins Behavior Inventory (HBI)

Introduced in 1984 (Hutchins, 1984a), the HBI is a computer scored instrument containing 75 pairs of words. The pairs include all possible combinations of five words each associated with thinking, feeling, and acting. When people completed the HBI, they:

1. Recorded desired information of code number and length of sobriety, age, education, and sex.
2. Wrote out a specific high risk situation.
3. Mentally decided on which of two compared words

best described their behavior in the situation.

4. Recorded their selected intensity for the chosen word as being somewhat characteristic, moderately characteristic, or very characteristic of their behavior in the situation.

After scoring, the HBI provides a graphic display of a characteristic integrated behavior pattern in a specific situation relative to the emphasis placed on thinking, feeling, and acting components of behavior.

Walker (1984), using the Cronbach's Coefficient Alpha method, found the HBI had a high degree of internal reliability. The T, F, and A frequency scores ranged from .78 to .98 with only four of the twelve reliability coefficients below .90.

Wheeler (1986) in a test-retest reliability and construct validity study of the HBI, found that the bipolar scales were reliable measures of the TFA components. The test-retest reliability coefficients for the bipolar scales ranged from .80 to .86. After comparing two forms of the HBI to the Myers-Briggs Type Indicator and the Strong-Campbell Interest Inventory, Wheeler concluded that the HBI measured the behavior components of thoughts, feelings, and actions and demonstrated good construct validity.

Mueller, Hutchins, and Vogler (1990) researched the

convergent construct validity and common-factor reliability of the HBI. The reliability measures for the HBI bipolar scores ranged from .50 to .94. All structural coefficients were significantly different from 0 and coefficients of determination for bipolar scales were .52, .48 and .79, which indicated good convergent construct validity.

The HBI was administered to the groups of participants with less than 6 months of sobriety for assessment of (a) behavior patterns in a high risk situation and drinking (before sobriety for Group 1) or (b) with their current sobriety (Group 2) and to the group of participants with 5 or more years of sobriety for assessment of behavior patterns in a high risk situation but not drinking (with their current sobriety). West's (1992) list of definitions for HBI words were made available to all participants (Appendix F). The definition list provided a consistent explanation to the study participants of all HBI words.

Data Collection

Participants in Groups 1 and 2 were recruited primarily by contacting alcohol treatment program directors of residential and outpatient substance abuse services. Five volunteers in Group 1 were recruited by key A.A. persons who knew of their recent treatment or

entry into A.A.

Participants in Group 3 were recruited from key A.A. persons who knew something about their sobriety and could answer questions about their volunteering from having been informed by the researcher and given a Factsheet of the study, a copy of the release of information, and directions to the researcher's office [See Appendix E]. If participants chose another location rather than the researcher's office, the type of location, office or home, etc., was recorded. The researcher's office was chosen for its' convenient and confidential location, and was judged to be more conducive to professional research by controlling for extraneous variables.

With no exceptions, volunteers in all groups were informed of the general purpose of the study, that their participation was voluntary, given a Factsheet/Informed Consent form and a Release of Information, assured of their confidentiality, and instructed to put the same code name or number on the HBI that they used when signing the factsheet and release and to note their current length of sobriety on the HBI. The Factsheet/Informed Consent Form (Appendix C) included: statements of confidentiality of all information; voluntary participation; purpose of the study; what participation would consist of and not include any counseling or require further participation (except

the interview for Group 3); identified the researcher; a sincere thank you; and blanks for signing per code name or number of their understanding and preferred method to receive an abstract of the study, if requested. The Release of Information authorized permission to use their strictly anonymous test or interview data in any subsequent publication and informed interview participants that anonymous audio tapes used for recording accuracy would be erased and destroyed.

Group 1

Group 1 included 17 alcoholic volunteers with 6 or less months of sobriety. After signing the Factsheet and release of information, and filling out demographic information, participants were given West's (1992) definitions of HBI words. Following verbal instructions for administering the HBI (Hutchins and Mueller, 1992), participants were asked to write down a high risk situation and complete the HBI as they would have responded in the situation immediately prior to drinking (retrospective report of when drinking). Upon completion, the HBIs were collected and checked for completeness and each participant was thanked again.

Group 2

Group 2 included 15 alcoholic volunteers with 6 or less months of sobriety. The only difference in data

collection methods from Group 1 was that this group completed the HBI as they would have responded in the situation with their current short-term sobriety.

Group 3

Group 3 included 16 alcoholic volunteers who had 5 or more years of sobriety. They were recruited by key A.A. persons and asked to call the researcher using a code name, if preferred, and schedule a time and place to complete (a) the HBI and (b) the structured interview, including TFA triad completion for drinking and sobriety behavior (the researcher's office or a place of their choice were possible). They had been told by the A.A. recruiter that their participation would include taking a 15-20 minute objective behavior inventory and completing a 50-60 minute structured interview. After signing the Factsheet and release of information, participants were told to write down a high risk situation, encode their code name or number, and length of sobriety (years/months) on the HBI. They were asked to complete the HBI in reference to the specified high risk situation for drinking with their current sobriety behavior (current assessment). After the HBI was completed participants were offered the opportunity to take a 3 to 5 minute break before completing the structured interview. HBIs were checked for completeness. After completing the structured

interview participants were thanked again for their volunteering.

Participant Confidentiality

The following procedures and methods were employed to ensure for the confidentiality of all participants:

1. Volunteers were recruited by key A.A. or professional treatment persons affiliated with A.A. who knew the volunteer and something about their sobriety.

2. Key A.A. persons were fully informed of the nature, purpose, and requirements of the study, including the use of a Factsheet/Informed Consent form and a Release of Information.

3. These key persons knew the researcher was a Licensed Professional Counselor (LPC) and had considerable professional experience with client confidentiality and follows AACD and LPC ethical standards for practice and research.

4. The factsheet allowed for informed consent of the study's purpose and requirements of the volunteer and provided assurance of strict anonymity and confidentiality.

5. The interview was conducted at a site preferred by the volunteer, whether the researcher's office or elsewhere.

6. Whenever the researcher's office was used, interviews were spaced so that volunteers coming and going would not meet one another.

7. The release of information provided that anonymous audio tapes of interviews (using a number or code name during the taping) would be erased and destroyed and provided for permission to use anonymous data in possible publication. Potentially identifiable demographic information would be eliminated in a write-up.

8. There were no apparent potential adverse effects, violating a volunteer's rights, from their participation. The higher risk groups (with <6 months sobriety) did not complete interviews. The types of personal information obtained in interviews with participants with 5 or more years of sobriety has been frequently obtained in previous research (demographic and drinking history). Talking about previous drinking behavior should not cause a relapse as such discussions are an integral part of A.A. and 12-step programs.

Data Analysis

(1). Data collected in the study were analyzed both quantitatively and qualitatively.

(2). Descriptive statistics including means, modes, and ranges were calculated for continuous variables.

(3). Demographic data means were compared from the

different groups.

(4). Frequencies were tabulated for categorical variables.

Operationalizing TFA Triads

TFA Triangles from HBI scores and interviews were used to collect data on the interaction of the participant's thoughts, feelings, and actions in a high risk situation with the condition of either while drinking or with 5 or more years of sobriety. TFA Triad responses were numerically operationalized using the following steps:

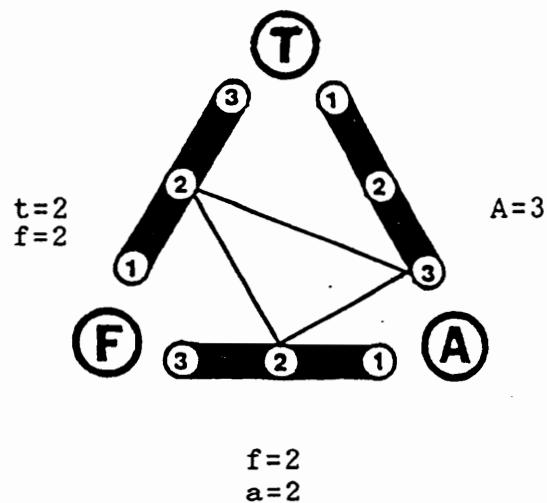
1. Responses at the extremes of bipolar scales (T-F, F-A, and A-T) on the TFA triangle were given a 3-point value, and designated by a capital T, F, or A.

2. Midpoint responses on the triangle were given a 2-point value from each of the bipolar extremes. Such responses represented a mark at the middle of each bipolar scale. A midpoint response was designated by small letters, t, f, or a.

3. Total number of points for each bipolar scale were summed for each Triad.

4. The TFA Triad was transformed into a numerical rating reflecting individual Thoughts, Feelings, and Actions in the specific situations as shown in Figure 4.

Group totals and averages were calculated for the TFA Triad scores in each condition. Differences in Triad

Bipolar Score Tally

t2	f2	a2
	f2	A3

t2	f4	A5
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TFA Triad Score = A5 f4 t2

Figure 4. The scoring of the TFA Triad

patterns between conditions and groups suggested differences in behavior. Group and condition TFA Triad scores were compared using descriptive methods from Hutchins (1992) TFA/HBI Analytic Guide and interpreted using Hutchins and Vogler (1988, Part II) Triad descriptions.

HBI Analysis

The HBI was administered to both groups. The procedures outlined in the Manual for the Hutchins Behavior Inventory (Hutchins and Mueller, 1992) were used to convert HBI scores to the TFA nine-point triangle (TFA Triad descriptive scores).

The HBIs of the three groups were compared. In addition, Group 3's TFA Triad scores (from interviews) in the condition of "with current sobriety" were compared to Group 3's HBI triad scores and Group 2's HBI triad scores. Group 3's TFA triad scores (from interviews) in the condition of "when you were drinking" were compared to Group 1's HBI triad scores.

The comparison of HBIs of the three groups was used to measure the difference between Thinking, Feeling, and Acting behavior patterns of alcoholics who have achieved longer-term sobriety with alcoholics who have not achieved significant sobriety and are at greater risk for relapse. The within group comparison of Group 3's (a) HBIs

[sobriety behavior] and (b) their interview TFA Triad scores in the "with your current sobriety" condition served as a cross-check across measures on the behavior patterns of alcoholic who have achieved sobriety. The comparison of Group 1's HBIs [drinking behavior] with Group 3's interview TFA Triad scores in the condition of "when you were drinking" served as a cross-check on the behavior patterns of alcoholics before achieving significant sobriety, still drinking or with <6 months of sobriety.

The HBI analysis provided answers to Research Question 1: What are the TFA patterns (TFA Triads) of alcoholics before they stopped drinking?, Research Question 2: What are the TFA patterns (TFA Triads) of alcoholics with 6 months of sobriety?, Research Question 3: What are the TFA patterns (TFA Triads) of alcoholics with 5 or more years of sobriety?, and Research Question 4: What are the differences in the thoughts, feelings, and actions (TFA Triads) of the three groups of alcoholics?.

Interview Response Variables

Participants' responses were qualitatively analyzed in order to study similarities, differences, and patterns in the behavior of alcoholics who have achieved 5 years of sobriety. Specific behavior changes and how these were achieved and maintained were of great interest.

Data from the interview instrument were transcribed in raw form to the askSam Data Management System (Software Resource, 1987) for analysis. Using the interview instrument as the framework for this analysis, six templates were created to assimilate information with particular reference to responses to the following: demographic and drinking history sections; thoughts, feelings, and actions while drinking and with 5 years of sobriety; factors reported important for achieving and maintaining sobriety; helpful personal or program component factors; and the researcher's observations. These templates enabled the interview instrument to be qualitatively and quantitatively processed and analyzed.

Appendix H contains sample templates.

The Query command's [Query Menu] process of the askSam system was used to review all templates for key phrases, words, or terminology and provided analysis of word count and meaning throughout the interviews. The Query mode reviews of templates provided searches for themes about behavior and behavior changes. Searching for themes in the data met McCracken's (1988) guidelines for raw interview data to be sorted in order to advance analytic categorical themes. Whenever possible, the researcher categorized the data responses into positive and negative categories and thereby enabled critical aspects (whether

positive or negative) of behavior in a specific situation (the interaction of thoughts, feelings, and actions) and behavior change to be assimilated and examined. When used to review the responses in Part IV of the interview (open-ended questions), the Query mode for templates enabled factors related to attaining and maintaining sobriety (requiring behavior change) to be put into a format retrieved across participants which could be reviewed by a panel of five counselors. From the listing of factors for behavioral change, the counselors were able to review and rate the Ss' reported factors as being more Thinking [Cognitive oriented], Feeling [Humanistic/Affective oriented, and Acting oriented [Behavioral oriented]. The counselors on the panel were allied professionals either familiar with TFA Systems (tm) or inserviced on the model and method by the researcher using Hutchins & Cole (1992, 2nd Ed.). The panel consisted of: four licensed professional counselors and a licensed clinical social worker.

The Query searches of template data provided the information necessary to answer Research Question 5: What are the differences in the thoughts, feelings, and actions reported from the group with 5 years of sobriety in comparing their behavior before they stopped drinking and with their current sobriety? and Research Question 6: What

specific behavior changes or factors are reported to be important for the attainment and maintenance of sobriety?.

Methodological Assumptions and Limitations

Methodological assumptions included:

1. Purposeful sampling procedures were necessary for the descriptive study.
2. Key A.A. persons and treatment center directors would be able to procure volunteers.
3. The researcher possessed adequate interview and rapport skills.
4. The descriptive data was not appropriate for statistical analysis requiring random sampling.

Limitations included the following:

1. The purposeful sampling procedures can decrease the generalizability and predictive power of results to all alcoholics if phase of recovery is not comparable.
2. In terms of alcohol abuser, TFA Systems (tm) had only been used with DUI second offenders.
3. The sample size of recovering alcoholics in each group was relatively small.
4. Volunteers were defined as alcoholic by their own definition.
5. There was reliance on volunteers' self-reports of their behavior to be true and valid. However, the method of volunteer recruitment helped to ensure the validity of

reported sobriety and the length of sobriety.

Restatement of Suppositions

The conceptual suppositions were operationalized relative to instrumentation and research procedure as follows:

1. There were no characteristic TFA Triads for drinking behavior from the HBI Bipolar scores being converted to a 9 point triangle for alcoholics with 6 or less months of sobriety.

2. There were no characteristic TFA Triads for short-term sobriety from the HBI Bipolar scores being converted to a 9 point triangle for alcoholics with 6 or less months of sobriety.

3. There were no characteristic TFA Triads for long-term sobriety from the HBI Bipolar scores being converted to a 9 point triangle for alcoholics with 5 or more years of sobriety.

4. There were no differences in the TFA Triad patterns from the HBI Bipolar scores being converted to a 9 point triangle between alcoholics with 6 or less months of sobriety and 5 or more years of sobriety.

5(a). There were no differences in thought, feeling, and action patterns reported for alcoholics with 5 years of sobriety from comparing the TFA Triad 9 point triangle scores from the TFA Critical Questions in the TFA

Structured Interview for before stopping drinking and after 5 years of sobriety.

(b). There were no differences in the thoughts, feelings, and actions reported before stopping drinking and after 5 years of sobriety from comparing alcoholics with 5 years of sobriety responses transcribed from audio tape to templates and reviewed with the query method to retrieve keyed responses from the askSam data analysis computer program.

6. There were no differences in the behavioral change factors reported to be necessary for the attainment and maintenance of sobriety from comparing responses with the query method to retrieve keyed responses from the askSam data analysis computer program.

CHAPTER FOUR

Results

This chapter presents the descriptive and comparative data collected from the three groups of recovering alcoholics. Responses to the HBI for different phases of recovery coupled with the TFA structured interview enabled the researcher to analyze changes in the interaction of thoughts, feelings, and actions of alcoholics who achieve sobriety. The HBI and the structured interview were used to obtain quantitative and qualitative data regarding how alcoholics respond immediately following a high risk situation for drinking: (a) before starting to drink [Group 1]; (b) with six months or less of short-term sobriety [Group 2]; and (c) with five or more years of sobriety [Group 3].

The results of the 48 recovering alcoholics enabled the researcher to compare the relative integration of thinking - feeling - acting behavior across the recovery periods. Demographic information, drinking histories, and a panel of counselor's ratings in TFA terms of the reported most important factors for stopping to drink and for maintaining sobriety provided direct linkage to extant literature findings and built a case for using multifactorial and integrative models to study alcoholism recovery.

The results are organized around group comparison of demographic variables and the six research questions with their operationalized conceptual suppositions presented in Chapter Three.

Demographic Variables

A detailed summary of each group's demographic variables is provided in Appendix J. The 12 demographic variables studied included gender, age, race, length of sobriety, educational level, employment status, occupation, job satisfaction, marital status, relationship satisfaction, number of children, and who the subject resided with.

Analysis of Demographic Variables Across Groups

The three groups were compared across the 12 demographic variables. Chi Square analyses indicated the groups differed in "who the subject resided with" ($\bar{X} = 18.09$, $df=8$, $p=.02$), "occupation" ($\bar{X} = 12.41$, $df=6$, $p=.053$), and "marital status" ($\bar{X} = 12.52$, $df=6$, $p=.051$). No differences were found across groups, with Chi Square analyses at the .05 level of significance, for gender, race, educational level, employment status, job satisfaction, or relationship satisfaction.

The difference in who they resided with can be accounted for there being more subjects in Groups One and Two who live with parents or grandparents (1/17 and 5/15

subjects) and who are single parents living with their children (4/17 and 1/15 subjects).

The differences in occupation occurred from there being more subjects in Groups One and Two who had never worked (3/17 and 2/15 subjects) and more professional occupations (10/16 subjects) in Group Three.

The differences in marital status occurred from there being more single (4/17 and 6/15 subjects) and divorced persons (9/17 and 4/15 subjects) in Groups One and Two and more married persons (10/16 subjects) in Group Three.

All the differences from Chi Square analyses occurred in Groups One and Two being different from Group Three. Groups One and Two appeared to be very similar although they came from different outpatient aftercare settings.

One-way Anovas indicated that the groups differed in age ($F=7.32 (2,45)$, $p=.0018$) and in length of sobriety ($F=78.20 (2,45)$, $p=.000$). A Newman-Keuls test ($p<.05$) indicated that Group One and Two did not differ in age but both differed from Group Three. This was expected because of their having 5 or more years of sobriety.

The ages ranged from 21 to 47 years in Group 1, from 21 to 55 years in Group 2, and from 33 to 67 in Group 3. Respective mean ages for the groups were 34.6, 37.4, and 45.8 years).

Both groups One and Two differed from Group Three for length of sobriety but did not differ from each other. The ranges in months of sobriety was from 1 to 6 months in Groups 1 and 2 and from 57 to 177 months in Group 3. Respective means from a Newman-Keuls test ($p < .05$) for length of sobriety were 2.86, 3.76, and 101.31 months.

The findings support there were significant differences between groups in: (a) who the subject resided with; (b) age; (c) occupation; (d) marital status; and (e) length of sobriety. All the differences occurred in both groups with 6 months or less of sobriety [Groups 1 and 2] being different from the group with 5 or more years of sobriety [Group 3] but not being different from one another. Related to the purposeful sampling procedures, the subjects' with 5 or more years of sobriety have a different demographic profile than the comparable subjects with 6 or less months of sobriety. Their profile differs in being older, more being married, more employed in professional occupations, and more residing with spouses. One might expect some of these differences, such as occupation, from the sampling of AA leaders. However, it would also appear possible that as part of successful longer term sobriety persons may be motivated to make positive life changes, such as, a second marriage or change in occupation. Since the defined population in

Chapter Three was any person who has recognized they are alcoholic and desires to stop drinking, the three groups still appeared to be representative of this population. The purposeful sampling resulted in obtaining similarities and differences in demographic variables.

Drinking History Information

Drinking history information was obtained only from Group Three. Eighty-one percent reported their age of onset [onset meaning "of regular heavy drinking"] to be prior to age 25. The range in number of years of problem drinking prior to sobriety was quite large, from 2 to 39 years of drinking ($\bar{X}=15.68$ and a standard deviation of 9.08). Only 4 persons, or 25% of the group, had not been abusers and heavy users of other drugs, including prescription medications, marijuana, cocaine, amphetamines, etc. About an equal number of persons in the group had or did not have formal alcohol treatment. Forty-four percent had inpatient treatment, 13% had only outpatient treatment, and 44% had no treatment at all. Regarding family history of alcoholism, 13% reported alcoholism in siblings, 31% reported alcoholism in their parents' generation, and 56% reported a combination of siblings, parents, grandparents and their own children being alcoholic. Thirty-one percent of the group had spouses who were also in recovery for alcoholism.

Nineteen percent of the sample had had one or more DUIs. Only one person reported not having any other past addictions. Seventy-five percent reported having had addictions to caffeine and nicotine and that most of these addictions were not in recovery. Only 19% had stopped all other addictions. Eighty-one percent of the sample reported no relapse in their current recovery, 13% reported having had one prior relapse, and one person reported having had 2 or more relapses. The reported range for length of problem drinking before stopping ranged from 2 to 39 years. All subjects were regular attenders of AA and the majority were male (69%). None of the sample had more than 2 positive responses to selected items of Gorski's relapse signs used for screening subjects' reports of sobriety and 37% did not have any positive responses to the screening items.

Research Question One

What are the TFA patterns (TFA Triads) of alcoholics before they stopped drinking?

The seventeen Group One subjects who had six or less months of sobriety completed the HBI with the situation of "before you started on sobriety, how did you respond to a high risk drinking situation". Seven of the subjects were in a residential alcohol treatment program and received a 100% completion rate for the HBI. Eleven subjects were

recruited from a mental health services outpatient treatment program. Of the eleven, only five completed the HBI for a completion rate of 45%. Reasons given for the six non-completions were: (a) not keeping their counseling appointment; (b) lack of motivation; (c) lack of time; and (d) believing the HBI too difficult to complete after "glancing" at the instrument. The other five subjects in group one were obtained from referral of key A.A. persons. These volunteers had a 100% completion rate.

Hutchins Behavior Inventory (HBI)

The HBI results were computer generated with a triangle plotted reflecting the interaction of thoughts, feelings, and actions and the intensity of these items. For purposes of comparison and interpretation across all groups, the HBI computer generated triangles were converted to the Nine-point TFA Triangle following the formats established in the Manual for the Hutchins Behavior Inventory (Hutchins and Mueller, 1992) and the TFA/HBI Analytical Guide, 2nd ed. (Hutchins, 1992). The weighted bipolar scales section of the HBI report was used to convert the computer generated TFA Triads onto the nine-point TFA triangle. The TFA triads generated from these weighted scores for each participant are presented in Figure 5. Scoring of the converted HBI generated

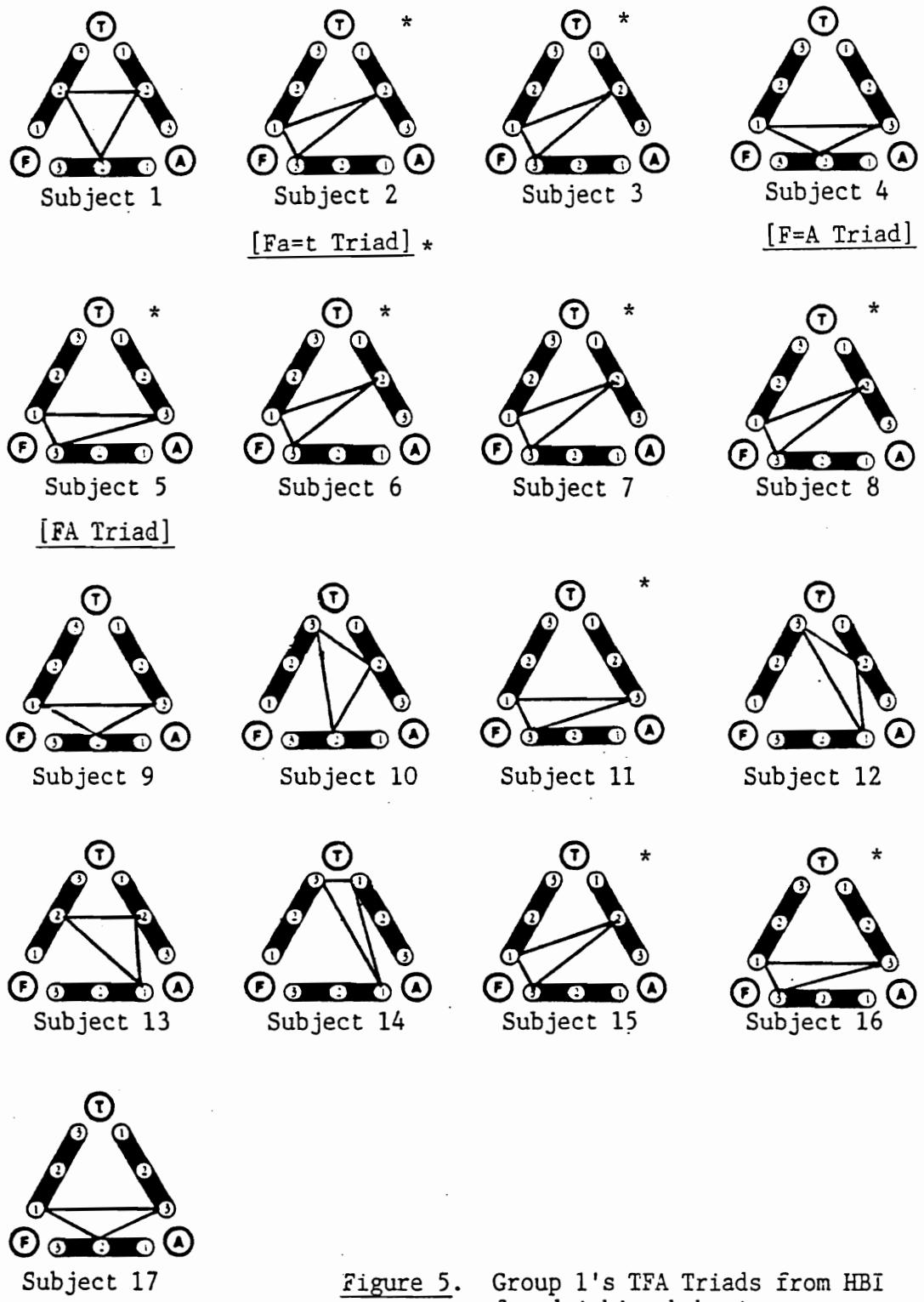


Figure 5. Group 1's TFA Triads from HBI for drinking behavior.

Note: * indication of modal triad and others within 1 point.

triads was accomplished according to methods described in Chapter Three. Noteworthy, 15 subjects or 88% had at least one Feeling or Acting vertices marked. Only 3 subjects or 18% had a Thinking vertices marked. Twelve subjects or 71% had a score at the Feeling vertices and nine or 53% had a score at the Acting vertices.

Conversion to 9-Point Triangle

Table 11 presents Group 1's bipolar scales scores from the HBI converted to a 9-point triangle and weighted scores on a 9-point triangle. Thirteen of the seventeen TFA triads generated by the HBI had at least one midpoint on one of the bipolar scales. The most frequent occurring midpoint was on the T-A bipolar scale (10 subjects). Five subjects had midpoints on A-F bipolar scale and 2 had midpoints on the F-T bipolar scale. In 10 of 17 cases there appeared to be more thinking-acting integration in the groups' drinking behavior. Means were calculated for thinking, feeling, and acting weighted scores from the 9-point triangles. In rank order of mean values, the TFA triad for this group was a F-A-T sequence or orientation with mean scores of 4.53, 3.35, and 2.12 respectively. The emphasis on feeling and acting indicates that in a high risk drinking situation drinking behavior is more impulsive prompted by feelings or cues without much thinking.

Table 11

Group 1 HBI bipolar scale scores and weighted scores converted to the 9-point triangle for drinking behavior

S	HBI Bipolar Scale Scores			Weighted Scores		
	T-A	F-T	A-F	T	F	A
1	2-2	2-2	2-2	4	4	4
2	2-2	3-0	0-3	2	6	2
3	2-2	3-0	0-3	2	6	2
4	0-3	3-0	2-2	0	5	5
5	0-3	3-0	0-3	0	6	3
6	2-2	3-0	0-3	2	6	2
7	2-2	3-0	0-3	2	6	2
8	2-2	3-0	0-3	2	6	2
9	0-3	3-0	2-2	0	5	5
10	2-2	0-3	2-2	5	2	4
11	0-3	3-0	0-3	0	6	3
12	2-2	0-3	3-0	5	0	5
13	2-2	2-2	3-0	4	2	5
14	3-0	0-3	3-0	6	0	3
15	2-2	3-0	0-3	2	6	2
16	0-3	3-0	0-3	0	6	3
17	0-3	3-0	2-2	0	5	5
Total	23-38	40-13	19-37	36	77	57

$$T\bar{x}=2.12 \quad F\bar{x}=4.53 \quad A\bar{x}=3.35$$

Characteristic TFA Triad

Group 1's characteristic triad from mean scores, the F-A-T triad, is described in parts of triads #19, the FA Triad, #20, the Fa=t Triad, and #22, the F=A Triad in Part II of TFA Systems (tm) (Hutchins and Vogler, 1988). These triads were denoted in Figure 5. The Fa=t triad is most precisely descriptive as the exact triad of weighted scores on the 9-point triangle (F6 a2 t2) occurred six times in group 1. The Fa=t triad is described to have the greatest emphasis on feelings. The dominance of one's feelings significantly impact how the person thinks as well as action that is taken. "While there is an interaction between one's thoughts and actions, feelings dominate these areas" (p. 138). "Because of the strong feeling orientation, there is little middle ground. The person tends to be strongly for or against issues - - - there is not much middle ground" (p. 140).

The other most frequent occurring triads for group 1 was Hutchins and Vogler's #19, the FA Triad occurred 3 times and #22, the F=A Triad occurred 3 times. Generally, these triads are described as follows:

FA The action one engages in tends to be caused by feelings. Thinking is completely latent in the triad (p. 133).

F=A Thinking is absent or latent. Acting and feeling dimensions work in harmony with each other. The person gives little thought to potential consequences and alternative behavior (pp. 150-152).

Based on the results of Group 1, the supposition for research question one that there are no characteristic TFA Triads for drinking behavior for alcoholics with 6 or less months of sobriety is not supported.

Group 1 High Risk Situations for Drinking

The specific high risk drinking situations specified by Group 1 were: argument with spouse or girlfriend/boyfriend (4); stress from work (3); feeling lonely (3); being out with friends (2); and one response each for feeling angry or hurt; contact with ex-spouse; feeling depressed; having relationship problems; and feeling inferior. The emphasis on feelings and actions is recognized in these reported high risk situations for drinking.

Research Question Two

What are the TFA patterns (TFA Triads) of alcoholics with 6 or less months of sobriety?

The fifteen Group 2 subjects who had 6 or less months of sobriety completed the HBI with the situation "now that you have maintained sobriety for 6 months or less, how do

you respond to a high risk drinking situation?". Eighteen volunteers were recruited from an aftercare program of an inpatient/outpatient treatment facility. Twelve of the 18 completed the HBI yielding a 67% completion rate. Reasons given for non-completion were: (a) inability to read and/or comprehend the inventory; (b) being unable to see the inventory well enough for subjects over age sixty; (c) suggestion from the coordinator that cognitive dysfunction resulting in poor comprehension and concentration in early recovery could motivate making excuses for not completing the inventory; and (d) lack of time to complete the HBI before leaving the group for work. The other three subjects in the group were in a residential aftercare program. Their completion rate was 100%.

Hutchins Behavior Inventory

The TFA triads generated from bipolar scale scores conversion for each participant are presented in Figure 6. Noteworthy, 6 subjects or 40% had a score at the Thinking vertices, 8 or 53% had a score at the Feeling vertices, and 4 or 27% had a score at the Acting vertices. These results are similar to Group 1's emphasis on feelings, but Group 2 had more scores at thinking vertices than Group 1 (40% versus 18%).

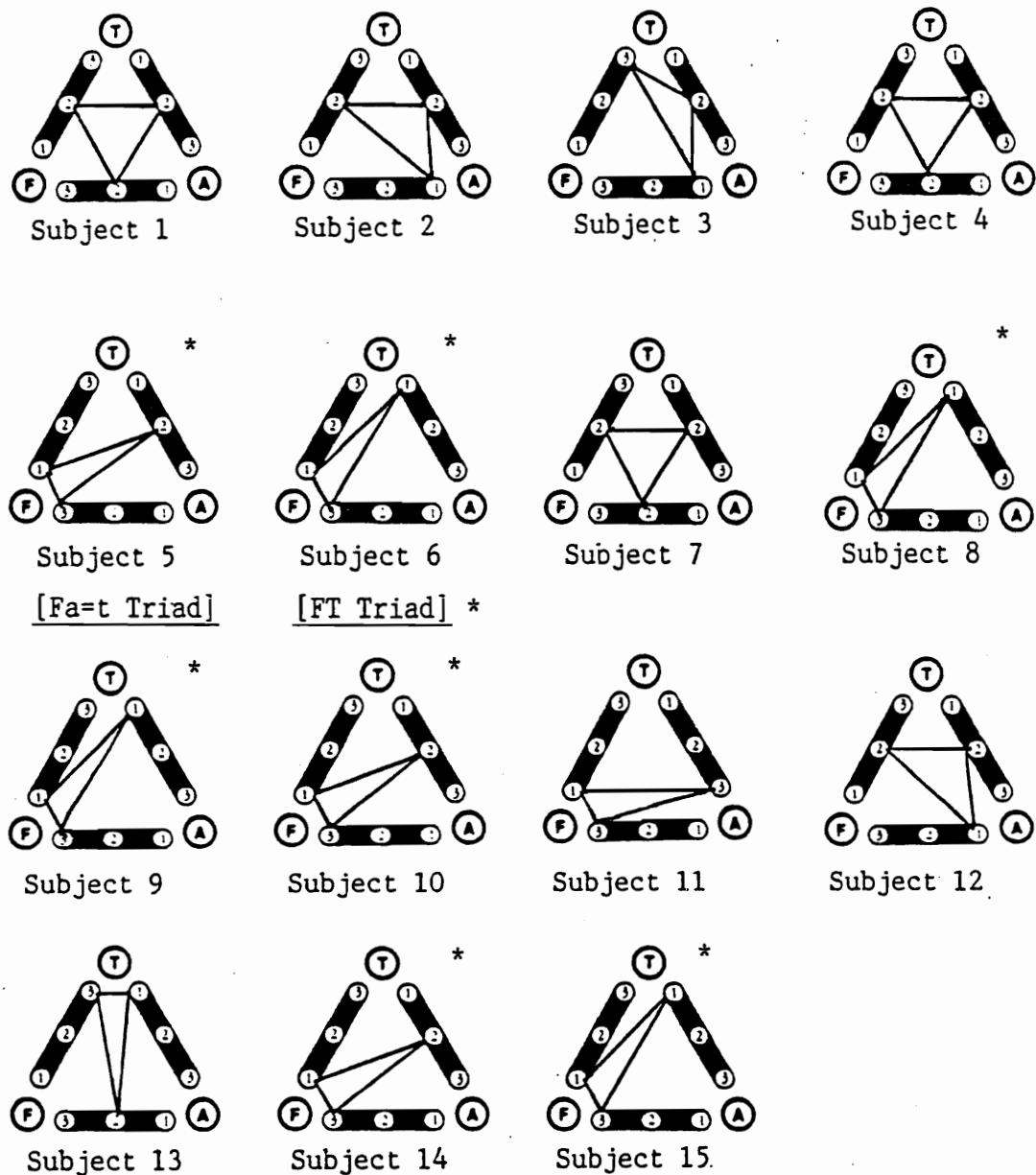


Figure 6. Group 2's TFA Triads from HBI for 6 or less months of sobriety behavior.

Note: * indication of modal triad and others within 1 point.

Conversion to 9-Point Triangle

Table 12 presents Group 2's bipolar scales scores conversions and weighted scores on the 9-point triangle. Nine of the 15 TFA triads generated by the HBI had at least one midpoint on one of the bipolar scales. The most frequent occurring midpoint was on the T-A bipolar scale (9 subjects) which is the same as Group 1's thinking and acting integration in drinking behavior. However, for Group 2 this integration does not lead to drinking. Five subjects had midpoints on F-T and four on the A-F bipolar scales. Means were calculated for thinking, feeling, and acting weighted scores for the 9-point triangles. In rank order of mean values the TFA triad for this group was a F-T-A sequence or orientation, with mean scores of 4.40, 3.27, and 2.53 respectively. The emphasis on feeling and thinking suggests that in early recovery feelings tend to be channeled more to thinking before action, which differs from the F-A-T sequence of Group 1.

Characteristic TFA Triad

Group 2's characteristic TFA triad from mean scores, the FTA triad for short-term sobriety behavior in a high risk drinking situation is described in parts of triads #21, the FT Triad, and #20, the Fa=t Triad described in Hutchins and Vogler (1988). These triangles were denoted

Table 12

Group 2 HBI bipolar scale scores and weighted scores converted to a 9-point triangle for <6 months sobriety

S	HBI Bipolar Scale Scores			Weighted Scores		
	T-A	F-T	A-F	T	F	A
1	2-2	2-2	2-2	4	4	4
2	2-2	2-2	3-0	4	2	5
3	2-2	0-3	3-0	5	0	5
4	2-2	2-2	2-2	4	4	4
5	2-2	3-0	0-3	2	6	2
6	3-0	3-0	0-3	3	6	0
7	2-2	2-2	2-2	4	4	4
8	3-0	3-0	0-3	3	6	0
9	3-0	3-0	0-3	3	6	0
10	2-2	3-0	0-3	2	6	2
11	0-3	3-0	0-3	0	6	3
12	2-2	2-2	3-0	4	2	5
13	3-0	0-3	2-2	6	2	2
14	2-2	3-0	0-3	2	6	2
15	3-0	3-0	0-3	3	6	0
Total	33-21	34-16	17-32	49	66	38

$$T\bar{x}=3.27 \quad F\bar{x}=4.40 \quad A\bar{x}=2.53$$

in Figure 6. Both of these triads appear to be most descriptive of Group 2's response orientation as the FT Triad with weighted scores (F6 T3) occurred 4 times in the group and the Fa=t Triad with weighted scores (F6 t2 a2) occurred 3 times. In comparing these two triads, the value on the T-A bipolar scale shifts from the T vertices to the midpoint for the Fa=t Triad. The FT Triad is described to illustrate a situation in which feelings are very dominant, thoughts are moderately strong, and the action component is latent or absent. Feelings are likely to affect one's thoughts although they could still be separated from each other (p. 143). The Fa=t Triad suggests the dominance of one's feelings significantly impact how the person thinks as well as action that is taken (p. 138). The difference from Group 1's triad involved the tendency towards more thinking involvement with feelings and actions which is also supported by the weighted scores means for Thinking increases from 2.12 in Group 1 to 3.27 in Group 2 and Acting means of 3.35 for Group 1 decreases to 2.53 for Group 2. Although Group 1's and Group 2's triads are somewhat similar, there is an emerging tendency in early sobriety towards more thinking involvement from feelings and perhaps less impulsive action without thought.

Based on the results for Group 2, the supposition for research question two that there are no characteristic TFA triads for alcoholics with short-term sobriety is not supported.

Group 2 High Risk Situations for Drinking

The specific high risk drinking situations reported by Group 2 subjects were: after work (5); argument with spouse/ex-spouse or children (3); being at a bar with others drinking (2); and one response each for work stress with boss; financial stress; being around others who are "users"; feeling lonely; and "anytime".

Research Question Three

What are the TFA patterns (TFA Triads) of alcoholics with 5 or more years of sobriety?

The sixteen Group 3 subjects who had 5 or more years of sobriety completed the HBI with the situation "now that you have maintained sobriety for 5 or more years, how do you respond to a high risk drinking situation?". Twenty subjects were recruited from key A.A. persons who obtained the subject's consent to be called by the researcher to schedule an interview date and time. Originally subjects were asked to call first but due to excessive lag times in their calling in key A.A. persons suggested the change. Four subjects were unable to complete the HBI and

interview due to their schedule demands or not returning phone messages left on their personal answering machines. One person, who was reported to be quite elderly and disabled requested the interview be conducted at her home and was denied. The 16 of the 20 initial subjects yielded a 80% completion rate for this group. All subjects attended A.A. but were not in an aftercare or outpatient alcohol treatment program.

Hutchins Behavior Inventory

The TFA triads generated from bipolar scale score conversion are presented in Figure 7. Six subjects or 38% had a score at the Thinking vertices. Seven subjects or 44% had scores at the Feeling vertices and 5 subjects or 31% had scores at the Acting vertices.

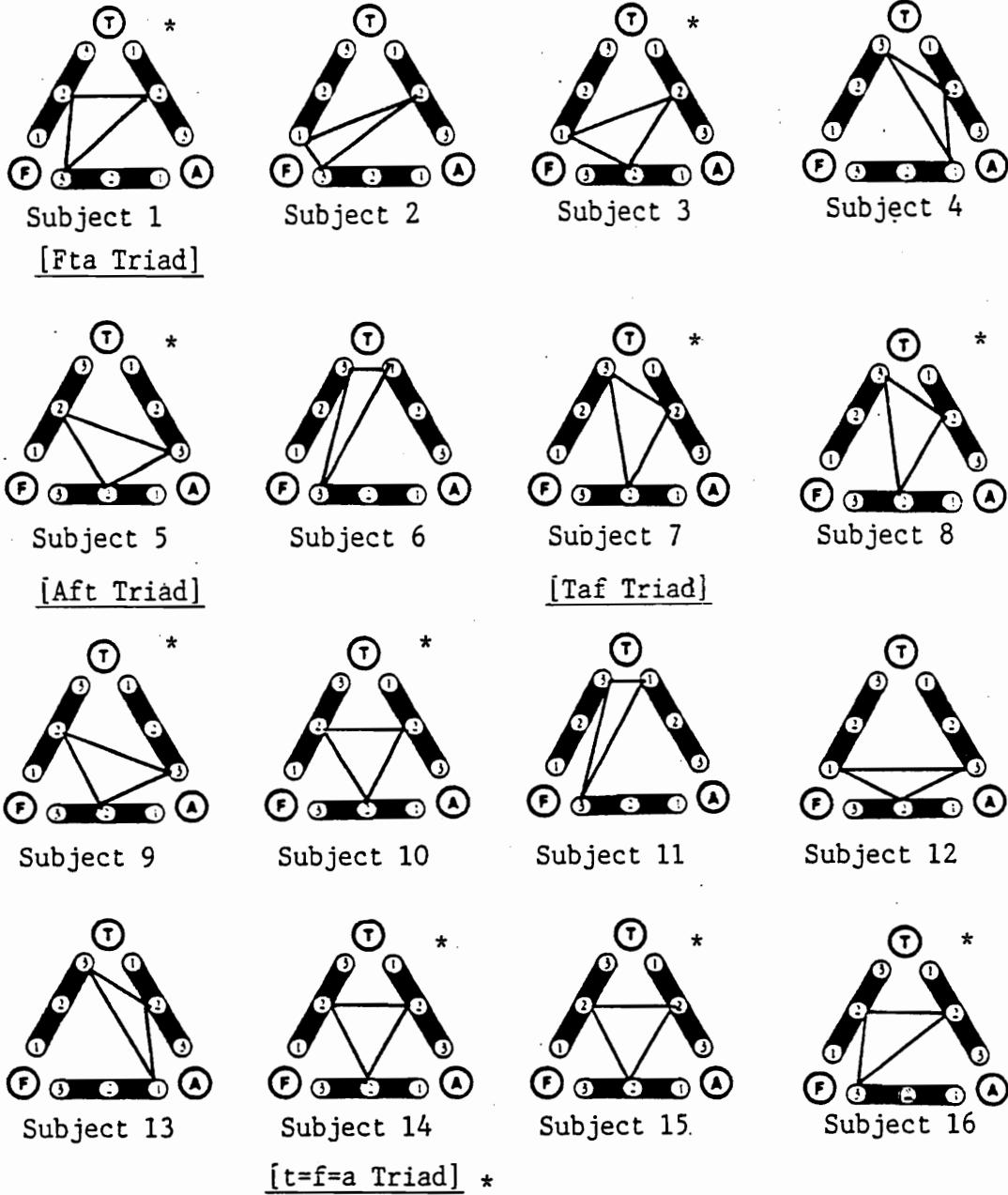


Figure 7. Group 3's TFA Triads from HBI for 5+ years of sobriety behavior.

Note: * indication of modal triad and others within 1 point.

Conversion to 9-Point Triangle

Table 13 presents Group 3's bipolar scales scores and weighted scores converted to a 9-point triangle. Fourteen of the 16 TFA triads generated by the HBI had at least one midpoint on one of the bipolar scales, which is the highest number for any of the three groups. The most frequently occurring midpoint was on the T-A bipolar scale (11 subjects) but was closely followed by the A-F bipolar scale (9 subjects). Seven subjects had midpoints on the F-T bipolar scale which indicated that Group 3 had the highest integration of feeling and thinking. Means were calculated for thinking, feeling, and acting weighted scores for the 9-point triangles. In rank order the mean values for this group was a T-F-A sequence or orientation with respective mean scores of 3.75, 3.50, and 3.44. The TFA orientation for Group 3 was not only different from Groups 1 and 2, but the means for thinking, feeling, and acting were very close to one another which indicated substantially more integration in all dimensions with emphasis on thinking.

Characteristic TFA Triad

Group 3's characteristic TFA triad from mean scores, a TFA triad for long-term sobriety behavior in a high risk drinking situation, is closest to Triad #14, the t=f=a Triad described by Hutchins and Vogler (1988).

Table 13

Group 3 HBI bipolar scale scores and weighted scores converted to the 9-point triangle for 5+ years sober

S	HBI Bipolar Scale Scores			Weighted Scores		
	Conversion			Conversion		
	T-A	F-T	A-F	I	F	A
1	2-2	2-2	0-3	4	5	2
2	2-2	3-0	0-3	2	6	2
3	2-2	3-0	2-2	2	5	4
4	2-2	0-3	3-0	5	0	5
5	0-3	2-2	2-2	2	4	5
6	3-0	0-3	0-3	6	3	0
7	2-2	0-3	2-2	5	2	4
8	2-2	0-3	2-2	5	2	4
9	0-3	2-2	2-2	2	4	5
10	2-2	2-2	2-2	4	4	4
11	3-0	0-3	0-3	6	3	0
12	0-3	3-0	2-2	0	5	5
13	2-2	0-3	3-0	5	0	5
14	2-2	2-2	2-2	4	4	4
15	2-2	2-2	2-2	4	4	4
16	2-2	2-2	0-3	4	5	2
Total	28-31	23-32	24-33	60	56	55

$$T\bar{x}=3.75 \quad F\bar{x}=3.50 \quad A\bar{x}=3.44$$

This triangle is denoted in Figure 7. The t=f=a Triad occurred 3 times in Group 3. Variations of this triad, the Fta, Aft, and the Taf occurred two times each. These triads have at least 2 midpoint scores. In fact, 7 triads were only one point off from a completely balanced and integrated triad. These 7 triangles were the Fta, Aft, Taf, and Fat Triads. Hutchins and Vogler (1988) describe a total of six triads which are one point off from a balanced triad. Importantly, when viewed on the TFA Triad Map, the closer any triad is to the t=f=a Triad, the fewer the steps the person has to make to the balanced orientation and will not have a problem in the described situation. Consequently, seven persons only needed to make a one step behavioral adjustment, towards full, and ideal, integration and flexibility in the dealing with the high risk situation (Hutchins and Vogler, 1988, Part III, pp. 16 - 18). The most frequent TFA Triad Map cluster was the TF Cluster, which suggested strong thinking with strong feelings.

The most descriptive and characteristic triad for Group 3 would be a triad with at least 2 midpoint scores on the bipolar scales. There were a total of 10 out of 16 triads (63%) which had 2 or 3 midpoint scores. It was concluded that an integrated triangle with at least 2 midpoint scores on the bipolar scales is the

characteristic triad for Group 3. There is substantially more integration of thinking, feeling, and acting dimensions in Group 3. The t=f=a Triad is described as an equally balanced triad with interaction among thinking, feeling, and acting. There is not any domination by an intense mode for this triad situation. When behavior reflected by this triad is operating, there is no problem. The balanced triad becomes the goal or target in being able to resolve the problem (Hutchins and Vogler, 1988, p. 1030. The triad indicated considerable integration and flexibility in coping response.

Based on results for Group 3, the supposition for research question three that there is no characteristic TFA triad for sobriety behavior in high risk drinking situations for alcoholics with 5 or more years of sobriety is not supported.

Group 3 High Risk Situations for Drinking

Many subjects reported that with long-term sobriety there really is no "high risk" situations for drinking so many of their responses were for situations that occurred in earlier sobriety, typically the first to third year. The following high risk situations for drinking were reported: going out to a place or bar where others were drinking (4); anger with ex-spouse (2); family difficulties/stress (2); and one response each for being

out of town; financial stress; job security threatened; physical problems; spouse having an affair; break-up of relationship; feeling mad; and feeling inadequate.

Research Question Four

What are the differences in the thoughts, feelings, and actions (TFA Triads) of the three groups of alcoholics?

Hutchins Behavior Inventory

The first difference between the three groups is apparent in the number and location of HBI scores which were on Thinking, Feeling, or Acting vertices. Table 14 provides a summary of vertices scores.

Most striking is the decline in the frequency of scores marked on the feeling vertices from 71% in Group 1 to 38% in Group 3. Related to these changes is the increase in thinking emphasis in short-term sobriety (Group 2) and a balance between dimensions across thinking, feeling, and acting in longer-term sobriety (Group 3).

Conversion to 9-Point Triangle

The second major difference in the groups occurred in the number and location of midpoints on the HBI scores converted to bipolar scale scores on a 9-point triangle. Table 15 provides a summary of midpoint scores.

This analysis indicated that Group 2's change from

Table 14

Vertices frequency and percentage of sample

Group 1 (n=17, <6 months, drinking)	Group 2 (n=15, <6 months, sober)	Group 3 (n=16, 5+ yrs., sober)
T=3 Ss or 18%	T=6 Ss or 40%	T=6 Ss or 38%
F=12 Ss or 71%	F=8 Ss or 53%	F=6 Ss or 38%
A=9 Ss or 53%	A=4 Ss or 25%	A=5 Ss or 32%
Total 24 vertices	18 vertices	17 vertices

Table 15

Frequency and location of bipolar scale midpoints

	Group 1(n=17)	Group 2(n=15)	Group 3(n=16)
Bipolar Scale			
<u>T-A</u>	10 midpts(59%)	9 midpts(60%)	11 midpts(69%)
<u>F-T</u>	2 midpts(12%)	5 midpts(33%)	7 midpts(44%)
<u>A-F</u>	5 midpts(29%)	4 midpts(27%)	9 midpts(56%)
Total	17 midpoints	18 midpoints	27 midpoints

Group 1's drinking behavior, the FTA orientation with short-term sobriety occurred in greater integration in feeling and thinking. The greater number of midpoints in Group 3 indicated greater integration in all dimensions, or in thinking and acting, feeling and thinking, and acting and feeling occurred in reported longer-term sobriety behavior.

Weighted Scores Means and TFA Orientations

The third and fourth major differences occurred from analysis of weighted scores means and the resultant TFA sequenced or orientation group triads. Table 16 summarizes these results.

The heavy feeling emphasis accompanied with action in drinking behavior reported by Group 1 was changed to feeling emphasis accompanied with thinking emphasis in Group 2 early sobriety. Also the overall integration of thoughts, feelings, and actions in Group 3's longer-term sobriety suggested a much more balanced approach to a high risk situation of drinking.

High Risk Situations for Drinking

The fifth difference between the three groups occurred in their reported high risk situations for drinking. Groups 1 and 2 are quite similar in their reports of arguments, work stress, and feeling lonely. Group 2's report suggested the trigger of the situation, such as,

Table 16

Weighted scores means and their TFA orientation

Group 1		Group 2		Group 3	
Weighted Score		Weighted Score		Weighted Score	
Total	and \bar{x}	Total	and \bar{x}	Total	and \bar{x}
I	36 = 2.12		49 = 3.27		60 = 3.75
F	77 = 4.53		66 = 4.40		56 = 3.50
A	57 = 3.35		38 = 2.53		55 = 3.44
	Range = 41		Range = 28		Range = 5
TFA Triad = FAT		TFA Triad = FTA		TFA Triad = TFA	

leaving work and going out with friends, which could be thought of as alcohol cues. When Group 3 subjects said that with longer term sobriety there are less actual high risk situations, they said earlier they had to change their actions in order to not put themselves in high risk situations. This could explain the latency of action in Group 2 subjects.

Based on the results of comparing the thoughts, feelings, and actions (TFA triads) of all three groups, the supposition for research question four that there are no differences in the three groups of alcoholics is not supported.

Research Question Five

What are the differences in the thoughts, feelings, and actions reported from alcoholics with 5 or more years of sobriety in comparing their behavior before they stopped drinking and with their current sobriety?

This question was answered by two methods. The first was comparing TFA triads generated from Group 3's answers to the TFA Critical Questions, for both drinking and sobriety behavior, which were converted to a 9-point triangle. The TFA Critical Questions were displayed in Figure 2 in Chapter Three. The second method was descriptive analysis of Group 3's responses to questions about thoughts, feelings, and actions when drinking and

with their sobriety from the askSam data analysis computer program using templates, the data dictionary, and query methods.

(1) TFA Critical Questions Conversion to 9-Point Triangle

Table 17 provides the results of comparing responses to TFA Critical Questions and their bipolar scale conversion to a 9-point triangle. Review of the weighted score totals and means for thinking, feeling, and acting components as well as Bipolar Scale Change Scores clearly indicated a change in behavior which involved an increase in thinking behavior and a decrease in feeling and acting behaviors in a high risk drinking situation with 5 or more years of sobriety. In addition the bipolar scale scores comparison pointed out that overall there was an increase in the integration of thinking and acting (T-A bipolar scale) and thinking and feeling (F-T bipolar scale).

Appendix K contains the actual TFA triads generated for critical questions for drinking and sobriety behavior and the HBI generated TFA triads for sobriety behavior. In regards to the two measures of sobriety behavior, the intensity of thinking is more pronounced (more scores at thinking vertices) in answers to critical questions than on the HBI for sobriety behavior. There are several possible explanations for why thinking was more pronounced in answers to Critical Questions:

Table 17

Group 3 TFA critical questions bipolar scale score conversion to a 9-point triangle for drinking and 5+ years of sobriety

S	When Drinking			With 5+ Years Sobriety		
	T-A	F-T	A-F	T-A	F-T	A-F
1	2-2	3-0	0-3	3-0	0-3	2-2
2	0-3	3-0	0-3	2-2	0-3	0-3
3	0-3	3-0	3-0	3-0	0-3	2-2
4	0-3	3-0	0-3	0-3	0-3	3-0
5	2-2	2-2	2-2	3-0	2-2	0-3
6	0-3	3-0	0-3	2-2	0-3	2-2
7	0-3	3-0	3-0	2-2	0-3	2-2
8	0-3	3-0	3-0	3-0	0-3	0-3
9	0-3	2-2	0-3	3-0	2-2	0-3
10	0-3	3-0	3-0	3-0	2-2	3-0
11	0-3	3-0	3-0	3-0	3-0	0-3
12	0-3	3-0	2-2	3-0	3-0	0-3
13	2-2	3-0	3-0	3-0	0-3	0-3
14	2-2	3-0	3-0	3-0	0-3	0-3
15	0-3	2-2	0-3	3-0	0-3	0-3
16	0-3	3-0	2-2	2-2	0-3	3-0

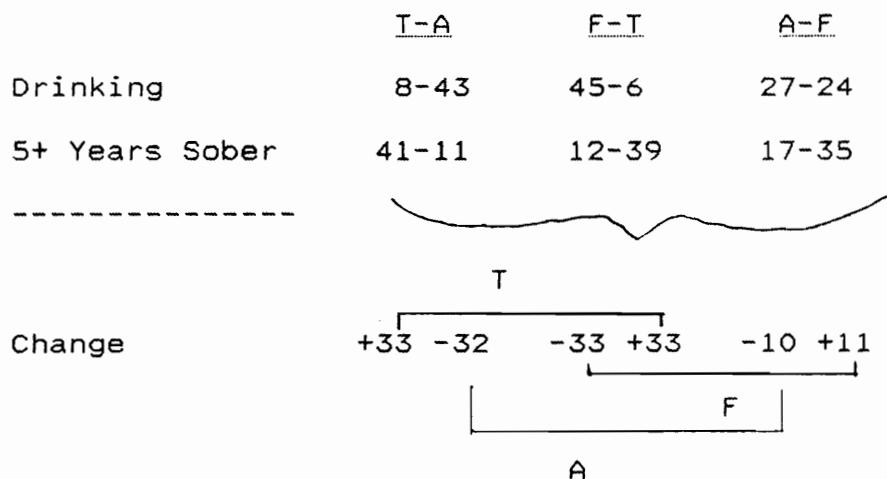
(A)Total 8-43 45-6 27-24 41-11 12-39 17-35

Table 17 continued

(B) Weighted Score Totals (add scores in 3 columns) and Means

When drinking	5+ years sober
T = 14, $\bar{x} = 0.88$	T = 80, $\bar{x} = 5.00$
F = 69, $\bar{x} = 4.31$	F = 47, $\bar{x} = 2.94$
A = 70, $\bar{x} = 4.37$	A = 28, $\bar{x} = 1.75$
TFA sequence=AFT	TFA sequence=TFA

(C) Bipolar Scale Scores Comparison



Total change components reported with 5+ years sober

$$T = +66 \quad F = -22 \quad A = -42$$

(a) subjects using slightly different situations for their own specified high risk situations; (b) using slightly different time frames for sobriety based upon the situation specified; or (c) having to think of answers in the interview format, which involves a cognitive or analytical factor. Both measurement methods appeared to contribute to an understanding of specific recovery behavior.

Another important finding is that the results of retrospectively reported drinking behavior for Group 3 to TFA Critical Questions appears reliable because of comparable results to Group 1's HBI analysis for drinking behavior. The TFA orientation for both from rank order of weighted scores means is generally F-A-T, with acting and feeling about equal in Group 3 (Group 1 means $T=2.12$, $F=4.53$, $A=3.35$ and Group 3 means for drinking behavior $T=.88$, $F=4.31$, $A=4.37$). In addition, Group 3's weighted scores means for reported sobriety behavior from HBI analysis and from responses to TFA Critical Questions result in the same TFA orientation of TFA (rank ordering of means from HBI of $T=3.75$, $F=3.50$, $A=3.44$ and from TFA Critical Questions of $T=5.0$, $F=2.94$, $A=1.75$). However, more integration is suggested from the HBI responses and the extraneous variable of the effects of completing a cognitive oriented interview, or asking subjects to give

information and describe the context which involves a degree of analytical assessment, was suspected to increase thinking intensity or skewness in answering inquiry questions to the TFA Critical Questions. Both methods were very valuable in gaining quantitative and qualitative data on recovery.

The supposition for research Question Five that there were no differences in comparing the TFA triad 9-point triangle scores for TFA Critical Questions for before stopping drinking and after 5+ years of sobriety is not supported.

(2) askSam Comparison of Group 3's Drinking and Sober Thinking - Feeling - Acting Patterns

Appendix L provides Group 3's responses retrieved from the askSam computer program to the systematic inquiry for TFA Critical Questions. The inquiry questions were "What" were you thinking, "Why" were you feeling, and "How" were you acting. These questions were asked for both conditions of (a) when the subject was drinking in a high risk drinking situation and (b) maintaining 5+ years of sobriety in a high risk drinking situation. Table 18 provides a sample of subject responses from inquiry to critical questions for drinking and sobriety behavior. For behavior when drinking, many of the answers to "what were you thinking" were anticipatory thoughts of drinking.

Table 18

Sample of Group 3's responses to inquiry of TFA Critical Questions for drinking and 5+ years sobriety behavior

<u>When Drinking</u>	<u>With 5+ years Sober</u>
"What were you thinking?" -----	
"No thinking, planning to set up the evening", "obsessed to get the good feeling from drinking", "plan to drink on the trip", "can't wait to get the first one down"	"Wanted the control to stop", "focus on what made me mad", "if I drink, I lose", "self - evaluation of my activities", "drinking is not an option"
"Why were you feeling?" -----	
"anger and rage", "depressed, bitter, angry, resentful", "envious", "wanted to drink to escape" "hell with you, I'll get drunk and show you"	"feeling of abandonment" "anxiety and excitement" "low self-esteem", "been used and that I was codependent"
"How were you acting?" -----	
"driving to the liquor store", "go to bars", "almost on auto-pilot", "getting off work", "go quickly to bar or refrig."	"talk out the situation" "go to a meeting or call my sponsor", "I often don't act", "shut down", "quiet", "immobile"

Responses to "why were you feeling" immediately before drinking were largely based on anger, escape, or retribution. Responses to "how were you acting" immediately before drinking were consistently automatic behaviors to get a drink.

In comparison, for behavior with 5+ years of sobriety in a high risk drinking situation, Group 3's responses to "what were you thinking" frequently involved more reality awareness and searching for alternatives. Responses to "why were you feeling" immediately before not drinking were more based on the feeling itself and not on desires to do something to others or self. Responses to "how were you acting" immediately before not drinking reflected more passive or latent and less impulsive or automatic behavior.

The supposition that there were no differences in thoughts, feelings, and actions reported before stopping drinking and after 5+ years of sobriety from the askSam data analysis program is not supported.

Research Question Six

What specific behavior changes and factors are reported to be important for the attainment and maintenance of sobriety?

As part of the structured interview, all Group 3 subjects were asked to state what were the most important

factors (a) in their stopping drinking, and (b) in their maintenance of sobriety. Their responses to these questions as retrieved from the askSam query method are presented in Appendix M. The first difference in these factors centered on the stopping factors being largely based on a single dimension, such as Acting = intervention from others, while the maintenance factors were more multidimensional or integrated, such as AA, taking care of self, and prayer/meditation.

These differences were more specifically clarified along dimensions from the TFA Ratings from the panel of counselors for the reported factors. The panel's ratings in TFA terms assigned to the factors are presented in Appendix I. The panel consisted of five counselors, four were Licensed Professional Counselors (LPC) and one was a Licensed Clinical Social Worker (LCSW). Three counselors had previous training and research experience with the TFA model. The two counselors not familiar with the model were trained in the system by inservicing from the researcher and were given excerpts from Hutchins and Cole (1992, pp. 4-6 and 16-18) on the TFA Systems. All counselors had experience in working with clients with addictions. As denoted with underlining in Appendix I, the most frequent rating for each factor was used as the definitive rating, for example as a stopping factor "due

to concern for children and family" was given ratings of TF, F, TF, TF, and TF. Since TF was the most frequent rating it was the definitive rating used. Only one factor could not be rated consistently or reliably, which was "prayer" and it was excluded. In the case of a ratings tie, both ratings were used but were corrected by using 1/2 of the factors' frequency of occurrence. For example, the fifth stop factor "AA" was rated T and A equally which resulted in $T \bar{x} 1.5$ and $A \bar{x} 1.5$ because the factor was reported by 3 subjects. The results of this analysis are presented in Table 19.

The major difference in factors for stopping drinking and for maintaining sobriety was that stopping factors tended to be single dimensional and in frequency of occurrence were A, T, and F oriented. Reported maintenance factors tended to be multidimensional or integrated and from frequency of occurrence were TFA, TF, and TF/TA oriented. Implications from these results for counseling intervention and practice during the recovery process are discussed in Chapter Five.

Table 19

Analysis of panel's ratings in TFA terms of factors most important for stopping drinking and maintaining sobriety

Stop Factors				Maintenance Factors			
Factor #	Rating	Freq.	%	Factor #	Rating	Freq.	%
3,5,7,8,*	T	11.5	26%	15,20*	T	1.5	4%
12							
6,11	F	5	11%	11,18,19	F	3	8%
2,5,9,10	A	15.5	35%	5,12,14,	A	5.5	14%
13,14,15				15,17			
1,4,8	TF	12	27%	2,4,9,	TF	10	25%
				10,13			
				3	FA	2	5%
				8,16	TA	2	5%
				1,7,8	TFA	16	40%

(A) Total n = 44 n = 40

(B) Total

Single dimension	Single dimension
total of T, F, A = 73%	total of T, F, A = 26%
Multi-dimensional	Multi-dimensional
total of TF = 27%	total TF, FA, TA, and TFA = 74%

Note. Description of stop factors: (1) family concern;

Table 19 continued

Analysis of panel's ratings in TFA terms of factors most important for stopping drinking and maintaining sobriety

(2) others' intervention; (3) spiritual; (4) fear of loss; (5) AA; (6) others' caring; (7) health concern; (8) hitting bottom; (9) having accident; (10) Anabuse; (11) anxiety; (12) knew predisposed; (13) relative died; (14) DUI; and (15) laid-off.

Description of maintenance factors: (1) AA benefits; (2) care of self; (3) improved social life; (4) spiritual; (5) meditation; (6) prayer; (7) therapy; (8) other 12-step group; (9) not disappoint self; (10) gratitude; (11) desire not to; (12) exercise; (13) keep journal; (14) eat right; (15) quiet time; (16) structured life; (17) keep busy; (18) job; (19) serenity; and (20) belief life improve.

Concerning methods of optimizing individual changes, Group 3 subjects were asked specifically what kinds of factors accounted for changes in thoughts, feelings, and actions. Their responses are presented in Appendix N. In addition, these subjects with long-term sobriety were asked to make comments about the interview and their recovery process in general. These responses are provided in Appendix O. Qualitative themes which evolved from this interview subsection concerned the following: possible differences in males' and females' recovery needs in that men are less likely to express feelings; needs to feel accepted, which AA meets; needs to focus more on self and not others; the importance of diet and understanding physical addiction; and learning to change thoughts about how to do things differently.

The supposition for research question six, that there were no differences in the behavior change factors reported to be most important for stopping drinking and for maintaining sobriety is not supported.

Summary

There were differences between groups in HBI generated TFA triads, and there were characteristic TFA profiles for Groups 1, 2, and 3. Group 3 had the most balanced or integrated profiles. Group 1's characteristic TFA triad for retrospectively reported drinking behavior was a F-A-T

triad and Group 2's characteristic TFA triad for their current <6 months sobriety behavior was a F-T-A triad. Group 3's characteristic TFA triad had at least 2 or 3 midpoint scores on the three bipolar scales. There were differences in comparing Group 3's TFA triads generated from TFA Critical Questions in the structured interview for drinking and sobriety behavior. Qualitative as well as quantitative analyses indicated differences in thoughts, feelings, and actions in drinking and sobriety behavior as well as differences in the factors reported to be most important in stopping drinking and in maintaining sobriety. These differences point to an increase in integration of thoughts, feelings, and actions and the use of multi-dimensional methods to prevent relapse during successful recovery years.

The integrated behavior changes that occurred with long-term sobriety would not have been possible to discern if an integrated and multi-factorial model, the TFA System, was not used in the study. Further evaluation, implications, and recommendations will be reviewed in Chapter Five.

CHAPTER FIVE

Summary, Conclusions, and Recommendations

Lasting sobriety or successful recovery from alcoholism is a multifactorial and multidimensional process influenced by many factors. Efforts to understand recovery have been primarily focussed on alcoholism etiology, personal factors, such as, personality and demographic factors, treatment factors and, more recently, relapse prevention. Unfortunately these studies have often produced contradictory results.

Recently, new ways to conceptualize alcoholism and successful recovery have been developing in response to unresolved debates and very low recovery rates. These hopeful new approaches tend to be multidisciplinary and integrative and focus on more specific individual behavior. Previous research has been limited by unidimensional views, and beset with methodological and generalizability problems which have often heated debate but offered little resolution.

The purpose of this study was to analyze changes in the interaction of thoughts, feelings, and actions of alcoholics who achieve sobriety. Using purposeful sampling, data from three groups of recovering alcoholics' behavior in high risk drinking situations were compared for (a) behavior prior to stopping drinking [Group 1], (b)

behavior with 6 or less months of sobriety [Group 2], and (c) behavior with 5 or more years of sobriety [Group 3]. Related to the purposeful sampling procedures with potential limitations on generalizability and prediction, the analysis of behavior centered on the period of recovery and the defined population of those who have recognized they are alcoholic and desired to stop drinking. Assessing behavior on both quantitative and qualitative levels provided insight into behavior change and the interaction of the individuals' thoughts, feelings, and actions optimizing their sobriety.

The reader is cautioned to interpret the data because of several inherent limitations. These include: (a) the samples were purposefully selected and not randomly selected; (b) data were subjectively analyzed using qualitative approaches and thereby may include researcher bias; and (c) the data analysis procedures were subject to selected anchors including a professional panel and the experts' opinions can be questioned based upon the limited number of experts used.

The remainder of this chapter will discuss the findings, present conclusions, recommendations, and implications relevant to the recovering alcoholic.

**Summary of Findings Related to
Extant Literature**

These findings emerged from the analysis of behavioral assessments and structured interviews.

Demographic variables

When viewing 6 or less months of sobriety as indicative of some level of abstinence and beginning recovery, there was considerable variance in demographic variables, such as age, occupation, marital status, who the subject resided with, and length of sobriety for the recovering samples. The overall recovery sample was very heterogeneous.

The two groups with 6 or less months of sobriety [Groups 1 and 2] were comparable on all 12 demographic variables, and both of these groups differed strongly from the group with 5 or more years of sobriety [Group 3] in (a) age, (b) occupation, (c) marital status, (d) length of sobriety, and (e) who they resided with. These findings indicated a different demographic profile for the subjects' with 5 or more years of sobriety including being older, being married, employed in professional occupations, and residing with spouses.

These findings support that: being married, employed, higher occupational status, and living with others predicts favorable outcome (Westermeyer, 1989); and being

older and married for males related to more successful outcome (Wiens and Menustik, 1983). The findings support that gender, age, marital status and job status were not significant to abstinence (Miller et al., 1990); and that gender did not predict number of years of abstinence (Cross et al., 1990). The striking heterogeneity of the groups supports: West, 1992; Fingarette, 1989; and Miller et al., 1990.

Drinking history information

The structured interviews provided drinking history information for the group with 5+ years of sobriety. Considerable difference was found in drinking history information for age of onset of problem drinking, number of years of problem drinking, and having had received formal alcohol treatment. However, the majority of the sample of alcoholics with 5+ years of sobriety had histories of multidrug use, other addictions, continued regular attendance at AA, and generational histories of alcoholism.

These findings refute that being male and having a history of multidrug use increases relapse (Harrison and Hoffman, 1981) and supports that AA involvement is predictive of number of years of sobriety (LaJeunesse and Thoreson, 1988; Cross et al., 1990). The fact that many research samples are drawn from AA only and that other

12-step programs or support groups may be effective needs further clarification. The results also support genetic research studies' findings of alcoholism in sibling, parent and grandparent generations.

It is inconclusive whether the large range in number of years of problem drinking prior to sobriety is of significance due to a lack of such information in the literature. This finding supports the need to use new ways to study alcoholism and for emphasis on individual differences in treatment and recovery (Fingarette, 1989).

Characteristics of past drinking behavior

Behavioral assessment of Group 1's (6 months or less of sobriety) reported past drinking behavior in a high risk drinking situation was characterized as Feeling-Acting-Thinking (F-A-T) orientation with very strong feeling and acting components and largely absent, or latent, thinking.

The F-A-T behavior pattern was very similar to Group 3's (5+ years of sobriety) retrospectively reported drinking behavior for the Systematic Inquiry to TFA Critical Questions. The interview data emphasized that the only thinking activity was of when and how to drink and that both thinking and feeling were anticipatory of the rewarding effects of alcohol, e.g. to feel better, for social activities, etc. Their reported integration of

thinking and acting was involved in impulsive behavior in response to feelings or cues for drinking, such as arguments, anger, or going on trips out of town.

These findings support the following: that drinking is promoted by feelings of acceptance and reward for socializing activities (West, 1992); negative mood states may cue desire for alcohol independent of other cues (Litt et al., 1990); lack of effective coping skills promote drinking relapse (Gorski, 1986); and that the most frequently cited impediment to recovery is unresolved emotional distress, such as anger, loneliness, or depression (Harrison and Hoffman, 1989). The findings regarding the integration of Feeling and Acting in drinking behavior are somewhat inconclusive due to a lack of research which specifies behavior into components and assesses integrated behavior patterns.

Characteristics of behavior for 6 or less months of sobriety

Behavioral assessments of Group 2's reported short-term sobriety behavior (6 months or less) in a high risk situation for drinking was characterized as a Feeling-Thinking-Acting (F-T-A) orientation. Feelings were still dominant but more positive thinking behavior replaced negative acting in comparison to past drinking behavior.

The emphasis on feelings decreased while thinking emphasis increased. Emphasis was measured from the subject's choices on the Hutchins Behavior Inventory (HBI) as being somewhat, moderately, or very characteristic of their behavior. A tendency appeared in early sobriety towards more thinking involvement associated with feelings before action is taken.

These findings support the following: recovered alcoholics tend to use active-cognitive and behavioral coping responses (Billings and Moos, 1981); non-relapse is positively correlated to flexibility of coping response as well as cognitive control (Litman et al., 1979); and that using a broad array of relapse prevention strategies is related to increased sobriety (Thoreson et al., 1986).

Characteristics of behavior for 5 or more years of sobriety

Behavioral assessments of Group 3's (5+ years of sobriety) for their sobriety behavior in a high risk drinking situation were characterized by a Thinking-Feeling-Acting (T-F-A) orientation.

Their characteristic TFA Triad was a fairly balanced triad, close to the t=f=a TFA Triad, with at least two midpoint scores on bipolar scales, which indicated considerably more behavioral integration than the other two groups.

These findings for the group with 5+ years of sobriety support the following: there needs to be more emphasis on cumulative behavior changes (Watson, 1991); non-relapse is positively correlated to flexibility of coping response (Litman et al., 1979); and the efforts of integrative and multifactorial models, such as, Relapse-Prevention Planning Tool, Integrative Psychotherapy, Hierarchical Model, and RET Methods for substance abuse (Gorski, 1986; Kaufman, 1990; Velicer et al., 1990; and Ellis et al., 1988). The findings enhance Fingarette's (1989) recovery goal to develop an integrative life and West's (1992) use of TFA Systems (tm) to address DUI recovery needs.

Differences in behavior across the three groups

For behavior in high risk situations, Group 1's (reported past drinking behavior) TFA sequence was a F-A-T orientation, Group 2's (6 or less months of sobriety behavior) was a F-T-A orientation, and Group 3's (5 or more years of sobriety behavior) was a T-F-A orientation with the greatest amount of integration of thinking, feeling, and acting.

A decline in the frequency of scores marked on Feeling vertices occurred with longer sobriety. Related to this change was the increase in Thinking emphasis in short-term sobriety and a balance between behavior dimensions in longer-term sobriety.

From the reports of all three groups, although the 5+ years group minimized that there were actually high risk situations after the first two to three years of sobriety, there were similar situations reported involving feelings of anger, loneliness, being around others who are drinking, and work and financial stress. The groups with 6 months or less of sobriety reported more "automatic" situations, such as leaving work, going out to bars, and being alone, which strongly supports the cue exposure impact of the situation.

These findings are supportive of the following: cue-exposure studies and alcohol expectancy studies that indicate there is reactivity to alcohol cues (sight and smell of alcohol); negative mood states cue desire for alcohol; thinking about drinking increases relapse; and that the expectancies that alcohol improves sociability and elevates mood are most predictive of multiple negative drinking events (Kaplan et al., 1985; Litt et al., 1990; Sussman et al., 1990; Kline, 1990; and Marlatt, 1987).

Subjects' comparisons of differences in thoughts,

feelings, and actions for drinking and sobriety behavior

When the same group with 5+ years of sobriety compared their drinking and sobriety behavior in answering TFA Critical Questions, behavior component change units indicated that thinking behavior greatly increased with

sobriety while feeling and action oriented behavior decreased.

Interview data from the TFA Systematic Inquiry to TFA Critical Questions found that in drinking behavior thinking was largely passive, latent, or automatic and anticipatory while in sobriety behavior thinking was more active and strong, and action became more passive or latent. Qualitative measures indicated that anticipatory drinking thoughts changed to thoughts of alternatives and positive self-focus with sobriety. Feelings about drinking changed from desires for impact on others to more awareness of their underlying needs with sobriety. Actions changed from more impulse and automatic behavior to more passive actions, such as talking out the situation.

Retrospectively reported drinking behavior was comparable and appeared consistent across groups. As evidenced by consistency in Group 1's HBI and Group 3's interview findings for drinking behavior, both the HBI and structured interview appeared to yield consistent data and were capable of assessing multifactorial dimensions or integrated behavior patterns and change patterns. Interestingly, the intensity for 5+ years sobriety thinking behavior was markedly higher in the face to face interview than when completing the HBI.

The above findings present new information which has not been addressed in previous research. This was the first study to provide an analysis of specific individual behavior components and their changes with lasting sobriety.

Behavioral change factors for the attainment and maintenance of sobriety

Analysis of the panel of counselors' ratings, in TFA terms for the most important factors in stopping drinking and in maintaining sobriety, suggested that to stop drinking a one-dimensional factor of action, specifically the intervention of others, was the most pronounced. However, for longer term sobriety a multi-dimensional and integrative factor of AA as reported (thinking and feeling and acting) was the most pronounced. AA involvement was broken down into specifics of what about AA was important, such as caring and sharing in AA. Interviews further supported that in early recovery AA involvement was more action oriented (going frequently to meetings) and cognitive oriented (learning the 12 steps and that drinking is not an option).

From open-ended questions, themes in the recovery process emerged centering on meeting individual needs, from spiritual to physical, and to gain balance or flexibility in coping through making changes in thoughts,

feelings, and actions.

These findings support the following: emphasis on needing to learn to cope with chronic daily stress (Gorski, 1986); needing to use a broad array of relapse prevention strategies (Thoreson et al., 1986); and needing to change addictive thinking (Ellis et al., 1988). The findings regarding shifts in the Thinking, Feeling, or Acting orientations of stopping and maintenance factors is new information. This was the first study to address these variables using a multidimensional and integrative assessment and interpretive model.

Instrumentation

Non-completion of the HBI for some initial volunteers suggested caution and attention to possible cognitive dysfunction, primarily poor comprehension and abstraction, in early recovery subjects especially those with many years of regular heavy alcohol consumption. In this study, using the HBI in early recovery tended to serve as a screening device for the possible cognitive dysfunction of non-completers as they could easily decline to complete the inventory. The HBI also offered a standardized measuring instrument across groups which has a strong multidisciplinary theoretical and practical clinical base.

Conclusions

The following conclusions were drawn from the findings

in this study.

Demographic variables

For the subjects in this study, demographic data both supported some studies and refuted others as noted earlier in this chapter. From the noted heterogeneity in the samples studied, it is concluded that emphasis on demographic variables is likely to continue to be plagued with contrary results. Much of this dilemma appears to center on the differences in (a) how samples are drawn, (b) how alcoholism is defined, (c) the criteria used for success, e.g., abstinence, improvement or favorable outcome, or sobriety, and (d) length of time required related to the criteria whether at the end of treatment, 3 months, 6 months, 1 year, 5 years, etc. From the variance found in the demographic variables within groups in this study, it is concluded that multidimensional and new categories, such as relationship satisfaction as well as marital status and satisfaction, need to be used to gather complete and meaningful information.

Drinking behavior

The analysis of reports of TFA patterns in drinking behavior found that the situation can often trigger or cue a response characteristically of very strong feelings and actions with little thinking involvement. Conclusions from this analysis of drinking behavior are that: (a)

interactions are very impulse oriented, (b) thinking is primarily anticipatory and planning to drink is related to the domination of feelings, and (c) actual feelings are denied because little integration with thinking occurs.

These findings largely agree with the extant literature.

Early sobriety behavior

The first major differences noted in 6 or less months of sobriety behavior occurred in an increase in thinking and a decrease in action while feeling remained dominant. From the differences noted in drinking and 6 or less months of sobriety behavior, it is concluded that the first change to begin in recovery is to change feeling based negative action to positive thinking behavior. The success of AA appears to be closely related to this finding. The second change to occur in recovery was in learning to integrate the strong feelings with thinking and not action. For example, going to AA meetings becomes the action while the information received at meetings increases the thinking component and also is likely to decrease the intensity of the feelings by providing a structured and accepting environment. These findings are supported in some of the literature, such as emphasis on the need to change addictive thinking (Ellis et al., 1988) and that non-relapse is correlated to cognitive control (Litman et al., 1979).

Longer term sobriety (5+ years)

From the findings that alcoholics with 5+ years of sobriety tend to have a more balanced and integrated behavior orientation of Thinking-Feeling-Acting (TFA), it is concluded that, with longer term sobriety, thinking is slightly dominant with feeling and acting about equal and all three behavior dimensions are less intense than when drinking. This nearly balanced (midpoint triad) coping response to high risk situations supports the newer approaches of multifactorial analyses and the leading work of Gorski (1982, 1986, 1990) in relapse prevention planning of learning sobriety based coping strategies. Although the characteristic TFA triad for longer term sobriety was more integrated (midpoints of bipolar scales) there were several variations. From the variations in TFA triads, it is concluded that individual differences in later sobriety probably stem from differences in persons' beginning behavior pattern in earlier sobriety [e.g., need to increase thinking, feeling, or acting or their interaction in stressful situations in order to decrease relapse prone behavior].

Most of the research on treatment effect, intervention, relapse prevention and recovery tends to be unidimensional, with one definition of alcoholism and one theoretical orientation, and, as noted in Chapter Two, is

highly conflictual and inconclusive. From the findings for the group with 5+ years having individual variations, it is concluded that the research will continue to be contradictory because certain methods match a person's beginning or primary TFA orientation and will work for these persons but not necessarily for others. For example, a highly cognitive or thinking oriented person may do very well with AA or cognitive counseling methods, whereas a highly emotional or feeling oriented person may not be able to settle in and concentrate on the cognitive material. Based upon different individual needs and behavior orientations, the need for a client adaptable integrated system is realized.

Behavioral change components

In stopping drinking, outside action factors of others were most prominent and in longer term maintenance factors integrating thinking with feeling with acting were most prominent. From the differences in factors related to stopping drinking and to maintaining sobriety, it is concluded that unidimensional approaches may be helpful with interventions focused on stopping drinking and very early recovery, while multidimensional approaches are needed to match the integrated and more balanced behavioral orientations in long term sobriety. From the analysis of change components with thinking increasing and

feeling and acting decreasing with longer sobriety, it is concluded that early recovery needs include increasing thinking [via cognitive methods] and improve coping responses or stress management for the very strong feelings or emotional reactions. These coping strategies are likely to be more individual as can be concluded from the responses focussing on individual needs to open-ended interview questions. These findings are supportive of newer ways to conceptual alcoholism and sobriety emphasizing individual's needs, eclectic and integrated methods, and lifestyle changes across years related to phase of recovery (Gorski, 1990; Fingarette, 1989; and McLellan and Alterman, 1991).

Recommendations

Four recommendations follow the conclusions of the study.

First, the assessment of demographic variables needs to be restructured to include more narrowly defined groups with in-depth interviews for all groups of several different recovery periods or phases. In addition, the use of meaningful categories and gathering drinking history information would help to optimize the assessment of individual differences and possible new information. This recommendation is strongly supported by Fingarette (1989) and Jacobson (1989). A case can be made to design

categorical titles, such as relationship satisfaction opposed to marital satisfaction that best includes all subjects' data. The subjective component of categorical design is clearly apparent when looking at educational level. This study used "completed a college degree" or "did not complete a college degree" as this better described the sample as opposed to the standard 6 or more categories of (a) did not complete high school, (b) completed high school, (c) some college coursework, (d) associate degree, (e) college degree, (f) some graduate work, and (g) graduate degree.

Second, assessment of behavior patterns and interactions should be gathered across different phases of recovery to detect and track or map changes in specific thoughts, feelings, and actions. The emphasis needs to be on specific behavioral change components, methods, and how these occurred. Although the research has only begun using a sound theoretical base, a good starting place would be to use Gorski's (1986) different phases of recovery as a framework to different recovery periods and the individual needs occurring in each. Gorski offered different goals of these phases of recovery and did not advance static time frames for the phases. This study was an initial attempt to follow such a framework by using 6 months or less of sobriety for early recovery or short-

term sobriety and 5+ years for late to maintenance recovery or long term sobriety. This division helped to more clearly differentiate successful recovery from research which only uses 30 to 90 days or one year of sobriety. Gorski (1986) notes that full recovery from an addictive disease can take 8 to 10 years, although the most serious problems are resolved in 2 to 3 years.

Third, to enhance various disciplines' educational and counseling/therapy methods related to alcoholism recovery, the focus needs to be on looking at specific behaviors and their interactions in specific situations. In order to begin to successfully change behavior it would be prudent for clients and therapists/educators to first know what the behavior is in high risk situations and how it needs to change in order to maximize recovery, such as to changing to a more balanced, flexible and adaptable interaction of behavioral components. Several studies on relapse advance the need to learn how to resolve emotional distress, learn sobriety-based coping skills, and use a broad array of prevention strategies (Harrison and Huffman, 1989; Gorski, 1986; and Thoreson et al., 1986). When combined with the second recommendation, counseling methods could be combined to match a particular person's needs in a specific phase of recovery. For example, if in early recovery the person needs to integrate actions with

thinking, counseling could use cognitive-behavioral methods to address and implement these needs.

Fourth, gathering descriptive data from fairly extensive structured interviews with behavior specific, phase specific, change specific open-ended questions could maximize our understanding of successful recovery. Related to this recommendation is the need to design such interviews from an overarching multidisciplinary approach. The integrated behavior changes that were found to have occurred for long term sobriety in this study would not have been possible to discern if the TFA System, a multifactorial model, was not used. Most of the studies reviewed were unidimensional and used physical or psychological tests which could only be analyzed quantitatively. For example, the effects of AA involvement are largely cognitive if looked at only by the 12 Steps, as done in Chapter Two. However, interviews provided information that other aspects of AA such as making friends, sharing, and the relationship with a sponsor are effective and are more integrated behavioral factors. Using more qualitative research designs and analysis would enhance our knowledge and likely reduce theoretical debate and contrary results.

Implications

While the study had several findings, conclusions, and

recommendations reported earlier in the chapter, there is also sufficient implicit information from the study that leads the researcher to speculate. The three most interesting speculations relate to research sampling, alcoholic's life changes, and counseling practice.

Future Research

The results of the study enable the behavior changes of recovering alcoholics to be more clearly defined and understood. Since the successful recovering alcoholics with over 5 years of sobriety were able to very reliably describe and discuss past behavior patterns for drinking and early sobriety phases, it is speculated that research could be designed to do objective in-depth interview assessments from others in clearly defined groups and several different periods of recovery to help define and more clearly specify proposed phases of recovery. These phases may be somewhat fluid and based on general time frames, or based on recovery goals such as Gorski (1986) advances. Gorski's work promotes the phases of pretreatment, stabilization, early recovery, middle recovery, late recovery, and the maintenance period.

From the data in the present study, it appears that there is the initial intervention or stopping period of several weeks followed by a high risk for relapse early recovery period, perhaps the first 1 to 6 months. Next

appears to be a recovery period, perhaps from 1 to 3 years where the adaptable behavioral changes are fine tuned and practiced. Subjects often reported that somewhere after 3 years they really did not believe there was much high risk for drinking and that their needs in recovery became more holistic and centered on personal growth. The next phase, perhaps 3 to 7 years, appeared to be not only involved in maintenance tasks but centered also on individual discovery and the reported personal growth. Although there was still strong adherence to AA, what subjects reported to be important from AA was less cognitive and more relationship oriented. It is very interesting that some AA Chapters offer special needs groups, such as women's and men's groups, perhaps in response to these needs for personal growth and better relationship understanding. Only from gathering more detailed and descriptive data can the phases and clients' needs be fully realized. The early recovery period appears to be very crucial as this is where the behavioral changes, especially in thinking and acting, need to be implemented.

The swirl of data from findings and conclusions prompts these questions: (1) Would a Feeling-Acting orientation be problematic for relapse in adult children of alcoholics' (ACoAs) recovery work?; (2) What effects would a severe illness or accident have on long-term

sobriety?; and (3) What additional information could be gained through a longitudinal study?

Life Changes

From the interview data it became clear that many of the successful recovering alcoholics either made or adapted to rather large life changes, such as divorce, geographical moves, or changes and shifts in career or occupations. From this realization, it is speculated that when a system elicits old feeling-acting patterns it becomes dysfunctional to the alcoholics' recovery, whether a marriage, dating or various partnership relationships, or a job. Of course, personal dysfunction patterns and codependency issues can reinforce these dysfunctional patterns. Perhaps during the period in early recovery when life changes are likely to occur, or perhaps to promote relapse, considerable attention should be given to the impact of life patterns, interpersonal relationships, work, or leisure. The need for something of a life change potential assessment record or at least a metatheoretical tenet concerning life changes is realized. The past two decades of considerable more family education and therapy as well as personal counseling involved in alcohol treatment responds to these needs. However, this need would appear to be relevant for many months after intervention and is not as static as twelve weeks of

aftercare, etc. The inability to effectively address the need and implement making life changes is very likely to promote current high relapse rates whether formal treatment was involved or not.

Counseling Practice

The need for a directing metatheoretical approach to alcoholism and recovery seems to be an essential component rather than a speculation. However, as discussed in Chapter Two under new approaches, the field has yet to select a directing paradigm. Despite this fact, courageous forerunners have for the past few years adapted more innovative approaches for specific treatment programs, such as Gorski's CENAPS Model of treatment. The field of counselor education is in a very advantageous position to be able to put interdisciplinary theory and practice into clinical practice with alcoholics. The TFA model was shown to be an effective and very beneficial paradigm with a multidisciplinary and integrated approach to access specific behavior components in different periods of recovery. In practice, addressing clients' behavior orientations to eventually produce a balanced and integrated thinking-feeling-acting pattern can be achieved. Understanding these thinking-feeling-acting patterns across phases of recovery challenges us to respond from an overarching and unified perspective.

References

- Adesso, V. J. (1985). Cognitive factors in alcohol and drug use. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 179-208). New York: Plenum Press.
- Alcoholics Anonymous. (1984). This is A. A.: An introduction to the A. A. recovery program. New York: Alcoholics Anonymous World Services, Inc.
- Alcoholics Anonymous. (1985). Alcoholics Anonymous 3rd ed. New York: Alcoholics Anonymous World Services, Inc.
- American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed., rev.). Washington, DC: Author.
- Anthenelli, R. M., & Schuckit, M. A. (1990). Genetic studies on alcoholism. The International Journal of the Addictions, 25(A), 81-94.
- Baker, T. B., & Cannon, D. S. (Eds.). (1988). Assessment and treatment of addictive disorders. New York: Praeger.
- Barnes, G. M., & Welte, J. W. (1990). Prediction of adults' drinking patterns from the drinking of their parents. Journal of Studies on Alcohol, 51(6), 523-527.
- Barrett, R. J. (1985). Behavioral approaches to individual differences in substance abuse: Drug-taking behavior. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 125-175). New York: Plenum Press.
- Berglund, M. (1988). Alcoholics committed to treatment: A prospective long-term study of behavioral characteristics, mortality, and social adjustment. Alcoholism: Clinical and Experimental Research, 12(1), 19-24.
- Blum, K. (1990). The 'alcoholic' gene. Professional Counselor, 5(2), 39-47.

- Booth, L. (1989). Breaking the chains: Understanding religious addictions and religious abuse. Longbeach: Emmaus Publications.
- Botvin, G. J., Baker, E., Filazzola, A. D., & Botvin, E. M. (1990). A cognitive-behavioral approach to substance abuse prevention: One-year follow-up. Addictive Behaviors, 15, 47-63.
- Bowers, T. G. & Al-Redha, M. R. (1990). A comparison of outcome with group/marital and standard/individual therapies with alcoholics. Journal of Studies on Alcohol, 51(4), 301-309.
- Brennan, J. G. (1990). Redefining alcoholism. Addiction & Recovery, June, 26-29.
- Brown, S., & Yalom, I. D. (1977). Interactional group therapy with alcoholics. Journal of Studies on Alcohol, 38(3), 426-456.
- Brown, S. A. (1985). Reinforcement expectancies and alcoholism treatment outcome after one-year follow-up. Journal of Studies on Alcohol, 46(4), 304-308.
- Bruvold, W. H. (1988). Issues in alcohol education evaluation and research. Contemporary Drug Problems, 15(1), 21-29.
- Bundy, P. P. (1991). Behavior assessments of pregnant adolescents using TFA Systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Burman, S., & Allen-Meares, P. (1991). Criteria for selecting practice theories: Working with alcoholic women. Families in Society: The Journal of Contemporary Human Services, 72(7), 387-393.
- Caddy, G. R., & Block, T. (1985). Individual differences in response to treatment. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 317-362). New York: Plenum Press.
- CATOR. (1991-92). CATOR: What is it and why is it so important? The Bridge (Newsletter of MetroHealth Saint Luke's Medical Center), (Winter), 1-3.

- Chiuzzi, E. J. (1989). Breaking the patterns that lead to relapse. Psychology Today, 23(Dec), 18-19.
- Chiuzzi, E. J. (1991). Preventing relapse in the addictions: A biopsychosocial approach. New York: Pergamon Press.
- Cloninger, R., Bohman, M., & Sigvardsson, S. (1981). Inheritance of alcohol abuse: Cross-fostering analysis of adopted men. Arch Gen Psychiatry, 38, 861-868.
- Clow, D. R. (1989). Group psychotherapy for male spouse abusers using TFA Systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Clow, D. R., Hutchins, D. E., & Vogler, D. E. (1992). TFA Systems: A unique group treatment of spouse abusers. The Journal for Specialists in Group Work, 17(2), 74-83.
- Connors, G. J. & Tarbox, A. R. (1985). Macroenvironmental factors as determinants of substance use and abuse. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 283-314). New York: Plenum Press.
- Conney, N. L., Kadden, R. M., Litt, M. D., & Getter, H. (1991). Matching alcoholics to coping skills or interactional therapies: Two-year follow-up results. Journal of Consulting and Clinical Psychology, 59(4), 598-601.
- Cox, W. M. (1985). Personality correlates of substance abuse. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 209-246). New York: Plenum Press.
- Crits-Christoph, P., Beebe, K. L., & Connolly, M. B. (1990). Therapist effects in the treatment of drug dependence: Implications for conducting comparative treatment studies. In L. S. Onken & J. B. Blaine (Eds.), Psychotherapy and counseling in the treatment of drug abuse (pp. 39-49). Rockville: National Institute on Drug Abuse.

- Cross, G. M., Morgan, C. W., Mooney, A. J., Martin, C. A., & Rafter, J.A. (1990). Alcoholism treatment: A ten-year follow-up study. Alcoholism: Clinical and Experimental Research, 14(2), 169-173.
- Denzin, N. K. (1986). The alcoholic self. Newbury Park: Sage Publications.
- Denzin, N. K. (1987a). Treating alcoholism: An Alcoholics Anonymous approach. Newbury Park: Sage Publications.
- Denzin, N. K. (1987b). The recovering alcoholic. Newbury Park: Sage Publications.
- Duryea, E. J. & Okwumabua, J. O. (1988). Effects of preventive alcohol education program after three years. Journal of Drug Education, 18(1), 23-31.
- Elkin, M. (1984). Families under the influence: Changing alcoholic patterns. New York: W. W. Norton & Company.
- Ellis, A., McInerney, J. F., DiGiuseppe, R. & Yeager, R. J. (1988). Rational-emotive therapy with alcoholics and substance abusers. New York: Pergamon Press.
- Emrick, C. (1975). A review of psychologically oriented treatment of alcoholism: The relative effectiveness of different treatment approaches and the effectiveness of treatment versus no treatment. Journal of Studies on Alcohol, 36(1), 88-108.
- Emrick, C., & Hansen, J. (1983). Assertions regarding effectiveness of treatment for alcoholism: Fact or fantasy? American Psychologist, 38, 1078-1088.
- Erickson, C. K., & O'Neill, J. (1990). Research on alcoholism: Critical objective four. Professional Counselor, 5(2), 29-30.
- Facts on File (1986-1988). National Highway Traffic Safety Administration.
- Fillmore, K. M. (1990). Critical explanations - biological, psychological, and social - of drinking patterns and problems from the alcohol-related longitudinal literature. In L. T. Kozlowski et al. (Eds.), Research Advances in Alcohol and Drug Problems Vol. 10) (pp. 15-38). New York: Plenum Press.

- Fingarette, H. (1988). Alcoholism: The mythical disease. The Public Interest, 91(Spr), 3-22.
- Fingarette, H. (1989a). Heavy drinking: The myth of alcoholism as a disease. Berkeley: University of California Press.
- Fingarette, H. (1989b). A rejoinder to Madsen. The Public Interest, 95(Spr), 118-121.
- Finney, J. W., & Moos, R. H. (1986). Matching patients with treatments: Conceptual and methodological issues. Journal of Studies on Alcohol, 47(2), 122-134.
- Fishman, C. H. (1992). The resistant substance abuser. Networker, Jan/Feb, 83-87.
- Frank, S. J., Jacobson, S., & Tuer, M. (1990). Psychological predictors of young adults' drinking behaviors. Journal of Personality and Social Psychology, 59(4), 770-780.
- Gabe, J. (1989). Adolescent treatment: Looking beyond chemical dependency. Professional Counselor, Mar\Apr., 45-48.
- Galizio, M., & Maisto, S. A. (Eds.). (1985). Determinants of substance abuse: Biological, psychological, and environmental factors. New York: Plenum Press.
- Gilbert, F. S. (1988). Effect of type of aftercare follow-up on treatment outcome among alcoholics. Journal of Studies on Alcohol, 49(2), 149-159.
- Goodman, A. (1990). Addiction: Definition and implications. British Journal of Addiction, 85, 1403-1408.
- Gorski, T. T. (1986). Relapse prevention planning: A new recovery tool. Alcohol Health and Research World, 11(1), 6-11.
- Gorski, T. T. (1989a). Cocaine craving and relapse: Comparing alcohol and cocaine. Professional Counselor, Jan\Feb., 42-80.
- Gorski, T. T. (1989b). Relapse: Issues and answers. Recovery Life, Nov., 21.

- Gorski, T. T. (1990). Relapse prevention planning. Addiction & Recovery, June, 41-45.
- Gorski, T. T., & Miller, M. (1982). Counseling of relapse prevention. Independence, MO: Harold House/Independence Press.
- Gorski, T. T., & Miller, M. (1986). Staying sober: A guide for relapse prevention. Independence, MO: Independence Press.
- Grateful Members. (1990). The twelve steps for everyone. Minneapolis: CompCare Publishers.
- Harrison, P. A., & Hoffmann, N. G. (1989). Adult inpatient completers one year later. St. Paul: Cator.
- Hawkins, R. E. (1988). The assessment of behavior patterns, personality characteristics and theoretical orientations for master's level counseling students. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Hayes, G. L. (1992). Comparisons of weight-loss behavior among dieters using TFA Systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Heather, N., & Robertson, I. (1981). Controlled drinking. New York: Methuen.
- Heather, N., & Tebbutt, J. (1989). Definitions of non-abstinent and abstinent categories in alcoholism treatment outcome classifications: Review and proposal. Drug and Alcohol Dependence, 24(2), 83-93.
- Helgason, T. (1979). Epidemiological studies in alcoholism. Adv. Biol. Psychiat., 3, 97-112.
- Helzer, J. E. (1987). Epidemiology of alcoholism. Journal of Consulting and Clinical Psychology, 55(3), 284-292.
- Herd, D. (1990). Subgroup differences in drinking patterns among black and white men: Results from a national survey. Journal of Studies on Alcohol, 51(3), 221-232.
- Hester, R. K. & Miller, W. R. (Eds.). (1989). Handbook of alcoholism treatment approaches: Effective alternatives. New York: Pergamon Press.

- Hiebert, B. (1984). Counselor effectiveness: An instructional approach. The Personnel and Guidance Journal, June, 597-601.
- Hinson, R. E. (1985). Individual differences in tolerance and relapse: A Pavlovian conditioning perspective. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors (pp. 101-124). New York: Plenum Press.
- Hoffmann, N. G., Ninonuevo, F., Mozey, J., & Luxenberg, M. G. (1987). Comparison of court-ordered DWI arrestees with other outpatients in substance abuse treatment. Journal of Studies on Alcohol, 48(6), 591-594.
- Hoffmann, N. G. (1991). Treatment outcomes from abstinence based programs. St. Paul: Cator/New Standards, Inc.
- Howard, K. L., Cox, W. M. & Saunders, S. M. (1990). Attrition in substance abuse comparative treatment research: The illusion of randomization. In L. S. Onken & J. D. Blaine (Eds.), Psychotherapy and counseling in the treatment of drug abuse (pp. 66-79). Rockville: National Institute on Drug Abuse.
- Howell, D. C. (1987). Statistical Methods for Psychology (2nd ed.). Boston: PWS-Kent.
- Humphreys, K., Stofflemayr, B. M., & Stofflemayr, B. (1991). Factors predicting attendance at self-help groups after substance abuse treatment: Preliminary findings. Journal of Consulting and Clinical Psychology, 59(4), 591-593.
- Hutchins, D. E. (1979). Systematic counseling: The T-F-A model for counselor intervention. Personnel and Guidance Journal, 57(10), 529-531.
- Hutchins, D. E. (1982). Ranking major counseling strategies with the TFA matrix system. Personnel and Guidance Journal, 60(7), 427-430.
- Hutchins, D. E. (1984a). Hutchins behavior inventory. Blacksburg, Virginia.
- Hutchins, D. E. (1984b). Improving the counseling relationship. Personnel and Guidance Journal, 62, 572-575.

- Hutchins, D. E. (1992). TFA/HBI analytical guide (2nd ed.). Unpublished manuscript, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Hutchins, D. E., & Cole, C. (1992). Helping relationships and strategies (2 nd Ed.). Pacific Grove: Brooks/Cole Publishing Co.
- Hutchins, D. E. & Mueller, R. O. (1992). Manual for the Hutchins Behavior Inventory. Palo Alto, CA: Consulting Psychologists Press, Inc.
- Hutchins, D. E. & Vogler, D. E. (1988). TFA Systems (tm). Unpublished manuscript, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Hutchins, D. E. & Vogler, D. E. (1992). The helping cycle (rev. ed.). Unpublished manuscript, Virginia Polytechnic Institute and State University, Blacksburg.
- Imlah, N. (1989). Addiction - substance abuse and dependency. Wimslow, UK: Sigma Press.
- Intergroup Association of Alcoholics Anonymous of Greater New York. (1984). An introduction to A. A. New York: Author.
- Israel, Y., Glaser, F. B., Kalant, H., Popham, R. E., Schmidt, W., & Smart, R. G. (Eds.). (1978). Research advances in alcohol and drug problems: Vol. 4. New York: Plenum Press.
- Issac, S., & Michael, W. B. (1981) Handbook in research and Evaluation (2nd ed.). San Diego: EdITS.
- Jacobson, G. E. (1989). A comprehensive approach to pretreatment evaluation: II. other clinical considerations. In R. K. Hester & W. R. Miller (Eds.), Handbook of alcoholism treatment approaches: Effective alternatives (pp. 54-66). New York: Pergamon Press.
- Janzen, C. (1985). Use of family treatment methods by alcoholism treatment services. Alcohol Health and Research World, 10(4), 44-60.
- Jellinek, E. M. (1960). The disease concept of alcoholism. New Haven: Hillhouse Press.

- Kaczkowski, V. R., & Zygmund, M. J. (1991). Grief resolution in the recovery of individuals who are addicted to alcohol. Journal of Mental Health Counseling, 13(3), 356-366.
- Kadden, R. M., Cooney, N. L., Getter, H., & Litt, M. D. (1989). Matching alcoholics to coping skills or interactional therapies: Posttreatment results. Journal of Consulting and Clinical Psychology, 57(6), 698-704.
- Kaplan, R. F., Cooney, N. L., Baker, L. H., Gillespie, R. A., Meyer, R. E., & Pomerleau, O. F. (1985). Reactivity to alcohol-related cues: Physiological and subjective responses in alcoholics and nonproblem drinkers. Journal of Studies on Alcohol, 46(4), 267-272.
- Kaufman, E., & Reoux, J. (1988). Guidelines for the successful psychotherapy of substance abusers. American Journal of Drug & Alcohol Abuse, 14(2), 199-209.
- Kaufman, E. (1990). Critical aspects of the psychodynamics of substance abuse and the evaluation of their application to a psychotherapeutic approach. The International Journal of the Addictions, 25(2A), 97-116.
- Keller, M. (1986). The old and the new in the treatment of alcoholism. In D. L. Strug, S. Priyadarsini, & M. M. Hyman (Eds.), Alcohol interventions: Historical and sociocultural approaches (pp. 23-40). New York: The Haworth Press.
- Klinger, E., & Cox, W. M. (1986). Motivational predictors of alcoholics' responses to inpatient treatment. Advances in Alcohol & Substance Abuse, 6(1), 35-44.
- Kline, R. B. (1990). The relation of alcohol expectancies to drinking patterns among alcoholics: Generalizations across gender and race. Journal of Studies on Alcohol, 51(2), 175-182.
- Kuhn, T. S. (1962). The structure of scientific revolutions. Chicago: University of Chicago Press.

- Kunce, J. T., & Newton, R. (1989). Normal and psychopathological personality characteristics of individuals in alcohol rehabilitation. Journal of Consulting and Clinical Psychology, 36(3), 308-315.
- L'Abate, L. (1981). Classification of counseling and therapy theorists, methods, processes, and goals: The E-R-A Model. The Personnel and Guidance Journal, January, 263-265.
- LaJeunesse, C. A. & Thoreson, R. W. (1988). Generalizing a predictor of male alcoholic treatment outcomes. The International Journal of the Addictions, 23(2), 183-205.
- Lettieri, D. J. (1986). Problems in predicting recovery from alcoholism. Alcohol Health and Research World, 11(Fall), 20-23.
- Lewis, Michael J. (1990). Alcohol: Mechanisms of addiction and reinforcement. In Advances in Alcohol & Substance Abuse (pp. 47-65). The Haworth Press.
- Lex, B. W. (1987). Review of alcohol problems in ethnic minority groups. Journal of Consulting and Clinical Psychology, 55(3), 293-300.
- Lichtman, M. (1991). Conducting successful interviews. Unpublished manuscript.
- Litman, G., Eiser, R., Rawson, N., & Oppenheim, A. (1979). Differences in relapse precipitants and coping behaviour between alcohol relapsers and survivors. Behaviour, Research and Therapy, 17, 89-94.
- Litt, M. D., Cooney, N. L., Kadden, R. M., & Gaupp, L. (1990). Reactivity to alcohol cues and induced moods in alcoholics. Addictive Behaviors, 15, 137-146.
- Ludwig, A. M. (1986). The mystery of craving. Alcohol Health and Research World, 11(1), 12-17.
- Madsen, W. (1989). Thin thinking about heavy drinking. The Public Interest, (95), Spring, 112-118.
- Makela, K. (1978). Level of consumption and social consequences of drinking. In Y. Israel, F. B. Glaser, H. Kalant, R. E. Popham, W. Schmidt, & R. G. Smart (Eds.), Research Advances in Alcohol and Drug Problems: Vol. 4. New York: Plenum Press.

- Marlatt, G. A. (1987). Alcohol, expectancy, and emotional states: How drinking patterns may be affected by beliefs about alcohol's effects. Alcohol Health and Research World, 11(4), 10-13.
- Maisto, S. A., & Carey, K. B. (1987). Treatment of alcohol abuse. In T. D. Nirenberg & S. A. Maisto (Eds.), Developments in the assessment and treatment of addictive behaviors (pp. 206-210). Norwood, NJ: Ablex Publishing Corp.
- Maisto, S. A., Sobell, L. C., Sobell, M. B., & Saunders, B. (1985). Effects of outpatient treatment for problem drinkers. American Journal of Drug and Alcohol Abuse, 11(1&2), 131-149.
- Maisto, S. A., Sobell, L. C., Sobell, M. B., Lei, H., & Sykora, K. (1988). Profiles of drinking patterns before and after outpatient treatment for alcohol abuse. In T. B. Baker & D. S. Cannon (Eds.), Assessment and treatment of addictive disorders (pp. 3-27). New York: Praeger.
- McCarty, D. (1985). Environmental factors in substance abuse: The microsetting. In M. Galizio & S. A. Maisto (Eds.), Determinants of substance abuse: Biological, psychological, and environmental factors. New York: Plenum Press.
- McCracken, G. (1988). The long interview, qualitative research methods: Vol. 13. Newbury Park, CA: Sage Publications, Inc.
- McCusker, C. G. & Brown, K. (1990). Alcohol-predictive cues enhance tolerance to precipitate "craving" for alcohol in social drinkers. Journal of Studies on Alcohol, 51(6), 494-499.
- McLachlan, J. F. (1972). Benefit from group therapy as a function of patient-therapist match on conceptual level. Psychotherapy: Theory, Research and Practice, 9(4), 317-323.
- McLatchie, B. H., & Lomp, K. G. (1988). Alcoholics Anonymous affiliation and treatment outcome among a clinical sample of problem drinkers. American Journal of Drug & Alcohol Abuse, 14(3), 309-324.

McLellan, A. T., & Alterman, A. I. (1991). Patient treatment matching: A conceptual and methodological review with suggestions for future research. In R. W. Pickens, C. G. Leukefield, & C. R. Schuster (Eds.), Improving Drug Abuse Treatment (DHHS Publication No. (ADM)91-1754) (pp. 114-135). Washington, DC: U.S. Government Printing Office.

McLellan, A. T., Luborsky, L., Woody, G. E., O'Brien, C. P., & Druley, K. A. (1983a). Predicting response to alcohol and drug abuse treatments: Role of psychiatric severity. Arch Gen Psychiatry, 40, 620-625.

McLellan, A. T., Woody, G. E., Luborsky, L., O'Brien, C. P., & Druley, K. A. (1983b). Increased effectiveness of substance abuse treatment: A prospective study of patient-treatment 'matching'. The Journal of Nervous and Mental Disease, 171(10), 597-605.

McVernon, J. (1987). The disease concept unfolded. Mediplex Clinical Update, Fall.

Miller, N. S., Millman, R. B., & Keskinen, S. (1990). Outcome at six and twelve months post inpatient treatment for cocaine and alcohol dependence. Advances in Alcohol & Substance Abuse, 9(3/4), 101-120.

Miller, W. R., Hedrick, K. E., & Taylor, C. A. (1983). Addictive behaviors and life problems before and after behavioral treatment of problem drinkers. Addictive Behaviors, 8, 403-412.

Miller, W. R., & Hester, R. K. (1989). Treating alcohol problems: Toward an informed eclecticism. In W. R. Miller & R. K. Hester (Eds.), Handbook of alcoholism treatment approaches: Effective alternatives (pp. 3-13). New York: Pergamon Press.

Moos, R. H. & Finney, J. W. (1983). The expanding scope of alcoholism treatment evaluation. American Psychologist, 38, 1036-1044.

Morrison, M. A., Knauf, K. J., & Hayes, H. R. (1990). A comprehensive treatment model for chemically dependent adolescents: Part II. Professional Counselor, Mar./Apr., 48-53.

- Mueller, R. O. (1987). The effects of gender, socioeconomic status, and situation specificity on thinking, feeling, and acting. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Mueller, R. O., Hutchins, D. E. & Vogler, D. E. (1990). Validity and reliability of the Hutchins Behavior Inventory: A confirmatory maximum likelihood analysis. Measurement and Evaluation in Counseling and Development, 22, 203-213.
- Nace, Edgar P. (1989). The natural history of alcoholism verus treatment effectiveness: Methodological problems. American Journal Drug Alcohol Abuse, 15(1), 55-60.
- Nathan, P., & Skinstad, A. (1987). Outcomes of treatment for alcohol problems: Current methods, problems, and results. Journal of Consulting and Clinical Psychology, 55, 332-340.
- O'Donnell, P. J. (1984). The abstinence violation effect and circumstances surrounding relapse as predictors of outcome status in male alcoholic outpatients. The Journal of Psychology, 117, 257-262.
- Ojehagen, A., Skjaerris, A., & Berglund, M. (1988). Prediction of posttreatment drinking outcome in a 2-year out-patient alcohol treatment program: A follow-up study. Alcoholism: Clinical and Experimental Research, 12(1), 46-51.
- Onken, L. S., & Blaine, J. D. (Eds.). (1990). Psychotherapy and counseling in the treatment of drug abuse (NIDA Research Monograph 104). Rockville: National Institute on Drug Abuse.
- Ornstein, P., & Cherepon, J. A. (1985). Demographic variables as predictors of alcoholism outcome. Journal of Studies on Alcohol, 46(5), 425-432.
- Peele, S. (1985). The meaning of addiction: Compulsive experience and its interpretation. Lexington, MA: D. C. Heath.
- Peele, S. & Alexander, B. K. (1985). Theories of addiction. In S. Peele, The meaning of addiction: Compulsive experience and its interpretation (pp. 47-72). Lexington, MA: D. C. Heath.

- Pickens, R. W., Leukefeld, C. G., & Schuster, C. R. (Eds.). (1991). Improving drug abuse treatment (Research Monograph 106). Rockville: National Institute on Drug Abuse.
- Polcin, D. L. (1992). A Comprehensive model for adolescent chemical dependency treatment. Journal of Counseling & Development, 70, 376-382.
- Poley, W., Lea, G., & Vibe, G. (1979). Alcoholism: A treatment manual. New York: Gardner Press, Inc.
- Polich, J. M., Armor, D. J., & Braiker, H. B. (1981). The course of alcoholism: Four years after treatment. New York: John Wiley & Sons, Inc.
- Powell, B. J., Penick, E. C., Read, M. R., & Ludwig, A. M. (1985). Comparison of three outpatient treatment interventions: A twelve-month follow-up of men alcoholics. Journal of Studies on Alcohol, 46(4), 309-312.
- Radouco-Thomas, S., Garcin, F., Lacroix, D., & Radouco-Thomas, C. (1979). Major concepts and trends in alcoholism: Some issues in clinical and experimental biomedical research. Adv. Biol. Psychiat., 3, 33-53.
- Ray, O. (1983). Drugs, society, and human behavior (3 rd Ed.). Toronto: C. V. Mosby Company.
- Rees, D. W. (1985). Health beliefs and compliance with alcoholism treatment. Journal of Studies on Alcohol, 46(6), 517-524.
- Reilly, P. (1985). Cocaine plagues corporate centers. Grain's New York Business, Feb. 25, 6.
- Rogosch, F., Chassin, L., & Sher, K. J. (1990). Personality variables as mediators and moderators of family history risk for alcoholism: Conceptual and methodological issues. Journal of Studies on Alcohol, 51(4), 310-318.
- Rounsville, B., Dolinsky, Z., Babor, T., & Meyer, R. (1987). Psychopathology as a predictor of treatment outcome in alcoholics. Archives of General Psychiatry, 44, 505-513.

- Roy-Byrne, P. P. (1989). Alcoholism and anxiety. In P. P. Roy-Byrne (Ed.), Anxiety: New findings for the clinican. Washington: APA Press.
- Schuckit, M. A. (1985). Genetics and the risk for alcoholism. JAMA, 254(18), 2614-2617
- Schuckit, M. A. (1987). Biological vulnerability to alcoholism. Journal of Consulting and Clinical Psychology, 55(3), 301-309.
- Schuckit, M. A., Irwin, M., & Brown, S. A. (1990). The history of anxiety symptoms among 171 primary alcoholics. Journal of Studies on Alcohol, 51(1), 34-41.
- Smart, R. G., Allison, K. R., Cheung, Y., Erickson, P. G., Shain, M., & Single, E. (1990). Future research needs in policy, prevention, and treatment for drug abuse problems. The International Journal of the Addictions, 25(2A), 117-126.
- Smith, D. (1982). Trends in counseling and psychotherapy. American Psychologist, 37(7), 802-809.
- Software Resource. (1987). askSam: The information manager for the PC (4th ed.). Perry, FL: askSam Systems.
- Strug, D. L., Priyadarsini, S., & Hyman, M. M. (Eds.). (1986). Alcohol interventions: Historical and sociocultural approaches. New York: The Haworth Press.
- Sussman, S., Horn, J. L., & Gilewski, M. (1990). Cue-exposure interventions for alcohol relapse prevention: Need for a memory modification component. The International Journal of the Addictions, 25(8), 921-929.
- Svanum, S., & McAdoo, W. G. (1989). Predicting rapid relapse following treatment for chemical dependence: A matched-subjects design. Journal of Consulting and Clinical Psychology, 57(2), 222-226.
- Tarter, R. E., Alterman, A. I., & Edwards, K. L. (1985). Vulnerability to alcoholism in men: A behavior-genetic perspective. Journal of Studies on Alcohol, 46(4), 329-356.

- Thoreson, R. W., Budd, F. C., & Krauskopf, C. J. (1986). Alcoholism among psychologists: Factors in relapse and recovery. Professional Psychology: Research and Practice, 17(6), 497-503.
- Tieman, A. R. (1991). Group treatment for female incest survivors using TFA systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Tims, F. M., & Leukefeld, C. G. (Eds.). (1986). Relapse and recovery in drug abuse (Research Monograph 72). Rockville: National Institute on Drug Abuse.
- Treece, C., & Khantzian, E. J. (1986). Psychodynamic factors in the development of drug dependence. Psychiatric Clinics of North America, 9(3), 399-412.
- U. S. Department of Health and Human Services. (1990a). The economic costs of alcohol and drug abuse and mental illness: 1985. San Francisco: Institute for Health & Aging.
- U. S. Department of Health and Human Services. (1990b). Seventh special report to the U.S. Congress on alcohol and health from the Secretary of Health and Human Services. Rockville: National Institute on Alcohol Abuse and Alcoholism.
- U. S. Department of Health and Human Services. (1991). Drug abuse and drug abuse research: The third triennial report to Congress from the Secretary, Department of Health and Human Services (DHHS No. (ADM)91-1704). Rockville: National Institute on Drug Abuse.
- Velicer, W. F., Diclemente, C. C., Rossi, J. S., & Prochaska, J. O. (1990). Relapse situations and self-efficacy: An integrative model. Addictive Behaviors, 15, 271-283.
- von Knorring, L., Palm, U., & Andersson, H. (1985). Relationship between treatment outcome and subtype of alcoholism in men. Journal of Studies on Alcohol, 46(5), 388-391.
- Waisberg, J. L. (1990). Patient characteristics and outcome of inpatient treatment for alcoholism. Advances in Alcohol & Substance Abuse, 8(3/4), 9-32.

- Walker, J. L. (1984). Assessing thinking, feeling, and acting components of behavior. Unpublished master's thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Ward, D. (1983). The trend toward eclecticism and the development of comprehensive models to guide counseling and psychotherapy. The Personnel and Guidance Journal, 62(3), 154-157.
- Watson, L. (1991). Paradigms of recovery: theoretical implications for relapse prevention in alcoholics. The Journal of Drug Issues, 21(4), 839-858.
- Webster's II: New Riverside University dictionary. (1984). Riverside Publishing Company.
- Weiss, R. D., Mirin, S. M., Griffin, M. L., & Michael, J. L. (1988). A comparison of alcoholic and nonalcoholic drug abusers. Journal of Studies on Alcohol, 49(6), 510-515.
- Wells, E. A., Hawkins, J. D., & Catalano, R. F. (1988). Choosing drug use measures for treatment outcome studies: II. Timing baseline and follow-up measurement. International Journal of the Addictions, 23(8), 875-885.
- West, P. L. (1992). The effects of incarceration on behavior patterns of DUI second offenders using TFA Systems (tm). Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Westermeyer, J. (1989). Nontreatment factors affecting treatment outcome in substance abuse. American Journal Drug Alcohol Abuse, 15(1), 13-29.
- Wheeler, H. W., Jr. (1986). The reliability and validity of ipsative and normative forms of the Hutchins Behavior Inventory (Doctoral dissertation, Virginia Polytechnic Institute and State University, 1986). Dissertation Abstracts International, 47, 11A.
- Wiens, A. N., & Menustik, C. E. (1983). Treatment outcome and patient characteristics in an Aversion Therapy program for alcoholism. American Psychologist, 38(Oct), 1089-1096.

- Wilkinson, D. A., & LeBreton, S. (1986). Early indications of treatment outcome in multiple drug users. In W. R. Miller and N. Heather (Eds.), Treating addictive disorders: The process of change (pp. 239-277). New York: Plenum Press.
- Wilson, G. T. (1987). Cognitive studies on alcoholism. Journal of Consulting and Clinical Psychology, 55(3), 325-331.
- Woody, G. E., McLellan, A. T., Luburksy, L., & O'Brien, C. P. (1986). Psychotherapy for Substance Abuse. Psychiatric Clinics of North America, 9(3), 547-562.
- Zivich, J. M. (1981). Alcoholic subtypes and treatment effectiveness. Journal of Consulting and Clinical Psychology, 49(1), 72-80.
- Zucker, R. A., & Gomberg, E. S. (1986). Etiology of alcoholism reconsidered. American Psychologist, 41(7), 783-793.

Appendix A

Interview Form

Date: _____
Subject #: _____
Start time: _____

Part I. DEMOGRAPHIC INFORMATION

Code name: _____

Age: _____ DOB: _____

Sex: _____ Race: _____

Ed. level: _____
Degrees/Cert. _____

Occupation: _____

Full-time _____ Part-time _____

Average yr. income _____

Job satisfaction

Very satisf _____ satisf _____ unsatisf _____ very unsat _____

Marital status: _____

Marital satisfaction

Very satisf _____ satisf _____ unsatisf _____ very unsat _____

Children (number & ages): _____

Who resides with you:

Part II. DRINKING HISTORY

Age of onset: _____

Average daily consumption and type before stopping:

Years of drinking: _____

Past "other-drug" use and amount:

Appendix A continued

Present "other-drug" use and amount: _____

Previous treatment:

when _____ where _____ for what _____ inpatient/out _____
 _____ _____ _____ _____
 _____ _____ _____ _____

List any relatives with current or past drinking problem:
 relation (maternal/paternal), prob.drink or alcoholic;

_____ _____
 _____ _____

Spouse:

drinking prob. _____ (past/present),
 alcoholic _____
 consumption _____ (past/present),
 treatment _____

Relapse(s):

when _____ length _____ how/why stopped _____
 _____ _____ _____
 _____ _____ _____

Length of current sobriety years _____ months _____

From Gorski: (Answer Yes or No)

Have you recently been:

apprehensive about your well being? _____
 adamandt about decision to stay sober? _____
 been compulsively trying to impose sobriety
 on others? _____
 defensive in talking about your recovery? _____
 experiencing impulsive behavior? _____
 tending towards loneliness? _____
 having a loss of const. planning ability? _____
 idle day dreaming and wishful thinking? _____
 irritated with friends? _____
 irregular attendance at treatment functions? _____

High risk situations where did drink or have urge to now:

- (1) _____
- (2) _____
- (3) _____
- (4) _____
- (5) _____

Appendix A continued

History of DWIs or legal related to alcohol:
 when _____ what _____ disposition _____

_____ _____ _____
 _____ _____ _____

Other addictions:

cigarettes _____	amount _____	how long _____
caffeine _____	_____	_____
food(specify) _____	_____	_____
sexual _____	_____	_____
religious _____	_____	_____
other _____	_____	_____

Treatment for any of the above (what, when, and type treatment):

Currently taking any medications (what and for):

Part III. TFA STRUCTURED INTERVIEW

- A. With your current sobriety, specify a high risk situation: _____
- B. With your current sobriety, and in a high risk situation (same as above), immediately before you do not drink, although you have the urge to drink, were you more:
 - Thinking or Feeling or in the middle? _____
 - Feeling or Acting or in the middle? _____
 - Acting or Thinking or in the middle? _____
- C. (Follow-up with systematic inquiry)
- D. Before you were sober, specify a high risk situation:

- E. Before you were sober, and in a high risk situation (same as above), immediately before you drank, were you more:
 - Thinking or Feeling or in the middle?
 - Feeling or Acting or in the middle?
 - Acting or Thinking or in the middle?

Appendix A continued

F. (Follow-up with systematic inquiry)

Part IV. OPEN-ENDED QUESTIONS

A. What kinds of factors account for changes in thoughts, feelings, and actions in the same high risk situation but now do not drink, and why?

ThoughtsFeelingsActions

B. What kinds of methods/program components (whether personal, AA/12, Step or other) helped you to change thoughts, feelings, and actions?

Change FactorsThoughts (specify)Feelings (specify)Actions (specify)

C. What would you say were the most important factors in your stopping to drink and in maintaining sobriety?

- | Stopping | Why impt. | TFA oriented |
|----------|-----------|--------------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |

Appendix A continued

Maintenance	Why impt.	TFA oriented
1.		
2.		
3.		
4.		

**Part V. Comments, Questions, and Observations
about behavioal integration.****Comments:****Questions:****Observations:**

ending time: _____
total time: _____

Appendix B

Systematic Inquiry for TFA Critical Questions

I. Include the following fixed questions for all Ss.
Starting with the strongest, ask "what" for Thinking,
"Why" for Feeling, or "How" for Acting.

While sober

While drinking

A. "What were you thinking?", follow with:

1. What triggered this thought?

2. What was the intensity of the thought?(circle)

mild moderate strong mild moderate strong

3. Was the thought: (circle)

neutral negative positive neutral neg. posti.

4. What was the result of the thought?

5. What other thoughts did you have? (repeat 1-5)

B. "Why were you feeling _____ ?

Appendix B continued

1. What triggered this feeling?

2. What was the intensity of the feeling? (circle)

mild moderate strong mild moderate strong

3. Was the feeling: (circle)

neutral negative positive neutr. nega. posit.

4. What was the result of the feeling?

5. What other feelings did you have? (repeat 1-5)

C. "How were you acting?"

1. How was this action triggered?

2. Was the intensity of the action? (circle)

mild moderate strong mild moderate strong

3. Was the action: (circle)

neutral negative positive neutr. nega. posit.

4. What was the result of the action?

5. What other actions did you have? (repeat 1-5)

Appendix C
Participant Factsheet/Informed Consent

You are being asked to volunteer to participate in a doctoral research project at Va Tech. which focuses on factors important to achieving and maintaining sobriety. Your participation in the study will add to the field's knowledge and potentially help others in the process of recovery. The purpose of the study is to compare the integrated behavior patterns (thoughts, feelings, and actions) of alcoholics before and after they stopped drinking. Your participation will involve taking a brief objective assessment inventory, which takes about 20 minutes to complete, and specifies behavior into thoughts, feelings, and actions and based on your length of sobriety (5 years or more) includes completing an objective and structured interview with the doctoral candidate researcher. The interview will take approximately 50 to 60 minutes and will be anonymously audio taped (tapes will be erased/destroyed later). The interview can be conducted at the researcher's office or at a place of your choice. You can choose a time most convenient for you.

You are under no obligation to participate in this study. Your participation is strictly confidential and you can use a code name if involved in the interview or

Appendix C continued

want a copy of an abstract of the study. The study will not include any counseling or require further participation. If you can not take the inventory today/tonight the researcher can come back to another meeting time next week. Because of the confidentiality of all data, you will be asked to sign a release of information that your test data and/or interview data may be used strictly anonymously in the study's write-up and potential publication.

The researcher is: Daniel W. DeVilbiss, Jr.

4231 Colonial Ave., S.W., Suite 5

Roanoke, VA 24018

703-772-7329 (W), 703-344-1663 (H).

Your participation is sincerely appreciated!

I have read and understood the above information (or it has been fully explained to me) and agree to participate in this study.

Participant, or code name

Date

Code name, address, or phone number to receive feedback.

Appendix D

Participant Release of Information

I hereby authorize Daniel W. DeVilbiss, Jr., doctoral candidate at V.P.I. & S.U., to use my anonymous test scores and/or interview information in his dissertation and any subsequent articles for publication. If I am involved in a structured interview, I also give my permission for the interview to be anonymously recorded on audio tape by the researcher (tape will be erased and destroyed after its review is no longer needed).

I have read this form or have had this form read to me and understand its contents.

Participant's Signature

Date

Researcher's Signature

Date

Appendix E
Directions to Researcher's Office

. From Tanglewood Mall: take Rt. 419 towards Salem; at intersection with Colonial Ave. (Stop Light with North Cross School on left) turn Left; first Right into Colonial Green office complex; center drive; Building 4231 (last building on Left; office is upstairs to the right.

. From Salem/Lewis-Gale Hospital: take Rt. 419 towards Roanoke; at intersection with Colonial Ave. (Stop Light after Cave Spring Corner intersection) turn Right; first Right into Colonial Green office complex; center drive; Building 4231 (last Building on Left; office is upstairs to the right.

[] Tanglewood Mall

Rt. 419

<u>Colonial Ave.</u>	[] North Cross
	*
	[] [] office complex
	[] <u>X</u> 4231 ****

Brambleton Ave

(Cave Spring Corners)

Rt. 419

[] Lewis-Gale
Hospital

Instructions: Please enter from the second front porch on Building 4231 and go up the steps, turn right, reception room door is first door on left. Enter reception room and have a seat. Researcher's name (Daniel W. DeVilbiss, Jr.) is on porch and on reception door.

Thank you for your participation.

If you need assistance please call 703-772-7239 (0) or
703-344-1663 (H)

Interview Date: _____ Day: _____ Time: _____

Appendix F

Definition of Words Used on the HBI

1. Analytical - Resolving into first principles or elements; separating into parts; considering anything in its parts and their relation to each other.
2. Assertive - Positive, affirming confidently; declaratory.
3. Caring - Caution, regard, watchfulness; implying concern for safety and prosperity; to support and protect.
4. Compassionate - Full of pity; tender-hearted, sympathetic; suffering with another; acting with mercy.
5. Concerned - Affecting the interest of; to be of importance; agitation or uneasiness of mind.
6. Contemplative - Given to continued application of the mind to a subject; thoughtful; meditative.
7. Curious - Strongly desirous to discover what is novel or unknown; inquisitive, exciting surprise.
8. Decisive - Having the power or quality of determining; final; conclusive; marked by prompt determination.
9. Doing - Performing; executing; carrying into effect.
10. Emotional - Producing excited feelings of any kind.
11. Initiating - Beginning or entering upon; setting afoot; starting; being first to practice or bring in.
12. Logical - Pertaining to the science of reasoning; discriminating; testing the legitimacy of all possible conclusions.
13. Rational - Having reason or the faculty of reasoning; judicious; not absurd or foolish.
14. Sensitive - Having the capacity of receiving impressions from external objects; having feelings easily excited.
15. Spontaneous - Proceeding from natural inclinations and without constraint or external force; voluntary, acting by its own impulse or energy; self-originated.

From: West, P. L. (1992). Unpublished doctoral dissertation, V.P.I. & S.U., Blacksburg, Virginia.

Appendix G

Interview Schedule

Month: _____ 1992

Date/Day:

Time:

Codename/or #: _____

Appendix H

Templates Used in askSam Program

KEY TEMPLATE
Key of <Alt-F1>

Name[
Age[
Sex[
Race[
Edlevel[
Occup[
Income[
Jobsat[
Marital[
Marsat[
Children[
Reside[

KEY TEMPLATE
Key of <Alt-F2>

Name[
Ageonset[
consumpt[
type[
yrsdr[
pasotdrug[
prsotdrug[
prtreat[
relatives[
spouse[
relapses[
lengsober[
Gorski[
risksituat[
DUI/legal[
othaddict[
meds[

KEY TEMPLATE
Key of <Alt-F3>

Name[
soberhighrisk[
sTorForM[
sForAorM[
SAorTorM[
sWhatThinking[
sTtrigger[
sTintensity[
sTattrib[
sTresult[
sWhyFeeling[
sFtrigger[
sFinintensity[
sFattrib[
sFresult[
sHowActing[
sAtrigger[
sAintensity[
sAattrib[
sAresult[

Appendix H continued

KEY TEMPLATE
Key of <Alt-F4>

Name[
drinkinghighrisk[
dTorForM[
dForAorM[
dAorTorM[
dWhatThinking[
dTtrigger[
dTintensity[
dTattrib[
dTresult[
dWhyFeeling[
dFtrigger[
dFintensity[
dFattrib[
dFresult[
dHowActing[
dAtrigger[
dAintensity[
dAattrib[
dAresult[

KEY TEMPLATE
Key of <Alt-F6>

Name[
Comments[
Questions[
Observ[
IntegBeh[
Date[
Time[

KEY TEMPLATE
Key of <Alt-F5>

Name[
Tchangefact[
Fchangefact[
Achangefact[
Tmethods[
Fmethods[
Amethods[
Stopfact[

Mainfact[

StopTFA[
MainTFA[

Appendix I

**Judges' Ratings in TFA Terms of Factors
Most Important for Stopping to Drink and
Maintaining Sobriety**

Note: The underlined rating was most frequent and definitive.

Judges' Choices:

T = cognitive oriented	TA = combination of cognitive &
F = feeling oriented	behavioral oriented
A = action/behavioral oriented	FA = combination of feeling & behavioral oriented
TF = combination of cognitive & feeling oriented	TFA = combination of cognitive, feeling, and behavioral oriented

Instructions:

Please place the letter(s) of the choice which best fits the orientation of the reported factors in your designated column. Fill in all blanks, making an educated guess if necessary.
Thank you.

<u>I. Stop Drinking Factors</u>	<u>Frequency N=16</u> (# of Ss reported)	<u>Judges</u>				
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
1. Due to concern for children/family	7	<u>TF</u>	F	TF	TF	TF
2. Due to intervention of others: family (5); counselor (1); boss (1)	7	<u>A</u>	A	TA	TA	A
3. Spiritual: new life (2) turn over to God (2)	4	<u>T</u>	T	F	TFA	TF
4. Fear of loss of what I had	4	<u>TF</u>	TF	F	TF	F
5. AA: unspecified (2) first meeting (1)	3	<u>T</u>	<u>A</u>	A	TFA	T
6. Others caring: friend (2); sponsor (1)	3	<u>F</u>	F	F	TFA	F
7. Health concerns	3	<u>T</u>	T	T	TA	TF
8. Hitting bottom, die if not quit	2	<u>T</u>	T	<u>TF</u>	TFA	TF

Appendix I continued

		1	2	3	4	5
9. Accident: car (1) boat (1)	2	A	A	A	TFA	A
10. Taking Anabuse	2	A	A	A	A	A
11. Due to anxiety	2	F	F	F	F	F
12. Knowledge of predisposition	2	T	T	T	T	T
13. Relative died	1	A	A	A	TF	F
14. DUI	1	A	A	A	TFA	A
15. Laid-off from work	1	A	A	A	A	AF

<u>II. Maintenance Factors</u>	<u>Freq.</u>	<u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>5</u>				
		<u>TFA</u>	<u>TA</u>	<u>TFA</u>	<u>TFA</u>	<u>TFA</u>
1. AA: making friends and talking/sharing(9); going regularly(4); contact w/ sponsor(4); sponsoring others(4); working 12- Steps(3); unspecified(2)	13					
2. Taking care of self: in touch w/ feelings(2); take care of feelings(1); self-evaluation(1)	4					
3. Develop improved social- life	2					
4. Spiritual attitudes of God's in control	2					
5. Meditation	2					
6. Prayer	2					
7. Psychotherapy/counseling (individual, eclectic)	2					
8. Attend other 12-Step group	2					

Appendix I continued

		1	2	3	4	5
9. Not to disappoint self or others	2	<u>TF</u>	TF	TF	TFA	TF
10. Gratitude for good feelings	1	<u>TF</u>	TF	<u>F</u>	FA	F
11. Desire not to drink	1	T	<u>F</u>	T	F	F
12. Exercise	1	<u>A</u>	A	A	TFA	A
13. Keep a journal	1	<u>TF</u>	A	A	TF	TF
14. Eat right/diet	1	<u>A</u>	A	A	TFA	A
15. Quiet time	1	<u>T</u>	<u>A</u>	A	TFA	T
16. Lead a more structured life	1	<u>TA</u>	A	A	TA	TA
17. Keep busy	1	<u>A</u>	A	A	TA	A
18. Concern for job	1	T	<u>F</u>	TFA	TA	F
19. Serenity	1	TF	<u>F</u>	F	TF	F
20. Belief my life would be better	1	<u>T</u>	T	F	T	T

Comments: Please refer by number under Stopping or Maintenance

Note: The professional panel's opinions can be questioned based upon the limited number of experts used.

Appendix J

Summary of Each Group's Demographic Variables

I. Group One (6 or less months of sobriety).

Ten females and seven males ($n=17$) were in Group One. The mean age of the group was 34.6 years with a standard deviation of 6.95. The age range was from 21 to 47 years. The mean length of sobriety was 3.8 months with a standard deviation of 1.92. There were 3 Black and 14 white subjects in the group. Seventy-six percent of the group had not completed a college degree. Fifty-nine percent of the group were employed and 41% were unemployed. Regarding occupation, 35% were semi-skilled, 23% were skilled, and 23% were professional employees. Eighteen percent had never worked. Seventy-six percent were satisfied with their job and work status.

Fifty-three percent were divorced, 23% were single, 18% were married, and 6% were widowed. In view of suspected higher percentages of divorced and single subjects, the category of relationship satisfaction was more meaningful than using the category of marital satisfaction per se. In this category, 76% were satisfied, 12% were unsatisfied, and 12% were not in a relationship and satisfied. The mean average of the number of children was 2.12 with a standard deviation of 1.69. Concerning who the volunteer resided with, 29% live

with a significant other, 24% were single parents who lived with their children, 24% lived with their parents or grandparents, 18% lived with their spouse, and 6% lived alone.

II. Group Two (6 or less months of sobriety).

Four females and 11 males were in Group Two (n=15). The mean age was 37.4 years with a standard deviation of 8.97. The range was from 21 to 55 years. The mean length of sobriety was 2.86 months with a standard deviation of 1.68. There were 3 Black and 12 White subjects in the group. Eighty percent of the group had not completed a college degree. Sixty percent of the group were employed and 40% were unemployed. Regarding occupation, 27% were semi-skilled, 47% were skilled, and 13% were professional employees. Thirteen percent had never worked. Sixty-seven percent were satisfied with their job and work status.

Twenty-seven percent were divorced, 40% were single, and 33% were married. Concerning relationship satisfaction, 87% were satisfied and 13% were unsatisfied with their current relationship. The mean average number of children was 1.33 with a standard deviation of 1.04. Concerning who the subject resided with, 33% resided alone, 33% lived with their spouses, 20% lived with a significant other, 7% were single parents, and 7% lived

with parents or grandparents.

III. Group Three (5 or more years of sobriety).

Five females and 11 males were in Group Three (n=16). The mean age was 45.8 years with a standard deviation of 9.88 years. The age range was from 33 to 67 years. The mean length of sobriety was 101.3 months with a standard deviation of 44.2 months. There were 1 Black and 15 White subjects in the group. Forty-four percent of the group had not completed a college degree. Eighty-eight percent of the group were employed, 6% were unemployed, and 6% were retired. Regarding occupation, 13% were semi-skilled, 25% were skilled, and 62% were professional employees. Eighty-one percent were satisfied with their job and work status.

Six percent were divorced, 25% were single, 62% were married, and 6% were widowed. Concerning relationship satisfaction, 88% were satisfied and 12% were unsatisfied with their current relationship. The mean average of number of children was 1.68 with a standard deviation of 1.53. Concerning who the subject resided with, 25% resided alone, 63% lived with their spouse, and 12% lived with a significant other.

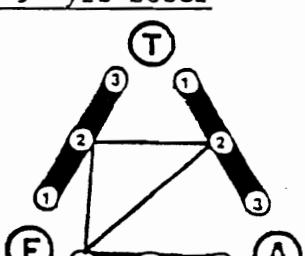
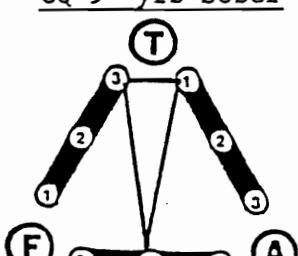
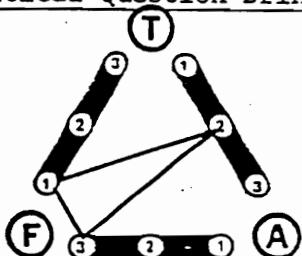
Appendix K

Group 3's TFA Triads from Critical Questions and the HBI

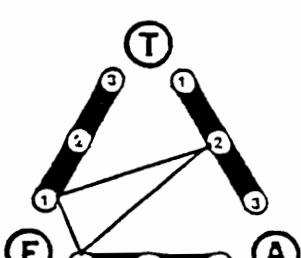
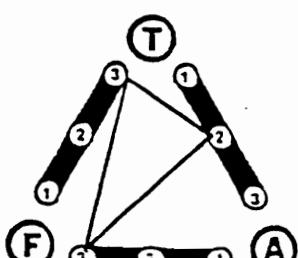
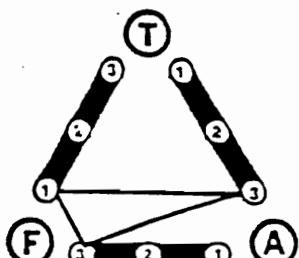
Critical Question Drinking

CQ 5+ yrs Sober

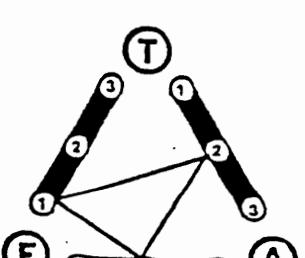
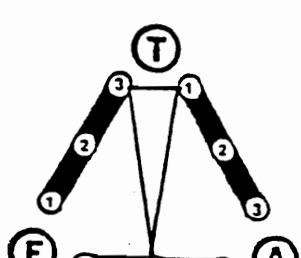
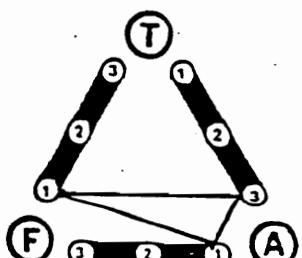
HBI 5+ yrs Sober



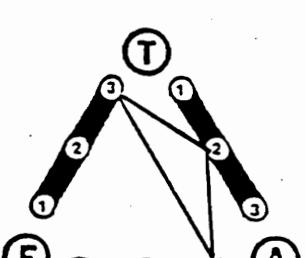
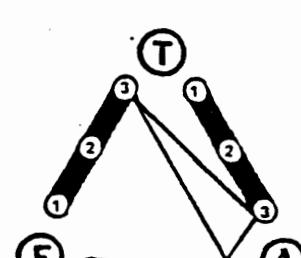
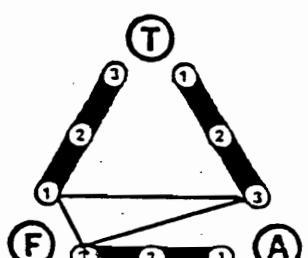
Subject 1



Subject 2



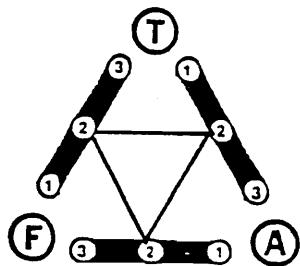
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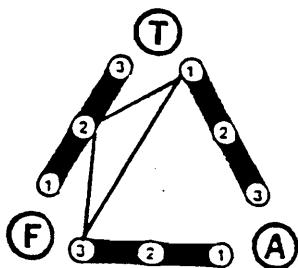
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Appendix K continued

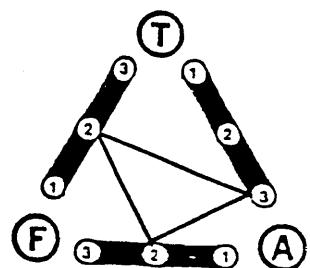
C.Q. Drinking



C.Q. 5+ yrs Sober



HBI 5+ yrs Sober



Subject 5

The diagram shows a triangle with three nodes labeled T (top), F (bottom left), and A (bottom right). Each node is enclosed in a circle. The edges between the nodes are thick black lines. Node T is connected to both F and A. Node F is connected to both T and A. Node A is connected to both T and F. The labels 1, 2, and 3 are placed near the edges: 1 is on the edge from T to F, 2 is on the edge from T to A, and 3 is on the edge from F to A.

The diagram shows a triangle with three nodes labeled T (top), F (bottom left), and A (bottom right). The edges between the nodes are thick black lines. Node T is enclosed in a circle. Node F is at the bottom left corner. Node A is at the bottom right corner. The edge between T and F is labeled '3'. The edge between T and A is labeled '1'. The edge between F and A is labeled '2'.

- Subject 6

The diagram shows a triangle with three vertices labeled T (top), F (bottom left), and A (bottom right). Each vertex is connected to its two neighbors by thick black lines. The vertices themselves are represented by circles containing numbers: T has 3 at the top, F has 1 at the bottom left, and A has 1 at the bottom right. The numbers 2 are placed on the edges connecting vertex 3 to vertices 1 and 2, respectively.

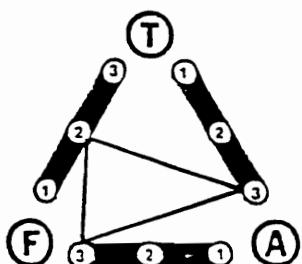
Subject 7

The diagram shows a triangle with three vertices labeled T (top), F (bottom left), and A (bottom right). The edges connecting the vertices are labeled with numbers: the top edge is labeled '1', the bottom-left edge is labeled '2', and the bottom-right edge is labeled '3'. Each vertex is also labeled with a number: T is '1', F is '2', and A is '1'. The edges are represented by thick black lines.

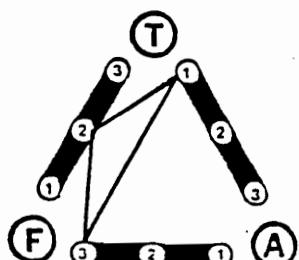
Subject 8

Appendix K continued

C.Q. Drinking

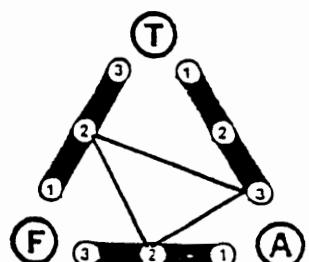


C.Q. 5+ yrs Sober



Subject 9

HBI 5+ yrs Sober



Subject 10

The diagram shows a triangle with three nodes labeled T (top), F (bottom left), and A (bottom right). The edges between the nodes are thick black lines. The edge between T and F is labeled '3'. The edge between T and A is labeled '1'. The edge between F and A is labeled '2'. Each node is enclosed in a circle.

Subject 11

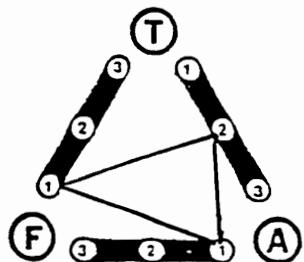
The diagram shows a triangle with vertices labeled T (top), F (bottom left), and A (bottom right). The edges between T-F, T-A, and F-A are thick black lines. The edge between F and A is a thin grey line. Each vertex has a small circle containing a number: T has 1, F has 2, and A has 3.

The diagram shows a triangle with three nodes labeled T (top), F (bottom left), and A (bottom right). Node T is at the top vertex, F is at the bottom-left vertex, and A is at the bottom-right vertex. Each node is enclosed in a circle. The edges connecting the nodes are thick black lines. There are three edges: one from T to F, one from T to A, and one from F to A.

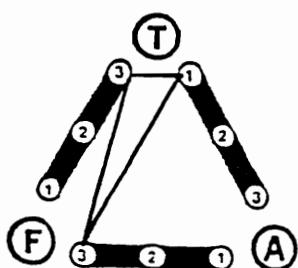
Subject 12

Appendix K continued

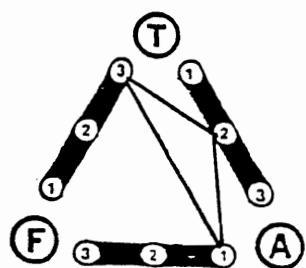
C.Q. Drinking



C.Q. 5+ yrs Sober



HBI 5+ yrs Sober



Subject 13

The diagram illustrates the T-F-A triangle, a model for personality assessment. It features three points labeled T (top), F (bottom-left), and A (bottom-right) arranged in a triangle. The sides of the triangle are labeled with numbers: T-F is labeled with 3, 2, and 1; T-A is labeled with 1, 2, and 3; and F-A is labeled with 3, 2, and 1. The numbers 1, 2, and 3 are placed at the midpoints of each side.

The diagram shows a triangle with three nodes labeled T (top), F (bottom left), and A (bottom right). The edges between T-F, T-A, and F-A are thick black lines. The edges between F and A, and between the two 2's on the sides, are thin grey lines.

Subject 14

The diagram illustrates the T-F-A triangle, a model for personality assessment. It features three vertices: 'T' at the top, 'F' at the bottom-left, and 'A' at the bottom-right. The interior of the triangle is divided into three regions by thick black lines connecting the vertices. The left region, closest to vertex F, contains the number '1'. The right region, closest to vertex A, contains the number '2'. The middle region, closest to vertex T, contains the number '3'. Each vertex is enclosed in a circle: 'T' has a circle with a diagonal line through it, 'F' has a circle with a diagonal line through it, and 'A' has a circle with a diagonal line through it.

The diagram shows a triangular lattice structure. The top node is labeled 'T'. The bottom-left node is labeled 'F' and has a small circle with '3' below it. The bottom-right node is labeled 'A' and has a small circle with '1' below it. The left edge of the triangle has three nodes labeled '1', '2', and '3' from top to bottom. The right edge has three nodes labeled '1', '2', and '3' from top to bottom. The bottom edge has three nodes labeled '3', '2', and '1' from left to right. The internal nodes of the triangle are labeled '2'.

Subject 15

The diagram illustrates the T-AT triangle, a model for organizational communication. It features a central downward-pointing triangle with three thick black sides. Each side is labeled with a number: '1' at the top vertex, '2' on the left side, and '3' on the right side. Surrounding this central triangle are three circles, each containing a letter: 'T' at the top vertex, 'F' on the left, and 'A' on the right.

The diagram shows a triangle with vertices labeled T (top), F (bottom left), and A (bottom right). The edges connecting the vertices are labeled with numbers: the edge from T to F is labeled 3, the edge from T to A is labeled 1, the edge from F to A is labeled 2, and the edges within the triangle are labeled 1, 2, and 3.

Subject 16

Appendix L

Group 3's Responses to Systematic Inquiry
for TFA Critical Questions.

dWhatThinking[being misjudged, severly judged]

dWhatThinking[what's going to happen to me; how can I live thru it; can't go on]

dWhatThinking[that had earned right to a drink, but conflict only do 1x more]

dWhatThinking[things will never change, rather be dead]

dWhatThinking[they're a pain in the butt, tired of them, thet upset things]

dWhatThinking[no thinking, planning to set up the evening]

dWhatThinking[obsessed with getting the good feeling from drinking]

dWhatThinking[should I just have 1 or 2 drinks, sometimes started w/ beer]

dWhatThinking[everyone else is drinking, it available, I need to loosen up]

dWhatThinking[nothing sensible, planning to drink on trip, not take wife]

dWhatThinking[its his fault, he should treat me better, leave me alone]

dWhatThinking[looking forward to drink, the reward, need this to get through]

dWhatThinking[can't wait to get first one down, taste good, waited all day]

dWhatThinking[think about getting drink, stopping to get drink]

dWhatThinking[hell with him I'll take a drink, wanted to drink]

dWhatThinking[little thinking, sense of hopeless, frustrated, self-hate]

Appendix L continued

dWhyFeeling[anger and rage]
dWhyFeeling[fear; abandoned; paranoid?]
dWhyFeeling[real up like a manic-anxious, real good]
dWhyFeeling[depressed/bitter/angry/resentful]
dWhyFeeling[anger to caring, often bizarre if drunk, very volatile]
dWhyFeeling[all good or all bad, I deserve this, escape pain]
dWhyFeeling[excitement and anticipation for feeling good]
dWhyFeeling[envy, low self-esteem, worried about my performance (social)]
dWhyFeeling[depend on if I knew the group= good feel.; if not,reserved,anxious]

dWhyFeeling[some tension/nervousness,look forward to trip]
dWhyFeeling[angry, self-pity]
dWhyFeeling[happy could drink, excited, anticipate the drink]
dWhyFeeling[waited to drink to escape, get a buzz, anticipating]
dWhyFeeling[anxious, could taste it - anticipate the drink]
dWhyFeeling[hell with you, I get drunk and show you, game playing]
dWhyFeeling[frustrated, anxiety, tense]

Appendix L continued

dHowActing[drinking, volatile]
dHowActing[being aggressive; giving ultimatims]
dHowActing[active driving, driving near the exit to store]
dHowActing[go to bars, drink more, isolate more]
dHowActing[slam dishes, distant-work in yard, drinking]
dHowActing[almost auto pilot, numb, ritualistic going out]
dHowActing[getting off work, getting in truck, going to store or 7-11]
dHowActing[small talk, lie to impress, maybe flirt if attracted to someone]
dHowActing[polite, talking, go quickly to bar or refrig. to get beer, getdrink]

dHowActing[make sure I had liquor in suitcase, plan to go early happy hour]
dHowActing[angry, yell at an object or person, off to self, make sure get drink

dHowActing[watching the clock, planning lunches to drink, dinner partyto drink]

dHowActing[getting money out, head straight to bar]
dHowActing[driving usually, talking about where to stop to get beer, etc]
dHowActing[arguing, very defiant]
dHowActing[one action=to get a drink, deciding to go store or home or bar]

Appendix L continued

sWhatThinking[want controlling to stop, not be defensive, don't have to do tha]

sWhatThinking[oh Lord, the panic; focus on what made me mad; if drink i lose]

sWhatThinking[that there are alternatives]

sWhatThinking[going to starve, lose the house, be out in the cold]

sWhatThinking[how it got to be this way, self-evaluation my activities]

sWhatThinking[more aware of negative thought patterns, red flag change thinking

sWhatThinking[isolation, left out of group, frustrated]

sWhatThinking[if aids=why me, what am I going to do, think of smoking cigs]

sWhatThinking[It hurts a lot, a drink could help ease the loss]

sWhatThinking[what am I going to do with her, how can I get to her]

sWhatThinking[some jealous of other's being able drink, guilt over my past]

sWhatThinking[drinking not an option, no man is worth it]

sWhatThinking[would be good to take drink, but remind self of past can't contro

sWhatThinking[what to do now since reached goal, don't have to worry]

sWhatThinking[looks cool, would taste good, but I know I can't drink]

sWhatThinking[that its hopeless, nothing to be done, stuck]

Appendix L continued

sWhyFeeling[much better about self, can make a mistake]
sWhyFeeling[feelings of abandonment; all defenses are gone; anger]
sWhyFeeling[anxiety/excitment]
sWhyFeeling[stark terror]
sWhyFeeling[hurt, angry]
sWhyFeeling[low self-esteem, worthless, self-pity]
sWhyFeeling[desire not to drink, disappointed, letting others down if do]
sWhyFeeling[scared, angry, feel cheated]
sWhyFeeling[sad, disillusioned, angry]
sWhyFeeling[despair, anger]
sWhyFeeling[sad, self-pity, anger-why can't I play music it was addictive too]
sWhyFeeling[betrayed, he was a liar, been used, codependent]
sWhyFeeling[lonely, different b'c not drink, agitated, envious of them]
sWhyFeeling[less motivated-nothing to work towards, some anxiety]
sWhyFeeling[stomach gets sick, know I won't drink, taste good but awlful result]
sWhyFeeling[disconnected, self-hatred, anger at self]

Appendix L continued

sHowActing[talk out the situation, sort things out]
sHowActing[in my parent(authoritative); loud tone, arms crossed]
sHowActing[hanging around with nothing to do, no structured time]
sHowActing[right away go to a meeting, or call sponsor]
sHowActing[I often don't act, minimal, I often close down, maybe facial expres]

sHowActing[moody, irritable, shut down more]
sHowActing[quiet, withdrawn]
sHowActing[tempted to indulge self with cigarettes and food, plan to call AA]
sHowActing[basic immobile, sitting on bed, comtemplative]
sHowActing[did not know what to say, worried]
sHowActing[sitting by self, isolated, but cover up feelings with smile]
sHowActing[asking questions about her, watch TV,]
sHowActing[normal, talking a lot, no one wculd know I was envious]
sHowActing[working and going to meetings]
sHowActing[driving the car, being okay]
sHowActing[nothing or circular, sit or pace, then change to go talk or meeting]

Appendix M

Group 3's reported most important factors
in stopping to drink and in maintaining sobriety.

Stopfact[going to 1st meeting(AA); sponsor(caring);wife refused to enable (said
Stopfact[bottom-die or quit; spiritual exp.; for my children; friend caring-
Stopfact[AA; marital conflicts; health concern; antabuse]
Stopfact[AA, hitting bottom-tired of depression, ending up w/ no one to enable]
Stopfact[my boss knew I went to treatmt, could lose job, health problems]
Stopfact[realize I had lost life I wanted, disconnected with family, loss of
Stopfact[family/children, couldn't get to sons MD appt, fear loss what I had]
Stopfact[Aunt confront./death mom, broken leg=accident, anxiety out of control]
Stopfact[realize things life couldn't have if drank, friend's say she alcoholic
Stopfact[spiritual=a new life, anxiety, turning it over to god]
Stopfact[my children needed a capable parent, a friend in recovery talked to
Stopfact[counselor's intervention for treatment, threat of losing kids]
Stopfact[knowing parents were alcoholic=predisposed, sick of feel sick life]
Stopfact[got the DUI, laid off work, family got me into treatmt., treatment]
Stopfact[husband's DUI went to meeting w/him, God=realize had enough, church]
Stopfact[example from family (fath.&bro), impending pers. disaster, phys. prob]

Appendix M continued

Mainfact[AA 1x week; contact with sponsor; men's intimacy group; meditation]

Mainfact[AA; therapy; staying in touch with my feelings; learning to be vulnerable]

Mainfact[AA but now its devel. of spiritual attitudes; prayer & meditation;

Mainfact[AA, spiritual life-God's in control, develop social life, prayer]

Mainfact[going to AA meetings regularly, taking care of my feelings, friends in

Mainfact[serenity=inner peace and attitude of joy and happy, quality of relat

Mainfact[gratitude for feeling good, can talk not studder, desire not to drink

Mainfact[exercise, quiet time, therapy, AA/sponsor talking, journal, diet/vitam

Mainfact[going AA regularly (2x/wk), develop friends AA, reg. self-evaluation

Mainfact[AA regularly, working AA program, leading routine/normal struc. life]

Mainfact[AA-staying away from isolation, stay involved recovery people, 12 step

Mainfact[AA regularly, excellent sponsor, taking care of self=set boundaries]

Mainfact[job=not lose it, self=not disappointed if drank destroy me, family who

Mainfact[going to AA=action and sharing, new base of friends AA, learn 5 yrs

Mainfact[a lot of meetings=listen and talk, read a lot of 12 step, sponsor

Mainfact[stubbornness not let others down, family example, belief my life better

Appendix N

Group 3's Responses for Factors Which Accounted
for Changes in Thoughts, Feelings, and Actions.

Tchangefact[self-acceptance, via 12 step and love and therapy]

Tchangefact[knowing I have rights; more in touch with my feelings of worth]

Tchangefact[recog. have choices, think it through not "deserve it", oth reward]

Tchangefact[following AA steps, meetings, realizing depression was self-pity]

Tchangefact[physically become sober-not under influence, learn and practice sta

Tchangefact[attitude, the self-esteem improved]

Tchangefact[added responsibilities of kids and family couldn't do if drank]

Tchangefact[therapy and AA, and coming out of the closet less inadequate]

Tchangefact[awareness that if took drink I would soon be drunk again, no contr]

Tchangefact[doesn't cross mind, not an option, spiritual miracle-no compulsi]

Tchangefact[the choice, I can make it after sober a year/the experi of sober]

Tchangefact[its my choice, not think of planning to drink now, more sense]

Tchangefact[knowing what it does=destroy me, knowing that I stopped]

Tchangefact[did not want to be that way, remind self of past-if drink=drunk]

Tchangefact[I have a choice, refuse to argue now, I can walk out, not as upset]

Tchangefact[realize just b'c have thought may not be real =larger frame refere]

Appendix N continued

Fchangefact[all keep evolving and change]

Fchangefact[getting to know my feelings via therapy; i couldn't identify them]

Fchangefact[much calmer, no withdrawal]

Fchangefact[identify the negative beliefs that cause the feelings]

Fchangefact[feeling might not change but I denied them, started to accept them]

Fchangefact[more positive feelings, more serenity and peace]

Fchangefact[compassion, patience, tolerance, learn sobriety, selfrespect, attit

Fchangefact[more positive, Berne's books, RET in therapy, change attitudes]

Fchangefact[feel better of self, fear drinking makes worse feelings=ashame]

Fchangefact[complex of emotion and spiritu. I did not believe in anything I was

Fchangefact[level of self-respect for improving, enjoy doing things not drunk]

Fchangefact[my view of what's impt. may differ, getting ivolved w/ healthypeo]

Fchangefact[they're different=freer, feel better about self, not addicted]

Fchangefact[learning to feel better about myself, like who I am]

Fchangefact[still don't like criticism but realize more people are human]

Fchangefact[just b'c feel may not be real, not end world, feeling is temporary]

Appendix N continued

Achangefact[change environment, change behavior and beliefs, act not react]

Achangefact[practicing my learning in AA and therapy]

Achangefact[more responsible, do things intentionally now, control, decisions]

Achangefact[making a list of negative belief system, asking God to replace the]

Achangefact[less of a doormat, defining my own rights/space]

Achangefact[more social communication and healthy relationships (not addictive)]

Achangefact[avoid situ. awhile, stay busy-don't get lonely or lazy]

Achangefact[don't hang out in bars, watch for triggers, don't go w/old friends]

Achangefact[avoided the situations at first, but still don't hang out drinkers]

Achangefact[staying busy in AA, act instead of drink]

Achangefact[my kids, I felt incapable before, going to meetings not bars]

Achangefact[no planning or anticipate, make sure I have my car to leave, leave

Achangefact[drinking water not beer, not stay as long, sit at table not bar]

Achangefact[act different-not drink, learned to go to meetings and talk]

Achangefact[can talk to self and not withdraw, realize a different course action]

Achangefact[the increments are smaller, not such big actions, sense of options]

Appendix 0

Group 3's comments about the interview and
their recovery process in general.

Comments[I like this interview, it makes me think, trying to remember drinking
Comments[there is probably a male and female difference in your study, men are
Comments[I think the traditional routes of 12 step and treatment centers are
Comments[It helped when you showed me the triangle, it may be confusing to
Comments[In AA feel accepted as others have had similar losses/situation, etc.,

Comments[think there should be more emphasis on alcohol as spiritual problem=
Comments[Good focus in AA is the sponsor helped me to learn to be selfish, not
Comments[diet is very important to take care of self, many may need medication,

Comments[need to look at all aspects of addiction and not one perspective as
Comments[God's always looked after me, I think the focus for counselors' role
Comments[New comers should be patient as in my experience it takes years to get

Comments[initially felt crazy getting over the physical disease, had to learn I
Comments[its important to make decision to stop, can't do it myself have to
Comments[It feels good to be sober, you need to keep going to meetings=lifetime

Comments[liked the TFA stuff b'c recovery is a process of thought first, then
Comments[It was impt that I learn I could do things differently, and have a

Vita

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EDUCATION

1993 Ed.D., Counselor Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

1980 M.A., Psychology, Radford University, Radford, Virginia.

1976 B.S., Psychology, James Madison University, Harrisonburg, Virginia.

EMPLOYMENT

1989- Private Practice

1986-1991 Director of Employee Health Programs, HCA Lewis-Gale Hospital, Salem, VA.

1985 Counselor, Extended Care Services, Mental Health Services of Roanoke Valley, Roanoke, VA.

1984-1985 Psychologist B, Commonwealth of Virginia, Catawba Hospital, Catawba.

1981-1984 Senior Technical Assistant, Roanoke Valley Psychiatric Center, Roanoke, VA.

1981 Psychologist B, Commonwealth of Virginia, Lynchburg Training School and Hospital, Lynchburg, VA.

1977-1978 Program Leader, Valley Homes, New River Valley Mental Health Services, Radford.

CREDENTIALS

Licensed Professional Counselor (LPC), State of South Carolina

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