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Altruism and alcohol dependence: is there a relationship between helping others and recovery?

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ALTRUISM AND ALCOHOL DEPENDENCE: IS THERE A RELATIONSHIP BETWEEN HELPING OTHERS AND RECOVERY?

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ABSTRACT

Alcoholics Anonymous (AA) and the Twelve Steps have been instrumental in the recovery of numerous persons who are alcohol dependent. Altruism has been found to have a positive effect on physical and psychological functioning in diverse populations. A key component of AA is altruistic helping and service to others to recover from alcohol dependency. The current study explores the relationship between altruism and recovery from alcohol dependency. Self-report survey data focusing on altruism, AA altruistic activities, and recovery from alcohol dependence was collected from 92 AA members and analyzed to assess for correlations between altruism and recovery. No statistically significant relationship between altruism and recovery from alcohol dependence emerged. Therefore, altruism should not be utilized as a primary mode of treatment for alcohol dependence until further evidence demonstrates the positive effect of altruism on recovery.

CHAPTER 1: INTRODUCTION

Alcoholics Anonymous (AA), a nonprofit group focusing on social, spiritual, and psychological restructuring in the treatment for alcohol dependence (Davis & Jansen, 1998), has been a popular choice for recovery from alcohol dependence around the world (McCrady & Miller, 1993). There are many reasons why, according to research, AA works for the individual who is alcohol dependent. One study claims the social aspect of the program is what most motivates people (Nealon-Woods, Ferrari, & Jason, 1995). Another found that the spiritual aspect is correlated to positive outcomes (Carroll, 1993). Chen (2006) concluded that actual participation in the Twelve-Step recovery program is important. Almost all the literature on the effectiveness of AA indicates that greater attendance and participation in AA meetings are correlated with more positive outcomes than just about any other factor (Gossop, Stewart, & Marsden, 2007; Kropp, Manhal-Baugus, & Kelley, 1996; Laffaye, McKellar, Ilgen, & Moos, 2008; McKellar, Stuart, & Humphries, 2003; Noda et al., 2001; Ouimette, Finney, & Moos, 1997).

One fundamental notion in the AA literature is the idea that helping others will offer persons recovering from alcohol dependence protection from their problems with alcohol. In the AA basic text, the idea of serving others is directly referenced 50 times and is referred to indirectly in numerous other places within the book and in the personal stories that comprise the last two thirds of the book (Alcoholics Anonymous [AA] World Services, 2001). The authors speak of service to others as the way to recover (AA World Services, 2001). Yet, the role of altruistic activities and helping behaviors in recovery from alcohol dependence and chemical dependency has been explored in only a few studies (Carroll, 1993; Zemore & Kaskutas, 2004, 2008; Zemore, Kaskutas, & Ammon, 2004).

Problem Statement

The purpose of the current research study is to examine the relationship between altruism and altruistic activities and recovery from alcohol dependence among AA members. To that end, this section reviews the recent research and conceptual literature relevant to (a) the problem and definition of alcohol dependence, (b) the role of AA in recovery from alcohol dependence, (c) identified factors associated with recovery in AA, and (d) the role of altruism on mental health and recovery from alcohol dependence.

Definitions of Alcohol Dependence

The discussion below defines and describes alcohol dependence according to (a) the American Psychiatric Association (APA; 2000), (b) AA (AA World Services, 2001), and (c) a biological description by Wetsman (2007).

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*) (APA, 2000, p. 197), defines alcohol dependence as:

> …a maladaptive pattern of [alcohol] use, leading to clinically significant impairment or distress, as manifested by three or more of the following occurring at any time in the same 12 month period: a) tolerance, b) withdrawal, c) alcohol is used in larger amounts or longer period than was intended, d) persistent desire or unsuccessful efforts to cut down or control [alcohol] use, e) majority of time is spent in activities necessary to obtain alcohol, f) important social, occupational, or recreational activities are given up or reduced because of [alcohol] use, g) [alcohol] use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused by or exacerbated by [alcohol] (p. 197).

Tolerance is defined as "the diminished effect a drug has on an individual resulting in the individual's need for more of the drug to achieve desired intoxicating effect" (APA, 2000, p. 197), whereas *withdrawal* is described as a "physiological, behavioral, and/or cognitive change as the result of decreasing amount or cessation of the drug of abuse" (APA, 2000, p. 201). However, a person can be diagnosed with alcohol dependence without the presence of either tolerance or withdrawal. Alcohol dependence differs from abuse as abuse is diagnosed by meeting one of four problems that are a result of recurrent or continued drinking, including failure to fulfill role obligations, placing oneself in danger, legal problems, or persistent social problems. Additionally, an individual diagnosed with alcohol abuse must never have met the criteria for dependence (APA, 2000).

In sum, alcohol dependence, according to the *DSM-IV* (APA, 2000), is characterized by three or more of the following: the loss of ability to control the amount ingested; loss of interest in activities other than alcohol; diminished ability of alcohol to achieve desired effect; and/or the need to ingest alcohol in order to avoid negative physiological, cognitive, or behavioral effects of discontinuing use. The section below offers the definition of alcohol dependence according to AA.

The AA basic text describes alcohol dependence as an "allergy" to alcohol (AA World Services, 2001, p. xxviii). The text explains that the allergy manifests itself as a physical *craving*, which begins as soon as the individual who is alcohol dependent consumes alcohol, and it is exacerbated by a mental *obsession* in which the individual who is dependent on alcohol thinks about alcohol above all other things. Many recovering alcoholics explain that the obsession is so great that, during early recovery from the disease, they have dreams about drinking (Denzin, 1988). According to the AA text, "If, when you honestly want to, you find

you cannot quit entirely, or if when drinking, you have little control over the amount you take, you are probably alcoholic" (AA World Services, 2001, p. 44). So, according to AA, alcohol dependence is a lack of control of the amount of alcohol ingested and a loss of control of thoughts, as the obsession to drink overcomes all over thoughts (AA World Services, 2001). The section below gives a biological explanation of alcohol dependence.

According to Wetsman (2007), in his recent book *Questions and Answers on Addiction*, "addiction is a primary, largely *genetic*, *behavioral* illness that is *chronic*, *progressive*, *incurable*, and, in most cases, *terminal*" (emphasis added, p. 6). The disease is *primary* in that it is an illness in itself, not a symptom of some other mental disorder. Alcohol dependence is *brain-based* because it is a result of chemistry in the limbic system or the reward center of the brain and is a result of dopamine function (Wetsman, 2007). Addiction is largely *genetic* and it is passed from generation to generation (Wetsman). Alcohol dependence is *chronic* as it is incurable and the individual suffering from alcohol dependence does not grow out of it and is *progressive* because it gets worse over time. The disorder can be *terminal.* Many people die from alcohol-induced diseases and behaviors (World Health Organization [WHO], 2009).

Although the current study does not examine the biology of the brain, it is fitting to include an explanation of dopamine function because of the theoretical link between dopamine function and altruistic activities (Bachner-Melman et al., 2005).

Alcohol abuse and dependence involves dopamine function, which is the brain's ability to produce and utilize dopamine in the brain, a neurotransmitter that is produced as a result of rewarding behaviors (Wetsman, 2007). Thus, when a person does something rewarding, the positive feelings are a result of dopamine being released and utilized by the brain. This primitive part of the brain cannot distinguish between positive and negative stimuli and encodes all

rewarding activities as something to be done again in order to receive the same sense of ease and comfort (Wetsman, 2007). Positive life events such as earning a diploma or falling in love may naturally cause reactions that stimulate utilization of dopamine in the brain (Smith & Stevens, 2002). When these events are experienced and dopamine is transmitted from one area to another in the brain, it gives the person a sense of well-being. Healthy persons, therefore, would want to participate in such activity again in order to feel good about themselves and their activities (Wetsman, 2007). The good feeling is a result of dopamine function.

These same dopamine reactions happen when an individual who is alcohol dependent drinks. The alcohol binds to receptors in the brain and the individual achieves feelings similar to well-being a person who is not dependent on alcohol would feel after accomplishing something or establishing a meaningful relationship (Smith & Stevens, 2002). Dopamine function helps explain *DSM-IV* (APA, 2000) criterion describing how important social, occupational, or recreational activities are given up or reduced among persons who are alcohol dependent. If alcohol causes similar reactions of well-being in the brain as social and occupational activities, or if the dopamine reactions are more reliable than attachment or accomplishment in the individual's life, alcohol could replace relationships and work as rewarding behaviors.

In Wetsman's (2007) description of alcohol dependence, the individual who is alcohol dependent has a diminished ability to produce or utilize dopamine in the brain as a result of mutated dopamine receptors, diminished capacity of transporters of dopamine, or low production of dopamine. Therefore, even before the first drink, the genetically predisposed individual who is alcohol dependent typically does not feel the same sense of fulfillment from everyday activities enjoyed by others. After a few drinks are consumed, dopamine levels rise, drinking behavior is chemically reinforced in the brain, and the individuals learn that alcohol will make them feel the

sense of well-being (Wetsman, 2007). The primitive area of the brain reinforces the continued pathological use of alcohol because nothing else offers the quality or reliability of reward as drinking (Wetsman, 2007).

In summary, the *DSM-IV* (APA, 2000) defines alcohol dependence as a maladaptive pattern of drinking as manifested in at least three of seven criteria (e.g., activities being given up, more drinking over longer periods than intended). AA (AA World Services, 2001) defines alcohol dependence as an allergy by which individuals lose their ability to control the amount of alcohol they ingest and a constant preoccupation with drinking. Wetsman (2007) explains the inability to stop using as a lack of ability of the dependent individual to regulate dopamine without the alcohol stimulus. All definitions indicate a loss of control in the lives of alcohol dependent persons as the result of an inability to control their drinking. It is well known that alcohol abuse and dependence have negative consequences for individuals, families, and communities. The next section explains the negative effects of alcohol abuse and dependence at the global, national, and state levels.

Scope of the Problem

At the global level, the WHO (2009) estimates that alcohol and alcohol abuse is responsible for 1.8 million deaths worldwide. Indeed, alcohol abuse is the fifth leading risk factor for premature death, and it is responsible for 4.4 percent of the global disease burden (WHO, 2009).

According to recent epidemiological data collected by the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH; 2007), over 50% of Americans drink, 23% binge drink (i.e., five or more drinks on at

least one occasion within 30 days), and almost 7% drink heavily (i.e., binge drinking on five or more out of 30 days).

At least half of American adults have a close family member who is suffering or has suffered from alcohol dependence (Dawson & Grant, 1998). According to Grant (2000), approximately 25% of children are exposed to alcohol abuse or dependence in the family.

According to the Centers for Disease Control (CDC; 2006), over 35,000 deaths per year occur in the United States as a result of alcohol use and abuse, excluding accidents and homicide. It is estimated that up to three fourths of homicides and half of rapes are committed when either the offender or the victim is intoxicated and approximately 30-50 percent of accidents are alcohol related (Wright, 2002).

Of local interest, according to the Louisiana Highway Safety Commission (Cambridge Systematics, Inc., 2006), Louisiana has the second highest rate of DWI fatalities in the United States.

In sum, alcohol is abused by approximately one fourth of the adult population in this country (SAMHSA, 2007). A large portion of the population is or has been directly or indirectly affected by alcohol abuse or dependence (Dawson & Grant, 1998). Further, alcohol is a risk factor for premature death and is associated with chronic health problems, accidents, and crime (CDC, 2006). Alcohol abuse and dependence is a major social problem prompting the need for research to identify factors associated with recovery.

Theoretical Significance

The current study attempts to expand on the definition of altruism and altruistic activities in AA and add to the body of literature describing the relationship between altruism and physical, psychological, and spiritual health. Current literature on altruism reviewed by Post

(2005) shows an empirical link between altruistic service activities and reduced symptoms among the ill, relief from stress and psychological pathology, and overall well-being. The purpose of this current study is to expand on the body of literature examining associations among AA altruistic activities and recovery from alcohol dependence (e.g. Carroll, 1993; Zemore & Kaskutas, 2008; Zemore et al., 2004).

Contribution of the Current Study to the Current Body of Research

The current study seeks to examine the relationship between the character trait of altruism and recovery from alcohol dependence. This relationship has not been established in previous research. The study seeks to more fully operationalize the construct, AA altruistic activities, as previously measured by the Step Questionnaire (Carroll, 1993), an instrument used to measure spiritual and service-oriented activities according to AA culture.

Because of the pervasive negative psychosocial consequences associated with alcohol abuse and dependence, it is important to explore and identify factors that are associated with altruism and altruistic activities. Much research has been performed on the relationship between AA and recovery from alcohol dependence (Laffaye et al., 2008). However, helping others in AA has not been appropriately addressed despite a key focus on service to others in the AA literature and culture (Davis & Jansen, 1998). The current research study will attempt to bridge this gap in the literature.

CHAPTER 2: REVIEW OF THE LITERATURE

The purpose of the current study is to examine the relationship between altruism and AA altruistic activities and recovery from alcohol dependence. This review examines current literature that describes recovery from alcohol dependence and the role of AA in that recovery. Research investigating the effects of altruism, in general, and the relationship between altruism and alcohol dependence, in particular is also reviewed.

Recovery from Alcohol Dependence

What, then, is recovery from alcohol dependence? Research has focused on several different aspects of recovery. Yet, a very common marker of recovery is abstinence from alcohol (Gossop, et al., 2007; Kropp, Manhal-Baugus, & Kelley, 1996; Laffaye et al., 2008; McKellar, Stuart, & Humphries, 2003; Noda et al., 2001; Zemore & Kaskutas, 2008; Zemore et al., 2004). However, there is a general consensus among practitioners that mere abstinence is only a portion of what constitutes recovery from alcohol dependence (Betty Ford Institute [BFI] Consensus Panel, 2007).

Researchers have measured numerous factors associated with recovery including depression, anxiety (Bottlender, Soyka, 2005), legal problems, employment, motivation (Ouimette et al., 1997), psychological functioning (Humphries & Moos, 2006), sense of coherence aggressiveness (Chen, 2006), alcohol-related problems (McKellar, Stuart, & Humphries, 2003), social functioning (Moos & Moos, 2006), AA participation, purpose in life (Oakes, 2008), and well-being (Kropp & Manhal-Baugus. 1996). However, there has been no consensus on the definition of recovery until recently. The following includes definitions of recovery by the BFI consensus panel (BFI Consensus Panel, 2007) and AA (AA World Services, 2001).

BFI Consensus Panel Definition of Recovery

A panel of professionals in the field of alcohol dependence and addiction that gathered at the BFI, a nationally recognized treatment center, has recently developed a working definition of recovery. The panel came to the conclusion that, "recovery is defined as a voluntarily maintained lifestyle composed of and characterized by sobriety, personal health, and citizenship" (BFI Consensus Panel, 2007, p. 221).

Sobriety is defined as abstinence from alcohol. Length of time sober was operationalized by the BFI consensus panel (2007) as early sobriety (0-11 months), sustained sobriety (1-5 years), and stable sobriety (more than 5 years). Personal health is defined as improved quality of personal life in the realms of physical health, psychological health, independence, and spirituality as measured by the World Health Organization's Quality of Life instrument (WHO-QOL; BFI Consensus Panel, 2007). Citizenship is also assessed with the WHO-QOL, with items measuring social function and issues that are environmental in nature. The WHO-QOL, which is recommended by the BFI Consensus Panel for measuring health, is a multidimensional tool that is capable of yielding a holistic assessment of a person's overall health and well-being. The following provides a definition of recovery according to AA.

AA Definition of Recovery

According to AA (AA World Services, 2001), "unless [a] person experiences an entire psychic change there is little hope of his recovery" (p. xxix). The entire psychic change could be described as a paradigm shift in thinking comparable to Piaget's movement from one cognitive development level to another. The movement toward recovery is facilitated by working the Twelve Steps of the program. These Steps were formulated to offer the individual a specific set of instructions to attain spiritual enlightenment through admitting powerlessness over alcohol,

surrendering to God, inventorying and admitting fault, restitution, and prayer and meditation (AA World Services, 2001). In the Twelfth Step this "entire psychic change" is referred to as the "spiritual awakening" (AA World Services, 2001, p.60), and it is the responsibility of the recovering individual to guide others through the Twelve Step method of recovery. Statements such as "our very lives as ex-problem drinkers depend on our constant thought of others" (AA World Services, 2000, p. 20) and "it is not the matter of giving that is in question but what and how to give" (p. 98) and 50 similar statements like them in the basic text (AA World Services, 2001) that lead one to the conclusion that the psychic change necessary for recovery is that of altering the cognitive paradigm of the individual who is alcohol dependent from that of selfishness to that of unselfish and altruistic motives.

Other statements such as, "what we really have is a daily reprieve contingent on the maintenance of our spiritual condition," (AA World Services, 2000, p. 85) and "we ask God to direct our thinking" (p. 86) and many others like them lead to the spiritual nature of recovery in AA. Learning to live life on a spiritual basis and to trust a higher power are the foci of working the Twelve Steps of the program (AA World Services, 2001). It is the member's responsibility in the Twelfth Step to help others achieve *spiritual awakening* through guiding them through the steps. In sum, recovery in AA is characterized by a spiritual experience and by an unselfish motivation to help others (Davis & Jansen, 1998).

Both the AA (AA World Services, 2001) and BFI Consensus Panel (2007) explanations of recovery concur that sobriety alone is not enough. AA focuses on a spiritual connection and altruistic motives which decrease the individual's obsession to drink (AA World Services, 2001). The BFI Consensus Panel concluded that recovery is sobriety; personal health, which include psychological and spiritual health; and citizenship, which includes a focus on "living with regard

and respect for those around you" (BFI Consensus Panel, 2007, p. 221). Therefore, relation to others and altruistic intentions are important factors in both definitions. Because AA is so influential in the recovery of those suffering from the disease of alcoholism, a brief overview of the program of AA is in order.

Alcoholics Anonymous

According to AA survey results (AA World Services, 2008), 85.1% of members are Caucasian, 67% male, and 68.8% between ages 31 and 60. Approximately a third was introduced by a treatment facility, a third was self-motivated to attend, and a third was introduced through an AA member. In terms of length of time abstinent from alcohol, 31% of members are in early recovery (< 1 year), 24% are sustained (1 - 5 years), and 45% have stable sobriety (> 5 years). Statistics are based on a sample of 7,500 AA members from the United States and Canada.

"Alcoholics Anonymous is a fellowship of men and women who share their experience, strength and hope with each other that they may solve their common problem and help others to recover from alcohol dependence" (AA World Services, 2002, p. 1). This is the first sentence of the AA preamble read in many meetings around the world. Helping others to solve their problem is the first and foremost mission of AA and its members.

The program is composed of social, psychological, and spiritual components. Members attend AA meetings for fellowship and support. In the meetings, members are afforded an opportunity to share with others about their problems with living and staying sober and seek guidance from those who have learned to effectively manage those problems. AA members are encouraged to collect phone numbers at meetings and to choose a sponsor who acts as a mentor

for guiding new members through the Twelve Steps (Davis & Jansen, 1998). Seventy-nine percent of members say they have a sponsor (AA World Services, 2007).

From a psychological perspective, using the Twelve Steps is a type of cognitive restructuring. The First Step includes understanding AA's disease concept and accepting it as the reason the individual cannot drink or the allergy, or craving, will be stimulated. The Second and Third Steps are focused on believing in and surrendering one's life to a "Higher Power" that guides the individual's will and life. The Fourth Step involves taking moral inventory of the person's life, while the Fifth Step is admitting personal defects to another person. The Sixth and Seventh Steps reinforce the need for a "Higher Power" to remove defects of character. Steps Eight and Nine involve making amends to those wronged in the individual's past. The Tenth Step is a continuation of inventory taking and making amends for wrongs. The Eleventh involves prayer and meditation. The Twelfth Step instructs the individual to guide the newcomer through the Twelve-Step process (AA World Services, 2001). These steps are gradual movements toward a spiritual and psychological restructuring through action and attitude changes in the individual suffering from alcohol dependence.

Statements from the basic text of AA encourage individuals to change their thinking to offer another perspective on negatively perceived life issues. For example, the AA text states, "we realized that the people who wronged us were perhaps spiritually sick. Though we did not like their symptoms and the way they disturbed us, they, like ourselves, were sick too" (AA World Services, 2001, p. 66). This latter statement illustrates the type of psychological changes that individuals embrace through recovery. Calling one's sponsor, a trusted advisor, and being reminded of these concepts reinforces the ideas and, over time, replaces old thoughts and feelings of self-pity, self-centeredness, and resentment.

The spiritual component of the program is revealed in the wording of the Twelve Steps. The Third Step suggests that members "made a decision to turn [their] will and life over to the care of God," and the Eleventh Step states that members "sought through prayer and meditation to improve our conscious contact with God" (AA World Services, 2001, p. 59). Also in the book are suggestions to trust God, never apologize for God, and promise that "we will suddenly realize that God is doing for us what we could not do for ourselves" (AA World Services, 2001, p. 84).

In sum, AA's focus is on a spiritual transformation that results from the working of the Twelve Steps and it is the member's responsibility to carry the message forward to other individuals who are alcohol dependent.

AA was initiated by an alcohol dependent stock speculator, Bill Wilson, in 1934 when his longtime friend and drinking buddy, Ebby Thetcher, offered Bill the spiritual solution to alcohol dependence he had found through the Oxford groups, a fundamental Christian movement that set out to teach spiritual absolutes such as love, purity, unselfishness, and honesty. Thetcher explained that through the Oxford groups he had a spiritual experience that removed his obsession to drink (AA World Services, 1984). Prior to the meeting between Wilson and Thetcher, Doctor William Silkworth (the attending physician who treated Wilson at Towns Hospital in New York City for alcohol dependence on multiple occasions) had explained his disease concept of alcohol dependence as an allergy manifested by a physical craving that causes a loss of control of consumption that is initiated when the dependent individual takes even one drink (AA World Services, 2001). In summary, Wilson took the doctor's disease concept of alcohol dependence and added that the solution to alcohol dependence was a spiritual one that could be obtained through a series of specific actions as defined by the Oxford groups.

Bill Wilson attempted to carry this message about the disease concept and the importance of spiritual transformation to others who suffered the effects of alcohol dependence, but was unsuccessful until he shared his solution with Dr. Robert Smith in Akron, Ohio (AA World Services, 1984). Together, Wilson and Smith started the program of AA through direct contact with other individuals who were alcohol dependent, by explaining the disease concept and the spiritual solution, and by urging those they helped to help others to find sobriety (AA World Services, 2001).

According to the forward to the fourth edition of the *AA* text, the membership of AA has grown to over 2 million members and groups in over 150 countries (AA World Services, 2001). The Twelve-Step approach to recovery is used for drug dependence (Narcotics Anonymous), gambling (Gamblers Anonymous), sex addiction (Sex Addicts Anonymous), eating disorders (Overeaters Anonymous), and many other addictive behaviors, and it is utilized in a majority of treatment centers and self-help groups around the world (Makela et al., 1996).

AA Outcomes and Motivations for Attending

Seventy years since its inception, a growing body of research has shown that AA is a critical self-help tool for individuals who are alcohol dependent. In controlled studies of treatment outcomes, attendance and participation in AA and other Twelve-Step groups has consistently shown positive correlations with (a) length of time abstinent from alcohol (Gossop et al., 2007), (b) improved psychological functioning (Moos & Moos, 2006), and (c) fewer alcohol-related problems (McKellar et al., 2003).

For example, use of AA-related coping significantly predicted positive 4-year outcomes for over 2000 alcohol dependent patients (Laffaye et al., 2008). In terms of cost-effectiveness of AA, Humphries and Moos (2006) found that AA reduced health costs because patients receiving

cognitive behavioral therapy relied more on mental health services than those using AA, resulting in 30% fewer costs. For those for whom it is feasible, AA is a low-cost intervention that is readily available in most communities (Chappel, 1992). Research has also examined motivations for attending AA meetings, and the current section explores the reasons individuals who are alcohol dependent attend meetings.

In a study involving 134 male Oxford House residents, those attending AA claimed that they were motivated to go to meetings more for the sense of fellowship than for the spiritual program (Nealon-Woods et al., 1995). Oxford Houses provide a sober living environment for those transitioning out of treatment centers. Participants in the study had been Oxford House residents for less than 3 months, suggesting that most individuals were probably new to AA and came from a variety of treatment experiences before entry into the Oxford House (Nealon-Woods et al., 1995). Thus, it is possible that social support may be one reason why newly sober individuals attend AA meetings.

In Chen's (2006) study, 93 prisoners in three prisons in Northern California suffering from alcohol and drug addiction were exposed to a Twelve-Step program in two groups. One group attended meetings only and relied solely upon social support. The other participated in the spiritual program of recovery as suggested by the Twelve Steps, while they attended meetings. Each individual undergoing treatment was administered instruments measuring anxiety, depression, and aggression. The surveys were administered before, half-way, and after the treatment period of 480 hours of exposure. Those in the Twelve-Step group went through a 6-month Twelve Step class run by inmates who went through a Twelve-Step class in the past. Those who went to meetings only went to meetings every weeknight for a year and relied solely on social support offered in the meetings. Chen (2006) found that attendance at meetings alone

was not the key to well-being in Twelve Step programs. As was expected, those who participated in the spiritual program felt better about themselves, others, and their environment than those attending meetings for social support only (Chen, 2006).

Thus, evidence suggests that some individuals are motivated to go to AA meetings to satisfy a need for social support (Nealon-Woods et al., 1995). However, social support alone does not optimize the benefits of the AA program. Members gain a greater sense of well-being when they work AA's Twelve Steps (Chen, 2006). Thus far, this review has focused on the problem of alcoholism, definitions of recovery, and the AA program. The benefits of altruism will be explored in the section below.

Altruism and Helping

Altruistic activities, or activities that are carried out in the interest of service to an individual or group other than self, have been shown to provide protective and health benefits among persons with a variety of health and psychological pathologies (Post, 2005). Helping others has been shown to increase confidence, self-awareness and self-esteem, to decrease depression, and to improve role functioning among patients with multiple sclerosis (Schwartz & Sendor, 1999). In a study with Vietnam War Veterans, researchers found that veterans with higher levels of altruism exhibited fewer symptoms of Post Traumatic Stress Disorder (PTSD) than those who were being helped (Kishon-Barash, Midlarsky, & Johnson, 1999), and being supportive of friends and family members has been found to reduce mortality in the elderly (Brown, et al., 2003).

In a study of a random sample of over 2,000 church-goers, providing help to others was more positively correlated with improved mental health than was receiving help (Schwartz, Meisenhelder, Ma & Reed, 2003). In this study, members of the Presbyterian Church throughout

the United States responded to surveys assessing giving and receiving support to other members, mental and physical health, and religious coping. Relationships between giving or receiving help and physical or mental functioning were assessed. Giving and receiving support were equally correlated with physical functioning. However, giving help was more positively correlated to mental health than receiving help.

Post (2005) conducted a meta-analysis of 25 studies that examined the effects of altruism and altruistic activities on those suffering from such problems as anxiety and depression, risk of death through heart disease and cancer, aging, and PTSD. The researcher found that altruism and altruistic activities such as volunteering, praying for others, and helping others with similar problems resulted in deeper and more meaningful relationships, greater life satisfaction, lower symptomatology of anxiety and depression, greater well-being, lower risk of death, and better physical heath. Post suggests that altruistic behaviors serve as a distraction from the individual's own stressful situations and offer protection from the negative physical and emotional effects that arise from constant dwelling on stressful events in the individual's life.

In sum, altruism and altruistic activities have been found to provide protective factors in the psychological (Schwartz & Sendor 1999), social (Post, 2005), and physical (Brown, et al., 2003) functioning of a range of populations. In the next section the neurochemical process of altruistic acts will be explained.

Biology of Altruism

Opioid and dopamine reactions in the brain, which offer the individual a sense of well-being and accomplishment (Wetsman, 2007), have been shown to play a significant role in dyadic attachment (Smith & Stevens, 2002) and altruistic behavior (Fehr & Rockenbach, 2004). Smith and Stevens (2002) found, for example, that opioid activity in the brain is stimulated

through patterns of dependence on others that are similar to those associated with addiction or alcohol dependence. This latter research shows that when the individual who is so attached to another is suddenly separated, the individual may experience withdrawal symptoms similar to those of an opiate addict. These reactions in the brain are linked to care giving mechanisms that stimulate the individual into altruistic actions and sometimes even risky situations in order to protect the other (Smith & Stevens, 2007).

Fehr and Rockenbach (2004) found that mutual cooperation stimulates the reward circuit of the brain (i.e., dopamine system) and that cooperative activities offer the individual a sense of ease and comfort. In a similar vein, Bachner-Melman and colleagues (2005) found that doing good deeds offers the doer a dopamine reward, which provides the individual a sense of well-being.

In summary, attachment and altruistic acts stimulate biological processes in the reward center of the brain and offer the doer a sense of well-being (Bachner-Melman et al., 2005). Similar dopamine processes in the brain occur when an individual consumes alcohol (Wetsman, 2007). Although the current study does not examine neurochemical activity in the brain, if a relationship is found between altruistic activities and recovery, this biological activity in the brain may serve to explain the mechanism by which altruism works to serve as a protective factor in the individual suffering from alcohol dependence.

Seminal Investigations: Altruism and Alcohol Dependence

Although altruism has been studied with a variety of populations, few studies have examined the relationship between altruistic activities and recovery from alcohol dependence (Zemore et al., 2004). In one study of 257 individuals recovering from alcohol dependence, researchers distributed self report surveys on helping, AA participation, spirituality, length of

sobriety, and addiction severity (Zemore & Kaskutas, 2004). All of these constructs were assessed for correlation with each other. Results showed that longer length of sobriety was associated with participation in organized community projects rather than with informal helping. However, recovery helping continued throughout sobriety, and over half of individuals with over 5 years sober were sponsors (mentors for recovery). Researchers also found that length of time sober was positively related to experiences of God and connection to others and the universe.

In another study of 503 patients in a day-treatment and 230 patients in an in-patient setting who engaged in helping others during treatment predicted AA involvement, but not length of time sober (Zemore & Kaskutas, 2008). However, going to AA positively predicted abstinence. Therefore, helping may have been indirectly related to length of time sober (Zemore & Kaskutas, 2008). In this study, researchers distributed surveys on Twelve-Step involvement and helping other clients in the program. Then they conducted follow-up interviews at six and twelve month intervals assessing for length of time sober at the time of the interview. Analysis on the relationship of helping in treatment and Twelve-Step involvement with length of time sober post-treatment was conducted on various individual- and program-level variables and outcomes (Zemore & Kaskutas, 2008).

Carroll (1993) examined the relationship between AA members' performance specific to working Steps Eleven (prayer and meditation) and Twelve (carry the message) and purpose in life among AA members. In this study, Carroll distributed the Purpose-in-Life Test (PIL) and her Step Questionnaire to 100 members of AA in approximately 20 AA meetings.

The PIL measures the concept of meaning and purpose in life and has a reliability of .89. The Step Questionnaire is composed of 38 items measuring the extent of the individual's practice of the Eleventh and Twelfth steps of AA. The instrument has an overall reliability rating of .78.

The instrument includes two separately scored subscales based on the Eleventh (reliability of .78) and Twelfth Steps (reliability of .59). The instruments were distributed at meetings with a pre-addressed stamped envelope, took about 15 minutes to complete, and was returned by mail to the researcher.

Carroll (1993) found that purpose in life was highly correlated with AA meeting attendance ($r = .24$, $p < .001$) and the Eleventh-Step spiritual activities ($r = .56$, $p < .001$), but not to Twelfth-Step service-oriented activities ($r = -.01$).

Carroll (1993), however, has been criticized because the measure used, the Step Questionnaire, was quantified in an obscure way for the Twelfth-Step questions (Allen, 1999) and because the focus on purpose in life, which, although it has been found to be a contributor to AA involvement, has not been shown to be a mediating factor between AA involvement and long-term sobriety (Oakes, 2008).

The current study will attempt to replicate the same basic survey methods of Carroll's study (1993) with a modification of the quantification of Twelfth-Step participation by AA members. In addition, the Rushton Altruism Scale was used to measure altruism as a character trait (Rushton, Chrisjohn, & Fekken, 1981). The definition of recovery as decided by the BFI Consensus Panel (2007) was used, rather than Purpose in Life.

Limitations of Empirical Investigation

Common threats to internal validity include history, maturation, testing, statistical regression, selection bias, and ambiguity about the direction of causal influence (Rubin & Babbie, 2008). These threats will be explored below.

History refers to events that may confound results of research (Rubin & Babbie, 2008). The testing was performed during the holiday season and the emotions, positive or negative,

related to this time of year may cause test results to be skewed. This threat is not going to be controlled for except for the sample size, which should normalize results over the sample population.

Maturation refers to change and growth of individuals that happens over time (Rubin & Babbie, 2008). The current study relies on a cross-sectional survey. Since there is no test-retest maturation should not be a threat.

Testing refers to the effects of measurement on the individuals in the study (Rubin & Babbie, 2008). The current research was a cross-sectional study. Therefore, one-time testing and no behavioral observation should control for testing effects. Individuals may offer socially desirable responses, but the sample size and anonymity of the survey should control for testing effects.

Statistical regression effects are those in which extreme cases may regress back into normal levels of an observable measure over time (Rubin & Babbie, 2008). This is a cross-sectional study; therefore, effects of time do not apply in testing. However, length of time sober may influence movement toward statistically normal levels in quality of life regardless of activities engaged in (De Soto, O'Donnell, Allred, & Lopez, 2007). The current study examined the relationship between length of time sober as a factor of recovery and altruism, therefore controlling for regression effects.

Selection bias refers to the choice of participants in the study being compared to non-comparable groups (Rubin & Babbie, 2008). The current research did not compare groups. Therefore selection bias is not an issue. Ambiguity as to the direction of causal influence (Rubin & Babbie, 2008) is controlled for through the fact that the current research study did not imply

direction of causality but a relationship between the two variables. Altruism could raise quality of life, which in turn could raise altruistic motivations in individuals.

External validity refers to the generalizability of findings to the population (Rubin & Babbie, 2008). The sample will include a variety of meetings in the Southern Louisiana chosen by randomizing the meeting list and systematically choosing every fifth meeting. Demographic information from respondents was compared to the most current AA membership survey (AA World Services, 2008).

According to the limited research reported here, helping others does not play a direct role in the length of sobriety for individuals who are alcohol dependent (Zemore & Kaskutas, 2008). Also, purpose in life has not been shown to positively correlate with AA altruistic activities (Carroll, 1993). Moreover, the research focusing on the relationship between altruism and recovery from alcohol dependence to date (Zemore, et al., 2004) has not demonstrated a relationship between service and sobriety. (e.g., Carroll, 1993). The following section focuses on possible reasons why this is so.

One important reason related to a reliability issue is that Carroll's (1993) Step Questionnaire quantified AA service opportunities as the number of times an individual performed specific actions (e.g., served as a sponsor or general service representative), rather than as the amount of time spent engaged in such activities. For example, if a member served on a committee for a full year this would only count as one event and would carry the same weight as one-time service as a speaker at a meeting. It could be that the individual was too busy with one commitment to do another or that the individual's specific skill set is in making coffee more so than working at the central office. Some commitments can last years, depending on individual and group needs. Therefore, a more accurate measure of service activities in a revised

Step Questionnaire is necessary in order to yield a reliable estimate of the altruistic activities and service commitments provided by members of the AA community. Another reason why altruism has not been linked to recovery is because of the lack of conceptual clarity about what constitutes recovery, which is not necessarily purpose in life as defined by Carroll (1993).

Contribution to the Existing Knowledge Base

The current study attempts to fill this gap in the literature by expanding the definition of altruism recovery from alcohol dependence by examining the relationship between a more reliable measure of altruism and recovery. The current study has several limitations. The results will only be applicable to the AA community in the southern U.S. because the survey data will only be collected from current attendees of open AA meetings and events in southern Louisiana. Also, this study will not offer evidence of whether implementing altruistic activities in the treatment of alcohol dependence would be beneficial to recovering alcoholics, because the current study focuses on voluntarily performed altruistic activities by those attending open AA meetings. Finally, this study will examine the relationship between altruism and alcohol dependence, not dependence on any other drug of abuse.

Summary and Implications of Literature Review

Alcohol abuse and dependence negatively affects not only individuals with the disease, but also those around them (CDC, 2006). Alcohol dependence is treatable (Bottlender & Soyka, 2005). One beneficial self-help approach to recovery for individuals who are alcohol dependent is AA (McCrady & Miller, 1993). AA focuses on a life of altruistic activities and spirituality (Carroll, 1993). Altruism and altruistic activities have been found to have positive effects on a broad range of social, physical, and psychological problems (Post, 2005). The relationship between altruism/altruistic activities and recovery from alcohol dependence has received a

minimum amount of scholarly attention in the research community (Zemore et al., 2004). One study that focused on the relationship between service and recovery (Carroll, 1993) found that there is no relationship between AA service (altruistic activities) and a measure of recovery, but the measures of service activities and recovery were unreliable, thereby producing unclear results.

CHAPTER 3: CONCEPTUAL FRAMEWORK

Purpose

The purpose of the current cross-sectional, exploratory-descriptive research study is to explore the relationship between altruism and altruistic activities and recovery from alcohol dependence on members of AA. Research was conducted through self-report survey data.

Research Questions

The current study attempts to answer the following descriptive research questions:

1. What are the altruistic activities engaged in by members of AA?
2. Is there a correlation between engagement in altruistic activities and recovery in members?
3. Is there a correlation between altruism as a character trait and recovery from alcohol dependence?
4. Is there a relationship between altruistic activities and length of time sober?
5. Is there a relationship between the character trait of altruism and length of time sober?
6. Is there a relationship between the character trait of altruism and participation in altruistic activities in AA?
7. Are there other demographic characteristics that are important when examining the relationship between altruism and recovery?

Definitions of Key Terms

The following are definitions of key terms in the current study. Instruments used to measure each term will be explained in the methodology section.

Individual Suffering from Alcohol Dependence

Alcohol dependence is diagnosed by the *DSM-IV* through meeting three out of seven criteria (APA, 2000). These criteria include tolerance, withdrawal, drinking more or for longer than planned, unsuccessful attempts to cut down or control drinking, spending most of one's time trying to obtain alcohol, giving up occupational or recreational activities to drink, and continuing to drink despite experiencing problems related to drinking (APA, 2000).

AA Member

AA's definition and criteria for alcohol dependence refers to loss of control over one's drinking behavior (AA World Services, 2001). The alcohol dependent individuals in the current study were self-diagnosed members of AA who have a desire to stop drinking.

Altruism

Altruism is defined as a stable characteristic of helping others and will be measured with the Rushton Altruism Scale (Rushton et al., 1981) using a contextual modification for use in the Southern United States.

AA Altruistic Activities

Altruistic activities are unpaid activities that are oriented toward service to either others or AA as a group. The level of participation in altruistic activities will be measured with a modified version of the Step Questionnaire Twelfth Step subscale (Carroll, 1993).

Recovery

Recovery from addiction is defined as "a voluntarily maintained lifestyle composed of and characterized by sobriety, personal health, and citizenship*"* (BFI Consensus Panel, 2007, p. 221) and is measured as prescribed by the Consensus Panel by length of sobriety and the

personal health, independence, spirituality, social function, and environment subscales of the WHO-QOL (WHO, 2004).

CHAPTER 4: METHODOLOGY

This cross-sectional, exploratory-descriptive study examines the altruistic activities engaged in by AA members, the character trait of altruism, and the relationship between altruistic helping and recovery from alcoholism in AA members.

Sample and Representativeness

The participants in the current study were 92 self-identified members of AA drawn from the population of members attending an assortment of open AA meetings located in Baton Rouge, Louisiana. Meetings were chosen by stratified random sampling of meetings in the area. Meetings were separated into four groups, 7am-12pm weekday, 7am-12pm weekend, 1pm-10pm weekday, and 1pm to 10pm weekend. One meeting from each list was randomly selected to collect data. Open AA meetings were chosen by the researcher from meeting schedules located on the official website of the Greater Baton Rouge Central Office (2009).

A power analysis was conducted to ensure an adequate sample size for bivariate analyses of the data. A sample size of 80-100 has been recommended to detect a medium effect size (.60) at a level of significance of .05 and with a statistical power of .83-.86 (Rubin & Babbie, 1993). Sample size for the current study is adequate according to the power analysis.

Results of this study may only be generalizable to members of AA in southern Louisiana. This study will not be representative of individuals suffering from alcohol dependence who have recovered outside of AA or the southern Louisiana region. Sample demographics were very similar to those of the most recent AA membership survey.

Protection of Human Subjects

The procedures for the collection of data in this study allowed participants to remain anonymous. The data were collected with a voluntary, self-report survey instrument. No names

were recorded, no identifying information was collected, and no experimental procedures were conducted. There should be no risk of harm to the participants. The research meets the criteria for exemption from IRB oversight.

Measurement

The participants of the current study completed a self-administered survey consisting of standardized measures and measures developed by the researcher. Altruism was measured with the Rushton Altruism Scale (Rushton et al., 1981) with a few contextual modifications. Sobriety (length of time sober) was self-reported with one item. AA altruistic activities were measured with a modified version of the Twelfth Step subscale of the Step Questionnaire (Carroll, 1993). Personal helth and citizenship were measured with the WHO-QOL-BREF measure (WHO, 2004), a shorter version (26 questions) of the one hundred-question WHO-QOL. Alcohol dependence was assessed through a series of questions outlining seven *DSM-IV* criteria for alcohol dependence (APA, 2000). Each of these measures will be described in detail below. Demographic information was collected with two survey items.

Instrumentation

The following instruments were used to measure levels of alcohol dependence, altruism, AA altruistic activities, recovery, and alcohol dependence in the subjects of the current research.

<u>The Rushton Altruism Scale</u>

The character trait of altruism was measured with the Rushton Altruism Scale (Rushton, et al., 1981). This 19 question self-administered survey asks how often in the respondents lives they completed acts such as "Given money to charity," "Donated blood," or "Offered [their] seat to a stranger." Response options include a scale of 0-4 (0 = *Never*, 4 = *Very Often*). The total scale score was used in data analysis. Altruism was measured at the ratio level

The Rushton Altruism Scale has been found to have an internal consistency reliability of $\alpha = 0.89$ (Rushton et al., 1981). Validity has been assessed by calculating the correlation between self-report and peer rated agreement on altruism scores ($r = .56$, $p = .0001$). The Rushton Altruism Scale correlated positively with various scales measuring similar variables such as social responsibility, social interest, and emotional empathy ($r = .59$, $p = .01$) (Rushton et al., 1981).

One modification to the survey questions was made to the first question, which asks if the respondent had ever pushed a stranger's car out of the snow. The question was changed to whether the individual had ever helped a stranded motorist by stopping or calling for help. This contextual modification was made because it seldom snows in the southern states. Another modification was of a question asking whether the respondent had bought charity Christmas greeting cards. This question was modified to "holiday" greeting cards out of cultural consideration.

Twelfth Step Subscale of the Step Questionnaire

AA altruistic activities were measured by the Twelfth Step subscale of the Step Questionnaire (Carroll, 1993). This is a 12-question form that asks how many times the respondent had ever served in such capacities as "Speaker," "Coffee maker," and "Sponsor" as a member of AA.

In the modified version of the form, participants were asked to report activities within the previous 6 months of sobriety, rather than during their entire period of sobriety. Also, in the revised questionnaire, quantification was based on how often the individual performed the act in the previous 6 months, which is similar to the Rushton Altruism Scale that uses a scale of 0-4 (0 = *Never*, 4 = *Very often*). The total scale score was used and this variable was measured at the

ratio level. The response options for items on the scale were modified because the scale as constructed by Carroll may not accurately reflect the amount of time the individual spent engaged in each service activity. Moderate reliability of the subscale is based on an alpha coefficient of .59, and construct validity was determined through interjudge agreement (Carroll, 1993). Reliability of the instrument was assessed for the sample. Results are discussed in the following chapter.

Recovery

Recovery, as concluded by the BFI Consensus Panel (2007), is measured in terms of sobriety, personal health, and citizenship. Sobriety is measured by length of time abstinent from alcohol. Personal health can be measured by the physical and psychological health, spirituality, and level of independence domains of the WHO-QOL-BREF (WHO, 2004). Finally, citizenship was measured by the environment and social functioning domains of the WHO-QOL-BREF (WHO, 2004).

Length of time abstinent from alcohol was measured with the self-report response to the item "Length of current sobriety." The answer was recorded in years and months and interpreted as early (<1 year), sustained (1-5 years), or stable (>5 years) sobriety.

Personal health was measured by the physical health, psychological health, spirituality, and level of independence domains of the WHO-QOL-BREF (WHO, 2004). The physical health domain is based on three questions (e.g., "Do you have enough energy for daily life?" and "How satisfied are you with your sleep?"). Psychological health is measured with five questions including "How satisfied are you with yourself?" and "Are you able to accept your bodily appearance?" Spirituality is assessed with the question "To what extent do you find your life

meaningful?" Level of independence is determined with four questions such as, "How well are you able to get around?" and "How satisfied are you with your capacity for work?"

Citizenship is based on the relational functioning and environment domains of the WHO-QOL-BREF (WHO, 2004). Relational functioning is determined with three questions (e.g., "How satisfied are you with your personal relationships?" and "How satisfied are you with your sex life?" Whereas, environmental issues are measured with eight questions, including, "How satisfied are you with your transport?" and "How safe do you feel in your daily life?"

Responses for the WHO-QOL-BREF (WHO, 2004) are based on a five item Likert scale with score ranging from 1-5. The response options vary, however, for some subscales (e.g. 1 = *Not at all*, or *Very poor*; 5 = *Extremely* or *Very good*).

Overall test-retest reliability of the WHO-QOL-BREF was .78 (WHO, 2004). The instrument is validated through correlation with the WHO-QOL-100 and coefficients ranged from .89 (for social function) to .95 (for physical health and environment; WHO, 1998). The WHO-QOL-100 instrument has good validity and reliability (WHO, 1998). Discriminant validity was calculated through *t*-test comparison of mean WHO-QOL-100 scores of ill and well sample populations (WHO, 1998).

For the current study, demographic information includes age, sex, and race, which were determined through one self-report item for each item. Age was measured at the ratio level, whereas sex and race were measured at the nominal level. The surveys were pretested with a comparable subsample of 5-10 individuals and minor modifications to the wording and format were made.

Alcohol Dependence

Included in the questionnaire is a series of questions used to assess alcohol dependence of the individual. Questions are based on seven *DSM-IV* criteria of alcohol dependence (APA, 2000). Members are asked whether, during the period when they were actively drinking, they experienced such symptoms of dependence as tolerance, withdrawal, and drinking more or drinking for longer than planned. If the member checked three or more of the criteria, an anonymous assessment of alcohol dependence was made.

Data Analysis

Univariate statistics were used to obtain frequencies and to summarize data. Bivariate analyses were conducted to examine relationships between measures of altruism and recovery. Pearson's product moment correlation (r) was used to examine the relationships among variables measured at the interval and ratio levels (Rubin & Babbie, 2007). Chi square was used to examine the joint distributions of variables measured at the nominal level (Rubin & Babbie, 2007). Data were analyzed using the Statistical Package for the Social Sciences™ (SPSS).

The relationship between altruistic activities and recovery from alcoholism in AA has not been accurately examined even though a major tenet of AA is service (AA World Services, 2001). The current research provides an opportunity to explore protective factors associated with recovery from alcoholism, namely the relationships between service and recovery. The findings may serve to guide additional research examining utilization of altruistic activities in the treatment of alcoholism.

CHAPTER 5: RESULTS

This research examined the relationship between altruism and recovery from alcohol dependence among self-identified AA members. The study sample consisted of 92 participants, of which 93.5% (*n*=86) met the criteria for alcohol dependence, according to a self-report measure based on *DSM-IV* (APA, 2000) criteria.

Demographic Characteristics

The sample was composed of primarily white, middle-aged men. For the total sample, over two thirds were male (*n*=63, 68.5%). Eight respondents did not provide data about their gender. Most respondents were Caucasian (*n*=76, 82.6%), with the rest of the respondents reporting African American (*n*=9, 9.8%), or other ethnicities (*n*=4, 4.4%). Ages ranged from 19-74 years old. The mean age of the respondents was 44.5 years old (*SD* = 15.15) and the median was 45.

Alcohol Dependence and Length of Sobriety

Information about length of sobriety was collected with one survey item asking respondents to self-report the number of months and years abstinent from alcohol. The length of sobriety ranged from 0-389 months (32.4 years). On average respondents had been sober just over 6 years (*M* = 76.39 months, *SD* = 106.11 months). According to the guidelines established by the BFI Consensus Panel (2007), approximately one third of the respondents in the current study were in early sobriety, defined as abstinent from alcohol for less than one year (*n* = 34, 37%). A similar proportion reported stable sobriety, defined as abstinence from alcohol for more than five yearsn (*n* = 31, 34%). Among respondents, 20 (22%) reported a period of sustained sobriety between 1 and 5 years (BFI Consensus Panel, 2007).

The *DSM-IV* (APA, 2000) states that three or more out of seven specific criteria must be met in order to be diagnosed with alcohol dependence. For the total sample, the majority of respondents reported three or more criteria (n = 86, 95.6%). Mean number for the total sample was 6 (SD = 1.48). Over half of the respondents reported experiencing all seven criteria (n = 53, 58.9%), and slightly over a third of respondents reported that between three and six criteria were met (n = 33, 36.7%). Four participants reported meeting fewer than three criteria (4.4%).

AA Altruistic Activities

Respondents were asked to report the altruistic activities performed within the previous 6 months with a scale developed by the researcher. The total AA altruistic activities scale score was calculated for the total sample. The response options for each of the 19 items ranged from 0 (*Never*) to 4 (*Very Often*), with the total scale score ranging from 0-76. The mean score for the sample on this scale was 18.17 (SD = 13.12) indicating, on average, moderate to low level of participation in AA altruistic activities (α = .86).

Table 1 shows the 19 activities performed by respondents with eight of these activities categorized as readily available and the remaining 11 categorized as less available activities. *Readily available* activities are activities that do not involve a specific skill set and are available to any member attending meetings. These *readily available* activities include offering a phone number, giving a ride, serving as a clean-up person, chairing a meeting, calling a newcomer, sponsoring another member, making coffee, and serving as a temporary sponsor. *Less available* activities require a certain amount of networking within the AA community or a member must be appointed or specifically invited to perform these tasks. *Less available* activities include being a speaker, assisting at an AA activity, attending 12th step call (direct contact with an individual who wants to stop drinking), participating in Hospitals and Institutions (conducting an AA

meeting in a hospital or institution), being a hotline volunteer, cooking, acting as a literature person (purchasing and distributing AA literature to meetings), and serving as a general service representative, treasurer, secretary, and central office worker.

As seen in Table 1, the most frequently performed activities included offering a phone number (n = 71, 81.6%) and giving a ride (n = 60, 86.8%). Approximately two thirds of respondents either served as a clean-up person after an AA meeting or chaired an AA meeting (See Table 1). Among these latter four activities, offering a phone number was performed, on average, the most often (M = 2.54, SD = 1.48). As seen in Table 1, over half of all respondents reported calling a newcomer within the previous 6 months. Approximately half had either made coffee at a meeting (51.1%) or sponsored another AA member (48.3%), with a slightly smaller proportion of respondents reporting service to others as a temporary sponsor (44.8%) (See Table 1).

In examining the 11 less available AA altruistic activities, approximately one third of respondents served as a speaker at a meeting (33.7%), assisted in some type of AA activity (e.g. convention, conference, seminar; 34.8%), or attended a 12th step call (34.7%; See Table 1). Smaller proportions of respondents served as hotline volunteers, hospitals and institutions volunteers, literature persons, and cooks (28.4%, 22.8%, 20.7%, and 18.2% respectively). As seen in Table 1, respondents were least likely to serve as a general service representative (12.8%), treasurer (8.9%), secretary (5.9%), and central office worker (3.3%). In examining how often the less readily available activities were performed by respondents, the range of mean scores show that they were done, on average, less than once by the participants in the study within the previous 6 months (Range = .06 -.74).

Table 1

AA Altruistic Activities (N = 92)

AA Altruistic Activity	*f*	%	*M* (*SD*)
Readily Available Activities			
Offering a Phone Number	71	81.6	2.54 (1.48)
Giving a Ride	60	69.8	1.88 (1.48)
Clean-up Person	58	63.0	1.83 (1.55)
Chairing a Meeting	58	65.5	1.74 (1.50)
Calling a Newcomer	49	56.2	1.74 (1.53)
Coffee maker	45	51.1	1.26 (1.42)
Sponsoring	43	48.3	1.34 (1.62)
Temporary Sponsor	39	44.8	1.08 (1.42)
Less Available Activities			
Assisted in an AA Activity	32	34.8	.74 (1.15)
Attended a 12th Step Call	31	34.7	.69 (1.07)
Speaker	30	33.7	.72 (1.15)
Hotline Volunteer	25	28.4	.45 (.82)
Hospitals & Institutions Volunteer	20	22.8	.55 (1.14)
Literature Person	18	20.7	.41 (.87)
Cook	16	18.2	.40 (.97)
General Service Representative	11	12.8	.26 (.77)
Treasurer	8	8.9	.25 (.88)
Secretary	4	5.9	.19 (.80)
Central Office Worker	3	3.3	.06 (.31)

AA Altruistic Activities and Recovery

This study examined the relationships among AA altruistic activities and three measures of recovery. These measures include personal health and citizenship as measured by the WHO-QOL-BREF and sobriety as measured as length of time sober. A Cronbach's alpha was computed to assess the internal consistency of the WHO-QOL-BREF. Both the personal health ($\alpha = .90$) and citizenship ($\alpha = .88$) subscales, as well as the total WHO-QOL-BREF measure ($\alpha = .94$), were deemed adequately reliable for this sample.

Scale scores on the personal health subscale of the WHO-QOL-BREF ranged from 13-65. The mean of this subscale was 49.88 ($SD = 8.56$), indicating a moderate to high level of physical, psychological, and spiritual health among participants. Scores on the citizenship subscale ranged from 11-55 and the mean score was 41.05 ($SD = 8.01$), also indicating a moderate level of satisfaction among participants regarding their environment and responsibility to community.

A correlation matrix was computed to assess the strength of the associations among AA altruistic activities, altruism, recovery, and length of time sober. The relationship between AA altruistic activities and recovery was examined to answer the question of whether performing altruistic activities specific to AA was related to recovery defined as citizenship, personal health, and sobriety (BFI Consensus Panel, 2007). As seen in Table 2, the mean AA altruistic activities score showed a weak but positive association with the personal health ($r = .13$) and citizenship ($r = .20$) mean subscale scores and with sobriety ($r = .23$). None of these latter associations was significant.

Altruism and Recovery

The character trait of altruism was measured with the Rushton Altruism Scale (Rushton, 1981). The 20 items on the scale were answered with a 0 – 4 Likert type scale, yielding a total scale score of 80 (Range = 0 – 80). The mean score for the sample was 33.28 (*SD* = 13.35), indicating a moderate level of altruism. This measure also was deemed reliable for the sample (Cronbach's alpha = .89).

Table 2

Pearson's *r* correlation matrix of AA Activities, Altruism, and 3 measures of recovery

Variable	AA Activities	Altruism	Sobriety	Personal Health	Citizenship
AA Activities	-	.125	.234	.132	.206
Altruism	-	-	.096	.196	.184
Sobriety	-	-	-	.013	.105
Personal Health	-	-	-	-	.737*
Citizenship	-	-	-	-	-

*$p < .01$

The relationship between altruism and recovery was examined to answer the question of whether the character trait of altruism was related to recovery defined as personal health and citizenship (as measured by the WHO-QOL-BREF), and sobriety (BFI Consensus Panel, 2007). As seen in Table 2, the mean altruism score showed a weak yet positive association with the personal health (r = .19) and citizenship (r = .18) mean subscale scores and with sobriety (r = .09). None of these associations was significant.

AA Altruistic Activities, Altruism, and Length of Time Sober

Sobriety was measured with an item on the questionnaire that asked for length of sobriety in years and months, with responses calculated in terms of months. Length of sobriety ranged from 0 to 389 months, with an average length of sobriety as 76.38 months (*SD* = 106.11), or just over 6 years.

AA altruistic activities and sobriety were included to answer the question of whether performing AA altruistic activities was related to sobriety. As seen in Table 2, the mean AA altruistic activities score showed a weak but positive association with sobriety (*r* = .23). This association was not significant.

The character trait of altruism and sobriety were included in the matrix to answer the question of whether altruism was related to sobriety. As seen in Table 2, the mean altruism score showed a weak and positive association with the mean length of sobriety (*r* = .09). This association was not significant.

The character trait of altruism and AA altruistic activities were included to answer the question of whether altruism was related to participation in AA altruistic activities. The mean altruism score showed a weak yet positive association with AA altruistic activities scores (*r* = .12; See Table 2). This relationship was not significant.

Demographic Characteristics

In order to answer the question of whether there were differences on the major variables of interest (i.e., personal health, citizenship, sobriety, AA altruistic activities, and altruism) due to demographic characteristics, the mean scores were compared for men and women and for white and nonwhite respondents. The five response categories for race were recoded as white (0) and nonwhite (1), with 76 and 13 respondents, respectively.

T-tests were performed to see if there were significant differences between men and women and the white and non-white respondents (Rubin & Babbie, 2007). No differences between white and nonwhite respondents emerged with respect to personal health, sobriety, AA altruistic activities, and altruism.

In terms of gender, however, the mean score on the citizenship subscale was higher for women (M = 44.65, SD = 4.35) than for men (M = 39.37, SD = 8.64). This difference was significant (t (79) = -2.61, $p < .05$). The mean total WHO-QOL-BREF score also was significantly higher (t (75) = -2.06, $p < .05$) for women (M = 104.72, SD = 12.84) than for men (M = 95.45, SD = 17.61),.

Analysis of variance was performed to assess whether there were differences in the mean number of activities performed by respondents in the three different categories of length of sobriety (Rubin & Babbie, 2007). The mean number of activities performed by those in early, sustained, and stable sobriety was 10.29, 20.87, and 24.40, respectively. The difference in mean scores was statistically significant (F (2, 64) =9.15, $p < .001$). A Tukey's B post hoc procedure was performed to detect where the significant difference emerged among the three groups of respondents (Rubin & Babbie, 2007). This post hoc test showed that those in early recovery performed fewer activities, on average, than those in both the sustained and stable stages.

CHAPTER 6: DISCUSSION

This exploratory-descriptive research study examined the relationship between altruism and altruistic activities in AA and recovery from alcohol dependence among members of AA. This study attempted to expand prior research through utilization of a newly conceptualized valid and reliable measure of recovery (BFI Consensus Panel, 2007), and by improving upon instruments used to measure AA service, in order to then determine whether a correlation exists between altruistic service and recovery.

Sample Characteristics

Demographic characteristics of the sample in the current study were similar to those of the AA population regarding age, race, and gender (AA World Services, 2008). The average age of the sample was 44, compared to 47 for the AA population. In regard to race, 82% were white, which is similar to 85% in AA. Respondents in the 2007 Membership Survey (AA World Services, 2008) were 67% male, whereas, those in the current study were 68% male. The demographic characteristics of AA members in this study were also similar to those of previous studies exploring the relationship between altruism and recovery from alcohol dependence. Among the 100 members in Carroll's (1993), 51% were male; the mean age was 42; and the length of sobriety spanned from none to 33 years (M = 3, SD = 7). In the current study, length of sobriety was from 0 to 32 years (M = 6, SD = 9). Carroll (1993) did not report on racial or other demographic characteristics.

Carroll's (1993) study showed no statistically significant relationship between AA altruistic activities and purpose in life among persons recovering from alcohol dependence in AA. The results of the present study were similar, even after modifications to the AA altruistic activities subscale used in Carroll's study, and a new consensus-driven measure of recovery was

incorporated (BFI Consensus Panel, 2007). Surprisingly, the findings showed no statistically significant relationship between either the character trait of altruism as measured by the Rushton Altruism Scale (Rushton et al., 1981) or measures of recovery (i.e., citizenship, personal health, and sobriety) (BFI Consensus Panel, 2007). Another interesting finding was that there was no statistically significant relationship between the character trait of altruism (Rushton, et al., 1981) and participation in AA altruistic activities. This suggests that individuals in AA performing AA altruistic activities may not be doing so as a result of an intrinsic desire to serve others, but because such activities are strongly suggested by the AA program and members. This latter interpretation is consistent with statements in the AA basic text which states that "nothing will so much ensure immunity from drinking as extensive work with other alcoholics" and "When [selfishness, dishonesty, resentment, and fear] crop up, we… turn our thoughts to someone we can help" (AA World Services, Inc., 2001, pp. 84, 89).

Respondents' demographic characteristics were examined in relation to measures of altruism and recovery in order to examine whether differences existed among subgroups. Statistically significant differences emerged among men and women on measures of citizenship and quality of life. Women demonstrated higher mean scores on the citizenship subscale of the WHO-QOL measure (M = 44.65, SD = 4.35) than men (M = 39.37, SD = 8.64) [t (79) = -2.61, $p < .05$]. This suggests that there may be gender differences in the recovery experience, which is consistent with gender specific approaches to treatment (Nelson-Zlupko, Morrison-Dore, Kauffman, Kaltenbach, 1995). Further research that focuses on possible gender differences in the recovery experience itself is therefore warranted.

When the overall sample was categorized into early, sustained, and stable sobriety subsamples, a statistically significant difference emerged between those in early sobriety and

other participants with regard to participation in AA altruistic activities. This difference may be explained by the fact that members in early sobriety may be unable to participate in such activities as a result of being in a treatment program or half-way house. It was observed by the researcher when distributing surveys that many of the participants in the study may have been participating in such programs. Clients in area treatment centers and halfway houses are transported to the various meetings in the geographical location of the study. Thus, it is possible that the sample in the current study was overrepresented by individuals in early sobriety who were unable to participate in AA altruistic activities outside of meetings and treatment. Thus, future surveys should ask respondents if they are currently in a treatment program to further explore whether actual access to service opportunities is an issue.

Limitations of the Current Study

As with all exploratory-descriptive studies, several limitations must be acknowledged. Measurement issues, sample size, and methods of analysis were the main limitations of the study. The use of self-report data by study participants is one measurement issue. Because the surveys were self-reported, this may have led participants to answer in a socially desirable way (Rubin & Babbie, 2007). In addition, members at AA meetings tend to report feeling a greater sense of well-being than normal (Kelly, Stout, Magill, Tonigan, and Pagano, 2010), which could be a result of the social stimulation experienced in the meetings.

There were some missing data from some sections of the survey. Questionnaires were six pages long and took approximately five minutes to complete. The survey was administered before and after AA meetings, so it is possible that some participants impatiently hurried to finish the questionnaire before meetings started or after meetings when they had somewhere else to be. Providing a stamped return envelope may have offered the participant an opportunity to

complete the survey at home, at their leisure, and when they were in their natural environment; thus relieving the time pressure and effects of social stimulation. Rubin and Babbie (2007) state that mailed returns for surveys should be made as easy for the respondent as possible to ensure a maximum response rate, which was the method used by Carroll (1993) with AA members in her study. Future surveys on recovery in AA should incorporate a mailed return option for respondents.

Sample size was also an issue. The sample was too small to assess differences in participant characteristics among AA members within each of the three groups (early, sustained, and stable sobriety). In order to more closely examine gender and other differences, a larger sample size would be necessary. Thus, this study should be replicated with a sample of at least 300 so that separate analyses can be conducted to assess the relationship between altruistic activities and recovery among participants in subgroups. Also, a study that oversamples women would be beneficial to ensure greater representativeness. Although two-thirds of the AA population is male (AA World Services, Inc., 2008), a study which utilizes an equal distribution of men and women would offer greater opportunities to examine gender differences in recovery. Because of the sample size, the current study used bivariate analyses only. Multivariate approaches are needed to assess the relative importance of numerous relevant variables for explaining recovery. This present study could be expanded by using a multivariate approach, such as multiple regression to identify which variables best predict enhanced recovery from alcohol dependency.

Finally, it is possible that altruism in AA is not a measurable phenomenon or that the number of activities performed is not as important as the effect of the experience itself. It is possible that the experience of participating in an altruistic activity is more important than how

often a person participates. A qualitative study of the altruistic experience and how it affects the individual is necessary, not only to better understand the mechanism of altruism on the well-being of the individual, but to learn how to quantify the experience in a meaningful way. According to Post (2005), altruism is associated with positive outcomes for many different populations, as long as the subjects are not overwhelmed by helping. Therefore, as individuals perform more altruistic acts, the more overwhelmed they may become, which may mitigate the overall positive effects of helping. The section below explores the strengths and contributions to the current study to the body of literature on alcohol dependence and altruism.

Strengths and Contributions to the Current Literature

This research study used a relatively new measure of recovery from alcohol dependence as defined by the BFI Consensus Panel (2007). The WHO-QOL-BREF (WHO, 2004) subscales of personal health and citizenship were found to be reliable for the sample ($\alpha = .90$ and $\alpha = .88$, respectively), indicating that the WHO-QOL-BREF may be a reliable scale for measuring recovery in future studies. However, the absence of a significant correlation between the mean WHO-QOL-BREF subscale scores and the mean length of sobriety suggests that length of sobriety may not be directly and independently related to quality of life among persons in recovery. The modified version of Carroll's (1993) Twelfth Step Subscale was also deemed reliable for the sample ($\alpha = .88$), suggesting that the version of the scale used in the current study may be a reliable instrument for measuring participation in AA altruistic activities. Additional psychometric testing of this scale is recommended.

The current research study yielded a 98% response rate, which is well above the 50% rate deemed acceptable by Rubin and Babbie (2007). A total of 94 questionnaires were distributed and 92 were returned. Carroll (1993) reported a 73% response rate using a method of

distributing the survey with return envelopes. When participants were handed the questionnaire in the current study, they were told that the survey would take approximately five minutes to complete and that the researcher would be available to answer questions and collect the forms as they were completed. As a result, participants tended to complete and return the form on the same day, thus ensuring that survey data were collected on site. Thus, distributing questionnaires before the meetings, staying throughout the meetings, and being available after the meetings possibly contributed to the exceptionally high rate of response.

Conclusions

Empirical study is needed to expand knowledge about recovery from alcohol dependence, relevant risk and resiliency factors, and what combination of recovery-related activities best determine the quality of the recovery experience among individuals who suffer from alcohol dependence. Such knowledge can be used to develop more effective and efficient interventions that promote recovery.

The results of the current study and those of Carroll's (1993) study indicate that AA altruistic activities do not appear to be significantly related to recovery. Therefore, until research shows altruism and altruistic activities to be significantly associated with valid measures of recovery, altruism should not be promoted as an evidence-based means of recovery among members of AA. This is not to say that helping others should be discouraged. Although altruism has been associated with positive outcomes (e.g., increased sense of well-being in people with multiple sclerosis (Schwartz & Sendor, 1999) and lower levels of PTSD symptomatology among Vietnam War Veterans (Kishon-Barash et al., 1999), there is no empirical evidence to suggest that participating in altruistic activities will improve the quality of recovery among individuals recovering from alcohol dependence. Therefore, promotion of altruism should be left to the non-

professional, mutual, self-help community. The professional community should continue to employ interventions that are demonstrated to be effective in promoting abstinence, such as cognitive-behavioral treatment (Ouimette et al., 1997), and motivational enhancement therapy (Sellman, Sullivan, Dore, Adamson, & MacEwan, 2001). Twelve-Step therapy is also recommended as an effective intervention in the treatment of alcohol dependence (Ouimette et al., 1997). However, specific suggestions from the AA community outside of Twelve Steps warrant scientific exploration before the professional community should utilize such suggestions.

AA is an international program that serves one primary purpose, which is to help suffering individuals recover from alcohol dependence (AA World Services, Inc., 2001). According to the AA literature, living a life of service is essential to the recovery of alcohol-dependent individuals (AA World Services, Inc., 2001). Furthermore, attendance and active participation in AA has consistently has been linked to positive outcomes among self-reported AA members (Kropp, Manhal-Baugus, & Kelley, 1996; Ouimette, Finney, & Moos, 1997; Noda, et al., 2001). Therefore, although the actual mechanisms of action are not fully understood, AA is an intervention approach that has been demonstrated to be a successful component associated with recovery from alcohol dependence. Altruism is a substantive and substantial component of the AA program of recovery. However, until additional research provides evidence that altruistic activities are linked to observable and measurable benefits, altruism and altruistic acts should not be considered a viable treatment component by the scientific and professional community.

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VITA

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