

PURPOSE IN LIFE, RELIGIOSITY, SOCIAL SUPPORT, AND PROGRAM  
INVOLVEMENT AS PREDICTORS OF SOBRIETY IN ALCOHOLICS  
ANONYMOUS PARTICIPANTS

By

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## ABSTRACT

### Purpose in Life, Religiosity, Social Support, and Program Involvement as Predictors of Sobriety in Alcoholics Anonymous Participants

Joanna Rocco

The purpose of this study was to examine the relationship between length of sobriety in members of Alcoholics Anonymous and involvement in the program of AA, religious faith, purpose in life, and social support for both males and females. Level of involvement in Alcoholics Anonymous was measured using the Alcoholics Anonymous Involvement Scale (Tonigan et al., 1996). Religious faith was measured using the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997). Purpose in life was measured by the Purpose in Life test (Crumbaugh & Maholick, 1964). Social Support was measured with the Social Support Appraisals Scale (Vaux et al., 1986).

Surveys were completed by 150 members of Alcoholics Anonymous in both Humboldt and San Francisco Counties. The findings of this study suggest that involvement in the program of AA is the strongest predictor of length of sobriety for the total sample. Significant differences were found when males and females were examined separately in terms of what variables were most strongly related to years sober. Social support had the strongest correlation of any of the variables tested with years sober for men, while AA involvement was the only variable that was significantly related to length of sobriety for women in this study. The results of this study are discussed in detail. Also

provided are recommendations for future research in this area and how these findings relate to the treatment of substance abuse disorders.

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## CHAPTER ONE INTRODUCTION

Over half of all people aged twelve or older in the United States drink alcoholic beverages (Substance Abuse and Mental Health Services Administration, 2005). Of these, 17 million (6.9% of the population) are classified as heavy drinkers, meaning they drink five or more drinks per episode on a minimum of five days in the last month (SAMHSA). 22.5 million Americans, nearly 10% of the population, are dependent on or abuse alcohol and other drugs (SAMHSA). Alcoholism is responsible for costing the United States nearly \$200 million a year (Grant et al., 2004). These costs come from the price of treatment, medical problems related to alcohol abuse, crime, car accidents caused by driving under the influence, and loss of productivity due to alcohol related illness and death (Grant et al.). Alcoholism not only causes a host of physical problems in the abuser, but also creates emotional and psychological pain for the individual as well as for their family.

Nearly 4 million Americans seek treatment for alcohol and substance abuse every year (SAMHSA, 2005). Most treatment options show only moderate success rates with around 10% of participants remaining sober for a year or more (Carter, 1998). The program of Alcoholics Anonymous (AA) is one such treatment option. AA was founded in 1935, and now has over 2 million members worldwide. There are more than 100,000 AA groups in 150 countries, with more than 51,000 of those groups existing in the United States. The official handbook of Alcoholics Anonymous, also known by members of AA as the “Big Book,” has been translated into 43 languages (Alcoholics Anonymous, 2001).

Members of AA often say “it works if you work it,” meaning that if you want to stay sober, it is important to stay involved in the program by going to meetings and doing service in AA, and by working the 12 steps in AA (see Table 1). Despite AA’s widespread availability, it is estimated that only about one-third of those who attend AA initially will continue in the long-term (Caldwell & Cutter, 1998). Regardless, it is not uncommon to find members of Alcoholics Anonymous who have achieved 20, 30, or even 40 years of continuous sobriety.

Alcoholics Anonymous is an abstinence-based program that is largely voluntary. Some courts mandate attendance at AA meetings for offenses such as drunk driving, while most long-term members stay because AA works for them. In terms of treatment options for alcoholism, AA is the mostly widely used self-help program for alcohol abuse, and is endorsed by a large number of treatment programs and professionals (Tonigan, Miller, & Connors, 2000). It is clear that there is a need for a deeper understanding of the specific processes that affect recovery from alcoholism (Miller, 1998).

Alcoholism can affect every facet of one’s life. It can cause physical dependence, withdrawal, illness, and death. Alcoholism can create economic hardship and an inability to be productive, and it can have a profound effect on one’s ability to function appropriately in intimate relationships. Most people who drink alcohol do not end up committing a crime. However, the use of alcohol is an important factor in the occurrence of unlawful acts. In the United States alone 38% of inmates in State Prison, 41% of those

Table 1

The 12 Steps of Alcoholics Anonymous

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1. We admitted we were powerless over alcohol – that our lives had become unmanageable.
  2. Came to believe that a Power greater than ourselves could restore us to sanity.
  3. Made a decision to turn our will and our lives over the care of God *as we understood him*.
  4. Made a searching and fearless moral inventory of ourselves.
  5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
  6. Were entirely ready to have God remove all these defects of character.
  7. Humbly asked him to remove our shortcomings.
  8. Made a list of all persons 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 would injure them or others.
  10. Continued to take personal inventory, and when we were wrong, promptly admitted it.
  11. Sought through prayer and meditation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out.
  12. Having had a spiritual awakening as a result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.
- 

Note: From “Alcoholics Anonymous,” Fourth Edition, 2001, pp. 59-60. AA World Services, Inc: New York

in local jails, and 41% of individuals on probation stated that they had consumed alcohol at the time they carried out their crimes (Greenfeld & Henneberg, 2001). It is a popular conviction in the program of Alcoholics Anonymous that an alcoholic who continues drinking has one of three eventual outcomes: jail, institutions, or death. For many individuals alcoholism is a disease of isolation, ethical deterioration, and demoralization.

It has been shown that those suffering from addiction have less of a sense of meaning in life as indicated by scores on the Purpose in Life test when compared with a normative control group (Nicholson et al., 1994; Padelford, 1974). In existential psychology personal well-being is associated with finding meaning or a sense of purpose in one's life. Central issues involved with this sense of meaning in life include having aims or goals, a belief that life is fulfilling or worthwhile, and a sense of excitement about what life has to offer (Marsh, Smith, Piek, & Saunders, 2003). An inability to find meaning in life eventually leads to existential vacuum or boredom, and may involve the pursuit of pleasure to dull this existential pain (Frankl, 1997). It has been suggested that substance abuse is an attempt to fill the existential vacuum caused by a lack of purpose in life (Noblejas De La Flor, 1997). An association has been found between substance abuse problems and a lack of a sense of meaning in life (Hurtzell & Peterson, 1986; Jacobson, Ritter, & Mueller, 1977; Waisburg & Porter, 1994). It has also been demonstrated that as people recover from addiction and achieve longer periods of abstinence their sense of purpose in life increases (Montgomery, Miller, & Tonigan, 1995; Noblejas De Las Flor, 1997).

Alcoholics Anonymous is a program of spiritual principals. Many of the 12 Steps of AA (see Table 1) mention God, or a “power greater than ourselves.” It therefore makes sense to look at the spirituality or religiosity of AA members when studying the effects of AA involvement and length of sobriety. Ano and Vasconcelles (2005) found that in the United States a full 96% of the adults investigated stated a belief in God. In addition, 72% of those included in the study considered religion to be the component of life that was the most significant (Ano & Vasconcelles). A study by Reimer (1995) found that almost half of Americans attended church on a weekly basis, and that over two-thirds of people in the U.S. identified themselves as having a specific religion. Ellison (1991) found that people with higher levels of religious faith were happier and more satisfied with life. Ano and Vasconcelles (2005) found that those who used positive religious coping tactics such as religious helping, surrender, finding a spiritual connection, and seeking spiritual support also reported higher levels of happiness, emotional well-being, resilience, and life satisfaction.

Religious faith may be a useful mechanism for coping with stress, a source of hope, and a way of finding meaning or purpose in one’s life (Ross, 1990). Religious faith has been shown to be negatively related to alcohol and drug abuse (Donahue & Benson, 1995; Payne, Bergin, Bielema, & Jenkins, 1991). In a sample of individuals recovering from substance abuse, Pardini, Plante, Sherman, and Stump (2000) found that those with higher levels of religious faith were more optimistic and resilient.

Part of what is unique about Alcoholics Anonymous as a treatment for alcoholism is the long-term social support network provided by other members. Alcoholics

Anonymous not only provides group meetings that one can attend, but also stresses the more intimate interaction of sponsorship, where a more experienced member “works” the 12 Steps (see Table 1) with a new member. One’s friends and family can also be a significant source of support during recovery. It has been shown that greater social support can reduce a person’s risk of developing a substance abuse disorder (Ohannessian & Hesselbrock, 1993; Shilit & Gomberg, 1987). It has also been shown that friends and family can help motivate someone with a substance abuse problem to enter treatment (Liepman & Nirenberg, 1989), and greater support for abstinence has been shown to reduce the risk of relapse (Bond, Kaskutas, & Weisner, 2003; Havassy, Hall, & Wasserman, 1991). In light of all this, it makes sense to look at recovery from substance abuse in terms of contributing factors such as a sense of meaning in life, religious faith, and social support.

This investigation looked at AA members’ length of sobriety or abstinence from alcohol and how much of the variance in years sober could be accounted for by the variables Alcoholics Anonymous involvement, a sense of purpose or meaning in life, religious faith, and social support. This study used the Alcoholics Anonymous Involvement Scale (AAI) (Tonigan, Connors, & Miller, 1996) to measure how involved members of AA have been in the program both recently and throughout their lifetime. This includes number of meetings attended in the past year and in one’s lifetime, if one has a sponsor and/or is a sponsor to another member, and how many of the 12 steps (see Table 1) one has completed in AA. Meaning in life was measured using the Purpose in Life Test (PIL) (Crumbaugh & Maholick, 1964). The PIL measures the extent that an

individual experiences purpose or meaning in life. Religiosity was measured using the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (Plante & Boccaccini, 1997). The SCSORF measures religious faith apart from religious denomination or affiliation. Social Support was calculated using the Social Support Appraisals Scale (SSA) (Vaux et al., 1982). The SSA determines how strongly an individual feels he or she is supported by other people in their life. The participants in this study consisted of a convenience sample of Alcoholics Anonymous members recruited in both Humboldt and San Francisco Counties.



## CHAPTER TWO LITERATURE REVIEW

The literature in this section will discuss alcoholism in an adult population, current options for the treatment of alcoholism, and gender differences in alcoholism and its treatment. The following material will also explain the relevance of the constructs Alcoholics Anonymous program involvement, religiosity and spirituality, meaning in life, and social support, and will also outline research that has been previously conducted and which has helped to establish the current conceptions of the variables under investigation.

### Alcoholism

Public attitudes toward those who abuse alcohol have been slow to change, and people without an alcohol problem have often blamed the abuser, viewing the abuse as a problem with self control or resulting from a deficit in morals (Royce & Scratchley, 1996). The condition of alcoholism was not recognized as a medical problem by the World Health Organization until 1951 (Royce & Scratchley). By the 1960s alcohol abuse was being viewed more as an illness as opposed to a condition caused by a defect of character or lack of values (Carter, 1998). In 1966 the American Medical Association used the term disease in reference to alcoholism, and the American Psychological Association soon followed, helping somewhat to reduce the stigma that had surrounded alcoholism for so long (Royce & Scratchley).

In his book *The Disease Concept of Alcoholism*, Jellinek (1960) introduced many of the ideas about alcoholism that are still held in regard today, along with many of the

underlying principles adopted by the organization Alcoholics Anonymous. For example, Jellinek brought to light the concepts of craving and loss of control in the alcoholic. Just one drink can create a compulsion to drink more, regardless of what the alcoholic wants or had initially planned to do, leading to feelings of embarrassment and shame. Once alcohol is in the system, the alcoholic becomes preoccupied with the next drink, and will often go to any lengths to get it. In AA, one will often hear that it is “the first drink that gets you drunk.” Jellinek defined a disease as “any deviation from a state of health; a definite marked process having a characteristic train of symptoms. It may affect the whole body or any of its parts” (pg. 11). Jellinek suggested that a working definition of alcoholism, though broad and a little vague, could be any use of alcohol that caused harm to a person, society, or both. Members of AA see the program as a treatment for the disease of alcoholism, though there may be no cure. The disease concept approaches alcoholism as a progressive disorder which, without treatment, will only become more severe (Hartman & Miller, 1996). Much like a diabetic must take insulin everyday in order to function on a normal level, so must the alcoholic treat his or her illness in order to stay healthy. The “Big Book” of Alcoholics Anonymous (2001) puts forth the idea that if an alcoholic treats the disease by staying involved in AA, and is therefore attending to his or her spiritual state, a reprieve is given which allows that alcoholic to stay sober one day at a time. Considering all of these concepts, total abstinence from alcohol continues to be the objective for the majority of treatment methods (Schneider, Kviz, Isola, & Filstead, 1995).

Royce and Scratchley (1996) view alcoholism as a public health issue.

Alcoholism affects not only the individual who is drinking, but also those in the rest of society who must pay higher insurance premiums due to the health problems caused by alcohol and are affected by deaths and injuries caused by drunk driving (Royce & Scratchley). Alcohol can damage every organ in the human body, and alcoholics have increased rates of heart attack, stroke, cancer, accidents, and cirrhosis of the liver (Maltzman, 2000). Aside from physical deterioration, the alcoholic also experiences an ethical decline, doing things he swore he would never do such as stealing or committing acts of violence (Royce and Scratchley). Maltzman (2000) believes that in order to classify something as a disease, neither its origin nor its cure need be known. Alcohol is a serious threat to health, and has recognizable and persistent signs and symptoms, which is seen by many as enough to classify it as an illness (Maltzman).

The Diagnostic and Statistical Manual of Mental Disorders – TR (American Psychological Association, 2000) doesn't use the term alcoholism, but rather distinguishes between alcohol dependence and alcohol abuse. Alcohol abuse is characterized by difficulty in social functioning. This includes having legal problems as a result of drinking, having difficulties with interpersonal relationships, doing things that might be dangerous such as driving drunk, and failing to fulfill one's obligations such as to one's children or one's job (APA). Alcohol dependence is highlighted by the continuance of drinking in spite of the problems it is causing (APA). Dependence also includes tolerance, or the need for more alcohol in order to achieve the result or feelings one wants, and both physical and psychological withdrawal (APA). At this stage of

alcohol dependence one may give up things that are important to them such as a job or a partner in order to continue drinking, may drink in isolation, and may drink for longer periods than was intended (APA). At this point one may wish to stop drinking, but is unable to do so.

A non-traditional approach to alcoholism sees heavy drinking as a learned behavior that can, in fact, be changed. Rather than seeing alcoholism as a disease that can be treated but never fully eradicated, this approach sees drinking as an action that can cause disease, but is not in and of itself a disease (Fox, 1993). Moderation Management is one alternative treatment program which is different from Alcoholics Anonymous in that it focuses on education for problem drinkers and helps its members return to moderate drinking in social or controlled situations (Fox). While the majority of treatment programs available today still focus on abstinence from drinking as the primary goal, there is a growing trend toward tailoring interventions to the individual. Marlatt and Witkiewitz (2002) point out that not everyone who has a problem with alcohol wishes to quit drinking completely, and propose that providing a choice of treatment goals such as abstinence, a return to moderate drinking, or focusing on harm reduction related to drinking behavior can increase a client's motivation to change as well as keep more people in treatment.

Sobell and Sobell (2005) see drinking problems as occurring on a continuum from mild to very severe. Less critical drinking behaviors don't necessarily get worse without treatment or require complete abstinence from drinking. Research by Sobell, Ellingstad, and Sobell (2000) indicates that some people simply outgrow problems with substance

abuse or experience a “natural recovery.” Reasons given for changes in drinking behavior by those who did not enter treatment included health concerns and family influence as well as legal, religious, social, and financial issues. Outcomes for those who resolved a drinking problem without any treatment included both abstinence and moderate drinking. In addition, more than 78% of the studies reviewed by Sobell et al. (2000) concerning individuals who had recovered from problems related to alcohol reported a certain number of recoveries as including some form of moderate drinking. Sobell and Sobell (2000) address the idea that treatments can and should be changed depending on a client’s response to the treatment, feelings about how the treatment is working, and the existing assets of that particular client.

Drinking behaviors fall on a continuum, and every alcoholic will be different in terms of the course and the progression of their disease (Maltzman, 2000). AA members will often say that alcoholism is a self-diagnosed disease, and that if one feels that they have a problem with alcohol, regardless of the amount they drink, or for how long, then it is probably worth addressing. Royce and Scratchley (1996) believe that no one chooses to live the life of an alcoholic. Alcoholism may weaken one’s ability to make sound decisions, but does not take it away completely. Realizing that drinking is affecting one’s life in a negative way and deciding to ask for help are the first steps. Recovery from the disease is what then returns complete freedom and the ability to make sound life decisions (Royce & Scratchley).

## Treatment Options

In 2004, 3.8 million Americans received some kind of treatment for a substance abuse problem (SAMHSA, 2005). Treatment for these individuals was provided at rehabilitation facilities, hospitals (this includes emergency rooms), doctors' offices, and self-help groups. Most people with alcohol-related problems don't seek treatment. In 2004, 23.48 million people currently abusing drugs, alcohol, or both, were classified as needing treatment; 21.1 million of these people did not receive any treatment (SAMHSA). According to statistics provided by SAMHSA, over 1 million Americans felt that treatment was needed for their substance abuse problem, but didn't get it. This was mostly due to cost barriers, or a desire to continue using. Others deny that they have a problem, or believe that they should be able to handle the problem on their own (Grant, 1997). Of those that do enter treatment, relapse is a very real possibility. However, people do recover from alcoholism with the help of a variety of treatment approaches.

For people who are seriously alcohol dependent, there is both inpatient treatment and outpatient rehabilitation. Due to the expanding costs of inpatient facilities, more and more people are exploring outpatient options. Primary care physicians often conduct an initial screening for alcohol-related problems by asking individuals how much and how often they drink, whether drinking is affecting their ability to function at work or in relationships, and if there is an inability to quit even if the desire to do so is present. If the answers to these questions indicate a problem with alcohol, a number of methods and treatments may be suggested. The most widely used approaches are motivational

enhancement therapies, cognitive behavioral approaches, or a twelve-step approach (Hester & Miller, 2003). Other treatments include, but are not limited to, social skills training, aversion therapy, marriage and family therapy, relaxation techniques, and sometimes the use of drugs such as antidepressants or opiate antagonists (Read, Kahler, & Stevenson, 2001).

Brief Interventions (BI) are one type of motivational approach where the client is encouraged to examine harmful drinking behavior, and then prompted to form a plan to change that behavior (Hester & Miller, 2003). Generally a clinician will meet with a client several times during this type of intervention, providing empathy, feedback, and often information and reading materials about alcoholism. A study by Bien, Miller, and Tonigan (1993) found in 32 separate trials that brief interventions could reduce the use of alcohol by up to 30%. Cognitive Behavioral (CB) treatment approaches see the abuse of alcohol as a maladaptive behavior that has been learned. CB interventions generally focus on altering any warped thinking about alcohol, while at the same time building more adaptive coping skills (Ouimette, Finney, & Moos, 1997). Twelve-step recovery programs make up the largest portion of self-help groups in existence today. The twelve-step approach provides guidelines for recovery based on a disease model of addiction, and focuses on abstinence and lifetime membership. While Alcoholics Anonymous and other twelve-step groups are anonymous, self-governing, and self-supporting (see Table 2), they are often used in addition to, or after the completion of formal treatment (Kissin, McLeod, & McKay, 2003).

Table 2

## The 12 Traditions of Alcoholics Anonymous

- 
1. Our common welfare should come first; personal recovery depends on AA unity.
  2. For our group purpose there is but one ultimate authority – a loving God as he may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern.
  3. The only requirement for AA membership is a desire to stop drinking.
  4. Each group should be autonomous in matters affecting other groups or AA as a whole.
  5. Each group has but one primary purpose – to carry its message to the alcoholic who still suffers.
  6. An AA group ought never endorse, finance, or lend the AA name to any related facility or outside enterprise, lest problems of money, property, and prestige divert us from our primary purpose.
  7. Every AA group ought to be fully self-supporting, declining outside contributions.
  8. Alcoholics Anonymous should remain forever nonprofessional, but our service centers may employ special workers.
  9. AA, as such, ought never be organized, but we may create service boards or committees directly responsible to those they serve.
  10. Alcoholics Anonymous has no opinion on outside issues; hence the AA name ought never be drawn into public controversy.
  11. Our public relations policy is based on attraction rather than promotion; we need always maintain personal anonymity at the level of press, radio, and films.
  12. Anonymity is the spiritual foundation of all our traditions, ever reminding us to place principles before personalities.
- 

Note: From “Alcoholics Anonymous,” Fourth Edition, 2001, p.562. AA World Services, Inc: New York



A large study known as Project MATCH (Project MATCH Research Group, 1997) compared the efficacy of Twelve-Step Facilitation Therapy (TSF), Cognitive-Behavioral Therapy (CBT), and Motivational Enhancement Therapy (MET) on drinking outcomes. Project MATCH included nearly 2,000 participants, many of whom were followed for over three years. Individuals in all of the groups showed reduction in drinking. One significant finding was that the outpatients in the Twelve-step facilitation group had a higher incidence of abstinence from drinking one year after treatment than the CBT or MET groups (24% versus 14% and 15% respectively). It is important to take into account that those in the TSF group had higher levels of involvement in AA (which is to be expected) and that the primary goal of AA is complete abstinence from alcohol. A study by Brown, Seraganian, Tremblay, and Annis (2002) found that an AA or twelve-step treatment approach produced better outcomes when compared with a structured relapse prevention approach.

Humphreys and Moos (1996) examined a group of previously untreated alcoholics; 66 entered outpatient treatment and 135 began attending AA. At one and three year follow-ups both groups had similar levels of recovery with about a 70% decrease in alcohol dependence indicators. Humphreys, Moos, and Cohen (1997) looked at a sample of 628 previously untreated alcoholics, of which 395 were successfully contacted at both three and eight-year follow-ups. Those patients who attended AA meetings versus outpatient services had higher levels of participation in treatment, which might account for the finding that, on average, improvement was greater in the AA

participation group when compared with the outpatient group. A study by Moos, Finney, Ouimette, Crosby and Suchinsky (1999) examined 3,018 patients from 15 Veterans Affairs substance abuse programs and compared one-year outcomes for 12-step attendance and cognitive-behavioral treatment. 45% of those in the 12-step group had been abstinent from drugs and alcohol for at least the past three months compared with 36% of those in the cognitive-behavioral program. Both groups had sizable reductions in levels of substance abuse as well as higher levels of functioning such as being employed and being free of serious psychological problems (Moos et al.).

While most treatments for alcohol abuse and dependence focus on a change in behavior early on, at the heart of AA is a focus on long-term or even lifelong care and continued abstinence from drinking. Studies using outpatient groups show stronger interactions between involvement in AA and reductions in drinking than inpatient samples and, in reality, AA participation is a conscious choice made by the individual and is not the same as a prescribed treatment of 12-step facilitation (Tonigan, Toscova, & Miller, 1995).

Overall, the consensus is that any treatment is better than no treatment, more intensive treatment generally has a greater effect, and different treatment approaches may not vary that much in terms of overall patient outcome. Waisberg and Porter (1994) found that regardless of treatment method, the two main changes reported by alcoholics who had been through treatment were the acquisition of new life skills and an overall change in outlook. It has also been proposed that treatments such as cognitive behavioral therapy and Alcoholics Anonymous have similar success rates due to sharing common

elements such as highlighting the importance of changing behavior, the alteration of faulty thinking, and the development of a new way of functioning that doesn't fit with a lifestyle involving alcohol (Ouimette et al., 1997).

### Alcoholics Anonymous Involvement

Alcoholics Anonymous began in Akron, Ohio in 1935. AA was founded by two alcoholics known today as Dr. Bob and Bill W. AA is seen by many as the precursor to the numerous self-help groups that exist today (Gabhainn, 2003). Most people who have received treatment for alcoholism have had some exposure to AA, more recovering alcoholics belong to AA than to any other organization, and treatment programs outside of AA often encourage clients to attend meetings of Alcoholics Anonymous as an adjunct to their treatment (McBride, 1991). In the 1980's Glaser and Ogborne (1982) estimated that the number of people who have been involved with AA at one time or another numbered in the tens of millions. As Alcoholics Anonymous is now in its 70<sup>th</sup> year, it is safe to say the number far exceeds that now.

Prior to the start of Alcoholics Anonymous, some of the founding members were involved with the Oxford Group, which was a Christian organization that focused on recovery from alcoholism. AA then developed as a program which focused on the spiritual side of recovery, but was not associated with any particular religious doctrine or organization. Chappel (1992) acknowledges how personal the spiritual side of AA is, and points out that even atheists and agnostics are made to feel welcome and are encouraged to join. AA proposes that one develop their own sense of a Higher Power or

“power greater than oneself.” God becomes a concept of one’s understanding, and anything that works for the individual is accepted (Swora, 2004).

Alcoholics Anonymous is unique in that it is not a formal organization. The only requirement for membership is a desire to stop drinking (see Table 2). AA sees alcoholism as a progressive and fatal disease. It is a program of abstinence, and sobriety is achieved only when one has ceased drinking, and in many cases has also stopped taking other drugs. There are no dues or fees for AA membership. Donations are made at meetings, and are only accepted from members. Anonymity is the foundation of AA (see Table 2). No records or roll calls are kept, and participants generally use only their first name to identify themselves.

Alcoholics Anonymous is a group of men and women who work together to reach the common goal of sobriety. The fellowship of AA provides members with a feeling of belonging and acceptance and helps newcomers cultivate relationships with other alcoholics. AA meetings create a social network where members can share common thoughts, feelings, and experiences while learning how other alcoholics got and stayed sober. Sponsorship provides one-on-one support and guidance. An AA sponsor is a more experienced member who assists a newer member in working the 12-steps of AA (see Table 1) and incorporating the principles of the steps in everyday life. Service work is also an important part of membership in AA. Members run the meetings, make coffee, provide literature, take meetings to hospitals and institutions, and often provide newcomers with transportation to and from meetings, as well as giving out phone numbers and overall emotional support.

The goal for many alcoholics who participate in AA is not only to stop drinking, though that may be the first step. Complete sobriety also contains the element of being able to function effectively in the world. Members often experience a shift in attitude, moving away from self-centeredness and immaturity toward a state of openness and honesty, acceptance of self and others, a willingness to take responsibility for one's own actions, and a sense of gratitude for life and the people in it (Chappel, 1992). Members often state that they are even grateful for being alcoholic; believing that recovery through Alcoholics Anonymous has allowed them to become better people than they otherwise would have been.

In 2004, of the 3.8 million individuals who received treatment for a substance abuse problem, 2.1 did so in self-help groups such as AA (SAMHSA, 2005). A number of studies exploring the efficacy of AA as a treatment for alcoholism have focused mainly on meeting attendance and how it relates to length of abstinence from drinking. McBride (1991) studied a sample of 50 AA members located throughout Florida and Georgia. It was found that the length of time members had regularly attended AA meetings was positively correlated with months of abstinence from drinking ( $r = .71$ ). The number of meetings that members had attended recently, or within the last month, accounted for 47.5% of the variance in length of abstinence.

In a study of 473 alcohol dependent individuals, Moos and Moos (2004a) determined at a one-year follow-up that of those who had not attended AA meetings, 21.4% remained abstinent, whereas those who had attended two to four meetings a week had a 42.7% abstinent rate, and those who attended more than four meetings a week

reached an abstinence rate of 61.1% ( $ps < .01$  for group comparisons). It was also found by Moos and Moss that length of time one had been involved in AA better predicted positive effects such as improved health and social functioning than rate or concentration of treatment, and that the amount of time one attended AA as well as number of meetings attended per week were positively associated with a measure of self efficacy to resist alcohol. Also important to note is the finding that those who waited longer to begin attending AA had results similar to individuals who had never gone to AA, highlighting the possibility that those who are reluctant to become active in AA may be less motivated to change their drinking behavior (Moos and Moos). A study by Timko, Moos, Finney, and Connelly (2002) of 466 individuals with alcohol problems found that one year after treatment, 48% of the subjects who attended AA after treatment were still sober compared to 21% of those who had only completed formal therapy. While these results indicate that there is something about AA that isn't present in the formal therapy, it is also possible that those who are more motivated to change self-select into the program of Alcoholics Anonymous.

Although these results are compelling, some researchers have questioned whether other aspects of AA, aside from meeting attendance alone, might also contribute to prolonged abstinence from drinking. AA as a group encourages active participation that goes beyond just showing up for meetings. Allen (2000) believed that meeting attendance was only one part of AA, and that it was also important to examine how active one is in AA and how extensively an individual incorporates the concepts and beliefs of Alcoholics Anonymous into everyday life. Tonigan et al. (1996) hold that AA

involvement consists of multiple dimensions which include meeting attendance, participation in AA, identifying one's self as a member of AA, having a sponsor, being a sponsor, sharing one's personal experience at meetings, working the suggested 12 steps (see Table 1), and providing service to other alcoholics.

A study by Montgomery et al. (1995) followed 66 individuals for 31 weeks after being discharged from an inpatient treatment setting. Follow-ups were conducted at one, three, and six months. AA involvement was found to be inversely related to intake of alcohol [ $r(49) = -.44, p = .002$ ]. A significant relationship remained after controlling for AA meeting attendance [ $r(46) = -.40, p = .002$ ]. A study by Oakes, Allen, and Ciarrocchi (2000) examined Alcoholics Anonymous involvement (AAI), purpose in life (PIL), and religious problem solving in 78 AA members from various states across the U.S. Oakes et al. found involvement in AA to be the principal predictor for length of sobriety in AA and found a strong correlation between AAI and length of sobriety ( $r = .87, p < .01$ ). When controlling for variances it was also found that AAI and PIL had a positive, significant relationship ( $r = .25, p < .05$ ), and that PIL and spiritual openness correlated significantly ( $r = .23, p < .05$ ).

In a study of 2,319 alcohol-dependent male veterans, McKellar, Stewart, and Humphreys (2003) found that participation in Alcoholics Anonymous was positively related to a decrease in intake of alcohol. At both one and two year follow-ups, the degree of AA involvement helped project later problems with alcohol. Initial levels of motivation to stop drinking did not forecast future involvement with Alcoholics Anonymous, and AA's effect was not dependent on previous experience with the

program. This study also found that the relationship between AA and more positive outcomes was not moderated by one's having less serious problems at the beginning of treatment. A study by Tonigan et al. (2000) found that higher levels of involvement with AA-related practices was predictive of abstinence, and predicted less intense drinking when relapse did occur. AA involvement also had the highest correlation ( $r = .32$ ) with length of abstinence six months after treatment.

Alcoholics Anonymous is a program that operates in the real world, not in a laboratory or controlled setting. Each meeting of AA is different, and the individuals who participate in AA are themselves extremely diverse (Tonigan et al., 1995). Each individual brings different characteristics with them into AA, which then intermingle with the program and influence the drinking outcome for that person. Many of the studies discussed in this section focus on correlational data, and motivation to change is an operating variable that must be taken into account. Higher levels of motivation to stop drinking may lead to greater involvement in Alcoholics Anonymous which then leads to improved drinking outcomes. AA may help one develop motivation to remain abstinent from alcohol, and the support network inherent in AA may also help to sustain it (McKellar et al., 2003).

### Religiosity and Spirituality

Religiosity or the practicing of a certain religion is usually defined as having a connection to, or being a member of a particular devotion or religious group (Staton, Webster, Hiller, Rostosky, & Leukefeld, 2003). Plante and Boccaccini (1997) developed



the Santa Clara Strength of Religious Faith Questionnaire (See Appendix C) in order to measure strength of religious faith apart from any specific religious denomination. This measure focuses on questions that address how important one's religion is to them, if they pray, and if their faith impacts daily decisions or provides comfort and meaning in life.

Spirituality is a difficult construct to operationalize as it is private and personal to the individual. Staton et al. (2003) conceptualize spirituality as a person's concept of a higher power and the central theme of existence. Sandoz (1999) sees spirituality as a conception of God based on what one perceives to be the ways God has influenced one's life. Waisberg and Porter (1994) state that spirituality "refers to a dimension of human psychological functioning which encompasses cognitive, emotional and moral elements" (pp. 49-50). Perhaps most simply, spirituality can be defined as an individual's connection to himself, to other people, and to the cosmos at large (Corrington, 1989).

There are a number of ways in which religion can influence well-being. Through religious practice one can meet people with common interests, expand one's social network, and cultivate a connection to a higher power. Religion can often help to answer primary life questions, and can also provide guidance in terms of ethics and morals (Ellison, 1991). There is evidence that religious involvement can act as a protective factor in the development of substance use and abuse. Miller, Davies, and Greenwald (2000) found that individual dedication to living in accordance with a particular belief system or faith was inversely associated with the development of alcohol dependence in a sample of adolescents. In a study by Mason and Windle (2002) of 1,175 adolescents in

Western New York, it was established that more attendance at church and higher ratings of the importance of religion in one's life was inversely related to the occurrence and amount of alcohol use, even when taking into account peer influence and support from family members.

Why might religious faith be important to those recovering from substance abuse? The early stages of recovery are inarguably a time of major life changes, which can leave an individual vulnerable and confused. During this time, people who have been using drugs and alcohol in order to cope with stress need to replace these substances with something positive that can also act as a safeguard or buffer. Ellison (1991) believed that faith helped put life in its proper context, as well as protecting against harm and distress due to painful life events, and helping to increase awareness that life is worth living.

Staton et al. (2003) looked at men in prison and studied their alcohol use and religiosity, or attendance at religious services, one year prior to their incarceration. It was found that a measure of religiosity was negatively correlated with use of alcohol ( $r = -.12$ ,  $p < .01$ ). Staton et al. also examined religious well-being, or one's belief in and relationship with a higher power, and found that this was also negatively correlated with alcohol use prior to incarceration ( $r = -.08$ ,  $p < .05$ ). It should be noted, however, that these correlations are quite small.

Due to the widespread use of support-groups which contain a spiritual or religious element, a number of studies have emerged which examine these elements in members of the recovery community. Pardini et al. (2000) looked at 236 individuals in California who were recovering from addiction, and found that those with higher levels of religious

faith had better coping skills and believed that they had a more secure support system than those with lower levels of religious faith. It was also found that higher scores on a measure of religious faith correlated positively with a measure for optimism ( $r = .14$ ,  $p < .05$ ) and correlated negatively with a measure of anxiety ( $r = -.16$ ,  $p < .05$ ).

Although spirituality is a key component of AA, religious affiliation prior to becoming a member may not be as important as what one does to develop his or her own spiritual program in recovery. Corrington (1989) found a clear association between spirituality and contentment regardless of the time one had spent as a member of Alcoholics Anonymous. A study by Sandoz (1999) found that fully 82% of the AA members who were subjects in the study reported having had a spiritual experience, but there was no apparent connection between attendance at church and daily prayer and likelihood to have had a spiritual experience in AA. Kaskutas, Turk, Bond, and Weisner (2003) found that by the third year in recovery, both religious and non-religious AA members were attending about the same number of AA meetings. However, those members who recounted having had a spiritual awakening since joining AA were four times as likely to have stayed sober than those who had not.

It has been put forth that spirituality and religiosity may help provide answers to key questions about life and existence, as well as providing a sense of purpose or meaning in one's life (Corrington, 1989; Ellison, 1991). Poage, Ketzenberger, and Olson (2004) examined 55 members of AA in Texas and found that number of years one had remained continuously sober was significantly and positively correlated with a measure of spirituality ( $r = .527$ ,  $p < .001$ ), and higher scores on a measure of contentment also

correlated significantly with one's spirituality ( $r = .409, p = .002$ ). In the book of Alcoholics Anonymous (2001) step 11 reads "Sought through prayer and mediation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out" (pg. 59). Carroll (1993) found that working step 11 and the number of AA meetings one attended significantly predicted scores on a measure of meaning in life. It was also found that purpose in life was more significantly correlated with completion of step 11 ( $r = .59, p < .001$ ) than with length of sobriety ( $r = .31, p < .001$ ). This is further evidence that in terms of contentment and finding a sense of meaning in life, time in AA might be less crucial than time in AA spent cultivating a spiritual belief system.

### Meaning in Life

In existential psychology a person's capacity for finding value in life is seen as crucial for happiness and security. A search for meaning involves a search for logic and reason in life, while purpose in life speaks of having aspirations and goals which one can strive for (Yalom, 1980). Marsh, Smith, Piek, and Saunders (2003) assert that in order for one to stay actively involved in his own existence, one must believe that what one does in everyday life is valuable and worth being passionate about. Yalom believed that there was both cosmic meaning, or an urge to find sense in the universe and the spiritual realm, and personal meaning, which involves what one gives to the world in terms of helping others, being creative, and making commitments both broad (i.e. political causes) and more personal (i.e. family).

Through his experience at Auschwitz, the doctor Viktor Frankl (1959) came to believe that while pain and suffering might be an integral part of life, what is essential in the life of man is his ability to discover meaning in that suffering. This gave birth to the development of logotherapy. Frankl found that even when everything had been taken away from him, he still had the ability to choose how he would react to his situation. He could still control his thoughts, his attitude, and his overall outlook on life. Frankl often thought of his wife during times of distress, and found comfort in memories of her and the belief that she might still be alive. He found strength in the idea that there might be a better life for him in the future, and talked about cultivating an inner life and an appreciation for nature. He also spoke of the importance in maintaining a sense of humor in times of great distress and holding on to the ability to feel joy. In his book *Man's Search for Meaning*, Frankl states, "Life means taking the responsibility to find the right answers to its problems and fulfill the tasks which it constantly sets for each individual" (p. 85, 3<sup>rd</sup> ed.).

Frankl (1959) used the term "will to meaning" to describe an individual's effort to uncover meaning and purpose in life, and the term "existential vacuum" to identify the feelings of indifference and weariness one might experience if there was a lack of meaning in his or her life. In today's world, due largely to advances in technology, people have more leisure time than ever before. Yalom (1980) points out that with the introduction of the assembly line, much work has lost its genuine value. Family often comes second to work, mass media highlights the importance of youth and attractiveness over substance, finances for education are constantly being cut, and the acquisition of

wealth is often touted as the primary goal for existence. All of this invariably causes some to question the importance of life in general, and their life in particular. Yalom speaks of an “existential loneliness” where one feels not only separated from other people, but from the world at large. It seems only logical that in lieu of a life filled with meaning and purpose, the pursuit of pleasure might seem like an attractive alternative (Marsh et al., 2003). For some people sex, gambling, alcohol, and drugs can become a temporary solution to the boredom and emptiness caused by the void of finding no meaning in life. Frankl (1978) emphasizes the maladaptive nature of using drugs and alcohol as a solution for filling this void, and points out that as long as one isn’t dealing with the underlying feelings that are caused by a lack of meaning, any solution will only work temporarily and will eventually cause greater distress.

Studies have shown that individuals who are abusing alcohol and other drugs tend to have lower levels of meaning and purpose in life than individuals who are not substance abusers. The Purpose in Life test (PIL) developed by Crumbaugh and Maholick (1964) is often used to measure an individual’s sense of meaning and purpose in life. It has also been demonstrated that substance abusers’ ratings of purpose in life tend to increase during treatment for drug and alcohol addiction. Padelford (1974) studied a group of 416 high school students and found a significant relationship between scores on the PIL and drug use ( $r = -.23; p < .001$ ), and found that involvement with illicit substance was higher for individuals with a low PIL scores ( $p < .001$ ). Nicholson et al. (1994) conducted a study with 98 people, half of whom were inpatient residents at a treatment center for substance abuse, and half of whom were from the general population.

The subjects who had abused alcohol and other drugs had significantly lower PIL scores than those from the control group ( $M = 79$ ,  $SD = 9$ , vs.  $M = 83.5$ ,  $SD = 5.5$ ),  $F(1, 96) = 8.64$ ,  $p < .01$ .

The belief in existential psychology and logotherapy that a person can find meaning in life even in the face of terrible and appalling situations applies well to the concept of recovery from addiction (Noblejas De La Flor, 1997). Noblejas De La Flor found that a sample of drug addicted individuals had very low PIL scores when compared with a group of non-addicted individuals in Spain who were used to obtain norms for the PIL and a test for existential frustration known as the LOGO test. However, after the drug addicted individuals completed a treatment program, PIL scores advanced until they surpassed that of the control group. Mean PIL at entry for the addicted group was 88.1, after completion of treatment the addicted mean reached 108.9 while the control group mean was 104.8. Waisberg and Porter (1994) looked at two groups of treatment inpatients ( $N1 = 55$ ,  $N2 = 40$ ) and a control group ( $N = 36$ ), and compared scores on the PIL. The mean scores on the PIL were significantly lower for the treatment sample ( $M = 88.9$ ) than for the control group ( $M = 102$ ). The first group's inpatient PIL scores went up after treatment ( $t(44) = 7.44$ ,  $p < .001$ ), as did the second group's inpatient scores ( $t(20) = 5.12$ ,  $p < .001$ ).

In his article *A View of Logotherapy from the Alcohol Field*, Koster (1991) reports many parallels between the program of Alcoholics Anonymous and logotherapy. When an individual is no longer able to fill an existential void with alcohol, one "hits bottom." This presents an opportunity to find a solution or a way to live a meaningful life. Koster

points out that in both logotherapy and AA, a person lets go of ultimate control, while still being able to make choices. Similar to the content of the Serenity Prayer, it is important to look at what one can't change and accept that, while also having the courage to change what one is able to. Both AA and logotherapy focus on developing self-worth and cultivating gratitude, and both stress the importance of using choice to turn hurtful experiences into something meaningful (Koster). Yalom (1980) put forth that we, as human beings, have the ability to both create the world we live in, and to change it. Yalom also believes that in order to change everyday existence for the better, one has to accept responsibility for his or her life, and then take action to transform it. This is consistent with the 12-steps of AA (see Table 1) which emphasize taking responsibility for one's behavior while drinking, making amends for any harm done, and committing one's self to a life of service and spiritual growth (Alcoholics Anonymous, 2001).

A study by Tonigan (2001) used data from Project MATCH ( $N = 1,726$ ) to examine PIL scores in AA across 11 different sites. It was found that more attendance at AA meetings was associated with less drinking and, in turn, fewer negative consequences related to drinking behavior. PIL and AA attendance were significantly and positively related, but the size of the relationship was very small ( $r = .05, p < .002$ ). Koster (1991) states that people have three sides, physical, psychological and spiritual, and believes that addiction affects all these parts of an individual. Carroll (1993) studied 100 members of AA and looked at purpose in life and spirituality, which was measured by completion of AA's step 11 (see Table 1). Spirituality correlated significantly with PIL scores ( $r = .59, p < .001$ ). PIL and length of sobriety were significantly correlated ( $r = .31, p < .001$ ), and



AA attendance and PIL were also significantly correlated ( $r = .24, p < .01$ ). Carroll found that spirituality accounted for 32% of the variance in PIL scores ( $R = .56, p < .001$ ), while attendance at AA and spirituality together accounted for only 35% of the variance in PIL scores ( $R = .60, p < .001$ ). These results indicate how multi-faceted the recovery process is, and highlights the importance of studying how different aspects of AA contribute to an individual's maintenance of sobriety.

### Social Support

Social support is a complex construct made up of many factors including the size of the network, the types of relationships within that network, and the specific interactions that go on within the relationships themselves (Vaux, et al., 1986). Social networks can include spouses and significant others, family members, friends, and co-workers. Social networks can span the gap from those we interact with in the community, to those with whom we are very personal and intimate (Vaux, 1988). Support encompasses the extent to which a person's needs for love, confidence, safety, and closeness are met through social relations (Vaux et al.). When examining an individual's social support network it is important to consider how close one is to the people in their network, how often they interact with these people, and how involved the individual is with his or her support structure.

In his book *Social Support: Theory, Research, and Intervention*, Vaux (1988) described one aspect of social support as being based on actions, or what people do with each other. This includes listening, showing affection, completing projects together,

providing financial assistance, and giving advice and feedback. Then there is the purpose that is served by these actions, such as developing feelings of love, belonging, and adjustment. The subjective side of social support concerns whether one feels or believes that they are cared for by others. According to Vaux, subjective appraisals may include “satisfaction, feeling cared for, respected, or involved, and having a sense of attachment, belonging, or reliable alliance” (p. 29). It is also important to consider the degree to which one’s needs for intimacy, security and well-being are met through interaction with other people (Vaux, et al., 1986).

Social support has been shown to act as a buffer against stressful life events (Windle, 1992) and can also be a source of a sense of well-being (Bailey, Wolfe, & Wolfe, 1994). It has also been studied within the context of alcohol abuse. Social support may play a role in the development of substance abuse disorders. Ohannessian and Hesselbrock (1993) found that, taken as a whole, perceived social support could act as a mediator between a family history of alcoholism and the development of alcohol-related problems later in life. A study by Shilit and Gomberg (1987) compared 301 alcoholic women and 136 non-alcoholic women. It was found that the alcohol-dependent subjects had fewer social support resources as children, as well as less existing support.

It is not just the mere presence of relationships in one’s life that forms a significant social support network, but also the level of support and intimacy experienced within these relationships. Macdonald (1987) found that alcoholic women ( $n = 93$ ) who had more primary relationships, or people they felt very connected to, were more likely to stay sober than those who were more cut off from emotional support. Specifically, at

one-year follow up after treatment 72% of women who had six or more primary supports remained sober, while only 21.4% of the women with fewer than six supports remained abstinent. Because social support is a construct that exists in one's every day life, the amount of support one receives has the capability of influencing one's drinking patterns long after one completes treatment for alcoholism (Beattie & Longabaugh, 1999).

Some studies focusing on social support and alcoholism have divided support into general social support and alcohol-specific social support, or that which is specifically directed towards reducing drinking behavior. A study by Beattie and Longabaugh (1999) found that alcohol-specific support acted as a mediator between general social support and the amount of time one remained abstinent. At a six-month follow-up, general social support explained 4.5% of the variance in days sober and alcohol-specific support added 6.1% to the explained variance in days abstinent from drinking. In the long-term (15 months after treatment) however, only alcohol-specific support added significant variance to amount of time one remained abstinent from alcohol.

Alcoholics Anonymous, as a method of treatment, provides a substantial support network for abstinence. Also inherent in AA is the focus on role-modeling, and members are often available around the clock. Friendships and networks developed in AA may help to replace dysfunctional relationships with more functional relationships that are supportive of not drinking. A study by Bond et al. (2003) found that the more AA contacts one made that encouraged abstinence, the better one's chance for remaining sober. Kaskutas, Bond, and Humphreys (2002) found that one's odds of being abstinent at follow-up was not significantly predicted by size of social network alone, but those

with AA-based support were more than 3 times more likely to remain abstinent than those with no ties to Alcoholics Anonymous.

### Gender Differences

In most countries, government surveys indicate that there are three to five times more men with a diagnosis of alcohol abuse or dependence than there are women with that diagnosis (Walter et al., 2003). Dawson (1996) examined a countrywide sample of U.S. adults aged 18 or older ( $N = 42,862$ ) who met DSM-IV specifications for alcohol abuse or dependence to assess differences between men and women in obtaining treatment for those disorders. At some point in their life 23% of men in the study and 15% of the women had gotten some form of treatment for alcohol related problems. (Dawson). While the men and women with the most serious problems were more closely matched in their rate of receiving treatment (11% of men studied and 8% of the women), overall it was projected that men were more likely than their female counterparts to have received some form of alcohol related treatment during their lifetime (Dawson).

Due to differences in quantity of water in the body, hormone levels, and differences in fatty acids, women are more susceptible than men to the effects of alcohol and often become inebriated more easily (Walter et al., 2003). Women are more likely to die from alcohol-related problems than their male counterparts (Schneider et al., 1995). Women also experience what is known as “telescoping,” a phenomenon where women, though they generally start drinking later in life than men, develop problems more quickly, which can lead them to seek treatment sooner than men (Schneider et al.).

Women may be more likely to be misdiagnosed by their primary care physicians, and are often initially treated for depression and anxiety instead of alcohol abuse or dependence (Timko et al., 2002). Having a drinking problem still carries more of a social stigma for women than for men, and women are more likely than men to live below the poverty level and have young children to care for, both of which can cause obstacles when seeking treatment (Schneider et al.).

Ogborne and DeWit (1999) examined both males and females with long-term abuse of alcohol and found that each was as likely as the other to have attended Alcoholics Anonymous at some time. A study by Timko et al. (2002) found that of members who participated in AA for eight years, women gained more from the program than men, perhaps because they tended to be worse off at the beginning and attended more frequently, especially in the first year. Timko et al. also found that women were more likely to remain sober than men at both one-year and eight-year follow-ups, even when controlling for initial condition. In contrast, Walter et al. (2003) found that women were more likely to remain sober than men during the first year of AA attendance, but were less likely to remain sober later on.

Spalding and Metz (1997) studied 88 members of Alcoholics Anonymous, half of whom were male, half female. They found a distinction between male and female participants concerning social support. Longer periods of sobriety were related to more contentment for both males and females, but for women a lower level of happiness was related to less perceived social support from family members, while for men lower life satisfaction was related to less perceived social support from friends. Schneider et al.

(1995) found that marriage could protect men from the risk of relapse, but for women being married was actually a risk factor for relapse. For men marriage appeared to serve a positive purpose, providing caring and encouragement, possibly because women make for more nurturing partners.

Nelson-Woods, Ferrari, and Juson (1995) studied 134 men living in a home for recovering addicts who were also attending Alcoholics Anonymous. Only 11% of participants reported that they had gained some type of spirituality from AA, though a full 70% of the house residents continued to go to meetings. Of those that identified themselves as AA members, 72% said they went to AA to learn skills that would help them stay sober. 53% of the men who attended AA stated that it was the sense of fellowship, or sober peer support and camaraderie in AA that kept them coming back.

Poage et al. (2004) looked at the relationship between spirituality and contentment, and found that it was significant for both women ( $r = -.701, p = .001$ ), and for men ( $r = -.339, p = .046$ ), though it was five times stronger for women. In women spirituality accounted for 49% of the variance in contentment, while in men the variance was only 11%. In addition, spirituality was significantly related to lower stress levels for women ( $r = -.585, p = .011$ ), but not for men ( $r = -.153, p = .379$ ). In this case, spirituality appeared to act as a buffer against stress for women, but not for men.

Plante et al. (1999) conducted a study on the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) in order to further validate the measure. In a sample of recovering substance abusers, t-tests were conducted to search for any gender differences in regard to religious faith. It was found that the female subjects displayed significantly

higher levels of religious faith than the male subjects ( $t(227) = 2.35, p < .05$ ). A study by Oakes et al. (2000) looked at AA members from across the U.S. and also found differences between men and women on certain measures of spirituality and religiosity, though their results showed these constructs being more meaningful for males than for females. Oakes et al. found that spiritual openness and length of sobriety were significantly and positively related for men ( $r = .37, p < .05$ ) but not for women ( $r = -.11, p = ns$ ), and found that religious practice and length of sobriety correlated significantly in the male sample ( $r = .28, p < .05$ ) but not in the female sample ( $r = -.20, p = ns$ ).

### Summary

Alcoholics Anonymous is considered an effective treatment option for alcoholism, is available and accessible, and is often used as an adjunct to other treatment approaches (Kissin et al., 2003; Tonigan et al., 2000). Involvement in the program of AA including attending meetings, getting a sponsor, and working the 12 steps (see Table 1) has been shown to be a very important variable in maintaining sobriety in AA (Montgomery et al., 1995; Oakes et al., 2000). AA is also a program that clearly focuses on spiritual elements in recovery. Studies have shown that spirituality and religious faith can positively affect one's chances of staying sober (Kaskutas et al., 2003; Poage et al., 2004). It has also been shown that one's sense that life has meaning and purpose increases with sobriety (Carroll, 1993; Noblejas De La Flor, 1997). AA provides a distinct social network of its own, and encourages its members to repair relationships damaged through abuse of alcohol. Those with more social support both inside and

outside of AA have been shown to have better chances of remaining sober than those with fewer social resources (Bond et al., 2003; Kaskutas et al., 1997). Recovery is a complex process, and AA contains many different elements that contribute to sobriety in its members. In order to better understand the process of recovery in AA this study examined Alcoholics Anonymous members' involvement with the program, sense of meaning in life, religious faith and practices, and social support in order to determine how much of the variance in amount of time abstinent from alcohol could be accounted for by each variable, and also to determine if there were any significant differences in variable correlations between males and females.



### CHAPTER 3

#### STATEMENT OF PURPOSE

It has been estimated that nearly 700,000 people receive treatment for alcoholism every day in the United States (Fuller & Hiller-Sturmhofel, 1999). Alcoholics Anonymous is an accessible and affordable treatment option for many, and its use is encouraged by the majority of treatment programs (Pagano, Friend, Tonigan, & Stout, 2004). Alcoholics Anonymous is used by more people suffering from alcohol related problems than any other treatment option (Tonigan et al., 2000).

Studies have demonstrated AA's effectiveness in helping alcoholics to achieve and maintain sobriety (Brown et al., 2002; Miller & Hoffmann, 1995; Moos & Moos, 2004a; Tonigan et al., 2000). There is a growing interest in how AA functions to help its members remain sober (Pagano et al., 2004). Some see AA as a cult that brainwashes its members into believing they have a problem with alcohol. Some believe that you must be a Christian, or at least believe in God in order to participate. Others hold onto the conception of AA as a group of people who sit around smoking cigarettes, drinking coffee, and complaining about life. Some may still think of AA as a men's club even though over a third of AA members in the U.S. and Canada are women (Tonigan et al., 2000). It is therefore important to foster a better understanding of AA as reservations about participating in the program may stem, at least in part, from a lack of understanding about how AA works (Grant, 1997; Morgenstern, Labouvie, McCrady, Kahler, & Frey, 1997). Information indicating to what extent elements of recovery in AA, such as social support networks, religiosity, and a sense of meaning in life, contribute to length of

abstinence from alcohol could potentially help encourage those already in AA to use the program more effectively, and in turn help reduce the risk of relapse for some alcoholics (Miller, Ninonuevo, Klamen, Hoffman, & Smith, 1997; Warfield & Goldstein, 1996).

The present study explored these constructs in members of Alcoholics Anonymous.

Studies have shown connections between involvement in Alcoholics Anonymous and increased abstinence from drinking (Kaskutas et al., 2003; McKellar, Stuart, & Humphreys, 2003; Montgomery et al., 1995; Moos & Moos, 2004a; Moos & Moos, 2004b), purpose in life and continuing sobriety (Carroll, 1993; Jacobson et al., 1977; Waisburg & Porter, 1994), religiosity and spirituality and substance abuse recovery (Corrington, 1989; Pardini et al., 2000; Poage et al., 2004), and social support and sustained sobriety (Beattie & Longabaugh, 1999; Bond et al., 2003; Havassy, 1991). The present investigation studied how the relationships between Alcoholics Anonymous involvement, religious faith, purpose in life, and social support interact in their relationship with sobriety and the recovery process. This investigation examined the following hypotheses:

### *Hypotheses*

*Hypothesis 1.* It was hypothesized that the constructs Alcoholics Anonymous involvement, religiosity, purpose in life, and social support, would all be positively correlated with number of years sober in AA members, and that these correlations would be statistically significant. It was hypothesized that members of AA with greater lengths of continuous sobriety would have higher scores on the Alcoholics Anonymous

Involvement scale (Tonigan et al., 1996), the Purpose in Life test (Crumbaugh & Maholick, 1964), the Santa Clara Strength of Religious Faith questionnaire (Plante & Boccaccinni, 1997) and the Social Support Appraisals scale (Vaux et al., 1986). This hypothesis examined the variables of AA involvement, purpose in life, religiosity, and social support in order to find out how much of the variance each of these variables accounted for in length of abstinence from alcohol use.

*Hypothesis 2.* It was hypothesized that Alcoholics Anonymous involvement would be the strongest predictor of abstinence from drinking as compared to measures of religious faith, purpose in life, and social support.

A study by Oakes et al. (2000) found increased involvement in Alcoholics Anonymous to be the most significant factor in predicting abstinence from drinking in AA. Greater involvement with AA has also been found to be associated with longer abstinence when controlling for other variables, including a sense of meaning in life (Montgomery et al., 1995).

*Hypothesis 3.* It was hypothesized that there would be a stronger positive correlation between length of sobriety and religious faith in females compared to males.

Plante et al. (1999) found that female participants in recovery from substance abuse showed a higher degree of religious faith than males. It has also been demonstrated that women consider spirituality to be much more of a critical factor in contentment with life than do men (Poage et al., 2004).

*Hypothesis 4.* It was hypothesized that there would be a stronger positive correlation between perceived social support and years sober for males than for females.

A study by Nealon-Woods et al. (1995) found that the majority of male subjects continued to attend AA, not for the spiritual experience, but rather for the skills learned, and the sense of fellowship the program provided. It has also been demonstrated that marriage can protect men in recovery from substance abuse against relapse, but that for women it can actually be a risk factor (Schneider et al., 1995).

The present investigation sought to answer these questions by examining the scores of members of Alcoholics Anonymous on the Alcoholics Anonymous Involvement Scale (Tonigan et al., 1996), the Purpose in Life test (Crumbaugh & Maholick, 1964), the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997), and the Social Support Appraisals Scale (Vaux et al., 1986), and how these scores related to length of abstinence from drinking. Gender differences were also analyzed in the present investigation in order to determine if males and females differed significantly on any of these constructs.

## CHAPTER 4 METHOD

### Participants

Participants for this study were 150 adult members of Alcoholics Anonymous. Two participants were removed from the final data set due to potentially invalid responding or extreme scores, which reduced the final number of participants included in the study to 148 (73 males and 75 females). All participants were adults aged 18 or older who were involved in Alcoholics Anonymous for at least one year. 77.7 % of the participants were from Humboldt County ( $n = 115$ ), and 22.3% were from San Francisco County ( $n = 33$ ). Ages ranged from 19 to 79, with a mean age of 46.31 ( $SD = 13.70$ ). Demographics for the total sample and for males and females are shown in Table 3. The majority of participants (88.1 %) were white or Caucasian and the highest percent of those surveyed indicated no religion under religious affiliation (28.1%). There were no significant differences between males and females on any of the demographic variables.

### Procedure

Data for the study was collected at AA meetings in both Humboldt and San Francisco Counties. Approval for use with human subjects was given by the Internal Review Board at Humboldt State University (# 05-45). Participation in this study was voluntary. The researcher attended open AA meetings, and at the point during the

Table 3

## Participant Characteristics

Variable		Male	Female	Total
Gender	<i>n</i>	73	75	148
	%	49.3	50.7	100
Age	Mean	47.78	44.88	46.31
	SD	13.24	14.09	13.70
Location (%)	Humboldt	74.0	81.3	77.7
	San Francisco	26.0	18.7	22.3
Ethnicity (%)	White	87.5	88.6	88.1
	African American	1.6	1.4	1.5
	Latino/Latina	1.6	1.4	1.5
	Asian	3.1	1.4	2.2
	Native American	3.1	4.3	3.7
	Biracial	3.1	2.9	3.0
Education Level (%)	Some High School	5.5	2.7	4.1
	High School Grad.	9.6	6.7	8.1
	Some College	37.0	29.3	33.1
	4 Yr Degree	31.5	44.0	37.8
	MA Degree	13.7	12.0	12.8
	PHD/MD	2.7	5.3	4.1

Table 3 (continued)

## Participant Characteristics

Variable		Male	Female	Total
Marital Status (%)	Married	38.4	28.0	33.1
	Divorced	20.5	24.0	22.3
	Separated	1.4	4.0	2.7
	Single-unmarried	32.9	28.0	30.4
	Single-cohabitating	5.5	13.3	9.5
	Widowed	1.4	2.7	2.0
Religious Affiliation (%)	Catholic	13.6	19.2	16.5
	Protestant	7.6	5.5	6.5
	Other Christian	15.2	20.5	18.0
	Jewish	4.5	2.7	3.6
	Buddhist	6.1	6.8	6.5
	Atheist	1.5	1.4	1.4
	Agnostic	6.1	5.5	5.8
	Other	19.7	8.2	13.7
	No Religion	25.8	30.1	28.1

meeting when the secretary asks if there are any announcements (usually toward the beginning), the researcher stated that surveys for a graduate thesis study involving AA members would be made available after the meeting for anyone who wished to take part. Meeting secretaries were contacted in advance in order to assure that handing out survey packets was acceptable. The researcher was usually stationed in the rear part of the room and made pens and clip-boards available to participants who wished to fill out a survey. Prior to filling out the survey participants were verbally informed by the researcher that they needed to be at least 18 years of age, that involvement in the study was voluntary and totally anonymous, and that they could stop at any time. This information is included in the first page of the survey as well, which states, "By completing the questionnaires it is assumed that you are providing your consent to participate" (See Appendix A). Participants were also instructed to remove the last page of the survey which consisted of a list of mental health and counseling facilities in their area in case any issues were brought up, or distress was experienced, due to filling out the survey (See Appendix F). Completion of the survey generally took between 15 and 20 minutes and surveys were placed in a large manila envelope after being handed to the researcher.

### Measures

*Alcoholics Anonymous Involvement Scale (AAI)* (Tonigan et al., 1996) (See Appendix B) was used to measure participation in Alcoholics Anonymous. This measure includes questions that address meeting attendance (both recent and lifetime), sponsorship, step completion, and whether or not one has had a spiritual awakening in



AA. The AAI is a self-report questionnaire with 13 items. Eight items are scored dichotomously (yes/no), and five items are scored on continuous scales. Items 8 and 9 are not used in a total calculation of the AAI, but are only used to measure AA exposure within formal treatment settings. These two items were not included in the total AAI calculations for the present study. The norms for this scale were developed using 1,726 participants in treatment for alcoholism nation wide, and were based on the sample from Project MATCH. This measure has good internal consistency with a Cronbach alpha for the total AAI scale equaling .85. Items correlated with the total score of the AAI at or above .30, and test-retest statistics showed the AAI to be consistent over a 2-day period with scores in the high .90s. Examples of questions on the AAI are: “Have you ever considered yourself a member of AA?”, “Have you ever had an AA sponsor?”, and “How many AA meetings have you attended in the last year?”

*Santa Clara Strength of Religious Faith Questionnaire* (SCSORF) (Plante & Boccaccini, 1997) (See Appendix C) was used to measure religious faith. The SCSORF is a brief self-report measure consisting of 10 items intended to measure strength of religious faith irrespective of religious association or denomination. The SCSORF uses a 4-point Likert response design with 1 = Strongly Agree and 4 = Strongly Disagree. Scores can therefore range from 10-40, with lower scores indicating stronger religious faith. The SCSORF has a high level of internal reliability with Cronbach alphas ranging between .94 and .97. Split-half reliability correlations range from .90 to .96. A study by Lewis, Shevlin, McGuckin, and Navratil (2001) found factor loadings for the SCSORF to be high, ranging from .72 - .91. Each item in the measure was a good indicator of the

overall construct of strength of religious conviction. An alpha coefficient of .93 was found, indicating good internal consistency. In terms of the measure's validity, a study by Plante, Yancey, Sherman, Guertin, and Pardini (1999) found strong correlations between the SCSORF and established measures of religiosity such as the Duke Religious Index (DRI), as well as a lack of correlation between the SCSORF and measures for depression and narcissism. Examples of statements in the SCSORF questionnaire are "I pray daily," "I look to my faith as providing meaning and purpose in my life," and "My faith impacts many of my decisions."

*Purpose in Life Test (PIL)* (Crumbaugh & Maholick, 1964) (See Appendix D) was used to measure meaning in life. The PIL is an attitude scale which measures the degree to which an individual experiences purpose or meaning in life. Frankl (1978) believed that a person who doesn't find meaning and purpose in life experiences an "existential vacuum" or a feeling of emptiness which leads to boredom and possibly depression and a need to ease internal tensions. Crumbaugh and Maholick (1964) found the split-half reliability of the PIL to be .81 with a Spearman-Brown correction to .90. Construct validity is demonstrated by significant differences in scores between psychiatric patients, alcoholics, and non-patient controls (Crumbaugh & Henrion, 1988). The PIL is a 20-item measure with each item rated on a seven point scale. Total scores on the PIL range from 20 (low purpose) to 140 (high purpose).

*Social Support Appraisals Scale (SSA)* (Vaux et al., 1986) (See Appendix E) was used to measure social support. The SSA is a 23-item questionnaire that was developed to measure the degree to which one's needs are met by one's social network or the extent

to which one believes or feels he is cared for and respected by family, friends, and others. The SSA is a personal evaluation or judgment of the quality of one's social support. The SSA uses a 4-point Likert scale where 1 = Strongly Agree and 4 = Strongly Disagree. The SSA shows good internal consistency across samples. Five samples of college students and five samples of community members provided data for the development of the SSA. Mean Cronbach alpha coefficients for three subscales of the SSA (Family, Friend, and Total) were .90, .80, and .84 for the student sample, and .90, .81, and .84 for the sample drawn from the community (Vaux et al.). Vaux et al. found significant correlations between scores on the SSA and satisfaction with support from one's network, and scores on the SSA indicating high levels of perceived social support were found to be inversely related to loneliness. Examples of statements on the SSA include "My family cares for me very much," "I feel a strong bond with my friends," and "I feel valued by other people."

### Data Analysis

Cronbach alphas for reliability of measures were completed for this study. Pearson correlation coefficients were used to test the hypothesis that scores on the AAI, the SCSORF, the PIL, and the SSA would all be positively correlated with years sober in our sample of AA members. To determine if AAI was the strongest predictor of abstinence when compared with the other variables a multiple regression analysis was conducted. Years sober was the dependent variable and AA involvement, religious faith, purpose in life, and social support functioned as independent variables. Standardized

beta coefficients were also calculated. Pearson correlation coefficients were then run separately for males and females in order to determine if years sober was correlated more highly with religious faith for females, and if length of sobriety and social support was more strongly correlated for males.

## CHAPTER 5 RESULTS

### Preliminary Analyses

Reliability for the scales used in this study sample was calculated using Cronbach's coefficient alpha ( $r_\alpha$ ). Reliability for the SCSORF was  $r_\alpha = .93$ , the PIL had a reliability of  $r_\alpha = .92$ , the SSA  $r_\alpha = .94$ , and the AAI  $r_\alpha = .50$ . The AAI was not found to be very internally consistent given that all the individuals included in the present study were highly involved with the program of Alcoholics Anonymous; hence very similar answers were given on many of the questions posed in the AAI.

Mean scores and standard deviations for males and females as well as for the total sample on the AAI, SCSORF, PIL, and SSA can be found in Table 4. In terms of length of sobriety the mean score for males was 9.40 years sober, for females the mean for years sober was 9.04. The mean score for years in AA was 13.00 for males and 12.30 for females. As shown in Table 4, differences between males and females on length of sobriety and years in AA were not statistically significant.

### *Hypotheses*

*Hypothesis 1.* It was hypothesized that the results would show significant positive relationships between length of sobriety and the variables Alcoholics Anonymous involvement, religious faith, purpose in life, and social support.

Table 4

Means and Standard Deviations (*SD*) of Measures for Males, Females, and Total Sample

Variable	Male		Female		Total		Analyses	
	Mean	<i>SD</i>	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>t</i>	<i>p</i>
Years Sober	9.40	9.36	9.04	8.41	9.21	8.86	0.246	.81
Years in AA	13.00	9.83	12.30	8.77	12.64	9.28	0.456	.65
AAI Total Score	2468.68	2507.97	2461.73	2713.60	2465.11	2606.63	0.016	.99
SCSORF	33.11	7.22	33.15	7.05	33.13	7.11	-0.032	.98
PIL	105.72	17.12	107.27	15.99	106.51	16.51	-0.566	.57
SSA	74.30	11.75	73.87	9.90	74.08	10.82	0.244	.81

Note. AAI = Alcoholics Anonymous Involvement Scale, SCSORF = Santa Clara Strength of Religious Faith Questionnaire, PIL = Purpose in Life Test. SSA = Social Support Appraisals Scale.

This hypothesis was tested using a Pearson correlation coefficient examining years sober, the AAI, SCSORF, PIL, and SSA. Because age was found to be strongly correlated with years sober ( $r = .59, p < .001$ ), partial correlations ( $r'$ ) were computed controlling for age.

Years sober showed a moderately strong correlation with the AAI ( $r = .53, p < .001$ ). When controlling for age the correlation becomes slightly weaker ( $r' = .34, p < .001$ ). There was no significant correlation between scores on the SCSORF and length of sobriety in either in the initial computation ( $r = .06, p = ns$ ) or when adjusting for age ( $r' = -.03, p = ns$ ). PIL and length of sobriety showed a moderate correlation ( $r = .31, p < .001$ ) which became weaker when controlling for age ( $r' = .22, p < .01$ ). Before running the partial correlation, years sober and the SSA showed a low correlation ( $r = .16, p < .05$ ) which became slightly stronger after controlling for age ( $r' = .22, p < .01$ ). All variables were significantly and positively correlated with years sober with the exception of religious faith. Correlations for the total sample are shown in Table 5.

*Hypothesis 2.* It was hypothesized that Alcoholics Anonymous involvement would be the strongest predictor of abstinence from drinking.

This hypothesis was analyzed using a hierarchical multiple regression analysis. Years sober was the dependent variable with age entered as the independent variable at step one and AA program involvement, religious faith, purpose in life, and social support as independent variables at step two. The multiple correlation between years sober and age was  $R = .603 (1, 143), p < .001, R^2 = .364$ . When the second set of independent

Table 5

## Intercorrelations Among Study Measures for the Total Sample

	Years Sober	AAI	SCSORF	PIL	SSA
Years Sober	--	.53***	.06	.31***	.16*
AAI	.34***	--	.01	.21**	.05
SCSORF	-.03	-.06	--	.19*	.06
PIL	.22**	.11	.16*	--	.63***
SSA	.22**	.07	.07	.66***	--

Note: Values above the diagonal are zero-order correlation coefficients and values below the diagonal are partial correlation coefficients adjusted for age. AAI = Alcoholics Anonymous Involvement Scale, SCSORF = Santa Clara Strength of Religious Faith Questionnaire, PIL = Purpose in Life Test, SSA = Social Support Appraisals Scale. .

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$



variables was added to the equation it resulted in an  $R(5, 139) = .676, p < .001, R^2 = .456$ . An examination of the standardized beta coefficients ( $\beta$ ), revealed that AA involvement was the strongest predictor of years sober,  $\beta = .280, p < .01$ . Religious faith and years sober were unrelated,  $\beta = -.034, p = ns$ , as were years sober and PIL,  $\beta = .094, p = ns$ , and years sober and social support,  $\beta = .082, p = ns$ . Alcoholics Anonymous involvement not only showed the strongest relationship with years sober, but was the only variable significantly related to length of sobriety for the total sample.

*Hypothesis 3.* It was hypothesized that there would be a stronger positive correlation between length of sobriety and religious faith in females compared to males.

This question was tested using a Pearson correlation coefficient comparing years sober in males and females and scores on the SCSORF. This hypothesis was not proven in analysis. After controlling for age years sober was not shown to be related to religious faith either for males ( $r' = .076, p = ns$ ) or for females ( $r' = .062, p = ns$ ). Table 6 provides the partial correlation coefficients (age adjusted) among study measures separately for males and females.

*Hypothesis 4.* It was hypothesized that there would be a stronger positive correlation between perceived social support and years sober for males than for females.

This hypothesis was tested using a Pearson correlation coefficient between years sober and the SSA for males and females. After controlling for age the SSA had the strongest correlation of any of the variables tested with years sober for men ( $r' = .381, p < .001$ ). For females, social support was not significantly related to length of sobriety ( $r' = -.001, p = ns$ ).

Table 6

Age-Adjusted Intercorrelations Among Study Measures for Males and Females

	Years Sober	AAI	SCSORF	PIL	SSA
Years Sober	-	.25*	.00	.32**	.38***
AAI	.43***	-	-.08	.10	.12
SCSORF	-.06	-.06	-	.24*	.11
PIL	.11	.12	.08	-	.66***
SSA	-.00	.03	.02	.66***	-

Note: Values above the diagonal are for males and values below the diagonal are for females. AAI = Alcoholics Anonymous Involvement Scale, SCSORF = Santa Clara Strength of Religious Faith Questionnaire, PIL = Purpose in Life Test, SSA = Social Support Appraisals Scale. .

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### Secondary Analyses

Secondary analyses showed that for females AAI was moderately correlated with years sober ( $r' = .432, p < .001$ ). For females, AAI was the only variable in this study that showed a statistically significant as well as meaningful relationship with length of sobriety. For males in the sample a weaker relationship was found between AAI and years sober ( $r' = .253, p < .05$ ).

## CHAPTER SIX DISCUSSION

### Introduction

The purpose of this study was to examine the relationship between length of sobriety in members of Alcoholics Anonymous and level of involvement in AA, religious faith, purpose in life, and social support in both males and females. Level of involvement in Alcoholics Anonymous was measured using the Alcoholics Anonymous Involvement Scale (Tonigan et al., 1996). Religious faith was measured using the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997). Purpose in life was measured by the Purpose in Life Test (Crumbaugh & Maholick, 1964). Social support was measured with the Social Support Appraisals Scale (Vaux et al., 1986).

Studies examining individuals with a history of alcohol abuse have demonstrated that involvement in Alcoholics Anonymous can increase one's chances of remaining sober (McBride, 1991; Montgomery et al., 1995; Oakes et al., 2000). AA identifies itself as a program of spiritual principles and practices (Carroll, 1993; Corrington, 1989). Research has indicated that spirituality and religious faith are related to greater life satisfaction and well-being (Ellison, 1991) and can have a positive impact on recovery from alcoholism (Carroll, 1993; Kaskutas et al., 2003; Poage et al., 2004). A sense of meaning or purpose in life has been shown to be below average for individuals with substance abuse problems (Nicholson et al., 1994), but tends to increase after treatment (Waisberg & Porter, 1994). Larger and more supportive social networks, both within the

program of AA and outside of AA in the form of friends and family members, have been found to increase the likelihood that one will remain sober (Beattie & Longabaugh, 1999; Kaskutas et al., 2002).

Another purpose of this research was to examine differences between males and females on the variables under investigation. The current study did find some important differences between genders. This is noteworthy as many of the studies examined as part of the relevant literature were conducted using only male participants (McKellar et al., 2003) or grouped the results for males and females together (McBride, 1991; Moos & Moos, 2004a). The present study found that social support had the strongest relationship to length of sobriety for males while involvement in AA was the only variable tested that had a significant relationship with years sober for females.

This chapter will present a summation of the current study and a discussion of hypotheses and an interpretation of the findings. Comparisons to results from previous literature will also be discussed. Implications for the treatment of substance abuse disorders will be discussed. Also included will be the limitations of this study and recommendations for future research.

## Discussion of Hypotheses

### *Research Hypotheses*

*Hypothesis 1.* It was hypothesized that the results would show significant positive relationships between length of sobriety and the variables Alcoholics Anonymous involvement, religious faith, purpose in life, and social support.

The research literature has shown that many variables are associated with length of sobriety or abstinence from drinking including involvement in Alcoholics Anonymous (McBride, 1991; Tonigan et al., 2000), purpose in life (Montgomery et al., 1995; Oakes et al., 2000), spirituality and religious faith (Carroll, 1993; Poage et al., 2004), and social support (Beattie & Longabaugh, 1999; Bond et al., 2003). In this investigation these variables were tested independently to see if each had any significant relationship with length of sobriety in AA members. The strongest correlation was found between involvement in AA and years sober. Purpose in life and years sober showed a low to moderate correlation, as did years sober and social support. The relationship between a measure of religious faith and years sober was not significant in the present sample.

The age of participants for this study ranged from 19 to 79 with a mean age of 46. The present study found age and years sober to have a moderately strong correlation ( $r = .59, p < .001$ ). In order to obtain more meaningful results, the current study used partial correlations controlling for age. The present study found a moderate correlation, after controlling for age, between involvement in AA and years sober ( $r' = .34, p < .001$ ). While this was the strongest correlation to years sober of any of the variables tested, the magnitude of the relationship suggests there are factors outside of program involvement that also contribute to length of sobriety. Humphreys et al. (1997) found that the number of AA meetings one attended in the first three years of sobriety successfully predicted abstinence from drinking at an eight-year follow-up. In a sample of 50 AA members in the southern United States, McBride (1991) found that AA attendance alone counted for 50% of the variance in length of sobriety ( $r = .71, p < .05$ ). The number of AA meetings

that individuals in the study had attended within the last month accounted for nearly half of the variance in length of abstinence from alcohol. Carroll (1993) found attendance at AA meetings and length of sobriety to have a moderately low correlation ( $r = .25, p < .01$ ).

Although these results indicate a relationship between greater AA involvement and longer lengths of sobriety, they do not suggest that involvement in AA is the sole reason for greater lengths of abstinence. Recovery from alcoholism is a complicated and lengthy process, and there are numerous confounding variables that affect whether or not an individual remains sober. This sample also consisted of highly involved individuals with an average of 9.21 years sober and 12.64 years of AA participation. It is possible that those individuals more highly motivated to stay sober were also more likely to participate in the present study. The present study consisted solely of individuals already involved in AA. AA members are a distinct group with characteristics that do not necessarily match that of a more general treatment or recovery population. AA is a useful way to maintain sobriety for some individuals. There are doubtless many individuals who attend AA and then, at some point, choose to stop participating in the program. This study focused on variables that were related to greater lengths of sobriety in AA members, but it is not known what factors contribute to length of sobriety in those that continue to remain abstinent outside of AA.

The present study found no relationship ( $r' = -.03, p = ns$ ) between a measure of religious faith and years sober in a sample of AA members. Poage et al. (2004) found spirituality to be significantly related to length of sobriety in a sample of 55 AA members ( $r = .53, p < .001$ ). Carroll (1993) found length of sobriety to be positively and

significantly correlated with a measure of spiritual practices ( $r = .25, p < .01$ ). Pardini et al. (2000) found that a sample of 236 recovering alcoholics rated themselves high on a measure of spirituality developed by the researchers, but rated personal religious faith as measured by the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997) low. Pardini et al. also found higher levels of spirituality and religious faith to be associated with better coping skills, less stress, more optimism about life, greater perceived social support, and lower levels of anxiety. Sandoz (1999) reported that 82% of subjects included in a study reported having had a spiritual experience in AA, but there was no connection found between the likelihood of having such an experience and participation in religious activities such as daily prayer and church attendance. AA is at its core a spiritual program, not a religious one. Spirituality is a broad concept that is often hard to define. Much of spirituality is internal, while certain religious practices are easier to measure. It is possible that the participants in the current study did possess levels of spirituality that weren't detected by the measure of religious faith that was used.

The current study found a low to moderate positive correlation between purpose in life and years sober after controlling for age ( $r' = .25, p < .01$ ). This is consistent with previous literature. In a study of 100 members of AA in California, Carroll (1991) found AA attendance and purpose in life to be low to moderately correlated ( $r = .25, p < .01$ ) and purpose in life and length of sobriety to be slightly more related ( $r = .31, p < .001$ ). Oakes et al. (2000) found a low correlation between length of sobriety and a measure of purpose in life ( $r = .20, p < .05$ ). While the current study did not test for moderators, it is possible



that spirituality acts as a moderating variable between length of sobriety and purpose in life (Carroll, 1993; Oakes et al, 2000).

Frankl (1978) discussed the use of drugs and alcohol as one attempt to fill an internal void or a lack of a sense of meaning in life. The 12 steps of AA (see Table 1) contain elements that could be seen as an effective means of increasing one's sense of life purpose in sobriety. These include addressing past wrongs, repairing damaged relationships, developing a spiritual relationship with a higher power, and assisting others who want to stop drinking (Koster, 1991). The relatively small correlations between purpose in life scores and length of sobriety indicate that abstinence alone isn't enough to create a full sense of life meaning. Other factors such as career choice, personal relationship satisfaction, overall health, and financial stability undoubtedly also play a crucial role.

For the total sample a low partial correlation was found in this study between perceived social support from friends and family and years sober ( $r' = .22, p < .01$ ). Existing literature regarding social support and reductions in drinking is varied as social support is a complex construct consisting of many different elements, such as whether the support was general or specifically related to abstinence from drinking. Kaskutas et al. (1997) found that support from people not in AA did not increase one's chances of remaining sober. Those with AA-based support, however, were over three times more likely to be abstinent at follow-up than those without support from other program members (Kaskutas et al.). Beattie and Longabaugh (1999) found no significant relationship between general social support and length of abstinence from drinking, but

did find that alcohol-specific support was significantly related to length of sobriety, adding 6.1% to the explained variance in amount of time sober ( $sr^2 = .061, p < .01$ ). Humphreys (1997) did find in a sample of 395 individuals recovering from alcoholism that higher quality of extended family relationships was related to abstinence from drinking ( $\chi^2 = 77.96, 14 df, p < .001$ ). MacDonald (1987) looked at women receiving treatment for alcoholism in a Canadian facility and found that those who saw themselves as having higher numbers of emotionally supportive relationships were more likely to remain sober. In this study MacDonald found that 72% of those with six or more primary supportive relationships were still abstinent at follow-up, versus only 21% of those with two or fewer encouraging supports.

*Hypothesis 2.* It was hypothesized that Alcoholics Anonymous involvement would be the strongest predictor of abstinence from drinking.

In this study Alcoholics Anonymous involvement was the strongest predictor of years sober ( $\beta = .280, p < .01$ ). Religious faith, purpose in life, and social support were not found to be predictive of length of sobriety in this analysis. This is consistent with previous literature showing involvement in AA to be the single most important predictor of sobriety in AA. Montgomery et al. (1995) found AA involvement to be inversely related to drinking at a six-month follow-up [ $r(49) = -.44, p = .002$ ]. A study by Tonigan (2001) indicated that the most significant advantage connected with AA attendance was a decrease in alcohol consumption. Attendance at AA meetings was also found to be significantly and negatively related to harmful consequences resulting from drinking. Tonigan et al. (2000) found in a large sample taken from Project MATCH that 28% of

the variance in alcoholic drinking was predicted by engagement in behaviors related to AA. Participation in AA was also related to better overall functioning after formal treatment. In a study with many of the same variables as the current study, Oakes et al. (2000) looked at involvement with AA, purpose in life and religious problem solving in 78 AA members from Maryland, Kansas, Missouri, South Carolina, and California. AA involvement was found to be the sole significant predictor of sobriety ( $r = .33, p = <.01$ ) after controlling for gender, employment status, marital status and education.

The results of this study, as well as those in the existing literature, indicate that increased involvement with AA is associated with greater lengths of abstinence. Involvement in AA alone does not necessarily lead to greater life satisfaction, overall contentment, improved relationships, or spiritual fulfillment. Alcoholics Anonymous is one of many treatment options for people addressing alcohol abuse, and its focus on spiritual development and life-long membership may not appeal to everyone. It is also important to note that complete abstinence from drinking is not a primary goal for everyone who seeks treatment for problems with alcohol (Marlatt & Witkiewitz, 2002; Sobell & Sobell, 2000).

*Hypothesis 3.* It was hypothesized that there would be a stronger positive correlation between length of sobriety and religious faith in females compared to males.

In the present study religious faith was not found have a significant relationship with years sober for either males or females. This is not altogether surprising as the literature regarding gender differences and spirituality in the realm of recovery from alcoholism has been mixed. A study by Poage et al. (2004) showed that the relationship

between a measure of spirituality and personal contentment was five times stronger for women than for men. Higher levels of spirituality were also linked to lower stress for women. Plante et al. (1999) examined a sample of recovering addicts in Northern California and found that females scored significantly higher on a measure of religious faith than males ( $t(227) = 2.35, p < .05$ ). Conversely Oakes et al. (2000) found both spiritual openness and religious practices to be significantly correlated with length of sobriety for men, but not for women ( $r = .37, p < .05$  and  $r = .28, p < .05$  for men;  $r = -.11, p = ns$  and  $r = -.20, p = ns$  for women).

*Hypothesis 4.* It was hypothesized that there would be a stronger positive correlation between perceived social support and years sober for males than for females.

This hypotheses was proven as a measure of social support had the strongest age adjusted correlation of any of the variables tested with years sober for men ( $r' = .381, p < .001$ ). For females in the sample social support was not significantly related to length of sobriety ( $r' = -.001, p = ns$ ). This is consistent with previous research that has suggested that men and women may differ in terms of how social support networks affect recovery from alcoholism. In a study by Schneider et al. (1995) of 595 individuals in treatment for alcohol dependence it was shown that being married was significantly related to abstinence from drinking for men, but not for women. There was also a link found in the study between relapse and a poor quality of relationship with family members for males but not for females (Schneider et al.). Nealon-Woods et al. (1995) looked at male residents in a transitional living home and found that while the majority of participants in the study attended Alcoholics Anonymous meetings, for most the development of

spirituality was not the primary motivator for becoming involved in the program. In fact, fully 72% of those interviewed stated that for them the key reason for continuing to attend AA meetings was to meet other people with similar experiences and to learn tools helpful in maintaining sobriety.

Secondary analyses for this hypothesis showed that for females involvement in AA was moderately correlated with years sober ( $r' = .432, p < .001$ ). For women, AA involvement was the only variable studied that was significantly related to length of sobriety. The relationship between years sober and involvement in AA was weaker for males in the sample ( $r' = .253, p < .05$ ). A study by Timko et al. (2002) followed 466 problem drinkers in California for nearly eight years and found a stronger association between AA attendance and a reduction in drinking for women than for men. It was proposed that, in terms of remaining abstinent from alcohol, women may have gained more from AA either because they were in poorer shape at baseline and were therefore more likely to attend AA, or because AA's core beliefs concerning powerlessness and a dependence on a higher power were easier for women to accept (Timko et al.). Social networks are in themselves complicated, and involvement in AA can change one's social networks not only by fostering sobriety, which then improves relationships at home, but is also a place where one can cultivate new friendships with other people who share similar goals and concerns (Bond et al., 2003). The results of this study suggest that a perception of positive social support from family and friends outside the program of AA may be more significantly related to sobriety for men in recovery, while the kind of

support one receives from those also in the program network of AA may be more important to for women.

### Limitations

#### *Design*

This study used a correlational design. Correlations can distinguish relationships between variables, but do not signify causation. It is important to note that while this study found that for the total sample involvement in AA was moderately correlated with years sober, it cannot be said that greater involvement in AA directly leads to longer sobriety.

### Instruments

It should be noted that any scale used in a study to measure a particular variable influences the results of that study. In the present study the Alcoholics Anonymous Involvement scale (Tongian et al., 1996) was not found to have a high level of internal consistency ( $r_\alpha = .50$ ). The AAI was developed in the context of Project MATCH, was formed from a large data base, and was shown to have high internal consistency at .85 (Allen, 2000). The current study examined AA members with a high average length of sobriety ( $M = 9.21$  years) for the total sample. The average for years involved with AA for the total sample was 12.64. In other words, this was a highly engaged and involved sample with a high meeting attendance rate and therefore many of the answers on the scale were the same for every participant. If this study had included a more general

treatment seeking population or had consisted of more individuals in early sobriety involvement in AA would have been more varied.

This study found a complete lack of correlation between a measure of religious faith and length of sobriety for either the total sample or for males and females taken separately. The Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997) was designed to measure strength of religious faith without assuming the person belongs to a particular religion or denomination. AA promotes fostering a spiritual connection to a higher power, and it is possible that spirituality within the confines of AA is a very different construct from religious faith and was simply not emphasized by this measure of religiosity. In addition, under the religious affiliation portion of our demographic data the largest portion of our participants indicated that they had no religious affiliation (28%).

### *Sample*

The results of this study may not generalize to a broader range of individuals with substance abuse disorders or to AA participants in general as this was a convenience sample of fairly active AA members with considerable time sober. There may be a motivational compound or bias present in those who chose to fill out survey packets. Results may not transfer to those with less time sober or those not involved in AA or other self-help recovery programs. All participants were recruited from meetings in Northern California. There is a great deal of diversity among AA meetings across geographic areas not represented in the current study. There was also a lack of cultural

diversity in the sample as the participants were almost exclusively Caucasians. All these factors taken together limit the generalizability of the results.

### Implications for the Treatment of Alcoholism

Treatment for substance abuse disorders often takes a one size fits all approach. There aren't many programs that propose or implement a variety of approaches customized to fit individual needs. Growing trends toward the exploration of treatment matching highlight the need for greater evaluation of a client before they enter formal treatment in order to consider a person's particular goals and to explore treatment options (Hester & Miller, 2003). It is important for clinicians to focus on therapies that have been shown to work in clinical studies, and to foster clear goals and treatment plans as part of treating addiction disorders (Hester & Miller).

It is rarely disputed that for some AA can be beneficial when used in conjunction with other treatments (Tonigan et al., 2000). Self-help groups such as AA afford a much greater level of availability than an individual therapist (Emrick et al., 1993). It is important for clinicians to gain knowledge about AA's fundamental principles and beliefs and counselors in the field of addiction should attend meetings of AA and read the relevant literature associated with the program (Hester & Miller, 2003). Hester and Miller also point out that a therapist's own personal belief in the value of a particular treatment can effect how a client then responds to that treatment. Better understanding of how involvement in AA may play a part in successful recovery can be a powerful



motivating tool for clinicians, and knowledge about AA can help answer questions regarding the program and address negative stereotypes that may exist about AA.

It is uncommon for mental health workers to be exposed to any specific training in spiritual or religious issues (Pardini et al., 2000). Spirituality is a broad concept that is often not well defined, and religious matters have often been left to clergy and others who are thought of as separate from the mental health field. Given, however, that most people in the U.S. state a belief in God (Ano & Vasconcelles, 2005) and the fact that spiritual recovery programs like AA are not only enduring but growing, it appears that there is a need for mental health clinicians to start getting comfortable with spiritually based treatment processes.

There also appears to be a connection between recovery from alcoholism, spirituality, and a sense of meaning in life (Carroll, 1993; Waisberg & Porter, 1994). It is unclear whether people drink because they lack a sense of life purpose, or if meaning in life declines as a result of alcoholic drinking, but it is apparent that people recovering from alcoholism begin to regard themselves and those around them in new and more positive ways. Frankl (1978) discusses the concept of a “will to meaning” or a necessary effort to find meaning and purpose in life. If one fails to find meaning one experiences an “existential vacuum” which may be filled with drugs and alcohol, though these only mask the underlying problem and eventually make it worse. Frankl points out that one’s own sense of meaning must be uncovered by the individual; it cannot be handed over like a gift from therapist to client. A clinician may, however, help and support an individual in their quest for meaning. The group experience of AA, which includes seeing others

who have made progress toward achieving happy and healthy lives in recovery, can also play a powerful role in this process.

Social support is integral to recovery as it is a part of one's existing world and can provide a level of influence that reaches far beyond any one treatment intervention (Schneider et al., 1995). Alcoholics Anonymous cultivates recovery from alcoholism in part by enhancing the quality of existing relationships, helping one to develop better communication skills, and providing an important source of positive reinforcement to remain sober (Hester & Miller, 2003). Friendships of remarkable closeness also often develop in AA. Alcoholism is largely connected to a person's social network, and these networks have a large impact on one's likelihood of staying sober (Humphreys et al., 1997). Bond et al. (2003) point out that for those who have problems with alcohol, drinking patterns and relationships with others who still drink can play a large role in daily life. AA can be an important tool for countering the negative effects of these old behaviors and social networks that may encourage drinking.

Shneider et al. (1995) state that there is a definite need to study how men and women may respond differently to specific treatments. Of particular interest in the present study are the apparent differences between males and females in regards to what factors related to length of sobriety. For men in the study perceived social support from friends and family was the factor most significantly related to length of sobriety, while for women it was involvement in the program of Alcoholics Anonymous. Do women have a need for more internal growth and positive experience while men need more external support and reinforcement? Is successful sobriety more tied to psychological

functioning for women while men's needs are more social? AA's appeal may be growing for women seeking sobriety for a few reasons. AA attendance is free, and more women than men live below the poverty line. AA is also a program of anonymity which may be attractive to women who still feel that there is a greater social stigma attached to females with drinking problems than there is for males.

These findings do suggest that men and women may require different focuses in treatment, especially those who have total abstinence from drinking as a goal and are inclined to participate in a 12-step program as a part of recovery from alcoholism. Women seeking to achieve long term abstinence from drinking may benefit more from increased concentration on recovery program participation and 12-step work, while their male counterparts may benefit from additional counseling that includes close family members. Men may also wish to focus more on maintaining and strengthening existing friendship networks outside of the program of Alcoholics Anonymous. Alcoholism is a complicated and multifaceted condition which necessitates a multidimensional treatment approach and an understanding of what factors are most influential in recovery (Oakes et al., 2000). Understanding what aspects of programs such as AA may be most beneficial for both men and women in recovery could greatly help treatment providers develop better post-treatment recovery plans and also help those in the process of recovery cultivate a personal course of action that best reduces their chance of relapse.

### Recommendations for Future Research

In addiction research the tendency has been to focus on comparing how effective different treatment approaches are in helping individuals maintain sobriety or abstinence from drinking. More recently there has been a trend toward studying the particular processes of certain treatments. The program of AA has existed for decades, and the number of people who consider themselves members of AA continues to grow. It is clear that AA helps some people to get sober and to remain sober for significant lengths of time. What is needed is a greater understanding of how specific aspects of AA factor in recovery from alcoholism. Understanding the specific and underlying processes of AA may help individuals utilize the program more effectively. While spirituality is an integral part of the program of AA, in order to fully understand its role in the recovery process a more precise and complete measure of spirituality is needed. Studies illustrating how spirituality, purpose in life, and social support networks both inside and outside of the program all work together to impact one's ability to stay sober are essential.

It is important for studies to continue to research what qualities in a person might make them most likely to benefit from AA, and this includes gender specific research. Researchers typically do not run separate analyses for males and females, though there is growing evidence that men and women may operate differently after treatment (Schneider et al., 1995). The gender differences found in this study and in previous research point to a need to explore how the recovery process may be different for men

and women. AA is a program of voluntary affiliation, and studies using those forced to attend AA or individuals randomly placed in 12-Step facilitation groups do not reveal how AA actually functions. Recovery from addiction is a dynamic process that occurs over time and more long-term studies may highlight individual change processes. Larger studies using actual members of AA are needed to discover important aspects of how recovery happens and how programs like AA can be better utilized for particular individuals.

### Conclusion

Overall, the results from this study indicate that for those attempting to remain abstinent from alcohol by participating in a self help group such as Alcoholics Anonymous, greater involvement in that program may help contribute to that goal. For the sample as a whole, involvement in Alcoholics Anonymous was the variable most strongly related to length of sobriety. This is consistent with previous findings (Montgomery et al., 1995; Oakes et al., 2000; Tonigan et al., 2000). The current study found no relationship between a measure of religious faith and length of sobriety either for the total sample, or for males and females examined separately. This highlights the need for a more valid and reliable measure of spirituality for use in the recovery population.

This research contributed to existing literature by examining males and females separately in terms of what variables were most significantly related to length of sobriety in a sample of AA members. Results of this investigation suggest that factors related to

sobriety differ between men and women. Specifically, findings of this study indicate that men who stay sober may profit more from a focus on social networks consisting of family and friends, while women may gain more from greater involvement in specific treatments or support groups such as Alcoholics Anonymous. Results from the present investigation promote the need for further examination of gender differences in the treatment of substance abuse disorders.

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## APPENDIX A

### FIRST PAGE OF QUESTIONNAIRE

Dear Participant:

This study is being conducted to understand the relationship between measures of personal and psychological well-being in persons involved in AA. We would greatly appreciate your participation in our study by completing the attached questionnaires that describe characteristics of individuals. The survey will require about 15 to 20 minutes to complete. **Participation in this research is voluntary.** By completing the questionnaires it is assumed that you are providing your consent to participate. **Please do not write your name anywhere on the survey. If at any time you feel like stopping and no longer wish to participate, please do so.**

If you have any questions, please contact Dr. William Reynolds at Humboldt State University, (707) 826-3162. We hope that you find the questionnaires interesting. **If you are under 18 years of age please do not participate in this survey.** Please fill out all of the demographic questions below and on the back page and then continue with the questionnaires. Remember, there are **no right or wrong answers**, just how you feel. We thank you in advance for your assistance.

**Be sure to fill out both the front and back side of each page.**

### Information Form

Age: \_\_\_\_\_ Gender: Male Female Ethnicity \_\_\_\_\_

Highest Education \_\_\_\_\_ Some High School \_\_\_\_\_ High School Grad \_\_\_\_\_ Some College  
\_\_\_\_\_ 4 yr College Degree \_\_\_\_\_ MA \_\_\_\_\_ Ph.D./LLD/MD

Are you currently: 1. married 2. divorced 3. separated 4. single-unmarried  
5. single-cohabitating 6. widowed

Current living arrangement (circle one): 1. living with spouse/significant other  
2. living with other family/relatives 3. living by self. 4. living with roommate(s)  
5. living in treatment facility/halfway house 6. homeless/temporary shelter  
7. other \_\_\_\_\_

Do you have any children: Yes No

If yes, how many are living with you at present? \_\_\_\_\_

What is your current job? \_\_\_\_\_

How many hours/week do you work? \_\_\_\_\_

---

How often in the ***past year*** have you formally practiced your religion (e.g. religious ceremonies at place of worship or home, etc.):

***1. Once a week or more 2. Several times a month 3. About once a month***  
***4. Several times a year 5. Once a year 6. Never***

Have you had a drink of alcohol in the past month? Yes No

How long has it been since you had an alcoholic drink? Months \_\_\_\_\_ Years \_\_\_\_\_

Have you seen a psychologist or counselor in the past two months? Yes No

If yes, for what reason? \_\_\_\_\_

Please check if you are currently taking or have taken any medications in the past month for the following problems:

<input type="checkbox"/> allergies	<input type="checkbox"/> depression	<input type="checkbox"/> migraines	<input type="checkbox"/> weight control
<input type="checkbox"/> anxiety	<input type="checkbox"/> diabetes	<input type="checkbox"/> neurological	<input type="checkbox"/> other 1: _____
<input type="checkbox"/> asthma	<input type="checkbox"/> digestive	<input type="checkbox"/> pain (chronic)	<input type="checkbox"/> other 2: _____
<input type="checkbox"/> blood pressure	<input type="checkbox"/> skin problems	<input type="checkbox"/> STD	<input type="checkbox"/> other 3: _____
<input type="checkbox"/> eating disorder	<input type="checkbox"/> sleep problems	<input type="checkbox"/> birth control	<input type="checkbox"/> other 4: _____

Have you ever lived out on the streets (as either a runaway or homeless)? Yes      No

If yes, for how many months? \_\_\_\_\_

Religious affiliation: ☐ Catholic ☐ Protestant ☐ Other Christian ☐ Jewish  
☐ Muslim ☐ Buddhist ☐ Atheist ☐ Agnostic  
☐ Other \_\_\_\_\_

When did you first start attending Alcoholics Anonymous (AA) meetings?

Month: \_\_\_\_\_ Year: \_\_\_\_\_

**Please indicate the extent to which you agree or disagree with the following statements:**

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. My religious faith is extremely important to me.....	1	2	3	4
2. I pray daily.....	1	2	3	4
3. I look to my faith as a source of inspiration.....	1	2	3	4
4. I look to my faith as providing meaning and purpose in my life.....	1	2	3	4
5. I consider myself active in my faith or religion.....	1	2	3	4
6. My faith is an important part of who I am.....	1	2	3	4
7. My relationship with God is extremely important to me.....	1	2	3	4
8. I enjoy being around others who share my faith.....	1	2	3	4
9. I look to my faith as a source of comfort.....	1	2	3	4
10. My faith impacts many of my decisions.....	1	2	3	4



## APPENDIX B

### ALCOHOLICS ANONYMOUS INVOLVMENT SCALE

## AA Questionnaire

1. Have you ever attended an AA meeting?	No	Yes
2. Have you attended an AA meeting in the last year?	No	Yes
3. Have you ever considered yourself to be a member of AA?	No	Yes
4. Have you ever gone to 90 meetings in 90 days?	No	Yes
5a. Have you ever celebrated an AA sobriety birthday?	No	Yes
5b. If Yes, how many AA sobriety birthdays have you celebrated ( <i>best estimate</i> )?		
6. Have you ever had an AA sponsor?	No	Yes
7. Have you ever been an AA sponsor?	No	Yes
8. Have you ever had a <i>spiritual awakening</i> or <i>conversion experience</i> since your involvement in AA?	No	Yes
9. Have you ever been required by a court or judge to attend 12-step meetings?	No	Yes
10a. Have you ever been in an alcohol treatment program ( <i>inpatient or outpatient</i> ) other than AA? (if no, go to question 12).	No	Yes
10b. If you have been in an alcohol treatment program ( <i>inpatient or outpatient</i> ) did they require that “work” any of the AA steps?	No	Yes
11. What steps did you complete when you were in alcohol treatment? <i>Circle all that apply</i>	1 2 3 4 5 6 7 8 9 10 11 12	
12. Regardless of whether you have or have not been to alcohol treatment, which of the 12 steps of AA have you “worked”?	1 2 3 4 5 6 7 8 9 10 11 12	
13a. How many AA meetings have you attended in the last year? Please enter your <b>best estimate</b> . If you have never attended any meetings enter 0.		
13b. How many other 12-step meetings (other than AA) have you attended in the <b>last year</b> ?		
14a. What is the total number of AA meetings that <b>you have ever</b> attended? Please enter your best estimate. If you have never attended any meetings enter 0.		
14b. How many other 12-step meetings (other than AA) have you attended in your whole lifetime?		

*Note: AA = Alcoholics Anonymous.*

## APPENDIX C

### SANTA CLARA STRENGTH OF RELIGIOUS FAITH QUESTIONNAIRE

**Please indicate the extent to which you agree or disagree with the following statements:**

<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. My religious faith is extremely important to me.			
1	2	3	4
2. I pray daily.			
1	2	3	4
3. I look to my faith as a source of inspiration.			
1	2	3	4
4. I look to my faith as providing meaning and purpose in my life.			
1	2	3	4
5. I consider myself active in my faith or religion.			
1	2	3	4
6. My faith is an important part of who I am as a person.			
1	2	3	4
7. My relationship with God is extremely important to me.			
1	2	3	4
8. I enjoy being around others who share my faith.			
1	2	3	4
9. I look to my faith as a source of comfort.			
1	2	3	4
10. My faith impacts many of my decisions.			
1	2	3	4

## APPENDIX D

### PURPOSE IN LIFE TEST



13. I am a  
very irresponsible person;                      very responsible person.  
1       2       3       4       5       6       7
14. Concerning people's freedom to make their own choices I believe people are:  
completely bound by the limitations                      absolutely free to make  
of heredity and the environment;                      all life choices.  
1       2       3       4       5       6       7
15. With regard to death, I am:  
unprepared and frightened;                      prepared and unafraid.  
1       2       3       4       5       6       7
16. With regard to suicide, I have:  
thought of it seriously as a                      never given it a  
way out;                      second thought.  
1       2       3       4       5       6       7
17. I regard my ability to find a meaning, a purpose, or a mission in life as:  
practically none;                      very great.  
1       2       3       4       5       6       7
18. My life is:  
out of my hands and controlled                      in my hands and  
by external factors;                      I am in control of it.  
1       2       3       4       5       6       7
19. Facing my daily tasks is:  
a painful and boring experience;                      a source of pleasure and satisfaction.  
1       2       3       4       5       6       7
20. I have discovered:  
no mission or purpose                      clear-cut goals and a  
in life;                      satisfying life purpose.  
1       2       3       4       5       6       7

## APPENDIX E

### SOCIAL SUPPORT APPRAISALS SCALE



**Below is a list of statements about your relationships with family and friends.**

**Please indicate how much you agree or disagree with each statement as being true.**

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. My friends respect me.	1	2	3	4
2. My family cares for me very much.	1	2	3	4
3. I am not important to others.	1	2	3	4
4. My family holds me in high esteem.	1	2	3	4
5. I am well liked.	1	2	3	4
6. I can rely on my friends.	1	2	3	4
7. I am really admired by my family.	1	2	3	4
8. I am respected by other people.	1	2	3	4
9. I am loved dearly by my family.	1	2	3	4
10. My friends don't care about my welfare.	1	2	3	4
11. Members of my family rely on me.	1	2	3	4
12. I am held in high esteem.	1	2	3	4
13. I can't rely on my family for support.	1	2	3	4
14. People admire me.	1	2	3	4
15. I feel a strong bond with my friends.	1	2	3	4
16. My friends look out for me.	1	2	3	4
17. I feel valued by other people.	1	2	3	4
18. My family really respects me.	1	2	3	4
19. My friends and I are really important to each other.	1	2	3	4
20. I feel like I belong.	1	2	3	4
21. If I died tomorrow, very few people would miss me.	1	2	3	4
22. I don't feel close to other members of my family.	1	2	3	4
23. My friends and I have done a lot for one another.	1	2	3	4

## APPENDIX F

### MENTAL HEALTH COMMUNITY RESOURCE LISTS

Please remove this page.

We wish to thank you for completing this survey. Your participation has been of significant value in answering a number of research questions.

Some of the questionnaires ask about aspects of social and emotional well-being that may be potential areas of concern for you. People sometimes, while completing the questionnaires, become aware of behaviors and thoughts that may suggest the need to talk to a professional or seek out further information.

This recognition and self-awareness can be a very useful outcome of completing the survey.

If, after completing the survey, you recognize that there may be some issues or feelings that are a potential problem for you, we strongly urge you to contact a professional to talk about your concerns or to answer questions that you may have.

The following agencies and resources are available for you to contact:

**Humboldt County Mental Health**

1711 3<sup>rd</sup> St., Eureka, CA  
(888) 849-5728

**Mental Health Services for Humboldt County**

720 Wood St., Eureka, CA  
(707) 268-2900

**Davis House Counseling Clinic**

HSU Campus, Arcata, CA  
(707) 826-3921

**Alcoholics Anonymous**

Eureka, Ca  
(707) 442-0711

**Once again, we thank you for your participation in the research project.**

Please remove this page.

We wish to thank you for completing this survey. Your participation has been of significant value in answering a number of research questions.

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This recognition and self-awareness can be a very useful outcome of completing the survey.

If, after completing the survey, you recognize that there may be some issues or feelings that are a potential problem for you, we strongly urge you to contact a professional to talk about your concerns or to answer questions that you may have.

The following agencies and resources are available for you to contact:

**San Francisco Mental Health**  
**3850 17<sup>th</sup> St., San Francisco, CA**  
**(415) 487-7530**

**Community Mental Health Services**  
**1380 Howard St., San Francisco, CA**  
**(415) 255-3400**

**Westside Community Mental Health**  
**2513 24<sup>th</sup> St., San Francisco, CA**  
**(415) 674-6255**

**Alcoholics Anonymous**  
**1821 Sacramento St., San Francisco, CA**  
**(415) 674-1821**

**Once again, we thank you for your participation in the research project.**