

**Self-efficacy and Spirituality in the Recovery Process
from Alcohol Dependence: A Paradox**

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ABSTRACT

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Julie Ann States

Literature in the field of addiction supports the importance of self-efficacy and spirituality in the process of recovery from addictive disorders. However, the research on self-efficacy and spirituality among alcohol dependent individuals has not addressed the specific relationship of these constructs throughout the recovery process. The current study provides an exploration of self-efficacy and spirituality as they relate to the recovery process from alcohol dependence.

Data were collected from 81 adult (over age 18) clients who sought treatment at an outpatient drug and alcohol agency. Each client met the criteria for alcohol dependence based on DSM IV criteria, and was placed in one of four groups based on self-reported level of recovery (no treatment – assumed to be actively using alcohol, recent relapse, 3 months sobriety, and 6 months sobriety). The clients completed a demographic data sheet, the Situational Confidence Questionnaire – 39 (SCQ-39), the Spiritual Well-Being Scale (SWBS), and the Spiritual Involvement and Beliefs Scale (SIBS).

The results of this study suggest that self-efficacy and spirituality are related in the recovery process from alcoholism. The seemingly paradoxical relationship between these constructs can be explained through an understanding of the multidimensionality of spirituality. Self-efficacy was correlated with spirituality as it relates to one's connectedness with others and the world (Existential Well-Being), as well as one's involvement in spiritual actions/beliefs. In contrast, self-efficacy was not related to spirituality as it relates to one's connectedness with God (Religious Well-Being). Religious Well-Being may account for the seemingly paradoxical relationship between self-efficacy and spirituality because it is the only aspect of spirituality related to surrender of control. The results also offer explanations for changes in self-efficacy and spirituality with regard to length of recovery.

These findings have important implications for providers of drug and alcohol treatment. By recognizing the relationship between self-efficacy and spirituality, counselors can work to incorporate these constructs into treatment. Counselors could enhance a person's self-efficacy through the use of spiritually oriented interventions. Counselors can expand on the traditional realm of spirituality in addiction treatment (Higher Power) through the inclusion of existential forms of spirituality (e.g. connectedness to self, others, and the world).

Dedication

To my parents for your unconditional love, support, and belief in me - you made this dream possible. And to Bob, my "big brother" and my dear friend - in whose footsteps I will always be proud to follow.

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Chapter 1

Introduction

The field of recovery from alcoholism has been, and continues to be haunted by high rates of relapse for recovering individuals. Regardless of various programs, counseling techniques, and therapeutic interventions, relapse rates in alcohol dependent individuals have been estimated at 70 % (Hunt, Barnett, & Branch, 1971), 75 % (Brown, Peterson, & Cunningham, 1988b), and as high as 80 % by six months posttreatment discharge (Annis, 1986). "Averaged across treatments, only about 30-35% of patients treated will remain abstinent to 1 year, with the percentage dropping to as low as 7% over 4 years depending on the treatment population" (McCrary, 1990, p. 477). Based on this research, as few as one out of ten individuals may experience successful recovery from this progressive illness. In order to address this phenomenon, a closer examination of the relapse process is indicated, with the high relapse rate as the focus of concern (Litman, Eiser & Rawson, 1977; Mayer & Koeningsmark, 1991).

Relapse

Within the past decade, numerous studies exploring relapse, relapse prevention, and program design have been conducted (Annis, 1990; Annis & Davis, 1991; Annis & Davis, 1989; Annis & Graham, 1995; Barber & Crisp, 1995; Carroll, 1996; Marlatt, 1996; Marlatt & Gordon, 1980; Miller, 1991; Miller, 1996; Rawson, Obert, McCann & Marinelli-Casey, 1993; VanHorn, 1993; & Velicer, DiClemente, Rossi, & Prochaska, 1990). Regardless of the plethora of information available, Carroll (1996) suggests that greater understanding of relapse is necessary for prevention of relapse, thereby increasing the effectiveness of substance abuse treatment.

Studies have shown that 2/3 of relapses occur within the first 90 days following treatment (Marlatt, 1985a); therefore, these first 3 months are considered crucial in a person's recovery. If a person is able to maintain behavior change (abstinence) for 90 days, chances of recovery increase. Since relapse involves a failure to maintain behavior change, rather than a failure to initiate behavior change (Annis, 1990), the focus of relapse prevention is on a person's inability to maintain abstinence over time.

Relapse Models: Self-Control Model and Disease Model

Two primary models of relapse, outlined by Marlatt (1985a), present opposing theoretical views of addiction: the self-control model and the disease model. The self-control model separates a single slip (lapse) from a full-blown return to addictive behaviors (relapse) (Appendix A). This self-control model views the "occurrence of a lapse as a fork in the road, with one path returning to the former problem level (relapse) and the other continuing in the direction of positive change" (Marlatt, 1985a, p. 33). From this perspective, a slip can be viewed as a positive learning experience for the individual that could strengthen recovery. As a result, a person's sense of self-efficacy (the belief that one can execute necessary behaviors in order to deal with given situations) could be enhanced by the ability to effectively handle a lapse without experiencing a relapse. This model supports a person's internal locus of control and movement beyond treatment to assuming responsibility for the process of change. Marlatt (1985a) also notes that the self-control model provides a middle ground between abstinence and full relapse. The problem (drinking to excess) is detached from the person so that the individual is not labeled "an alcoholic." The person then can develop skills through treatment and education that will aid in coping with the maladaptive behavior.

In contrast to the self-control model, the disease model of addiction views relapse as an end state, resulting in a dichotomous view of treatment: either the person is cured or relapsed. Addiction is viewed as a physical illness brought on by forces beyond the person's control, thus suggesting an external locus of control. This model advocates total abstinence as the only goal in treatment resulting in a dichotomy of absolute control versus loss of control. The person is forced into one of these two roles and there is no room for any error. In addition, the person is equated with the disease. This is highlighted in the AA program when members state "My name is John, and I am an alcoholic."

Marlatt (1985a) highlights problems with the disease model including: (1) setting people up for a self-fulfilling prophecy in which any violation of abstinence leads to full relapse, (2) suggesting that a violation of abstinence is a return to the disease state, which carries an implicit message that "there is nothing much one can do about the outbreak of symptoms", and (3) reinforcing "the notion that the individual who experiences a relapse is a helpless victim of circumstances beyond his/her control" (p. 51). This view of relapse is closely related to the spirituality approach to recovery which suggests relapse is "the result of negative forces that overpower the individual who has lost touch with the protective influence of a Higher Power" (Marlatt, 1985a, p. 32).

The disease model does, however, aid in the understanding of compulsions by providing a useful frame of reference (Treadway, 1990). The basis for today's disease model of addiction is derived from Jellinek's typology of alcoholism (Peele, 1985). The key element that emerges in the disease theory of alcoholism is the alcoholic's loss of control, which results in the inability to restrain from further drinking (Miller & Hester,

1995; Peele, 1985). In the disease model, alcoholism is seen as a progressive disease, meaning that it proceeds from early stages to its true form (Peele, 1985). This progression is qualitatively (not just quantitatively) different from normality, and the disease is "understood as irreversible, incapable of being cured, but possible to arrest through total abstinence" (Miller & Hester, 1995, p. 3). The disease model received biomedical legitimacy in 1956 when it was formally endorsed by the American Medical Association (Peele, 1985), thus gaining support as an important and valid model of addiction in society.

Thus, one main difference between the two relapse models surrounds "locus of control." This difference in relapse philosophies is paralleled among two common constructs in recovery literature: self-efficacy and spirituality. The self-control model of relapse, along with the self-efficacy approach to recovery highlights a person's personal control in the recovery process. These approaches suggest that a person must develop and enhance a personal belief in his or her own ability to cope with the addiction. In these approaches, the locus of control remains within the person, behavior is detached from the self, and addiction is based on maladaptive behavior. The focus is on the person's responsibility and agency in the process of change.

In contrast, the disease model of relapse, along with the spirituality approach to recovery, suggests that the person is powerless over alcohol or drugs. However, the models differ slightly in that the spiritual model equates relapse with loss of contact with a Higher Power, whereas the disease model equates relapse with the reactivation of a progressive disease (McCrary & Delaney, 1995). Regardless of the differing views on

cause of relapse, both models suggest that the person is powerless and that a loss of control is prevalent.

Self-Efficacy and Recovery

The self-control model relates to self-efficacy theory in that it "recognizes the client's power and influence in the process of change" (McCrary & Delaney, 1995, p. 178). The assumption is that the people make their own choices, take active responsibility for the change process, and are active agents in achieving abstinence. Self-efficacy (a belief in one's ability to perform certain tasks, exercise control, or deal effectively (cope) with a given situation) suggests that a person's perceived control over his or her behaviors is an important aspect in successful recovery. Self-efficacy theory, as applied to addictive behaviors, suggests that a person's ability to avoid a relapse following treatment is determined by the strength of their efficacy expectations (Rychtarik, Prue, Rapp, & King, 1992, p. 435). High levels of self-efficacy promote recovery by substantiating an individual's belief in his/her personal strength and control to avoid relapse in drinking situations.

According to Bandura's self-efficacy theory, future behavior is strongly determined by the belief that one can successfully execute the behavior (McKay, Maisto, & O'Farrell, 1993). In the face of obstacles and situations that contain ambiguous unpredictable elements, self-efficacy will determine whether coping behavior will be initiated, and how well one can organize and execute necessary courses of action (Bandura, 1977). Through a person's sense of control, ability to cope, and belief in successful outcomes, self-liberation is achieved. A lapse in this sense of control or belief system can be detrimental to a person's recovery.

Marlatt (1985a) introduced the concept of Abstinence Violation Effect (AVE) to account for the reaction people experience due to the transgression of an absolute rule. The AVE occurs when a person is committed to a period of abstinence, and a violation of this commitment (drinking) occurs during this period. (Marlatt, 1985b). Many times, after experiencing a lapse, the cause is attributed to personal weakness and failure. This process is highlighted, in particular, in the binary, dichotomous view of addiction as absolute control versus loss of control. A person who experiences a violation of this control may have an increased expectancy of failure, thus setting up a self-fulfilling prophecy for continued drinking. Literature shows that AVE results in a decrease in self-efficacy (Marlatt, 1985a; Marlatt, 1985b).

The question of AVE's influence on spirituality has remained unanswered. A person who relapses may recognize a level of powerlessness, and seek spiritual intervention; however, this is speculation, which requires empirical inquiry.

Spirituality and Recovery

In contrast to the self-efficacy approach, the spiritual approach to recovery, evident in 12-step programs such as Alcoholics Anonymous (AA) or Narcotics Anonymous (NA), necessitates a person surrender his/herself to a Higher Power in order to recover fully. This surrender includes an admission of powerlessness over alcohol, belief in a higher power, and a decision to turn over one's will to the Higher Power (the first three steps of AA). By doing this, the recovering addict can begin to rely on others and a Higher Power as important components in personal recovery. Buxton, Smith, & Seymour (1987) suggests that an addict must transfer the dependence on the ego/mind to an external source that supports recovery.

"The issue of spirituality might be useful to explore relative to the goal of encouraging the development of self-esteem and a sense of having something good inside" (Sommer, 1997, p. 80). The need for connection with a higher power, God, or a transcendent being was proposed in the theories of Carl Jung and Abraham Maslow, and William James (Carroll, 1997; Hanna, 1992, Vaughn, 1991). Maslow believed that every individual was born with certain needs, including spiritual needs, and a longing for transcendent experiences (Vaughn, 1991). In addition, those individuals with a strong sense of spirituality were viewed as the psychologically healthiest (Vaughn, 1991). Jung equated a craving for alcohol to the craving for wholeness, whereas James' writings include descriptions of mystical and conversion experiences, as well as the powerful influences that religious experience can have on human personality (Hanna, 1992).

In contrast to these theories, several researchers (Ellis & Schoenfeld, 1990) question the benefit of spirituality in the role of recovery, and some make reference to its possible detrimental effects. For example, Ellis & Schoenfeld (1990) oppose the view that surrender is a healthy component of recovery. They believe that telling a person that they can recover only through direct intervention of a Higher Power perpetuates helplessness and powerlessness. Similarly, Annis (1986) suggests that surrender (a necessary component of the spirituality approach to recovery) may be detrimental to the recovery process as it undermines an individual's personal power in recovery.

The Paradox

Regardless of the debate regarding the effects of spirituality, the issue of control continues to highlight the seemingly paradoxical dimensions of self-efficacy and spirituality in recovery. Although both constructs have been identified as critical

components of recovery, they propose opposing views regarding the role of self-control: the belief in one's ability (control) to be abstinent (self-efficacy approach) versus the need to surrender control to be abstinent (spirituality approach). Hopson & Beard-Spiller (1995) summarize the lack of agency and efficacy established in steps one and two of AA (Appendix B). "The first two steps admit a loss of control, yet the third step calls for the exercise of volition in the face of loss of volition....AA acknowledges the alcoholic's inability to control the self, and paradoxically calls for the alcoholic to exercise the will to surrender control of the will to experience the beneficent higher power" (p. 13).

Because self-efficacy and spirituality are both viewed as important components of the recovery process, the interrelatedness of these seemingly paradoxical constructs comes into question. Sommer (1997) suggests a possible relation between self-efficacy and spirituality in that an alcoholic's "ability to trust that something greater than themselves is taking care of things adds to their sense of self-efficacy and builds self-esteem" (p. 77). As members of spiritual based programs share and listen to others, they develop ways to cope with situations that were previously viewed as impossible. Bandura classifies this type of experience as performance accomplishment. Performance accomplishments have a positive affect on self-efficacy because they are based on personal mastery experiences (Bandura & Adams, 1977).

Are self-efficacy and spirituality in recovering individuals related, and, if so, how? What information can we derive about the relationship that will be beneficial in relapse prevention?

Statement of the Problem

Relapse has been, and continues to be a problematic issue for individuals in the field of recovery. Two major models of addiction/alcoholism are presented in the literature: the self-control model and the disease model (Marlatt, 1985a, Marlatt, 1996). The self-control model asserts that a person is capable of coping with their addiction, a process in Bandura's theory of self-efficacy. In contrast, the disease model purports that the addiction is out of the individual's control; a process highlighted in the spiritual approach to recovery. The lack of literature on spirituality in the recovery process, and the need for further study in this area is well documented (Corrington, 1989; Whitfield, 1984).

The literature exploring both self-efficacy and spirituality present them as paradoxical constructs. These constructs are typically viewed as separate philosophies that present divergent views of the addictive problem. The separation of self-efficacy and spirituality divides their power in the recovery process, and, in fact, places them at opposing ends on the continuum of recovery. There is a lack of literature exploring the relationship between self-efficacy and spirituality as coexisting phenomena during the recovery process.

Purpose of the study

The purpose of this study was to expand knowledge of the relationship between self-efficacy and spirituality in relapse among alcoholic individuals and to present evidence of their coexistence. Both self-efficacy and spirituality have been explored in recovery literature as important aspects of a person's recovery process. (Annis, 1986; Annis & Davis, 1988; Annis & Davis, 1989; Buxton et al., 1987; Corrington, 1989;

Marlatt, 1985a; Marlatt, 1985b; McCay et al., 1993; Miller, Ross, Emmerson, & Todt, 1989; Prezioso, 1987; Rychtarik et al., 1992; Whitfield, 1984). Self-efficacy theory has been empirically tested as a predictor of relapse in alcoholics (McCay et al., 1993; Rychtarik et al., 1992), and as a crucial construct in maintaining abstinence. In contrast, the literature on spirituality, though primarily phenomenological in nature, supports the significance of spirituality as a component of recovery (Prezioso, 1987; Whitfield, 1984). Alcoholism has been considered a three dimensional illness which includes physical, mental, and spiritual dimensions; therefore, recognizing spirituality as a component in the etiology of alcoholism is imperative in successful recovery (Buxton et al., 1987; Chapman, 1996; Whitfield, 1984).

The research and literature to date have served to highlight the seemingly paradoxical dimensions of self-efficacy and spirituality in recovery. However, if a person's self-control and surrender are both important to recovery, how might they coexist? This cross-sectional study focused on an exploration of self-efficacy and spirituality at four points during the recovery/relapse process: no abstinence (initially entering treatment), abstinence with recent relapse (returning to treatment following relapse), 3 months sobriety, and 6 months sobriety. The results will expand the focus and methodology regarding relapse, self-efficacy, and spirituality, highlight the relatedness of spirituality and self-efficacy during the recovery process, and offer plausible arguments for their coexistence.

Research Questions and Hypotheses

1. What is the relationship between self-efficacy and spirituality for alcoholic individuals at different levels of sobriety (no sobriety, sobriety period followed by recent relapse, 3 months sobriety, and 6 months sobriety)?

Hypothesis 1: There is a relationship between the level of self-efficacy and spirituality for alcoholic individuals at different levels of sobriety.

2. What is the level of self-efficacy for alcoholic individuals at different levels of sobriety (no sobriety, sobriety period followed by recent relapse, 3 months sobriety, and 6 months sobriety)?

Hypothesis 2: There is a difference in the level of self-efficacy for alcoholic individuals at different levels of sobriety.

3. What is the level of spirituality for alcoholic individuals at different levels of sobriety (no sobriety, sobriety period followed by recent relapse, 3 months sobriety, and 6 months sobriety)?

Hypothesis 3: There is a difference in the level of spirituality for alcoholic individuals at different levels of sobriety.

Key Terms

Alcohol Dependence: Based on DSM IV criteria in which a maladaptive pattern of 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: tolerance, withdrawal, larger amounts over a longer time than intended, desire or unsuccessful efforts to cut down or control use, great deal of time spent in substance related activities,

impact on social, occupational or recreational activities, and continues use despite knowledge of harmful effects.

Self-efficacy: The "judgment of the likelihood that one can organize and execute given courses of action required to deal with prospective situations" (Bandura, 1980, p. 263). Self-efficacy will be measured by the Situational Confidence Questionnaire (Annis & Graham, 1987).

Spirituality: The relationship with self, others, and a transcendent (Carroll, 1997; Whitfield, 1984). Spirituality will be measured by the Spirituality Well-being Scale (Ellison, 1983) and the Spiritual Involvement and Beliefs Scale (Hatch, Burg, Naberhaus, & Hellmich, 1998).

Relapse: A full return to a former behavior or habit (Marlatt, 1985a).

Lapse: A single act of falling back or a one time slip (Marlatt, 1985a).

Surrender: Relinquishing control over continued use of drugs or alcohol and accepting the idea that life is out of control (Goldsmith, 1992).

Chapter 2

Literature Review

Introduction

The overview of the literature for this study encompasses three primary areas: relapse, self-efficacy, and spirituality. This section will begin with an overview of the relapse literature, including an exploration of addiction models, relapse typology, and theoretical models of recovery. The second part of this review will explore the construct of self-efficacy theory as it relates to alcoholism, relapse, and recovery. Lastly, spirituality literature will be presented offering support for this construct as an important factor in alcoholism.

Alcohol Abuse/Alcoholism and Relapse

"Most addictive behaviors involve a conflict of motives. The desire for immediate gratification is often in direct conflict with a desire to avoid delayed negative effects" (Marlatt, 1985c, p. 203). This conflict is highlighted in the process of recovery when the individual attempts to reverse this process: delay immediate gratification for the sake of long-term benefit. The struggle experienced by individuals can appear ominous, with relapse rates of individuals in recovery from alcohol or drug abuse estimated at 70% (Hunt et al., 1971), 75 % (Brown et al., 1988b), and as high as 80 % by six months posttreatment discharge (Annis, 1986).

In order to understand relapse, researchers began an exploration of the relapse process as a separate entity in the field of addiction. Professionals became interested in the situations that lead to relapse, the causes of relapse, and the development of programs aimed at preventing this phenomenon.

Typology of Relapse

A primary effort in early relapse research was to identify precursors to resumed drinking and drug use. Marlatt and Gordon's work is often viewed as the foundation of relapse prevention models (Rawson et al., 1993). In the mid and late 1970's, Marlatt studied situational factors associated with relapse such as negative emotional states, coping with urges, and interpersonal conflict. Marlatt (1996) says that the purpose of his original research was to determine the effectiveness of aversion therapy in the treatment of alcoholism. He found that aversion (or punishment) produced only temporary results, and showed no significant effect one year later. The results his early research suggested that aversion therapy led to a suppression of drinking and relapse at a 3-month follow-up, but that the effect subsided by the following year (Marlatt, 1996). This led to his exploration of the cues associated with the resumption of drinking through analysis of the precipitating events to relapse.

In a follow-up study Marlatt (1978) conducted structured interviews (with subjects that had experienced a drinking episode) at the 3-month follow-up to identify issues related to the initial lapse (first drinking episode). When faced with drinking cues, a person can resume drinking (relapse), not drink, or abstain while exercising a response that is incompatible with drinking (e.g. engaging in anger management techniques along with abstinence) (Marlatt, 1996). These results were originally classified into a five-category typology that included frustration and anger, social pressure, intrapersonal temptation, negative emotional state, and miscellaneous other situations. Following this initial categorization, Marlatt and his research group conducted studies for the next ten years to further develop the cognitive-behavioral model of relapse. The final eight-

category model is divided into two parts: Intrapersonal determinants (primarily within the individual) and Interpersonal determinants (primarily interaction with others who exert influence). The intrapersonal determinants of relapse include (1) Negative emotional states, (2) Negative physical states, (3) Positive emotional states, (4) Testing personal control, and (5) Urges and temptations. The interpersonal determinants encompass (1) Interpersonal conflict, (2) Social pressure, and (3) Positive emotional states (Marlatt, 1996).

Abstinence violation effect. Marlatt (1985b) introduced the term Abstinence Violation Effect (AVE) in 1978 to describe "a possible common psychological reaction among individuals who had violated a self-imposed abstinence rule" (p. 158). This effect is experienced in the all or nothing philosophy of relapse: either you are in recovery or you are not. Any drug or alcohol use, even one drink, is sufficient to violate the rule of abstinence. It is hypothesized (Marlatt, 1985b) that AVE is augmented by cognitive dissonance (disparity between self-beliefs and a behavior incongruent with this self-image) and a self-attribution effect (attributing the cause of relapse to personal weakness or failure). Thus, the intensity of AVE will vary depending on these elements. Through the use of cognitive reframing, clients can be taught that a slip or lapse does not necessarily lead to a full-blown relapse (Rawson et al., 1993).

Although numerous models of alcoholism and relapse exist, two of the most commonly known models are the self-control (cognitive based) model and the disease model (Marlatt, 1985b). These models will be reviewed here since they form the basis for this study.

Self-control Model

The self-control model (grounded in Bandura's self-efficacy theory) posits an internal locus of control in which the person becomes able to assume the responsibility for the process of change. This approach utilizes cognitive behavioral techniques such as cognitive restructuring, problem solving, and decision making to treat behavioral disorders. It is assumed that a person is capable of acquiring new skills and behaviors that will eventually lead to lifestyle change. There are several ideological components of the self-control model outlined by Marlatt (1985a). The treatment goals are individualized and range from total abstinence to controlled use; thus, there is a middle ground between the opposing extremes of total control (abstinence) and total loss of control (relapse). The program also addresses adherence and compliance issues; maintaining change versus initiating behavior change is stressed. Maintenance is achieved through lifestyle change, which facilitates the development of motivation and coping skills. Therefore, overall coping capacity is a primary focus of treatment.

The self-control model also purports that "addictive behaviors are not always successfully treated by insistence upon excessive restraints over these behaviors" (Marlatt, 1985a, p. 17). A sense of personal mastery and control over the addictive behavior may be a more appropriate goal for treatment by attempting to "foster a sense of detachment between the problem behavior and the person's identity or self-concept" (Marlatt, 1985a, p. 17). Rather than label a person as an alcoholic or a drug addict (common to the disease model), this detachment fosters a non-evaluative approach to treatment in which the person can serve as his or her own observer and healer. This model also posits that the client will be able to acquire new skills that will render the

person capable of coping with high-risk situations. This internal process can take place without the continual assistance of external aids (such as the therapist or support group).

The Disease Model

"The actual empirical basis for the current disease model was Jellinek's 1946 analysis of ninety-eight questionnaires from a mailing sent to about 1,600 Alcoholics Anonymous members" (Peele, 1985, p. 29). Jellinek proposed that alcoholism was a disease, like cancer or pneumonia, and the American Medical Association accepted this classification in 1956. Jellinek's model proposed 3 key elements of the disease of alcoholism: (1) a loss of control over one's drinking, (2) a progression through distinct phases or stages, and (3) if left untreated, ultimate death (Doweiko, 1993). Doweiko (1993) noted that Jellinek's theoretical model of alcoholism, without significant modification, has become the primary model in the United States.

Interestingly, this model has not found wide acceptance beyond the U.S. (Doweiko, 1993). Doweiko (1993) highlighted the framework of the American medical model as one possible reason. The view of disease varies considerably across cultures, with significant differences apparent between Eastern and Western models. Whereas American (western) medicine focuses primarily on the biophysical aspect of the individual, eastern medical practices tend to incorporate a more holistic view that can include physical, mental, emotional, and spiritual aspects of an individual. Therefore, the disease model, in these cultures, could appear limited in the diagnosis and treatment of medical disorders, including alcoholism.

The key element that emerges in the disease theory of alcoholism is the alcoholic's loss of control, which results in the inability to restrain from further drinking

(Miller & Hester, 1995; Peele, 1985). This model asserts that external forces outside the person's control bring on addiction, and that total abstinence is the only option in recovery. This results in a dichotomy of absolute control versus loss of control, and forces the person into one of these two roles with no room for error. This view is closely related to the spirituality approach to recovery, which suggests relapse can occur when an individual loses contact with the Higher Power, and, as a result, is overpowered by negative forces (Marlatt, 1985a).

There several advantages of the disease model (or medical model). One is that people can accept help without being blamed for their presenting problem or weakness (Marlatt, 1985a). Another advantage is that it serves as a useful frame of reference to help patients understand their compulsions (Treadway, 1990). The primary weaknesses of this model surround the external locus of control. As previously noted, Marlatt (1985a) highlighted problems with the disease model including: (1) setting people up for a self-fulfilling prophecy in which any violation of abstinence leads to full relapse, (2) suggesting that a violation of abstinence is a return to the disease state, which carries an implicit message that there is no control over the outbreak of symptoms, and (3) reinforcing the victimization of people who experience relapse because the circumstances are beyond personal control. "It is ironic that the major strength of the disease model, absolving the addict of personal responsibility for the problem behavior, may also be one of its major shortcomings" (Marlatt, 1985a, p. 7). Viewing alcoholism as a disease allows practitioners to focus on intervention and treatment (as opposed to etiology); however, without some sense of personal responsibility for the condition, treatment may be limited. For example, professionals may effectively treat the physical problems

associated with alcohol abuse, but if the individual continues to drink (personal responsibility), the intervention will have limited benefits. In addition, the abdication of personal responsibility suggests the person is dependent on others for recovery. This belief parallels 12-step approaches where attendance at meetings, group support, and continual assistance is deemed crucial for ongoing sobriety.

A Comparison of Self-Control and Disease Models

One major difference between the self-control and disease models surrounds the issue of relapse. The central issue is the distinction between a lapse and a relapse, with the former referring to a single slip or drinking episode. The self-control model, proposed by Marlatt, posits a view of relapse being handled in a pragmatic manner as a setback rather than an inevitable collapse resulting in a return to the addictive behavior (Marlatt, 1996). He compared this process to an ice skater that falls during competition. Whether the skater gets up and continues depends on whether the fall is considered a single slip or mistake (lapse) or a total failure (relapse). Similarly, by allowing room for mistakes in the recovery process, a person's self-efficacy could actually be enhanced by the ability to effectively handle a lapse without experiencing a full-blown relapse.

In contrast, many recovery philosophies (such as the disease model) view any use of alcohol or drugs following treatment as indicative of relapse. This pessimistic view of recovery results in a rigid dichotomy of abstinence that is likely to create the belief and expectation that any violation of abstinence will result in a full blown relapse (Marlatt, 1985a).

The models also present markedly different philosophies regarding locus of control, treatment goals, treatment philosophy, treatment procedures, and general

approaches to addiction (Appendix A). Marlatt (1985a) delineated these differences as follows: the self-control model posits an internal locus of control, a range of abstinence to controlled drinking as a treatment goal, and detachment of identity from the addictive behavior. In contrast, the disease model suggests an external locus of control, abstinence as the only treatment goal, and labeling the person with the disease. The self-control model utilizes behavioral skills, coping skills, and cognitive restructuring as primary treatment procedures, whereas the disease model focus on group support, confrontation, and conversion. Finally, these models differ on their overall view of addiction. The self-control model views addiction as maladaptive behavior, in contrast with the disease model that asserts a biophysical and psychophysical process.

The issues highlighted in the two models offer important implications for the relapse process. The primary issue resultant from this review is the role of personal control in the process of relapse and recovery. An exploration of the relapse process is necessary to better understand the precipitating events, process, and recovery from a relapse in alcoholism.

Relapse Prevention Models

Marlatt and Gordon's cognitive-behavioral model of relapse prevention has been applied to a variety of addictive behaviors. Rawson et al. (1993) summarized various relapse prevention models that have developed based on this model. For example, Wallace (1989) developed a model for crack and cocaine users, Roffman & Barnhart (1987) for marijuana dependence, and Carroll, Rounsaville, & Gawin (1991) for cocaine abuse.

In addition, Annis and associates developed a well-known relapse prevention model at the Addiction Research Foundation in Toronto. Annis and Davis' (1991) model is grounded in self-efficacy theory, and applies relapse prevention strategies to the treatment of alcoholism.

Relapse prevention and alcoholism. Annis & Davis' (1991) relapse prevention (RP) model for alcoholism "proposes that when a client enters a high-risk situation for drinking, a process of cognitive appraisal of past experiences is set in motion which culminates in a judgment, or efficacy expectation, on the part of the client of his or her ability to cope with the situation" (p. 204). Subsequent to this process is the client's drinking behavior. The client's drinking is assessed in relation to eight categories of drinking situations (as proposed by Marlatt, 1985a). A profile is generated identifying the client's highest risk areas for heavy drinking (Annis & Davis 1991). The profile can be generalized (all categories represent equal drinking risk), or differentiated (defined categories of increased drinking risk). A differentiated profile can be either positive (heavy drinking in positive situations), negative (heavy drinking in negative situations), or mixed. A person with a positive profile would tend to drink as a response to social pressure, in situations that elicit positive emotions (e.g. parties, wedding receptions), or to test personal control. A negative profile suggests drinking as a response to negative emotion, interpersonal conflict, and discomfort related to urges or physical symptoms. The mixed profile (drinking due to both positive and negative factors), though rare, can still target primary areas for relapse intervention. This information can aid the client in identifying high-risk situations, develop alternate coping mechanisms, and, in turn, increase personal efficacy expectations.

Relationship of Relapse Models, Self-efficacy, and Spirituality

The relapse models suggest an interesting paradox in the field of alcoholism. The contrasting assumptions about the etiology and treatment of addiction are paralleled between two primary constructs in the field of recovery: self-efficacy and spirituality. The external locus of control is found in both the disease model of addiction and the construct of spirituality in the field of recovery; likewise, internal locus of control is postulated in the self-control model and self-efficacy theory. The following sections will explore the research and history of these constructs in relation to alcoholism, relapse, and recovery.

Self-Efficacy

Bandura's Self-Efficacy Theory

Self-efficacy is "concerned with judgments of the likelihood that one can organize and execute given courses of action required to deal with prospective situations" (Bandura, 1980, p. 263). According to Bandura (1977), people choose a course of action, and decide how much energy to expend on a given task, based on their evaluation of diverse information concerning their capability. Self-efficacy theory posits that a person's perceived ability to perform certain behaviors is crucial to the successful execution of a particular course of action. People who believe they can manage a task are likely to undertake and perform that activity, whereas people tend to avoid tasks that are perceived as exceeding their capabilities (Bandura, 1977; Bandura, 1980; Bandura, 1982). This model also proposes that during anticipatory and actual interactions with the environment, individuals' emotional reactions are strongly influenced by their perceived capabilities (Bandura, 1980). Emotional arousal is inversely related to self-efficacy: high

self-efficacy would be associated with lower anticipatory emotional arousal, and low self-efficacy may generate high emotional arousal.

Bandura differentiated two types of expectancies related to coping: (1) an outcome expectancy defined as "a person's estimate that a given behavior will lead to certain outcomes" and (2) an efficacy expectancy which is "the conviction that one can successfully execute the behavior required to produce the outcomes" (Bandura, 1977, p. 193.). The two are differentiated because behavior is influenced by efficacy expectancy; the belief that a behavior will lead to an outcome is mediated by a person's belief that he or she can perform the necessary task. Bandura (1977) also noted that efficacy expectations determine effort and persistence when facing obstacles. Perceived self-efficacy is positively correlated with the level of effort expended on a given task. The higher the self-efficacy, the more active the efforts.

Efficacy expectations vary on three primary dimensions that have performance implications: magnitude, generality, and strength. First, the magnitude of self-efficacy refers to the number of behavioral steps a person believes he or she can complete successfully (Maddux & Stanley, 1986). Second, generality refers to the extent the efficacy in one situation can be applied to similar circumstances or contexts. Third, the strength of the expectancy expectation alludes to the resilience of the expectation. A person with strong expectations will continue to expend effort regardless of disconfirming experiences. On the other hand, weak expectations can be stifled or completely extinguished by an experience that does not validate the persons' ability (Bandura, 1977).

In addition to the three dimensions of efficacy expectations outlined above, four sources of personal efficacy information are identified: performance accomplishments, vicarious experience, verbal persuasion, and psychological states. Performance accomplishments exert the most influence on self-efficacy expectations because they are based on personal mastery experiences (Bandura & Adams, 1977). The premise of this type of information is based on success or failures experienced when attempting a task. "Successes raise mastery expectations; repeated failures lower them, particularly if the mishaps occur early in the course of events" (Bandura, 1977, p. 195). Vicarious experience relates to modeling, observation, and imitation of a desired behavior or outcome. Verbal persuasion means that a person is told they can cope successfully, thereby increasing personal belief and efficacy. Finally, emotional arousal refers to the process whereby people associate high aversive emotional states with poor performance or lack of efficacy. Any reduction in emotional arousal (such as anxiety and fear) may result in increased efficacy expectancy.

In summary, Bandura (1990) highlighted the influence of self-efficacy beliefs in cognitive, emotional and behavioral functioning:

Self-efficacy beliefs determine, among other things, whether people's thought patterns are self-aiding or self-impeding, the nature of their inferential judgments, the level of motivation they enlist and sustain in given endeavors, their vulnerability to stress and depression, and their choice of activities and environmental settings which shape developmental trajectories. (p. 103)

Self-Efficacy and Addictive Behaviors

In addictive behaviors, self-efficacy theory is related to a person's ability to avoid relapse, with the strength of the person's efficacy expectations as a primary determinant (Rychtarik et al., 1992). The application of Bandura's self-efficacy theory to addictive behaviors (DiClemente, 1986), including alcohol problems, has been widely researched (Annis, 1990; Annis & Davis, 1991; Annis & Davis, 1989; Lennings, 1996; Mayer & Koeningsmark, 1991; Rollnick & Heather, 1982).

DiClemente (1986) asserted that the application of self-efficacy theory to addictive change can be difficult. He delineated several types of self-efficacy that could be assessed when considering addictions; (1) treatment behavior self-efficacy, (2) recovery self-efficacy, (3) control self-efficacy, and (4) abstinence self-efficacy. Whereas the first three self-efficacy types refer to performance in treatment, recovering from a slip, and controlling addictive behaviors in high-risk situations respectively, abstinence self-efficacy focuses on the "subject's confidence in his or her ability to abstain from engaging in the addictive behavior in various situations that are cues or triggers to perform that behavior" (DiClemente, 1986, p. 303). Although each of the self-efficacy types is important, abstinence self-efficacy is most typically assessed in addiction research. Abstinence self-efficacy is crucial because, without the belief that one can abstain from drinking, relapse will likely occur. Interestingly, this type of self-efficacy focuses on nonperformance (e.g. not drinking) rather than one's ability to perform a particular behavior. This belief in abstaining from the addictive behavior (abstinence self-efficacy) has been evaluated in numerous studies conducted to explore

the predictive nature of pre and post-treatment self-efficacy on maintenance of abstinence behaviors.

Primary studies on self-efficacy in addictive disorders were conducted in smoking cessation research. DiClemente (1986) summarized the results of these studies in which subjects were assessed on a Likert scale based on their confidence that they would abstain from smoking when faced with a variety of cues. Several similarities among relapse cues emerged that could be divided into two primary categories: negative affect and social pressure. In addition, some consideration of image, weight gain, testing will power, and positive effect is noted (DiClemente, 1986). The early consensus of these studies suggested that pretreatment self-efficacy does not predict cessation after treatment, but that it may influence treatment attendance. Posttreatment self-efficacy evaluations are, however, significant predictors of maintenance following treatment.

In alcoholism treatment, self-efficacy has been identified as an important construct in two primary areas: relapse prevention (Annis & Davis, 1988; Marlatt & Gordon, 1980), and relapse prediction (Lennings, 1996; Miller, McCrady, Abrams, & Labouvie, 1994; Rychtarik et al., 1992; Solomon & Annis, 1990). Additional empirical research evaluating the tenets of self-efficacy as applied to alcoholism treatment is needed (DiClemente, 1986; Rychtarik et al., 1992).

Self-efficacy and relapse prevention. Annis & Davis' (1988) clinical trial provided support for the validity of self-efficacy ratings in relapse to excessive drinking. Forty-one clients (38 male, 3 female) presenting for alcohol treatment were involved in relapse prevention procedures. The program consisted of six hours of intake assessment and eight outpatient counseling sessions over a three-month period. Self-efficacy was

assessed using the Situational Confidence Questionnaire (SCQ), and drinking history was evaluated with the Inventory of Drinking Situations (IDS). A detailed documentation of drinking risk areas with associated self-efficacy ratings was kept, along with homework assignments and determinants of any drinking situations that occurred. The follow-up on self-efficacy ratings was conducted at six months post-treatment. Eighty-five percent of the clients provided six-month outcome data. Client's ratings of self-efficacy (on the SCQ) improved substantially from intake to six months follow-up, with the intake SCQ scores averaging 62.42 and six-month follow-up SCQ averaging 89.66 with $p < .001$.

Subsequent to this study, Annis & Davis (1989) developed a cognitive-behavioral approach to relapse based on self-efficacy theory. A program may be effective at initiating behavior change, and yet, remain ineffective at maintaining the change (Annis & Davis, 1989). It is the maintenance of behavior change, not the initiation, that is necessary to avoid relapse. Their goal was to develop a program that involved increasing the client's sense of personal efficacy in coping with drinking situations. The authors again utilized the SCQ and the IDS for assessment, and grounded their program conceptually in Bandura's self-efficacy theory and Marlatt & Gordon's (1980) empirical work on the typology of relapse situations.

As described in the previous review of relapse literature, Marlatt & Gordon (1980) also employed self-efficacy theory in the examination of the typology of relapse. Marlatt (1985a) noted an increase in self-efficacy and a decrease in relapse probability following successful coping; however, experiencing a failure in coping will have the opposite effect: a decrease in self-efficacy and an increase in relapse probability.

Self-efficacy and relapse prediction. One main area of exploration in self-efficacy and addictive behaviors surrounds the issue of the predictive nature of self-efficacy. More simply, "Can self-efficacy predict future relapse?" There is controversy in research regarding the role of self-efficacy in the prediction of behavior (Solomon & Annis, 1990).

Solomon & Annis (1990) differentiated between outcome expectancies and efficacy expectancies to explore the role of self-efficacy in the prediction of behavior. One-hundred male alcoholics from two abstinence-oriented treatment programs comprised the sample. Level of alcohol dependence was moderate as measured by the Alcohol Dependence Scale. Two measures of expectancy were The Situational Confidence Questionnaire (SCQ), a measure of drinking-related self-efficacy, and the Outcome Expectance Scale (OES), a measure of outcome expectancy in alcoholics (Solomon & Annis, 1990). Ninety participants provided follow-up data; there were significant improved scores on the SCQ, but no significant improvement on the OES. Outcome expectancies at intake were not predictive of post-treatment consumption of alcohol. Overall self-efficacy (as measured by the SCQ) provided evidence that lower self-efficacy scores at intake and at follow-up were correlated with heavier drinking occasions at follow-up.

Rychtarik et al. (1992) conducted a study to examine the role of self-efficacy in the prediction of relapse following alcoholism treatment in a 12-month follow-up evaluation. Subjects (N=87) were involved in inpatient alcohol dependence treatment at a VA Hospital, had no severe psychiatric diagnosis, and had completed 28 days of inpatient care. Aftercare sessions were scheduled bi-weekly for 2 months, once a month

for the next 4 months, and once at 9 and 12 months from discharge. The Confidence Questionnaire (CQ) was used as the measure of self-efficacy. The CQ provided subjects with 50 high-risk drinking situations and asked to rate each situation on a scale of 0 - 100% based on how much of the time they believed they would be able to abstain from drinking. At 6-month and 12-month follow-up, the subjects were classified into one of two groups: nonrelapsed and relapsed. The results support the hypothesis that self-efficacy theory can be applied to the prediction of relapse following alcoholism treatment. Individuals entering treatment with higher self-efficacy relapsed later in the posttreatment period than did those individuals with low self-efficacy at intake. The data further suggest that "high levels of intake self-efficacy alone may function to delay a relapse but may not prevent it from eventually occurring" (Rychtarik, et al., 1992, p. 439). These results differ from previous studies, which found a limited relationship or no relationship between intake self-efficacy and outcome.

Rollnick and Heather (1982) explored the relevance of self-efficacy theory to abstinence and relapse in alcoholism treatment. In order to clarify problems commonly encountered in treatment (e.g. resistance), they delineated outcome expectancies (belief that engaging in a particular behavior will lead to certain outcomes) and efficacy expectancies (belief that one can perform the behavior required to achieve said outcomes). Rollnick and Heather (1982) described both positive and negative forms of expectancies. The positive form of outcome expectancies is the belief that abstinence is the solution; the negative aspect is the belief that one drink equals relapse (a message suggested in the disease model of addiction). Similarly, the positive form of efficacy expectations is the belief in the ability to maintain sobriety, while feelings of weakness in

relation to alcohol constitute the negative form. Although these are sides to the same coin, they propose important implications for treatment. Rollnick and Heather (1982) purported that treatment must endorse the positive form of each expectation. The focus of treatment, therefore, is the belief that abstinence is the goal and the development of self-efficacy to accomplish this goal.

Treatment typically views outcome and efficacy expectations as a single construct. If a person does not believe that abstinence is the solution, or that a slip will lead to relapse (outcome expectancies), resistance in treatment will likely be experienced. Rollnick and Heather (1982) suggested negotiating outcomes at the onset of treatment to improve the effectiveness of the program for individuals. This individualized approach can create alternatives for those who do not believe in life-long abstinence, thereby acknowledging that different people have different beliefs and needs in treatment. The primary negative component of efficacy expectations involves the belief that the person will not be able to cope with a lapse. So while the treatment program is focused on increasing the client's willpower, it is, at the same time, purposing that a lapse will lead to continued drinking with abstinence as the only solution. The authors suggested that outcome expectancies should be defined and assessed (setting treatment goals) before approaches to raise efficacy expectations are introduced. By doing this, the client will be proactive in creating their goals, which will, in turn, enhance their outcome expectancies. Once this is achieved, the treatment team can focus on strengthening the client's belief in his or her ability to perform the tasks necessary to achieve the proposed goal.

Self-efficacy Summary

Although there is still some disagreement about the nature of self-efficacy in relapse, research offers consistent support for self-efficacy as an important construct in the alcoholism field. The literature suggested that personal belief in a behavior or an outcome (either an outcome or an efficacy expectation) has a strong influence on a person's ability and willingness to change. In the field of recovery, self-efficacy needs to be further assessed in order to better understand its influence in the relapse process.

Spirituality

Introduction to Spirituality in Addictions

Although spirituality is viewed as a critical component in recovery from alcoholism, there is a dearth of research in this area (Corrington, 1989; Johnson, Sandler, & Griffen-Shelley, 1987; Spalding & Metz, 1997; & Whitfield, 1984). Even though recent articles address some spiritual components in the recovery process, they remain largely phenomenological in nature. For example, Corrington (1989) delineated negative and positive spirituality saying that fear is the source of negative spirituality. Self-pity and resentment (common to addicted individuals) stem from this fear base. In contrast, positive spirituality is based on trust, which leads to gratitude and acceptance. This trust is also described as faith in a Higher Power. "The ability or inability to trust this power at any given point in time is the fulcrum upon which the continuum of spirituality lies" (Corrington, 1989, p. 152).

Although most drug and alcohol programs support the use of a 12-step, spiritually based program, the construct of spirituality remains neglected in alcoholism research (Spalding & Metz, 1997). Furthermore, the application of operational

definitions (of spirituality in recovery) has been difficult because they are often too liberal for interpretation (Miller, 1991). Clearly, there is a need to recognize, explore, and explain the spiritual component in the etiology of alcoholism. Fahlberg and Fahlberg (1991) summarize saying "If spirituality is a part of human experience, then we seem to need...an expanded epistemology to study spirituality" (p. 280).

The lack of empirical research on the construct of spirituality in psychology stems, in part, from the development of psychology from a philosophy to a science. The historical antecedents offer support for the inclusion of spirituality in psychological realms, including addiction.

Brief Historical Development

William James' contributions to the field of psychology in the late 1800's and early 1900's are critical in the development of psychology. His 1902 book, The Varieties of Religious Experience, "is considered to be among the best studies of religious experience ever accomplished" (Hanna, 1992. p. 170). Hanna (1992) suggested that James's classic descriptions of mystical and conversion experiences influenced Bill Wilson (co-founder of AA). James wrote "Many worlds of consciousness exist...which have a meaning for our life...the total expression of human experience... invincibly urges me beyond the narrow 'scientific' bounds. Assuredly, the real world is of a different temperament - more intricately built than physical science allows" (in Richards & Bergin, 1997, p. 21).

Another prominent psychologist, Carl Jung, equated alcohol cravings with a desire for wholeness (Hanna, 1992). Hanna further contended that overuse of alcohol was viewed as a search for higher consciousness by both Jung and Bill Wilson. In a now

classic letter to Bill Wilson (as quoted in Grof, 1993) Jung wrote, "Alcohol in Latin is spiritus, and you use the same word for the highest religious experience as well as for the most depraving poison" (p. 20). Hanna (1992) surmised the Jungian view of God as an archetype, which allows for a personal experience with a Higher Power separate from doctrinal interpretation.

Humanistic psychologist Abraham Maslow referred to collaborating with transcendent forces and listening to one's self as methods to discover one's inner nature. (Carroll, 1997). Later in his life, Maslow added self-transcendence to the peak of his hierarchy of needs indicating a spiritual dimension beyond basic human needs. Carroll (1997) said that self-actualization, including self-transcendence, shares similarities with spirituality because it addresses a healthy relationship with self. In addition self-actualization address a relationship with others beyond psychological well-being.

More recently, transpersonal psychology (sometimes referred to as the fourth force in psychology following psychoanalysis, behaviorism and humanistic psychology) has emerged focusing on the spiritual and transcendent experiences of humans. Small (1991) explained that Transpersonal psychology addresses both the ego and the soul or spirit, thus allowing for the spiritual realm within human experience. Grof (1993) said that transpersonal psychology and spirituality are not a rejection of science, medicine and psychology. Whitfield (1984) agreed saying that transpersonal psychology and spirituality actually encompass, nurture and enfold all of these disciplines.

As one can see, spirituality has been an important part of psychology from its earliest development. Regardless of this history, spirituality and psychology continue to

have a stormy relationship resultant from numerous issues in the evolution of psychology.

Spirituality and Psychology

Spiritual and religious issues in psychology have, at best, a difficult relationship. "Religious and spiritual values systems and the epistemic systems of psychology have long been opposed to one another" (Grimm, 1994, p. 155). Heibert (1982) pointed out the dualistic separation of the religious supernatural realm from the scientific realm, while Bergin (1980) noted biases in research in the view that religion and emotional health are contradictory. In addition, Grimm (1994) suggested that psychology has maintained a distance from religion, to the point of labeling religious beliefs as universal obsessional neuroses. Freud labeled religion a cultural neurosis, whereas Ellis equated religion with irrational thinking and emotional disturbance (Lannert, 1991). This controversy is rooted in psychology's struggle to be defined as a scientific discipline (Porter, 1995).

In light of this history, it is not surprising that spiritual experiences are often overlooked, judged, devalued, or, at worst, diagnosed as pathological. This devaluation is largely due to the profession's attempt to root itself in empirical science and dissociate itself from nonempirical philosophy (Mack, 1994; Shafranske & Gorsuch, 1984). Thus, "to accept a spiritual dimension to alcoholism treatment and recognize its importance in recovery is to view human functioning, and consequently treatment, as engendering a worldview that emphasized the profound difference between a phenomenological and empirical understanding of the human animal" (Chapman, 1996, p. 44).

Spirituality versus Religion

As evidenced by the preceding section, spirituality and religion are often used interchangeably in general psychology literature. Mack (1994) suggested that a strong awareness of the delineations between religiosity and spirituality is critical. The substantial literature specifically focused on spirituality and religion suggests that spirituality and religion are disparate concepts (Grimm, 1994; Lannert, 1991; Porter 1995; Shafranske & Maloney, 1990; Worthington, Kurusu, McCollough, & Sandage, 1996). In the field of recovery, 12-step programs have emerged focusing on the spiritual path in recovery. Buxton et al. (1987) noted that these programs are spiritually oriented as opposed to religious. Although Eastern culture views spirituality and religion as disparate constructs, Western culture has difficulty delineating the differences.

In spirituality literature, spirituality has been defined as the courage to look within and to trust (Lannert, 1991), a personal inclination or desire for a relationship with a transcendent or God (Grimm, 1994), having to do with experience and what is happening in the heart (Maher & Hunt 1993), something experienced directly in the here and now (Porter, 1995), and believing in, valuing, or devoted to some higher power that what exists in the corporeal world (Worthington et al., 1996). Spirituality, in contrast to religion, focuses on a person's development, manifestation, and experience of a relationship with the eternal (Brown & Peterson, 1991).

In addiction and recovery literature, spirituality is understood as the relationship or connection with self, others, and a transcendent being/higher power (Brown, Peterson, & Cunningham, 1988b; Carroll, 1997; Prezioso, 1987). Prezioso (1987) defined spirituality as "our ability to stand outside of ourselves and consider the meaning of our

actions, the complexity of our motives and the impact we have on the world around us. Spirituality is a process of becoming, not an achievement..." (p. 233).

In contrast, religion is conceptualized as the adherence to the beliefs and practices of an organized church or religious institution (Shafranske & Maloney, 1990, p. 72), an attempt to codify and capture that (spiritual) experience in a system (Legere, 1984), and the social or organized means by which a person expresses spirituality (Grimm, 1994).

In the field of recovery, the delineation between spirituality and religion is imperative. For the purposes of this study, spirituality will be differentiated from religion, and will be defined as the relationship or connection with self, others, and a transcendent being/higher power. A comprehensive model of addiction that addresses the spirituality component is important in enhancing one's understanding of spirituality's role in the recovery process.

Tripartite Model of Addiction

Addiction has been described as tripartite illness encompassing three dimensions: physical, mental (or emotional), and spiritual (Buxton, et al., 1987; Chapman, 1996; & Whitfield, 1984). The physical aspects of drug or alcohol addiction are obvious; corporal deterioration through weight loss, liver damage, fatigue, gastritis and malnutrition, for example. Buxton et al. (1987) suggested that recovering individuals are actually recovering from a problem in living. They defined addiction as a disorder of the mind, emotions, and will (Buxton et al., 1987). Cognitive and emotional disturbances are common for those under the influence of drugs or alcohol, and well as those in recovery from these substances. In addition, Chapman (1996) noted that spirituality in recovery is as important as the physical and mental dimensions, and that it also requires treatment.

This spiritual component addresses issues such as isolation, personal sense of connectedness, and internal control, and purpose in life (Carroll, 1993; Chapman, 1996).

Spirituality and Recovery

Recovery through the spiritual process involves repairing relationships with self and others, as well as connecting with a Higher Power (Brown et al., 1988b). "As a result, spirituality can provide the recovering alcoholic an opportunity to cultivate a lifestyle in which their character development often far exceeds all their expectations" (Watkins, 1997, p. 581). Recovery addresses the spiritual issues of disharmony and isolation, which exceeds the traditional theistic view (Chapman, 1996). Clemmons (1991) described this process as the encouragement of development and potential through an enhanced connectedness with others.

Brown et al. (1988b) developed an approach based on a cognitive-behavioral (CB) model to incorporate spirituality in the treatment of alcoholism. There are several problems in most treatment approaches that impact the inclusion. These include avoidance of the issue, presenting spirituality in an offensive manner, and presenting inadequate content regarding spirituality. The authors contended that spirituality practices could be taught and maintained through CB principles. For example, prayer, self-assessment, and meditation could be taught and maintained through the principle of reinforcement. Furthermore, the techniques of spiritually based programs, such as AA, are consistent with CB principles. Brown, Peterson, & Cunningham (1988a) identified practices such as making amends to others, writing a personal inventory and prayer as specific behaviors. Based on this rationale, Brown & Peterson (1991) developed an instrument (The Brown-Peterson Recovery Progress Inventory) to measure spiritual

progress in treatment program graduates. The research regarding the development and validation of this instrument lead to several interesting findings including a lack of correlation of spirituality scores with length of sobriety. This is explained by the fact that individuals in 12 step recovery programs tend to mature out of their dependence on these programs. As a person progresses in sobriety, he or she may gain strength in recovery and stability in socioeconomic, spiritual, and psychological realms. This process is paralleled with the separation-individuation phase of development proposed in contemporary psychoanalytic theories. As a child matures, he or she separates from the primary support object (usually the mother) and becomes more individualized and independent. Similarly, as a person matures in recovery, he or she may individualize and separate from the support object (the 12-step group).

Rather than exploring spirituality in longer-term recovery, this researcher is interested in the spirituality process in early recovery and relapse. The implication of Brown's research as applied to the current study is that the incorporation of spirituality and behavioral techniques may help bridge the gap between spirituality and self-efficacy. The comparison of spirituality and self-efficacy will be explored in later sections.

Additional studies have been conducted exploring spirituality in recovery related to contentment with life (Corrington, 1989), purpose in life (Carroll, 1993) and quality of life (Spalding & Metz, 1997). Corrington (1989) explored the variables of spirituality, level of contentment with life, time in AA, and stressors. The methods for this study included collecting data (N=30) for a three month period from individuals attending AA meetings utilizing the Spirituality Self-Assessment Scale (SASS), the Hudson Generalized Contentment Scale (GCS), and the Life Events Scale (LES). The results

suggested, that independent of the time in AA, the spirituality was positively correlated with contentment in life.

Carroll (1993) examined the relationship between spirituality and recovery from alcoholism. Spirituality was defined as the practice of Steps 11 (prayer and meditation) and 12 (assistance of other alcoholics) of AA as measured by the Steps Questionnaire. In addition, purpose in life (measured by the Purpose-in-Life Test) was viewed as a reflection of spirituality. Purpose in life may have both a cause and effect in alcoholism, and the self-destructive nature of addiction can suggest that addicts may feel a lack of meaning or purpose in life (Carroll, 1993). The results indicated a significant relationship between Step 11 and purpose of life scores and length of sobriety. Interestingly, Step 12 was not significantly correlated with purpose of life or length of sobriety. The author suggested that this result may be due to a lack of a reliable measure of Step 12 itself. Overall, the study suggests a positive relationship between a person's sense of purpose in life, continued sobriety, and practice of AA spiritual principles. (Carroll, 1993).

Spalding and Metz (1997) examined spirituality's impact on the quality of life in recovering alcoholics attending AA programs. Quality of life is viewed as an important construct in recovery because susceptibility to relapse triggers may decrease as a person develops a higher, positive self-esteem (Spalding & Metz, 1997). The results suggested that a collaborative spiritual coping style (active personal exchange with God) was better at predicting quality of life than was a deferring coping style (waiting for God to solve the problem) or a self-directing coping style (belief in the free will God gives humans to direct their own lives).

The aforementioned studies highlighted the importance of spirituality in a person's quality, contentment, and purpose in life. Reconnection with a spiritual self (or higher power) is central to the ideology expressed in 12-step programs such as Alcoholics Anonymous (AA). Nealon-Woods, Ferrari, & Jason (1995) highlighted the loss of faith, hope, and spirituality as important constructs in the AA program of recovery.

Recovering people involved in 12-step recovery programs reprogram their belief system with the support of others. (Buxton et al., 1987). The spiritual journey in recovery has been divided into seven levels that compliment the recovery process.

The Seven Levels of Spirituality in Recovery

Whitfield (1984) outlined seven levels of spirituality and recovery: survival (most primitive level stemming from a will to live), passion (stemming from the will to feel and related to self-gratification), mind (the will to know and the drive for self definition and identity), acceptance (desire for self creation and represented by the human heart, understanding (derived from the love of truth and universal comprehension), compassion (stemming from the love of life including empathy and altruism), and unity of consciousness (coming from love of a Higher Power and concerning self mastery). These levels can be found in numerous traditions including 12 step programs, Maslow's hierarchy of needs, Piaget's stages of cognitive development, Eastern Chakra system, and the Buddhist sevenfold path (Whitfield, 1984). Whitfield (1984) simplified these levels as struggle, confusion, surrender, and seeing the light.

The mind level is a pivotal level in the spirituality approach to recovery as it deals with the person's identity and self-definition. Whitfield (1984) viewed the ego level as the greatest block to the attainment of serenity as it can interfere with intuitive discovery

and knowing. Whitfield (1984) quoted Einstein in saying "There comes a point where the mind takes a leap - call it intuition or what you will- and comes out on a higher plane of knowledge" (p. 30). This leap is the process of surrender that is talked about in spiritually oriented recovery programs, and is realized through spirituality. A sense of powerlessness results and must be internalized or a sense of spirituality cannot and will not exist (Whitfield, 1984).

Surrender

Surrender is described as an individual relinquishing control over continued use of drugs or alcohol (Goldsmith, 1992). What one surrenders to is a power, existence, or consciousness greater than oneself (Whitfield, 1984, p. 17). The power to live a healthy life, free of drugs or alcohol, is achieved by accepting the idea that life is out of control (Goldsmith, 1992). This is where the paradox arises: by relinquishing control, one gains control. This surrender is generally thought to involve the letting go of one's ego identity (Vaughan, 1991; Whitfield, 1984). Whitfield (1984) summarized the process of surrender as follows:

A major block to recovery from alcoholism is the person's grandiosity, wanting to control life and others, and not listening to what others have to offer. Yet the person's life gradually deteriorates in spite of attempts at control. The way out of this dilemma is through surrender (p. 17).

Surrender often follows the point of hitting rock bottom (a term referring to a point at which one has lost everything due to the addiction), and can be compared with the death of the ego (Clemmons, 1991). The ego, or one's sense of identity, is enmeshed with the addiction, and the person believes that he or she is in control of life. In order to transcend

the ego self, acceptance of powerlessness is necessary (Warfield & Goldstein, 1996).

Clemmons (1991) described the "shattering of the omnipotent belief that the alcoholic/addict is in control of life" as hitting bottom.

The process of hitting bottom and subsequent surrender to a Higher Power is not an abdication of responsibility, but rather an involvement and identification with a power greater than oneself (Buxton et al., 1987). In some ways, the alcohol (or drug) itself has become the person's Higher Power. By letting go (surrendering) this belief system, the person is freed to connect with their own inner power, take responsibility for their actions, discover wholeness within, and become an integrated human being (Thompson & Thompson, 1993; Whitfield, 1984).

Conclusion: The Paradox of Control

As evidenced by the above sections, both self-efficacy and spirituality are viewed as critical components in a person's recovery from alcohol or drug addiction. Studies support the need for self-control and self-efficacy, as well as surrender of control and spirituality. The common ground between self-efficacy and spirituality had not been explored in the literature. If having control and surrendering control are necessary to recover, how do these processes work together? This study was designed to explore the constructs of self-efficacy and spirituality at different phases of recovery, and offer evidence and support for their co-existence.

Chapter 3

MethodDesign

This cross sectional between subjects design consisted of four groups. Participants were placed in one of four groups according to their self-reported level of sobriety. Each participant was asked to complete a demographic data sheet (Appendix C), the Situational Confidence Questionnaire (SCQ) (Appendix D), the Spiritual Well-Being Scale (SWBS) (Appendix E), and the Spiritual Involvement and Belief Scale (SIBS) (Appendix F).

Participants and Procedures

The participants for this study were adult clients (over age 18) seeking drug and alcohol treatment from an outpatient hospital-based agency in central Pennsylvania. Institutional Review Board (IRB) approval was acquired from the hospital and West Virginia University. All participants met the criteria of Alcohol Dependence based on DSM IV criteria. A Certified Addiction Counselor from the agency assessed each client and conducted the diagnosis. Any client that did not meet the DSM IV criteria for alcohol dependence was excluded from the study. As in other studies (Annis, 1990; Annis & Graham, 1995; Goldbeck, Myatt, & Aitchison, 1997; and Mayer & Koeningsmark, 1991), poly substance abuse/dependence existed within the sample. Information on "other drugs of abuse" was gathered on the demographic questionnaire; however polysubstance dependence alone did not exclude a person from the study as long as they meet criteria for alcohol dependence.

The participants were categorized into one of four groups depending on their self-reported level of sobriety: no previous sobriety, sobriety followed by recent relapse, 3 months continuous sobriety, and 6 months (or more) continuous sobriety. The Certified Addiction Counselors at the agency conducted the grouping.

Clients at this agency entered treatment through a centralized intake process. Each case was reviewed by the clinical staff and assigned to an appropriate counselor. The counselor verified an Axis I diagnosis of Alcohol Dependence and identified clients as belonging to one of the four identified groups based on the self-reported length of sobriety. Clients may have had additional substance dependence diagnoses, but must also met criteria for alcohol dependence for inclusion in this study. Clients in Groups 1 and 2 were initially entering treatment, whereas clients in Groups 3 and 4 were in the middle phases of treatment. Placement in Group 1 (No Treatment) is based on the assumption that the person is not currently sober. The counselor asked clients about voluntary participation in the study and provided them with a written description of the study, including a statement of purpose and consent form (Appendix G). If clients agreed to participate, the counselor gave them a copy of the demographic data sheet and questionnaires and asked them to complete the items following the session. It took approximately 10-15 minutes to complete the packet of questions. Clients were given an envelope in which to place and seal the questionnaires to ensure confidentiality following completion. The envelopes were collected by the secretary and placed in a storage box in the locked record room.

Measures

Participants were asked to complete a demographic questionnaire, a self-efficacy measure, and two measures of spirituality. The Situational Confidence Questionnaire(SCQ) was utilized to assess self-efficacy related to a variety of drinking situations. The Spiritual Well-Being Scale (SWBS) and the Spirituality Involvement and Beliefs Scale (SIBS) were used to assess the participants' level of spirituality. A summary of the reliability and validity of these instruments is presented in Appendices H, I, and J.

Situational Confidence Questionnaire. The SCQ (Appendix D) is a 39-item, likert scale questionnaire administered in a self-report format. Individuals are asked to imagine themselves in a variety of situations and rate how confident they are that they would be able to resist the urge to drink heavily in each situation. For example, a high score on the Negative Emotions subscale would suggest that the person was confident that he or she could resist the urge to drink heavily while experiencing “negative emotions” such as anger and sadness. The authors noted that "heavy drinking" is defined by the person's own perception. Scale responses are: 0 = 0% or not at all confident, 20 = 20% confident, 40 = 40% confident, 60 = 60 % confident, 80 = 80 % confident, and 100 = 100% or very confident (Annis & Graham, 1987). Scoring is calculated by computing the mean confidence rating given to the items within each subscale and the mean total score for all 39 items (Annis & Graham, 1987).

The scale is grounded in Bandura's self-efficacy theory and is designed to assess a person's perceived ability to cope with alcohol in a variety of situations (Annis & Graham, 1987). The scale is based on the premise that self-efficacy, as well as other

cognitive factors, are important in the process of relapse and relapse prevention (Cosden, 1995). As a client experiences success in controlling alcohol use in high-risk situations, self-efficacy for coping with these situations is expected to increase. As a result, the probability for relapse is decreased (Annis & Graham, 1987). The authors stated that the scale is intended for practitioners interested in monitoring client self-efficacy during treatment and for scientists interested in studying treatment outcome and the process of alcoholic relapse (Annis & Graham, 1987).

The SCQ drinking situations are based on the research of Marlatt and his associates (Marlatt, 1985a). According to Marlatt's research, there are eight categories of high-risk drinking situations that fall into two major classes: Personal States and Situations Involving Other People. Personal States, which are psychological or physical events that result in drinking, are subdivided into five categories: Unpleasant Emotions, Physical Discomfort, Pleasant Emotions, Testing Personal Control, and Urges and Temptations. The second class of situations, Situations Involving Other People, encompasses events in which significant influence of another person is involved and is subdivided into three categories: Conflict with Others, Social Pressure to Drink, and Pleasant Times with Others (Annis & Graham, 1987).

The psychometric properties of the SCQ were established on a sample of 424 clients admitted to alcoholism treatment. The researchers did not rule out polysubstance use or dependence. The original 42 items of the SCQ were based on the Inventory of Drinking Situations (Annis, Graham, & Davis, 1987), a scale that measures the frequency of engagement in heavy drinking in specified situations. The SCQ items were matched to

the original IDS items using the same situations but measuring self-efficacy instead of frequency of engagement in drinking.

Internal structure of the SCQ was evaluated using both exploratory and confirmatory factor analyses. The exploratory analysis on the 8-factor model showed that the first factor accounted for 54% of the variance. Annis & Graham (1987) stated that, even though the SAQ has a strong first factor, a unidimensional model does not adequately represent many of the original correlations; therefore, a multifactorial solution was incorporated.

The first confirmatory analysis tested the original eight-category model based on Marlatt (1985a). Three variables accounted for most of the inadequacies in the fit of the data and were subsequently dropped. A second confirmatory analysis tested the 39-item model and showed a much improved fit with "only 1.3% of the residual correlations remaining greater than .10" (Annis & Graham, 1987, p. 4). Two subfactors with Conflict with Others/Unpleasant Emotions were identified, separated out, and labeled as Social Problems at Work and Social Tension.

The third, and final, confirmatory analysis evaluated the adequacy of the "new" eight factor model (Annis & Graham, 1987). The 39-items are distributed among the following eight factors: Unpleasant Emotions/Frustration, Physical Discomfort, Social Problems at Work, Social Tension, Pleasant Emotions, Positive Social Situations, Urges and Temptations, and Testing Personal Control (Annis & Graham, 1987; Cosden, 1995).

In order to establish the most acceptable second-order factor structure, a series of four confirmatory analyses were conducted (Annis & Graham, 1987). The results of the analyses supported a three-factor second-order model with the first four factors grouped

under Negative Affect Situations, the next two under Positive Affect Situations, and the last two under Urges and Testing (Annis & Graham, 1987). The eight first-order factors are translated into eight SCQ subscales, which will be utilized in this study.

Correlating subscale scores with measures of alcohol consumption and social context of drinking (Annis & Graham, 1987) provided an assessment of construct validity. Subscale scores were correlated with three measures of alcohol consumption: total quantity (number of drinks), number of drinking days, and typical daily quantity (Annis & Graham, 1987). The total quantity and number of drinking days were significantly negatively correlated with all eight subscales, and the typical daily quantity was significantly negatively correlated with 6/8 subscales (excluding Social Problems at Work and Social Tension) (Annis & Graham, 1987).

Solomon and Annis (1990) provided further evidence of construct validity. Clients were administered the SCQ, the Outcome Expectancy Scale, the Drinking Locus of Control Scale, the Beck Depression Inventory, and the Hopelessness Scale. Significant, but small, correlations with the Outcome Expectancy Scales ($r=.24$ and $.21$) are consistent with Bandura's position that self-efficacy and outcome expectancies are independent (Annis & Graham, 1987). The correlations with the other measures are as follows: Drinking Locus of Control Scale ($r=-.45$) suggesting those with low self-efficacy tended to attribute reasons for drinking to external causes; Beck Depression Inventory ($r = -.52$) and Hopelessness Scale ($r = -.37$) indicating those with lower self-efficacy tended to be more depressed and hopeless (Annis & Graham, 1987).

Miller et al. (1989) evaluated discriminant validity of the SCQ. The results showed significant differences between long-term sober and short-term sober alcoholics

on all of the subscales except Testing Personal Control. Predictive validity of the SCQ is provided by Solomon and Annis (1990). Intake SCQ scores were a predictor of post-treatment average consumption for those who relapsed; however, these scores failed to predict the frequency of drinking episodes.

Reliability estimates for the item-total correlations within each subscale were moderate to substantial, ranging from .59-.91 (Annis & Graham, 1987). The internal consistencies (Chronbach alpha) for each subscale are as follows: Unpleasant Emotions/Frustrations (.95), Physical Discomfort (.81), Pleasant Emotions (.87), Testing Personal Control (.92), Urges/Temptations (.86), Social Problems at Work (.93), Social Tension (.90), Positive Social Situations (.97).

In order to score the SCQ, a mean confidence rating for each of the eight subscales is calculated. A total SCQ score can also be calculated (Mayer & Koeningsmark, 1991; & Miller et al., 1989). The subscale with the lowest mean rating represents the highest risk drinking situations. Higher self-efficacy is determined by higher mean confidence ratings.

Spiritual Well-Being Scale. The Spiritual Well-Being Scale (SWBS) (Appendix E) is designed to indicate the perceived spiritual quality of life or the quality of one's spiritual health. It is known as the most commonly used instrument for spiritual inquiry (Hatch, et al., 1998). The SWBS items "deal with transcendent concerns, or those aspects of experience which involve meaning, ideals, faith, commitment, purpose in life, and relationship with God." (Ellison, 1983, p. 336). It is a 20 item self-report measure with two subscales. The Religious Well-Being (RWB) contains 10 items that assess the vertical dimension of spirituality. The vertical dimension refers to well-being as it relates

to God. The Existential Well Being (EWB) contains 10 items that measure a horizontal dimension of well-being in relation to the world about us, including a sense of life purpose and life (Ledbetter, Smith, Fischer, Vosler-Hunter, & Chew, 1991).

Items on the SWBS are scored from 1-6, with a higher number representing more spiritual well-being. Negatively worded items are reverse scored. Odd-numbered items assess religious well-being and even-numbered items assess existential well-being (Ellison, 1983).

Normative data for the SWBS were provided by Bufford, Paloutzian, & Ellison (1991) using the following groups: religious groups, college students, counseling patients, sociopathic prison inmates, caregivers for the terminally ill, and medical outpatients. The majority of the data suggest that age and gender are not related to SWBS; therefore, it does not appear necessary to provide separate norms for different age groups of adults. The need for separate male/female norms is considered doubtful but is questioned by several researchers (Bufford, et al., 1991). Most normative data were collected from the Pacific Northwest; thus, some regional differences may be present. In addition, the data were collected from volunteers and may not generalize to non-volunteer individuals. SWBS appears to detect the presence of significantly impaired levels of well-being, but because of ceiling effects, may not discriminate well among people scoring above the median. However, due to the lack of empirically tested spirituality assessments, the SWBS was utilized for this study.

The SWBS is reported to have good face validity (Bufford et al., 1991; Schoenrade, 1995). Schoenrade (1995) noted that concurrent validity is difficult to establish as few measures of spiritual well-being exist. Several correlations with related

measures such as Purpose of Life Test (EWB, $r=.68$) and a measure of Intrinsic Religion (RWB, $r=.79$) are encouraging (Schoenrade, 1995). In contrast, D'Costa (1995) said that "a large number of concurrent validity studies have been conducted to substantiate the validity of the instrument as a direct general measure of spiritual well-being" (p. 984).

Predictive validity has begun to be addressed through scale correlations with several personality variables, but for the most part must await further research (Schoenrade, 1995). There is some debate regarding the construct validity of the SWBS regarding the two factor design; however, D'Costa (1995) felt that the instrument had a good basis in theory and construct definition. Bufford et al. (1991) suggests that SWBS and its subscales are positively correlated with several standard indicators of well-being, including a positive self-concept, finding meaning and purpose in life, high assertiveness and low aggressiveness, good physical health, and good emotional adjustment. In contrast, SWBS subscales are negatively correlated with indicators of ill health, emotional maladjustment, and dissatisfaction with life (Bufford et al., 1991).

The reliability studies conducted on the SWBS are presented in Appendix G. Test-retest scores range from .73-.99 across all scales. Internal consistency ratings range from .78-.94 across all scales suggesting the SWBS has adequate reliability.

The Spiritual Involvement and Beliefs Scale. The Spiritual Involvement and Beliefs Scale (SIBS) (Appendix F) was developed as a comprehensive measure of spiritual status (actions as well as beliefs) that is widely applicable across religious traditions (Hatch et al., 1998). The authors noted the importance of evaluating spiritually oriented activities and actions as well as spiritual beliefs to make the assessment more comprehensive (Hatch, et al., 1998). Input was solicited from the following perspectives:

Christianity, Judaism, Islam, Hinduism, and other perspectives, including 12-step approaches without a particular religious perspective. (Hatch et al., 1998). As a result, 15 underlying principles of spirituality were identified including: relationship with/belief in a power greater than oneself, purpose in life, fulfillment from nonmaterial things, faith, trust, identity, prayer, meditation, spiritual activities with others, appreciation for mystery in life, ability to forgive, ability to apologize, ability to find meaning from suffering, gratitude for life experiences, and spiritual belief evolution.

Questions were written based on these principles and reviewed by five or six individuals who rated the items on clarity, readability, ease of understanding, and how well it captured the intended content. The highest rated items were rewritten and combined to form the instrument (Hatch et al., 1998). The initial version and revised version of the scale were reviewed by religiously diverse populations, resulting in the final 26-item version.

Psychometric properties of the SIBS were established by administering the instrument to 83 participants (50 patients from a rural family practice and 33 family practice professionals). Construct validity was established by comparing the total SIBS score with the total score on the Spiritual Well-Being Scale. The resulting validity coefficient of .80 suggests the SIBS is a unique and valid measure of spirituality (Hatch et al., 1998). Cronbach's alpha yielded an overall coefficient alpha of .92, thus demonstrating the internal consistency of the SIBS (Hatch et al., 1998).

Test-retest reliability was established by correlating the total SIBS scale score on the initial administration and subsequent follow-up. Copies of the SIBS were mailed 7-9 months after the initial administration. Thirty-six participants returned a follow-up SIBS;

however 7 of the 36 retest comparisons were excluded because of missing answers (Hatch et al., 1998). Hatch et al. (1998) stated that "test-retest reliability yielded a coefficient of stability of .92" (p. 479).

A factor analysis of all the scale items was conducted yielding a clear four-factor structure (Hatch et al., 1998). Factor 1 (External/Ritual) refers to activities or rituals suggesting a belief in an external power. Factor 2 (Internal/Fluid) focuses on internal beliefs and growth. Factor 3 (Existential/Meditative) addresses more existential issues and meditation practices. Factor 4 (Humility/Personal Application) refers to spiritual principles in daily activities as well as humility. Test-retest reliability for each factor was .91, .88, .88, and .64 respectively (Hatch et al., 1998).

The item analysis showed a full range of responses to the questions; however, several item means were higher than optimal suggesting the possibility of a ceiling effect for these items (Hatch et al., 1998). This problem was also noted in the more established SWBS, and may be a common weakness in the assessment of spirituality. Since the SIBS is very new, further empirical inquiry is needed to explore this issue, as well as to offer continued evidence of the validity and reliability of the instrument.

The items are scored from 1-5, with 5 representing higher spirituality for positively worded items. Negatively worded items are reversed scored. A total SIBS score is obtained as subscales are not scored separately. Higher total scores represent higher levels of spiritual involvement and beliefs.

A newer version of the SIBS is currently being tested and validated. This version offers seven response choices, and replaces two items from the original SIBS (R. Hatch, personal communication, July 1, 1999). The authors used factor analysis, item analysis,

feedback from subjects, and focus group findings to identify the best items. Items were considered for deletion for the following reasons: narrow response range, marked ceiling effect, little correlation with the total score, not fitting the factor structure, and identified as problematic through feedback (R. Hatch, personal communication, July 1, 1999).

A focus group of five people representing Christian, Hindu, Agnostic, 12-step, and Science of Spirituality paths identified constructs not covered by the scale and wrote items addressing these content areas. These content areas included constructs such as Acceptance, Forgiveness, Gratitude, Harmony, Joy, Love, Prayer, and Serenity. R. Hatch (personal communication, July 1, 1999) said that the items were distributed as follows: 30% assess actions, 30% beliefs, 15% experiences, 15% benefits associated with spirituality, and 15% a combination of these areas.

The new version was administered to a sample of 50 people representing various religious affiliations. A feedback form was completed following the SIBS that assessed the ease of completing the items, confusion of any questions and why, any biases in the scale, and suggestions for improvement. An item analysis, factor analysis, and Cronbach alpha were conducted, and feedback was analyzed (R. Hatch, personal communication, July 1, 1999).

The results of the analysis produced a Cronbach alpha of .96. The authors report the feedback was generally positive. Thirty-five percent (35%) of the subjects said that some items were confusing, 33% felt the survey was biased and 18% had suggestions for improvement (R. Hatch, personal communication, July 1, 1999). Deletion of items occurred if the item was weak in two or more of the following areas: correlation with total score, restricted range of response, ceiling effect, or negative comments from

subjects. As a result of these criteria, four items were deleted. A fifth item was deleted due to its similar content and high correlation with another item. Five new items replaced the deleted items, and three additional items were added to address the feedback from the subjects (R. Hatch, personal communication, July 1, 1999).

The final scale, which was used in the present study, has 39 items rated on a scale of 1-7 with the negatively worded items being reversed scored. The maximum possible score is 273 and the minimum is 39 with higher scores representing higher levels of spiritual involvement and beliefs (R. Hatch, personal communication, July 1, 1999). This version awaits further testing and feedback on the new items. The items were reviewed and found appropriate for the purposes of this study in terms of content, variation, and lack of adherence to one particular spiritual orientation.

Data Analysis

Self-efficacy was measured by the SCQ-39. The total score will served as a global measure of self-efficacy and the eight subscales measured self-efficacy in relation to specific high risk drinking situations. Spirituality was measured by the Spiritual Well-Being Scale and the Spiritual Involvement and Beliefs Scale. The two subscales of the SWBS (Existential Well-being and Religious Well-Being) were also utilized in the data analysis. The alpha level for all the statistical analyses was set at .05 to establish significance. Trends ($p = .05$ to $.10$) in the data were also reported and discussed.

Hypothesis 1 stated that there is a relationship between self-efficacy and spirituality for alcoholic individuals at different levels of sobriety. In order to test this hypothesis, product-moment correlations were computed among (a) SCQ-39 total score, (b) SWBS total score, and (c) SIBS total score at each level of sobriety. In addition,

product moment correlations were established among the eight subscales of the SCQ-39 and the two subscales of the SWBS.

Hypothesis 2 proposed a difference in the level of self-efficacy for alcohol dependent individuals at different levels of recovery. To address this hypothesis a single analysis of variance (ANOVA) was computed with levels of recovery (no previous treatment, recent relapse, three months of sobriety, six months of sobriety) as the independent variable and the SCQ-39 total score as the dependent variable. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery as the independent variable, and the eight self-efficacy subscales of the SCQ-39 as the dependent variables. Finally, a Kruskal-Wallis analysis was conducted levels of recovery as the independent variable, and the eight self-efficacy subscales of the SCQ-39 as the dependent variables. This analysis took the progressive nature of the independent variable into account.

Hypothesis 3 proposed a difference in the level of spirituality for alcoholic dependent individuals at different levels of recovery. To address this hypothesis two single analyses of variance (ANOVA) were computed with levels of recovery as the independent variable and the SWBS total score and SIBS score respectively. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery (no previous treatment, recent relapse, three months of sobriety, six months of sobriety) as the independent variable and the two subscales of the SWBS (Religious Well-being and Existential Well-being) as the dependent variables.

Finally, the demographic information provided data for additional analyses. MANOVA's were used to examine self-efficacy and spirituality in regard to age, gender, ethnicity, reason for seeking treatment, and dependence on other substances in addition to alcohol.

Chapter 4

Results

The present investigation was designed to assess the relationship between self-efficacy and spirituality for alcohol dependent individuals at four different levels of recovery (no previous treatment, recent relapse, three months of sobriety, and six months of sobriety). The first research hypothesis posited that there would be a relationship between self-efficacy and spirituality. In addition, the study investigated self-efficacy and spirituality separately in relation to each of the above levels of recovery. It was hypothesized that individuals at different levels of recovery would report different levels of self-efficacy and spirituality.

The results of the statistical analyses are presented in five separate sections of this chapter. The first section presents demographic data obtained for the sample. The second section describes the relationship between self-efficacy and spirituality with regard to different levels of recovery. Third, the differences in the four levels of recovery in regard to self-efficacy are examined. The fourth section examines differences in the four levels in regard to spirituality. Finally, a discussion of additional analyses (beyond the original research questions) examines self-efficacy and spirituality in regard to age, gender, ethnicity, reason for seeking treatment, and dependence on other substances in addition to alcohol.

As discussed in Chapter 3, participants in this study were adult clients (over age 18) seeking drug and alcohol treatment from an outpatient hospital-based agency in central Pennsylvania. All participants met the criteria of Alcohol Dependence based on DSM IV criteria. The counselors from the agency identified each participant as

belonging to one of four groups based on their self-reported level of recovery (no previous treatment, recent relapse, 3 months of sobriety, 6 months of sobriety). Participants in the no treatment group were assumed to be actively using alcohol. The participants were asked to complete a demographic questionnaire, the Situational Confidence Questionnaire (SCQ-39), the Spiritual Well-Being Scale (SWBS), and the Spiritual Involvement and Beliefs Scale (SIBS). The order of the questionnaires varied to decrease the chance of order effects. The data were entered twice to ensure accuracy.

Demographic Data

A total of 82 people participated in the study. One participant did not complete the packet questionnaires and was subsequently removed from the study. Thus, 81 completed sets of questionnaires were included in the analysis. Eighteen participants (22.2%) were in the no previous treatment group, twenty-one (25.9%) were in the recent relapse group, seventeen (21.0%) were in the three month sobriety group, and twenty-five (30.9%) were in the six month sobriety group.

Basic demographic information was requested of each respondent (Appendix C). The demographic information included gender, age, ethnicity, reason for seeking treatment, and dependence on substances in addition to alcohol. A summary is presented in Table 1.

Fifty (61.7%) of the participants were male and thirty-one (38.3%) were female. The age distribution of the respondents is as follows: eight participants (9.9%) were between the ages of 18-25, twenty-one (25.9%) between ages 26-35, twenty-nine (35.8%) between ages 36-45, sixteen (19.8%) between ages 46-55, six (7.4%) between ages 56-

65, and one (1.2%) over age 65. Eight (9.9%) of the participants were African American, seventy-two (88.9%) were White/Caucasian, and one (1.2%) was Native American.

Forty-three of the participants (53.1%) were self-referred for treatment. Twenty-two were referred by probation, parole, or the court (27.2%), three were work related referrals (3.7%), two were referred by family or friends (2.5%), and eleven recorded "other" as their reason for seeking treatment (13.6%).

Participants were asked to check which, if any, drugs they were dependent on in addition to alcohol. Many participants marked several drugs, indicating possible polysubstance dependence. Thirty-nine (48.1%) of the participants indicated that they were dependent only on alcohol. Seventeen (21%) indicated dependence on cocaine in addition to alcohol, nine (11.1%) reported dependence on heroin, six (7.4%) indicated dependence on LSD or PCP, twenty-one (25.9%) reported dependence on marijuana, ten (12.3%) reported dependence on prescription anti-anxiety medication, and thirteen (16.0%) reported dependence on prescription pain killer medication.

Table 1

Demographic Information

	<u>n</u>	Percent
Gender		
Male	50	61.7
Female	31	38.3
Age		
18-25	8	9.9
26-35	21	25.9
36-45	29	35.8
46-55	16	19.8
56-65	6	7.4
Over 65	1	1.2
Ethnicity		
White/Caucasian	72	88.9
African American	8	9.9
Native American	1	1.2
Reason for Referral		
Self-referred	43	53.1
Probation/parole/court	22	27.2
Work	3	3.7
Family/Friends	2	2.5
Other	11	13.6

Table 1 (Continued)

	<u>n</u>	Percent
<hr/>		
Other Drug Dependence		
Alcohol Only	39	53.1
Marijuana	21	25.9
Cocaine	17	21
Rx Pain Medication	13	16
Rx Anti-anxiety	10	12.3
Heroin	9	11.1
LSD/PCP	6	7.4

Research Question 1

What is the relationship between self-efficacy and spirituality for alcoholic individuals at different levels of recovery (no previous treatment, sobriety followed by recent relapse, 3 months of sobriety, and 6 months of sobriety)? Hypothesis 1 proposed that there is a relationship between the level of self-efficacy and spirituality for alcoholic dependent individuals at different levels of recovery.

To test this hypothesis, product-moment correlations were computed among (a) Situational Confidence Questionnaire -39 total score, (b) Spiritual Well Being Scale total score, and (c) Spiritual Involvement and Beliefs Scale total score at each level of recovery. Table 2 shows the relationships demonstrated between the SCQ-39 and each of the spirituality measures (SWBS and SIBS). For the overall sample ($n=81$), SCQ-39 was significantly correlated with both SWBS and SIBS. The results also yielded a strong positive correlation between the two spirituality measures (SWBS and SIBS) for the total sample ($r=.80$), and at each level of recovery: No Treatment ($r=.79$), Recent Relapse ($r=.81$), 3 months of sobriety ($r=.79$), and 6 Months Sobriety ($r=.78$).

The No Treatment group ($n=18$) SCQ-39 showed a trend ($p=.09$) toward negative correlation with SWBS, but was not significantly correlated with SIBS (although the relationship was in the negative correlation direction). For the Recent Relapse group ($n=21$), SCQ-39 was not significantly correlated with either the SWBS or the SIBS (although the relationship was in the positive direction).

These relationships were repeated in the Three-Month Sobriety group ($n=17$), as the SCQ-39 was not significantly correlated with either the SWBS or the SIBS. (For the Six-Month Sobriety group ($n=25$), there was a trend ($p=.09$) toward a significant

correlation between SCQ-39 and SWBS and a trend ($p=.09$) toward a significant correlation between SCQ-39 and SIBS).

Overall, significant correlations were demonstrated between self-efficacy and spirituality for the total sample ($n=81$). The four individual groups, however, did not show predominant relationships between self-efficacy and spirituality. Although trends in this direction were apparent, the small number of participants in each group ($n=18,21,17,25$) might have restricted significant correlations. The exceptions were (a) a trend ($p=.09$) toward a significant negative correlation between SCQ-39 and SWBS for the group having no previous treatment, (b) a trend ($p=.09$) toward a significant positive correlation of SCQ-39 and SWBS for the group with six months of sobriety, and (c) a trend ($p=.09$) toward a significant positive correlation of SCQ-39 and SIBS for the group with six months of sobriety.

In order to further examine the relationship between self-efficacy and spirituality, product moment correlations for the total sample ($n=81$) were established among the eight subscales of the SCQ-39, the two subscales of the SWBS, and the total scores for all three instruments (SCQ-39, SWBS, and SIBS). The results are presented in Table 3. The Total SWBS score was correlated significantly with the SCQ Total score and the Unpleasant Emotions subscale of the SCQ. (The results also indicated a trend toward a significant correlation between the SWBS and the Positive Social Situations ($p=.06$), Urges and Temptations ($p=.07$), and the Testing Personal Control ($p=.08$) subscales of the SCQ).

The Existential Well-Being subscale was correlated significantly with five of the eight self-efficacy subscales, as well as the SCQ-39 total score. As seen in Table 3, EWB

was correlated with Positive Social Situations, Social Tension, Testing Personal Control, Unpleasant Emotions, and Urges and Temptations. (EWB also showed a trend ($p=.08$) toward a significant relationship with the Social Problems at Work subscale).

Interestingly, the Religious Well-Being subscale did not correlate significantly with any of the SCQ-subcales. This suggests that existential well-being is more related to self-efficacy than is religious well-being, and accounts for the significant correlation between spirituality (as measured by the SWBS) and self-efficacy (as measured by the SCQ-39).

The results show a significant relationship between the SIBS and the Unpleasant Emotions subscale. (There was also a trend toward significance between the SIBS and the Physical Discomfort ($p=.09$), Positive Social Situations ($p=.08$), and Urges and Temptations ($p=.06$) subscales of the SCQ-39). The implications of these results will be discussed in the next chapter.

Table 2

Correlations Among Measures of Self-efficacy (SCQ-39 Total Score) and Spirituality (SWBS and SIBS Total Scores) for the Total Sample and at Each Level of Recovery

	SCQ-39 with SWBS	SCQ-39 with SIBS	SWBS with SIBS
Total Sample (n=81)	.21*	.21*	.80**
No Previous Treatment (n=18)	-.40	-.10	.79**
Recent Relapse (n=21)	.28	.31	.81**
Three Months Sobriety (n=17)	.35	.04	.79**
Six Months Sobriety (n=25)	.35	.34	.78**

Note. * $p < .05$. ** $p < .01$.

Table 3

Correlations Among the SCQ-39 Total and Subscale Scores, the SWBS Total and Subscale scores, and the SIBS

	SWBS Total	EWB	RWB	SIBS
SCQ-Total	.21*	.29**	.09	.21*
Unpleasant Emotion	.23*	.27*	.14	.22*
Physical Discomfort	.16	.18	.10	.19
Social Pblm at work	.14	.20	.04	.14
Social Tension	.15	.22*	.05	.14
Pleasant Emotions	.12	.11	.10	.15
Positive Social Sit.	.20	.30**	.07	.20
Urges/Temptations	.20	.28**	.08	.21
Testing Control	.20	.30**	.05	.17

Note. * $p < .05$ ** $p < .01$

Hypothesis 1 was partially supported. The overall correlations showed positive relationships between self-efficacy and the two measures of spirituality. The trend toward a negative correlation between self-efficacy and spirituality for the no treatment group suggests that individuals with higher levels of self-efficacy reported lower levels of spirituality or vice versa. An examination of the raw data revealed no pattern to explain this result.

Research Question 2

What is the level of self-efficacy for alcohol dependent individuals at different levels of recovery (no previous treatment, sobriety followed by recent relapse, 3 months of sobriety, and 6 months of sobriety)? Hypothesis 2 proposes a difference in the level of self-efficacy for alcohol dependent individuals at different levels of recovery.

To address this hypothesis a single analysis of variance (ANOVA) was computed with levels of recovery as the independent variable and the SCQ-39 total score as the dependent variable. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery as the independent variable (no previous treatment, recent relapse, three months of sobriety, six months of sobriety), and the eight SCQ-39 subscales as the dependent variables. Table 4 shows the means, standard deviations, and F values for the SCQ-39 total score and eight SCQ-39 subscales for each group.

Table 4

Means and Standard Deviations for the Component Analyses of Variance for the MANOVA, with Levels of Recovery as the Independent Variables and the Eight SCQ-39 Subscales as the Dependent Variables

Dependent Variables	Group 1	Group 2	Group 3	Group 4	F
SCQ-39 Total					
<u>M</u>	68.83	67.93	73.06	78.64	1.61
<u>SD</u>	25.20	17.29	21.46	27.37	
Unpleasant Emotions					
<u>M</u>	61.11	66.79	75.53	77.90	1.81
<u>SD</u>	24.48	20.69	23.17	29.53	
Physical Discomfort					
<u>M</u>	71.11	80.95	83.82	82.00	0.79
<u>SD</u>	32.25	19.53	19.81	33.13	
Social Pblms at Work					
<u>M</u>	67.04	77.78	77.65	81.87	1.11
<u>SD</u>	27.10	22.74	22.85	31.59	
Social Tension					
<u>M</u>	66.67	75.05	77.65	80.32	1.00
<u>SD</u>	27.23	19.26	23.37	28.66	
Pleasant Emotions					
<u>M</u>	75.74	84.13	88.63	83.73	1.00
<u>SD</u>	26.61	15.42	15.05	28.16	

Table 4 (Con't)					
Dependent Variables	Group 1	Group 2	Group 3	Group 4	<u>F</u>
Positive Social Situat.					
<u>M</u>	60.07	57.43	66.18	75.45	1.80
<u>SD</u>	29.49	26.67	31.48	27.12	
Urges/Temptations					
<u>M</u>	60.97	68.19	71.18	79.00	1.66
<u>SD</u>	28.97	21.66	29.34	27.08	
Testing Control					
<u>M</u>	57.50	49.52	56.18	74.40	2.41
<u>SD</u>	30.64	32.13	38.87	30.77	

Note. Group 1 = No Previous Treatment, Group 2 = Recent Relapse, Group 3 = Three Months Sobriety, Group 4 = Six Months Sobriety.

The ANOVA did not yield significant results ($p=.19$), suggesting that SCQ-39 total scores (measuring self-efficacy) did not differ across groups. In addition, the MANOVA results were not significant at the multivariate level ($p=.22$). As a set, the eight SCQ-39 subscales did not differ significantly across the four groups. The observed power for the overall MANOVA was .843 with an effect size of .123. This suggests that there is a very good probability of detecting a difference among the groups if a difference exists. In addition, the effect size of .123 means that 12% of the variance was accounted for by the independent variable (level of recovery).

Although the results of the ANOVA and MANOVA were not statistically significant, an exploration of the means shows a consistent increase in scores across the four groups. This suggests that there may be an increase in self-efficacy as length of sobriety increases. Because of the progressive nature of the independent variable (level of recovery), Kruskal-Wallis (KW) analyses were computed to supplement the MANOVA and ANOVA (parametric) findings. The parametric tests do not take the progressive nature into account and treat each group as totally independent. In contrast, the KW allows assessment of increasing levels of recovery as it may affect the dependent measures of self-efficacy and spirituality. The results are presented in Table 5.

The results indicate that there is a significant difference among the four groups on the following SCQ subscales: Social Problems at Work, Testing Personal Control, and Unpleasant Emotions/Frustration. (There is also a trend toward significance among the four groups on the SCQ total score ($p=.06$) and the Urges and Temptations subscale ($p=.08$). The results of this test are consistent with previous research and suggest that there is an increase in self-efficacy as recovery time increases.

Table 5

Mean Ranks for the Kruskal-Wallis Test with Levels of Sobriety as the Independent Variables and the SCQ-39 Total and Subscale Scores as the Dependent Variables

Dependent Variables	Mean Rank				χ^2
	Group 1	Group 2	Group 3	Group 4	
SCQ-Total	33.11	35.86	41.32	50.78	7.36
Unpleasant Emotion	31.42	35.79	43.15	50.82	8.56*
Physical Discomfort	33.72	37.60	41.56	48.72	5.17
Problems at Work	30.00	40.40	40.06	50.06	8.04*
Social Tension	32.50	37.62	42.56	48.90	5.76
Pleasant Emotions	38.86	38.38	44.97	45.64	3.60
Positive Social Sit.	36.61	33.98	41.82	49.50	5.81
Urges/Temptations	32.31	36.93	42.06	49.96	6.81
Testing Control	38.19	33.33	38.24	51.34	7.65*

Note. Group 1 = No Previous Treatment, Group 2 = Recent Relapse, Group 3 = Three Months Sobriety, Group 4 = Six Months Sobriety. * $p < .05$.

Research Question 3

What is the level of spirituality for alcohol dependent individuals at different levels of recovery (no previous treatment, recent relapse, three months sobriety, six months sobriety)? Hypothesis 3 proposed a difference in the level of spirituality for alcoholic dependent individuals at different levels of recovery.

To address this hypothesis two single analyses of variance (ANOVA) were computed with levels of recovery as the independent variable (no previous treatment, recent relapse, three months of sobriety, six months of sobriety), and the SWBS total score and SIBS total score as the dependent variables. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery as the independent variable and the two subscales of the SWBS (Religious Well-being and Existential Well-being) as the dependent measures.

Two separate ANOVAs were computed for the overall SWBS score and the overall SIBS score. (The ANOVA for the SWBS showed a trend ($p=.06$) toward significance). In Table 6, it can be noted that the means of the SWBS increased as the group level increased.

A second ANOVA with SIBS as the independent variable was conducted yielding significant effect, $F=3.93$, $p<.01$. To determine which groups differed, multiple comparisons were computed by the Tukey test. Table 6 shows that the No Treatment group differed significantly from the other three groups on spirituality as measured by the SIBS. However, the Tukey results indicated that the remaining groups (recent relapse, 3 months sobriety, and 6 month sobriety) did not differ significantly from each other.

The MANOVA (with the two SWBS subscales as the dependent measures) results yielded a trend ($p=.08$) toward significance. The observed power for the MANOVA was .696 with an effect size of .07. This suggests that there is a good probability of detecting a difference among the groups if a difference exists. In addition, the effect size of .07 means that 7% of the variance was accounted for by the independent variable (level of recovery). The component analyses of variance are summarized in Table 6. In that table, it may be noted that levels of recovery differed on the dependent variable of Religious Well-Being, $F=2.851$, $p<.05$. The levels of recovery did not, however, differ on the Existential Well-Being score. To determine which groups differed in the significant finding, multiple comparisons were computed by the Tukey test.

For Religious Well-Being, Table 6 shows that the no treatment group was lower than the three month group and the six month group. The longer a person was sober, the higher their reported religious well-being or perceived relationship with God. The other groups did not differ significantly with regard to religious well-being as measured by the SWBS.

Table 6

Means, Standard Deviations, and Tukey Results for the ANOVA with Levels of Sobriety as the Independent Variables and the SWBS & SIBS Total Scores as the Dependent Variables. Component Analyses of Variance for the MANOVA, with Levels of Sobriety as the Independent Variables and the Two SWBS Subscales as the Dependent Variables

Dependent Variables	Group 1	Group 2	Group 3	Group 4	F
SIBS Total					
<u>M</u>	182.22	208.05	211.71	210.64	3.93**
<u>SD</u>	34.13	23.07	30.95	32.93	
Tukey Results:	1<2, 1<3, 1<4				
SWBS Total					
<u>M</u>	80.39	89.76	91.32	94.04	2.54
<u>SD</u>	15.72	14.71	16.44	18.26	
Religious Well-Being					
<u>M</u>	41.28	48.24	49.55	48.76	2.85*
<u>SD</u>	8.90	8.36	9.98	11.07	
Tukey Results:	1<3, 1<4				
Existential Well-Being					
<u>M</u>	39.11	41.52	41.76	45.28	1.63
<u>SD</u>	9.83	8.42	9.82	9.20	

Note. Group 1 = No Previous Treatment, Group 2 = Recent Relapse, Group 3 = Three

Months Sobriety, Group 4 = Six Months Sobriety. * $p < .05$. ** $p < .01$.

Additional Analyses

The demographic information provides useful data for analysis in addition to the three research questions. For the demographic variables of gender, age, reason for seeking treatment, and drug dependence in addition to alcohol, three separate ANOVAs were conducted. The demographic variable served as the dependent variable in each analysis, and the total scores for the SCQ-30, SWBS, and SIBS were the independent variables respectively.

There were no significant differences on any of the three instruments based on gender, reason for seeking treatment, or other drug dependence. This suggests that dependence on substances in addition to alcohol does not impact a person's perceived level of self-efficacy or spirituality. Interestingly, the results showed no differences between a person that was court-ordered for treatment and a person who was self-referred, for example.

The results of the ANOVAs with age as the dependent variable yielded significant differences between the age categories on the dependent variables of SWBS, $F=4.54$, $p<.01$, and SIBS, $F=4.87$, $p<.01$. There was not a significant difference among the groups based on the SCQ-39 score, suggesting no differences among the groups on self-reported self-efficacy. It is interesting to note, however, that the 18-25 group mean (64.10) is lower than the other groups, which are relatively similar (70.60-73.17).

To determine which groups differed in the significant findings, multiple comparisons were computed by the Tukey procedure. Tukey results showed that individuals in the 26-35 age range were higher on spirituality as measured by the SWBS than the 18-25 age group ($p<.01$). In addition, individuals in the 36-45 age range were

higher on reported spirituality than the 18-25 group range ($p < .01$). The remaining Tukey results did not yield a significant effect among the other groups.

Similarly, Tukey results for the SIBS indicate that individuals in the 26-35 age range were higher on spirituality as measured by the SIBS than the 18-25 age group ($p < .01$). In addition, individuals in the 36-45 age range were higher on reported spirituality than the 18-25 group range ($p < .01$). The remaining Tukey results did not yield a significant effect among the other groups.

There were large differences in the number of African American ($n=8$) and Caucasian/White ($n=72$) participants, therefore ANOVA's were not conducted. However, the mean of the SCQ-39 (self-efficacy) instrument for the African American individuals (54.58) was noticeably lower than for the White/Caucasian participants (73.42). With a larger sample size, significant differences between these groups regarding self-efficacy are likely.

Summary

The analyses in the present investigation were designed to answer three research questions. Hypothesis 1 proposed that there is a relationship between the level of self-efficacy and spirituality for alcoholic dependent individuals at different levels of recovery. To test this hypothesis, product-moment correlations were computed among (a) SCQ-39 total score, (b) SWBS total score, and (c) SIBS total score at each level of recovery. In addition, product moment correlations for the total sample ($n=81$) were established among the eight subscales of the SCQ-39, the two subscales of the SWBS. Overall, significant correlations were demonstrated between self-efficacy and spirituality for the total sample ($n=81$). The four individual groups, however, did not show

predominant relationships between self-efficacy and spirituality. In addition Existential Well-Being was correlated significantly with five of the eight self-efficacy subscales, however, Religious Well-Being was not correlated significantly with any of the SCQ-subscales. This suggests that existential well-being is more related to self-efficacy than is religious well-being, and accounts for the significant correlation between spirituality (as measured by the SWBS) and self-efficacy (as measured by the SCQ-39).

Hypothesis 2 proposes a difference in the level of self-efficacy for alcohol dependent individuals at different levels of recovery. To address this hypothesis a single analysis of variance (ANOVA) was computed with levels of recovery as the independent variable and the SCQ-39 total score as the dependent variable. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery as the independent variable (no previous treatment, recent relapse, three months of sobriety, six months of sobriety), and the eight SCQ-39 subscales as the dependent variables. The results of these analyses did not yield significant results. In order to further explore this data, a Kruskal-Wallis test was conducted that compares non-parametric independent groups. The results indicate that there is a significant difference among the four groups on the following SCQ subscales: Social Problems at Work, Testing Personal Control, and Unpleasant Emotions/Frustration. There was also a trend toward significance among the four groups on the SCQ total score ($p=.06$) and the Urges and Temptations subscale ($p=.08$).

Hypothesis 3 proposed a difference in the level of spirituality for alcoholic dependent individuals at different levels of recovery. To address this hypothesis two single analyses of variance (ANOVA) were computed with levels of recovery as the

independent variable (no previous treatment, recent relapse, three months of sobriety, six months of sobriety), and the SWBS total score and SIBS total score as the dependent variables. Additionally, a multivariate analysis of variance (MANOVA) was computed with levels of recovery as the independent variable and the two subscales of the SWBS (Religious Well-being and Existential Well-being) as the dependent measures. The results yielded a trend toward significance across groups for the SWBS, and a significant difference between the groups for the SIBS. In addition, Religious Well-Being differed across groups, whereas Existential Well-Being did not.

In summary, a significant relationship was established between self-efficacy and spirituality for the total sample. Existential Well-Being was correlated with five of eight self-efficacy subscales, whereas Religious Well-Being was not. Regarding self-efficacy, non-parametric analyses revealed significant differences among the four groups on the following SCQ-39 subscales: Social Problems at Work, Testing Personal Control, and Unpleasant Emotions/Frustration. (There was also a trend toward significance among the four groups on the SCQ-39 total score and the Urges and Temptations Subscale). Finally, analyses conducted to assess differences in spirituality revealed a trend toward significance for both spirituality measures (SWBS and SIBS). Interestingly, RWB differed significantly across groups, whereas EWB did not.

Chapter 5

Discussion

Overview

Recovery rates from alcohol dependence are startlingly low. Relapse rates in alcohol dependent individuals have been estimated at 70 % (Hunt et al., 1971), 75 % (Brown et al., 1988b), and as high as 80 % by six months posttreatment discharge (Annis, 1986). This suggests that as few as one out of ten individuals may experience successful recovery. Litman et al. (1977) suggest the need for a closer examination of the relapse process.

Two models of relapse emerge in the literature and present opposing theoretical views of addiction: the self-control model and the disease model (Marlatt 1985a). While the self-control model distinguishes a lapse (single slip) from a relapse (full-blown return to addictive behavior), the disease model equates lapse and relapse suggesting that even one drink (slip) results in relapse. The primary difference between the two models surrounds "locus of control". This difference in relapse philosophies is paralleled among two common constructs in recovery literature: self-efficacy and spirituality.

Self-efficacy theory, as applied to addictive behaviors, suggests that a person's ability to avoid a relapse following treatment is determined by the strength of efficacy expectations (Rychtarik et al., 1992). High levels of self-efficacy promote recovery by substantiating an individual's belief in his/her personal strength and control to avoid relapse in drinking situations.

In contrast to the self-efficacy approach, the spiritual approach to recovery, evident in 12-step programs such as Alcoholics Anonymous (AA), necessitates a person

surrender him/herself to a Higher Power in order to recover fully. This surrender includes an admission of powerlessness over alcohol, belief in a higher power, and a decision to turn over one's will to the Higher Power (the first three steps of AA). By doing this, the recovering addict can begin to rely on others and a Higher Power as important components in personal recovery. Buxton et al. (1987) suggests that an addict must transfer the dependence on the ego/mind to an external source that supports recovery.

Literature in the field of addiction supports the importance of both of these constructs in the process of recovery from addictive disorders (Annis, 1990; Corrington, 1989; DiClemente, 1986; Lennings, 1996; Mayer & Koeningsmark, 1991; and Spalding & Metz, 1997). However, the research on self-efficacy and spirituality among alcohol dependent individuals has not addressed the specific relationship of these constructs throughout the recovery process.

The current study provides a description of self-efficacy and spirituality as they relate to the recovery process from alcohol dependence. Hypothesis 1 proposed a relationship between self-efficacy and spirituality at different levels of recovery. Results provide evidence that there is a correlational relationship between these two constructs for the total sample. However, there was only a trend toward significance for this relationship at the six-month level of recovery. Hypotheses 2 and 3 proposed differences in levels of self-efficacy and spirituality at different levels of recovery respectively. The findings suggest increases in self-efficacy and spirituality as recovery time increases. A more comprehensive discussion of these findings, as well as information obtained

through additional analyses, will be discussed and related to past research. Limitations of the study will be presented and, finally, suggestions for future research will be discussed.

Discussion of the Relationship Between Self-efficacy and Spirituality

Hypothesis 1 proposed a relationship between self-efficacy and spirituality at different levels of recovery. However, they have been presented in the literature as seemingly paradoxical constructs. Both self-efficacy and spirituality are endorsed as important components to the recovery process, but are not viewed as working together. Hopson & Beaird-Spiller (1995) describe this paradox in relation to AA saying that “the first two steps admit a loss of control, yet the third step calls for the exercise of volition in the face of loss of volition...AA acknowledges the alcoholic’s inability to control the self, and paradoxically calls for the alcoholic to exercise the will to surrender control of the will to experience the beneficent higher power” (p. 13). Rollnick & Heather (1982) also address this paradox saying that treatment is focused on developing a person’s feeling of mastery to maintain abstinence, yet there is an expectation that stresses the person’s inability to cope at the same time.

In this study, however, a significant relationship between self-efficacy and spirituality was observed for the total sample. This suggests that individuals with higher levels of self-efficacy also reported higher levels of spirituality. This relationship can offer a new perspective for the field of addiction. Based on the results of this study, addiction professionals should incorporate both self-efficacy and spirituality into their treatment approaches. In order to accomplish this task, we must first understand how these constructs are related.

Bandura (1977) developed a theory of expectations related to self-efficacy that differentiates outcome expectancies and efficacy expectancies. Outcome expectancies are concerned with a person's belief that a given behavior will lead to a desired outcome (e.g. if I stop drinking I will experience resolution of my drinking problem). Efficacy expectancies refer to the belief that one can successfully execute the required behavior that will produce the desired outcome (e.g. I can stop drinking). Adding the concept of spirituality to this framework, a person may believe that meditation, for example, will enhance one's ability to remain abstinent (outcome expectancy), but must also believe that he or she can effectively engage in meditation (efficacy expectancy) in order to produce the desired behavior. Spirituality may play a role in increasing the strength of a person's efficacy expectation in relation to abstinence.

The relationship between self-efficacy and spirituality can be better understood by exploring the different components of spirituality. Miller (1998) notes that spirituality is multidimensional. The concept of spirituality, as measured in this study, can be broken down into three different components: existential well-being (spirituality as it relates to meaning and purpose in life and the world around us), religious well-being (spirituality as it relates to a relationship with God), and involvement in spiritual actions and beliefs. The results show a relationship between existential well-being and self-efficacy, and between spiritual actions/belief and self-efficacy, but not between religious well-being and self-efficacy.

This can enhance our understanding of the relationship between self-efficacy and spirituality. Let us first explore spiritual actions and beliefs. The results of this study suggest that a person's perceived level of spiritual actions/beliefs is related to self-

efficacy in recovery. First the efficacy expectancy that one can engage in spiritual actions must be present (e.g. I can meditate) added to a belief that this behavior will lead to the desired outcome (successful recovery). For example, meditation/prayer can lead to an increase in personal power (increased self-efficacy). Increased personal power may enhance the belief in the ones' ability to maintain abstinence (efficacy expectancy). Finally, one may believe that maintaining abstinence will lead to successful recovery (outcome expectancy). It seems possible that engaging in spiritual actions may enhance one's efficacy expectancy and in turn increase chances for successful recovery. However, further research is needed to understand how this process works.

The relationship between self-efficacy and spirituality may be reciprocal or circular in nature. As a person gains strength through spiritual practices to stay sober, his or her level of self-efficacy increases. This in turn leads to successful recovery, which may then lead to stronger spiritual convictions (Figure 1).

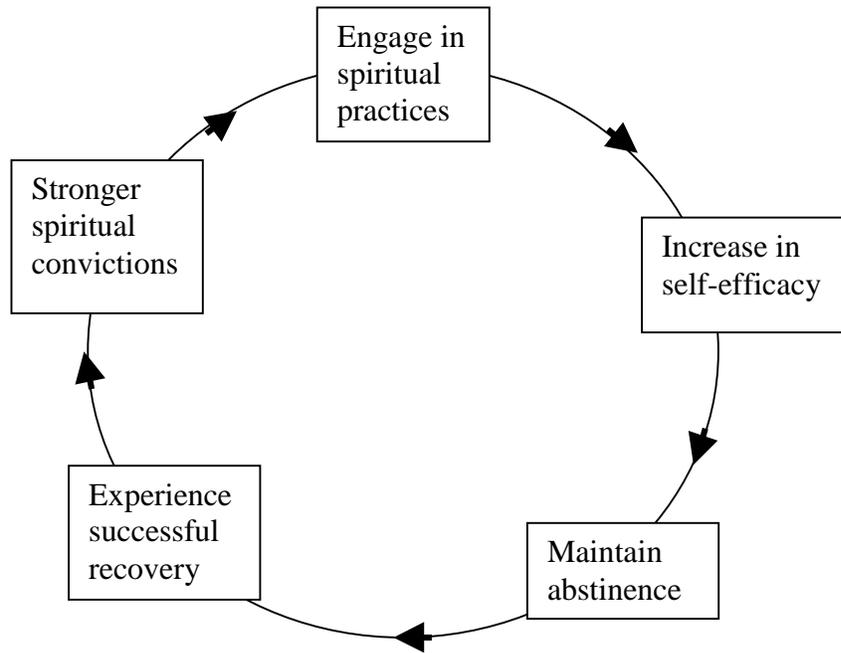


Figure 1. The proposed circular relationship between self-efficacy and spirituality.

Another aspect of spirituality is related to spiritual well-being. Spirituality as it relates to meaning and purpose in life and the world around us (EWB) is correlated with a belief in the ability to maintain abstinence. Meaning and purpose can relate to making sound judgements and decisions (maintaining abstinence) doing good for others, and finding purpose in one's actions. Thus a person choosing to maintain abstinence may score high on self-efficacy measures as well as on measures of spirituality as it relates to existential well-being. Bandura (1977) suggested that the level of self-efficacy expectancies is partially dependent on the availability of interpersonal skills necessary to achieve the desired behavior. Spirituality as it relates to EWB may enhance one's interpersonal connectedness, which may, in turn, increase a person's self-efficacy expectancies.

In contrast, spirituality as it relates to God (RWB) implicitly suggests a need for surrender of control, thus the lack of relationship between RWB and self-efficacy. RWB may account for the seemingly paradoxical relationship between self-efficacy and spirituality because it is the only aspect of spirituality related to surrender of control. Focusing only on the surrender portion of spirituality may actually minimize a person's self-efficacy expectancies about coping with alcohol. Donovan & Chaney (1985) note that "traditional forms of treatment, by minimizing positive self-efficacy expectancies, might inadvertently inculcate a form of learned helplessness" (p. 371).

Rather than suggesting a lack of control, addiction professionals can enhance a person's self-efficacy by supporting the client's *choice* to surrender. This choice, in and of itself, requires a sense of agency and efficacy on the individual's part. Sommer (1997) notes that peoples' ability "to trust that something greater than themselves is taking care

of things adds to their sense of self-efficacy and builds self-esteem" (p. 77). Thus, treatment can enhance self-efficacy in relation to surrender by, for example, helping a person believe that he or she can, in fact, surrender to a Higher Power (increase efficacy expectancy).

When correlations were established at each of the four levels of recovery, interesting trends emerged. A non-significant negative correlation trend was found between self-efficacy and spirituality for the no treatment group. There was no significant correlation for the recent relapse or three month recovery group. Then a positive correlation trend emerged for the six month recovery group. This may indicate that self-efficacy and spirituality become more related the longer a person is in recovery.

For example, a person who has not been involved in treatment likely has little awareness of the spiritual dimension of addiction. A person may even be in denial that a problem exists. The struggle to control one's use of alcohol, and the subsequent failure to accomplish this task, typically leads people to treatment. They do not associate loss of control as a spirituality problem. Most addiction treatment today focuses on the 12-step model of recovery, which is based on spirituality. As a person becomes more aware of this spiritual dimension through treatment, their level of spirituality may increase.

A final trend in the results was the relationship between the Unpleasant Emotion subscale of the SCQ and both measures of spirituality (SWBS and SIBS). This was the only SCQ subscale related to both spirituality measures. This suggests that people with high confidence that they can stay sober when they are experiencing unpleasant emotions reported high levels of spirituality. It seems that spirituality may help people cope with unpleasant emotions.

Discussion of Self-efficacy Related to Levels of Recovery

Hypothesis 2 proposed a difference in the level of self-efficacy for alcoholic dependent individuals at different levels of recovery. In addictive behaviors, self-efficacy theory is related to a person's ability to avoid relapse, with the strength of the person's efficacy expectations the primary determinant (Rychtarik et al., 1992). In addiction treatment, self-efficacy has been identified as an important construct in relapse prevention (Annis & Davis, 1988; Marlatt & Gordon, 1980) and relapse prediction (Lennings, 1996; Miller et al., 1994; Rychtarik et al., 1992, & Solomon & Annis, 1990). DiClemente (1986) and Rychtarik et al. (1992) suggest the need for additional empirical research to evaluate the tenets of self-efficacy as applied to alcoholism treatment.

The parametric analysis revealed no significant differences among no previous treatment, recent relapse, three month sobriety and six month sobriety groups with regard to overall self-efficacy scores as measured by the SCQ-39. This may be due to the fact that these analyses did not take into account the progressive nature of the independent variable. The lack of significance does not support previous research (Annis & Davis, 1988; & Solomon & Annis, 1990). Annis & Davis (1988) showed that client's ratings of self-efficacy improved substantially from intake to six months follow-up. Similarly, the results of Solomon and Annis' (1990) research yielded significant improvements in self-efficacy from intake to 3 months post-treatment discharge follow-up ($M=72.7$ at intake and 90.5 at follow-up), again suggesting increased self-efficacy as recovery time increases.

The results of the analyses of SCQ-39 subscales also failed to produce significant findings with regard to self-efficacy and level of recovery despite the level of observed

power (.843). However, an examination of the means again revealed consistent increases for all eight subscales over time. Thus, the means suggest increases in self-efficacy as recovery length and treatment length increase. The only exceptions were, (1) a decrease on the Physical Discomfort subscale between groups 3 and 4, (2) a decrease on the Social problems at Work Subscale between groups 2 and 3, and (3) a decrease on the Pleasant emotions subscale between groups 3 and 4. Revisiting Table 4, one can see that these exceptions represent very small differences among the groups, and were all among individuals who had experienced some level of recovery.

Because of the progressive nature of the independent variable (level of recovery), Kruskal-Wallis (KW) analyses were computed to supplement the MANOVA and ANOVA findings. The MANOVA and ANOVAs do not take the progression of the independent variable into account and treat each group as totally independent. In contrast, the Kruskal-Wallis allows assessment of the increasing nature of the level of recovery as it may affect the dependent measures of self-efficacy and spirituality. The results of the KW analysis yielded differences among the four groups emerged for Social Problems at Work, Testing Personal Control, and Unpleasant Emotions/Frustration subscales. There was also a trend toward significance among the four groups on the SCQ total score ($p=.06$) and the Urges and Temptations subscale ($p=.08$). The results of this test suggest that self-efficacy does increase as recovery time increases as suggested by past research. This increase in self-efficacy may also be related to the person's involvement in treatment.

Discussion of Spirituality Related to Levels of Recovery

Although spirituality is viewed as a critical component in recovery from alcoholism, there is a dearth of research in this area (Corrington, 1989; Johnson et al., 1987; Spalding & Metz, 1997; & Whitfield, 1984). Furthermore, the application of operational definitions (of spirituality in recovery) has been problematic because they are often difficult to interpret (Miller, 1991).

In addiction and recovery literature, spirituality is understood as the relationship or connection with self, others, and a transcendent being/higher power (Brown et al., 1988b; Carroll, 1997; Prezioso, 1987). Recovery through the spiritual process involves repairing relationships with self and others, as well as connecting with a Higher Power (Brown et al., 1988b). Clemmons (1991) described this process as the encouragement of development and potential through an enhanced connectedness with others. In this study, spirituality was assessed through two different measures: the SWBS, which evaluated a connectedness with others (EWB), and a connectedness with God (RWB), and the SIBS, which evaluated spiritual actions and beliefs.

Results from this study showed a significant difference in the participants' spiritual actions and beliefs among the four groups. Post hoc analyses showed that individuals in the no treatment group reported significantly lower levels of spirituality than those in the other three groups. As a person enters treatment (regardless of whether or not they relapse) they are likely to be more involved in spiritual actions and beliefs than someone with no treatment. However, once a person is involved in recovery, their level of spiritual actions/beliefs did not continue to increase significantly. This highlights the importance of infusing spirituality in the early stages of substance abuse treatment.

In addition to spiritual actions and beliefs, overall spirituality as measured by the SWBS showed a trend toward significance among the four groups. The results showed that the levels of recovery differed on the dependent variable of Religious Well Being (RWB), but not on Existential Well-Being (EWB). RWB refers to well being as it relates to God whereas EWB refers to well being related to the world around us including sense of life and purpose. It seems that one's connection to the world does not increase during recovery, however, the recovery process impacts one's connection to God. Post hoc analyses showed that the no treatment group was significantly lower on RWB than either the 3 or 6 months sobriety group. Traditional addiction treatment focuses on the 12-step recovery approach, which includes surrender to God as a step toward recovery. Nealon-Woods et al. (1995) highlighted the loss of faith, hope, and spirituality as important constructs in the AA program of recovery. The significant findings reflect this process in addiction treatment. People who have not been in treatment (not surrendered to a Higher Power), reported lower levels of RWB than those who have been in recovery for three and six months (surrendered to a Higher Power). This again highlights the importance of infusing spirituality in the early stages of substance abuse treatment.

Discussion of Self-efficacy and Spirituality related to Age

No significant differences were observed among the age groups with regard to self-efficacy. It is interesting to note, however, that the 18-25 age group mean (64.10) is lower than the other age groups, which are relatively similar (70.60-73.17). It appears that self-efficacy in general may increase as one moves from early to middle adulthood, then plateaus.

Significant differences were observed among the age groups with regard to spirituality. Post hoc analyses revealed significant differences between the 18-25 age group and the 26-35 age group, as well as between the 18-25 and 36-45 age groups for spirituality as measured by the SWBS and the SIBS. No differences among the other age groups were indicated. By examining the mean patterns for the SWBS and SIBS, one can observe an increase between the 18-25 and the 26-35 categories. Then the means remain relatively constant between the 26-35 and 36-45 age groups before decreasing slightly for the 46-55 age groups. Both sets of means then increase slightly for the 56-65 age group. This pattern was observed for both spirituality instruments, suggesting that spirituality increases from early to middle adulthood, then plateaus. This may be related to a deeper questioning of the meaning and purpose in life as one grows older.

Discussion of Self-efficacy and Spirituality related to Ethnicity

ANOVA's were not conducted on the variable of ethnicity due to the large difference in the n for each group. The White/Caucasian group had 72 individuals, African American, 8, and Native American 1. Although statistical analyses were not conducted, an examination of the means revealed the African American individuals reported lower self-efficacy than the White/Caucasian group. In addition, African American individuals reported higher levels of spirituality than White/Caucasian individuals on both spirituality instruments. Further evaluation of ethnicity as it relates to self-efficacy and spirituality should be conducted using larger samples.

Evidence for the Construct Validity of the SIBS

Validity, the most important standard for psychological measures, is concerned with an instrument's ability to measure what it purports to measure (Anastasi, 1988). Anastasi (1988) outlined six specific techniques used to establish the construct validity of an instrument. Ledbetter et al. (1991) summarize these techniques as (1) utilizing developmental changes, (2) correlations with other tests, (3) factor analysis, (4) internal consistency, (5) convergent and discriminate validation, and (6) experimental intervention. The results of this study provide evidence of construct validity for the SIBS through a series of correlations with the most commonly used spirituality instrument, the SWBS.

As previously noted, the SWBS is designed to measure an "underlying state of spiritual health" or quality of life (Ellison, 1983). The SWBS is composed of two subscales: Existential Well-Being measuring a sense of life purpose and connection with others, and Religious Well-Being measuring a sense of connection to God.

The original psychometric information on the SIBS provided preliminary support for the construct validity by correlating the total score on the SIBS with the total score on the SWBS (Hatch et al., 1998). The product moment correlation was established at .80. In addition, correlations were established between the SIBS total score and each subscale of the SWBS (EWB and RWB). The results indicated strong correlations with each of these subscales, EWB (.77) and RWB (.75). Construct validity correlations should reach approximately .80 but not exceed this by too much, as this would suggest practical replication of the other instrument (Hatch et al., 1998).

The results of the present investigation offer continued support for the construct validity of the SIBS. Correlations were established between the SWBS and SIBS total scores for the overall sample ($n=81$) and at each level of recovery. In addition, correlations were established between the SIBS and each subscale of the SWBS (EWB and RWB) for the total sample. The results yielded strong correlations for all pairs of scores.

The correlations between the SIBS and SWBS total scores were as follows: Total sample (.80), No Previous Treatment group (.80), Recent Relapse group (.81), Three Month Sobriety group (.79), and Six Month Sobriety group (.78). These instruments maintained a strong relationship regardless of level of recovery. In addition, the correlation between SIBS and EWB for the total sample was established at .54 and between SIBS and RWB at .85. This suggests that spiritual actions and beliefs are more related to spirituality as it relates to a connection with others and the world than it does with a relationship to God.

The results of this analysis add to the growing base of research offering support for the convergent construct validity of the SIBS as a new and promising instrument for measuring the evasive construct of spirituality. The advantages of the SIBS include the assessment of aspects of spirituality not covered by other instruments, using “generic” wording, and assessment of spiritual involvement/activity, not just beliefs (Hatch, et. al., 1999). The SIBS expands our ability to measure spirituality by including a behavioral component to the scale. This “more tangible” approach to the measurement of spirituality may help bridge the gap between the phenomenological and empirical understanding of this construct.

Summary of Findings

Self-efficacy and spirituality are related in the recovery process from alcoholism. The seemingly paradoxical relationship between these constructs can be explained through an understanding of the multidimensionality of spirituality. Self-efficacy was found to be correlated with spirituality as it relates to one's connectedness with others and the world, as well as one's involvement in spiritual actions/beliefs. In contrast, self-efficacy was not related to spirituality as it relates to one's connectedness with God.

In addition, minimal support was observed for the increase of self-efficacy as recovery time increases. Spiritual actions and beliefs, as well as religious well-being also increased over the recovery process. However, a person's existential well-being did not show significant increases related to time in recovery.

There were no differences on self-efficacy nor spirituality based on gender, reason for seeking treatment, or dependence on other drugs. Individuals in the 36-45 age range reported higher levels of spirituality than the 18-25 group range.

Implications for Practice

"Most addictive behaviors involve a conflict of motives. The desire for immediate gratification is often in direct conflict with a desire to avoid delayed negative effects" (Marlatt, 1985c, p. 203). This conflict is highlighted in the process of recovery when the individual attempts to reverse this process: delay immediate gratification for the sake of long-term benefit. Recovery from addiction must involve the belief that one can successfully delay this immediate gratification, resulting in abstinence from alcohol or other substance.

Self-efficacy theory posits that a person's perceived ability to perform certain behaviors is crucial to the successful execution of a particular course of action. People who believe they can manage a task are likely to undertake and perform that activity, whereas people tend to avoid tasks that are perceived as exceeding their capabilities (Bandura, 1977; Bandura, 1980; Bandura, 1982). In addictive behaviors, self-efficacy theory is related to a person's ability to avoid relapse, with the strength of the person's efficacy expectations as a primary determinant (Rychtarik et al., 1992). Therefore, those individuals who believe in their ability to abstain from alcohol are likely to perform this activity, whereas those individuals who perceive abstinence as exceeding their capabilities are likely to avoid it.

Although the results of the present study are not predictive or causal in nature, the relationship between self-efficacy and recovery offers support for self-efficacy as an important component in the recovery process. This appears to be particularly important in the treatment of addictive behavior. Treatment professionals must assist in the improvement of the client's sense of personal efficacy in coping with drinking situations, similar to Annis & Davis (1989) cognitive-behavioral approach to relapse prevention.

Treatment providers can aid the client in developing a hierarchy of high risk drinking situations, followed by identifying possible coping responses to each high risk situation. Annis & Davis (1989) suggest the use of homework assignments as a means of enhancing the client's self-efficacy or confidence. Rollnick and Heather (1982) suggested negotiating outcomes at the onset of treatment to improve the effectiveness of the program for individuals. This individualized approach can create alternatives for those who do not believe in life-long abstinence, thereby acknowledging that different people

have different beliefs and needs in treatment. By doing this, the client will be proactive in creating their goals, which will, in turn, enhance their outcome expectancies. Once this is achieved, the treatment team can focus on strengthening the client's belief in his or her ability to perform the tasks necessary to achieve the proposed goal.

Although numerous studies have explored the construct of self-efficacy, none have used spirituality as a possible variable in the prediction or prevention of relapse. According to Miller (1998), surprisingly little empirical research has focused on the spiritual aspect of addiction and its treatment. The results of the present study suggest that spirituality is not only an important construct in the recovery process, but that it is also related to a person's sense of efficacy regarding recovery.

In addition, this study supports the importance of a multidimensional model of spirituality. In addiction and recovery literature, spirituality is understood as the relationship or connection with self, others, and a transcendent being/higher power (Brown et al., 1988b; Carroll, 1997; Prezioso, 1987). Because spirituality in the field of addiction is typically viewed only as a relationship with a Higher Power, the other components of spirituality (a connection with oneself and a connection with others/the world) are often overlooked.

This appears to be particularly important given the results of the current study which suggest that the components of spirituality related to self-efficacy are one's sense of connectedness to the world and others, as well as one's involvement in spiritual actions. Spirituality as it relates to a relationship to God was not related to a person's efficacy regarding abstinence. Thus, RWB (relationship with God) may account for the seemingly paradoxical relationship between self-efficacy and spirituality because it is the

only aspect of spirituality related to surrender of control. When spirituality is equated with a relationship with oneself and others, self-efficacy and spirituality are correlated. Treatment professionals can support both self-efficacy and spirituality by helping clients enhance their connectedness with others and themselves. This can be accomplished through treatment that could include guided imagery, meditation, prayer, groups, family and significant others. Although the results of this study are not causal in nature, they seem to suggest that increases in spirituality may help a person's perceived self-efficacy to stay sober. Further empirical research is needed to clarify this relationship.

Spirituality seems to support recovery by enhancing a person's self-efficacy expectations regarding abstinence. Rather than treat self-efficacy and spirituality as opposing forces, treatment providers can use the strength of these constructs together to better equip a person for sobriety. It appears that therapists could assist clients by attempting to (1) negotiate outcomes at the onset of treatment (Rollnick & Heather, 1982), (2) identify areas of drinking risk, (3) identify coping behaviors for high-risk situations, (4) assess the client's level of spirituality in terms of relationship to self, others, and a Higher Power, (5) identify actions that will lead to increases in perceived spirituality, (6) identify and explain the process by which involvement in spiritual practices will enhance personal power and agency, and (7) encourage clients to develop and maintain support through connections with others.

Limitations of the Study

Several limitations should be considered regarding the usefulness of the data obtained from the present study. These limitations are related to measurement, sampling issues, and research design.

Measurement

Measurement of abstinence self-efficacy was measured by the SCQ-39. The internal consistencies (Chronbach alpha) for each subscale are as follows: Unpleasant Emotions/Frustrations (.95), Physical Discomfort (.81), Pleasant Emotions (.87), Testing Personal Control (.92), Urges/Temptations (.86), Social Problems at Work (.93), Social Tension (.90), Positive Social Situations (.97), suggesting adequate internal validity. However, Goldbeck, Myatt, & Aitchison (1997) suggest the possibility of a ceiling effect regarding perceived self-efficacy. Also, some participants may make inflated self-efficacy judgments based on over confident views of their coping abilities. A ceiling effect may impact the instrument's ability to differentiate clients at the higher ends of the self-efficacy scale. If this ceiling effect didn't exist, individuals in the 3 and 6 month sobriety group may have scored higher on this measure of self-efficacy, thus showing increases in self-efficacy as level of recovery increased.

The Spiritual Well-Being Scale (SWBS) is designed to indicate the perceived spiritual quality of life or the quality of one's spiritual health. It is known as the most commonly used instrument for spiritual inquiry (Hatch et al., 1998). It is a 20 item self-report measure with two subscales, Existential Well Being and Religious Well Being. Ledbetter, Smith, Vosler-Hunter, & Fischer (1991) suggest that the two-factor model may not be the best overall factorial conceptualization and that there may be more than two unique constructs which comprise global spiritual well-being as measured by the SWBS. The apparent multidimensionality of the SWBS may produce confounding results. In relation to the present investigation, other factors of spirituality in addition to EWB and RWB may account for the relationship with self-efficacy and levels of recovery.

In addition to the above limitations, Letbetter, Smith, Vosler-Hunter, & Fischer (1991) indicate that the SWBS may have ceiling effects. "One result of ceiling problems is that persons obtaining high scores on the SWBS cannot be meaningfully distinguished from one another (Bufford et al., 1991). Ceiling effects in the present study might have limited significant differences among the groups of individuals who already entered treatment. As you may recall, differences were observed between the no treatment group and the other three groups, but not among the three groups in treatment. If the instrument did not restrict scoring at the higher levels of spirituality, differences in spirituality among the three groups in treatment may have been identified.

The SIBS is a new and promising instrument in the assessment of spirituality. However, due to its recent development, minimal psychometric information is available. This hinders the strength of the interpretations one can make from the data collected with this instrument.

Finally, the data gathered in this study were based on client self-report. The participants were grouped based on their self-reported level of recovery. In addition, the three instruments used in this study are self-report measures, which may result in inaccurate perceptions of coping ability and extent of spirituality. Although the information in the present study was confidential, individuals may not have been truthful regarding their sobriety. This issue is of special concern to the court-ordered clients who must maintain sobriety to avoid further legal prosecution. Ensuring sobriety, especially with alcohol, is particularly difficult due to the fast rate alcohol is processed in the body. Blood and urine screens (unless they are random) do not typically identify alcohol use, therefore most practitioners rely on a person's self-report regarding abstinence.

Sampling

The sample was obtained from an outpatient drug and alcohol counseling center in central Pennsylvania. Since the entire sample was drawn exclusively from this population, results may not be readily extrapolated to inpatient populations, intensive outpatient populations, or individuals that have not been involved in treatment. In addition, the sampling procedures did not rule out polysubstance abusers. Although no differences between alcohol only clients and polysubstance clients were observed in this study, additional substance use may have had other confounding effects.

Research Design

The design of the present study does not involve random selection. As a result, causal relationships between the self-efficacy and spirituality can not be inferred. Thus the interpretation of the relationship between self-efficacy and spirituality is limited to speculation.

Recommendations for Future Research

Follow-up studies regarding information obtained from the present investigation should encompass three areas: self-efficacy and recovery, spirituality and recovery, and the relationship between self-efficacy and spirituality. Regardless of the area of inquiry, researchers could rule out factors such as polysubstance abuse, reason for seeking treatment, length of addiction, and history of previous treatment, thus making the sample more homogeneous and avoiding possible confounding effects.

The history of research on self-efficacy in the recovery process has been limited to abstinence self-efficacy (e.g. the belief that one can abstain from drinking). Further research exploring other dimensions of self-efficacy related to the recovery process

would be beneficial. These include (1) treatment behavior self-efficacy (the belief that one can perform in treatment), (2) recovery self-efficacy (the belief that one can recover from a lapse), and (3) control self-efficacy (the belief that one can control addictive behaviors in high-risk situations) (DiClemente, 1986). Instruments would need to be developed and validated in order to accurately measure these types of self-efficacy. In addition, research is needed to better understand the role of Abstinence Violation Effect (AVE - a psychological reaction among individuals who had violated a self-imposed abstinence rule) in relation to a person's self-efficacy. Through a longitudinal study, researchers could assess a person's self-efficacy pre and post relapse, along with the intensity of AVE. The results of such a study could offer support for Rawson et al. (1993) suggestion of teaching clients that a slip does not necessarily lead to a full-blown relapse, thus enhancing their self-efficacy toward abstinence.

The present study offers a glimpse into the role of spirituality in the recovery process. Although the focus of this investigation was on the relationship between self-efficacy and spirituality, the results did provide important avenues for future research. First, there seems to be a need for a more universal model of spirituality as it relates to recovery. The results of the present study offered some explanation of the paradox between self-efficacy and spirituality through exploring the various dimensions of spirituality. As you may recall, the "typical" dimension of spirituality in recovery (surrender to a Higher Power) was not related to self-efficacy, however other components of spirituality, especially those related to a connectedness with others and oneself, were correlated with one's belief in the ability to remain abstinent. The hesitance to develop a universal model may be partially rooted in the difficulty, if not the inability, to

empirically validate such a model. Another explanation may be peoples' resistance to explain spirituality in scientific terms. Regardless of the reason, it seems that the lack of an agreed upon, empirically validated model exacerbates the avoidance of spirituality in psychological treatment, including the treatment of addictions. The development of new measurements of spirituality offers a starting point on which future research can build. Thus, studies that offer continued exploration of the validity and reliability of the SIBS would be beneficial.

The main avenue for future research involves ongoing inquiry into the relationship between self-efficacy and spirituality in the recovery process. Studies should include larger samples, both inpatient and outpatient populations, and be longitudinal in nature. In addition, experimental or quasi-experimental designs could be implemented to evaluate casual effects between the two constructs. For example, one treatment group could be involved in counseling focused on increasing EWB (the connectedness with others and oneself), while the control group would receive traditional addiction treatment (typically focused on a relationship with a higher power). Researchers could evaluate the clients' levels of self-efficacy and spirituality pre and post treatment to see if increases in EWB lead to increases in self-efficacy.

The results of the present study provide a basis for studying the relationship between self-efficacy and spirituality. This study answers the question "Are self-efficacy and spirituality related in the recovery process?" Now we must ask ourselves "how" and "why".

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Appendix A

A Comparison of the Self-control and Disease Models of Addiction

Topic	Self-control Model	Disease Model
Locus of Control	Person is capable of self control	Person is a victim of forces beyond one's control
Treatment Goal	Choice of goals: abstinence or moderation	Abstinence is the only goal
Treatment Philosophy	Fosters detachment of self from behavior. Educational.	Equates self with behavior. Medical/disease approach.
Treatment Procedures	Teaching behavioral coping skills. Cognitive restructuring.	Confrontation & conversation. Group support. Cognitive dogma.
General Approach to Addiction	Search for commonalties across addictive behaviors. Addiction is based on maladaptive behavior.	Each addiction is unique. Addiction is based on physiological processes.
Examples	Cognitive-behavioral therapy (outpatient). Self-control programs. Controlled drinking programs.	Hospital treatment programs (inpatient). Aversion treatment. AA + Synanon

Note. From Relapse Prevention (p. 16), by G. Marlatt in G.A. Marlatt and J.R. Gordon,

1985, New York: The Guilford Press. Copyright 1985 by The Guilford Press.

Appendix B

The Twelve Steps of Alcoholics Anonymous

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 to 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 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 the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.

Appendix C

Demographic Data

Gender:

- Male
- Female

Age:

- 18-25
- 26-35
- 36-45
- 46-55
- 56-65
- over 65

Ethnicity:

- African American
- White/Caucasian
- Native American
- Latina/Latino
- Asian American/ Pacific Islander
- Other - _____

Reason for seeking treatment:

- Self-referred
- Family/friend
- Work related
- Probation/Parole/court ordered
- Other - _____

History of drug dependence in addition to alcohol:

- None
- Marijuana
- Cocaine
- Heroin
- LSD or PCP
- Prescription pain killers (e.g. Percocet, Darvon)
- Prescription anti-anxiety (e.g. Valium, Librium)
- Other - _____

Appendix D

Situational Confidence Questionnaire (SCQ-39)

Authors: H.M. Annis and G. Martin, Addiction Research Foundation, ©1988

Listed below are a number of situations or events in which some people experience a drinking problem.

Imagine yourself as you are right now in each of these situations. Indicate on the scale provided how confident you are that you would be able to resist the urge to drink heavily in that situation.

Circle **100** if you are 100% confident right now that you could resist the urge to drink heavily, **80** if you are 80% confident, **60** if you are 60% confident. If you are more unconfident than confident, circle **40** to indicate that you are only 40% confident that you could resist the urge to drink heavily, **20** for 20% confident; **0** if you have no confidence at all about the situation.

I would be able to resist the urge to drink heavily

	not at all confident			very confident		
1. If I felt that I had let myself down	0	20	40	60	80	100
2. If there were fights at home	0	20	40	60	80	100
3. If I had trouble sleeping	0	20	40	60	80	100
4. If I had an argument with a friend	0	20	40	60	80	100
5. If I other people didn't seem to like me	0	20	40	60	80	100
6. If I felt confident and relaxed	0	20	40	60	80	100
7. If I were out with friends and they stopped Stopped by the bar for a drink	0	20	40	60	80	100
8. If I were enjoying myself at a party and wanted to feel even better	0	20	40	60	80	100
9. If I remembered how good it tasted	0	20	40	60	80	100
10. If I convinced myself that I was a new person and could take a few drinks	0	20	40	60	80	100
11. If I were afraid that things weren't going to work out	0	20	40	60	80	100

I would be able to resist the urge to drink heavily

	not at all confident			very confident		
12. If other people interfered with my plans	0	20	40	60	80	100
13. If I felt drowsy and wanted to stay alert	0	20	40	60	80	100
14. If there were problems with people at work	0	20	40	60	80	100
15. If I felt uneasy in the presence of someone	0	20	40	60	80	100
16. If everything were going well	0	20	40	60	80	100
17. If I were at a party and other people were drinking	0	20	40	60	80	100
18. If I wanted to celebrate with a friend	0	20	40	60	80	100
19. If I passed by a liquor store	0	20	40	60	80	100
20. If I wondered about my self-control over alcohol and felt like having a drink to try it out	0	20	40	60	80	100
21. If I were angry at the way things had turned out	0	20	40	60	80	100
22. If other people treated me unfairly	0	20	40	60	80	100
23. If I felt nauseous	0	20	40	60	80	100
24. If pressure built up at work because of the demands of my supervisor	0	20	40	60	80	100
25. If someone criticized me	0	20	40	60	80	100
26. If I felt satisfied with something I had done	0	20	40	60	80	100
27. If I were relaxed with a good friend and wanted to have a good time	0	20	40	60	80	100
28. If I were in a restaurant and the people with me ordered drinks	0	20	40	60	80	100
29. If I unexpectedly found a bottle of my favorite booze	0	20	40	60	80	100

I would be able to resist the urge to drink heavily

	not at all confident			very confident		
30. If I started to think that just one drink could cause no harm	0	20	40	60	80	100
31. If I felt confused about what I should do	0	20	40	60	80	100
32. If I felt under a lot of pressure from family members at home	0	20	40	60	80	100
33. If my stomach felt like it was tied in knots	0	20	40	60	80	100
34. If I were not getting along well with others at work	0	20	40	60	80	100
35. If other people around me made me tense	0	20	40	60	80	100
36. If I were out with friends "on the town" and wanted to increase my enjoyment	0	20	40	60	80	100
37. If I met a friend and he/she suggested that we have a drink together	0	20	40	60	80	100
38. If I suddenly had an urge to drink	0	20	40	60	80	100
39. If I wanted to prove to myself that I could take a few drinks without becoming drunk	0	20	40	60	80	100

Appendix E

Spiritual Well-Being Scale (SWBS)

For each of the following statements circle the choice that best indicates the extent of your agreement or disagreement as it describes your personal experience:

SA = Strongly Agree
MA = Moderately Agree
A = Agree

D = Disagree
MD = Moderately Disagree
SD = Strongly Disagree

- | | |
|--|-----------------|
| 1. I don't find much satisfaction in private prayer with God. | SA MA A D MD SD |
| 2. I don't know who I am, where I came from, or where I am going. | SA MA A D MD SD |
| 3. I believe that God loves me and cares about me. | SA MA A D MD SD |
| 4. I feel that life is a positive experience. | SA MA A D MD SD |
| 5. I believe that God is impersonal and not interested in my daily situations. | SA MA A D MD SD |
| 6. I feel unsettled about my future. | SA MA A D MD SD |
| 7. I have a personally meaningful relationship with God. | SA MA A D MD SD |
| 8. I feel very fulfilled and satisfied with life. | SA MA A D MD SD |
| 9. I don't get much personal strength and support from my God. | SA MA A D MD SD |
| 10. I feel a sense of well-being about the direction my life is headed in. | SA MA A D MD SD |
| 11. I believe that God is concerned about my problems. | SA MA A D MD SD |
| 12. I don't enjoy much about life. | SA MA A D MD SD |
| 13. I don't have a personally satisfying relationship with God. | SA MA A D MD SD |
| 14. I feel good about my future. | SA MA A D MD SD |

15. My Relationship with God helps me not to feel lonely. SA MA A D MD SD
16. I feel that life is full of conflict and unhappiness. SA MA A D MD SD
17. I feel most fulfilled when I'm in a close communion with God. SA MA A D MD SD
18. Life doesn't have much meaning. SA MA A D MD SD
19. My relation with God contributes to my sense of well-being. SA MA A D MD SD
20. I believe there is some real purpose for my life. SA MA A D MD SD

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Appendix F

Spiritual Involvement and Beliefs Scale

How strongly do you agree with the following statements? Please circle your response.

	Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
1. I set aside time for meditation and/or self-reflection.	7	6	5	4	3	2	1
2. I can find meaning in times of hardship.	7	6	5	4	3	2	1
3. A person can be fulfilled without pursuing and active spiritual life.	7	6	5	4	3	2	1
4. I find serenity by accepting things as they are.	7	6	5	4	3	2	1
5. Some experiences can be understood only through one's spiritual beliefs.	7	6	5	4	3	2	1
6. I don't believe in an afterlife.	7	6	5	4	3	2	1
7. A spiritual force influences the events in my life.	7	6	5	4	3	2	1
8. I have a relationship with someone I can run to for spiritual guidance.	7	6	5	4	3	2	1
9. Prayers do not really change what happens.	7	6	5	4	3	2	1
10. Participating in spiritual activities helps me forgive other people.	7	6	5	4	3	2	1
11. I find inner peace when I am in harmony with nature.	7	6	5	4	3	2	1
12. Everything happens for a greater purpose.	7	6	5	4	3	2	1
13. I use contemplation to get in touch with my true self.	7	6	5	4	3	2	1
14. My spiritual life fulfills me in ways that material possessions do not.	7	6	5	4	3	2	1
15. I rarely feel connected to something greater than myself.	7	6	5	4	3	2	1

	Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
16. In times of despair, I can find little reason to hope.	7	6	5	4	3	2	1
17. When I am sick, I would like others to pray for me.	7	6	5	4	3	2	1
18. I have a personal relationship with a power greater than myself.	7	6	5	4	3	2	1
19. I have had a spiritual experience that greatly changed my life.	7	6	5	4	3	2	1
20. When I help others, I expect nothing in return.	7	6	5	4	3	2	1
20. I don't take time to appreciate nature.	7	6	5	4	3	2	1
22. I depend on a higher power.	7	6	5	4	3	2	1
23. I have joy in my life because of my spirituality.	7	6	5	4	3	2	1
24. My relationship with a higher power helps me love others more completely.	7	6	5	4	3	2	1
25. Spiritual writings enrich my life.	7	6	5	4	3	2	1
26. I have experienced healing after prayer.	7	6	5	4	3	2	1
27. My spiritual understanding continues to grow.	7	6	5	4	3	2	1
28. I am right more often than most people.	7	6	5	4	3	2	1
29. Many spiritual approaches have little value.	7	6	5	4	3	2	1
30. Spiritual health contributes to physical health.	7	6	5	4	3	2	1
31. I regularly interact with others for spiritual purposes.	7	6	5	4	3	2	1
32. I focus on what needs to be changed in me, not on what needs to be changed in others.	7	6	5	4	3	2	1

	Strongly Agree	Agree	Mildly Agree	Neutral	Mildly Disagree	Disagree	Strongly Disagree
33. In difficult times, I am still grateful.	7	6	5	4	3	2	1
34. I have been through a time of great suffering that led to spiritual growth.	7	6	5	4	3	2	1

Please indicate how often you do the following:

	Always	Almost Always	Usually	Some-times	Not usually	Almost never	Never
35. When I wrong someone, I Make an effort to apologize.	7	6	5	4	3	2	1
36. I accept others as they are.	7	6	5	4	3	2	1
37. I solve my problems without using spiritual resources.	7	6	5	4	3	2	1
38. I examine my actions to see if they reflect my values.	7	6	5	4	3	2	1

39. How spiritual a person do you consider yourself? (With "7" being most spiritual)

1 2 3 4 5 6 7



JUN 12 2000

APPROVED

X
EXPIRES 2-16-01
H.S. # 14672

CONSENT and INFORMATION FORM

Self-efficacy and Spirituality in the Recovery Process from Alcoholism: A Paradox

Introduction. I, _____, have been invited to participate in this research study which has been explained to me by my counselor _____ (name). This research is being conducted by Julie States to fulfill the requirements for a doctoral dissertation in Counseling Psychology at West Virginia University.

Purposes of the Study. The purpose of this study is to learn more about the role of self-efficacy (the belief that one can stay sober) and spirituality (the belief in a Higher Power) in the recovery process from alcohol dependence.

Description of Procedures. I understand that my counselor and I will discuss the information contained in this consent form. My counselor has been trained by Julie States, principle investigator, regarding informed consent, confidentiality, and the procedures for collecting data used in this research study. I understand that I will be asked to fill out three questionnaires regarding self-efficacy and spirituality. This will take approximately 15 minutes. The Situational Confidence Questionnaire is a measure of alcohol related self-efficacy. I will be asked to rate my confidence level to resist the urge to drink alcohol in a variety of situations. The Spiritual Well-Being Scale is a measure of spiritual health (aspects of life that involve meaning, ideals, faith, and purpose) and the Spiritual Involvement and Beliefs Scale is a measure of spiritual actions and beliefs. For each of these scales, I will be asked to indicate my level of agreement with a list of statements about spirituality. I understand that I do not have to answer all of the questions. I will have the opportunity to see the questionnaires before signing the consent form. Approximately 80 subjects will be entered in this study. The data collection for this study is expected to take approximately 4-5 months, with the results completed by May 2001.

Risks and Discomforts. There are no known or expected risks from participating in this study, except for the mild frustration associated with completion of the Situational Confidence Questionnaire, the Spiritual Well-Being Scale, and the Spiritual Involvement and Beliefs Scale. Other unforeseeable problems can be reported to my counselor, or to the contact persons listed below.

Alternatives. I understand that I have the option not to participate in this study.

Benefits. I understand that this study is not expected to be of direct benefit to me, but the knowledge gained may be of benefit to others.

Self-efficacy and Spirituality in the Recovery Process from Alcoholism: A Paradox

Contact Person. For more information about this research, I can contact Julie States, at (304) 291-3289, or her supervisor, Cynthia Kalodner, Ph.D. at (304) 293-3807. For information regarding my rights as a research subject, I may contact the Executive Secretary of the Institutional Review Board at (304) 293-7073.

Confidentiality. I understand that any information about me obtained as a result of my participation in this research will be kept as confidential as legally possible. I understand also that my research records, just like hospital records, may be subpoenaed by court order or may be inspected by federal regulatory authorities. The research records may be reviewed by the Altoona Hospital Institutional Review Board, Altoona Hospital Medical Records Department, the Federal Drug Administration, or other health authorities. In any publications that result from this research, neither my name nor any information from which I might be identified will be published without my consent.

Voluntary Participation. Participation in this study is voluntary. I understand that I am free to withdraw my consent to participate in this study at anytime. Refusal to participate or withdrawal will involve no penalty or loss of benefits and will not affect my treatment at Altoona Hospital Center for Medicine in any way. I have been given the opportunity to ask questions about the research, and I have received answers concerning areas I did not understand. All the blank spaces above were filled in before I signed the form. If any items were changed on the printed form or spaces from any handwritten items, my initials were placed next to the changed items before I signed the form. I understand that my signing this, I am authorizing the use of my questionnaires and demographic data form for the purposes of the study outlined above. If I change my mind, I must notify the counselor immediately.

Upon signing this form, I will receive a copy.

I willingly consent to participate in this research.

Signature of Subject or Subject's Representative

Date

Time

Signature of Investigator or Investigator's Representative

Date

Time

Appendix H

Reliabilities of the SCQ-39, SWBS, and SIBS

	SCQ-39	SWBS	SIBS
Stability (Test-retest)	--	1 wk: $r = .93$ 4 wks: $r = .99$ 6 wks: $r = .82$ 10 wks: $r = .99$ (Bufford, et al., 1991).	$r = .92$ (original version) (Hatch, et al., 1998).
Internal Consistency (Cronbach's Alpha)	Provided for all eight subscales: 1. Unpleasant Emotions (.952) 2. Physical Discomfort (.807) 3. Pleasant Emotions (.871) 4. Testing Personal Control (.922) 5. Urges/Temptation (.859) 6. Social Problems at Work (.933) 7. Social Tension (.901) 8. Positive Social Situations (.967) Average (.978) (Annis & Graham, 1987).	Average of seven reported studies (.91) (Bufford, et al., 1991).	Original Version (.92) New Version (.96) (Hatch, et al., 1998).

Note. Dashes indicate the stability was not obtained.

Appendix I

Validities of the SCQ-39, SWBS, and SIBS

	SCQ-39	SWBS	SIBS
Criterion	<p>Intake scores predicted post-treatment average consumption for those who relapsed (Solomon & Annis, 1988).</p> <p>Intake SCQ scores successfully predicted the specific nature of situations in which relapse would occur in instances of heavy drinking (Annis & Davis, 1988).</p>	<p>Concurrent validity is difficult to establish since few measures of spiritual well-being exist. Correlations are reported between the Existential Well-being subscale and Purpose of Life ($r = .68$), and between the Religious Well-being subscale and Intrinsic Religion ($r = .79$) (Schoenrade, 1995).</p> <p>Predictive validity must await further research (Schoenrade, 1995).</p>	--
Construct	<p>The total number of drinks consumed and the number of drinking days were negatively correlated with all eight subscales. The daily quantity was significantly negatively correlated with 6/8 subscales (Annis & Graham, 1987).</p>	<p>Positive correlations were found with standard indicators of well-being including a positive self-concept, finding meaning and purpose in life, high assertiveness, good physical health, and good emotional adjustment (Bufford, et al., 1991).</p>	<p>Positive correlation ($r = .80$) was established with the Spiritual Well-Being Scale (Hatch et al., 1998)</p>

	SCQ-39	SWBS	SIBS
Construct (con't)	<p>Significant, but small, correlations were established with the Outcome Expectancy Scale (Annis & Graham, 1987).</p> <p>Negative correlations were found with the following measures: Drinking Locus of Control ($r = -.45$) Beck Depression Inventory ($r = -.52$) Hopelessness Scale ($r = -.37$) (Solomon & Annis, 1988).</p> <p>Significant differences between long-term and short-term sober alcoholics were found on 7/8 subscales (Miller, et al., 1989).</p>	<p>Negative correlations were established with indicators of ill health, emotional maladjustment, and dissatisfaction with life (Bufford, et al., 1991).</p>	<p>Instrument was reviewed by focus groups representing various religious affiliations to identify content areas not covered by the scale. New questions were then developed in these content areas (Hatch, et al., 1998).</p>
Content	--	--	

Note. Dashes indicate the type of validity was not obtained.

Appendix J

Reliability of the Spiritual Well-Being Scale

Sample	Time	RWB	EWB	SWB
Test-retest (Stability)				
Paloutzian & Ellison, 1982	1 week	.96	.86	.93
Upshaw, 1985	4 weeks	.99	.98	.99
Upshaw, 1985	10 weeks	.99	.98	.99
Brinkman, 1989	6 weeks	.88	.73	.82
Internal Consistency:				
Brinkman, 1989		.94	.83	.92
Brinkman, 1989		.86	.85	.91
Davis, 1987		.82	.84	.89
Huggins, 1988		.86	.86	.91
Kirschling & Pittman, 1989		.94	.84	.94
Paloutzian & Ellison, 1982		.87	.78	.89
Wong, 1989		.85	.81	.89

Note. Adapted from "Norms for the Spiritual Well-Being Scale," by R.K. Bufford, R.F. Paloutzian, and C.W. Ellison, 1991, Journal of Psychology and Theology, 19(1), p.58.

Vita

Julie A. States

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Education

- 2001 **Doctor of Philosophy in Counseling Psychology**
West Virginia University (APA Accredited)
Dissertation Title: *"Self-efficacy and Spirituality in the Recovery
Process from Alcohol Dependence: A Paradox"*
Defense Date: March 19, 2001
- 1990 **Master of Arts in Community Counseling**
Indiana University of Pennsylvania
- 1989 **Bachelor of Science in Rehabilitation Counseling**
Indiana University of Pennsylvania

Certification

1995-Present **Certified Addiction Counselor (PA # 2735)**

Professional Experience

- 8/00-Present **Pre-doctoral Internship in Counseling Psychology**
Center for Counseling and Psychological Services
The Pennsylvania State University • State College, PA
Training Director: Joyce Illfelder-Kaye, Ph.D.
Supervisor: Jill Morgan, Ph.D.
- Specialty areas: Supervision and Drug & Alcohol Treatment
 - Summer rotation: Career Services
 - Provide individual and couples counseling under a short-term therapy model
 - Provide intake assessments, psychological assessments, and crisis intervention
 - Groups: Race Dialogue, Eating Disorders, Graduate, and Undergraduate
 - Outreach/Consultation: Drug and Alcohol, Eating Disorders, Stress Management, Test Anxiety, Consultation with MBA Program
 - Supervise doctoral practicum students

- 1998-2000 **Doctoral Practicum in Counseling Psychology**
Carruth Center for Counseling and Psychological Services
West Virginia University • Morgantown, WV
Supervisors: Lynda Birkhead-Danley, Ph.D., Catherine Yura, Ph.D.
- Provided psychological services and assessments to college students
 - Maintained Walk-in Clinic/crisis hours.
 - Participated in outreach program activities
 - Member of Unity and Diversity Committee.
- Summer
1998 **Doctoral Practicum in Counseling Psychology**
Olympic Center - Preston • Kingwood, WV
Supervisor: Joseph Richard, Ed.D.
- Provided psychological counseling and psychological assessments to adolescents in an inpatient drug and alcohol setting
 - Groups: Addiction/Recovery, Relaxation/Stress Management
- 1990-1997 **Drug and Alcohol Counselor**
Altoona Hospital Drug and Alcohol Services, Altoona, PA
- Provided individual, couples, and family counseling to addicted and substance abusing clients and their significant others
 - Groups: Addiction/Recovery, Spirituality, Women's Issues, Criminal Justice, Stress Management, Meditation, Relationship Issues
 - Conducted intake assessments, walk-in crisis evaluations, referrals
 - Developed and conducted an interactive self-awareness workshop for women
 - Community outreach programs: Stress Management, Relaxation, Relationship Issues, Communication Skills, Women in Addiction, Family Dynamics
 - Supervised Master's level interns
 - Conducted court-ordered evaluations
 - Conducted custody assessments through the court system, including testing (MMPI-II, Substance Abuse Questionnaire)
 - Gained experience with managed care companies
- 1990 **Graduate Internship in Counseling**
Community Action, Punxsutawney, PA
Supervisor: Janet Fontaine, Ph.D.
- Designed and implemented the Human Development Program - a structured eight-week group that addressed obstacles to healthy development for high-risk youth ranging in age from 13-17
 - Facilitated 10 groups/week. Topics included communication, relaxation, career exploration, parental difficulties, legal issues, and drug/alcohol issues

- 1989 **Undergraduate Internships in Rehabilitation Counseling**
Office of Vocational Rehabilitation, Pittsburgh, PA
Easter Seals Society, Pittsburgh, PA
Supervisor: Laura Marshak, Ph.D.
- Assessment and vocational planning for individuals with various disabilities including mental illness, blindness, deafness, amputations, and head trauma
 - Vocational training and supervision of individuals with moderate to severe mental illness and mental retardation in a sheltered workshop setting
- 1988-1990 **Summer Youth Employment and Training Program Counselor**
Summer Community Action (JCCEO, Inc.), Punxsutawney, PA
- Coordinated job site placement for high-risk youth
 - Provided labor law and labor market orientation
- 1987 **Residential Program Staff**
Indiana County Group Homes, Indiana, PA
- Developed living skill programs for individuals with mental retardation

Additional Experience

- 1997-1999 **Graduate Assistant**
WVU Center on Aging, Community Service and Outreach Unit
- Project Director of the Caregiver Support Network.
 - Developed an interactive caregiver internet group
 - Coordinated development of new caregiver support groups in WV
 - Organized Caregiver Information/Health Fair
- 1997-2000 **Test Proctor**
Educational Testing Service
- Administer standardized tests (Scholastic Aptitude Test, the Graduate Record Examination, and the Law School Admission Test).
- 1989-1990 **Graduate Assistant**
Indiana University of Pennsylvania
- Assisted professor in Student Affairs in Higher Education.
- 1987-1988 **American Sign Language Communication Tutor**
- Privately employed to assist the individual with communication skills.

Teaching Experience

- 1999 **Guest Lecturer** - West Virginia University

 CCMD 345: Introduction to Clinical Medicine - Third-year medical residents. Facilitated training regarding doctor/patient communication skills.
- 1998-1999 **Instructor and Teaching Assistant** - West Virginia University

 COUN 301: Counseling Techniques - Master's level.
 CPSY 382: Stories that Heal - Master's and Doctoral level.
- 1993-1996 **Psychology Instructor** -Mount Aloysius College, Cresson, PA

 PSYCH 101: Introduction to Psychology
 PSYCH 103: Psychology of Human Relations

Publications and Presentations

- States, J. & Jacobson, B. (2000, July). Drug and Alcohol Issues in Vocational Rehabilitation. Presented at the Office of Vocational Rehabilitation, Clarksburg, WV.
- States, J. (2000, June). Coping with Caregiver Stress. Presented at Berkeley Senior Center, Martinsburg, WV.
- States, J. (2000, May) Caregiver Support Issues for Professionals. Presented at Allegheny College, Cumberland, MD.
- States, J. (2000, March) Caregiver Support Issues for Professionals. Presented at Berkeley Senior Center, Martinsburg, WV.
- States, J. (1999, October). The Knight in Rusty Armor: Exploring Life's Journey through Guided Imagery. Presented at a Doctoral Colloquium of West Virginia University Department of Counseling, Rehabilitation Counseling, and Counseling Psychology, Morgantown, WV.
- Holt, B., & States, J. (in press). Assessing for long term care: An examination of single-entry assessment tools. Journal of Applied Gerontology.
- Holt, B., & States, J. (1998, April). Gerotechnology. Presented at the conference of the State Health Education Council of WV, Inc., Davis, WV.
- States, J. (1997, December). Coping with Holiday Stress. Presented for Caring Connections, Morgantown, WV.

States, J. (1997, November). Drug and Alcohol: Issues and Abuse. Presented for West Virginia University Center on Aging, Senior Companion Program, Morgantown, WV.

Research Experience

- 1997-1999 **Research Assistant**
 WVU, Center on Aging, Community Service and Outreach Unit
 Supervisor: Barbara Holt, Ph.D.
 •"Uniform Assessments in Single Entry Long Term Care Systems".
 Examined the assessment tools of 12 states identified as having long term care assessments (for the elderly) to determine the proper level of care for all persons seeking assistance from both institutional and non-institutional providers.

Professional Training/Conferences Attended

- 1997 **Ethics in Counseling**
 Presented by: Pennsylvania Department of Health, Office of Drug and Alcohol Programs (ODAP)
- 1997 **AIDS Training for Counselors**
 Presented by: Altoona Hospital Center for Medicine
- 1997 **Pennsylvania Client Placement Criteria**
 Presented by: Altoona Hospital Drug and Alcohol Services
- 1996 **A Circle Gathering of Women**
 Presented by: Pennsylvania Department of Health (ODAP)
- 1996 **Emotions: A Seminar for Health Professionals**
 Presented by: Mind Matters Seminars
- 1994 **Individuals Under Siege: Male vs. Female; Young vs. Old; Black vs. White; Us vs. Them**
 Presented by: Pennsylvania Department of Health (ODAP)
- 1994 **Preventing HIV Disease Among Substance Abusers: A Training Program for Counselors**
 Presented by: Pennsylvania Department of Health (ODAP)
- 1994 **Using the ASAM Criteria From Admission to Discharge**
 Presented by: Roxbury Rehabilitation Center for Addictive Diseases
- 1994 **Psychodrama**
 Presented by: Delaware Valley Psychodrama Collective
- 1993 **Pharmacology Update**
 Presented by: Pennsylvania Department of Health (ODAP)
- 1993 **Perinatal Addiction: A View for the '90's**
 Presented by: St. Francis Medical Center
- 1993 **Brief Therapy in Action**
 Presented by: Altoona Hospital Center for Medicine
- 1992 **Couples Therapy**
 Presented by: Pennsylvania Department of Health (ODAP)

- 1991 **Treatment of Adult Incest Survivors**
Presented by: Altoona Hospital Center for Medicine
- 1991 **Dual Diagnosis: Dual Dilemma**
Presented by: VA Medical Center/ Lake Area Health Education
- 1991 **Addiction Severity Index Training**
Presented by: Pennsylvania Department of Health (ODAP)

Doctoral Colloquia Attended

- 2000 **Multicultural Issues in Counseling Psychology**
Presenter: Donelda Cook, Ph.D.
- 2001 **Distress and Impairment in Graduate Psychology Training**
Presenter: Nancy S. Elman, Ph.D.
- 1999 **Introduction to the Rorschach Inkblot Method**
Presenter: Keith L. Reider, Ed.D.
- 1999 **Introduction to Play Therapy**
Presenter: JoAnna White, Ed.D.
- 1998 **Myths and Misconceptions: The Diagnosis and Treatment of Eating Disorders**
Presenter: Alfred L. Kasprowicz, Ph.D.
- 1998 **Silencing the Self: A Construct in Depression with Attention to Gender Differences and Ethnicity.**
Presenter: Elizabeth Koropsak-Berman, Ph.D.
- 1997 **Enantiodrama: The Tension of the Opposites in the Psychology of C.G.Jung**
Presenter: Robert K. Guthrie, Counseling Psychology, WVU

Professional Memberships

- American Psychological Association
Division 17, Student Affiliate
- American Counseling Association (1994-1997)
Association for Spiritual, Ethical & Religious Values in Counseling

Awards and Honors

- 1997-1998 Recipient of Swiger Supplemental Assistantship, West Virginia University
- 1989 Magna Cum Laude Honors Graduate, Indiana University of Pennsylvania
- 1988-1989 Who's Who Among American College Students, Indiana University of PA

Community Service

- 1991-1994 Big Brothers/Big Sisters of Blair County
- 1986-1989 Gamma Sigma Sigma National Service Sorority
- 1987-1988 Adaptive Swim Program Volunteer
- 1988 Sign-in (volunteer sign language group)