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Spirituality, forgiveness and purpose in life in faith-based substance abuse treatment programs

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Spirituality, Forgiveness and Purpose in Life in Faith-Based Substance Abuse Treatment Programs

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CERTIFICATION

I, Geoffrey Charles Brecht Lyons, certify that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy (Clinical Psychology) in the department of Psychology, University of Wollongong, does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief does not contain any material previously published or written by another person where due reference is not made in the text. The document has not been submitted for qualification at any other academic institution.

Geoffrey C. B. Lyons

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Lyons, G. C. B., Deane, F. P., & Kelly, P. J. (in press). Chapter 289: Faith-based substance abuse programs. In P. Miller (Ed.), *Encyclopedia of Addictive Behaviors*, Oxford: Elsevier.

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Lyons, G. C. B., Deane, F. P., & Kelly, P. J. (2010). Forgiveness and purpose in life as spiritual mechanisms of recovery from substance use disorders. *Addiction, Research & Theory*, *18*, 528 – 543.

ABSTRACT

Substance use disorders are a significant international health problem. Faith-based organisations are one of the primary treatment options for individuals with substance use problems. Many of these faith-based organisations either incorporate Christian theology into treatment or utilise the spiritually-based Twelve Step philosophy of Alcoholics Anonymous. Empirical research has shown low to moderate associations between spirituality and recovery from substance use disorders; however, the exact mechanisms by which spirituality operates on recovery are unclear. Forgiveness and purpose in life are central to all major world religions; hence, this thesis explores the relationship between spirituality, forgiveness and purpose in life in the faith-based treatment of substance use disorders.

Study 1 evaluated the perceived importance that faith-based treatment providers place on spiritual and forgiveness-based treatment components in comparison to other secular treatment components of substance abuse. A brief survey was completed by 99 Salvation Army drug and alcohol treatment providers employed within Australian residential rehabilitation programs. Attitudes towards spiritual components of treatment such as Christian education and spiritual development were positive; however, treatment providers rated secular interventions such as relapse prevention and anger management as more important than spiritual components. Treatment providers also conceptualized forgiveness to primarily be a spiritual construct that was as important to treatment as other secular based components. This study provided support for further investigations of forgiveness in the faith-based treatment of substance abuse.

Study 2 is a cross-sectional investigation of spirituality, forgiveness and purpose in life among 277 substance abusers in residential faith-based treatment

programs. Several different dimensions of spirituality and forgiveness were assessed. The results found that the daily spiritual experiences (e.g. feeling connected with God) associated with a person's spirituality predict forgiveness constructs. In turn these forgiveness types negatively predict resentment and positively predict purpose in life. The results emphasise the potential of forgiveness of self and receiving forgiveness from God and from others in the recovery process.

Study 3 is a longitudinal investigation of spirituality, forgiveness and purpose in life among 242 residential faith-based substance abusers. It extends on the results of Study 2 by exploring the relationship between changes in spirituality, forgiveness and purpose in life on substance use. Results found that the development of daily spiritual experiences operated indirectly on substance use via forgiveness of self, forgiveness of others, and purpose in life; however, purpose in life emerged as being more influential than forgiveness of self or others. The results provide preliminary support for the central theory of this thesis: the cultivation of spirituality can operate on recovery from substance abuse by increasing forgiveness and purpose in life.

The final chapter emphasises the need for ongoing longitudinal research on daily spiritual experiences, self-forgiveness and purpose in life in faith-based substance abuse treatments. The finding that daily spiritual experiences indirectly influence recovery suggests that faith-based treatment providers may maximise the spirituality-recovery relationship by developing interventions that cultivate daily spiritual experiences.

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As a child my career aspirations consisted of being either a cowboy or a Jedi Knight; not a Doctor of Clinical Psychology. Embarrassingly, at age twenty-one not much had changed; not because of a lack of interest in academia or education but rather a lack of confidence. Now, in my mid-thirties, as I reflect on nearly a decade of tertiary education I find myself amazed by three things. Firstly, that I have been able to transform myself so completely and achieve something as hard as writing a doctoral thesis. Secondly, how relieved I feel now that it is over. Thirdly, how indebted I am to so many people. This third point cannot be over emphasised. Writing this thesis has been challenging; however, the personal growth that I have experienced has been immense. For me, this growth is the reward. Many people have helped me achieve this and I will forever be indebted to them.

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Chapter One

Introduction

1.1 SUBSTANCE USE DISORDERS

Substance use disorders represent a significant international health problem. Epidemiological research estimates that as many as 22.5 million people worldwide suffer from substance use disorders each year, with approximately 3.8 million receiving treatment (Hersen, Turner & Beidel, 2007). Worldwide, the cost of substance-related problems is estimated to be in excess of US$200 billion per annum (Fabricius, Langa & Wilson, 2008).

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV-TR; APA, 2000) categorizes substance use disorders as either substance dependence or substance abuse. Substance dependence is defined as a maladaptive pattern of substance use that leads to significant impairment or distress, as manifested by three (or more) problems in a 12-month period (APA, 2000). Symptoms indicative of substance dependence include: a tolerance to the substance; withdrawal symptoms; constant thoughts or cravings for substance use; neglecting social, family, occupational, recreational activities in order to use substance(s); and an excessive amount of time spent in pursuit of/or taking substance(s) (APA, 2000). Substance abuse is defined as "a maladaptive pattern of substance use leading to clinically significant levels of impairment or distress" (APA, 2000, p. 199). This clinically significant impairment must manifest in one or more areas of life over a 12-month period. Essentially, the difference between substance dependence and abuse is a matter of severity. Symptoms of withdrawal or tolerance are characteristic of substance dependence but not required for a diagnosis of substance abuse.

Despite the different categories in the DSM-IV, there is a trend in both the empirical and lay literature to use "substance abuse" as a short-hand term for all types of substance use disorders. This thesis will also use the term "substance abuse" to

refer to substance use behaviours of an enduring nature that cause functional impairment. Individuals with substance abuse problems are referred to as "substance abusers".

1.1.1 Defining "Recovery" from Substance Abuse

The term "recovery" is frequently used by researchers and treatment providers; however, there is no consensus on the definition of the term. Previous conceptualisations have centred on an abstinence from substance use (Burman, 1997; Flynn, Joe, Broome, Simpson & Brown, 2003; Grantfield & Cloud, 2001; Scott, Foss & Dennis, 2005); however, as 50 to 90 percent of substance abusers relapse after treatment (Stroebe, 2000), questions arise as to whether relapse is an indicator of treatment failure or part of the "recovery journey". Furthermore, a large number of treatment services adopt a controlled usage philosophy rather than abstinence. Measuring recovery as just abstinence is less valid for these clients because it is not the goal of treatment. Questions have also been raised regarding medication-assisted treatment, such as the use of methadone, and whether this fits an abstinence based definition of "recovery" (Belleau et al., 2007; White, 2007). Furthermore, 85 to 95% of people admitted to addiction treatment in the United States are dependent on tobacco (White, 2008), potentially excluding a significant number of people from an abstinent definition of recovery. Thus, other factors besides substance use must be considered when defining and measuring recovery; such as employment, life satisfaction, and physiological and psychological wellbeing. In this thesis the use of the term "recovery" includes abstinence from substance misuse, a reduction in the symptoms of dependence and an increase in psychological wellbeing, physical wellbeing and engagement in life.

1.2 SPIRITUALITY AND SUBSTANCE USE DISORDERS

Religion and spirituality have a long history in the treatment of substance abuse (Cook, 2006; Miller, 1998). Though many of the world's major religions permit controlled substance use (e.g. the use of wine in the Christian Eucharist), the majority denounce intoxication (Hood, Hill & Spilka, 2009). Christianity in particular has had a major influence on shaping Western cultural beliefs about substance abuse (Cook, 2006; Hester, 2002) and Christian faith-based organisations are one of the primary providers of substance abuse treatment throughout the world (Hester, 2002; McCoy, Hermos, Bokhour & Frayne, 2004).

Christianity's influence on the drug and alcohol field is also implicitly demonstrated in the Twelve Steps of Alcoholics Anonymous (AA) (AA World Services Inc., 1981, 2001). The Twelve Steps, though not explicitly religious, are one of the most prolific models of substance abuse treatment (McCoy et al., 2004) and are heavily influenced by Christian theology (Pittman & Taylor, 2008; Sellman, Baker, Adamson & Geering, 2007). The Twelve Steps propose that recovery from substance abuse is driven by a "spiritual surrender" and "spiritual awakening" (AA World Services Inc., 1981, 2001). Research supports a positive relationship between spirituality and recovery (Kaskutas, Turk, Bond & Weisner, 2003; Robinson, Cranford, Webb & Brower, 2007; Sterling et al., 2006; Zemore, 2007); however, how spirituality operates on recovery outcomes in faith-based clients is unclear (Miller, 1998; Neff & MacMaster, 2005).

1.2.1 Defining Spirituality and Religion

There is a great deal of overlap between spirituality and religion[1] (Cook, 2004; Hill et al., 2000; Hood et al., 2009; Koenig, 2008); hence, one of the most enduring dilemmas for researchers is defining and differentiating the two constructs (Hood et al., 2009). This is shown by the following two definitions – one of religion and one of spirituality. The first definition is of *religion* and comes from the classical psychologist, William James. James (1902/1929) defined religion as:

> the feelings, acts and experiences of individual men in their solitude, as far as they apprehend themselves to stand in relations to whatever they may consider the divine (p. 31-32).

The second definition is a contemporary conceptualisation of *spirituality*, by Robinson, Cranford, Webb and Brower (2007). They define spirituality as:

> a person's feelings, thoughts, experiences and behaviors that arise from a search for and connection to the sacred, defined broadly to include not only a divine being but also ultimate reality, transcendent truth, or existential meaning. (p. 282).

Both definitions have striking similarities with the key terms from James' (1902/1929) definition of religion, (feelings, acts, experiences, divine) mirroring Robinson and colleagues' (2007) definition of spirituality (feelings, thoughts, experiences, behaviours, sacred, divine). Essentially, both definitions suggest that religion and spirituality are multidimensional constructs that encompass the cognitions, behaviours, affects, and experiences resulting from a search for and

[1] The majority of empirical research on religion comes from a Judeo-Christian perspective. Discussions of religion in this thesis will also predominantly be taken from this perspective.

connection with the divine. These definitions demonstrate that what was considered religion in the early twentieth century is now closer to the common conceptualisation of spirituality.

The overlap between the two constructs may reflect a transition away from the original meaning of the word "spirituality". "Religion" is derived from the Latin root *religio*, "meaning a bond with a greater-than-human power" (Hill et al., 2000, p. 56). "Spiritual" is derived from the Latin root *spiritus*, meaning the "breath of God" (Cook, 2004; Hill et al., 2000). "Spirituality" is derived from the Latin word *spiritulis* and generally refers to the work of the Holy Spirit in the Christian (Cook, 2004; Hill et al., 2000; Koenig, 2008). Hence, the root terms of these words demonstrate that "spirituality" was originally used in a Christian context. Spirituality was the breath of God within the Christian and religion was the bond with God from which spirituality came (Cook, 2004; Hill et al., 2000; Koenig, 2008). In contrast, spirituality is now frequently understood to be a construct that subsumes religion (Cook, 2004; Hill et al., 2000; Koenig, 2008).

The term "spirituality" is now more commonly used by social scientists than the term "religion" (Hill et al., 2000; Hood et al., 2009). Similarly, the latter half of the twentieth century has seen public endorsement in religion as the primary way of connecting with the sacred decline in preference for a more autonomous exploration of the transcendental (Hill et al., 2000; Houtman & Aupers, 2007). This self-directed search for "non-religious spirituality" often results in people "draw[ing] upon a multitude of traditions, styles and ideas simultaneously, and combining them into idiosyncratic packages" (Houtman & Aupers, 2007, p. 306). Many religious proponents strongly opposed this eclecticism; potentially even distancing themselves

from the term “spirituality” altogether (Hood et al., 2009; Houtman & Aupers, 2007; Koenig, 2008).

The eclecticism inherent in non-religious spirituality has caused the construct’s relationship with religion to become highly subjective. For example, a person can be “religious but not spiritual”, “spiritual but not religious”, “more religious than spiritual”, “more spiritual than religious”, “religious and spiritual” or “neither religious nor spiritual” (Hood et al., 2009; Koenig, 2008). Furthermore, the highly subjective nature of spirituality insures that *anything* in a person’s life can be “spiritual”; ranging from church attendance and meditation practices to daily chores (Das, 1997; Prabhavananda & Isherwood, 1981). Hence, the new found eclecticism underlying post-Christian spirituality has contributed to the production of a highly idiosyncratic and omnipresent construct that can no longer be conceptualised as solely localised to religion (Houtman & Aupers, 2007). This complicates the empirical measurement of spirituality and religion. As a result it is now generally accepted that spirituality and religion are multidimensional and best measured by using a battery of instruments that captures this diversity (Piderman, Schneekloth, Pankratz, Maloney & Altchuler, 2007).

The primary similarity between spirituality and religion is that, at a fundamental level, both are associated with a search for the sacred; whether that is a transcendental being or some ultimate truth (Hill et al., 2000; Hood et al., 2009). It is this sense of the sacred and its impact on human functioning that distinguishes the study of religion and spirituality from other fields of psychology (Hill et al., 2000). However, the primary difference between spirituality and religion is that spirituality is generally more personal, where religion is more institutional (Hill et al., 2000; Hood

et al., 2009). This is usually used by researchers to differentiate religion from spirituality.

This thesis adopts the view that spirituality is broader than religion, with religion being a formalized and institutionalized method of cultivating spirituality. Because of this conceptualization, religion cannot be explored empirically without also implicating spirituality. This conceptualization allows spirituality, the broader construct, to operate outside of religion. Thus, research addressing religiousness in substance abuse is conceptualized as also being relevant to the study of spirituality in substance abuse. Furthermore, based on Robinson and colleagues' (2007) previous definition, spirituality is conceptualised as a multidimensional construct composed of an individual's experiences, thoughts and behaviours (e.g. prayer, meditation, and reading spiritual texts). Spiritual thoughts refer to a person's specific metaphysical or transcendental beliefs. Behaviours may include attending church services, praying, meditating or reading religious texts. Spiritual experiences, though harder to define (Hood et al., 2009), are conceptualized as being the emotions, physiological sensations, and perceptions that are interpreted to be of divine origin or to have transcendental meaning or purpose. Examples of such spiritual experiences include a longing for God, feeling a universal connection with all things, or having a deep sense of inner peace. Although spiritual experiences can often be thought of as being mystical or paranormal occurrences (e.g. visions), they more commonly occur in everyday situations (e.g. sensing a connection to God while walking in a park). Paranormal spiritual experiences are not addressed in this thesis.

1.3 THESIS PURPOSE AND OUTLINE

To reiterate, Christian faith-based organizations have a long history of treating substance use disorders and are one of the primary providers of substance abuse treatment (Hester, 2002). The Twelve Steps of AA are also one of the primary models used in substance abuse treatment (McCoy et al., 2004). Though not specifically religious (AA World Services Inc., 1981, 2001), its historical ties with Christianity (Pittman & Taylor, 2008; Sellman et al., 2007) and its emphasis on spirituality (AA World Services Inc., 1981, 2001) mean that the Twelve Steps can be easily incorporated into a Christian faith-based treatment approach (see Chapter 2). Though empirical research has shown an inverse relationship between spirituality and substance abuse (Kaskutas et al., 2003; Robinson et al., 2007; Sterling et al., 2007; Zemore, 2007) the exact mechanisms by which spirituality may operate on recovery are unclear (Miller, 1998; Neff & MacMaster, 2005). The purpose of this thesis is to clarify some of the psychological mechanisms that may mediate the relationship between spirituality and recovery from substance abuse. Forgiveness and purpose in life are specifically explored (rationale is provided in Chapter 2 and 3). Thus, the specific research question of this thesis is whether spirituality operates on recovery indirectly through forgiveness and purpose in life.

The current chapter has broadly introduced the rationale of this thesis and defined some central terms. Chapter Two presents the Twelve Steps of AA in more detail, the spiritualism underlying this approach, and the relationship between the Twelve Steps and Christian faith-based programs. A review of the empirical research in spirituality and substance abuse treatment is also presented. Chapter Three introduces the constructs of forgiveness and purpose in life and discusses their relevance to a faith-based recovery treatment approach. Empirical research on

forgiveness' and purpose in life is presented as well as a theoretical model for guiding research. Chapter Four details the first study of the thesis: a survey of Australian Salvation Army substance abuse treatment providers. Chapter Five details a cross-sectional exploration of spirituality, forgiveness and purpose in life amongst clients of Australian Salvation Army residential drug and alcohol treatment programs. Chapter Six presents a longitudinal study of spirituality, forgiveness and purpose in life in Australian Salvation Army residential clients. Chapter Seven concludes the thesis and provides directions for future research.

Chapter Two
Faith-based Substance Abuse Treatment Programs

2.1 FAITH-BASED SUBSTANCE ABUSE PROGRAMS

Faith-based organisations have historically played an important role in supporting people, and their families, suffering from substance use problems (Cook, 2006; White & Whiters, 2005). As governments increase their outsourcing of substance abuse resources to non-government agencies the role of these faith-based organizations is becoming increasingly important (McIlwrath, Kinner & Najam, 2011; Reeves, 2008; Smith & Sosin, 2001; White & Whiters, 2005). In conjunction with this outsourcing is a growing demand for faith-based organisations to be economically accountable and adopt evidence-based practices (McIlwrath et al., 2011; Smith & Sosin, 2001). Thus, there is increasing need to understand the mechanisms and importance of religious or spiritual components of treatment in relation to recovery outcomes. However, there is great diversity in the way faith-based organisations express and utilise their faith in the provision of substance abuse treatment (Smith & Sosin, 2001) and these differences complicate attempts to define what constitutes a "faith-based" program and understandings of how relevant "faith" is to treatment.

Faith-based programs can lie on a continuum between "faith-secular partnerships" and "faith-saturated" programs (Neff, Shorkey & Windsor, 2006). Some treatment services are essentially "faith-based" in name only; using secular treatment approaches and only being linked to faith through administrative relationships with a larger religious organisation (Neff et al., 2006; Smith & Sosin, 2001). Other service providers are more religious driven; utilising treatment based only on religious material (McIlwrath et al., 2011; Neff et al., 2006). Overall, the ways in which faith-

[2] Elements of this chapter have been published in Lyons, G. C. B., Deane, F. P., & Kelly, P. (2010). Forgiveness and purpose in life as spiritual mechanisms of recovery from substance use disorders. *Addiction, Research & Theory*, *18*, 528 – 543, and Lyons, G. C. B., Deane, F. P., & Kelly, P. J. (in press). Chapter 289: Faith-based substance abuse programs. In P. Miller (Ed.), *Encyclopedia of Addictive Behaviors*, Oxford: Elsevier.

based organisations integrate "faith" into their services can be generalised into the following categories: (1) religious affiliated providers whose treatment content is completely religious, (2) religious affiliated providers who amalgamate religious and non-religious treatment content, (3) religious affiliated providers whose treatment is secular but whose organisation's values are religious, (Sider & Unruh, 1999) and (4) treatment providers who are affiliated with a religious organisation but use secular treatment components and are minimally influenced by the affiliated religious organization (Smith & Sosin, 2001). A broad range of religions provide faith-based treatment services (e.g. Islamic and Native American, White & Whiters, 2005), but there is very little empirical work written outside of Christian-based services. Subsequently, Christian faith-based agencies are by far the most common (McCoy et al., 2004; White & Whiters, 2005) and the focus of this thesis.

2.1.1 The Structure of Faith-Based Treatment Programs

Christian faith-based programs can be distinguished from secular services by a unique Christian theory of addiction (McCoy et al., 2004; Timmons, 2010). This theory acknowledges the role of biological, environmental, and psychological determinants (McCoy et al., 2004) but, fundamentally views substance abuse as a sin (Cook, 2006; May, 1988; McCoy et al., 2004; Stanford, 2008; Timmons, 2010; Welch, 2001)[3]. Specifically, substance abuse is often interpreted as a form of idolatry (Cook, 2006; May, 1988; McCoy et al., 2004; Stanford, 2008; Timmons, 2010; Welch, 2001) because an individual who is dependent on substances is not focused on worshipping and serving God with their whole being, as is commanded in Christian scriptures. Rather, it is substances that rule and direct their lives (May, 1988;

[3] There are many denominations of Christianity with varying interpretations of Christian theology. Thus, there may also be varying views on whether substance abuse is the cause or consequence of sin (Cook, 2006). This debate is beyond the scope of this thesis.

Stanford, 2008; Welch, 2001). Christianity teaches that sin is overcome through an acceptance of Jesus Christ and a subsequent process of sanctification (Boice, 1986; Milne, 2009). Sanctification is broadly considered to be a progressive growth in holiness that occurs as one commits to the Christian faith and connections with God, Christ, and the Holy Spirit (Boice, 1986; Milne, 2009). Hence a relationship with Christ as the driving force in the recovery process is central to the Christian theory of addiction (McCoy et al., 2004; Timmons, 2010). Thus, clients of faith-based programs often passionately emphasize that it is the salutary role of Christ in the treatment process that ultimately differentiates their program from other secular approaches (McCoy et al., 2004).

Qualitative research has identified several stages in a Christian faith-based recovery (McCoy et al., 2004; Timmons, 2010). Firstly, a client must acknowledge that they have had a "God Centered crisis" (McCoy et al., 2004; Timmons, 2010). This means accepting their substance use disorder and its associated repercussions, accepting that the management of this disorder is beyond their ability, and accepting God as an eternal and supportive presence in their life (Timmons, 2010). Secondly, a client must strive to strengthen their relationship with God through communication (McCoy et al., 2004; Timmons, 2010). This is an essential component of Christian recovery because it both fosters spiritual development and keeps the abuser focused on recovery (Timmons, 2010). Mechanisms of communication include private and group prayer, scripture readings and study sessions, and informal discussions with fellow clients (McCoy et al., 2004; Timmons, 2010). Importantly, these communicative processes are not just mechanisms of fostering a relationship with the divine but are also reported as being effective coping strategies for triggering situations and cravings (Timmons, 2010). The final process of faith-based recovery

involves planning for a future that is in accord with God's purposes. This final process encourages an individual to be cognizant of the risk of relapse if they drift from God's purpose by succumbing to secular and self-centred temptations (McCoy et al., 2004; Timmons, 2010).

A limited number of studies have attempted to contrast faith-based substance abuse treatment programs with secular programs (Hodge & Pittman, 2003; Neff et al., 2006). These studies have generally found that the structure of faith-based programs is often common to secular programs. Dimensions of treatment that are common to both secular and faith-based programs include the provision of detoxification services, group therapy, the provision of work opportunities, and referrals to health care providers and social support services (Neff et al., 2006). Additionally, as with secular programs, faith-based programs may be residential or outpatient based and participants are usually free to discharge whenever they please. Faith-based service fees are often minimal, if any (Windsor & Shorkey, 2010), so they often service individuals from lower socio-economic backgrounds (Windsor & Shorkey, 2010). Though the majority of Western faith-based programs are Christian, they usually also provide treatment to individuals with non-Christian views. (Neff et al., 2006).

Faith-based programs can be differentiated from secular programs by their use of spiritual activities, beliefs and rituals which may include Bible study, church service attendance, group and private prayer, and pastoral counselling (McCoy et al., 2004; Neff et al., 2006). These activities are not only used to cultivate a relationship with God and Jesus Christ but also to foster cohesion within the therapeutic community, which often plays an important role in the faith-based recovery process (Timmons, 2010). However, one of the major treatment approaches that blurs the lines

between faith-based and secular programs are the Twelve Steps of Alcoholics Anonymous.

2.2 THE TWELVE STEPS AND FAITH-BASED PROGRAMS

The Twelve Steps of AA are one of the most common substance abuse treatment models [4]. There are estimated to be over two million AA members worldwide, with over 115 000 chapters across 183 countries (A.A. World Services Inc., 2010). A proliferation of support groups based on the Twelve Step model have been developed, including: Narcotics Anonymous, Gamblers Anonymous, Emotions Anonymous, Sexaholics Anonymous, Overeaters Anonymous, Incest Survivors Anonymous, Smokers Anonymous, Marijuana Anonymous, Prostitutes Anonymous, Racism and Bigotry Anonymous, Workaholics Anonymous, and Al-Anon (for partners and family members of alcoholics) (Room & Greenfield, 1993). The sheer diversity of these groups, the large number of members worldwide, and the recognition of "AA" in the general public demonstrates the pervasiveness of the Twelve Steps in the drug and alcohol field. Furthermore, much of the empirical research about spirituality and recovery is related to Twelve Step treatment approaches, so an overview of this theory is highly relevant to any discussion of faith-based treatment approaches.

According to AA's primary text, colloquially known as the "Big Book" (AA World Services Inc., 2001), substance abuse is a chronic and progressive disease:

[4] Many models of substance abuse pertain to alcoholism; however, the empirical literature has generally extended their applicability to substance use disorders as a whole. In this thesis, discussions pertaining to alcoholism are taken to be applicable to substance abuse in general.

> We know that no real alcoholic ever recovers control… Alcoholics of our type are in the grip of a progressive illness….we get worse, never better (AA World Services Inc., 2001, p. 30).

Central to this conceptualization is the belief that the "real alcoholic" is completely unable to control their substance use:

> once he takes any alcohol whatever into his system, something happens, both in the bodily and mental sense, which makes it virtually impossible for him to stop… [the] real alcoholic is completely unable to abstain: Most alcoholics…have lost the power of choice in drink. Our so called will power becomes practically nonexistent. We are without defense against the first drink" (AA World Services Inc., 2001, p. 22-24).

Twelve Step programs operate by guiding the substance abuser through 12 sequential steps (see Table 1). Broadly, these steps commence with an act of spiritual surrender to God (Steps 1 to 3), followed by self-exploration (Steps 4 to 7), then a reconciliation of social systems (Steps 8 to 10), before culminating with a solidification of the spiritual lifestyle in the pursuit of a spiritual awakening (Steps 11 and 12) (AA World Services Inc., 1981, 2001).

Table 1. 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 we were wrong promptly admitted it.
11. Sought through prayer and meditation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics and to practice these principles in all our affairs.

Note. From "Alcoholics Anonymous. The Story of How Many Thousand Men and Women Have Recovered from Alcoholism" 4th ed., by Alcoholics Anonymous World Services Inc, p. 59. Copyright 2001 by Alcoholics Anonymous World Services Inc.

2.2.1 Twelve Steps and Spirituality

Spirituality is central to the Twelve Step model (AA World Services Inc., 1981, 2001; Piderman et al., 2007). Fundamentally, though they recognise the influence of biology in substance abuse, the Twelve Steps propose that alcoholism is a disease of the spirit, where the longing for alcohol is a substitute for a person's innate

connection with God (AA World Services Inc., 1981, 2001). Carl Jung, who held a prominent role in the foundation of AA (Finlay, 2000), described this relationship with the phrase *spiritus contra spiritum*: that spirits (alcohol) are incompatible with the spirit (Finlay, 2000). Hence, because dependence is considered a spiritual-based illness the Twelve Steps emphasise the need for a reconnection with God through a spiritual lifestyle. The "spiritual awakening" that occurs from accepting God and adopting a spiritual life fills the "spiritual void" thought to be inherent in substance abuse; restoring the individual to a state of being free from active addiction (AA World Services Inc., 1981, 2001).

To make the spiritual component of this theory more widely applicable, individuals are encouraged to use their own conceptualization of "God". This is reflected in the third step: "Made a decision to turn our will and our lives over to the care of God *as we understood Him*" (AA World Services Inc., 2001, p. 59). For example, a conceptualization of God may be a monotheistic deity based on the Judeo-Christian religion, a form of "New Age" spirituality, a universal law or truth, or the AA group itself. Because of this subjectivity, the term "Higher Power" is often used in AA as a substitute for "God". Regardless of the exact conceptualization a person has, the foundational theory of the Twelve Steps is that surrendering to "God" will lead an individual to a spiritual awakening that will transform their whole character. Hence, the Twelve Steps are about a complete transformation of character and not just abstinence. This is demonstrated by the fact that only six of the 12 steps directly relate to God. The others deal primarily with issues of personal growth, morality, reconciliation and humility (see Table 1).

2.2.2 The Twelve Steps and "Defects of Character"

According to the Twelve Steps, substance abusers suffer from "defects of character" (AA World Services Inc., 2001, p.59) which perpetuate their substance abuse. The Twelve Steps describe substance abusers as frequently being self-centred individuals who are: excessively proud; have little insight regarding their role in interpersonal conflicts, the resulting stress, and the consequential cravings for substance use; deny engagement in problematic substance use behaviours; are reluctant to seek or maintain treatment; and are resistant to changing their substance use behaviours (AA World Services Inc., 2001). The important role of motivational enhancement in the treatment of substance use disorders (Blume, 2005; Ritter & Lintzeris, 2004; Stroebe, 2000) supports the view that this population is often resistant to change. Furthermore, substance abusers have been shown to have higher levels of trait anger than normal populations (Lin, Mack, Enright, Krahn & Baskin, 2004), often described as being rebellious and resentful towards society (Enright & Fitzgibbons, 2000) and lacking in purpose and meaning in life (Miller, 1998; Waisbergm & Porter, 1994). The Twelve Steps particularly emphasize resentment as a hindrance to recovery: "resentment is the 'number one' offender. It destroys more alcoholics than anything else" (AA World Services Inc., 2001, p. 64).

2.2.3 The Twelve Steps and Faith-Based Organisations

Though spirituality is central to the Twelve Steps, AA fellowships are not affiliated with religious institutions (AA World Services Inc., 2001). There is also a great deal of variation in the way they use spirituality in their treatment. For example, some AA fellowships are essentially secular, even substituting the Higher Power for a secular conceptualisation such as the group itself (Hart, 1999; Sellman et al., 2007), while others maintain the theistic conceptualisation of the Higher Power. Thus, some

AA fellowships lean more heavily towards a faith-based definition while others are closer to being secular programs. Overall, there is a trend within the empirical literature to consider AA fellowships as being more closely aligned with faith-based services than secular (Neff et al., 2006) though in reality they do not neatly fit either distinction.

Alcoholics Anonymous fellowships can often be confused with other treatment approaches that may incorporate the Twelve Steps into treatment but are not specifically affiliated with Alcoholics Anonymous. In particular, Twelve Step Facilitation programs (Nowinski, Baker & Carroll, 1992, as cited by Project Match, 1997) and "Twelve Step treatments" are frequently mistaken as AA fellowships (Kelly, Magill & Stout, 2009). Twelve Step Facilitation is a manualized intervention designed to facilitate AA involvement while "Twelve Step based treatment" programs generally combine the Twelve Steps with other treatment approaches (Kelly et al., 2009). Often, these Twelve Step based treatment programs may use the Twelve Steps as a foundation to treatment while also integrating secular (e.g. empirical psychotherapies) or religious (e.g. Christian theology) theories and components. Because of the similarities between the Christian and Twelve Step theories of substance abuse many Christian faith-based treatment programs are able to combine the Twelve Step framework with their Christian values (e.g. promoting Jesus Christ as the Higher Power of the Twelve Steps) (Arterburn, 1992). The integration of faith-based approaches (such as Twelve Steps) into secular programs and the use of secular approaches in faith-based treatment programs, makes clarifying the relative treatment effectiveness of faith-based programs and their elements a challenge.

2.2.4 Summary of Twelve Step and Christian Faith-Based Treatment Programs

Both Twelve Steps and Christian faith-based programs hold a dominating role in the provision of substance abuse treatments. By outlining the fundamental principles of the Twelve Step and Christian models of substance abuse many similarities have been highlighted. In particular, both approaches consider substance abuse to be the result of character flaws, whether called "sin" or "character defects". Furthermore, both propose that individuals have a natural desire for the spiritual and that substance abuse is a misguided attempt to fill this spiritual void. Additionally, both the Twelve Steps and Christianity are essentially about a transformation of character, not just recovery from substance abuse. This transformation is achieved in both approaches through admitting one's powerlessness over the substance abuse and turning to the sacred for salvation.

2.3 EMPIRICAL RESEARCH AND FAITH-BASED SUBSTANCE ABUSE PROGRAMS

Research on spirituality and substance abuse is generally considered to be limited in scope (Neff et al., 2006). Though there is probably more research on the topic than is often acknowledged, several issues do hinder progress in the area. Firstly, and possibly most importantly, research is generally inhibited by the lack of guiding theories – so systematic research is rare (Longshore, Anglin & Conner, 2008). Rather, studies often investigate isolated hypotheses or take broad exploratory approaches and results are rarely tied together in the context of a unified theory (Longshore et al., 2008). As a result research is fragmented and not as progressive as it otherwise might be. Secondly, both "spirituality" and "recovery" are difficult constructs to define and their many dimensions may interact in a variety of complex ways (Miller & Thoresen, 2003). Thirdly, empirically trained scholars interested in

the mechanisms of behaviour change often hold secular attitudes and overlook or minimize the potential influence of spirituality and religiousness in the recovery process (Chitwood, Weiss & Leukefeld, 2008). Matters of spirituality or religion are rarely a part of undergraduate or postgraduate behavioural science curricula and are often seen as being more suited to philosophy or theology (Ellard, Miller, Baumle & Olson, 2002). Thus, scholars whose primary interest is religion or spirituality rarely publish in the substance abuse field (Chitwood et al., 2008). Fourthly, substance abusers participating in research may also be suffering withdrawal symptoms (DSM-IV-TR; APA, 2000) and have long histories of abuse and potential cognitive impairments (Parsons, 1977, 1998). These factors may impair their ability to reliably participate in research. Finally, it can be difficult to differentiate the effects of spiritual development from the effects of program participation and commitment (Zemore, 2007). Despite these barriers research is progressing in the field across three broad fronts. Firstly, early research focused on establishing a negative relationship between religiousness and substance use behaviours. Secondly, research has explored the effectiveness of faith-based programs. Thirdly, research has begun to explore how religiousness and spirituality may operate on recovery-based outcomes. Each of these will be briefly discussed.

2.3.1 Spirituality as a "Buffer" Against Substance Abuse

Religion is associated with numerous positive physical and psychological health outcomes, including: decreased rates of cardiovascular disease (Koenig, McCullough & Larson, 2001), hypertension (Koenig, George, Hays, Larson & Blazer, 1998), depression (McCullough & Larson, 1999), suicidality (Neeleman & Lewis, 1999) and mortality rates (McCullough, Hoyt, Larson, Koenig & Thoresen, 2000). Religion and spirituality are also inversely associated with substance use and misuse

behaviours (Gorsuch & Butler, 1976; Kendler, Gardner & Prescott, 1997; Koenig, George, Meador, Blazer & Ford, 1994). For example, religious beliefs (Kendler et al., 1997), attending religious services, prayer (Koenig et al., 1994), and the practice of meditation (Aron & Aron, 1980) are all negatively related to substance use. This has generally been taken to imply that religion and spirituality can protect an individual from substance abuse and has provided a basis for research into the role of spirituality in substance abuse treatment.

2.3.2 The Effectiveness of Faith-Based Programs

Research has explored whether faith-based programs (usually Twelve Step based programs) are effective treatment options. One of the primary research initiatives in this regard was conducted by the Project MATCH Research Group (1997). They performed a multisite clinical trial exploring the outcomes of various treatment modalities. Two separate studies were conducted in parallel, one with outpatients and one with clients receiving aftercare following residential treatment. Participants were randomly assigned to Cognitive Behavioural (Kadden et al., 1992 as cited by Project Match, 1997), Twelve Step Facilitated (Nowinski, Baker & Carroll, 1992, as cited by Project Match, 1997) or Motivational Enhancement Therapy (Miller, Zweben, DiClemente & Rychtarik, 1992, as cited by Project Match, 1997). After completion of the 12 week treatment period follow-up assessments were conducted every three months for one year. In all treatment conditions significant improvements in drinking outcomes were seen at one year follow-up. In addition, participants who attended Twelve Step Facilitated treatment had significantly greater abstinence. No other differences were shown between treatment conditions.

Subsequent studies have built on these results contrasting the effectiveness of Twelve Step Facilitated and Cognitive Behavioral residential programs (Ouimette,

Finney & Moos, 1997; Project Match, 2007). They found that all clients, irrespective of program structure, had significant improvements in substance use behaviours and psychosocial functioning at a one year post-discharge follow-up. However, consistent with the findings of Project Match (2007), clients from the Twelve Step Facilitated program demonstrated significantly higher levels of abstinence (25% Twelve Step Facilitated; 18% Cognitive Behavioural program).

Additional analyses using Project MATCH data (Longbaugh, Wirtz, Zweben & Stout, 1998) investigated the relationship between AA involvement, network support for drinking (support among social systems) and drinking outcomes at a three year follow-up. They found that participants whose social systems were more supportive of drinking had better drinking outcomes at three year follow-up if they were allocated to a Twelve Step Facilitated program rather than a Motivational Enhancement treatment. This relationship was mediated by AA involvement. Together the findings suggest that individuals whose social systems support drinking can achieve prolonged abstinence by experiencing AA fellowships and their associated normative drinking beliefs and behaviours. Overall, these findings suggest that the spiritually inclusive Twelve Step programs can be as effective as other secular treatment approaches.

Research has also examined the cost-effectiveness of Twelve Step treatments. Humphreys and Moos (2001) examined the cost effectiveness of Twelve Step treatment (n = 887) and Cognitive Behavioral treatment (n = 887) among residential alcohol dependent males. Measures of symptoms severity (alcohol use and alcohol related problems in the past three months) and psychological distress were taken at intake and one year post-discharge follow-up. It was found that after discharge Twelve Step clients were significantly more likely to engage in AA self-help groups

and significantly less likely to utilize professional services. Thus, the total cost of care was approximately 64% higher for Cognitive Behavioral clients than Twelve Step clients. Furthermore, not only did Twelve Step clients utilize less professional services, but their psychological distress at follow-up was no different than the Cognitive Behavioural participants. Even more importantly, Twelve Step clients had significantly higher rates of abstinence (45.7%) than Cognitive Behavioral clients (36.2%) at follow-up. An additional follow-up of participants at two years found higher levels of Twelve Step self-help attendance and significantly higher abstinence rates (49.5% Twelve Step vs. 37% Cognitive Behavioral, Humphreys & Moos, 2007). Twelve Step clients also required significantly less ongoing inpatient and outpatient admissions over the two year period. Over these two years the average treatment costs for a Twelve Step client was US$8,175 less than a Cognitive Behavioral client.

To summarize, programs that utilize the spiritually-based Twelve Steps in treatment can be as effective as other secular programs and potentially more effective in producing and maintaining abstinence over relatively extended periods of time. In addition, people who participate in Twelve Step treatment may utilise less professional services after discharge while maintaining recovery rates that are comparable with Cognitive Behavioural treatments. As a result they may generally be more cost effective than Cognitive Behavioral programs. Despite such findings, the mechanisms by which Twelve Step or other spiritual components of treatment operate within faith-based programs are still being explored.

2.3.3 Empirical Research on Spirituality and Recovery from Substance Abuse

Research into the mechanisms by which religiousness and spirituality affect recovery can be clustered into several themes, including: the role of spiritual development; spiritual experiences on recovery outcomes; the supportive and

comforting nature of spirituality and its relationship with recovery; psychological wellbeing and recovery; and self-efficacy and recovery[5]. These domains of research help clarify how the various aspects of religiousness and spirituality may contribute to recovery and will be briefly discussed.

2.3.3.1 Spiritual Development in Substance Abuse Treatment

The Twelve Step and Christian theories of addiction theorise that an absence of God is central to a substance use disorder. Therefore, faith-based programs often focus on developing a relationship with the divine. Central to this aim is the assumption that spirituality can change during participation in substance abuse treatment programs. In support of this, scholars have highlighted the role of spiritual development and spiritual awakenings in the recovery process.

In a longitudinal investigation of religiousness, spirituality and spiritual awakenings in recovering alcohol abusers (n = 587), measures were taken at intake, one and three year follow-ups (Kaskutas, Turk, Bond & Weisner, 2003). It was found that 58% of participants who had remained abstinence for 12-months after treatment experienced a spiritual awakening during treatment. In contrast, 64% of those who had relapsed had not experienced a spiritual awakening. Furthermore, three years post-treatment abstinence was predicted by the experience of a spiritual awakening (OR = 3.90). Thus, though not all participants experience a spiritual awakening, those who do may have nearly four times the chance of prolonged abstinence.

Zemore (2007) also explored the role of spiritual awakenings in recovery among residential and outpatient alcohol abusers. It was demonstrated that increases

[5] The research presented in the remainder of this chapter may also be discussed in the following chapters. As a reference aid, the literature on spirituality in substance abuse treatment is summarised in Table 23, Appendix A.

in Twelve Step involvement predicted greater odds of abstinence at one year follow-up (OR = 8.86). Furthermore, this relationship was mediated by the experience of a spiritual awakening and increases in spiritual practices. Specifically, up to 82% of clients who reported experiencing a spiritual awakening also reported complete abstinence at the 12 month follow-up in comparison to 55% of non-spiritually awakened clients. Zemore also demonstrated that it was *change* in spirituality, and not baseline levels, which predicted outcomes at follow-up. This provides some evidence that Twelve Step involvement can operate on recovery through spiritual development.

Sterling et al. (2007) also investigated whether multiple dimensions of spirituality changed and influenced abstinence throughout a four week residential program (n=72). Spiritual maturity (a balance of spiritual support and spiritual openness), daily spiritual experiences (e.g. feeling a longing for God or feeling supported by God), spiritual beliefs, religious coping[6] and forgiveness significantly increased during treatment. Furthermore, three-month follow-up levels of spiritual maturity significantly decreased for participants who relapsed, but not for participants who continued to abstain.

These findings are consistent with the results of Zemore (2007) and demonstrate that dimensions of spirituality can change through brief rehabilitation programs and have associations with recovery that extend beyond program discharge. Though Zemore (2007), Sterling et al. (2007) and Kaskuts et al. (2003) demonstrate a relationship between spiritual development and recovery they do not provide any insight into how these relationships operate.

[6] Religious coping is a commonly utilised domain in the study of religiosity and spirituality. It can be generalised into two broad domains: positive and negative. Positive coping reflects behaviours such as seeing God as loving and supporting or using prayer and scripture to manage psychological distress. Negative coping involves blaming God for adversity, pleading with God for miracles, or turning away from spirituality or religion completely (see Pargament, 1999).

2.3.3.2 Spiritual Experiences in Substance Abuse Treatment

A body of research has explored the mechanisms by which spirituality may operate. Robinson, Cranford, Webb & Brower (2007) conducted a six month longitudinal investigation of spirituality in outpatient alcohol abusers (n=123). Ten dimensions of spirituality were assessed, including: spiritual beliefs, spiritual practices, spiritual experiences, positive and negative religious coping, and perceptions of God. Forgiveness and purpose in life were also assessed. These self-report measures were completed at intake and six month follow-up. Spiritual practices, daily spiritual experiences, forgiveness, positive religious coping (e.g. seeing God as loving and supporting or using prayer in times of distress) and purpose in life significantly increased over time. Furthermore, fewer heavy drinking days at the six month follow-up were predicted by *change* in daily spiritual experiences and purpose in life. Subsequent longitudinal investigations demonstrated that six month changes continue to predict the abstinence and heavy drinking at nine months post-discharge follow-up (Robinson, Krentzman, Webb & Brower, 2011). The results of Robinson and colleagues (2007, 2011) research are notable because it has identified some mechanisms by which spirituality may operate on recovery. Specifically, not only was the role of daily spiritual experiences in the spirituality-recovery relationship highlighted, but also a potential relationship between spirituality and purpose in life (Robinson et al., 2007). Furthermore, because spiritual practices and experiences changed over time but beliefs did not, the potential of behavioural and experiential dimensions of spirituality appeared more prominent than cognitive dimensions (Robinson et al., 2007). Finally, in support of Zemore (2007) and Sterling et al. (2007), the results also highlight the role of spiritual development in the recovery

process, suggesting that the purposeful cultivation of spiritual experiences and purpose in life could have important implications for treatment outcomes.[7]

Together, the results of these series of studies suggest that change in spiritual beliefs, practices and experiences as well as spiritual maturity may operate on recovery via purpose in life, forgiveness and improved religious coping responses. The significant relationship of purpose in life and on recovery outcomes also implies that psychological wellbeing may play a role in the spirituality-recovery relationship.

2.3.3.3 Spirituality, Psychological Wellbeing and Coping in Substance Abuse Treatment

The relationship between spirituality and psychological wellbeing in substance abusers was investigated in a cross-sectional investigation of religious faith, spirituality and psychological wellbeing in 263 substance abusers (Pardini, Plante, Sherman & Stump, 2000). Spirituality and religious faith were significantly correlated with optimism (r = .20 to .32), social support (r = .17 to .30), trait anxiety (r = - .17 to - .25) and hardiness to stress (r = .19 to .24). Furthermore, while spirituality predicted optimism, social support and lower levels of trait anxiety, religious faith predicted resilience to stress. The cross-sectional design of this study prevents causality from being established; however, the results highlight the relationship between spirituality and mental health amongst recovering substance abusers and support it as another potential way in which spirituality promotes recovery.

[7] Researchers have attempted to artificially induce spiritual development in recovering substance abusers via individual "spiritual direction" therapy sessions. The experiments primarily failed because of extremely high participant non-attendance rates (Miller, Forcehimes, O'Leary & LaNoue, 2008). Hence the question of whether spirituality and its associated benefits can be purposefully cultivated remains unclear.

Piedmont (2004) also examined the relationship between spirituality and psychological wellbeing. Specifically, Piedmont investigated the influence of spiritual transcendence on the coping abilities, stress levels and psychological wellbeing of substance abusers participating in an eight week outpatient program. Spiritual transcendence is described as the ability to view the "fundamental unity underlying the diverse strivings of nature" (Piedmont, 1999, p. 988). Spiritual transcendence at intake was significantly correlated with follow-up levels of coping ability (r = .55), stress (r = - .22), and life satisfaction (r = .28). Spiritual transcendence also predicted between 13% and 25% of the variance in each of these variables. The results suggest that spirituality may operate to enhance recovery by increasing one's ability to manage adversity and maintain wellbeing.

2.3.3.4 Spiritually Derived Support and Comfort in Substance Abuse Treatment

Another way in which spirituality may help an individual cope with adversity is by providing a sense of support and comfort. Avants, Warburton and Margolin (2001) examined the supportive role of spirituality on abstinence among 43 HIV positive heroin and cocaine abusers who had completed a six month methadone maintenance program. It was found that that the comfort and support derived from spirituality significantly predicted abstinence at a six month follow-up (*Adj.* R^2 = .37). In fact, the comfort and support derived from spirituality at intake was a stronger predictor of substance usage than pre-treatment addiction severity, medical and psychiatric problems, optimism, or social support. However, a limitation of this study was its use of a single item to assess spiritual support.

The research reviewed so far suggests that: change in spirituality is important in the recovery process; spiritual experiences and spiritual maturity (and to a lesser extend spiritual practices and beliefs) are associated with recovery outcomes; purpose

in life and psychological wellbeing may be associated with the spirituality-recovery relationship; and that spirituality can provide a sense of support and comfort that is different from social support and is associated with improved outcomes. In addition to these, self-efficacy may also be another mechanism that mediates the spirituality-recovery relationship.

2.3.3.5 Spirituality and Self-Efficacy in Substance Abuse Treatment

Piderman et al. (2007) conducted a longitudinal investigation of 74 clients in a three week, Twelve Step facilitated outpatient program for alcohol dependence. Significant increases in spiritual wellbeing, private prayer, religiousness, religious coping and abstinence self-efficacy were found over time in treatment. Spiritual wellbeing and abstinence self-efficacy were positively correlated at both intake and discharge (r = .56 and r = .53 respectively). This suggested that dimensions of spirituality are influenced in the early stages of rehabilitation and also supports abstinence self-efficacy as a potential mechanism in the spirituality-recovery relationship. This study did not have a post-treatment follow-up period so relapse and decreases in spirituality after treatment could not be assessed. Further evidence supporting abstinence self-efficacy as a spiritual mechanism of recovery also comes from a cross sectional investigation of 77 male inpatients of an Australian Salvation Army residential rehabilitation program (Mason, Deane, Kelly & Crowe, 2009). Spirituality was positively correlated with abstinence self-efficacy and negatively correlated with substance cravings (r = .33 and r = -.30 respectively). Abstinence self-efficacy also mediated the relationship between spirituality and cravings. These studies suggest that abstinence self-efficacy may be an alternative recovery indicator which is also associated with spirituality.

2.4.1 A Summary of the Empirical Literature on Faith-Based Programs and Spirituality

In summary, the literature reviewed suggests that spiritual-based treatment programs can be as effective, and potentially more cost effective, than secular programs. Furthermore, the empirical evidence suggests that spirituality can develop during brief treatment periods and that the development of spirituality, the experience of a spiritual awakening, spiritual maturity and daily spiritual experiences can be positively associated with recovery outcomes. Because spirituality and recovery are multidimensional constructs there are likely to be many ways in which the two are associated. This complicates the task of determining how the relationship operates as there are likely to be multiple mechanisms involved. Nevertheless, the literature reviewed suggests that spirituality may operate on recovery through purpose in life, forgiveness, optimism, self-worth, social support, self-efficacy, resilience to stress and anxiety, and/or as a comforter in time of distress. However, it is important to note that the majority of the findings supporting these potential mechanisms have not been replicated and should be considered preliminary. Additionally, even though Christian faith-based programs are one of the most common treatment options for substance misuse, most of the research presented relates to Twelve Step programs. Hence, there is a real need to research spirituality within the context of Christian faith-based programs (Timmons, 2010). The following chapter focuses on two possible mechanisms of the spirituality-recovery relationship – forgiveness and purpose in life. Christian and Twelve Step views of forgiveness and purpose in life in the recovery process will be reviewed as well as relevant empirical literature.

Chapter Three

Spirituality, Forgiveness and Purpose in Life in Faith-Based Substance Abuse Treatment

3.1 FORGIVENESS AND FAITH-BASED TREATMENT PROGRAMS

Forgiveness is central to the Christian faith (Boice, 1986; McGrath, 1997; Milne, 2009), the Twelve Steps (AA World Services Inc., 1981, 2001; Hart, 1999) and is emphasized in all major world religions (Rye et al., 2000). Forgiveness is therefore highly relevant to faith-based treatment approaches and has been identified as a potential component of the faith-based recovery process (Miller, 1998; Neff & MacMaster, 2005). This thesis adopts the definition of forgiveness proposed by Enright and Fitzgibbons (2000). Enright and Fitztgibbons state that:

> People upon rationally determining that they have been unfairly treated, forgive when they wilfully abandon resentment and related responses (to which they have a right), and endeavor to respond to the wrongdoer based on the moral principle of beneficence, which may include compassion, unconditional worth, generosity, and moral love (to which the wrong doer, by nature of the hurtful act or acts, has no right). (p. 24)

Forgiveness is a complex construct and developing a universally accepted definition has been difficult (McCullough, Pargament & Thoresen, 2000b; Worthington & Drinkard, 2000). Forgiveness is frequently differentiated from condoning, pardoning, excusing or forgetting an offense (Enright & Fitzgibbons, 2000; McCullough et al., 2000b). Forgiveness can also be understood as being separate from reconciliation (Enright & Fitzgibbons, 2000). For example, a person may forgive an offender but for their own safety remain distant. However, this conceptualization is not unanimous, with some scholars considering reconciliation to be a part of the forgiveness process (Hargrave & Sells, 1997). There is also debate regarding the role of positive affect in the forgiveness process. Some scholars think

that developing feelings of empathy and benevolence towards the offender are required for forgiveness (Enright & Fitzgibbons, 2000; McCullough et al., 2000b) and others do not (Thompson & Snyder, 2003). Forgiveness can be offence-specific or dispositional (McCullough, Hoyt & Rachal, 2000) and can be directed towards others or oneself (McCullough et al., 2000b; Thompson & Snyder, 2003; Worthington, Scherer & Cooke, 2006). Forgiveness can also be conceptualized as a construct that is sought or received from others (Krause & Ellison, 1994; Walker & Gorsuch, 2002), though there is little research on the role of receiving forgiveness in substance abuse treatment. Finally, some scholars also believe forgiveness can be extended to situations (e.g. forgiving an earthquake or tsunami) (Thompson & Snyder, 2003), whereas others do not (Enright & Fitzgibbons, 2000). Despite these variations, the relinquishing of desires for revenge coupled with the purposeful releasing of resentment and anger are generally accepted as the central components of forgiveness (Enright & Fitzgibbons, 2000; Griswold, 2007; McCullough, Pargament & Thoresen, 2000a).

3.1.1 Forgiveness, the Twelve Steps and Christian Faith-Based Programs

As previously mentioned, the Twelve Step philosophy proposes that addiction is driven by resentment (AA World Services Inc., 2001). Further, an inability to forgive, which stems from self-centeredness and pride (AA World Services Inc., 1981, 2001) is considered a barrier to releasing this problematic resentment;

> …obstacles (to recovery)… are very real. The first, and one of the most difficult, has to do with forgiveness…To escape looking at the wrongs we have done another, we resentfully focus on the wrongs he has done us…Triumphantly we seize upon his misbehaviour as the

perfect excuse for minimizing or forgetting our own. (AA World Services Inc., 1981, p.78)

Several forgiveness-based therapies have been developed as methods of managing anger and resentment (Enright & Fitzgibbons, 2000; Tibbits, 2006; Worthington & Drinkard, 2000). These therapies commonly utilize perspective shifting techniques to increase objectivity and reduce rumination (Day, Howells, Mohr, Schall & Gerace, 2008; Enright & Fitzgibbons, 2000; Tibbits, 2006; Worthington et al., 2006).

When people are offended they can experience feelings of anger and shame. Often they may exaggerate the severity of the offence (Darley & Pittman, 2003) and demonize the offender to compensate for these feelings (Ellard et al., 2002). People who are able to shift perspective and view the offence and offender more objectively (Brown, 2003; Witvliet, Ludwig & Vander Laan, 2001) while considering their own potential for committing offences (Exline, Baumeister, Zell, Kraft & Witvliet, 2008) and cultivating feelings of empathy (Fincham, Paleari & Regalia, 2002; McCullough et al., 1998; McCullough, Worthington & Rachal, 1997) are more likely to be forgiving. Forgiveness therapies use techniques such as these to release anger and resentment (Enright & Fitzgibbons, 2000; Tibbits, 2006; Worthington & Drinkard, 2000). Perspective shifting strategies like these are also utilized in Cognitive Behavioral Therapy (CBT) to restructure the distorted beliefs underlying psychological distress (Beck, 1995). Thus forgiveness based therapies are highly compatible with CBT (Day et al., 2008; Worthington et al., 2006). Some researchers have amalgamated forgiveness therapy with CBT to produce reductions in trait anger (Harris et al., 2006), but forgiveness therapies are more often viewed as complementary adjuncts, rather than an explicit type or component of CBT (Day et

al., 2008; Enright & Fitzgibbons, 2000; Worthington et al., 2006). An examination of the structure of these therapies shows similarities between what is being explicitly practiced in clinical psychology to cultivate forgiveness and what is implicitly and explicitly taught in the Twelve Steps of AA (see Lyons, Deane & Kelly, 2010).

Forgiveness is also central in Christian theology (Boice, 1986; McGrath, 1997; Milne, 2009) and may be particularly relevant to faith-based programs that incorporate Christian theology into treatment. Christian doctrine teaches that humankind is separated from God by sin and that through faith in Jesus Christ one is forgiven of their sins and subsequently reunited with God (Boice, 1986; McGrath, 1997; Milne, 2009). Christianity also emphasises the importance of extending forgiveness to others. For example, scripture states that, "If you forgive others their trespasses, your heavenly Father will also forgive you; but if you do not forgive others, neither will your Father forgive you." (Mathew 6: 14-16). Therefore, by forgiving others a Christian is following the commandments of Christ and fulfilling one of God's purposes for them – to love and care for their fellow men (McGrath, 1997).

Like current empirically-based forgiveness therapies, Christianity also promotes perspective shifting and teaches that insight into one's faults is important for promoting an ability to understand, humanize, and forgive the actions of an offender. This is captured in scripture such as, "Why do you see the speck in your neighbour's eye and not notice the log in your own eye? ... First take the log out of your own eye, and then you will see clearly to take the speck out of your neighbour's eye" (Mathew 7: 3-5), and "Let those who have never sinned throw the first stones" (John 7: 8).

Hence, faith-based treatment programs that use Christianity and/or the Twelve Steps may teach substance abusers rationale and methods of forgiveness through both

Twelve Step theory and Christian theology. However, it is unclear how directly these religious teachings and practices are linked to treatment outcomes.

3.2 EMPIRICAL RESEARCH ON FORGIVENESS AND SUBSTANCE ABUSE

Despite the theorised centrality of resentment in the faith-based recovery process little research has specifically explored this construct. What has been empirically demonstrated is that that substance abusers have higher levels of anger (Lin et al., 2004), and that anger management and anger awareness are areas to target for recovery programs (Lin et al., 2004; Taylor, 2005). There is also evidence suggesting a positive association between forgiveness, reductions in anger and better treatment outcomes for substance abusers (Lin et al., 2004). However, despite these findings, research indicates that forgiveness constructs may not directly influence post-treatment substance use. In a longitudinal investigation that assessed forgiveness at treatment intake and 6 months (detailed previously in Chapter 2) forgiveness of self and forgiveness of others significantly increased but did not predict drinking outcomes (Robinson et al., 2007). In a second study, measures of spirituality and forgiveness were taken at intake to a residential alcohol abuse program, discharge and three month follow-up (Sterling et al., 2007). Forgiveness significantly increased from intake to follow-up regardless of relapse. This suggests that changes in forgiveness may not be directly associated with abstinence.

However, there is empirical research that supports a forgiveness-recovery relationship. Webb, Robinson, Brower and Zucker (2006) examined the relationship between forgiveness and alcohol misuse amongst 157 participants of a four week outpatient rehabilitation program. They found that forgiveness of self was associated with a reduction in the negative consequences of drinking at a six month follow-up. Furthermore, forgiveness of self, forgiveness of others, and feeling forgiven by God

accounted for 6% to 14% of the variance in alcohol related problems and usage at baseline and almost doubled the odds of no drinking at follow-up (O.R. = 1.9). Additionally, forgiveness of others and feeling forgiven by God were found to be positively related to post-program measures of spirituality (Webb et al., 2006). These findings suggest that forgiveness of self may be more strongly associated with a reduction in substance use, while forgiveness of others and feeling forgiven by God may have a stronger relationship with spirituality.

A further analysis of this data explored the relationship of forgiveness constructs and mental health among alcohol abusers (Webb, Robinson & Brower, 2009). Results found that forgiveness of self and others were positively associated with mental health both at treatment intake and the six month follow-up (Webb et al., 2009). While forgiveness of self was more consistently associated with anxiety based symptomatology (e.g. anxiety, somatization, obsessive compulsive measures) forgiveness of others was more consistently associated with hostility. Overall, baseline forgiveness measures accounted for 14% to 24% of the variance in baseline mental health, while follow-up forgiveness measures predicted 7% to 16% of the variance in follow-up mental health. Finally, longitudinal analyses found that baseline forgiveness measures predicted 11% to 18% of the variance in mental health at the six month follow-up. Results also suggested that forgiveness of self may be harder and slower to cultivate than a forgiveness of others.

Webb, Robinson and Brower (2011) continued their exploration of forgiveness and alcohol abuse with a third analysis of this dataset. The study aimed to extend on previous findings by clarifying the relationships between forgiveness, mental health, social support and recovery from alcohol dependence. Cross-sectional (baseline and

follow-up) and longitudinal (baseline to follow-up) multiple mediation analyses[8] demonstrated that forgiveness of self and others operated on recovery outcomes (percentage of heavy drinking days, drinks per drinking day, and percentage of days abstinent) through psychiatric distress but not social support. Feeling forgiven by God however did not predict or operate on psychiatric distress, social support or recovery outcomes. A weakness of the study is that only a single item measure of forgiveness was used.

Finally, the effect of six month changes in forgiveness (self and others) during alcohol abuse treatment on nine month post-discharge follow-up measures was examined (Robinson et al., 2011). This research was a continuation of earlier research which found that forgiveness of self and forgiveness of others significantly increased over six months of alcohol abuse treatment but did not predict drinking outcomes (Robinson et al., 2007). However, when examined at the nine month follow-up the six month increases in self-forgiveness did predict percentage of heavy drinking days, mean drinks per drinking day, and percentage of days abstinent. However, six month increases in forgiveness of others was *negatively* predictive of abstinence at the nine month follow-up. The fact that forgiveness of others was negatively predictive of alcohol use at nine months was unexpected and in contrast to previous data (Lin et al., 2004; Webb et al., 2006, 2009). Robinson and colleagues hypothesised that this was an anomaly of the data and unlikely to "hold up in future research" (Robinson et al., 2011, p. 666). However, though this is in contrast to the Twelve Steps and Christian theology (which emphasise forgiveness of others), it does support the previous work of Webb et al., (2006, 2009), emphasising the potential role of self-forgiveness in the

[8] Multiple mediation analyses are used frequently throughout the studies of this thesis. A detail description of its theory and mechanisms is proved in Chapter 5.

recovery process. Future research is required to clarify how changes in the various types of forgiveness (self/other/receiving) during treatment relate to changes in the dimensions of spirituality and recovery.

3.3 PURPOSE IN LIFE AND ITS RELATIONSHIP WITH FAITH-BASED RECOVERY

Religion is intimately related with the search for meaning (Paloutzian & Park, 2005) and is proposed to drive purpose in life (McKnight & Kashdan, 2009). Potentially this is due to the influence that it has on one's belief and values (Paloutzian & Park, 2005; Richards & Bergin, 2005). Therefore, the exposure to religious/spiritual doctrine and practices in faith-based treatment services may influence recovery by altering the beliefs and values that help shape purpose in life. For example, Christian doctrine teaches that humanity's sinfulness inhibits them from comprehending God's purpose for them. (Cook, 2006; McGrath, 1997; Milne, 2009). Instead, humans follow their own limited and misdirected purposes in life (McGrath, 1997; Milne, 2009). For Christians, it is the sanctification through Christ that leads to God's purpose life (McGrath, 1997; Milne, 2009). Similarly, the Twelve Steps also propose that surrendering to a Higher Power leads to purpose in life (AA World Services Inc., 1981, 2001). Furthermore, both the Christian and Twelves Step philosophies encourage both the spiritual and social manifestations of life purpose. For example, the Twelve Step spiritual purpose in life is reinforced through the eleventh step, which encourages an identification with God's purpose; "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* (emphasis added) and the power to carry that out" (AA World Services Inc., 1981, p. 96). While the twelfth step cultivates life purpose on a more social level, stating: "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 our own affairs" (AA World Services Inc., 1981, p. 106) (see Lyons et al., 2010 for more detail on the Christian and Twelve Step approaches to purpose in life). In summary, there is sufficient Christian and Twelve Step theology and theory to warrant further investigation of purpose in life in the spirituality-recovery relationship.

3.4 EMPIRICAL RESEARCH ON PURPOSE IN LIFE AND RECOVERY FROM SUBSTANCE ABUSE

Poorer purpose and meaning in life has been associated with alcohol use (Harlowe, Newcomb & Bentler, 1986; Hutzell & Peterson, 1986) cocaine use (Martin, MacKinnon, Johnson & Rohsenow, 2011; Newcomb & Harlowe, 1986), heroin use (Coleman, Kaplan & Downing, 1986) and suicidal ideation (Kinnier et al., 1994). Purpose in life also mediates a relationship between depression and alcohol use (Harlowe et al., 1986), is significantly lower in alcoholics compared to non-alcoholics (Waisbergm & Porter, 1994), and can significantly increase during participation in residential and outpatient substance abuse programs (Waisberg & Porter, 1994; Piderman et al. 2008; Robinson et al., 2007, 2011; Webb et al., 2006).

Carroll (1993) conducted a cross-sectional study of 100 AA members; exploring the relationship between purpose in life, length of sobriety and participation in the eleventh and twelfth steps of Alcoholics Anonymous (see Table 1 for a review of these steps). It was found that purpose in life was significantly correlated with length of sobriety (r = .31). However, while participation in the eleventh step was significantly correlated with purpose in life (r = .59) and length of sobriety (r = .25), participation in the twelfth step was not. In addition, a multiple regression analysis demonstrated that participation in the eleventh step predicted 32% of the variance in

purpose in life. This study could not determine causality because of its cross-sectional design; however, the results indicate a positive relationship between purpose in life and recovery and also between participation in AA and recovery. More specifically, the results imply that the spiritual focus of the eleventh step may be more closely associated with the development of purpose in life than the social based twelfth step.

Waisberg and Porter (1994) investigated whether the relationship between purpose in life and recovery varied across treatment conditions. Participants were assigned to one of three conditions, (1) a residential program that focused on skills development (n = 51), (2) a residential program focused primarily on spiritual values rather than skills development (n = 40), or (3) a waitlist condition (n= 36). It was found that participants entering treatment, regardless of treatment condition, had significantly lower purpose in life than non-alcoholics. Also, participants in both treatment conditions experienced significant increases in purpose in life at a three month post-discharge follow-up. However, the relationship between purpose in life and post-treatment abstinence differed across treatment conditions. For the skills based condition, participants with higher purpose in life had greater abstinence, however for the spiritual treatment condition participants with higher purpose in life at follow-up had more substance use post-treatment. Based on these results, Waisberg and Porter suggested that purpose in life may reduce substance use only if the person has the coping skills required to manage lapses, otherwise purpose in life may manifest as overconfidence.

Purpose in life has also been shown to be associated with religiousness (Gerwood, LeBlanc & Piazza, 1998), spiritual practices (Francis, 2000) and may also be associated with forgiveness. For example, Webb et al., (2006) (detailed previously) found that purpose in life was significantly correlated with forgiveness of self,

forgiveness of others and feeling forgiven by God at entry to an outpatient alcohol treatment program and at a six month follow-up (r = .21 to .33). In addition, measures of spirituality (e.g., experiences, beliefs, perceptions of God), were generally correlated with purpose in life, at follow-up but not intake. This may suggest that while purpose in life is associated with spirituality, it may be more closely related to the development of forgiveness.

Change in purpose in life also predicts reductions in alcohol consumption among substance abusers. Robinson et al. (2007) found that six month changes in outpatients' purpose in life predicted absence of heavy drinking at six months. Robinson et al. (2011) also found that six month increases in purpose in life continued to positively predict percentage of days abstinent, mean days between drinks, and a lower percentage of heavy drinking days at nine months.

In summary, purpose in life has frequently been proposed as a central mechanism of spirituality and theorised to be an essential construct in recovery from substance abuse. Empirical research has demonstrated that purpose in life is associated with spirituality, forgiveness, reduced substance abuse, and is able to develop during substance abuse treatment. However, the research on purpose in life's role in substance abusing populations is relatively limited. Hence, further investigation is warranted.

3.5 THE SPIRITUALITY/FORGIVENESS/PURPOSE MODEL OF RECOVERY

The Twelve Step literature implies that substance abusers often have high levels of trait and state anger, have difficulty regulating their affect, and can be self-centered and excessively proud (AA World Services Inc., 1981; 2001). These qualities are seen as perpetuating substance use problems (AA World Services Inc.,

1981; 2001). In contrast, the Twelve Step and Christian perspectives propose that the self-exploration required for spiritual development promotes positive traits such as compassion, tolerance, and the development of insight. One accumulated effect of these changes may be a greater ability to forgive others and themselves.

For clients in treatment, a greater ability to be forgiving may allow for communication and interactions with social and family systems in a manner that was previously unknown, unavailable or unwanted. As their skills and desires to interact more effectively with others increase, so may opportunities for personal growth (e.g. employment opportunities, volunteer opportunities, education opportunities) and psychological wellbeing. No longer is the substance abuser self-centred and resentful but instead is more forgiving and driven by purpose in life that may be existential (e.g. fulfilling God's purpose for them), pragmatic (e.g. abstaining from substance use or finding employment) and/or social (e.g. giving something back to the community). The result may be an improvement in a range of outcomes for the individual. For example, an increase in perceived social and/or spiritual support, increased self-efficacy, and reductions in stress, anger, and cravings for substance use. Such outcomes provide not just recovery from the substance use problem but the potential for an overall transformation of character. Other researchers have also proposed similar psychological mechanisms associated with the cultivation of forgiveness (Worthington, Berry & Parrott, 2003).

Based on this rationale and the empirical evidence reviewed a model that specifies forgiveness and purpose in life as spiritual mechanisms of recovery from substance abuse is proposed. This Spiritual/Forgiveness/Purpose (SFP) model of recovery (see Figure 1) provides a number of testable hypotheses that guide the research within this thesis. Firstly, the SFP model proposes that spirituality will be

positively associated with recovery from substance abuse (pathway *a* – *b*) and also with an increase in forgiveness types (pathway *a* – *c*). These increased forgiveness constructs are positively associated with recovery (pathway *c* – *b)*, making forgiveness constructs a partial mediator between spirituality and recovery (pathway *a* – *c* – *b*). Secondly, spirituality is positively associated with purpose in life (pathway *a* – *d*), and purpose in life is associated with recovery (pathway *d* – *b*). The result is that purpose in life is a partial mediator between spirituality and recovery (pathway *a* – *d* – *b*). Also the development of forgiveness constructs is understood to be associated with an increased purpose in life (pathway *c* – *d*) making purpose in life a partial mediator between forgiveness and recovery (pathway *c* – *d* – *b*). Thirdly, resentment is theorised to be negatively associated with spirituality (pathway *a* – *e*), forgiveness types (pathway *c* – *e*) and purpose in life (pathway *e* – *d*). Additionally, it is negatively associated with recovery from substance abuse (pathway *e* – *b*) making resentment a partial mediator (in a negative direction) between spirituality and recovery (pathway *a* – *e* – *b*) and between forgiveness and recovery (pathway *c* – *e* – *b*). Also the negative relationship between resentment and recovery is theorised to be mediated by a client's purpose in life (pathway *e* – *d* – *b*). Finally pathway *a* – *c* – *e* – *b* is possible, which would represent a pathway going from spirituality to forgiveness, through resentment and onto recovery. Likewise *a* – *e* – *d* – *b* would represent a pathway from spirituality through resentment, through purpose in life and then to recovery.

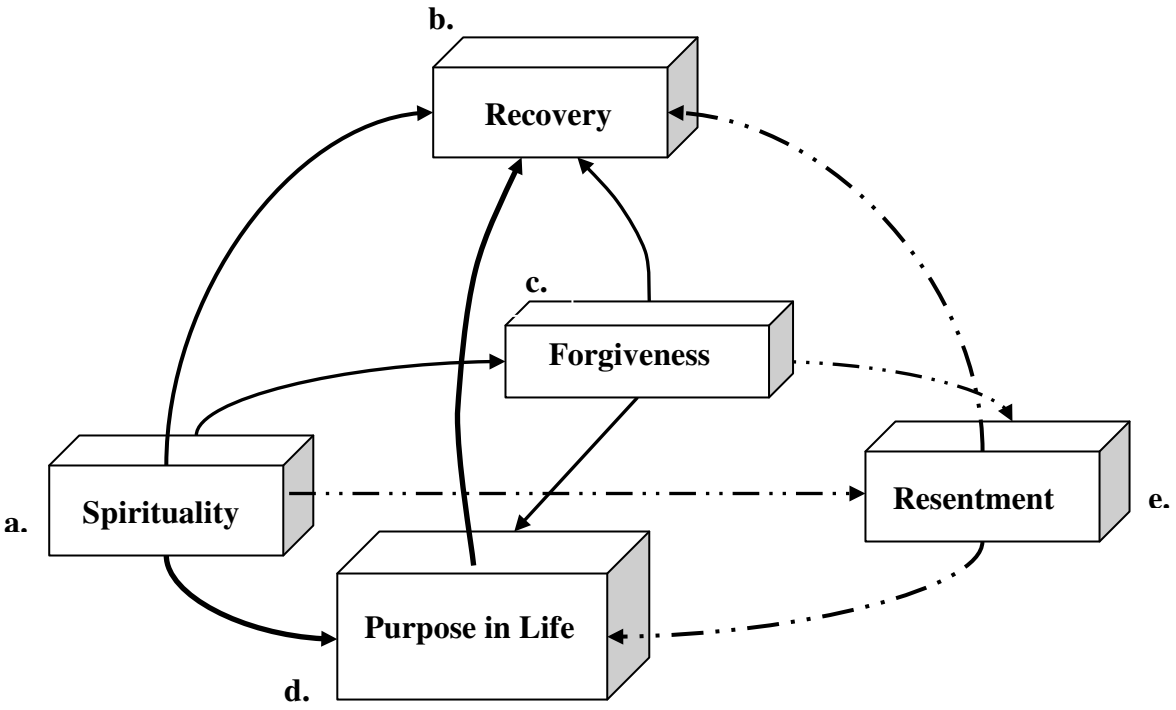

Figure 1. The Spirituality/Forgiveness/Purpose model of recovery

Note: Broken lines indicate negative relationships

It must be emphasized that the SFP model is designed as a theoretical starting point based on the rationale and research presented. Additional elements may also be important in the spirituality-recovery relationship. Because of this, all the proposed mechanisms of the SFP model are theorised to be *partial* mediators. In addition it is possible there are feedback loops and variation in the causal directions of the variables in the model. For example, it is possible that growing purpose in life may promote changes in forgiveness, or that the disposition to forgive may promote spiritual growth. The influence of alternative variables, definitions and causal directions can only be clarified by future research.

Chapter Four

Study One: Salvation Army Treatment Providers' Attitudes toward Spirituality and Forgiveness

4.1 INTRODUCTION

The previous chapters provided theory and empirical evidence suggesting that forgiveness constructs are associated with spirituality and recovery from substance abuse. Hence, the purpose of this study was to gain support for the importance of forgiveness in treatment from Australian faith-based treatment providers in comparison to other commonly utilised treatment components.

Research indicates that mental health professionals may consider forgiveness relevant to the treatment of substance abuse (Denton & Martin, 1998; DiBlasio, 1993; DiBlasio & Benda, 1991; DiBlasio & Proctor, 1993; Konstam et al., 2000). For example, Dentin and Martin (1998) examined 101 social workers' conceptualizations of forgiveness. The majority of participants (80%) believed that forgiveness is a long-term process that involves the release of anger and fear and is effective with a range of clinical populations, including substance abusers. Dentin and Martin also found a gender effect, with male social workers having significantly more positive attitudes towards the use of forgiveness than female social workers. They did not, however, find social workers' religious orientation to influence attitudes towards forgiveness. In contrast to this, the effect of religiousness on mental health professionals' attitudes towards forgiveness has been demonstrated in other studies. For example, DiBlasio and Blenda (1991) explored the influence of family therapists' religiousness on their use of forgiveness. They found that though practitioners' religiousness predicted 5% of the variance in attitudes towards forgiveness it did not predict their actual use of forgiveness techniques. This finding has been replicated amongst social workers

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Elements of this study have been published in Lyons, G. C. B., Deane, F. P. & Kelly, P. J. (2011). Faith-based substance abuse treatment: Is it just about God? Exploring treatment providers' attitudes toward spirituality, forgiveness and secular components of treatment. *Counselling & Spirituality, 30*, 135-159.

(DiBlasio, 1993), family therapists (DiBlasio & Proctor, 1993) and mental health counsellors (Konstam et al., 2000).

Deficits in knowledge about the practical application of forgiveness in clinical settings have also been demonstrated (DiBlasio, 1993; DiBlasio & Benda, 1991; DiBlasio & Proctor, 1993). For example, Konstam et al. (2000) explored the attitudes of 381 mental health counsellors and found that those with more positive attitudes towards forgiveness were more likely to utilize it in treatment. However, though 88% of counsellors indicated that forgiveness issues were present in their clinical practice and 91% endorsed it as an appropriate subject for clinical practice, only 51% felt that it was the counsellors' responsibility to raise forgiveness-related issues in therapy. It is believed that conceptual deficits of forgiveness and a lack of knowledge about evidence-based application strategies may be responsible for this difference (Konstam et al., 2000).

Together, the research on practitioners' attitudes indicates that mental health professionals value forgiveness (Denton & Martin, 1998; DiBlasio, 1993; DiBlasio & Benda, 1991; DiBlasio & Proctor, 1993; Konstam et al., 2000) and that more positive attitudes towards forgiveness may predict greater utilization of forgiveness techniques (Konstam et al., 2000). However, while greater practitioner religiousness predicts more positive attitudes towards forgiveness (DiBlasio, 1993; DiBlasio & Proctor, 1993; Konstam et al., 2000) the variance it predicts is quite small (DiBlasio & Benda, 1991) and does not seem to translate to greater utilization of forgiveness (DiBlasio, 1993; DiBlasio & Proctor, 1993). Furthermore, it is also possible that a gap is present between research and practitioners' theoretical knowledge of forgiveness application strategies (DiBlasio & Benda, 1991; DiBlasio & Proctor, 1993; Konstam et al., 2000).

Treatment providers value the inclusion of spirituality (Forman, Bovasso & Woody, 2001; McCoy et al., 2004) and forgiveness in substance abuse treatments (Denton & Martin, 1998). However, many faith-based substance abuse programs have multiple interventions (e.g. combining the Twelve Steps, with Christian ethics and CBT) and the relative importance these treatment providers place on the cultivation of religion, spirituality and related constructs such as forgiveness in comparison to these other aspects of treatment is unknown. Obtaining a clearer understanding of these attitudes is important when transferring research (such as forgiveness therapies) to the "frontline" of mental health care as they can influence the acceptance and implementation of evidence-based practices (Aarons, 2004; Aarons & Sawitzy, 2006). Hence, the current study explored how important faith-based treatment providers perceived spirituality, religion and particularly forgiveness to be in promoting recovery in comparison to other secular treatment components. It was hypothesised that forgiveness would be seen as important by Salvation Army treatment providers, thus validating it as a target for the further empirical investigation.

4.2 METHOD

Data for this study was obtained from eight Australian Salvation Army Recovery Service Centres (RSCs) located in New South Wales, Queensland and the Australian Capital Territory. These RSCs provide an eight to ten month residential rehabilitation program for individuals with substance abuse problems. This residential treatment program is titled the "Bridge Program". Upon entry to the Bridge Program clients systematically progress through three phases of treatment: Assessment (including detoxification), Treatment, and Re-entry. Each phase of treatment provides Twelve Step and Christian based treatment in the form of group therapy. Group sessions address a wide range of issues such as: anger management, goal setting,

stress management, assertiveness training, and relapse prevention. Individual supportive and pastoral counselling sessions are also available. Clients of the Bridge Program also participate in weekly chapel services (a compulsory component of treatment), are assisted with locating vocational education and training opportunities, and participate in work program activities, such as: assisting with the preparation of meals, facilitating new clients' transition into the program, and facilitating group support sessions. Clients are typically either self-referred or referred either by health professionals or the legal system.

4.2.1 Participants

Only Salvation Army staff who worked directly in a client care or supervisory capacity were approached to participate in the study. As a result 114 Salvation Army clinical staff participated (from a total of 163 available staff members). Out of the 114 participating staff members 15 had survey responses that were incomplete and these were excluded from the study. The final number of participants was 99 (59 males, 37 females, 3 unidentified), with a completion rate of 87%.

Demographics are represented in Table 2. Participants were predominantly case managers (43.4%) and had a mean age of 45.7 years (SD =10.09). On average, participants had been working in the drug and alcohol field for 6.47 years (SD = 5.86) and worked 35.44 hours (SD = 10.87) per working week. An average of 22.27 (SD = 10.56) of these working hours were in direct contact with clients.

Fifty-five participants (55.6%) had a history of drug or alcohol dependence. Six participants (6.1%) had previously participated in outpatient treatment for substance abuse while 40 (40.4%) had participated in residential treatment for substance abuse, and 21 (21.2%) reported attending Twelve Step meetings. A combination of treatment modalities was common, while eight participants (8.1%)

who reported having a previous history of drug or alcohol addiction also reported never having had treatment for their addiction.

Table 2. Treatment providers' demographics

	%	*N*
Occupational/Volunteer Position		
AOD support Worker	19.2	19
Case Worker/Senior Case Worker	43.4	43
Registered Nurse	12.1	12
Supervisory Position	25.3	25
Level of Education (Australian)		
Year 12 or less	12.2	12
TAFE certificate	45.9	45
Undergraduate	23.5	23
Masters Degree	5.1	5
Diploma in relevant field	6.1	6
Diploma in non-relevant field	4.1	4
Post-Graduate Diploma	2	2
Associate Diploma	1	1
Unanswered	1	1
Years employed in Drug and Alcohol		
< 2	19.2	19
2 - 5	34.3	34
6-10	30.3	30
10-15	5.1	5
> 15	11.1	11
Years with Salvation Army		
< 2	41.1	41
2 - 5	38.4	38
6 - 10	18.2	18
> 10	2	2
Unanswered	5	8

n = 99

The majority of participants reported their religious orientation as Christian (85.9%), followed by Spiritual (3%), Buddhist (3%), other/non-specified (2%), Muslim (1%), and Atheist (1%).

4.2.2 Measures

The Spirituality and Forgiveness in Treatment Survey (SFTS) (Appendix B) was developed for this study to assess staff opinions about spirituality, Christianity and forgiveness in the treatment for substance abuse in comparison to other key treatment topics. Two researchers (the thesis author and primary supervisor) independently reviewed the RCS's treatment and psycho-educational materials. Each reviewer independently identified the primary treatment components used within the Bridge Program before cross-validating each other's results. Consensus between the reviewers was that there were nine primary components emphasised in the treatment program: stress management, anger management, assertiveness training, goal setting, relapse prevention, spiritual development, Christian teachings, the Twelve Steps, and forgiveness of others.

Participants were provided with the following instructions; "Below is a list of elements found within the Bridge Program. Using the scale provided please circle how important you feel each element is to a client's recovery from substance abuse". The Likert response scale ranged from 1 (not at all important) to 6 (essential). The list of items presented were phrased and ordered as follows: "Spiritual development; learning to forgive other people; Christian teachings; stress management; anger management; assertiveness training; training in goal setting; the 12-steps; relapse prevention training".

4.2.3 Procedure

Participants were first informed of the study at work place meetings by senior management and were then given the opportunity to discuss the study with the researchers in their workplace team meetings. Afterwards staff were approached by researchers and given a survey package which contained the SFTS, a participant information sheet, and an informed consent sheet. This study and its procedures were reviewed and approved by the University of Wollongong/Illawarra Area Health Service Human Research Ethics Committee.

4.3 RESULTS

4.3.1 Factor Structure of the SFTS

A principle components analysis with varimax rotation was conducted to clarify the psychometric properties of the Spirituality and Forgiveness in Treatment Survey. A factor loading cutoff of .3 was used (Field, 2005). A two factor solution was found which accounted for 64% of the variance in items. Spiritual development, Christian teachings and the 12-steps loaded onto a single "spiritual factor" (loadings are presented in Table 3), while stress management, anger management, assertiveness training, goal setting and relapse prevention loaded onto a "secular factor". Forgiveness loaded onto both factors, but more highly on the spiritual factor (see Table 3). The scale had a Cronbach's alpha of .78, indicating good reliability.

4.3.2 Differences in Attitudes towards Spiritual and Secular Factors of the SFTS

The first analysis of the data involved broadly exploring whether the two factors of the SFTS differed in importance ratings. To do this the items that loaded onto the spiritual factor (spiritual development, Christian teachings, the 12-steps and forgiveness) and items that loaded onto the secular factor (stress management, anger management, assertiveness training, goal setting and relapse prevention) were

collapsed and averaged to create a general spiritual components construct and secular components construct. The two constructs met assumptions of normality and were contrasted using a matched-pairs t-test. Secular components (M = 5.18, SD = .67) were rated as significantly more important to recovery than spiritual components (M = 4.78, SD = .88), $t(98) = -4.19$, $p < .001$. Post-hoc independent samples t-tests found no significant differences in importance ratings between participants with and without a history of substance abuse treatment ($p > .05$). Results did not differ if forgiveness was used in the analyses as a part of the collapsed secular factor rather than the spiritual factor ($p > .05$).

The second analysis aimed to clarify this relationship by exploring the differences in component importance ratings between the individual treatment components. To do this, individual treatment components were contrasted against each other (see Table 4). However, data exploration demonstrated that the assumption of normality was violated for the majority of the constructs (Kolmorgorov-Smirnov *p's* < .001). The measures of central tendency for participants' importance ratings are presented in Table 4. Transformations failed to correct violations in many of these constructs so non-parametric analyses were performed. A Friedman's ANOVA found a significant difference between the importance rankings of the treatment components ($\chi^2 = 176.99$ (8), $p < .001$). A series of Wilcoxon sign-rank tests with a Bonferroni corrected alpha of .001 were then performed. Each spiritually related component was contrasted with each secular component. Forgiveness was also contrasted against spiritual development and Christianity. Forgiveness was ranked as significantly more important to treatment than Christian teachings ($z = -7.37$, $p < .001$) and significantly less important than relapse prevention ($z = -3.39$, $p < .001$). Spiritual development was also ranked as significantly more important than Christian teachings ($z = -7.24$, p

< .001) and significantly less important than relapse prevention (z = -3.70, p < .001). In addition to the significant differences already presented, Christian teachings were also ranked as significantly less important than stress management (z = -6.85, p < .001), anger management (z = -7.14, p < .001), assertiveness training (z = -6.13, p < .001), goal setting (z = -5.93, p < .001), 12-steps (z = -6.60, p < .001) and relapse prevention (z = -7.76, p < .001). Finally the 12-steps were shown to be significantly less important than relapse prevention (z= -5.09, p < .001) (see Table 3).

In summary, Christian teachings were ranked as significantly less important than all other components (p < .001). Forgiveness and spiritual development were ranked as significantly more important than Christian teachings (z = -7.37, p < .001 and z = - 7.24, p < .001 respectively). Relapse prevention was ranked as significantly more important than all other components (p < .001). No other significant differences were found.

Table 3. Measures of central tendency and factor loadings for treatment provider's importance ratings

					Factor Loadings	
Treatment component	M	SD	Mean Rank	Mode	Factor 1 (Spiritual)	Factor 2 (Secular)
Spiritual Development	5.08	1.22	5.42	6	.85	
Forgiveness	5.28	.96	5.63	6	.58	.47
Christian teachings	3.75	1.38	2.51	4	.75	
Stress Management	5.08	.89	4.94	5		.76
Anger Management	5.23	.81	5.41	6		.81
Assertiveness training	4.98	.91	4.73	6		.84
Goal Setting	5.01	1.01	4.83	6		.83
12-Steps	5.01	1.12	5.06	6	.74	
Relapse prevention	5.59	.61	6.47	6		.62

n = 99

4.3.3 The Influence of Religious Orientation, Age and Gender on Attitudes toward Forgiveness

To determine if participants' religious orientation, age and gender influenced their attitudes towards forgiveness a multiple regression was conducted. Firstly, forgiveness importance ratings was successfully transformed using a logarithmic transformation (M = .18, SD = .22) and entered into the regression model as the dependent variable. Next, participants' religious orientation was dichotomized (Christian vs. Other). This dichotomized religious orientation variable was entered into a multiple regression model as an independent variable along with age and gender. The regression model was not significant, indicating that religious orientation, gender and age did not predict any variance in participants' value of forgiveness, $F(3, 91) = .41$, $p > .05$.

4.4 DISCUSSION

The primary aim of this study was to determine how important faith-based treatment providers perceived forgiveness and spirituality to be in the treatment of substance abuse in comparison to other secular-based treatment components. From an examination of the mode of each program component (Table 3), it can be seen that treatment providers had quite a holistic view of recovery, with all components being valued. Furthermore, in support of previous research (DiBlasio, 1993; DiBlasio & Benda, 1991; DiBlasio & Proctor, 1993; Forman et al., 2001; Kaskutas et al., 2003; Konstam et al., 2000; McCoy et al., 2004) the majority of staff viewed religious, spiritual (spiritual development, Christian teachings, the Twelve Steps) and forgiveness components to be at least "very important (4)" to recovery. However, spiritual components were not seen as significantly more important than secular components. Rather, what emerged from the data was that treatment providers believed relapse prevention was the most important component of treatment and that spiritual

development was as important as the other secular based components (stress management, anger management, assertiveness training and goal setting) and more important than an education in Christianity.

Relapse prevention may be seen as most important by treatment providers because it most closely represents the goal of treatment. Substance abuse treatment programs aim to provide consumers with the skills required to live free of problematic substance use via controlled usage or complete abstinence. However, rates of relapse are extremely high in substance abusing populations (Stroebe, 2000) and relapse prevention interventions have been developed in response to this (Brownell, Marlatt, Lichtenstein & Wilson, 1986; Marlatt, 1985; Marlatt & Gordon, 1980). Many of these interventions focus on the identification of high-risk situations and the development of effective coping mechanisms (Stroebe, 2000). However, there may be a degree of overlap between the coping mechanisms identified in relapse prevention interventions and the other treatment components. For example, within a treatment program consumers may be specifically educated in anger management; however, in a relapse prevention intervention the use of anger management may also be encouraged as a coping strategy for psychological distress and its associated cravings. Hence, anger management becomes subsumed within the wider relapse prevention strategy. Thus, relapse prevention may have been seen by our participants as most important to treatment because it more directly reflects the ultimate aim of a substance abuse treatment program – abstinence or controlled usage – while other treatment components may be seen as important because they are used within the context of relapse prevention.

Christian teachings had the most variation in responses (as shown by standard deviations in Table 3) and was seen as significantly less important than all other components. This does not mean that treatment providers believed Christianity was unimportant, as the mode of response was “very important” (4). What is does suggest is that learning the

practical skills (e.g. forgiveness, anger management, goal setting) that serve the goal of relapse prevention may be more important than an education in specific Christian doctrine. However, what is more interesting is that spiritual development was rated as significantly more important than Christian teachings.

Spirituality is a highly idiosyncratic construct (Hill et al., 2000; Hood et al., 2009) and the personal experiences of spirituality have been associated with recovery outcomes (Kaskutas et al., 2003; Robinson et al., 2007; Sterling et al., 2006; Sterling et al., 2007; Zemore, 2007), endorsed by treatment providers (Forman et al., 2001; McCoy et al., 2004) and emphasized in the Twelve Steps (AA World Services Inc., 1981, 2001). Hence, the result showing that spiritual development is seen as more important than Christian teachings may be capturing treatment providers' appreciation of the personalized nature of recovery. Also, because the majority of our participants were Christian (86%) and evangelism (education and conversion to the Christian faith) is important in Christianity (Boice, 1986; McGrath, 1997; Milne, 2009), it was theorised that though faith-based treatment providers may prefer clients to adopt a Christian lifestyle they may more highly value the role that a personal relationship with the sacred plays in the recovery process.

Forgiveness was shown to be less important to recovery than relapse prevention but as important as the other common secular based components (stress management, anger management, assertiveness training and goal setting). However, though forgiveness was shown to be considered important, it was not shown to be *more* important than other secular based components, suggesting it may be seen as a treatment component that is *as worthy* of inclusion in treatment as any other treatment component but not more so. The results of the principle components analysis in this study further clarify this by showing that the treatment providers viewed forgiveness as being more closely aligned with these other secular treatment technologies than religion or spirituality. Furthermore, in contrast to previous

studies (DiBlasio, 1993; DiBlasio & Proctor, 1993; Konstam et al., 2000), this study's regression analysis demonstrated that treatment providers' religious orientation had no significant influence on their perceived value of forgiveness. Previously research has shown that treatment providers' religiousness does not predict greater *utilization* of forgiveness techniques (DiBlasio, 1993; DiBlasio & Proctor, 1993). The current results expand on this by suggesting that this may be because faith-based treatment providers do not conceptualize forgiveness to be just a religious/spiritual virtue but also see it as secular.

The implications of treatment providers' balanced conceptualisation of forgiveness can influence the development and implementation of forgiveness interventions in faith-based services. For example, clients may be resistant to forgiveness. Forgiveness is costly in terms of pride and self-interests (Exline & Baumeister, 2000) and treatment providers' conceptualizations of forgiveness may influence clients' adoption of forgiveness techniques. For example, an individual who forgives must relinquish any desires for revenge or "getting even" (Enright & Fitzgibbons, 2000). This can make the person feel vulnerable and inadequate and is a potential barrier to forgiveness, regardless of whether the person sees it as a religious concept or not. In addition, some people may also hold pejorative views of religion and by association related concepts, such as forgiveness. When negative attitudes based on the misconception that forgiveness is synonymous with religion are combined with the natural cost to pride inherent in the forgiveness process, it may become even less likely for a client to engage in a forgiveness-based intervention. Obviously, clinician's risk being insensitive if they do not acknowledge the clients' religious perspectives of forgiveness, and religion can be a valuable source of inspiration and knowledge for both the religious consumer and the clinician (Rye et al., 2000). However, treatment providers' who emphasize the religious context of forgiveness before clarifying and addressing clients' conceptual misunderstandings are at risk of further alienating the religious-resistant consumer. An

effective way to manage this is to define the forgiveness construct early in the intervention process (Enright & Fitzgibbons, 2000). Specifically, while the relationship between religion and forgiveness can be acknowledged, the fact that forgiveness can also be viewed as a moral construct (Enright & Fitzgibbons, 2000) that extends beyond religion should be explicitly presented. Whether the forgiveness process is then utilized from a religious/spiritual perspective or not becomes the client's prerogative. Results of this study imply that the participating treatment providers may have been in a position to present such a rounded conceptualization of forgiveness. Specifically, as the majority of treatment providers in this study were Christian it is likely that they were knowledgeable about the centrality of forgiveness to the Christian faith. However, because forgiveness was conceptualized as a secular not religious construct it suggests that they may have been able to present it from an empirical-based perspective, rather than strictly within the context of their religion.

4.4.1 Limitations

The study is limited by a relatively small sample size that potentially reduced the range of recorded responses. It also only examined the views of treatment providers who were employed within a Christian faith-based treatment setting. Future research would benefit from examining the attitudes of treatment providers working in services that incorporate other religious practices, or secular programs. Also, as all components were rated as important it might also be beneficial to examine a broader range of spirituality and secular psycho-educational treatment topics. Additionally, the research methods utilized were quite broad so the interpretation of the results and the hypothesised mechanisms underlying these results need further investigation. In particular, the SFTS used single items to assess participants' attitudes toward treatment components. Future research could use more comprehensive measures as well as qualitative surveys. In addition, treatment providers' personal levels of religiousness were not assessed and there was little variation in

participants' religious orientations (86% of participants were Christian). The finding that religious orientation did not influence forgiveness attitudes should be taken in light of these two points and different results may have been present if participants' religiousness/spirituality levels were assessed instead of religious orientation. In addition to this, it is also possible that the emphasis and perceived importance of relapse prevention in treatment causes some cognitive dissonance in faith-based treatment providers who highly value the Christian religion. Future research could explore the tension between secular and spiritual goals of treatment. Finally, forgiveness was also investigated in the broadest sense without controlling for the multiple types of forgiveness (e.g. forgiveness of self, receiving forgiveness from others). Future research may benefit from examining treatment providers attitudes towards these other forgiveness types.

4.4.2 Conclusions

This study has added to the literature examining faith-based treatment providers' attitudes towards the role of spirituality and forgiveness in the treatment of substance abuse. It has been found that the treatment providers viewed both spiritual and forgiveness components to be important in the treatment of substance use disorders. However, spiritual based treatment components were shown to be thought of as less important to the treatment of substance abuse than secular based components. Differences in treatment providers' attitudes across secular components were unclear but the results suggest a holistic view that may appreciate both the value of spirituality and secular components as serving the ultimate goal of relapse prevention. Forgiveness was generally seen to be a secular as well as a religious or spiritual construct and was not associated with treatment providers' religious orientation. It was also perceived as being as important as other secular based treatment components; emphasizing the need for further research on forgiveness in substance abuse treatment. Hence, the following chapter explores the theory of the SFP model by quantitatively testing the

interactions between spirituality, types of forgiveness and purpose in life among residential clients.

Chapter Five

Study Two: A Cross-Sectional Investigation of Spirituality, Forgiveness and Purpose in Life in Residential Faith-based Substance Abusers

5.1 INTRODUCTION

To reiterate, preliminary research supports a positive association between spirituality, forgiveness constructs and recovery from substance abuse (Robinson et al., 2007; Robinson et al., 2011; Sterling et al., 2007; Webb et al., 2006; Zemore, 2007). The results of Study 1 also demonstrated that faith-based treatment providers value the inclusion of spirituality and forgiveness in treatment. However, because of the multidimensional nature of spirituality and forgiveness there are many unclear associations between these constructs and recovery outcomes. This is demonstrated by the fact that though the pathways of the SFP model are based on theory, many of these relationships are empirically untested and therefore lack supportive empirical evidence. In particular, it is unclear which dimensions of spiritually predict which types of forgiveness, whether all types of forgiveness are negatively associated with resentment, and whether spirituality operates on recovery by increasing forgiveness and subsequent purpose in life. The purpose of the current study was to explore these relationships and test the fundamental theory of the SFP model: that spirituality operates on recovery by making a person more forgiving and less resentful, thereby increasing their ability to engage with people and activities and develop purpose in life. Based on the theory presented (Chapters 2 and 3) and the theoretical pathways of the SFP model the following hypotheses were postulated. Firstly, it is hypothesised that the different types of forgiveness (forgiveness of other, forgiveness of self, receiving forgiveness from others, and receiving forgiveness from God) will negatively predict resentment. Secondly, because research has not explored which dimensions of spirituality predict which types of forgiveness, the broad hypothesis was made that spirituality (spiritual beliefs, spiritual practices, and spiritual

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Elements of this study have been published in Lyons, G. C. B., Deane, F. P., Caputi, P., & Kelly, P. J. (2011). Spirituality and the treatment of substance use disorders: An exploration of forgiveness, resentment and purpose in life. *Addiction, Research & Theory, 19*, 459-469. *doi:10.3109/16066359.2011.555022.*

experiences) would predict forgiveness types. Thirdly, it was hypothesised that the relationship between spirituality (spiritual beliefs, spiritual practices, and spiritual experiences) and purpose in life would be mediated by forgiveness types.

5.2 METHOD

5.2.1 Participants

Data for this study consisted of inpatients from one of eight Australian Salvation Army Recovery Service Centres located in New South Wales, Queensland and the Australian Capital Territory. Three hundred and eleven surveys were administered to clients participating in the Bridge Program at these Recovery Service Centres. A description of this treatment program was provided in the previous chapter. From the 311 surveys administered 303 were returned, resulting in a 97% participation rate. Of the 303 clients who participated in the study data for 26 participants were illegible or incomplete and removed from the study. This resulted in a final sample of 277 participants (91% of the original participant responses). Table 4 represents participant's demographics and treatment histories.

Table 4. Participants' demographical data

			n
Gender *(%)*:	Male	81.6	277
	Female	18.4	
Age *(M)*:		36.8	275
(SD):		9.9	
Years with substance use problem *(M)*:		19.0	265
	(SD):	23.1	
Weeks in treatment *(M)*:		16.2	272
(SD):		12.9	
Times previously treated *(M)*:		1.4	271
(SD):		1.9	
Primary substance *(%)*:	Alcohol	55.6	259
	Amphetamines	20.8	
	Cannabis	9.7	
	Heroin	6.2	
	Other	7.7	

5.2.2 Measures

All measures used in this study are presented in Appendix C.

5.2.2.1 Resentment

The Aggression Questionnaire (AQ) (Buss & Perry, 1992) is a 29 item measure of trait aggression. It is comprised of four factors: physical aggression, verbal aggression, anger, and hostility (a combination of resentment and suspicion) with loadings ranging from .37 to .84 (Buss & Perry, 1992). The AQ has been shown to have good internal consistency (α = .72 to .89) and test-retest reliability (r = .72 to .80) (Buss & Perry, 1992). In the current study only the four resentment items from the hostility subscale of the AQ were used. These items were, "I am sometimes eaten up with jealousy", "At times I feel I have gotten a raw deal out of life", "Other people always seem to get the breaks", and "I wonder why sometimes I feel so bitter about things." This resentment scale (RS) was shown to load onto a single factor which accounted for 64% of the variance among items. Principle component analyses were performed on all measures used in this study. Factor loadings for the RS items ranged from .69 to .86. Cronbach's alphas for all measures used in this study are shown in Table 5.

5.2.2.2 Purpose in Life

The Life Engagement Test (LET) (Scheier et al., 2006) measures purpose in life in terms of engaging in valued daily activities. The LET presents participants with six items which are responded to on a five point Likert scale. Example items include, "There is not enough purpose in my life" and "Most of what I do seems trivial and unimportant". Factor analyses have found the LET to be unidimensional with loading ranging from .57 to .86 and accounting for 43% to 63% of the variance among items. The LET has also been shown to have good internal consistency (α = .72 to .87) and adequate test-retest reliability (r = .61 to .76) (Scheier et al., 2006). In this study, the LET loaded on to a single factor that accounted for 53% of the variance in items. Loadings ranged from .67 to .78.

5.2.2.3 Private Spiritual Practices

The Religious Background and Behavior Questionnaire (RBB) (Connors, Tonigan & Miller, 1996) is a 13-item self-report questionnaire that measures an individual's religious identity and religious practices. The RBB has been shown to load onto four factors, accounting for 73% of the variance among items. The RBB has good internal consistency (α = .86) and test-retest reliability (r = .97) (Connors et al., 1996). The Recovery Service Centre programs used for this study had compulsory chapel service attendance as part of their program. Hence, the RBB item asking how often a participant "attended worship service" was deemed to potentially be measuring program participation rather than private spiritual practice and was omitted from the analyses. As a result only five items of the RBB were used to assess participants' private spiritual practices. These items asked how often participants thought about God, prayed, meditated, read scriptures, and had direct experiences of God. Items of this modified RBB loaded onto a single factor that accounted for 64% of the variance. Loadings ranged from .49 to .76.

5.2.2.4 Spiritual Experiences and Feelings

The Daily Spiritual Experiences Scale (DSES) (Underwood & Teresi, 2002) is a commonly used 16-item scale designed to measure day-to-day spiritual experiences across religious orientations. Examples items include: "I feel guided by God in the midst of daily activities"; "I am spiritually touched by the beauty of creation". The DSES has been shown to have good internal reliability (α = .94 to .95) and test-reset reliability (r = .85) (Underwood & Teresi, 2002). Factor analyses have found it to be unidimensional, with a trend for a separate second "mercy and compassion" factor (Underwood & Teresi, 2002). This study found the DSES to have a two factor solution. The first factor was composed of 14 items with loadings ranging from .43 to .93 and accounted for 63% of the variance among items. The second

factor was composed of three items with loadings ranging from .43 to .91 and accounted for 8% of the variance. A full scale DSES score was used in all analyses of this study.

5.2.2.5 Spiritual Beliefs

The Spiritual Belief Scale (SBS) is an eight item scale that measures spiritual thinking based on the Twelve-step philosophy of AA. The SBS has been found to load onto two factors, a "release-gratitude-humility" factor and "tolerance" factor, accounting for 78.1% of the variance among items (Schaler, 1996). Example items include: "I know I am able to meet life's challenges only with God's help" and "It's only when I stop trying to play God that I can begin to learn what God wants for me". The SBS has been shown to have good internal reliability (α = .92) (Schaler, 1996). In the current study all items loaded onto a single factor which accounted for 66% of the variance among items. Factor loadings ranged from .68 to .89.

5.2.2.6 Dispositional Forgiveness of Self and Others

The Heartland Forgiveness Scale (HFS) measures an individual's dispositional forgiveness of themselves, other people, and situations (Thompson & Snyder, 2003). The HFS has been shown to have good internal consistency (α = .71 to .87) and test-retest reliability (.72 to .77). For this study items relating to a forgiveness of a situation were not used. The HFS forgiveness of self and forgiveness of others subscales are composed of six items respectively: three positively phrased and items and three reversed scored items. An example item of the forgiveness of others subscale is "When someone disappoints me, I can eventually move past it." A reversed scored item is "I continue to be hard on others who have hurt me". Similarly, a positively scored forgiveness of self item is "With time I am understanding of myself for mistakes I've made." A reversed scored item is "I hold grudges against myself for negative things I've done." Data analyses revealed that the two subscales had poor reliability (forgiveness of others α = .46; forgiveness of self α = .51). Thus, to

increase reliability only the three positively scored items for forgiveness of self and the three positively scored items for forgiveness of others were used. This resulted in increased, but still low reliabilities (forgiveness of others α = .67; forgiveness of self α = .60). The three item forgiveness of self subscale had loadings ranging from of .72 to .78 and accounting for 56% of the variance amongst items. The three items forgiveness of others subscale had loadings ranging from .75 to .82 and accounting for 60% of the variance.

5.2.2.7 Receiving Forgiveness from Others and God

The Receiving Forgiveness from Others scale (RFO) (Walker & Gorsuch, 2002) measures how much an individual perceives that other people have forgiven them for offences they have committed. The RFO has been shown to have adequate internal consistency (α = .69 to .86). The RFO scale asked for responses to 20 items separated across four categories; receiving forgiveness from friends, partners, parents and God. For the purposes of the present study, the friends, partners and parents categories were grouped together with a single statement; "Respond to these five items while thinking about how you generally feel about the significant people in your life, e.g. friends, family, partners". In the current study, items loaded onto a single factor with loadings ranging from .69 to .82 and accounting for 79.2% of the variance in responses. The Receiving Forgiveness from God (RFG) subscale (Walker & Gorsuch, 2002) was used in its original form. This four item scale measures how much a person perceives God as having forgiven them for their previous offences. In the current study, it was shown to load onto a single factor which accounted for 55% of the variance among items. Factor loadings ranged from .52 to .61.

5.2.3 Procedure

A single group meeting was held at each Recovery Service Centre where all clients currently in treatment were informed of the purpose of the study and invited to participate. All clients were informed that participation was voluntary and that choosing not to participate

would in no way impact upon their treatment or relationship with the Salvation Army. Clients were informed that they could withdraw from the study at anytime. Clients who elected to participate were provided with an information sheet, self-report questionnaires, and an addressed envelope (Appendix C). No identifying information was provided by participants and no Salvation Army staff members were present at the data collection meetings. The questionnaire took approximately 40 minutes to complete. To return questionnaires participants were given the option of either using a drop box located in the meeting room or to post their questionnaires via the addressed envelope. Those who did not wish to participate simply returned the incomplete questionnaires into the drop box or by post. The study design was reviewed and approved by the University of Wollongong Human Research Ethics Committee (Appendix C).

5.3 RESULTS

Normality plots and statistical tests of normality were inspected. All constructs were normally distributed with the exception of Twelve Step spiritual beliefs which were shown to be negatively skewed (Kolmogorov-Smirnov = .09, $p < .001$). Twelve Step spiritual beliefs were transformed using a square root transformation. This transformed Twelve Step spiritual beliefs construct was used in the correlation and multiple regression analyses. The transformed construct was not used in the multiple mediation analyses as normality is not an assumption for these analyses (Preacher & Hayes, 2008).

5.3.1 Testing Forgiveness Types as Predictors of Resentment

The correlations presented in Table 5 provided support for associations between spirituality, forgiveness, resentment, and purpose in life. To test the hypothesis that forgiveness measures would negatively predict resentment a multiple regression was performed. Resentment was the dependent variable and forgiveness of others, forgiveness of

Table 5. Means, Cronbach's alphas and correlations between variables

			Correlations								
	M	SD	1	2	3	4	5	6	7	8	9
1. Purpose in Life	22.66	5.14	*.83*								
2. Resentment	11.80	3.92	-.44**	*.81*							
3. Daily Spiritual Experiences	53.45	18.65	.38**	-.31**	*.96*						
4. Twelve Step Spiritual Beliefs[a]	37.85	1.10	.25**	-.23**	.76**	*.92*					
5. Private Spiritual Practices	22.28	9.40	.21**	-.23**	.69**	.59**	*.86*				
6. Forgiveness of Self	26.21	5.52	.34**	-.34**	.40**	.33**	.34**	*.60*			
7. Forgiveness of Others	26.02	6.34	.20**	-.27**	.41**	.32**	.29**	.46**	*.67*		
8. Receiving Forgiveness from Others	15.50	3.58	.42**	-.33**	.27**	.22**	.16**	.33**	.20**	*.81*	
9. Receiving Forgiveness from God	15.48	3.59	.38**	-.33**	.54**	.51**	.39**	.36**	.33**	.39**	*.73*

n = 277, * = $p < .05$, ** = $p < .01$

[a] Untransformed Twelve Step Spiritual Beliefs (M = 29.90, SD = 6.96)

Note. Italicized numerals on the diagonal represent Cronbach's alphas

self, feeling forgiven by others, and feeling forgiven by God were entered simultaneously as independent variables. Assumptions of normality, no multicollinearity, and homoscedasticity were met and residuals within the model were independent. The percentage of variance explained in the regression model was significant, with all forgiveness constructs significantly contributing to the model, $F(4, 268) = 18.38$, $p < .001$, $R^2 = .21$ (see Table 6).

Table 6. Multiple regression results testing forgiveness types as predictors of resentment

Variable	B	SE B	β	R^2
Resentment				
Forgiveness of self	-.22**	.08	-.19	.21**
Forgiveness of others	-.12*	.06	-.12	
Receiving forgiveness from others	-.21**	.07	-.19	
Receiving forgiveness from God	-.16*	.07	-.15	

** $p < .01$; * $p < .05$

5.3.2 Forgiveness Types as Mediators between Spirituality and Purpose in Life

Preacher and Hayes' (2008) multiple mediation analyses were used to test the hypothesis that forgiveness would mediate the relationship between spirituality and purpose in life. Mediation occurs when the direct effect of variable *X* on variable *Y* is influenced by a mediator (*M*). Thus, mediation is present when: a significant association between *X* and *M* (pathway *a*); a significant association between *M* and *Y* (pathway *b*); a significant indirect effect of *X* on *Y* through *M* (pathway *ab*); and a significant direct effect of *X* on *Y* when controlling for *M* (*c′*). Pathway *c* represents the total effect of variance *X* on *Y*, that is the direct effect of X on Y plus the indirect effect of *X* on *Y* through *M* ($c = c' + ab$). Mediation is present when either the difference between the total effect (*c*) and the direct effect (*c′*) is significantly greater than zero (Preacher & Hayes, 2008) (see Figure 2a-b) or when no direct

effect exists between *X* and *Y* (pathway *c*) but a signifcant indirect effect exists in pathway *ab*.

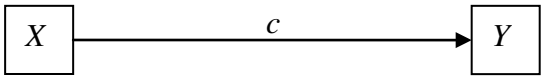

Figure 2a. The total effect of *X* on *Y*. Mediators are implicitly accounted for within pathway *c*.

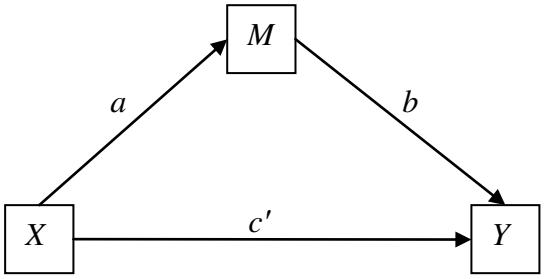

Figure 2b. The direct effect of *X* on *Y*. A proportion of the variance explained by pathway *c* is now accounted for by the pathway going from *X* to *M* to *Y* (pathway *ab*). Hence, *c′* will be significantly less than pathway *c* when mediation is present.

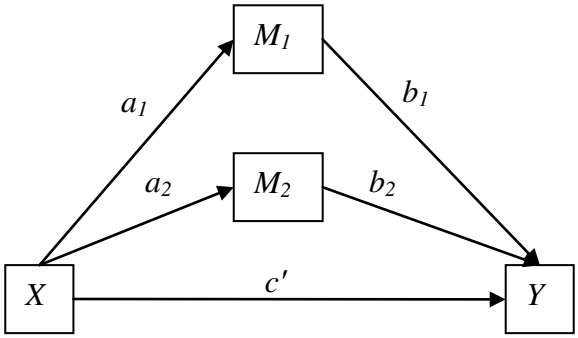

Figure 2c. In a multiple mediation a proportion of the variance explained by the total pathway (*c)* becomes accounted for by pathway *X* to M_1 to *Y* (ab_1), pathway *X* to M_2 to *Y* (ab_2), and up to the *j*th number of mediators in the model (pathway *X* to M_j to *Y* [ab_j]).

By way of example, spirituality may have a total effect on purpose in life (pathway *c*). Any variance attributable to the constructs that mediate this relationship, such as forgiveness,

is included in this total effect. To demonstrate that forgiveness does mediate the relationship between spirituality and purpose in life then: spirituality must predict forgiveness (pathway *a*); forgiveness must predict purpose in life (pathway *b*); and the indirect effect of spirituality through forgiveness to purpose in life must be significant (pathway *ab*). When this occurs the indirect effect of spirituality on purpose in life through forgiveness (pathway *ab*) can be subtracted from the total effect (pathway *c* - *ab*). The resulting being a new pathway (pathway *c′*) that represents the direct effect of spirituality on purpose in life minus the variance attributed to the indirect spirituality-forgiveness-purpose in life relationship ($c' = c - ab$). When this direct pathway (pathway *c′*) is significantly less than the original total effect (pathway *c*) mediation has occurred (see Figure 2a-b). If the total effect (pathway *c*) is significant but the direct pathway (pathway *c′*) is non-significant (with significant indirect pathways shown [pathway *ab*]) then full mediation has occurred.

One method of testing mediation when there are *j* number of mediators is to conduct a series of separate mediation analyses. However, an alternative is Preacher and Hayes' (2008) multiple mediation analysis with bootstrap resampling, which allows the indirect and direct effects of *j* number of mediators to be analyzed concurrently (Figure 2c). According to Preacher and Hayes (2008), multiple mediation analysis is a more advantageous method of testing multiple mediations than Sobel's testing, the product of coefficients testing, or Baron and Kenny's (1986) causal step approach, because it maintains statistical power while controlling for Type I errors and is also free from assumptions of normality. An additional benefit of multiple mediation is that it allows *X* to "exert an indirect effect on *Y* through *M* in the absence of an association between *X* and *Y*" (Hayes, 2009, p. 414). For example, spirituality (*X*) may not be directly associated with purpose in life (*Y*) but may indirectly effect it via forgiveness (*M*). This is in contrast to the Sobel method of mediation which requires a relationship between *X* and *Y* to exist prior to testing for the effect of *M*. According

to this approach, if no association was found between spirituality and purpose in life then the search for mediating variables would end. However, it has been shown that this assumption is not correct and an indirect effect of *M* can be present in the absence of a total or direct effect of *X* on *Y* (Hayes, 2009). Thus, "failure to test for indirect effects in the absence of a total effect can lead [researchers] to miss some potentially interesting, important, or useful mechanisms by which X exerts *s*ome kind of effect on Y" (Hayes, 2009, p. 415). In short, when using Preacher and Hayes (2008) multiple mediation analyses, a significant total (pathway *c*) or direct effect (pathway *c'*) of *X* on *Y* is not necessary for indirect only effects to be present. Because of this and the other advantages listed, this study used Preacher and Hayes (2008) SPSS macros for multiple mediation, with 5000 bootstrap resamples to validate the direct and indirect effects of the mediation pathways.

There were three measures of spirituality in this study (Twelve Step spiritual beliefs, private spiritual practices, and daily spiritual experiences) so three multiple mediation analyses were conducted. Each analysis used a different measure of spirituality as the independent variable while controlling for the other two spirituality measures. In each analysis purpose in life was the dependent variable, and forgiveness of self, forgiveness of others, receiving forgiveness from others, and receiving forgiveness from God were mediators. Results from the three multiple mediation models are shown in Figure 3a-c and Table 7.

The first multiple mediation model (Figure 3a and Table 7) found no significant total effect (c = - .060, p = .357) or direct effect (c' = - .097 p = .114) of Twelve Step spiritual beliefs on purpose in life. Twelve Step spiritual beliefs also did not predict forgiveness of self (B = .237, p >.05), forgiveness of others (B = - .015, p >.05) or receiving forgiveness from others (B = .018, p >.05). Thus, a relationship between Twelve Step spiritual beliefs and purpose in life was not mediated by these forgiveness constructs. However, as detailed

previously, multiple mediation analysis does not necessarily require a direct relationship between an independent and dependent variable to exist in order for indirect effects to exist. Therefore, it is important to note that Twelve Step spiritual beliefs predicted receiving forgiveness from God (B = .126, p <.01) which in turn predicted purpose in life (B = .216, p <. 05) and was shown by the 95% bootstrapped confidence intervals[11] to have an indirect only effect on purpose in life (B = .027, p < .05, 95% CI [.002, .069]). That is, though Twelve Step spiritual beliefs did not directly predict purpose in life they operated indirectly on it via receiving forgiveness from God.

In the second multiple mediation model (Figure 3b and Table 7), private spiritual practices did not predict any forgiveness variables. Also, the non-significant total effect (c = -.055, p = .196), direct effect (c' = - .056, p = .161) and 95% confidence intervals showed that the relationship between private spiritual practices and purpose in life was not mediated by forgiveness variables.

The third multiple mediation model (Figure 3c and Table 7) revealed that daily spiritual experiences predicted forgiveness of self (B = .053, p < .001), forgiveness of others (B = .091, p <.001), receiving forgiveness from others (B = .050, p <.001) and receiving forgiveness from God (B = .067, p <.001). Bootstrapping found a significant indirect effect for receiving forgiveness from others (B = .020, p < .05, 95% CI [.006, .041]), receiving forgiveness from God (B = .015, p <. 05, 95% CI [.001, .033]), and forgiveness of self (B = .013, p < .05, 95% CI [.002, .031]). When forgiveness mediators were entered into the model the total effect of daily spiritual experiences on purpose in life (c = .142, p = .000) decreased but remained significant (c' = .100, p < .001); indicating that forgiveness of self, receiving forgiveness from others and receiving forgiveness from God partially mediated daily spiritual experiences and purpose in life.

[11] Non-significance is indicated when zero is located within the lower and upper 95% confidence intervals.

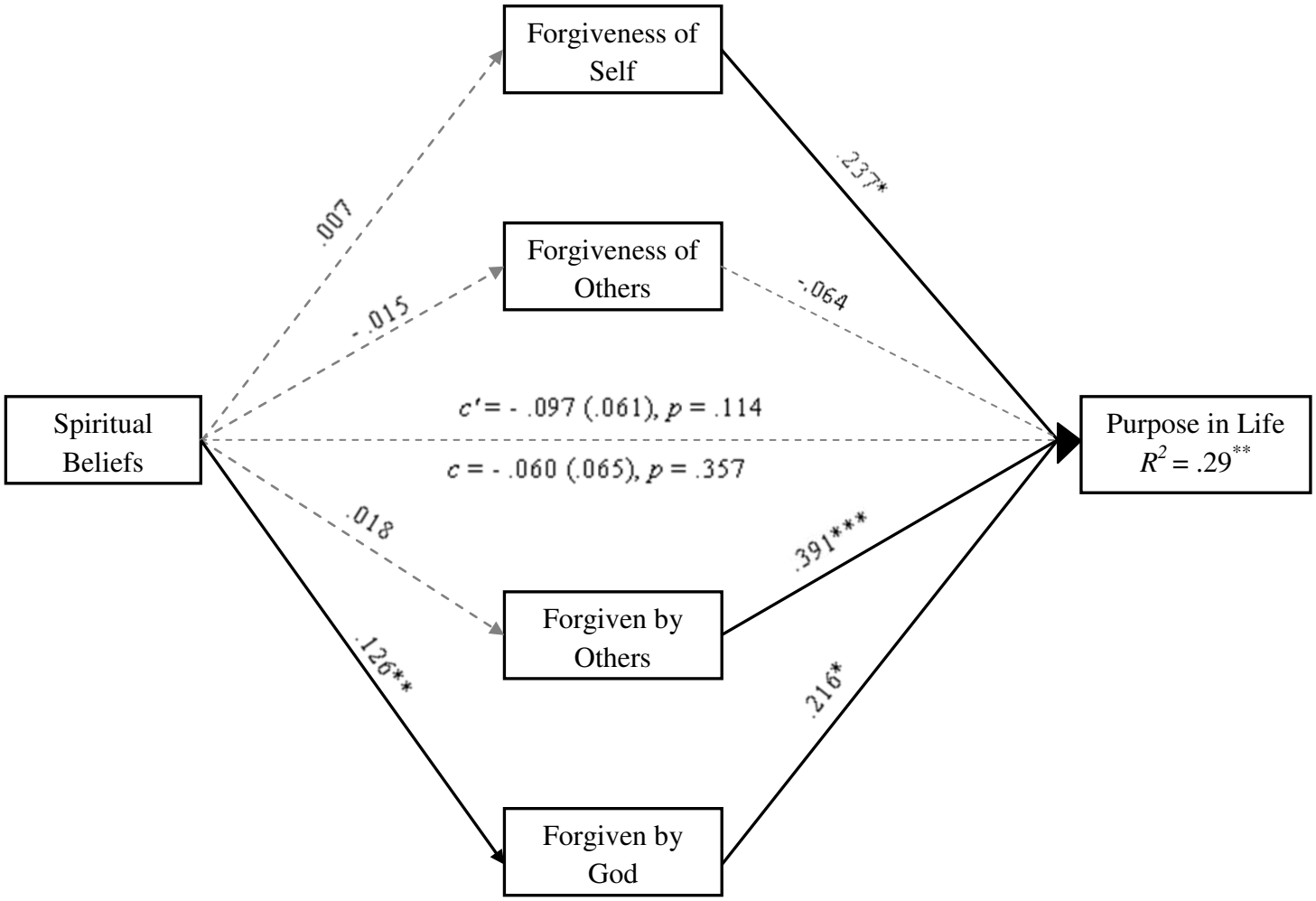

Figure 3a. Multiple mediation model testing forgiveness as a mediator between Twelve Step spiritual beliefs and purpose in life. Unstandardized coefficients are shown for each relationship and broken lines represent non-significance. $^{***} = p < .001$; $^{**}\ p < .01$, $^{*}\ p < .05$; c = total effect of X on Y; c' = direct effect of X on Y via M

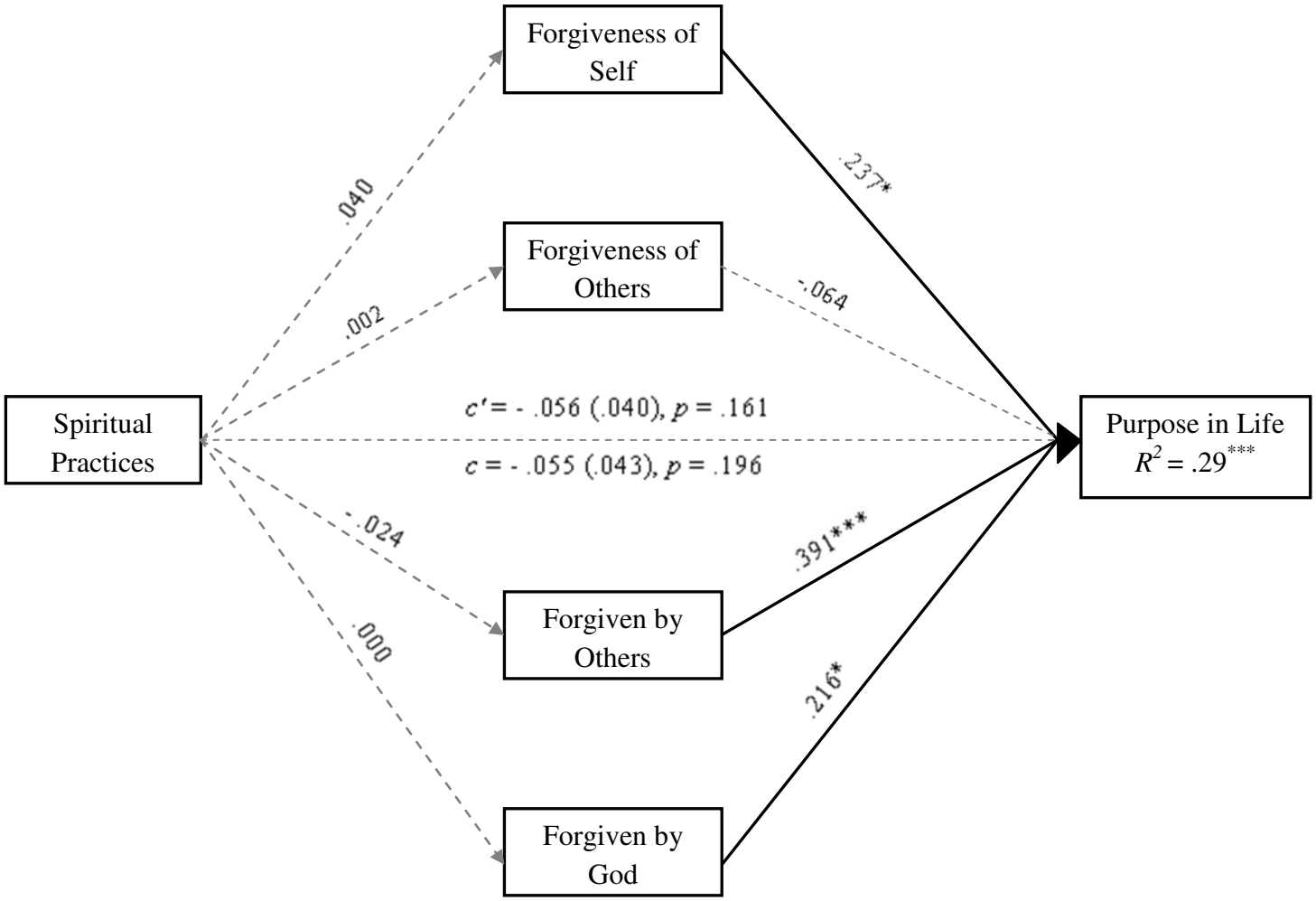

Figure 3b. Multiple mediation model testing forgiveness as a mediator between private spiritual practices and purpose in life. Unstandardized coefficients are shown for each relationship and broken lines represent non-significance. $^{***} = p < .001$; $^{**}\ p < .01$, $^{*}\ p < .05$; c = total effect of X on Y; c' = direct effect of X on Y via M

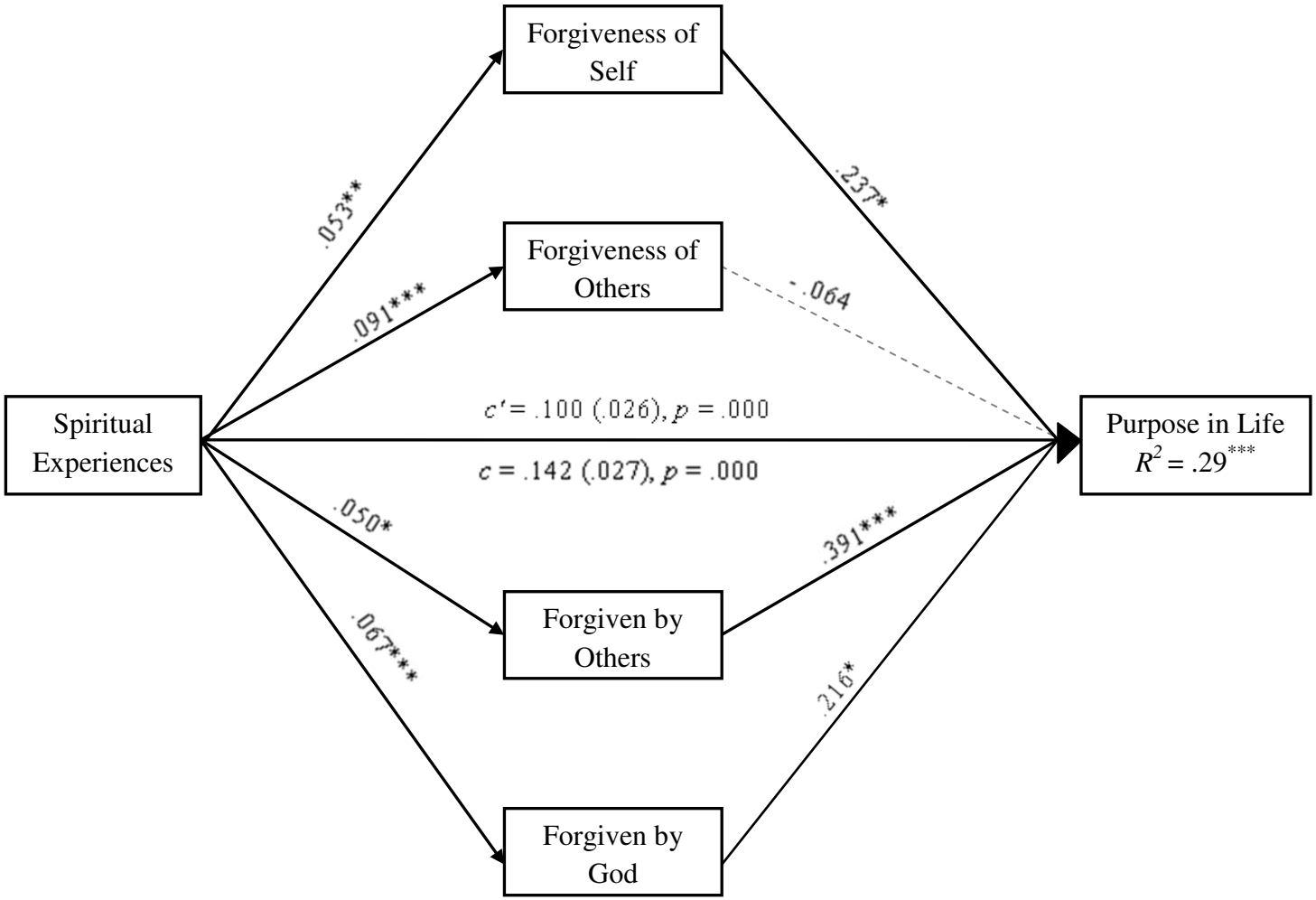

Figure 3c. Multiple mediation model testing forgiveness as a mediator between daily spiritual experiences and purpose in life. Unstandardized coefficients are shown for each relationship and broken lines represent non-significance. $^{***} = p < .001$; $^{**}\ p < .01$, $^{*}\ p < .05$; c = total effect of X on Y; c' = direct effect of X on Y via M

Table 7. Multiple mediation analyses testing forgiveness as a mediator of spirituality and purpose in life

Independent Variable (IV)	Mediator (M)	Effect of IV on M	Effect of M on DV	Bootstrapping		
				Indirect Effect	95% Confidence Interval (CI)	
		a	*b*	*ab*	Lower	Upper
Twelve Step Spiritual Beliefs[1]	Forgiveness of Self	.007	.237*	.002	- .024	.030
	Forgiveness of Others	- .015	- .064	.001	- .006	.021
	Forgiven by Others	.018	.391***	.007	- .025	.050
	Forgiven by God	.126**	.216*	.027*	.002	.069
Private spiritual practices[2]	Forgiveness of Self	.040	.237*	.010	- .002	.033
	Forgiveness of Others	.002	- .064	- .000	- .009	.006
	Forgiven by Others	- .024	.391***	- .009	- .035	.014
	Forgiven by God	.000	.216*	.000	- .014	.013

[1]controlling for Twelve-step private spiritual practices and daily spiritual experiences

[2]controlling for Twelve-step spiritual beliefs and daily spiritual experiences

[3]controlling for Twelve-step spiritual beliefs and private spiritual practices

*** $p < .001$, ** $p < .01$, * $p < .05$; $R^2 = .29$

Note: coefficients are unstandardized

Table 7. Multiple mediation analyses testing forgiveness as a mediator of spirituality and purpose in life (cont.)

Independent Variable (IV)	Mediator (M)	Effect of IV on M	Effect of M on DV	Bootstrapping		
				Indirect Effect	95% Confidence Interval (CI)	
		a	*b*	*ab*	Lower	Upper
Daily Spiritual Experiences[3]	Forgiveness of Self	.053**	.237*	.013*	.002	.031
	Forgiveness of Others	.091***	- .064	- .006	- .023	.008
	Forgiven by Others	.050*	.391***	.020*	.006	.041
	Forgiven by God	.067***	.216*	.015*	.001	.033

[1]controlling for Twelve-step private spiritual practices and daily spiritual experiences

[2]controlling for Twelve-step spiritual beliefs and daily spiritual experiences

[3]controlling for Twelve-step spiritual beliefs and private spiritual practices

*** $p < .001$, ** $p < .01$, * $p < .05$; $R^2 = .29$

Note: coefficients are unstandardized

5.3.3 Post-Hoc Analyses: Testing Spiritual Beliefs and Practices as Predictors of Daily Spiritual Experiences

The previous analyses found that Twelve Step spiritual beliefs and private spiritual practices did not predict forgiveness or purpose in life. This was unexpected as religious and spiritual literature stress the importance of faith and spiritual practices as mechanisms for cultivating a relationship with the transcendental (Boice, 1986; Das, 1997; Prabhavananda & Isherwood, 1981). The Twelve Steps of AA have a similar conceptualisation as demonstrated by their saying 'fake it til you make it' (Robinson et al., 2007). Empirical research also supports the importance of practice in cultivating spirituality (Palouztian, Richardson & Rambo, 1999). Based on this, and to further clarify the relationship between spirituality and purpose in life, an additional post-hoc hypothesis was made: that spiritual beliefs and private spiritual practices would predict spiritual experiences. To test this hypothesis a second multiple regression was conducted with daily spiritual experiences as the dependent variable and Twelve Step spiritual beliefs and private spiritual practices as the independent variables. Multicollinearity was not present and the assumptions of normality and homoscedasticity were met. The variance in daily spiritual experiences explained by the regression model was significant (F (2, 274) = 305.93, p < .001, R^2 = .69) (Table 8).

Table 8. Multiple regression results testing Twelve Step spiritual beliefs and private spiritual practices as predictors of daily spiritual experiences

Variable	B	SE B	β	R^2
Daily spiritual experiences				
Twelve Step spiritual beliefs	9.64***	.71	.57	.69***
Private spiritual practices	.71***	.08	.36	

*** p < .001

5.4 DISCUSSION

The study's first hypothesis, that forgiveness would predict resentment, was supported, with forgiveness of others, forgiveness of self, receiving forgiveness from others, and receiving forgiveness from God all predicting resentment. In particular, self-forgiveness and receiving the forgiveness of others had greater significance and larger regression coefficients in the multiple regression than forgiving others and receiving forgiveness from God. This highlights their potential role and importance in the treatment of resentment amongst substance abusers.

The Twelve Steps emphasize atonement and reconciliation as important to the recovery process, but there is little research on the role that *receiving* forgiveness plays in the treatment of substance abuse. Similarly, the role of forgiveness of self in substance abuse treatment is also under studied. However, the preliminary research that is available suggests that though forgiveness of self may be important to recovery, it is likely be more difficult to achieve than forgiveness of others (Webb et al., 2006). Forgiveness of self has also been shown to be more closely related to internalized symptoms of psychopathology (e.g. anxiety) than to external symptoms (e.g. hostility) (Webb et al., 2009). Hence, it is likely that the current results reflect the internalized nature of forgiveness of self and receiving forgiveness (both from others and God).

Little research has explored forgiveness of self and receiving forgiveness in substance abuse treatment. Substance abusers can be highly stigmatized (Ronzani, Higgins-Biddle & Furtado, 2009; Room, 2005) which can cultivate shame (Whiechelt, 2007). Hence, shame is frequently recognized as being inherent in substance abusers (Whiechelt, 2007). It is possible that forgiveness of self and receiving forgiveness operate on recovery by addressing the shame inherent in substance abuse.

5.4.1 Shame and Substance Abuse Treatment

Shame is one construct which contributes to the etiology and maintenance of substance abuse (Potter-Efron, 2002) and may be particularly relevant to the internalized nature of a forgiveness-resentment relationship. Specifically, the relationship between shame and substance abuse has been described as cyclic, with shame leading to the use of substances as a coping mechanism, which in turn promotes more shame, which leads to further substance use (Wiechelt, 2007). In support of this, substance abusers have been shown to have higher levels of shame than the general population (O'Connor, Berry, Inaba, Weiss & Morrison, 1994). Shame is also positively associated with relapse (Wiechelt & Sales, 2001).

Shame fundamentally involves a perception of a flawed self (Wiechelt, 2007): a global negative self-evaluation which produces urges to isolate oneself or externalize blame and hostility (Tangney, Wagner, Fletcher & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall & Gramzow, 1996). Both the isolating and externalizing blame responses are defensive in that they prevent the self from experiencing further painful negative evaluations. Often this externalized blame and hostility can be irrational and has been described as a "humiliated fury" (Lewis 1971 as cited by Tangney et al. 1996).

Shame-prone individuals have been found to have greater levels of anger, rumination, desires for revenge, and be more likely to defend against shame via the externalization of blame and anger (Stuewig, Tangney, Heigel, Harty & McCloskey, 2010; Tangney et al., 1992; Tangney et al., 1996). Shame has also been negatively correlated with resentment (r = -.37 to -.45) (Tangney et al., 1992) and negatively associated with empathy (Tangney, 1991, 1995) and forgiveness of self (Rangganadhan & Todorov, 2010).

The relationship between resentment, shame, internalized schema of inadequacy and forgiveness of others is less clear. Forgiveness based therapies recognize shame and guilt as barriers to forgiveness of others. Hence these therapies encourage an exploration of shame

and guilt and the reasons underlying anger, resentment, and the externalization of blame (Enright, 2001; Enright & Fitzgibbons, 2000; Tibbits, 2006). However, the overall emphasis of forgiveness of others is *inter*personal: the regulation of anger and resentment directed toward another for the purpose of self-enhancement (e.g. achieving relief from the pain associated with anger and interpersonal conflicts). Thus, it is argued that forgiveness of others may operate on resentment in a different manner to forgiveness of self and receiving forgiveness. Forgiveness of self and receiving forgiveness may be associated with the underlying *intra*personal factors of resentment, such as schema of inadequacy and feelings of shame. In contrast, forgiving others may attend to the product of these feelings; the management of anger and resentment that derive from feelings of inadequacy and shame. Whether these relationships operate on recovery from substance abuse and whether they do so by disrupting a shame-substance use cycle remains to be tested.

5.4.2 Spirituality, Forgiveness, and Purpose in Life

To clarify the relationships between the dimensions of spirituality a post-hoc hypothesis proposed that spiritual practices and beliefs would predict spiritual experiences. This hypothesis was supported, with 69% of the variance in daily spiritual experiences being attributable to a person's private spiritual practices and spiritual beliefs. This significantly clarifies how spirituality and forgiveness operate on purpose in life by suggesting that the everyday experiences and feelings associated with religiousness/spirituality may in part be a manifestation of an individual's beliefs and practices; however, further longitudinal research is required to confirm causality. Correlations from the current study also demonstrate that spiritual practices and beliefs are associated at moderate levels. During a spiritual transformation process changes in beliefs can often follow from changes in spiritual behaviors (Hood et al. 2009). Furthermore, the changes in beliefs are likely to also motivate an individual to further apply themselves to the spiritual practices associated with the

exploration and cultivation of their spirituality. Therefore, it is hypothesised that the relationship between the dimensions of spirituality is likely to be bidirectional, with each dimension of spirituality influencing the other (Figure 4).

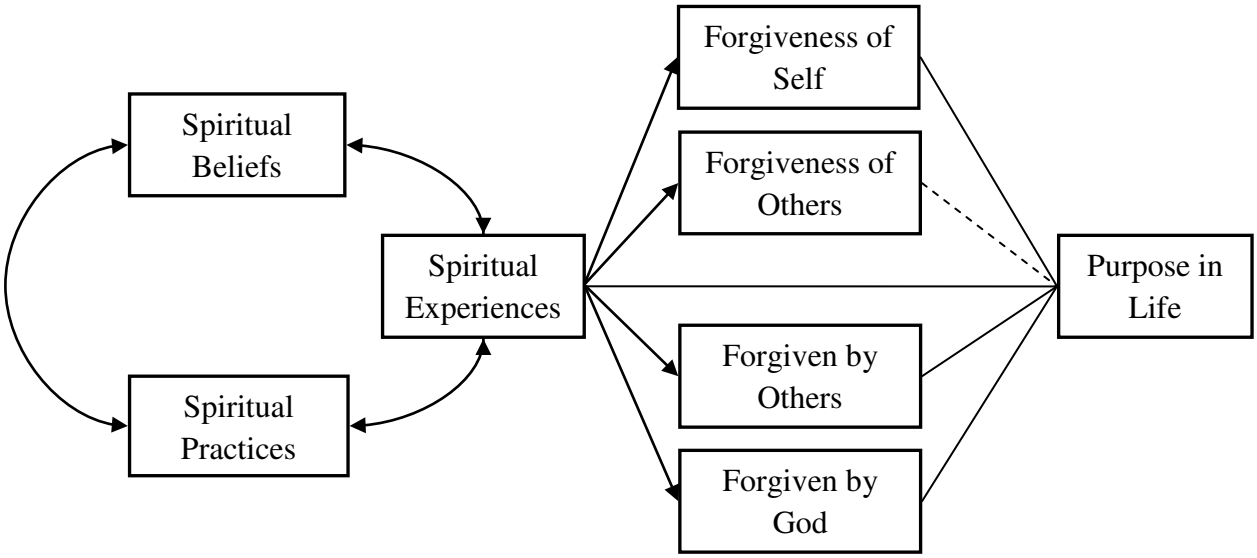

Figure 4. Theoretical relationships between daily spiritual experiences, forgiveness constructs and purpose in life. Note: Unbroken lines indicate that the relationship is theorised to be predictive; broken lines indicate a correlational relationship.

Though the dimensions of spirituality are highly interrelated, what emerged from the multiple mediation analyses was that spiritual experiences, and not beliefs or practices, predicted forgiveness types and purpose in life. This is consistent with prior research that has found daily spiritual experiences to be associated with recovery (Robinson et al., 2007; Robinson et al., 2011; Sterling et al., 2007) and forgiveness in substance abuse treatments (Webb et al., 2006). The findings indicate that for substance abusers, it is more the lived experience of spirituality (which may include things such as: feeling a longing for God; a deep inner peace; a sense of strength derived from God; or feeling guided by God) that may contribute to forgiveness and not the beliefs or practices per se (though, as mentioned, these

are likely to play a central role in fostering these daily experiences). Alternatively, it is also possible that higher levels of forgiveness contribute to greater daily spiritual experiences. Further research is needed to clarify the causal direction of the relationships between spirituality and forgiveness. Figure 4 is based on these results and represents both the bidirectional relationship amongst spirituality dimensions and the potential influence of spiritual experiences on forgiveness and purpose in life.

The finding that Twelve Step based spiritual beliefs only predicted receiving forgiveness from God is also of interest. Specifically, an indirect only effect was present with Twelve Step beliefs not directly operating on purpose in life but indirectly operating on it through receiving forgiveness from God. It has been proposed that the adoption of religion/spirituality by clients in faith-based programs involves a transition from a conceptualization of God as being punishing and unforgiving to a conceptualization of God as loving and forgiving (Neff & MacMaster, 2005). This changing conceptualization of God has been theorised to operate on recovery by promoting meaning in life (Neff & MacMaster, 2005). The results of the current study provide some support for this theory. As the Twelve Steps are historically associated with Christianity (White & Kurtz, 2008), and receiving forgiveness from God is central to Christianity (Boice, 1986; McGrath, 1997; Milne, 2009), it is little surprise that participants with higher Twelve Step spiritual beliefs were more likely to perceive God as having forgiven them. What is notable is the demonstrated indirect effect of this on the relationship between Twelve Step beliefs and purpose in life.

Finally, it is important to note that in the daily spiritual experiences model (Figure 3c) a significant indirect effect was shown for forgiveness of self, receiving forgiveness from others, receiving forgiveness from God, but not for forgiveness of others. Taken with the earlier discussion on resentment and shame, these multiple mediation results further highlight the potential importance that forgiveness of self and receiving forgiveness may play in the

treatment of substance abuse. The results suggest that clients who are more self-forgiving or feel that they have been forgiven may be less shame-prone and resentful, which promotes a greater purpose in life.

5.4.3 Limitations

The most significant limitation of this study relates to its cross-sectional design which prevents causality between the variables from being determined. Furthermore, the design of the study did not enable an examination of participants' post-program substance use. Hence, how and whether spirituality, forgiveness, resentment, and a purposeful engagement in life contribute to abstinence is yet to be determined. There is a need to assess the relationships found using post-discharge measures of abstinence or controlled substance use. A second limitation relates to the percentage of variance explained by the multiple mediation models (29%), which suggests that other variables may also mediate the relationship between spirituality and purpose in life. A third limitation of this study was that the data on religious/spiritual variables was drawn exclusively from faith-based treatment centres. Future research on the relationships proposed in this study would benefit from the use of a comparison group from a secular treatment centre. Another limitation of the thesis is the fact that substance abusers participation in research may be compromised. Substance abusers in treatment may be suffering withdrawal symptoms (DSM-IV-TR; APA, 2000) and have long histories of abuse and potential cognitive impairments (Parsons, 1977, 1998). Thus, their ability to concentrate and reliably respond to research questions may be impaired (Del Boca & Noll, 2000; Carey & Correia, 1998; Brown, Kranzler & Del Boca, 1992). Because of this efforts were made to make research participation as laboriously free as possible. This was done by minimizing the length of the surveys whenever possible, offering participants breaks during the completion of measures, and providing assistance for participants with literacy and comprehension problems. Nevertheless, these difficulties are inherent within this population

and likely to have resulted in some degree of measurement error. A fourth limitation was that demographic covariates were not included in the analyses. Future research could explore the influence of demographics on the SFP model. Finally, the fifth limitation of the study was the low reliability of the Heartland Forgiveness Scale. The HFS is one of the primary forgiveness measures available, thus future research should explore the validity and reliability of this measure with substance abusing populations.

5.4.4 Conclusion

This study tested hypotheses generated from Christian and Twelve Step theories of substance abuse and the SFP model. It was hypothesised that forgiveness types would negatively predict resentment. This hypothesis was supported. It was also hypothesised that forgiveness would mediate a relationship between spirituality and purpose in life. Daily spiritual experiences emerged as a predictor of forgiveness and purpose in life. Furthermore, the relationship between spiritual experiences and purpose in life appeared to solely be attributable to forgiveness of self, receiving forgiveness from others and receiving forgiveness from God; suggesting that shame, self-resentment, and negative self-schema may be of relevance to the treatment of substance use disorders. Finally, the additional hypothesis, that daily spiritual experiences would be predicted by private spiritual practices and Twelve Step spiritual beliefs was also supported. Together, these results clarify the relationships set out in the SFP model. They suggest that, amongst clients of faith-based substance abuse treatment programs, it is the experience of being spiritual, which is derived from spiritual beliefs and practices, which predicts self-forgiveness or a perception of being forgiven. In turn, this is associated with lower levels of resentment (and potentially shame) and greater purpose in life (Figure 4). The results of this study should be considered preliminary and there is a need for further research to replicate and expand on these findings.

Chapter 6

Study Three: A Longitudinal Study of Spirituality, Forgiveness, and Purpose in Life in Clients of Residential Faith-Based Substance Abuse Treatment Programs

6.1 INTRODUCTION

The SFP model theorised that the cultivation of spirituality operates on recovery from substance abuse by increasing forgiveness, decreasing resentment, and cultivating purpose in life. Study 2 found preliminary evidence to support this theory: demonstrating that the relationship between daily spiritual experiences and purpose in life is mediated by forgiveness of self, receiving forgiveness from others, and receiving forgiveness from God. These results support other findings within the literature that emphasise the potential of forgiveness of self over forgiveness of others in the recovery process (Robinson et al., 2011; Webb et al., 2009; 2006).

The cross-sectional design of Study 2 prevented it from assessing change over time. Furthermore, because participants were currently in residential treatment, the associations between spirituality, forgiveness, and purpose in life were not linked to substance use behaviours. Hence, several research questions were left unanswered, including: 1) whether spiritual experiences, forgiveness types, and purpose in life change during treatment; 2) whether changes in spiritual experiences operate on changes in purpose in life indirectly through changes in forgiveness of self; and 3) whether purpose in life predicts lower levels of substance use after treatment. The current study used a longitudinal design to answer these questions. The following hypotheses were made. Firstly, it was hypothesised that there would be significant increases from intake to a three month post-discharge follow-up in measures of daily spiritual experiences, self-forgiveness, forgiveness of others, purpose in life and significant decreases in substance use. This hypothesis was based on previous studies of spirituality (Piderman et al., 2007; Piedmont, 2004; Robinson et al., 2007; Sterling et al., 2007), forgiveness (Webb et al., 2006) and purpose in life (Robinson et al., 2007) in substance abuse treatment. Secondly, the theory underlying a spirituality-recovery relationship is that spiritual growth has a positive influence on abstinence. Hence, it was

theorised that an absence of spiritual growth would be positively associated with relapse. That is, those participants who relapsed after treatment would have experienced significantly less change from intake to follow-up in spiritual experiences, forgiveness types, and purpose in life. Thirdly, in accord with the results of Study 2, it was hypothesised that the relationship between change in daily spiritual experiences and change in substance use would operate indirectly through changes in forgiveness of self and purpose in life, but not through forgiveness of others.

6.2 METHOD

6.2.1 Participants

This study used a subset of data drawn from an ongoing longitudinal study of clients of Australian Salvation Army Residential Service Centres throughout New South Wales, Queensland and the Australian Capital Territory (see Chapter 4 for a description of these programs). The data used for the current study consisted of 504 residential clients who had consented to participate and were in treatment between the 7th of August 2010 and the 22nd of April 2011[12]. This study only used clients who were completing their first admission of residential treatment with the Salvation Army. That is, clients who were in their second or subsequent admission to the Salvation Army Recovery Service Centres were not included in the study. Also, only participants whom researchers had attempted to contact for follow-up were included. From this sub-sample of 504 participants, 334 completed follow-up interviews (66% response rate). However, participants who were deemed to have invalid or questionable responses during intake or follow-up assessments (e.g. completed their initial assessment after being in treatment for more than 30 days, demonstrated an obvious response set when interviewed, were intoxicated at the time of follow-up or had excessively high amounts of

[12] This was an opportunistic time period. The dates are drawn from the data available at the time the study was conducted.

missing responses) were removed from the final sample (see Figure 5 for details). This resulted in a final sample of 242 participants who had both consented to participate and reliably completed intake and follow-up assessments (47% of the original sample). Participant demographics and histories are presented in Table nine.

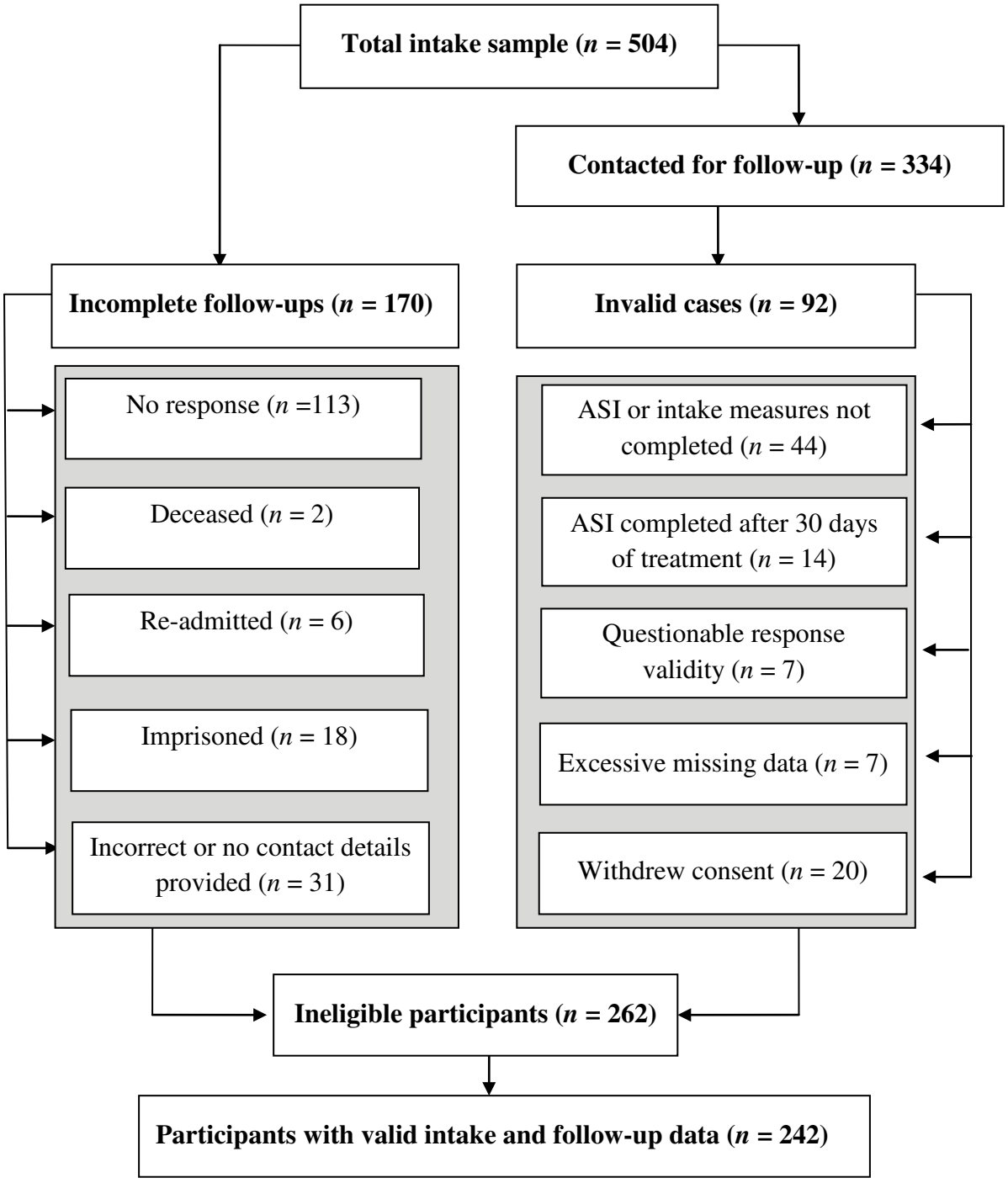

Figure 5. Participation and reasons for exclusion from Study 3

Table 9. Participant demographics and substance use information

		Total sample	Follow-up	
			Abstinent	Lapsed
Gender (%):	Male	80.6	78.9	82.0
	Female	19.4	21.1	18.0
Age in years *(M)*:		37.51	37.32	37.68
(SD):		11.08	11.64	10.60
Days in treatment (*M*):		114.85	124.32	106.43
(SD):		91.98	91.05	92.35
Number of prior treatment episodes *(M)*:		7.14	7.68	6.66
(SD):		13.94	14.68	13.30
Highest level of education (%):	School Certificate or less[a]	29.3	26.3	32.0
	Higher School Certificate[b]	57.4	57.9	57.0
	Non-university tertiary education (e.g. a trade certificate)	4.1	5.3	3.1
	University degree (undergraduate or postgraduate)	8.3	10.5	6.3
Marital Status (%):	Married	6.2	4.4	7.8
	Divorced / Separated/Widowed	32.2	29.9	34.4
	Never Married	60.3	64.9	56.3

[a] An Australian School Certificate is the equivalent of 11 years of education

[b] An Australian Higher School Certificate is the equivalent of 13 years of education

Abstinent at 3 month follow-up, n = 114; Lapsed at 3 month follow-up, n = 128

Table 9 Participant demographics and substance use information (cont.)

		Total sample	Follow-up	
			Abstinent	Lapsed
Employment status 3 years post- intake(%):	Full Time	27.3	31.6	23.4
	Part Time	29.3	29.0	29.7
	Student	1.2	.9	1.6
	Retired/Disabled	5	2.6	7.0
	Unemployed	23.6	25.4	21.9
	Homemaker	5.8	3.5	7.8
	In a controlled environment	6.2	5.3	7.0
Ethnicity (%):	Anglo-Saxon Australian	81.4	86.0	77.3
	Indigenous / Torres Strait Island Australian	8.3	9.6	7.0
	Other Australian	1.7	.9	2.3
	New Zealander	2.5	0	4.7
	Other	6.1	3.5	8.7
Primary substance (%):	Alcohol	66.9	69.3	64.8
	Cannabis	15.7	15.8	15.6
	Amphetamines	8.7	8.8	8.6
	Heroin	5.8	3.5	7.8
	Other	2.9	2.6	3.2

[a] An Australian School Certificate is the equivalent of 11 years of education

[b] An Australian Higher School Certificate is the equivalent of 13 years of education

Abstinent at 3 month follow-up, n = 114; Lapsed at 3 month follow-up, n = 128

6.2.2 Measures

Many of the measures used in this longitudinal investigation were also used and explained in Study 2. Thus, for the sake of brevity a full description of these measures is not provided. All measures used in this study are provided in Appendix D.

6.2.1.1 Addiction Severity Index

The Addiction Severity Index (ASI-SR; McLellan et al., 1995) is a structured clinical interview that covers seven domains relevant to the assessment and treatment of substance abuse, including: medical condition, employment, drug use, alcohol use, legal status, family/social relations, and psychiatric condition. The ASI is one of the most frequently used outcome measures in substance abuse research (Doub, 2001). For the current study, only the ASI items that provided basic demographic information or were related to alcohol and illicit drug use were used. In particular, though the ASI provides composite scores for substance use, the validity of these composite scores has been questioned; particularly when assessing change over time (Melberg, 2004). Furthermore, the interpretation of ASI composite score is less intuitive than an average measure of substance use, thus the primary recovery outcome measures used in this study were the frequency of alcohol and illicit drug use in the 30 days prior to data collection. These outcome items have been used in similar studies (Zemore, 2007). A single item from the ASI that asked how many days out of the past 30 a person had consumed alcohol was used to measure pre and post-treatment alcohol consumption. Pre and post-treatment drug use was measured by summing 10 ASI items (heroin, methadone, other opiates, barbiturates, sedatives, cocaine, cannabis, hallucinogens, inhalants) that assessed days of drug use in the past 30 days. In addition, a dichotomised variable was constructed to measure post-treatment abstinence (abstinent vs. lapsed). Participants who stated that they had not used any alcohol or illicit drugs in the 30 days prior to follow-up were categorised as

abstinent. Participants who had *any* history of alcohol or drug use in the 30 days before follow-up were placed in the lapsed category.

6.2.2.2 Purpose in Life

The Life Engagement Test (LET) (Scheier et al., 2006) was used to assess purpose in life. In this study, the LET loaded on to a single factor at both intake and follow-up. Loadings at intake ranged from .62 to .75 and accounted for 44% variance in items. Loadings at follow-up ranged from .69 to .76 and accounted for 56% of the variance in items. Cronbach's alphas were .74 at intake and .82 at follow-up.

6.2.2.3 Spiritual Experiences and Feelings

The Daily Spiritual Experiences Scale (DSES) (Underwood & Teresi, 2002) was used to measure participants' everyday spiritual experiences. This study found the DSES to have a two factor solution at both intake and follow-up. Item 13 "I feel a selfless caring for others" and item 14 "I accept others even when they do things I think are wrong" loaded onto a separate factor at intake. At follow-up only item 14 loaded onto a separate factor. Factor loadings at intake ranged from .44 to .86 which accounted for 68% of the variance among items. Factor loadings at follow-up ranged from .54 to .88 and accounted for 71% of the variance. Cronbach's alphas were .95 at both intake and follow-up.

6.2.2.4 Forgiveness of Self and Others

The Heartland Forgiveness Scale (HFS) (Thompson & Snyder, 2003) was used to measure participants' disposition to be forgiving of themself and forgiving of others. In contrasts to the previous study which omitted reversed scored items, all six items of the forgiveness of self and forgiveness of others subscales were used. Both at intake and follow-up the forgiveness of self and forgiveness of others subscales loaded on two factors: one for the positively phrase items and one for the reverse scored items. At intake the forgiveness of self scale had loadings that ranged from .65 to .86 while the forgiveness of others had

loadings from .68 to .86. These loadings accounted for 68% and 66% of the variance among forgiveness of self and forgiveness of others items respectively. At follow-up the forgiveness of self scale had loadings ranging from of .64 to .84 and the forgiveness of others had loadings from .65 to .87. These accounted for 60% and 65% of the variance in follow-up items respectively. Intake Cronbach's alphas for the forgiveness of self and forgiveness of others were .59 and .77 respectively, while the forgiveness of self and forgiveness of others follow-up Cronbach's alphas were .71 and .78.

6.2.3 Procedure

This study was part of a wider collaborative research initiative between the Australian Salvation Army and the Illawarra Institute for Mental Health (iiMH), University of Wollongong. One of the aims of the project was to introduce the use of routine client assessment and outcome measures into the daily operations of the Salvation Army Bridge Program (see Chapter 4 for a description of the Bridge Program). It was within this context that the measures of this study were administered.

Salvation Army RSC managers and clinical employees (intake workers and case managers) were trained in the administration of the ASI and all outcome measures used in this study. This training was conducted over a series of single day workshops held at Recovery Service Centres throughout NSW, QLD and the ACT. These formal training sessions were held at multiple times throughout the year at each centre (approximately twice per centre). In addition, informal sessions were held when researchers were on the service centre premises. Training was provided by researchers from the Illawarra Institute for Mental Health, including the thesis author.

Participants were recruited by Salvation Army treatment providers who individually explained the aim, procedures and demands of the research to each client at admission. Clients were then provided with an information sheet and consent form (Appendix D) and

invited to participate. This study induction was developed as part of The Salvation Army's routine treatment admission policy. Clients wishing to participate completed the consent form, the ASI and all other assessment measures during this intake session. Consent indicated that the client was willing to complete the routine instruments while in treatment and participate in the follow-up data collection procedures after discharge. Clients not consenting to completed the measures or participate in the study still received treatment.

Follow-up procedures consisted of three month post-discharge telephone surveys. All telephone interviews were conducted by trained research assistants from the University of Wollongong. When contacted participants were reminded of the study and invited to complete the telephone survey. Participants were also informed that the research assistant conducting the follow-up interview was from the University of Wollongong and not a member of the Salvation Army. This was done to reduce socially desirable responding. The follow-up survey took approximately 30 minutes. For their participation, participants were provided with a twenty dollar gift voucher that could be used at several major retail outlets (e.g. grocery stores, department stores, book shops). The gift vouchers could not be used for the purchase of liquor or cigarettes. The design of this study and the measures used were reviewed and approved by the University of Wollongong Human Research Ethics Committee (Appendix D).

6.2.4 Data Analysis

Prior to analyses, the dataset was screened and cleansed using the following rules. Firstly, participants with multiple admissions were removed from the data set. This was done to control for the effect of between treatment experiences on recovery. Secondly, participants who did not complete the ASI, DSES, LET or HFS within 30 days of intake were removed from the data set. Thirdly, participants whose follow-up responses were deemed invalid (e.g.

intoxicated or an obvious response set) were removed from the data set. The number of participants excluded by each of these rules is shown in Figure 5.

Once the data was cleansed the following analyses were conducted. Firstly, associations between variables at treatment intake, follow-up and between intake and follow-up were explored using Pearson's (*r*) and Spearman's (*rho*) correlations. Secondly, to test Hypothesis 1 – that spiritual experiences, forgiveness types, purpose in life and substance use would change from intake to follow-up – a series of repeated measures t-tests and Wilcoxon matched-pairs tests were conducted. Thirdly, to test Hypothesis 2 – that change in spiritual experiences, forgiveness types and purpose in life would differ as a function of participants' post-treatment relapse/abstinence – a multivariate analysis of variance was conducted. Post-treatment abstinent status (abstinent vs. lapsed) was entered as the independent variable and standardised residual change scores were used as the dependent variables. These were calculated by regressing the follow-up score of a given construct on its intake score (Kent, Johnston, Wood & Doherty, 2000; Hauser-Cram & Krauss, 1991). The advantage of standardised residual change scores over simple change scores (Time 2 – Time 1) is that they control for participants' initial baseline status (Hauser-Cram & Krauss, 1991). To test Hypothesis 3 – that change in spiritual experiences would predict change in purpose in life and substance use and that these relationships would be mediated by change in forgiveness of self but not forgiveness of others – multi-step multiple mediation analyses were conducted (Hayes, Preacher & Myers, 2010).

6.2.4.1 Multi-Step Multiple Mediation Analyses

Hayes and colleagues' (2010) multi-step multiple mediation analyses extend on the multiple mediation described in Chapter 5 by testing for chained indirect relationships. Essentially, this analysis allows the relationship of X→M1→M2→Y to be tested where X equals the independent variable (e.g. spiritual experiences), M1 equals the first indirect

variable (e.g. forgiveness), M2 equals the second indirect variable (e.g. purpose in life), and Y equals the dependent variable (e.g. substance use) (see Figure 6a and b). In relation to the current study this multi-step multiple mediation model would have the following relationships. Firstly, a total effect of spiritual experiences (*c*) and a direct effect of spiritual experiences (*c*') on substance use may be present. Secondly, because spiritual experiences (X) may have a direct relationship with forgiveness (M1) and purpose in life (M2) but not substance use (Y), it may indirectly operate on substance use via forgiveness (Figure 6b, pathway a_1b_1), purpose in life (Figure 6b, pathway $a_2\ b_2$), and forgiveness through purpose in life (Figure 6b, pathway $a_1a_3b_2$).

As with the multiple mediation analyses in the previous study, multi-step multiple mediation analyses utilize point and bootstrapped 95% confidence intervals to test indirect effects. Significant pathways are indicated when zero is not located within the range of the 95% confidence intervals. Furthermore, because bootstrapping is used, multi-step multiple mediation analyses do not require assumptions of normality to be met (Hayes et al., 2010). The MED3c program by Hayes, Preacher and Myers (2010) was used for all, multi-step multiple mediation analyses.

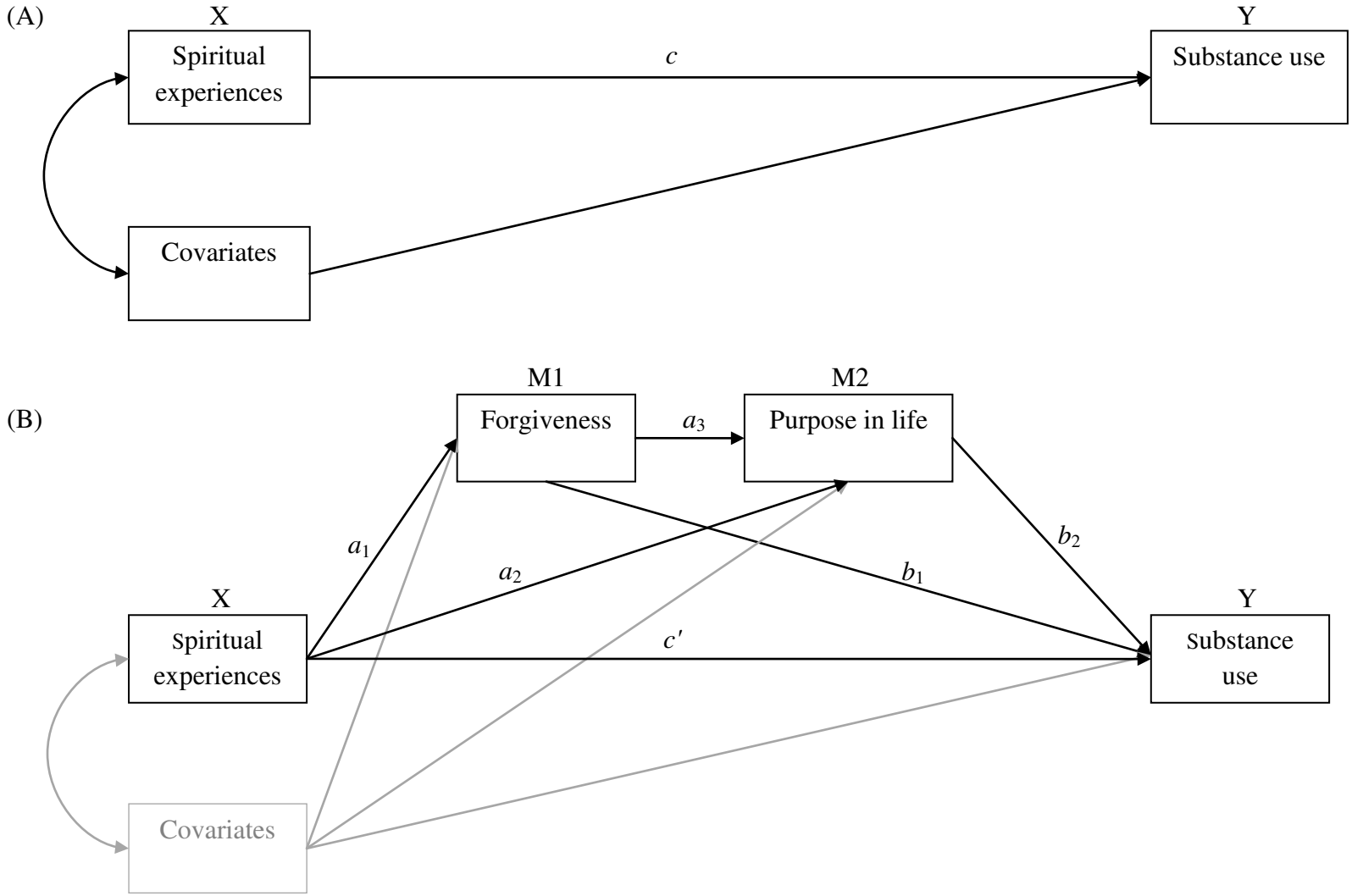

Figure 6. Multi-step mediation modelling. (A) Spiritual experience may have a total effect on substance use (c); (B) Spiritual experience may have a direct effect (c') on substance use as well as an indirect effect through M1 (a_1b_1), M2 (a_2b_2), and/or M1*M2 ($a_1a_3b_2$).

Note: The covariate effects in (B) are faded to aid interpretation of the model. Figures are based on Hayes, Preacher and Myers (2010).

6.2.4.2 Longitudinal and Cross-Sectional Multi-Step Multiple Mediation Models Analysed

The previous multiple mediation results of Study 2 were based on cross-sectional data. One purpose of the current study (Study 3) was to replicate and extend on these multiple mediation results by determining if they were present longitudinally as well as cross-sectionally. Research has found that associations between spirituality, forgiveness and purpose in life differ for clients depending on where they are in their treatment. In particular, spirituality and forgiveness constructs are less likely to be associated at intake than at follow-up (Webb et al., 2006). Thus, cross-sectional multi-step multiple mediations were conducted both at intake and at follow-up. In addition, the Twelve Step and Christian approaches to treatment propose that growth in spirituality causes reductions in substance use via growth in psychological wellbeing. Thus, longitudinal multi-step multiple mediations were also used to determine whether change in spirituality operated on change in substance use via change in forgiveness and purpose in life. For these reasons cross-sectional (intake and follow-up) and longitudinal (intake to follow-up) multi-step multiple mediations were performed.

In total, 12 multi-step multiple mediation models were conducted (see Figures 7a-d) to explore whether substance use was predicted by a client's level of spirituality, forgiveness (self and other) and purpose in life. The first four models used intake data to explore the relationships between spirituality, forgiveness, purpose in life and substance use at treatment entry. The next four used only follow-up data to explore these relationships after treatment. The final four models were longitudinal and used intake and follow-up data to explore Hypothesis 3: that change in spiritual experiences would operate on change in substance use indirectly through changes in forgiveness of self and purpose in life. To capture change the follow-up time points of each construct were entered into the measurement model while the intake time points were entered as covariates. This method has been used in a similar study with substance abusers (see Webb et al., 2011). In addition, based on previous studies (Webb

et al., 2011; Allen & Lo, 2010) the following demographics were also entered as covariates in both the cross-sectional and longitudinal models: age (continuous), gender (0 = male; 1 = female), ethnicity (0 = Australian; 1 = Non-Australian[13]), primary substance of abuse (0 = alcohol; 1 = other), education (0 = Year 10 or less; 1 = Higher School Certificate; 2 = tertiary qualifications; 3 = university degree) employment status (0 = full/part-time; 1 = unemployed), marital status (0 = married; 1 = other), religious identity (0 = Christian; 1 = other). All models used spiritual experiences as the independent variable (X) and purpose in life as the second mediating variable (M2). To reduce multicollinearity, the data was centred prior to analyses. This was done by subtracting each construct's sample mean from the respective construct observed values (Singer & Willet, 2003; Heck, Thomas & Tabata, 2010).

[13] Ethnicity was collapsed into a dichotomised variable. "Australian" participants consisted of both Anglo-Australians (n = 197) and Indigenous Australians (n = 20) and represented 89.7% of the total sample. "Non-Australian" participants consisted of all other types of ethnicity (n = 25) and represented 10.3% of the total sample.

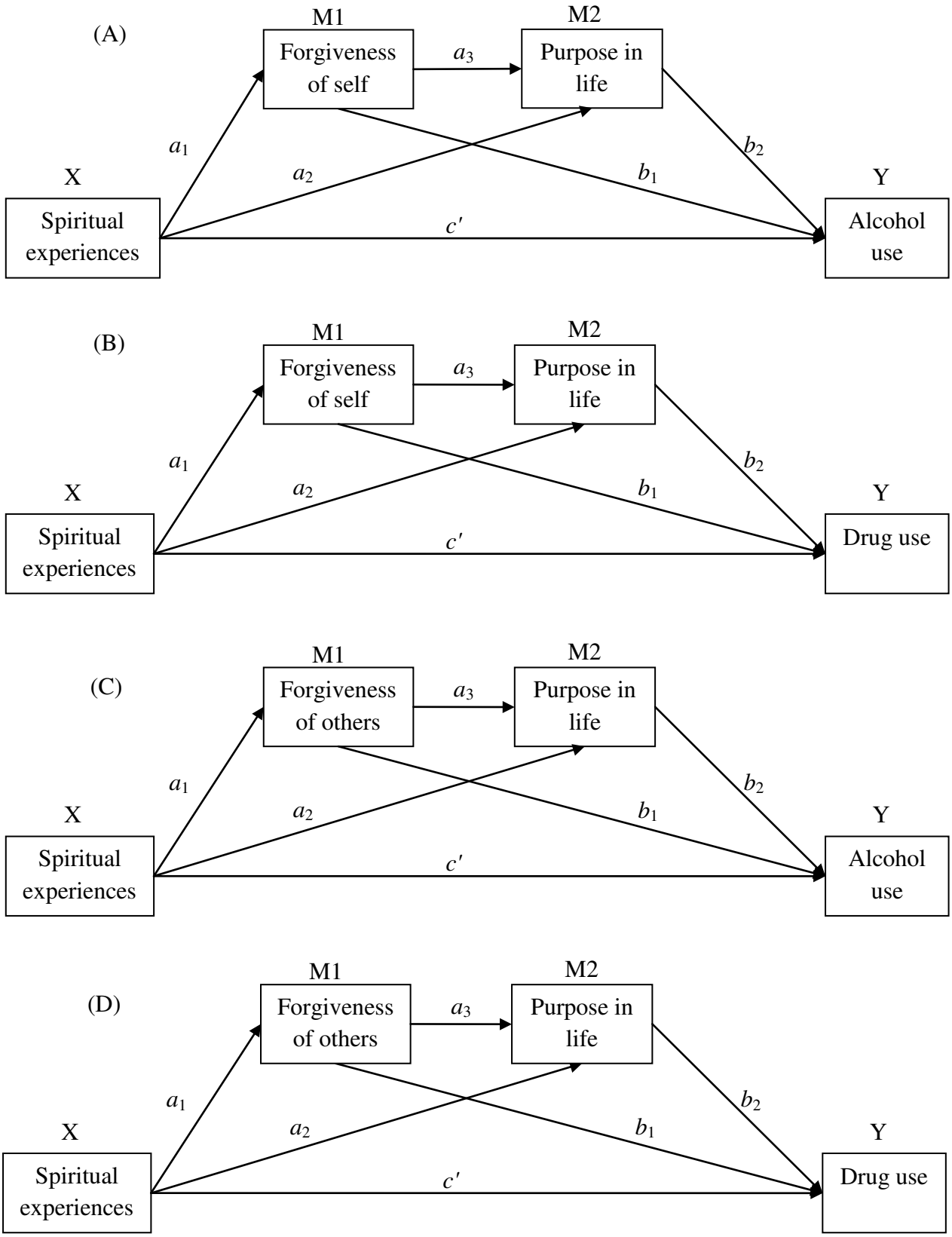

Figure 7. Multi-step multiple mediation models tested. Models A and B represent the indirect effect of forgiveness of self on the spirituality-recovery relationship; models C and D represent the indirect effect of forgiveness of others. Longitudinal models differed only from cross-sectional models by including intake measures as covariates. To simplify interpretation, these covariates are not presented.

6.3 RESULTS

Visual inspections of the variables' distributions showed that most variables were normally distributed. The only exceptions were days of alcohol use and days of drug use which were positively skewed at both intake and follow-up. Transformations failed to correct these violations of normality so non-parametric tests were used as required.

6.3.1 The Influence of Participant Demographics on Post-Treatment Abstinence

At the three month follow-up, 114 (47.1%) participants had been completely abstinent from alcohol and drugs in the 30 days prior to follow-up, while 128 participants (52.9%) had used substances at least once in the 30 days before follow-up. Independent sample t-tests and chi square analyses were used to explore whether participants' demographics were associated with participants post-treatment abstinence status (abstained vs. lapsed). No significant differences in age (t (240) = -.254, p = .80), gender (χ^2 (1) = .366, p = .54), education history (χ^2 (3) = 2.66, p = .45), primary substance of abuse (χ^2 (4) = .095, p = .71), marital status (χ^2 (2) = .088, p = .393), employment status (χ^2 (7) = .167, p = .469), days in treatment (t (240) = 1.15, p = .13) or number of previous treatment episodes (t (237) = .937, p = .35) were found between the groups. Only ethnicity was associated with abstinence status, with higher post-discharge lapses seen among non-Australian (80%) than Australian (49.8%) participants, χ^2 (2) = .187, p = .01. Non-Australian participants were 4.04 times more likely to lapse after treatment than Australian participants.

6.3.2 Correlations at Intake, Follow-Up and between Intake and Follow-Up

Correlations at intake (Table 10) demonstrated that spiritual experiences, forgiveness types and purpose in life were all positively correlated at low to moderate levels (r = .18 to .48, p < .01); however, though alcohol and drug use were correlated with each other (*rho* = .17, p < .05) they were not correlated with any other variables at intake.

Table 10. Correlations at intake

	1	2	3	4	5	6
1. Daily spiritual experience	-					
2. Forgiveness of self	.28**	-				
3. Forgiveness of others	.22**	.24**	-			
4. Purpose in life	.45**	.48**	.18**	-		
5. Alcohol use (past 30 days) [a]	-.02	-.08	.00	-.11	-	
6. Illicit drug use (past 30 days) [a]	-.03	-.05	.04	-.00	.17*	-

* = $p < .05$, ** = $p < .01$; Pearson's r (n = 176 to 242), [a] Spearmen's *rho* (n = 100 to 239)

At follow-up (Table 11), spiritual experiences, forgiveness types, and purpose in life were again all significantly correlated (r = .26 to .44, $p < .01$) but, in contrast to the intake correlations, follow-up levels of alcohol and drug use were correlated with each other (*rho* = .41, $p < .01$) and with spirituality, forgiveness of self, and purpose in life (*rho* = -.15 to -.26, $p < .05$ to .01).

Table 11. Correlations at follow-up

	1	2	3	4	5	6
1. Daily spiritual experience	-					
2. Forgiveness of self	.28**	-				
3. Forgiveness of others	.20**	.34**	-			
4. Purpose in life	.44**	.37**	.26**	-		
5. Alcohol use (past 30 days)[a]	-.21**	-.18**	-.05	-.26**	-	
6. Drug use (past 30 days)[a]	-.15*	-.16*	-.03	-.27**	.41**	-

* = $p < .05$, ** = $p < .01$; Pearson's r (n = 176 to 242), [a] Spearmen's *rho* (n = 233 to 240)

Finally, there were few significant correlations between intake and follow-up scores (Table 12). Forgiveness types at intake were correlated at low levels with themselves at follow-up (r = .14 to .20, p < .05 to .01). The same pattern was seen for spiritual experiences (r = - .22, p < .01) and drug use (rho = .29, p < .01). Drug use at intake was also correlated at low levels with follow-up levels of spiritual experiences (rho = - .19, p < .05).

Table 12. Correlations between intake and follow-up

	Follow-up scores					
Intake scores	1	2	3	4	5[a]	6[a]
1. Daily spiritual experience	.22**	.15*	.05	.08	-.07	.04
2. Forgiveness of self	.06	.20**	.03	.15*	-.07	-.07
3. Forgiveness of others	.09	.14*	.20**	.05	-.07	.04
4. Purpose in life	.03	.11	-.06	.10	.04	.01
5. Alcohol use (past 30 days)[a]	.11	-.02	-.07	-.01	.09	-.02
6. Drug use (past 30 days)[a]	-.19*	.05	-.05	-.03	.16	.29**

* = p < .05, ** = p < .01; Pearson's r (n = 175 to 242), [a] Spearman's rho (n = 140 to 242)

6.3.3 Cross-sectional Differences in Spirituality, Forgiveness, and Purpose in Life as a Function of Post-Treatment Abstinence

A multivariate analysis of variance (MANOVA) was used to determine if intake and follow-up levels of daily spiritual experiences, forgiveness (self and other), and purpose in life differed between those who were abstinent at follow-up and those who had lapsed. The independent variable consisted of abstinence status (abstinent vs. lapsed). Intake and follow-up scores of daily spiritual experiences, forgiveness of self, forgiveness of others, and purpose in life were entered as the dependent variables. Means and standard deviations are presented in Table 13. Equality of variance was supported for all constructs (p > .05).

Results showed a significant overall effect of abstinence status on the combined dependent variables, F (8, 201) = 2.26, p = .02, partial η^2 = .08, Wilks' Lamda = .92. Individual analyses of the dependent variables using a Bonferroni adjusted alpha of .006 found no significant differences in intake scores (p > .05), but some significant differences in follow-up scores. Specifically, those who abstained from substance use had significantly greater follow-up levels of daily spiritual experiences, F (1, 209) = 12.66, p < .001, partial η^2 = .06, and purpose in life, F (1, 209) = 9.46, p = .002, partial η^2 = .04. Also, differences in follow-up self-forgiveness scores were approaching significance, F (1, 209) = 4.55, p = .03, partial η^2 = .02. Follow-up levels of forgiveness of others did not significantly differ as a function of abstinence status, F (1, 209) = .12, p = .73.

6.3.4 Change over Time in Spirituality, Forgiveness, and Purpose in Life

Repeated measures t-tests were used to determine whether daily spiritual experiences, forgiveness of self, forgiveness of others, and purpose in life significantly changed from intake to follow-up. Homogeneity of variances and assumptions of normality were met for all variables. As shown in Table 13, daily spiritual experiences (t (233) = -2.29, p = .02), forgiveness of self (t (230) = -6.24, p < .001), forgiveness of others (t (235) = -3.87, p < .001), and purpose in life (t (228) = -2.48, p = .01) were significantly higher at follow-up than intake. Wilcoxon matched-pairs tests explored differences over time for variables that were not normally distributed. Significant differences were shown between alcohol use at intake and follow-up (z = - 5.61, < .001, r = -.36) and also between drug use at intake and follow-up (z = - 5.04, < .001, r = -.42). In short, all constructs increased significantly from intake to follow-up. Cohen's d effect sizes, which indicate the difference between two means in standardised units, are also presented in Table 13. Values of .20 indicate a small effect; .50 a medium effect; and .80 a large effect of the condition on the group means (Cohen, 1969).

Table 13. Mean Differences from intake to follow-up

	Intake	Follow-up		
	Mean (SD)	Mean (SD)	*d*	*n*
Daily spiritual experiences	47.53 (16.87)	50.97 (19.74)	-.21**	234
Forgiveness of self	24.74 (5.61)	27.81 (6.17)	-.58**	231
Forgiveness of others	27.39 (6.38)	29.39 (6.12)	-.36**	236
Purpose in life	20.20 (4.05)	21.13 (4.41)	-.23**	229
Alcohol use (past 30 days)	9.27 (8.97)	4.93 (8.41)	.52**	237
Illicit Drug us (past 30 days)	10.47 (14.90)	3.91 (9.08)	.65**	144

N = 242; ** = $p < .001$

6.3.5 Differences in Changes in Spirituality, Forgiveness, and Purpose in Life as a Function of Abstinence

A multivariate analyses of variance (MANOVA) with a Bonferroni corrected alpha value of .0125 was used to explore whether *change* in spiritual experiences, forgiveness (self and other), and purpose in life differed as a function of post-treatment abstinence (abstinent vs. lapsed). Change was measured via standardised residual change scores. These standardised residual change scores were used as the dependent variables while abstinence status (abstinent vs. lapsed) was used as the independent variable. Homogeneity of variance and assumptions of normality were met for all variables.

Result found a significant overall effect of abstinence status on the dependent variables, F (1, 209) = 4.23, p = .002, partial η^2 = .08, Wilks' Lamda = .92. Between subjects analyses found that participants who abstained from substance use at follow-up experienced significantly greater change from intake to follow-up in daily spiritual experiences, F (1, 209) = 11.95, p = .001, partial η^2 = .05, and purpose in life, F (1, 209) = 9.54, p = .002, partial η^2 = .04. Differences in forgiveness of self also approached significance, F (1, 209) = 5.08, p = .02, partial η^2 = .02 (Table 14).

Table 14. Differences in change scores as a function of abstinence status (abstinent vs. lapsed)

	Abstinent			Lapsed		
	Intake	Follow-up	*d*	Intake	Follow-up	*d*
Spiritual experiences	47.84 (16.65)	55.60 (20.14)	.48	46.25 (16.92)	46.14 (18.33)	.01
Simple change score	7.76			.11		
Standardised residual of change	.24 (1.03)*			- .23 (.93)		
Forgiveness of self	24.67 (5.52)	28.96 (5.54)	.88	24.96 (5.81)	26.18 (6.51)	.22
Simple change score	4.29			1.22		
Standardised residual of change	.19 (.93)			- .11 (1.02)		
Forgiveness of others	27.29 (6.57)	29.28 (6.89)	.34	27.30 (6.06)	28.99 (5.32)	.34
Simple change score	1.99			1.69		
Standardised residual of change	-.01 (1.12)			- .06 (.88)		
Purpose in life	20.12 (4.15)	21.98 (4.47)	.49	20.14 (3.89)	20.15 (4.15)	.00
Simple change score	1.86			.001		
Standardised residual of change	.20 (1.01) *			- .22 (.94)		

n (abstinent) = 104; n (lapsed) = 106

* abstinent standardised residual of change is significantly different from the corresponding lapsed value = $p < .0125$

Note: Values in parentheses are standard deviations

6.3.6 Intake Multi-Step Multiple Mediation Models

The results of the cross-sectional multi-step mediation models for intake (Models A through D) are shown in Figure 8 and Tables 15 and 16. Daily spiritual experiences predicted forgiveness of self, forgiveness of others, and purpose in life in all models. In turn, with exception of Model D which tested the direct and indirect relationships between daily spiritual experiences and drug use in the 30 days prior to intake, forgiveness of self and forgiveness of others predicted purpose in life (Figure 8 and Table 15). However, neither daily spiritual experiences, the forgiveness constructs, nor purpose in life predicted alcohol or drug use at intake (Figure 8 and Table 15). The use of bootstrapped 95% confidence intervals also did not reveal any indirect effects of forgiveness types or purpose in life on the relationship between daily spiritual experiences and alcohol or drug use (see Table 16).

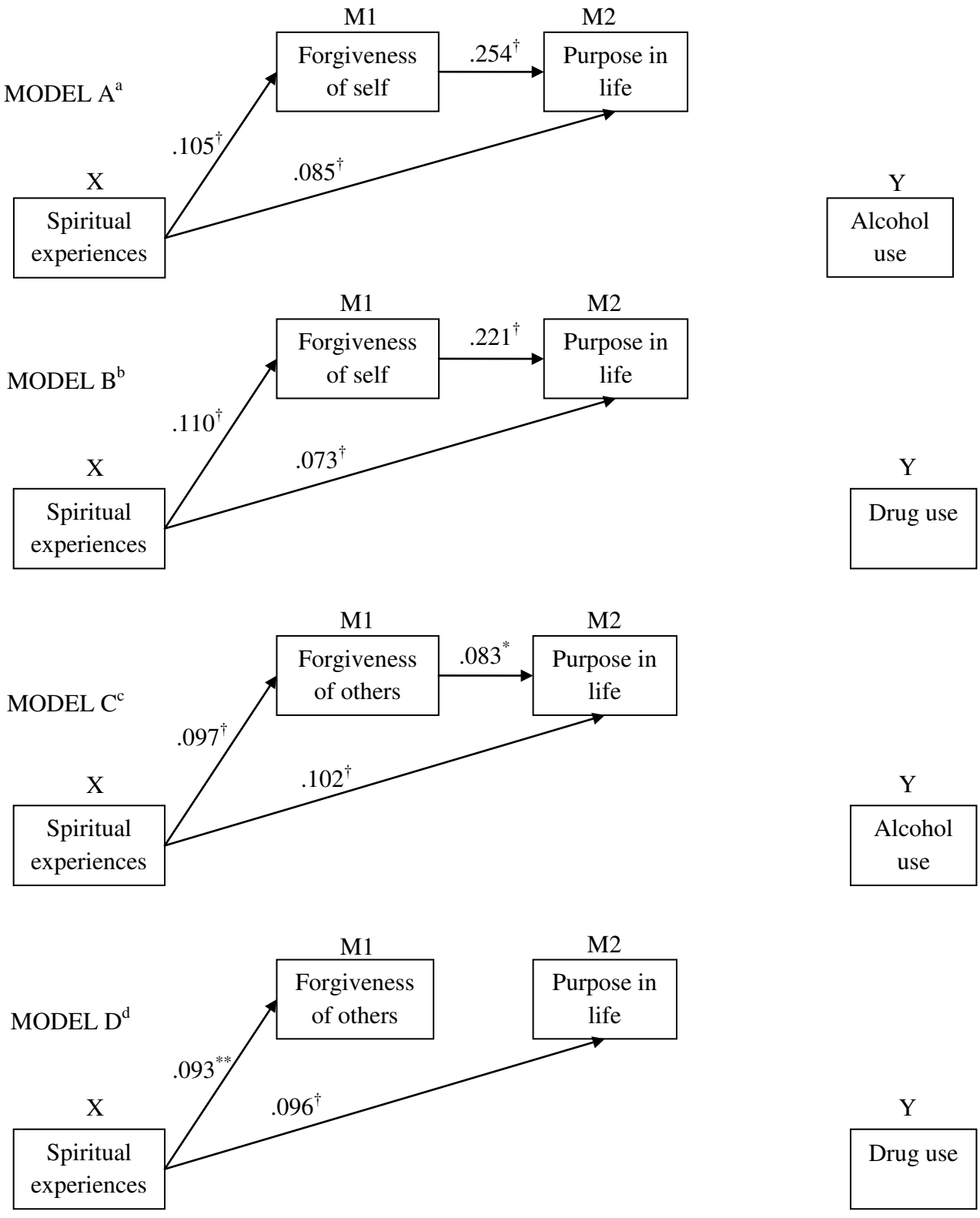

Figure 8. Cross-sectional multi-step multiple mediation results testing the indirect effects of spiritual experiences on alcohol and drug use at intake

* = $p < .05$; ** = $p < .01$; † = $p < .001$; [a]$n = 214$, [b]$n = 134$, [c]$n = 220$; [d]$n = 139$

Table 15. Multi-step multiple mediation pathway estimates at intake

	Dependent variable (Y)	M1	M2	Pathway coefficients						
				a_1	a_2	a_3	b_1	b_2	c	c'
Model A[a]	Alcohol use	Forgiveness of Self	Purpose in Life	.105[†]	.085[†]	.254[†]	-.081	-.178	.026	.028
Model B[b]	Drug use	Forgiveness of Self	Purpose in Life	.110[†]	.073[†]	.221[†]	-.119	-.010	.113	.136
Model C[c]	Alcohol use	Forgiveness of others	Purpose in Life	.097[†]	.102[†]	.083[*]	-.063	-.191	-.032	-.005
Model D[d]	Drug use	Forgiveness of others	Purpose in Life	.093[**]	.096[†]	.067	.267	-.149	.081	.072

[*] = $p < .05$, [**] = $p < .01$; [†] = $p < .001$; [a]$n = 214$, [b]$n = 134$, [c]$n = 220$; [d]$n = 139$

Notes: The independent variable (X) for each model is daily spiritual experiences.

Table 16. Multi-step multiple mediation bootstrapped indirect effects at intake

				Bootstrap lower & upper 95% confidence intervals		
	Dependent variable (Y)	M1	M2	Indirect Effect of M1 (a_1b_1)	Indirect Effect of M2 (a_2b_2)	Indirect Effect of M1 & M2 ($a_1a_3b_2$)
Model A[a]	Alcohol use	Forgiveness of Self	Purpose in Life	-.008 [-.038, .020]	- .015 [-.051, .018]	- .005 [-.018, .005]
Model B[b]	Drug use	Forgiveness of Self	Purpose in Life	-.013 [-.067, .034]	- .007 [-.062, .041]	- .002 [-.025, .015]
Model C[c]	Alcohol use	Forgiveness of others	Purpose in Life	-.006 [-.030, .013]	- .020 [-.060, .016]	- .002 [-.006, .001]
Model D[d]	Drug use	Forgiveness of others	Purpose in Life	.025 [-.011, .072]	- .014 [-.072, .042]	-.001 [-.007, .004]

[a]n = 214, [b]n = 134, [c]n = 220; [d]n = 139

Notes: The independent variable (X) for each model is daily spiritual experiences.

6.3.7 Follow-Up Multi-Step Multiple Mediation Models

The results for the follow-up multi-step mediation models (Models E through H) are shown in Figure 9 and Tables 17 and 18. Daily spiritual experiences predicted forgiveness of self, forgiveness of others and purpose in life in all models. Forgiveness of self and forgiveness of others also consistently predicted purpose in life but did not predict alcohol or drug use. Purpose in life consistently predicted alcohol use and drug use (Figure 8 and Table 17). Bootstrapped 95% confidence intervals (see Table 18) demonstrated that daily spiritual experiences *did not* operate on alcohol or drug use indirectly through forgiveness of self (Alcohol: B = .005, 95% CI [- .015, .025], Drug: B = .011, 95% CI [- .040, .010]) or forgiveness of others (Alcohol: B = .004, 95% CI [- .007, .018], Drug: B = .006, 95% CI [- .006, .022]). Rather, it was consistently shown that the relationship between daily spiritual experiences and alcohol and drug use operated indirectly through purpose in life. Furthermore, the effect of daily spiritual experiences on alcohol use was mediated by the combined effect of forgiveness of *self* and purpose in life (B = - .010, 95% CI [- .018, - .003]), whereas the relationship between daily spiritual experiences and drug use was mediated by the combined effect of forgiveness of *others* and purpose in life (B = - .004, 95% CI [- .011, - .001]). In all cross-sectional models the total effect of daily spiritual experiences on substance use constructs (*c*) became non-significant when the mediating variables were entered into the model (*c'*); indicating that full mediation had occurred.

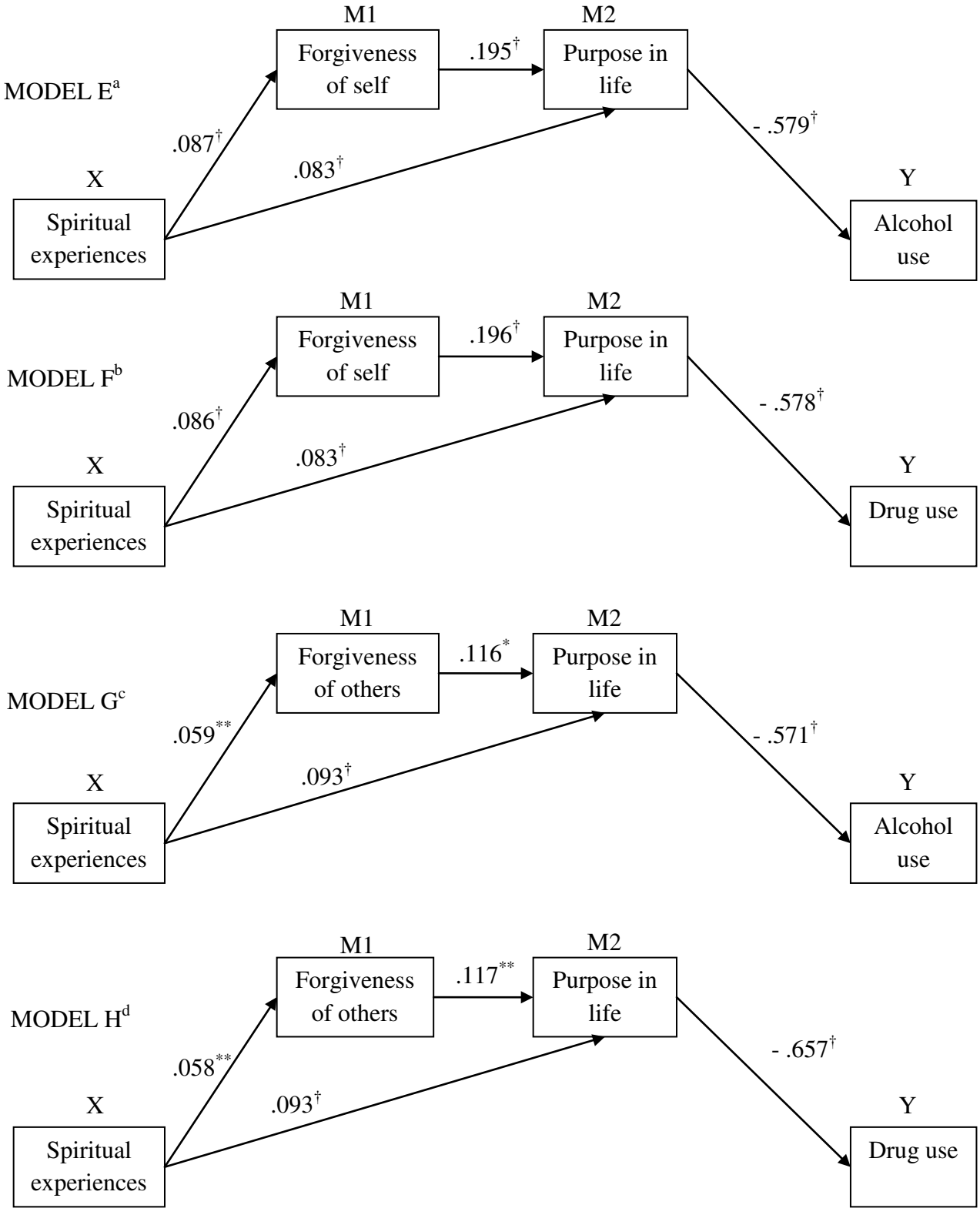

Figure 9. Cross-sectional multi-step multiple mediation results demonstrating the indirect effects of spiritual experiences on alcohol and drug use at follow-up

* = $p < .05$; ** = $p < .01$; † = $p < .001$; [a]$n = 226$, [b]$n = 226$, [c]$n = 225$; [d]$n = 225$

Table 17. Multi-step multiple mediation pathway estimates at follow-up

	Dependent variable (Y)	M1	M2	Pathway coefficients						
				a_1	a_2	a_3	b_1	b_2	c	c'
Model E[a]	Alcohol use	Forgiveness of Self	Purpose in Life	.087†	.083†	.195†	.057	-.579†	-.087**	-.034
Model F[b]	Drug use	Forgiveness of Self	Purpose in Life	.086†	.083†	.196†	-.129	-.578†	-.081*	-.013
Model G[c]	Alcohol use	Forgiveness of others	Purpose in Life	.059**	.093†	.116*	.072	-.571†	-.088**	-.035
Model H[d]	Drug use	Forgiveness of others	Purpose in Life	.058**	.093†	.117**	.103	-.657†	-.082*	-.022

$^{*} = p < .05$, $^{**} = p < .01$; $^{\dagger} = p < .001$; [a]$n = 226$, [b]$n = 226$, [c]$n = 225$; [d]$n = 225$

Notes: The independent variable (X) for each model is daily spiritual experiences.

Table 18. Multi-step multiple mediation bootstrapped indirect effects at follow-up

				Bootstrap lower & upper 95% confidence intervals		
	Dependent variable (Y)	M1	M2	Indirect Effect of M1 (a_1b_1)	Indirect Effect of M2 (a_2b_2)	Indirect Effect of M1 & M2 ($a_1a_3b_2$)
Model E[a]	Alcohol use	Forgiveness of Self	Purpose in Life	.005 [-.015, .025]	- .048 [-.087, -.020]	- .010 [-.018, -.003]
Model F[b]	Drug use	Forgiveness of Self	Purpose in Life	.011 [-.040, .010]	- .048 [-.083, -.020]	- .010 [-.020, .003]
Model G[c]	Alcohol use	Forgiveness of others	Purpose in Life	.004 [- .007, .018]	- .053 [-.092, -.024]	- .004 [-.010, .000]
Model H[d]	Drug use	Forgiveness of others	Purpose in Life	.006 [-.006, .022]	- .061 [-.10, -.027]	-.004 [-.011, -.001]

[a]n = 226, [b]n = 226, [c]n = 225; [d]n = 225

Notes: The independent variable (X) for each model is daily spiritual experiences.

6.3.8 Longitudinal Multi-Step Multiple Mediation Models

In all four longitudinal multi-step multiple mediation models (Models I to L, Figure 10 and Tables 19 and 20) change in spiritual experiences predicted change in forgiveness of self, forgiveness of others, and purpose in life, while change in purpose in life predicted change in alcohol and drug use (Figure 10 and Table 19). Furthermore, both alcohol use models (Figure 10, Model I and K) also demonstrated that change in forgiveness of self and forgiveness of others predicted change in purpose in life (Table 19). Bootstrapping results (Table 20) for the first longitudinal multi-step multiple mediation model (Model I), which tested the relationship between change in spiritual experiences, forgiveness of self and purpose in life on change in alcohol use, demonstrated a significant indirect effect through change in purpose in life (B = - .039, 95% CI [- .078, - .010]) and through change in forgiveness of self and purpose in life combined (B = - .007, 95% CI [- .014, - .001]). Similarly, bootstrapping results for the second model (Figure 10, Model J), which tested the relationships of change in spiritual experiences, forgiveness of self and purpose in life on change in illicit drug use, found a significant indirect effect only through purpose in life (B = - .066, 95% CI [- .120, - .018]). In relation to the third model (Figure 10, Model K), which tested the relationship between change in spiritual experiences, forgiveness of others and purpose in life on alcohol use, only a significant indirect effect through change in purpose in life was found (B = - .040, 95% CI [- .077, - .012]). Finally, in relations to the final model (Figure 10, Model D), which tested the relationship between change in spiritual experiences, forgiveness of others and purpose in life on drug use, an indirect effect was only seen through purpose in life (B = - .068, 95% CI [- .119, - .014]). In all longitudinal models the significant indirect effects fully mediated the relationship between change in daily spiritual experiences and change in alcohol or drug use.

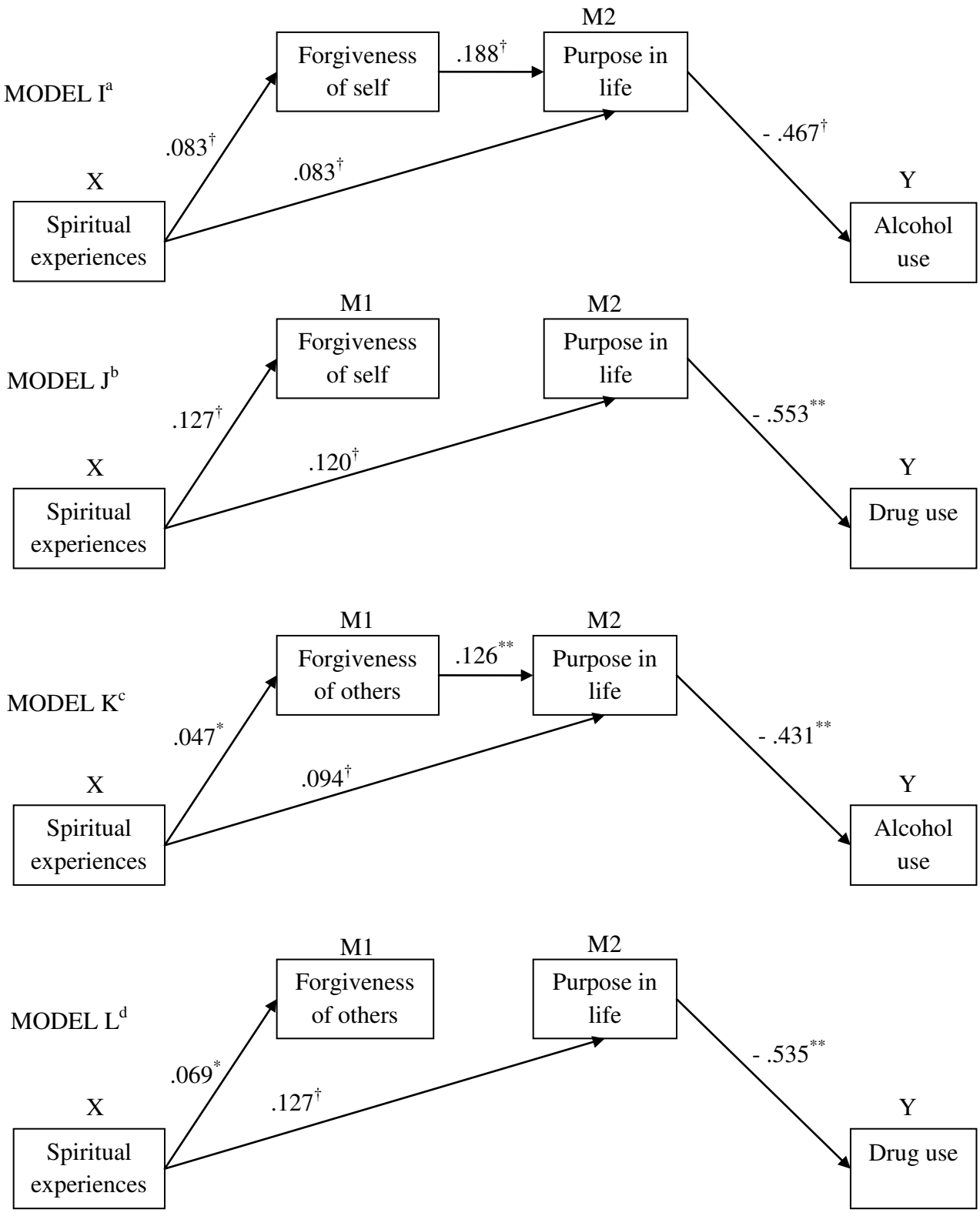

Figure 10. Longitudinal multi-step multiple mediation results demonstrating the indirect effects of change in spiritual experiences on change in alcohol and drug use.

* = $p < .05$; ** = $p < .01$; † = $p < .001$; [a]$n = 204$, [b]$n = 126$, [c]$n = 209$; [d]$n = 131$

Table 19. Longitudinal multi-step multiple mediation pathway estimates.

	Dependent variable (Y)	M1	M2	Pathway coefficients						
				a_1	a_2	a_3	b_1	b_2	c	c'
Model I[a]	Alcohol use	Forgiveness of Self	Purpose in Life	.083†	.083†	.188†	.064	-.467†	-.068**	-.028
Model J[b]	Drug use	Forgiveness of Self	Purpose in Life	.127†	.120†	.079	.020	-.553**	-.088**	-.018
Model K[c]	Alcohol use	Forgiveness of others	Purpose in Life	.047*	.094†	.126**	.099	-.431**	-.078**	-.039
Model L[d]	Drug use	Forgiveness of others	Purpose in Life	.069*	.127†	.105	.007	-.535**	-.084*	-.012

$^{*} = p < .05$, $^{**} = p < .01$; $^{\dagger} = p < .001$; [a]$n = 204$, [b]$n = 126$, [c]$n = 209$; [d]$n = 131$

Notes: The independent variable (X) for each model is daily spiritual experiences. Variables represents change from intake to follow-up

Table 20. Longitudinal multi-step multiple mediation bootstrapped indirect effects

				Bootstrap lower & upper 95% confidence intervals		
	Dependent variable (Y)	M1	M2	Indirect Effect of M1 (a_1b_1)	Indirect Effect of M2 (a_2b_2)	Indirect Effect of M1 & M2 ($a_1a_3b_2$)
Model I[a]	Alcohol use	Forgiveness of Self	Purpose in Life	.005 [-.015, .026]	- .039 [-.078, -.010]	- .007 [-.014, -.001]
Model J[b]	Drug use	Forgiveness of Self	Purpose in Life	.002 [-.039, .051]	- .066 [-.120, -.018]	- .006 [-.021, .002]
Model K[c]	Alcohol use	Forgiveness of others	Purpose in Life	.005 [- .004, .016]	- .040 [-.077, -.012]	- .003 [-.007, .000]
Model L[d]	Drug use	Forgiveness of others	Purpose in Life	.000 [-.021, .019]	- .068 [-.119, -.014]	-.004 [-.015, .000]

[a]n = 204, [b]n = 126, [c]n = 209; [d]n = 131

Notes: The independent variable (X) for each model is daily spiritual experiences. Variables represents change from intake to follow-up

6.3.8.1 Post-hoc multiple mediation analyses: Determining whether the indirect effect of purpose in life is greater than the indirect effect of the forgiveness constructs

The multi-step multiple mediation analyses demonstrated that purpose in life mediated the relationship between daily spiritual experiences and alcohol and drug use. Post-hoc multiple mediation analyses were conducted to determine whether the indirect effect of change in purpose in life on the change in daily spiritual experiences–substance use relationship was significantly greater than the indirect effect of change in forgiveness of self and change in forgiveness of others. Two post-hoc models were analysed. In each model follow-up DSES was entered as the independent variable and follow-up HFS, HFO and LET were entered as the mediating variables. Follow-up alcohol use and drug use were entered as the dependent variable in the first and second post-hoc model respectively. As with the previous multi-step multiple mediations, age, gender, ethnicity, primary substance of abuse, education employment status, marital status, and religious identity were entered as covariates. Intake alcohol, drug use, HFS, HFO, LET and DSES scores were also entered as covariates to capture change in these constructs. Bootstrapped 95% confidence intervals demonstrated that change in purpose in life had a significantly greater indirect effect on the spiritual experience-alcohol use relationships than change in forgiveness of self (B = - .042, 95% CI [- .097, - .003]) and change in forgiveness of others (B = - .045, 95% CI [- .094, - .014]). No significant difference was found between the indirect effect of change in forgiveness of self and change in forgiveness of others on change in alcohol use (B = - .003, 95% CI [- .039, .022]). The same results were found in the second post-hoc analysis. Change in purpose in life had a significantly greater indirect effect on the spiritual experience-drug use relationships than change in forgiveness of self (B = - .068, 95% CI [- .147, - .005]) and change in forgiveness of others (B = - .071, 95% CI [- .144, - .017]). No significant difference was found between the indirect effect of change in forgiveness of self and change

Table 21. Post-hoc multiple mediation analyses contrasting the indirect effect of change in purpose in life on change in alcohol use against the indirect effect of change in forgiveness of self and change in forgiveness of others

Dependent Variable (DV)	Mediator (M)	Effect of IV[a] on M	Effect of M on DV	Bootstrapping		
				Indirect Effect	95% Confidence Interval (CI)	
		a	*b*	*ab*	Lower	Upper
Alcohol use	Purpose in Life	.093†	- .437**	- .040*	- .084	- .012
	Forgiveness of Self	.083†	.012	.001	- .022	.024
	Forgiveness of Others	.047*	.103	.005	- .003	.024

	Indirect Effect Variable 1	Indirect Effect Variable 2	Indirect Effect (*ab*)	95% Confidence Interval (CI)	
				Lower	Upper
Contrast 1	Purpose in Life	Forgiveness of Self	- .042*	- .097	- .003
Contrast 2	Purpose in Life	Forgiveness of Others	- .045*	- .094	- .014
Contrast 3	Forgiveness of Self	Forgiveness of Others	- .003	- .039	.022

* $p < .05$, ** $p < .01$, † $p < .001$; $R^2 = .15^{*}$; [a] = daily spiritual experiences

Note: coefficients are unstandardized

Table 22. Post-hoc multiple mediation analyses contrasting the indirect effect of change in purpose in life on change in drug use against the indirect effect of change in forgiveness of self and change in forgiveness of others

Dependent Variable (DV)	Mediator (M)	Effect of IV[a] on M	Effect of M on DV	Bootstrapping		
				Indirect Effect	95% Confidence Interval (CI)	
		a	*b*	*ab*	Lower	Upper
Drug use	Purpose in Life	.124†	- .580**	- .072*	- .141	- .025
	Forgiveness of Self	.128†	- .030	- .004	- .059	.039
	Forgiveness of Others	.067**	- .013	- .001	- .028	.018

	Indirect Effect Variable 1	Indirect Effect Variable 2	Indirect Effect (*ab*)	95% Confidence Interval (CI)	
				Lower	Upper
Contrast 1	Purpose in Life	Forgiveness of Self	- .068*	- .147	- .005
Contrast 2	Purpose in Life	Forgiveness of Others	- .071*	- .144	- .017
Contrast 3	Forgiveness of Self	Forgiveness of Others	- .003	- .067	.050

* $p < .05$, ** $p < .01$, † $p < .001$; $R^2 = .24^{*}$; [a] = daily spiritual experiences

Note: coefficients are unstandardized

in forgiveness of others on change in drug use (B = - .003, 95% CI [- .067, .050]). Change in purpose in life fully mediated the relationship between change in spiritual experiences and change in alcohol use (c = - .067, p = .027; c' = - .032, p = .327) and change in drug use (c = - .102, p = .026; c' = - .025, p = .639). Tables 21 and 22 present the details of these post-hoc analyses.

6.4 DISCUSSION

Study 2 found that the relationship between daily spiritual experiences and purpose in life was mediated by forgiveness of self but not forgiveness of others. The purpose of Study 3 was to validate and further investigate these relationships. One aim of the study was to determine if these relationships were present cross-sectionally and longitudinally – that is, at treatment entry, three month follow-up, and from intake to follow-up. Secondly, the study also aimed to determine whether purpose in life predicted lower substance use. It was hypothesised that: a) that there would be significant increases from intake to follow-up in daily spiritual experiences, forgiveness types, purpose in life and significant decreases in substance use; b) that participants who lapsed would have significantly less change from intake to follow-up in spiritual experiences, forgiveness types and purpose in life and significantly greater levels in these constructs at follow-up; and c) that change in spiritual experiences from intake to follow-up would operate indirectly on change in substance use via changes in forgiveness of self and purpose in life.

The first hypothesis was supported. From intake to follow-up, spiritual experiences, forgiveness of self, forgiveness of others, and purpose in life significantly increased while alcohol and drug use significantly decreased. These results are consistent with previous research (Robinson et al., 2007, 2011; Sterling et al., 2007; Piderman et al., 2007; Piedmont, 2004; Webb et al., 2006). However, because there was no control group and because data was only collected at intake and follow-up causality could not be determined. It is unclear

whether these changes occurred during treatment, after discharge or across both periods. This raises further questions regarding the stability of such changes. Specifically, whether changes that occurred during treatment remain stable, continue to improve, or decline after discharge. However, the effect sizes shown in Table 13 indicate that there were significant small to moderate effects on daily spiritual experiences, forgiveness (self and others), purpose in life, and substance use behaviours over the treatment and follow-up period.

The results from the MANOVAs partially supported the study's second hypothesis. Though spiritual experiences, forgiveness types and purpose in life were the same at *intake* for all clients, irrespective of post-treatment abstinence, there was a significant difference in the amount of *growth* and the level of these constructs at the 3 month *follow-up*. Those who maintained abstinence experienced significantly greater change in spiritual experiences and purpose in life from intake to follow-up and had significantly higher levels after discharge. This is supportive of previous studies showing greater spirituality and purpose in life (Robinson et al., 2007; Sterling et al., 2007; Zemore, 2007; Kaskutas et al., 2003) and changes in spirituality (Connor et al., 2008; Robinson et al., 2011; 2007) to be positively associated with recovery outcomes.

Interestingly, the results for the forgiveness constructs were different. Forgiveness of self – which increased significantly from intake to follow-up for all participants – was just short of being significantly associated with abstinence at follow-up. In fact, if Bonferroni corrected alphas were not used in the analyses then the difference between abstainers' and lapsers' growth in self-forgiveness would have been significant; with significantly greater levels seen in those who abstained. Therefore, though there may be a positive relationship

between growth in self-forgiveness and abstinence, the data suggests that the magnitude of this relationship is likely to be small and needs to be clarified by further research[14].

Unlike forgiveness of self, the relationship between change in forgiveness of others and post-treatment abstinence was clearly non-significant. All clients experienced the same amount of growth in forgiveness of others, regardless of whether they used substances after treatment or not. This suggests that forgiveness of others may not be as relevant to abstinence as proposed by the Twelve Step and Christian theories. Instead, because forgiveness of self was more closely associated with abstinence the results indicate that forgiveness of self (and potentially the psychological constructs it addresses, such as shame, guilt and self-directed resentment) may be more relevant to abstinence based recovery outcomes. This is also supported by the cross-sectional results of Study 2 and previous research (Webb et al., 2006; Robinson et al., 2011). Thus, the importance of forgiveness of self in the recovery process over forgiveness of others is becoming an increasingly prominent theme and consistent finding in the empirical literature.

It should be noted that though these results imply that the development of daily spiritual experiences and purpose in life lead to improved abstinence, causality has not been demonstrated. It is possible that the results represent an overall improvement in participants' wellbeing rather than a sequence of psychological growth that is linked through causal mechanisms. Nevertheless, the results do demonstrate that clients who remain abstinent three-months after treatment tend to experience significantly greater improvements in spiritual and psychological wellbeing than those who lapse.

[14] The results of the multi-step multiple mediation analyses provide some clarification to the relationship between self-forgiveness and post-treatment substance use. These results are discussed below.

6.4.1 Multi-Step Multiple Mediation Results: Daily Spiritual Experiences and Forgiveness

The multi-step multiple mediation models demonstrated that daily spiritual experiences predict forgiveness of self, forgiveness of others (Figure 6, pathway a_1) and purpose in life (Figure 6, pathway a_2). This relationship was consistent both cross-sectionally (intake and follow-up) and longitudinally (intake to follow-up). Thus, it seems that daily spiritual experiences, forgiveness of self and others, and purpose in life are associated – with higher levels and growth in daily spiritual experiences predicting greater levels and growth in forgiveness of self, forgiveness others and purpose in life. This is consistent with the Twelve Step (AA. World Services Inc, 1981, 2001) and Christian (Boice, 1986; McGrath, 1997, Milne, 2009) perspectives on substance abuse which theorise that a re-connection with the transcendental leads to recovery via a process of transformation, which includes improvements in psychological wellbeing (such as forgiveness) and purpose in life.

Unlike the previous cross-sectional multiple mediation results in Study 2, the current multi-step multiple mediation models demonstrated that forgiveness of others could mediate the relationship between daily spiritual experiences and purpose in life. The Twelve Step (AA. World Services Inc, 1981, 2001) and Christian (Boice, 1986; McGrath, 1997, Milne, 2009) theories of substance abuse emphasise the role of learning to forgive others in the recovery process. Hence, though these results do not support the results found in Study 2 – that forgiveness of others does *not* mediate the relationship between daily spiritual experiences and purpose in life – they support the Twelve Step and Christian theory underlying the SFP model. However, it should also be noted that this relationship was not robust across all the multi-step multiple mediation models: being slightly more consistent at follow-up than intake and more frequent in the models that used alcohol use rather than drug use as the recovery variable. It was also shown that though forgiveness of others predicted

purpose in life it did not predict follow-up alcohol or drug use. Considering that there was no significant difference in forgiveness of others between those who lapsed after treatment and those who did not, these results are not surprising. Taken together, these results suggest that though forgiveness of others can increase from intake to follow-up and can mediate the relationship between daily spiritual experiences and purpose in life, it does not directly contribute to reduced substance use. It may also be more strongly associated with post-discharge purpose in life than intake purpose in life and more relevant in the treatment of alcohol use than illicit drug use.

Forgiveness of self, which emerged in Study 2 as being more important in predicting purpose in life than forgiveness of others, also regularly predicted purpose in life in Study 3. The finding that being more forgiving of oneself predicts greater purpose in life supports the previous cross-sectional multiple mediation results in Study 2 and further validates the theory that shame, guilt and self-directed anger may inhibit an individual from developing a purpose in life. However, as with forgiveness of others, forgiveness of self did not predict substance use. Thus, from these results it can be concluded that though forgiveness types can be positively influenced by a person's everyday spiritual experiences they do not directly contribute to lower substance use. Instead, based on this data, if forgiveness types do contribute to reduced substance use it is indirectly, via constructs such as purpose in life. It is also possible that these forgiveness types may be more directly related to alternate dimensions of spirituality and recovery not assessed in this study.

6.4.2 Multi-Step Multiple Mediation Results for Purpose in Life and Substance Use

The degree to which purpose in life actually predicted substance use varied slightly across the cross-sectional and longitudinal models. Specifically, at intake purpose in life did not predict alcohol or drug use but at follow-up and in the longitudinal models it did (Figure 6, pathway b_2). It also indirectly mediated the relationship between spiritual experiences and

alcohol and drug use (pathway a_2b_2) in all follow-up and longitudinal models. This suggests that purpose in life is not associated with a person's spirituality at treatment entry but is after discharge. One potential explanation for this is that the exposure to religious and spiritual teachings in a faith-based program has the effect of aligning one's purpose in life with their own developing spirituality. As a result, purpose in life not only becomes associated with their everyday spiritual experiences but acts as a mediator between these experiences and their ability to maintain lower levels of substance use after discharge. From a theological perspective this makes sense. As one feels connected and loved by God they feel guided to do "His" will, which may include maintaining sobriety.

Purpose in life may also operate on substance use in conjunction with forgiveness of self and forgiveness of others. This is demonstrated by the fact that in some of the follow-up (Table 18, Model E) and longitudinal models (Table 20, Model I) spiritual experiences operated on alcohol use through the combined effect of forgiveness of self and purpose in life (pathway $a_1a_3b_2$). Similarly, at follow-up the relationship between drug use and spiritual experiences also operated indirectly through a combined effect of forgiveness of others and purpose in life (Table 18, Model H). Thus, though these forgiveness constructs do not directly predict substance use their role in recovery cannot be completely disregarded. Rather, if they cause reductions in substance use it may be indirectly via purpose in life.

However, though indirect relationships have been demonstrated, the strength of these relationships may be weak. Within multi-step multiple mediation analyses an indirect effect is shown to be significant when zero is not contained within the ranges of the upper and lower bootstrapped confidence intervals. But, in the follow-up (Models E through H) and longitudinal (Models I through L) multi-step multiple mediation models the confidence intervals for the indirect effect of M1 through M2 (pathway $a_1a_3b_2$) only just crossed zero (see Tables 18 and 20). So these indirect effects were only just short of achieving

significance. In conjunction with this, many of the pathway estimates in the multi-step mediation models were quite low, so the results suggest that the relationships between these constructs may often be on the edge of significance. However, in spite of this, the results have partially supported the studies third hypothesis: that change in spiritual experiences would operate indirectly on change in substance use via changes in forgiveness of self and purpose in life. It has been shown that change in spiritual experiences predominantly operates on reduced substance use via changes in purpose in life (pathway a_2b_2) and through changes in forgiveness and then purpose in life (pathway $a_1a_3b_2$), but not through changes in forgiveness alone (pathway a_1b_1).

6.4.2 Limitations

This study has several limitations. Firstly, because Study 3 was part of a larger project implementing routine assessment protocols, the number of constructs used in its design was limited. Thus, it is unclear how other dimensions of forgiveness or spirituality operate on post-treatment substance use. In particular, Study 2 explored spiritual practices and beliefs as well as receiving forgiveness from others and God. Similarly, other constructs relevant to the results of Study 2 such as resentment, shame and guilt were not assessed. Thus, though forgiveness of self and others were shown to operate indirectly on substance use via purpose in life, it remains unclear exactly how and whether different types of forgiveness would operate in different ways. Other limitations are inherent in the design of this study. The lack of a control group means causal conclusions cannot be drawn and the use of only two time points means it cannot be said for certain that the effects seen in this study are due to participation in The Salvation Army's Bridge program. Though this study is based on the theory that spiritual experiences operate indirectly on substance use by promoting growth in forgiveness and through this purpose in life, this chain of causation cannot be confirmed with the current data. Because purpose in life emerged as the primary predictor of post-treatment

substance use it may be possible that this construct is the catalyst to such a chaining effect. Specifically, that the induction into the faith-based program gives a sense of purpose in life, which predicts spiritual experiences, forgiveness and reductions in substance use. Future research is needed to explore causality and the direction of the relationships found in this study as well as the role of other intervening variables, such as mental health (Webb et al., 2011).

6.4.3 Conclusions

This study has shown that clients receiving residential faith-based treatment can experience significant improvements in daily spiritual experiences, forgiveness of self, forgiveness of others and purpose in life, and that this development is associated with abstinence. Participants who remain abstinent after treatment experience significantly greater change in spiritual experiences and purpose in life during treatment and potentially greater improvements in forgiveness of self. Despite this relationship, the multi-step multiple mediation results demonstrated that substance abusers' everyday spiritual experiences have no *direct* impact on the frequency of post-treatment substance use. Rather, full mediation is present in that daily spiritual experiences operate *indirectly* on substance use through purpose in life, and only through forgiveness of self and forgiveness of others when their effect on purpose in life is also considered. That is, the results support the general theory of the SFP model that spiritual growth produces changes in forgiveness which allows the person to develop greater purpose in life and through this reduced substance use. Future research is required to prove causality in this chain and to explore the role that other dimensions of spirituality and types of forgiveness may have on recovery outcomes.

Chapter 7
Thesis Conclusion

7.1 THESIS AIMS AND RESEARCH

Faith-based substance abuse programs are one of the primary treatment options for individuals with substance abuse problems (Hester, 2002; McCoy et al., 2004). Many of these programs explicitly integrate spirituality into treatment (Sider & Unruh, 1999). Research suggests the development of spirituality contributes to improved recovery (Connor et al., 2008; Kaskutas et al., 2003; Robinson et al., 2011; Robinson et al., 2007; Sterling et al., 2007; Webb et al., 2006; Zemore, 2007), but how this spirituality-recovery relationship operates is unclear (Miller, 1998; Neff & MacMaster, 2005). Both forgiveness (Rye et al., 2000) and purpose in life (McKnight & Kashdan, 2009) are central to religion. Thus, the goal of this thesis was to determine if the relationship between spirituality and recovery from substance abuse operates indirectly through forgiveness and purpose in life.

Studies within this field often lack a guiding theoretical framework (Longshore et al., 2008) so an empirically testable model was developed as part of this thesis (Chapter 2 and 3). This was done by reviewing and comparing the Christian and Twelve Step perspectives of substance abuse. Forgiveness and purpose in life emerged as highly relevant to these perspectives yet relatively unexplored in the empirical literature. Forgiveness was the primary construct of interest because it is central to the Christian faith (Boice, 1986; McGrath, 1997; Milne, 2009; Rye et al., 2000) and the Twelve Steps (AA World Services Inc., 1981, 2001), while purpose in life was hypothesised to explain how forgiveness may influence substance use. Resentment was also included in the model because an inverse relationship between forgiveness and resentment was theorised in the Twelve Steps (AA World Services Inc., 1981, 2001) and empirical literature (Enright & Fitzgibbons, 2000; Griswold, 2007; McCullough, Pargament et al., 2000a), but empirically untested. Central to the SFP model were the hypotheses that spirituality would *directly* operate on recovery from substance abuse and *indirectly* operate via forgiveness and purpose in life. Thus, because the SFP model

allowed for both a direct and indirect effect of spirituality on recovery it emphasised that forgiveness and purpose in life were some ways by which spirituality operates on recovery (but not necessarily the only ways).

7.2 EMPIRICAL FINDINGS OF THE THESIS

In addition to the development of the SFP model three quantitative studies were conducted: a cross-sectional staff survey, a cross-sectional client survey, and a longitudinal client survey. Each of these studies contributed to clarifying the mechanisms of the spirituality-recovery relationship.

7.2.1 Study 1: Survey of Faith-Based Treatment Providers' Attitudes toward Spirituality and Forgiveness

The results of Study 1 demonstrated that though faith-based treatment providers value religiousness, spirituality and forgiveness in the treatment process they do not value them more than other secular treatment components (e.g. anger management, goal setting). In particular, relapse prevention was seen as the most important component of treatment. In addition, although the majority of faith-based treatment providers were religious, they did not see forgiveness as just a religious/spiritual construct. Rather, it was more closely understood as being a secular treatment component

The finding that relapse prevention was seen as the most important component of treatment was also important. Historically, there have been concerns that faith-based substance abuse programs may emphasise religion at the expense of treatment (McIlwrath et al., 2011; Reeves, 2008; Sider & Unruh, 1999; White & Whiters, 2005). However, these results demonstrate that faith-based treatment providers place more value on teaching clients the skills required for long-term controlled substance use. Previous research has shown that non-religious/spiritual clients benefit from faith-based substance abuse treatment just as much as spiritual clients (Winzelberg & Humphreys, 1999). The results of this study extend on this

by suggesting that this may be because faith-based treatment providers are primarily focused on recovery, not religious education/conversion.

Ultimately the aim of Study 1 was achieved. Sufficient evidence was gathered to support forgiveness as being viewed by faith-based staff as important in treatment and thus relevant to the exploration of spirituality in the faith-based recovery process.

7.2.2 Study 2: Cross-Sectional Client Survey

Study 2 more specifically addressed the question of how spirituality operates on recovery. This study was unique in that it helped clarify the interactions between some of the multiple dimensions of spirituality and the multiple types of forgiveness. What emerged was the finding that though spiritual beliefs and practices are correlated with forgiveness types and predict daily spiritual experiences, it is the everyday experience of spirituality that predicts forgiveness types and purpose in life. Furthermore, each type of forgiveness was shown to negatively predict resentment, while only self-forgiveness and receiving forgiveness constructs mediated the relationship between spiritual experiences and purpose in life. These results indicated that a client who had greater levels of spiritual beliefs and practiced their spirituality more frequently would also experience greater feelings of spirituality, such as feeling God's love or feeling connected with others and nature. These spiritual experiences appeared to be a central mechanism in the spirituality-recovery relationship, with indicators of psychological wellbeing (forgiveness and purpose in life) stemming from this spiritual construct.

Forgiveness of self and receiving forgiveness emerged as potentially being more influential on recovery than forgiveness of others. This was unexpected as previous empirical literature and the Christian and Twelve Step theories seemed to emphasise forgiveness of others. However, prior research has also indicated that shame and guilt are common among substance abusers (O'Connor et al., 1994; Potter-Efron, 2002; Wiechelt & Sales, 2001) and

also associated with self-forgiveness (Rangganadhan & Todorov, 2010). Specifically, shame has been theorised to operate in a cyclic manner with substance abuse; with substance abuse leading to shame, which leads to more substance abuse, which leads to more shame (Wiechelt, 2007a). Furthermore, resentment has also been theorised to be a defence against these feelings of shame and inadequacy – a "humiliated fury" (Lewis 1971 as cited by Tangney et al. 1996). Thus, it was theorised that forgiveness of self and receiving forgiveness may be important to recovery because they defused the cycle of shame and substance abuse and through this reduce resentment and increase purpose in life.

7.2.3 Study 3: Longitudinal Client Survey

The purpose of the longitudinal study was to (1) validate the relationships between daily spiritual experiences, forgiveness types (self and other) and purpose in life that were found in Study 2; (2) determine if purpose in life predicted post-treatment substance use (and therefore could be used as a valid indicator of recovery[15]); and (3) determine if growth in daily spiritual experiences operated on reduced substance use through growth in forgiveness (self and others) and purpose in life.

The results of the previous cross-sectional study were generally replicated. The longitudinal results demonstrated that at intake, 3-month follow-up, and from intake to follow-up, the day-to-day experiences of spirituality predicted forgiveness (self and other) and purpose in life, as well as the degree of change in these constructs. This demonstrates that a client's experience of God contributes to their ability to forgive (self and other) and feel purpose in life.

Results also demonstrated that post-treatment substance use was predicted by purpose in life but not forgiveness. Rather, forgiveness of self and forgiveness of others only operated

[15] Clients within treatment are usually restricted from accessing or using intoxicating substances. Therefore, purpose in life was identified as a construct that may reflect aspects of recovery (see Chapter 5).

on substance use *through* purpose in life. Furthermore, in support of previous studies (Robinson et al., 2011; Webb et al., 2006) and the results of Study 2, forgiveness of self was shown to be more strongly associated with post-treatment substance use than forgiveness of others. This may imply that shame and negative self-schemas and core beliefs could have more of a role in recovery than anger and resentment.

Finally, the results clarified how the cultivation of daily spiritual experiences may operate on recovery. It was shown that the development of daily spiritual experiences produces reductions in substance use by a) increasing a client's purpose in life, and b) increasing a client's ability to forgive others and themselves, which also helps cultivate purpose in life. Thus, based on the constructs explored, purpose in life emerged as the more influential mediator in the spirituality-recovery relationship whereas forgiveness types were secondary.

7.3. FUTURE DIRECTIONS

There are many future research projects that can be undertaken based on the results of this thesis. These potential areas of research and their relevance to the results of this thesis are briefly addressed.

7.3.1 Interventions to Cultivate Daily Spiritual Experiences

This thesis has demonstrated that daily spiritual experiences predict post-treatment substance use, forgiveness and purpose in life. In turn, 69% of the variance in spiritual experiences can be predicted by spiritual practices and beliefs (Study 2). Hence, interventions that educate clients in spiritual practices and philosophies may promote the spiritual-recovery relationship by increasing daily spiritual experiences and its associated psychological benefits. For example, Step 11 of the Twelve Steps (AA World Services Inc., 1981, 2001) and Christian literature (Kempis, 1940/2003; Griffiths, 1980; The Cloud of Unknowing, trans. 2009) promote the use of contemplative prayer (meditation) to cultivate the day-to-day

experiences of spirituality. There is also empirical evidence to support this. For example, spirituality based meditative practices have been shown to be more effective than secular meditative practices in cultivating daily spiritual experiences, existential wellbeing and psychological wellbeing (Wachholtz & Pargament, 2005). Thus, research could explore the use of meditative interventions as a means of cultivating daily spiritual experiences and associated psychological wellbeing among faith-based clients.

One of the primary studies that could be used as a guide for developing spiritual interventions was conducted by Miller, Forcehimes, O'Leary and LaNoue (2008). They tested the effect of "spiritual direction" interventions on substance abusers via two clinical trials: one with inpatients after discharge (n = 60) and one with inpatients still in treatment (n = 80). Clients were randomly assigned to either a treatment as usual or spiritual direction condition. Clients assigned to the spiritual direction condition were presented with a list of spiritual disciplines (acceptance, celebration, fasting, gratitude, guidance, meditation, prayer, reconciliation, reflection, service to others, solitude, worship, and self-care) and selected from this list the practices that they would like to develop through spiritual direction sessions (1:1 instruction) and their own daily private practice. However, participants in the spiritual direction condition did not experience significant increases in spirituality. Instead, within the spiritual direction condition, there were extremely high rates of participant non-attendance. Inpatients participating in spiritual direction after discharge attended a mean of 4.8 spiritual direction sessions (out of a possible 12). For inpatients participating in the spiritual direction session whilst still in treatment the mean number of spiritual direction sessions was 2.9 (out of a possible 12). Considering that participants on average attended less than 50% of proposed sessions, it is not surprising that spiritual growth did not occur. Future research could try similar experiments using group rather than individual sessions, recruiting inpatients who had been in treatment for an extended period of time (Miller et al. recruited

participants straight out of detoxification), offering spiritual direction sessions as an alternative to other religious treatment components (e.g. many faith-based programs have compulsory chapel attendance and spiritual direction sessions could be offered instead), or by trialling spiritual direction sessions as a compulsory element of a faith-based treatment approach. This may help reduce the high non-attendance rates found by Miller et al. and give a better indication if daily spiritual experiences and associated psychological benefits can be artificially cultivated.

7.3.2 Spiritual Development and Causation among Spiritual Constructs

It was hypothesised in Chapter 5 that the relationship between spiritual practices, beliefs and daily experiences was bidirectional, with each dimension of spirituality influencing the other (Figure 4). Future research is required to not only clarify how spiritual constructs change during and after treatment but also in what order. This information could be used by ministry and pastoral counselling staff when developing pastoral interventions for faith-based clients. For example, if practices were shown to develop prior to beliefs and experiences then a pastoral workshop could focus on the introduction of spiritual practices to increase receptivity of beliefs or experience. Alternatively, if beliefs developed early or accounted for the majority of variance in spiritual experiences then education in theology or religious studies could be emphasized earlier in the program. Adopting this evidence-based approach to pastoral counselling and ministry could help faith-based programs develop more efficient religious education programs and thus help clients to capitalize on the psychological benefits associated with their spiritual development.

7.3.3 Long-Term Stability in the Multi-Step Multiple Mediation Relationships

Longitudinal research demonstrates that increases in spirituality (Connor et al., 2008; Kaskutas et al., 2003; Zemore, 2007) and forgiveness (Robinson et al., 2007; Webb et al., 2006) over the course of treatment are still present six months (Robinson et al., 2007; Webb

et al., 2006) to 12 months (Zemore, 2007) after discharge. This suggests that the growth in spirituality that occurs in treatment may be relatively enduring. However, the long-term stability of the multiple mediation and multi-step multiple mediation relationships found in this thesis is unknown. There is no data to support the assumption that the day-to-day experiences of spirituality operate indirectly on substance use via forgiveness and purpose in life beyond three months post-discharge (the follow-up point used in this thesis' longitudinal study). Further longitudinal research is required to assess the stability of the multi-step multiple mediation relationships found in this thesis.

7.3.4 Shame and Resentment

Shame and resentment may also be important psychological constructs for future research. Shame is a central etiological component of substance abuse, operating in a cyclical manner with substance use behaviours (Wiechelt, 2007) and producing defensive aggression (resentment). Shame is also negatively associated with self-forgiveness (Rangganadhan & Todorov, 2010). Thus, it was theorised that forgiveness of self and receiving forgiveness from others and God operate on recovery through shame and guilt. However, the cyclical nature of shame and substance use, the theory that resentment is a defence against shame, and the theory that intrapersonal forgiveness type (forgiveness of self and receiving forgiveness) operate on recovery by reducing shame was not tested. Research could explore this by investigating whether shame mediates the relationship between self-forgiveness, receiving forgiveness (from other and God) and recovery outcomes. However, empirically demonstrating that resentment is a defence against shame may be challenging. Firstly, studies could investigate whether individuals who have more shame have higher levels of resentment. Secondly, research could explore whether the relationship between resentment and recovery outcomes is mediated by shame. Thirdly, experimental studies could be used to

compare resentment responses in participants with high levels of shame versus low levels of shame.

7.3.5 Forgiveness Constructs

Several forgiveness constructs were either not assessed or not assessed in detail in this thesis. State forgiveness and forgiveness of situations were not assessed, while receiving forgiveness from others and God were only researched in Study 2. Hence, further research is required to explore the relationships between these constructs and spirituality, purpose in life, and post-treatment substance use.

7.3.6 Forgiveness Interventions

The results of this thesis provide mixed support for the introduction of forgiveness interventions within this population. For example, forgiveness of self and forgiveness of others were not directly associated with post-treatment substance use, and only low level correlations were shown between forgiveness of self and substance use (r = - .16 & - .18, Table 11). As the development and implementation of interventions and clinical trials is costly and labour intensive these results suggest that stand alone forgiveness interventions may not be an efficient use of resources. However, previous forgiveness interventions have resulted in improved psychological wellbeing and reduced vulnerability to drug use among substance abusers (Lin et al., 2004), and cross-sectional research shows that forgiveness of self and others is associated with less substance use (Webb & Brewer, 2010; Webb et al., 2006) and influences recovery constructs via a clients psychological wellbeing (Webb et al., 2009). Hence, there is some empirical evidence to suggest that forgiveness interventions can positively influence recovery by improving clients' mental health. Furthermore, "recovery" is broader than just substance use (as outlined in Chapter 1). The fact that forgiveness constructs contribute to purpose in life (Chapter 5 and 6), mental health (Lin et al., 2004; Webb et al., 2009) and cohesion within social systems (Webb et al., 2011) is in itself part of

this broad conceptualisation of recovery. Thus, forgiveness interventions could be implemented for their broader salutary effect on recovery rather than their direct impact on substance use. In particular, forgiveness of self is emerging as being at least as relevant to treatment outcomes as forgiveness of others (Robinson et al., 2011; Webb et al., 2006). This was also shown by the results of this thesis.

Few self-forgiveness interventions with substance abusing populations have been conducted. Scherer, Worthington, Hook and Campana (2011) conducted a brief 4-hour self-forgiveness intervention with alcohol abusing outpatients. Participants were randomly assigned to either the self-forgiveness intervention (n = 41) or a treatment as usual condition (TAU) (n = 38). Participants completed self-forgiveness, drinking refusal self-efficacy, and state guilt and shame measures at the beginning and end of the intervention and at a 3-week follow-up. Participants in the self-forgiveness intervention experienced significantly higher growth in self-forgiveness, and drinking refusal self-efficacy and significantly greater reductions in guilt and shame than the TAU participants. Participants also continued to experience reductions in shame three weeks after completing the self-forgiveness intervention. Levels of substance use were not taken so it cannot be said whether these changes in self-forgiveness, drinking refusal self-efficacy, and guilt and shame influenced alcohol use; however, the results do suggest that brief self-forgiveness interventions may reduce the shame and guilt that is common in substance abusing populations. Further research on the effectiveness of self-forgiveness interventions is required.

Finally, further research on the degree to which Twelve Steps cultivate forgiveness is also required. In particular, steps 8 and 9 are recognised as being “forgiveness steps” (Hart, 1999, p. 31), yet there is no research showing that participation in these steps increases forgiveness.

7.3.7 Interventions to Cultivate Purpose in Life

Purpose in life appeared to be more influential on post-treatment substance use than forgiveness types. Hence, future research could explore whether purpose in life interventions are beneficial for recovery. Two treatment approaches may be particularly relevant to this: logotherapy (Frankl, 1946/2006) and acceptance and commitment therapy (ACT). Logotherapy theorises that "man's search for meaning is the primary motivation in his life" (Frankl, p. 99). Psychopathology results from an inability to find meaning in life; while pursuing meaning in life ultimately requires one to align themselves with their values (Frankl). Logotherapy has been emphasised as highly compatible with Twelve Step approaches (Koster, 1991) and, though limited, preliminary evidence suggests it may be beneficial in the treatment of alcohol dependence (Crumbaugh & Carr, 1979; Hutzell, 1984). Similarly, ACT also proposes that living a values based life contributes to wellbeing (Hayes, Strosahl & Wilson, 1999). Preliminary evidence suggests ACT interventions may be beneficial in the treatment of alcohol (Heffner, Eifert, Parker, Hernandez, & Sperry, 2003) opioid (Hayes et al., 2004) and cannabis dependence (Twohig, Shoenberger & Hayes, 2007), and comorbid substance abuse (Batten & Hayes, 2005). In addition to logotherapy and ACT, topics such as goal setting, career counselling, assertiveness training and problem solving could also be relevant components of a purpose in life intervention. Furthermore, as forgiveness of others and self were shown to operate on recovery through purpose in life, forgiveness may also be a relevant component of a purpose in life intervention. Future research is required to determine if strategies such as these can cultivate purpose in life among residential substance abusers.

7.3.8 Dispositional and functional spirituality in faith-based substance abuse treatment

The measurement of religion and spirituality can be categorised as dispositional or functional (Hood et al., 2009). Dispositional spirituality refers to how spiritual a person is. It is more subjective in nature, reflecting trait-like qualities and abstract thinking derived from a person's spirituality and/or religiousness (Hood et al., 2009). Examples of dispositional domains include: spiritual maturity, spiritual commitment and strength of religious faith. Functional spirituality refers to how a person uses spirituality in their life. Examples of functional domains include spiritual based coping mechanisms, spiritual practices or spiritual beliefs and values (Hood et al., 2009). The spiritual constructs explored in this thesis (beliefs, practices and experiences) were functional: they explored how spirituality operates on recovery. Future research could explore the dispositional domains of spirituality and religion. For example, research could explore whether more spiritually mature or religiously committed clients progress differently in their recovery journey.

7.3.9 Measurement Issues in Spirituality and Psychological Wellbeing

Another limitation of this study is the use of the DSES as an indicator of spiritual experiences and the assumption that its relationships with the LET and the HFS are due to participants' spiritual world views. Specifically, Koenig (2008) has raised concerns regarding conceptualisations of spirituality as being synonymous with psychological wellbeing (that spirituality equates with constructs such as forgiveness and purpose in life). Koenig argues that this conceptualisation has resulted in psychological wellbeing items being erroneously included in measures of spirituality. For example, the DSES has been criticised for having items such as "I feel deep inner peace or harmony" and "I feel thankful for my blessings" because they may be capturing constructs that are not uniquely spiritual. A person does not have to be spiritual or religious to feel peaceful or be thankful (Koenig, 2008). Koenig therefore argues that the inclusion of such secular items voids the results of research using the

"corrupted" measure. Indeed, in Study 3 items 13 "I feel a selfless caring for others" and 14 "I accept others even when they do things I think are wrong" loaded on a separate factor to the remaining 14 items of the DSES. However, in contrast to this argument world religions and spiritual schools of thought consistently highlight that, though life is full of difficulties, spiritual maturity can lead to psychological wellbeing. For example, Christianity refers to "the fruits of the spirit" as being subsequent to the process of sanctification (McGrath, 1997; Milne, 2009). Furthermore, Underwood (2008) has found that feelings of deep inner peace and gratitude to God are endorsed by highly religious individuals, such as Cistercian Christian monks, as being central features of spirituality. Because of these factors it has been argued that the inclusion of psychological wellbeing constructs is appropriate when they reflect an underlying religious or spiritual perspective. For example, the DSES item "I feel thankful for my blessings" is phrased to imply that it is God to whom one is thankful and thus a legitimate items of spirituality (Underwood, 2008). Finally, in support of this, many of the spirituality measures that include psychological wellbeing items have been validated in multiple populations and are used regularly in empirical research. For example, although DSES items 13 and 14 loaded onto a separate factor in Study 3 of this thesis the other DSES items that could be classified as secular, such as "I experience a connection to all life", "I feel deep inner peace or harmony" and "I feel thankful for my blessings" all loaded with the remaining DSES items (items that explicitly mention God, spirituality or religion) onto a separate factor; suggesting they may indeed be capturing something "spiritual".

This issue is contentious and highlights the importance of using theory and multiple measures of spirituality in research (Tsuang & Simpson, 2008). However, a problem is that there are very few measures of psychological wellbeing that specifically try to capture the construct in question from a religious or spiritual perspective. For example, Krause (2008) developed measures to capture meaning in life from a religious perspective. Example items

include “My faith gives me a sense of direction in my life” and “God has a specific plan for my life”. However, the phrasing of the items in this measure is primarily suited for practicing Christians and may not be as suitable for “spiritual but not religious” people. Thus, there is ample room in the psychology of religion and spirituality for metatheoretical and psychometric research. Future research could explore the compatibility and validity of spiritual and psychological wellbeing constructs and the creation of applicable psychometric measures.

7.4 CONCLUSION

In conclusion, this thesis has found that the spirituality-recovery relationship can operate via daily spiritual experiences, forgiveness, and purpose in life. The results suggest that at intake, client’s levels of spirituality, forgiveness and purpose in life may be relatively unrelated; however, as treatment progresses these experiences develop and appear to become more closely associated. Furthermore, after discharge, clients who have experienced greater growth in spiritual experiences, purpose in life and forgiveness of self are more likely to remain completely abstinent. In addition, there is support for the model suggesting that the clients’ increasing day-to-day spiritual experiences inhibit their post-discharge substance use behaviours by increasing their purpose in life. One way in which this happens is through forgiveness.

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Appendix A
A Summary of the Empirical Research on Spirituality in Substance Abuse Treatment

Table 23. A summary of the empirical research on spirituality in substance abuse treatment

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Pardini et al. (2000)	• Cross-sectional study of residential and outpatient substance abusers (n = 263)	• Religious faith • Spirituality • Social support • Socially desirable responding	• Spirituality predicted optimism, social support and trait anxiety • Religious faith predicted resilience to stress	• Psychological wellbeing: ▪ Optimism ▪ Trait anxiety ▪ Resilience to stress • Social support
Avants et al. (2001)	• Longitudinal study (intake and discharge) of HIV positive substance abusers (n = 43)	• Substance abuse history • Social support • Optimism • Spiritual comfort and support	• Higher spiritual support was associated with greater optimism • Participants with higher levels of perceived spiritual support had significantly less heroin use • Spirituality based comfort and support significantly predicted abstinence at discharge	• Spiritually derived comfort and support

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Kaskutas et al. (2003)	• Longitudinal study (intake, 1 and 3 year follow-ups) of detoxification, residential and outpatient alcohol abusers (n = 587)	• Spiritual awakening • Religious identity (e.g. religious vs. atheists)	• Spiritual participants engaged in more post-treatment AA meetings • Spiritual awakening predicted abstinence • 64% of participants who relapse had not had a spiritual awakening • 58% of participants with 12 months of abstinence had experienced a spiritual awakening	None identified
Piedmont (2004)	• Longitudinal study (intake and 1 week post-discharge follow-up) of outpatient substance abusers (n = 73)	• Spiritual transcendence • Five factor model of personality	• Spiritual transcendence significantly increased over time • Spiritual transcendence at	• Coping resources: ▪ Self-worth and optimism ▪ Social support

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Piedmont (2004)			intake was significantly correlated with coping ability, stress, and life satisfaction at follow-up. • Spiritual transcendence at intake predicted post-treatment coping, life satisfaction and stress.	• Coping resources: ▪ Emotional acceptance and expression ▪ Spiritually derived comfort and support • Life satisfaction
Webb et al. (2006)	• Longitudinal (intake and 6 month follow-up) outpatient alcohol abusers(n = 157)	• Forgiveness (self/other/God) • Perceptions of God • Spiritual experiences • Spiritual meaning and values	• Forgiveness of others increased significantly over time. • Religious and spiritual variables were correlated with forgiveness of others and feeling forgiven by God at baseline and follow-up.	• Forgiveness

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Webb et al. (2006)		• Religious beliefs and practices • Positive religious coping • Negative religious coping • Purpose in Life	• Baseline measures of forgiveness predicted 6-14% of variance in alcohol use and alcohol related problems at intake. • Forgiveness of self at follow-up predicted alcohol related problems and percentage of heavy drinking days at follow-up	• Forgiveness
Zemore (2007)	• Longitudinal study (intake and 12 month follow-up) of residential and outpatient alcohol abusers (n = 733)	• Spiritual practices • Spiritual experiences • Spiritual awakening	• Spiritual awakening is associated with abstinence (82% of spiritually awoken participants were abstinent vs. 55% non-awoken) • Increased religious practices & spiritual experiences	None identified

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Zemore (2007)			predicted abstinence • Spiritual practices and spiritual awakenings mediate a relationship between AA involvement and abstinence	None identified
Sterling et al. (2007)	• Longitudinal study (intake, discharge and 3 month follow-up) of residential alcohol abusers (n =72)	• Spiritual maturity • Spiritual experiences • Spiritual beliefs • Religious coping • Forgiveness • Spiritual support • Spiritual openness	• All spirituality constructs significantly increased over treatment for all participants • Post-treatment spiritual maturity significantly decreased for participants who relapsed	None identified
Robinson et al. (2007)	• Longitudinal study (intake and 6 month follow-up) of outpatient	• Spiritual beliefs • Spiritual practices • Spiritual experiences	Spiritual practices, daily spiritual experiences, forgiveness, positive religious coping and purpose in life	• Purpose in life

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Robinson et al. (2007)	alcohol abusers (n = 123)	• Spiritual experiences • Spiritual values • Positive religious coping • Negative religious coping • Perceptions of God • Forgiveness (self/other/God) • Purpose in life	significantly increase over time. • Changes in daily spiritual experiences and purpose in life predict fewer heavy drinking days.	
Piderman et al. (2007)	• Longitudinal study (intake and discharge) of outpatient alcohol	• Spiritual wellbeing • Private prayer • Religiosity	• Significant increases in: ▪ Private religious practices ▪ Intrinsic religiosity	• Abstinence self-efficacy

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Piderman et al. (2007)	abusers (n = 74)	• Positive religious coping • Negative religious coping	▪ Spiritual wellbeing ▪ Existential wellbeing ▪ Positive religious coping ▪ Abstinence self-efficacy ▪ AA involvement • Abstinence self-efficacy was significantly correlated with positive religious coping and spiritual wellbeing. • AA involvement was significantly correlated with positive religious coping and private religious practices	
Connor et al. (2008)	• Longitudinal study (intake, 12 month follow-up, and 18 month follow-up) of	• Religious wellbeing • Spiritual wellbeing	• Participants with low spiritual wellbeing at the 12 or 18 month follow-up had significantly greater rates of substance use	None identified

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Connor et al. (2008)	opioid dependent participant of a narcotic replacement therapy clinical trial (n = 315)		• Participants whose spirituality decreased from intake to 12 or 18 month follow-ups had significantly higher greater of substance use	None identified
Mason et al. (2009)	• Cross-sectional study of residential substance abusers (n = 77)	• Spiritual transcendence • Spiritual practices • Usefulness of spirituality in treatment	• Abstinence self-efficacy mediated a negative relationship between spirituality and cravings	• Abstinence self-efficacy
Puffer et al. (2010)	• Longitudinal study (intake, discharge and 2 weeks follow-up) of	• Positive religious coping • Negative religious coping	• Baseline positive religious coping predicted less pre-admission opioid use • Decreases in negative	None identified

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Puffer et al. (2010)	• Longitudinal study (intake, discharge and 2 weeks follow-up) of opioid dependent participants of a detoxification clinical trial (n = 45)	• Positive religious coping • Negative religious coping • Twelve Step participation	• Baseline positive religious coping predicted less pre-admission opioid use • Decreases in negative religious coping from intake to follow-up predicted less opioid use at follow-ups. • Increases in post-discharge positive religious coping predicted greater post-discharge AA attendance	None identified
Robinson et al. (2011)	• Longitudinal study (Intake, 6 and 9 month follow-up) of outpatient alcohol abusers and untreated control	• Spiritual beliefs • Spiritual practices • Spiritual experiences • Spiritual values • Positive religious coping	• Six month changes in spiritual practices, daily spiritual experiences, forgiveness of self, and purpose in life predicted percentage of days absent and days since last drinking	• Purpose in life • Forgiveness of self

Table 23. A summary of the empirical research on spirituality in substance abuse treatment (cont.)

Study	Method	Spiritual constructs	Results	Spiritual mechanisms
Robinson et al. (2011)	group (n = 364)	• Negative religious coping • Perceptions of God • Forgiveness (self/other/God) • Purpose in life	day at 9 months. • Six month increases in spiritual practices, self-forgiveness and decreases in negative religious coping predicted percentage of heavy drinking days and mean drinks per drinking days at 9 month follow-up.	
All results presented are significant at p = < .05 to <.001				

Appendix B

Study 1

EVIDENCE-BASED PRACTICE ATTITUDES OF WORKERS IN RESIDENTIAL DRUG AND ALCOHOL REHABILITATION SERVICES QUESTIONNAIRE

I do not wish to participate in this survey (tick) ☐

(If ticked please place the survey in the envelope provided and return it to the researchers. Thank you for your time)

Section A. Demographics

The questions in this section provide us with some background information

1. What gender are you? (please circle) Male Female

2. How old are you? ……years

3. What is your role in this organisation (please circle)?
   a) Night support worker
   b) AOD support worker
   c) Case worker or senior case worker
   d) Registered nurse
   e) Supervisory position (e.g. team leader, program director, manager)
   f) General staff (e.g. cook, accounts, farmer)

4. How long have you been employed in that position?.....(years)

5. How long have you worked in D & A field?……(years)

6. How many hours per week are you employed in your current position? ……hours

7. On average how many hours per week would you have direct contact? ……hours

8. What is your highest level of education? (please circle)

Year 10 or less	Year 12	TAFE certificate	Undergraduate degree
Masters degree	PhD/MD	Other (please specify) …….	

9. Have you ever had a problem with drug or alcohol use? (please circle) Yes No

10. If yes, what kind of treatment did you receive?

a) I did not receive treatment
b) Outpatient
c) Residential
d) 12-step meetings
e) Other.....

Section B.

THE SPIRITUALITY AND FORGIVENESS IN TREATMENT SCALE (SFTS)

1. My religion is:

□ Christian

□ Other _____(please specify)

2. Below is a list of elements found within the Bridge Program. Using the scale provided please circle how important you feel each element is to a client's recovery from substance abuse.

	Not at all	Somewhat	Moderately	Very	Extremely	Essential
a. Spiritual development	1	2	3	4	5	6
b. Learning to forgive	1	2	3	4	5	6
c. Christian teachings	1	2	3	4	5	6
d. Stress management	1	2	3	4	5	6
e. Anger management	1	2	3	4	5	6
f. Assertiveness training	1	2	3	4	5	6
g. Goal setting	1	2	3	4	5	6
h. The 12 steps	1	2	3	4	5	6
i. Relapse prevention	1	2	3	4	5	6

University of Wollongong

CASE MANAGER PARTICIPANT INFORMATION SHEET

Lake Macquarie Recovery Service Centre: Evidence-based practice attitudes of workers in residential drug and alcohol rehabilitation services

Who is doing the study?

Meg Lovett a University of Wollongong psychology student will be conducting this study as part of her fourth year honours program. Prof Frank Deane and Dr Peter Kelly will be supervising this research project.

What is the study about?

The purpose of this research is to examine the workers attitudes towards evidence-based practice in a drug and alcohol rehabilitation. We will also be examining levels of workers stress, burnout and job satisfaction. The findings from this research will be used in a thesis for an honours research project.

What do I need to do?

The first thing you need to do is carefully read this 'information sheet' making sure you understand what is required. In order to protect your privacy we will not request your written consent to participate in this study, instead by completing and returning this questionnaire you will be providing your consent to participate in this study. If you do not wish to participate in this study you can either:

1. Discuss this with the Salvation Army staff
2. Discuss this with one of the researchers
3. Return the incomplete questionnaire in the envelope provided.

It is anticipated that completion of this questionnaire will take approximately 45 minutes. If you would like further information on the study you can also contact Prof. Deane or Dr. Kelly at the University of Wollongong by calling 02 4221 4207.

Is there any risk or burden if I decided to participate?

The main burden will be related to the time it takes to complete the assessment. There is a very small risk that you might think some of the questions in the survey are too personal. However, you have the right to refuse to answer specific questions. Your name will not appear on any part of the survey, so there will be no option to withdraw any information provided at a later date. If you choose not to participate in the study, this will in no way effect your relationship with The Salvation Army or The University of Wollongong. **Participating is entirely voluntary.**

Are there any benefits to be expected?

People often find that when they complete the questionnaires it helps them reflect on their own professional practice. Also the information from this study will hopefully contribute to improving the treatment program and complimenting already existing research.

How will my information be collected and used?

You will be required to complete a written survey. Information from this survey will be kept confidential. Your consent form will be collected separate for your survey so there will be no individual information to store with the data. All questionnaire material will be stored securely at the University of Wollongong. The information may be used for publication in scholarly research journals, reports to the Salvation Army, student theses, and conference presentations. You will not be identifiable in any publications. Your personal information will not be provided to The Salvation Army.

What if I have more questions?

You may have additional questions that you wish to ask about the research before you decide whether to participate. You can contact Prof. Deane, Dr Crowe, Dr Kelly or Mr Lyons at the University of Wollongong by calling 02 4221 4207. If you have any concerns or complaints regarding the way in which the research is or has been conducted, you can contact the Secretary of the University of Wollongong Human Research Ethics Committee on Phone: (02) 4221 4457, Fax: (02) 4221 4338 email: research@uow.edu.au

University of Wollongong

INITIAL APPLICATION APPROVAL
In reply please quote: HE08/129
Further Enquiries Phone: 4221 4457

COPY

27 May 2008

Ms Megan Lovett
Illawarra Institute for Mental Health
University of Wollongong

Dear Ms Lovett,

Thank you for your letter of 21 May 2008 responding to the comments from the HREC full committee meeting held on the 13th May 2008. I am pleased to advise that the application has been **approved**. The amendments included in the letter of 21 May have also been approved.

Ethics Number:	HE08/129
Project Title:	The attitudes of workers in a residential drug and alcohol rehabilitation service towards adoption of evidence-based practices
Name of Researchers:	Ms Megan Lovett, Prof Frank Deane, Dr Peter Kelly, Mr Geoffrey Lyons, Mr Kane Mortlock, Dr Trevor Crowe
Approval Date:	26 May 2008
Expiry Date:	25 May 2009

The University of Wollongong/SESIAHS Health and Medical HREC is constituted and functions in accordance with the NHMRC *National Statement on Ethical Conduct in Human Research.* The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document. As evidence of continuing compliance, the Human Research Ethics Committee requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforseen events that might affect continued ethical acceptability of the project.

You are also required to complete monitoring reports annually and at the end of your project. These reports are sent out approximately 6 weeks prior to the date your ethics approval expires. The reports must be completed, signed by the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.

Yours Sincerely,

A/Professor Arthur Jenkins
Chairperson
Human Research Ethics Committee

cc: Dr Peter Kelly, IIMH

Research Services Office University of Wollongong NSW 2522 Australia
Telephone: +61 2 4221 3386 **Facsimile:** +61 2 4221 4338
research_services@uow.edu.au www.uow.edu.au/research
CRICOS Provider No: 00102E

Appendix C

Study 2

FORGIVENESS AND SPIRITUAL DEVELOPMENT QUESTIONNAIRE

Section 1 Background Information

The questions in this section provide us with some background information.

1. What is your age? _____ (years)

2. What language do you prefer to speak?

English	☐1
Other	☐2

3. How long have you been participating in the 'Bridge Program'?

_____ Week(s) _____ Month(s)

4. Which town/city is your rehabilitation centre located? _____

5. What group are you currently in? _____

Section B Drug Use

The questions in this section provide us with some background information regarding your prior drug and/or alcohol use.

6. In the 12 months before you entered treatment what substances had you used?
(You may tick multiple drugs)

Heroin	☐1
Marijuana/Cannabis	☐2
Amphetamines (e.g. speed, ice, crystal methyl)	☐3
Alcohol	☐4
Ecstasy	☐5
Cocaine	☐6
Other(s)	☐7

If Other(s) Please Specify

_____

7. What substance(s) did you specifically seek treatment for when entering the rehabilitation centre on this occasion?
(You may tick multiple drugs)

Heroin	☐1
Cannabis	☐2
Amphetamines (e.g. speed, ice, crystal methyl)	☐3
Alcohol	☐4
Ecstasy	☐5
Cocaine	☐6
Other(s)	☐7

If Other(s) Please Specify_____

8. What do you consider your primary drug of concern?
(Please specify just one)

_____

9. How long have you had drug and/or alcohol problems? _____years

10. Before entering treatment, how often would you take this drug?

Once a month	☐1
More than once a month	☐2
At least once a week	☐3
Daily	☐4
More than once a day	☐5

11. Have you ever previously sought treatment for your current drug problem?

YES	☐1
NO	☐2

12. Not including your current admission, how many times have you ever been in residential rehabilitation? _____ times

13. What led you to enter treatment on this occasion? (you may tick more than one box)

Health	☐1
Family relationships (including partner)	☐2
Employment	☐3
Financial	☐4
Legal (e.g. mandatory requirement)	☐5
Emotional well-being (not coping)	☐6
Other, please specify _____	☐7

14. What is the main goal you wish to achieve through your involvement in this program? (tick only one box)

Stopping use	☐1
Cutting down	☐2
Remaining abstinent	☐3
Fulfilling court order	☐4
Other, please specify _____	☐5

15. What other services have you accessed in the 3 months prior to entering this program? (You may tick more than one box)

Counselling	☐1
Detoxification	☐2
Rehabilitation (i.e. residential)	☐3
Mental Health	☐4
Maintenance Pharmacotherapy (e.g. methadone maintenance)	☐5
None	☐6
Other	☐7

If other, please specify_____

16. Have you accessed Alcoholics Anonymous (AA), Narcotics Anonymous (NA) and/or Gamblers Anonymous (GA) before entering this program?

YES ☐1
NO ☐2

17. Have you ever received treatment for a mental health problem?

YES ☐1
NO ☐2

If YES, What diagnosis did you receive?

_____

THE AGGRESSION QUESTIONNAIRE: RESENTMENT SUBSCALE (RS)

Use the following scale to indicate your agreement with each of the statements below.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I am sometime eaten up with jealousy.	1	2	3	4	5
2. At times I feel I have gotten a raw deal out of life.	1	2	3	4	5
3. Other people always seem to get the breaks.	1	2	3	4	5
4. I wonder why sometimes I feel so bitter about things.	1	2	3	4	5

THE LIFE ENGAGEMENT TEST (LET)

Use the following scale to indicate your agreement with each of the statements below.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. There is not enough purpose in my life.	1	2	3	4	5
2. To me, the things I do are all worthwhile.	1	2	3	4	5
3. Most of what I do seems trivial and unimportant.	1	2	3	4	5
4. I value my activities a lot.	1	2	3	4	5
5. I don't care very much about the things I do.	1	2	3	4	5
6. I have lots of reasons for living.	1	2	3	4	5

RELIGIOUS BACKGROUND AND BEHAVIOURS (RBB)

1. Which of the following best describes you at the present time? (check one)

Atheist (I do not believe in God)	1☐
Agnostic (I believe we can't really know about God)	2☐
Unsure (I don't know what to believe about God)	3☐
Spiritual (I believe in God, but I'm not religious)	4☐
Religious (I believe in God and practice religion)	5☐

2. Which of the following best describes you at the present time? (check one)

Christian	1☐	
Muslim	2☐	
Buddhist	3☐	
Jewish	4☐	
None	5☐	
Other	6☐	(Please Specify) _____

For the past year, how often have you done the following? (circle *one* number for each line)

	Never	Rarely	Once a month	Twice a month	Once a week	Twice a week	Almost daily	More than once a day
3. Thought about God	1	2	3	4	5	6	7	8
4. Prayed	1	2	3	4	5	6	7	8
5. Meditated	1	2	3	4	5	6	7	8
6. Attended a worship service	1	2	3	4	5	6	7	8
7. Read/studied scriptures, holy writings	1	2	3	4	5	6	7	8
8. Had direct experiences of God	1	2	3	4	5	6	7	8

DAILY SPIRITUAL EXPERIENCES SCALE (DSES)

The list that follows includes items you may or may not experience. Please consider if and how often you have these experiences, and try to disregard whether you feel you should or should not have them. In addition, a number of items use the word 'God.' If this word is not a comfortable one, please substitute another idea that calls to mind the divine or holy for you.

	Never or almost never	Once in a while	Some days	Most days	Every day	Many times a day
1. I feel God's presence.	1	2	3	4	5	6
2. I experience a connection to all life.	1	2	3	4	5	6
3. During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns.	1	2	3	4	5	6
4. I find strength in my religion or spirituality.	1	2	3	4	5	6
5. I find comfort in my religion or spirituality.	1	2	3	4	5	6
6. I feel deep inner peace or harmony.	1	2	3	4	5	6
7. I ask for God's help in the midst of daily activities.	1	2	3	4	5	6
8. I feel guided by God in the midst of daily activities.	1	2	3	4	5	6
9. I feel God's love for me, directly.	1	2	3	4	5	6
10. I feel God's love for me, through others.	1	2	3	4	5	6
11. I am spiritually touched by the beauty of creation.	1	2	3	4	5	6

	Never or almost never	Once in a while	Some days	Most days	Every day	Many times a day
12. I feel thankful for my blessings.	1	2	3	4	5	6
13. I feel a selfless caring for others.	1	2	3	4	5	6
14. I accept others even when they do things I think are wrong.	1	2	3	4	5	6
15. I desire to be closer to God or in union with Him.	1	2	3	4	5	6

	Not at all close	Somewhat close	Very close	As close as possible
16. In general, how close do you feel to God?	1	2	3	4

SPIRITUAL BELIEFS SCALE (SBS)

Please indicate your agreement with the following statements by circling one number per statement. There is no 'right' or 'wrong' answer, rather just be as open as possible. A number of items use the word 'God.' If this word is not a comfortable one, please substitute another idea that calls to mind the divine.

	Strongly disagree	Disagree	Undecided	Agree	Strongly Agree
1. I feel that in many ways turning my life over to God has actually set me free.	1	2	3	4	5
2. I know that all the best things in my life have come to me through God.	1	2	3	4	5
3. I believe I am blessed by God with many gifts I do not deserve.	1	2	3	4	5
4. I feel it is important to thank God when I manage to do the right thing.	1	2	3	4	5
5. Its only when I stop trying to play God that I can begin to learn what God wants for me.	1	2	3	4	5
6. I know I am able to meet life's challenges only with God's help.	1	2	3	4	5
7. I know that forgiving those who have hurt me is important for my spiritual health.	1	2	3	4	5
8. I believe there are many ways to know God and that my way is not the only way.	1	2	3	4	5

HEARTLAND FORGIVENESS SCALE (HFS)

In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Think about how you typically respond to such negative events. Next to each of the following items write the number (from the 7-point scale below) that best describes how you typically respond to the type of negative situation described. There are no right or wrong answers. Please be as open as possible in your answers.

1	2	3	4	5	6	7
Almost always false of me		More often false of me		More often true of me		Almost always true of me

1. Although I feel badly at first when I mess up, over time I can give myself some slack.

2. I hold grudges against myself for negative things I've done.

3. Learning from bad things that I've done helps me get over them.

4. It is really hard for me to accept myself once I've messed up.

5. With time I am understanding of myself for mistakes I've made.

6. I don't stop criticizing myself for negative things I've felt, thought, said, or done.

7. I continue to punish a person who has done something that I think is wrong.

8. With time I am understanding of others for the mistakes they've made.

9. I continue to be hard on others who have hurt me.

10. Although others have hurt me in the past, I have eventually been able to see them as good people.

11. If others mistreat me, I continue to think badly of them

12. When someone disappoints me, I can eventually move past it.

RECEIVING FORGIVENESS FROM OTHERS (RFO)

Respond to these five items while thinking about how you generally feel about the significant people in your life, *e.g. friends, family, partners.*

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. They wish me well	1	2	3	4	5
2. They disapprove of me.	1	2	3	4	5
3. They think favourably of me.	1	2	3	4	5
4. They condemn me.	1	2	3	4	5
5. They generally forgive me.	1	2	3	4	5

RECEIVING FORGIVENESS FROM GOD (RFG)

Respond to these five items while thinking about how you generally feel about *God or your "Higher Power".*

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. God disapproves of me.	1	2	3	4	5
2. God thinks favourably of me.	1	2	3	4	5
3. God condemns me.	1	2	3	4	5
4. God generally forgives me.	1	2	3	4	5

University of Wollongong

CLIENT PARTICIPANT INFORMATION SHEET

Lake Macquarie Recovery Service Centre:

A cross sectional exploration of forgiveness and spiritual development during recovery from substance abuse in Salvation Army residential rehabilitation centres.

Who is doing the study?

Geoffrey Lyons a University of Wollongong psychology student will be conducting this study as part of his Doctorate of Philosophy (PhD). Prof Frank Deane, Dr Peter Kelly and Dr Trevor Crowe will be supervising this research project.

What is the study about?

The purpose of this research is to examine the association between spirituality, forgiveness, drug and/or alcohol cravings and psychological wellbeing. We are interested in assessing spirituality, an individual's ability to forgive and how these might relate to an individual's recovery from drug and/or alcohol problems. The research also is examining client satisfaction with the Salvation Army Bridge program. The findings from this research will be submitted as part of a PhD thesis, may be used at conference presentations, and may be published in scientific journals and reports for the Salvation Army.

What do I need to do?

The first thing you need to do is carefully read this 'information sheet' making sure you understand what is required. In order to protect your privacy we will not request your written consent to participate in this study, instead by completing and returning this questionnaire you will be providing your consent to participate in this study.

Participation in the study is entirely voluntary. If you do not wish to participate all you have to do is place the blank questionnaire in the envelope provided and place this envelope in the drop box when leaving the room. In this way no one will be aware of whether you participated or not.

It is anticipated that completion of this questionnaire will take approximately 30-45 minutes. If you would like further information on the study you can also contact Prof. Deane or Dr. Kelly at the University of Wollongong by calling 02 4221 4207.

Is there any risk or burden if I decide to participate?

The main burden will be related to the time it takes to complete the assessment. There is a very small risk that you might think some of the questions in the questionnaires are too personal. However, you have the right to refuse to answer any specific questions. If any of the questions cause you any distress the Salvation Army staff will also be available to assist you.

Also because your name will not appear on any part of the questionnaire there will be no option to withdraw any information provided at a later date. If you choose not to participate in the study, this will in no way have an effect on your relationship with your support or treatment services or the University of Wollongong. **Participation is entirely voluntary**.

Are there any benefits expected?
People often find that when they complete the questionnaires it helps them reflect on their progress and clarify what it is about treatment that is helping them. Also the information from this study will hopefully contribute to improving the treatment program and complimenting already existing research.

How will my information be collected and used?
You will be required to complete a questionnaire which will involve completing a written survey. Information from this survey will be kept confidential. All questionnaire material will be stored securely at the University of Wollongong. The information may be used for publication in scholarly research journals, reports to the Salvation Army, student theses, and conference presentations. You will not be identifiable in any publications.

What if I have more questions?
You may have additional questions that you wish to ask about the research before you decide whether to participate. You can contact Prof. Deane, Dr Crowe, Dr Kelly or Mr Lyons at the University of Wollongong by calling 02 4221 4207. If you have any concerns or complaints regarding the way in which the research is or has been conducted, you can contact the Secretary of the University of Wollongong Human Research Ethics Committee on Phone: (02) 4221 4457, Fax: (02) 4221 4338 email: research@uow.edu.au

University of Wollongong

INITIAL APPLICATION APPROVAL
In reply please quote: HE08/128
Further Enquiries Phone: 4221 4457

27 May 2008

Mr Geoffrey Lyons
School of Psychology
University of Wollongong

Dear Mr Lyons,

Thank you for your letter of 20 May 2008 responding to the comments from the HREC full committee meeting held on the 13th May 2008. I am pleased to advise that the application has been **approved**.

The initial Participant Information Sheet had a final paragraph which included the contact details of the Ethics Officer, could you please include this on the current PIS and forward a copy to the Ethics Unit for our records.

Ethics Number:	HE08/128
Project Title:	A cross sectional exploration of forgiveness and spiritual development during recovery from substance abuse in Salvation Army residential rehabilitation centres
Name of Researchers:	Mr Geoffrey Lyons, Prof Frank Deane, Dr Peter Kelly, Dr Trevor Crowe
Approval Date:	26 May 2008
Expiry Date:	25 May 2009

The University of Wollongong/SESIAHS Health and Medical HREC is constituted and functions in accordance with the NHMRC *National Statement on Ethical Conduct in Human Research.* The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document. As evidence of continuing compliance, the Human Research Ethics Committee requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforseen events that might affect continued ethical acceptability of the project.

You are also required to complete monitoring reports annually and at the end of your project. These reports are sent out approximately 6 weeks prior to the date your ethics approval expires. The reports must be completed, signed by the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.

Yours Sincerely,

A/Professor Arthur Jenkins
Chairperson
Human Research Ethics Committee

Cc: Dr Peter Kelly, IIMH

Research Services Office University of Wollongong NSW 2522 Australia
Telephone: +61 2 4221 3386 **Facsimile:** +61 2 4221 4338
research_services@uow.edu.au www.uow.edu.au/research
CRICOS Provider No: 00102E

Appendix D

Study 3

ADDICTION SEVERITY INDEX: INTAKE VERSION

Addiction Severity Index 5th Edition
Salvation Army Recovery Service Centre
Version 2

14th November 2008

Tom McLellan & Deni Carise
Treatment Research Institute
www.tresearch.org

Remember: This is an interview, not a test

INTRODUCING THE ASI:

1. All clients receive this **same standard interview**.

2. **Seven Potential problem areas** or Domains: Medical, Employment/Support Status, Alcohol, Drug, Legal, Family/Social, and Psychiatric.

3. The interview will take about **30-40 minutes.**

4. Patient Rating Scale: Patient input is important. For each area, I will ask you to use this scale to let me know how bothered you have been by any problems in each section. I will also ask you how important treatment is for you for the area being discussed.

The scale is:
0 - Not at all
1 – Slightly
2 – Moderately
3 – Considerably
4 – Extremely

5. All information gathered is **confidential**

6. Accuracy - You have the right to refuse to answer any question, if you are uncomfortable or feel it is too personal or painful to give an answer, just tell us, "I want to skip that question." We'd rather have no answer than an inaccurate one!

7. There are **two time periods** we will discuss:
   1. The past 30 days
   2. Lifetime

INTERVIEWER INSTRUCTIONS:

1. Leave no blanks.
2. Make plenty of Comments (if another person reads this ASI, they should have a relatively complete picture of the client's perceptions of his/her problems). When noting comments, please write the question number. Probe and clarify!

3. X = Question not answered. Client cannot or will not answer.
4. N = Question not applicable. Must have instructions in item to use "N"

5. End the interview if client misrepresents or cannot understand after two or more sections.

6. Half Time Rule!
   If a question asks the number of months, round up periods of 14 days or more to 1 month. Round up 6 months or more to 1 year.

7. Hints and clarification notes in the ASI are bulleted "•".

Probe, cross-check and make plenty of comments!

International Standard Classification of Occupations

1. Legislators, officials – Main tasks are forming government policies, laws, regulations and overseeing implementation.
2. Professionals - Requires high level of professional knowledge in the fields of physical and life sciences, or social sciences/humanities.
3. Technicians /assoc. professionals - Requires technical knowledge, experience in fields of physical, life or social sciences, humanities.
4. Clerks - Performs secretarial duties, word processing and other customer-oriented clerical duties.
5. Service & Sales - Includes services related to travel, catering, shop sales, housekeeping, and maintaining law and order.
6. Skilled agricultural and fishery workers - Consists of growing crops, breeding or hunting animals, catching or cultivating fish, etc.
7. Craft & Trades - Main tasks consist of constructing buildings and other structures, making various products. Includes handicrafts.
8. Plant and machine operators - Main tasks consist of driving vehicles, operating machinery, or assembling products.
9. Elementary Occupations – Includes simple and routine tasks, such as selling goods in streets, doormen, cleaning, and working laborers.
0. Armed forces - Includes army, navy, air force workers, etc. Excludes non-military police, customs, inactive military reserves.

LIST OF COMMONLY USED DRUGS:

Alcohol:	Beer, wine, liquor, grain (methyl alcohol)
Heroin:	Smack, H, Horse, Brown Sugar
Methadone:	Dolophine, LAAM
Opiates:	Opium, Fentanyl, Buprenorphine, pain killers - Morphine, Dilaudid, Demerol, Percocet, Darvon, etc.
Barbiturates:	Nembutal, Seconal, Tuinal, Amytal, Pentobarbital, Secobarbital, Phenobarbital, Fiorinal, Doriden, etc.
Sed/Hyp/Tranq:	Benzodiazepines = Valium, Librium, Ativan, Serax Tranxene, Dalmane, Halcion, Xanax, Miltown, Other = Chloral Hydrate, Quaaludes
Cocaine:	Cocaine Crystal, Free-Base Cocaine, Crack, Rock, etc.
Amphetamines/: Stimulants	Monster, Crank, Benzedrine, Dexedrine, Ritalin, Preludin, Methamphetamine, Speed, Ice, Crystal, Khat
Cannabis:	Marijuana, Hashish, Pot, Bango Igbo, Indian Hemp, Bhang, Charas, Ganja, Mota, Anasha
Hallucinogens:	LSD (Acid), Mescaline, Psilocybin (Mushrooms), Peyote, PCP, MDMA, Ecstasy, Angel Dust
Inhalants:	Nitrous Oxide (Whippits), Amyl Nitrite (Poppers), Glue, Solvents, Gasoline, Toluene, Etc.

ALCOHOL/DRUG USE INSTRUCTIONS:

The following questions refer to two time periods: the past 30 days and lifetime. Lifetime refers to the time prior to the last 30 days.

⇒ 30 day questions **only** require the number of days used.
⇒ Lifetime use is asked to determine **extended periods of regular use.**
⇒ Regular use =
   1. Three or more times per week
   2. Binges
   3. Problematic irregular use
⇒ Ask these questions with the following sentence stems -
   → "How many days in the past 30 have you used....?"
   → "How many years in your life have you regularly used....?"

D2. Alcohol to intoxication does not necessarily mean "drunk", use the words "to where you felt the effects", "got a buzz", "high", etc. instead of intoxication. As a rule, 3 or more drinks in one sitting, 4 or more drinks in one day for women (5 or more for men) is coded under "intoxication" to designate heavy drinking

Addiction Severity Index 5th Edition

Salvation Army Recovery Service Centre version 1

GENERAL INFORMATION

G1. Client name _____

G2. SAMIS CODE: _____

G3. Salvation Army Recovery Service Centre ☐☐

G4. Date of Admission ☐☐ / ☐☐ / ☐☐☐☐
*Day / Month / Year

G5. Date of Interview: ☐☐ / ☐☐ / ☐☐☐☐

G6 Time Begun: (Hour: Minutes) ☐☐ : ☐☐

G7. Time Ended: (Hour:Minutes) ☐☐ : ☐☐

G8. Class: 1. Intake 2. Follow-up ☐

G9. Contact Code: 1. In person
2. Telephone (Intake ASI must be in person) ☐

G10. Gender: 1. Male 2. Female ☐

G11. Interviewer Code No./ Initials: ☐☐☐

Home address			
Phone			
	Home	Work	Mobile
E-mail			
Website			

G14. How long have you lived at this address? ☐☐ / ☐☐
Years Months

G16. Date of birth: Day ☐☐ / Month ☐☐ / Year ☐☐☐☐

16a. Age ☐☐ Years old

G17. What race/ethnicity/nationality do you consider yourself?
Specify_____

G18. Do you have a religious preference? ☐
1. Protestant 4. Muslim 7. Hindu
2. Catholic 5. Other Christian 8. Buddhist
3. Jewish 6. None 9. Other (specify in comments)

G19. Have you been in a controlled environment in the past 30 days? ☐
1. No 4. Medical Treatment
2. Correctional Facility 5. Psychiatric Treatment
3. Alcohol/Drug Treat. 6. Other: _____
• A place, *theoretically*, without access to drugs/alcohol.

G20. How many days? ☐☐
• If G19=No, G20= *"NN" Refers to total number of days detained in the past 30 days.*

G3 Recovery Service Centre Codes

Rehab
1. Lake Macquarie
2. Blue Mountains
3. Central Coast
4. William Booth
5. Canberra
6. Brisbane
7. Gold Coast
8. Townsville

Detox
9. Alf Dawkins
10. Brisbane
11. Gold Coast

GENERAL INFORMATION COMMENTS
(Include the question number with your notes)

G18, if coded "Other", specify_____

Name of partner	
Home number	
Mobile number	
Work number	
Address	

Name of a relative (e.g. parent, aunt, uncle, child)	
What is their relationship to you?	
Home number	
Mobile number	
Work number	
Address	

General practitioner	
Organisation	
Phone number	
Address	

Counsellor / case manager (e.g. mental health, employment, MERIT)	
Organisation	
Phone number	
Address	

Probation & parole officer	
Organisation	
Phone number	
Address	

MEDICAL STATUS

M1. How many times in your life have you been hospitalized for medical problems? ☐☐

- Include O.D.'s and D.T.'s. Exclude detox, alcohol/drug, psychiatric treatment and childbirth (if no complications). Enter the number of ***overnight*** hospitalizations for medical problems.

M3. Do you have any chronic medical problems which continue to interfere with your life? 0=No 1=Yes ☐

- If ***"Yes"***, specify in comments.
- A chronic medical condition is a serious physical condition that requires regular care, (i.e., medication, dietary restriction) preventing full advantage of their abilities.

M4. Has a health care provider recommended you take any medications on a regular basis for a physical problem? 0=No 1=Yes ☐

- **Do not include various remedies given by a non-healthcare Provider** .Must be for a medical condition; **don't** include **psychiatric medicines**. Include medicines prescribed whether or not the patient is currently taking them. The intent is to verify chronic medical problems.

M5. Do you receive financial support for a physical disability? 0 - No 1 - Yes ☐

- ***If Yes, specify in comments.***
- Include Workers' compensation, early retirement for medical Disability. • Exclude psychiatric disability. ***India code X***

M6. How many days have you experienced medical problems in the past 30 days? ☐☐

- Include flu, colds, injuries, etc. Include serious ailments related to drugs/alcohol, which would continue even if the patient were abstinent (e.g., cirrhosis of liver, HIV, HCV, HBV abscesses from needles, etc.).

For Questions M7 & M8, ask the patient to use the Patient Rating scale.

M7. How troubled or bothered have you been by these medical problems in the past 30 days? ☐

- Restrict response to problem days of Question M6.

M8. How important to you now is treatment for these medical problems? ☐

- If client is currently receiving medical treatment, refer to the need for ***additional*** medical treatment by the patient.

Note: The patient is rating their need for additional medical services or referrals from your agency, above any services they may already be getting.

CONFIDENCE RATINGS

Is the above information significantly distorted by:

M10. Patient's misrepresentation? 0 - No 1 - Yes ☐

M11. Patient's inability to understand? 0 - No 1 - Yes ☐

M12. Have you ever been tested for hepatitis? 0 = No, 1=Yes ☐

M12a. If Yes, what was the result? ☐

1 = Hep Negative (not infected)
2 = Hep positive (infected)
3 = Don't Know

- If M12=No, M12a ="N"

M12b. Would you like help obtaining a Hepatitis test? ☐

M13. Have you ever been tested for HIV? 0 = No, 1=Yes ☐

M13a. If Yes, what was the result? ☐

1 = HIV Negative (not infected)
2 = HIV positive (infected)
3 = Don't Know

- If M13=No, M13a = "N"

M13b. Would you like help obtaining an HIV test? ☐

0=No, 1=Yes

M14. Are you satisfied with your eating patterns? ☐

M15. Do you ever eat in secret? ☐

M16. Does your weight affect the way you feel about yourself? ☐

M17. Do you currently suffer with or have you ever suffered in the past with an eating disorder? ☐

If patient is Male, code all "N" 0=No, 1=Yes, 2=Unsure

M14. Are you currently pregnant? ☐

M14a. If pregnant; do you have prenatal care? ☐

M14b. If unsure; would you like help obtaining a pregnancy test? ☐

- If M14= 0 or 2 (No or Unsure), M14a = N
- If M14= 1 (Yes), M14b = N

MEDICAL COMMENTS

(Include question number with your notes)

EMPLOYMENT/SUPPORT STATUS

E1. Education completed:

• **Code Years and Months, Level # or both.**

*Level 0 = No education
* Level 1 = Primary 1-6 yrs — Yrs. ☐☐ Mos. ☐☐
* Level 2 = Lower Secondary 7-9 yrs
* Level 3 = Upper Secondary 10-12 yrs
* Level 4 = Post Secondary, non-tertiary (add'l preparation for level 5) — **OR** Code Level # ☐
* Level 5 = First Stage Tertiary (+4 -6 years, incl BS, MS)
* Level 6 = Second Stage Tertiary (include doctorate, etc).

• Include formal education only.

E1a. Highest degree earned, specify _____

E2.* Training or Technical education completed: ☐☐ Months

• Formal/organized training only.

E4a. Are your job options limited by lack of transportation? ☐ 0=No 1= Yes

E6. How long was your longest full time job? ☐☐ Years ☐☐ Months

• Full time = 35+ hours weekly; does not necessarily mean most recent job.

E7.* Usual (or last) occupation? ☐
(specify) _____
(Use International Classification references page 1)

E9 Does someone contribute the majority of your support? ☐ 0 - No 1 - Yes

• Is patient primarily financially supported on a regular basis from family/friends. Include spouse's contribution; exclude support by an institution. "Housing" is considered the majority of someone's support.

E10. Which of these represents how you spent the majority of the past three years? ☐

1. Full time (35+ hours)
2. Part time (regular hours)
3. Part time (irregular hours)
4. Student
5. Military
6. Retired/Disability
7. Unemployed
8. In controlled environment
9. Homemaker

• Answer should represent the majority of the last 3 years, not just the most recent selection. If there are equal times, select category which best represents the current situation.

E11. How many days in the past 30 did you work for pay? ☐☐

• Include days actually worked, paid sick days and paid vacation.

EMPLOYMENT/SUPPORT COMMENTS

(Include question number with your notes)

EMPLOYMENT/SUPPORT (cont.)

For questions E12-17: How much money did you receive from the following sources in the past 30 days? * Use your local currency.

E12. Employment? ☐☐☐☐☐☐
- Net or "take home" pay, include any money earned except illegal income

E13. Unemployment Compensation ☐☐☐☐☐☐

E14. Social Welfare ☐☐☐☐☐☐
- Money given by government to assist with living expenses.

E15. Pensions, benefits, social security? ☐☐☐☐☐☐
- Include disability, pensions, retirement, & workers' compensation and veterans benefits.

E16. Mate, family, or friends? ☐☐☐☐☐☐
- Money for personal expenses. Also code unreliable sources of income, windfalls (unexpected money) money from loans, inheritance. (Record ***cash*** payments only, etc.).

E17. Illegal? ☐☐☐☐☐☐
- ***Cash*** obtained from drug dealing, stealing, selling stolen goods, Illegal gambling, prostitution, etc.

Do not count estimated cash value of drugs or other items obtained illegally

E18. How many people depend on you for the majority of their food, shelter, etc.? ☐☐
- Must be regularly depending on patient, do include alimony/child support, do not include the patient or self-supporting spouse, etc.

E19. How many days have you experienced employment problems in the past 30 days? ☐☐
- Include inability to find work, if they are actively looking for work, or problems with present job in which that job is jeopardized.
- If the patient has been incarcerated or detained all of the past 30 days, code "NN", they can't have had problems

For Questions E20 & E21, ask the patient to use the Patient Rating scale.

E20. How troubled or bothered have you been by these employment problems in the past 30 days? ☐
- If E19=N, code N

E21. How important to you now is counseling for these employment problems? ☐
- Stress help in finding or preparing for a job, getting training for a job, not giving them a job.

Note: **The patient is rating their need for employment/support Services, referrals, etc from your agency.**

CONFIDENCE RATINGS

Is the above information significantly distorted by:

E23. Patient's misrepresentation? 0-No 1-Yes ☐

E24. Patient's inability to understand? 0-No 1-Yes ☐

E25. Do you have literacy or numeracy problems? 0 - No 1 - Yes ☐

EMPLOYMENT/SUPPORT COMMENTS

(Include question number with your notes)

Specify type of currency used: _____

ALCOHOL/DRUGS

Note: Route of Administration (ROA) Types:

1. Oral (anything swallowed)
2. Nasal (or any other sub- coetaneous membrane administration)
3. Smoking
4. Non-IV injection (such as IM or "skin popping"
5. IV (shooting directly into a vein).

• . In cases where two or more routes are used, the most serious route should be coded. The routes listed are from least severe to most severe.

		Past 30 Days	Lifetime (years)	ROA	Age of First Use
D1	Alcohol (any use at all, 30 days)	☐☐	☐☐	☐	☐☐
D2	Alcohol - to intoxication	☐☐	☐☐	☐	☐☐
D3	Heroin	☐☐	☐☐	☐	☐☐
D4	Methadone	☐☐	☐☐	☐	☐☐
D5	Other Opiates/Analgesics	☐☐	☐☐	☐	☐☐
D6	Barbiturates	☐☐	☐☐	☐	☐☐
D7	Sedatives/Hypnotics/ Tranquilizers	☐☐	☐☐	☐	☐☐
D8	Cocaïne	☐☐	☐☐	☐	☐☐
D9	Amphetamines/Stimulants	☐☐	☐☐	☐	☐☐
D10	Cannabis	☐☐	☐☐	☐	☐☐
D11	Hallucinogens	☐☐	☐☐	☐	☐☐
D12	Inhalants	☐☐	☐☐	☐	☐☐
D13	More than 1 substance (including alcohol)	☐☐	☐☐	■	☐☐

D14a. Identify the primary substance of abuse: ☐☐

D14b. Identify the secondary substance of abuse: ☐☐

- Interviewer should determine the primary and secondary drugs of abuse. Code the number next to the drug in questions 01-12
- D14b can be coded N

D15. How long was your most recent period of voluntary abstinence from these major substance(s)? ☐☐ Months

- Most recent sobriety lasting at least one month. Periods of hospitalization/incarceration *do not count*. Periods of antabuse, methadone, or naltrexone use *do count*.
- Code 00 = never abstinent.

D16. How many months ago did this abstinence end? ☐☐ Months

- If D15 = 00, then D16 = NN.
- Code 00 = still abstinent.

D17.* How many times have you had: Alcohol DT's? ☐☐

- ***Delirium Tremens*** (DT's): Occur 24-48 hours after last drink, Or significant decrease in alcohol intake, shaking, severe disorientation, fever, hallucinations, they usually require medical attention.

If any item D3 - D11 Route of Administration = 4 or 5 (injection)

	Past 30 days	Lifetime
D38. Have you ever used needles or works after someone else had used them?	☐	☐

D38a. How many times in the past 30 days? ☐☐

- If D38 past 30 days = 0, then D38a = N

ALCOHOL/DRUGS COMMENTS

(Include question number with your notes)

ALCOHOL/DRUGS (cont.)

D19a. How many times in your life have you been treated for Alcohol or Drug abuse? ☐☐

- Include detoxification, halfway houses, in/outpatient counseling, and AA (if 3+ meetings within one month period).

D21a. How many of these treatments were detox only: ☐☐

- If D19a = 00, then question D21a = NN
- Note: Code the number of treatments listed in D19a that consisted only of Detoxification and no other treatment.

D23. How much would you say you spent during the past 30 days on alcohol? ☐☐☐☐☐☐

- Only count actual ***money*** spent. What is the financial burden caused by alcohol?

D24 How much would you say you spent during the past 30 days on drugs? ☐☐☐☐☐☐

- Only count actual ***money*** spent. What is the financial burden caused by drugs?

D25. How many <u>days</u> in the past 30 have you been treated in an outpatient setting for alcohol or drugs in the past 30 days? ☐☐

- Include days attended AA/NA, other support groups, OP detox, methadone or treatment, etc.

D26. How many days in the past 30 have you experienced Alcohol problems? ☐☐

- Include: Craving, withdrawal symptoms, disturbing effects of use, or wanting to stop and being unable to.

For Questions D28+D30, ask the patient to use the Patient Rating scale. The patient is rating the need for additional substance abuse treatment.

D28. How troubled or bothered have you been in the past 30 days by these alcohol problems? ☐

D30. How important to you now is treatment for these alcohol problems? ☐

D27. How many days in the past 30 have you experienced: Drug problems? ☐☐

- Include: Craving, withdrawal symptoms, disturbing effects of use, or wanting to stop and being unable to.

For Questions D29+D31, ask the patient to use the Patient Rating scale. The patient is rating the need for substance abuse treatment.

D29. How troubled or bothered have you been in the past 30 days by these drug problems? ☐

D31. How important to you now is treatment for these drug problems? ☐

CONFIDENCE RATINGS

Is the above information significantly distorted by:

D34. Patient's misrepresentation? 0-No 1-Yes ☐

D35. Patient's inability to understand? 0-No 1-Yes ☐

D36. How many times have you tried to quit using substances without treatment?

D37. Nicotine

	Past 30 Days	Lifetime (years)	Route of Admin
	☐☐	☐☐	☐

1. Oral/Chew 2. Nasal 3. Smoking 4. Non-IV injection 5. IV

D38. Using the patient rating scale, how would you rate your level of agreement with the following statements?

a. I am ready to decrease my drinking ☐

b. I am ready to decrease my drug use ☐

c. I believe I can manage my alcohol use ☐

d. I believe I can manage my drug use. ☐

e. I know I have a drinking or drug problem and I am motivated to work on it ☐

Gambling	0-No	1-Yes
G1. Have you ever felt the need to bet more and more money?		☐
G2. Have you ever had to lie to people important to you about how much you gamble?		☐

ALCOHOL/DRUGS COMMENTS

(Include question number with your notes)

LEGAL STATUS

L1. Was this admission prompted or suggested by the criminal justice system? 0 - No 1 -Yes ☐

L2. Are you on parole or probation? 0 - No 1 - Yes ☐
- Note duration and level in comments.

How many times in your life have you been arrested and charged with the following:

L3 • Shoplift/Vandal	☐☐	L10• Assault	☐☐
L4 • Parole/Probation Violations	☐☐	L11• Arson	☐☐
L5 • Drug Charges	☐☐	L12• Rape	☐☐
L6 • Forgery	☐☐	L13• Homicide/Mansl.	☐☐
L7• Weapons Offense	☐☐	L14• Prostitution/Sex Work	☐☐
L8• Burglary/Larceny/B&E	☐☐	L15• Contempt of Court	☐☐
L9 • Robbery	☐☐	L16• Other: _____	☐☐

- Include total number of counts, not just convictions. Do not include juvenile (pre-age 18) crimes, unless they were charged as an adult.
- Include formal charges only.

L17• How many of these charges resulted in convictions? ☐☐

- If L3-16 = 00, then question L17 = "NN".
- Do not include misdemeanor offenses from questions L18-20 below.
- Convictions include fines, probation, incarcerations, suspended sentences, guilty pleas, and plea bargaining.

How many times in your life have you been charged with the following:

L18. Disorderly conduct, vagrancy, public intoxication? ☐☐

L19. Driving while intoxicated? ☐☐

L20. Major driving violations? ☐☐
- Moving violations: speeding, reckless driving, no license, etc.

L21. How many months were you incarcerated in your life? ☐☐ Months
- If incarcerated 2 weeks or more, round this up to 1 month. List total number of months incarcerated.

L24. Are you presently awaiting charges, trial, or sentencing? 0 - No 1 - Yes ☐

L25. What for? ☐☐
- Use the number of the type of crime committed 03-16 and 18-20 in previous questions.
- Refers to Q. L24. If L24=No, code NN. If awaiting on more than one charge, choose most severe.

LEGAL COMMENTS
(Include question number with your notes)

LEGAL STATUS (cont.)

L26. How many days in the past 30, were you detained or incarcerated? ☐☐
- Include being arrested and released on the same day.

L27. How many days in the past 30 have you engaged in illegal activities for profit? ☐☐
- Exclude simple drug possession. Include drug dealing, prostitution, selling stolen goods, etc. May be cross checked with Employment Question E17.

For Questions L28-29, ask the patient to use the Patient Rating scale.

L28. How serious do you feel your present legal problems are? ☐
- Exclude civil problems, such as divorce, etc.

L29. How important to you now is counseling or referral for these legal problems? ☐
- **NOTE:** Patient is rating need for referral (or services) from your agency to legal counsel for defense against criminal charges.

CONFIDENCE RATINGS
Is the above information significantly distorted by:

L31. Patient's misrepresentation? 0 - No 1- Yes ☐

L32. Patient's inability to understand? 0 - No 1 - Yes ☐

LEGAL COMMENTS
(Include question number with your notes)

FAMILY/SOCIAL STATUS

F1. Marital Status:
1-Married 3-Widowed 5-Divorced
2-Remarried 4-Separated 6-Never Married
• Common-law marriage = 1. Specify in comments. ☐

F3. Are you satisfied with this situation?
• Satisfied = generally liking the situation.
• Refers to Questions F1 & F2.
0-No 1-Indifferent 2-Yes ☐

F4. Usual living arrangements (past 3 years): ☐
1-With partner & children 6-With friends
2-With partner alone 7-Alone
3-With children alone 8-Controlled Environment
4-With parents 9-No stable arrangement
5-With family
• Choose arrangements most representative of the past 3 years

F6. Are/were you satisfied with these arrangements? ☐
0-No 1-Indifferent 2-Yes

F4a. Living arrangements past 30 days? (Use codes above) ☐

Do you live with anyone who:

F7. Has a current alcohol problem? 0-No 1-Yes ☐

F8 Uses non-prescribed drugs? 0-No 1-Yes ☐
(or abuses prescribed drugs)

F9. With whom do you spend most of your free time? ☐
1-Family 2-Friends 3-Alone

F10. Are you satisfied with spending your free time this way ? 0-No 1-Indifferent 2-Yes ☐
• A satisfied response must indicate that the person generally likes the situation. Refers to Question F9.

F11a. How many of your close friends use drugs or abuse alcohol? ☐
Note: If patient has no close friends, code "N"

Have you had significant periods in which you have experienced serious problems getting along with: 0 – No, 1 - Yes

	Past 30 days	In Your Life
F18. Mother	☐	☐
F19. Father	☐	☐
F20. Brother/Sister	☐	☐
F21. Partner/Spouse	☐	☐
F22. Children	☐	☐
F23. Other Significant Family (specify)_____	☐	☐
F24. Close Friends	☐	☐
F25. Neighbors	☐	☐
F26. Co-workers	☐	☐

• "Serious problems" mean those that endangered the relationship.
• A "problem" requires contact of some sort, either by telephone or in person. If no contact code "N" If no relative (ex: no children) Code N.

FAMILY/SOCIAL COMMENTS
(Include question number with your notes)

FAMILY/SOCIAL (cont.)

Has anyone ever abused you?	**0- No** Past 30 days	**1-Yes** In Your Life
F28. Physically? • Caused you physical harm.	☐	☐
F29. Sexually? • Forced any sexual advances/acts.	☐	☐

How many days in the past 30 have you had serious conflicts:
F30. With your family? ☐☐

Ask the patient to use the Patient Rating scale:

How troubled or bothered have you been in the past 30 days by:
F32. Family problems? ☐

How important to you now is treatment or counseling for these:
F34. Family problems
- Patient is rating his/her need for counseling for family problems, not whether they would be willing to attend ☐

Note: The patient is rating their need for you/your program to provide or refer them to family services, above and beyond any services they may already be getting.

How many days in the past 30 have you had serious conflicts:
F31. With other people (excluding family)? ☐☐

Ask the patient to use the Patient Rating scale:

How troubled or bothered have you been in the past 30 days by:
F33. Social problems? ☐

How important to you now is treatment or counseling for these:
F35. Social problems
- Include patient's need to seek treatment for such social problems as loneliness, inability to socialize, and dissatisfaction with friends. Patient rating should refer to dissatisfaction, conflicts, or other serious problems. ☐

Note: The patient is rating their need for you/your program to provide or refer them to these types of services, above and beyond treatment they may already be getting somewhere else.

CONFIDENCE RATING

Is the above information significantly distorted by:

F37. Patient's misrepresentation? 0-No 1-Yes ☐

F38. Patient's inability to understand? 0-No 1-Yes ☐

	Living with you	Living outside your home
F39. How many children do you have?	☐☐	☐☐
F39a. How many of these are under age 18	☐☐	☐☐

FAMILY/SOCIAL COMMENTS

(Include question number with your notes)

PSYCHIATRIC STATUS

How many times have you been treated for any psychological or emotional problems:

P1* In a hospital or inpatient setting? ☐☐

P2* Outpatient/private patient? ☐☐
- Do not include substance abuse, employment, or family counseling.
- Treatment episode = a series of continuous visits or treatment days, not the number of visits.

P3. Do you receive financial support for a psychiatric disability? Can be from government or employer, etc. ☐ 0-No 1-Yes

Have you had a significant period of time (that was not a direct result of alcohol/drug use) in which you have:

		0-No Past 30 Days	1-Yes Lifetime
P4.	Experienced serious depression-sadness, hopelessness, loss of interest?	☐	☐
P5.	Experienced serious anxiety/tension uptight, unreasonably worried, inability to feel relaxed?	☐	☐
P6.	Experienced hallucinations-saw things/ heard voices that others didn't see/hear? Code other psychotic symptoms here also.	☐	☐
P7.	Experienced trouble understanding, concentrating, or remembering?	☐	☐

Note: Patient can be under the influence of alcohol/drugs for these questions.

Have you had a significant period of time (regardless of alcohol and drug use) in which you have:

		0-No Past 30 Days	1-Yes Lifetime
P8.	Experienced trouble controlling violent behavior including episodes of rage, or violence?	☐	☐
P9.	Experienced serious thoughts of suicide? • Patient seriously considered a plan for taking his/her life.	☐	☐
P10.	Attempted suicide? • Include actual suicidal gestures or attempts.	☐	☐

P11. Has a health care provider recommended you take any medications for psychological or emotional problems? ☐ ☐

- Recommended for the patient by a physician or other health care provider as appropriate. Record "Yes" if a medication was recommended even if the patient is not taking it.

P12. How many days in the past 30 have you experienced these psychological or emotional problems? ☐☐
- This refers to problems noted in Questions P4-P10.

For Questions P13-P14, ask the patient to use the Patient Rating scale

P13. How troubled or bothered have you been by these psychological or emotional problems in the past 30 days? ☐
- Patient should be rating the problem days from Question P12.

P14. How important to you now is treatment for these psychological or emotional problems? ☐

Note: The patient is rating their need for you/your program to provide or refer them to psychological/psychiatric services, above and beyond treatment they may already be getting somewhere else.

CONFIDENCE RATING

Is the above information significantly distorted by:

P22 Patient's misrepresentation? 0-No 1-Yes ☐

P23. Patient's inability to understand? 0-No 1-Yes ☐

PSYCHIATRIC STATUS COMMENTS

(Include question number with your comments)

Specify Diagnoses if known: _____

CLOSING ITEM

G12. Special Code - If ASI is not completed: ☐
1. Interview terminated by interviewer
2. Patient refused to finish interview
3. Patient unable to respond (language or intellectual barrier, under the influence, etc.)

Code "N" if Interview completed.

ADDICTION SEVERITY INDEX: FOLLOW-UP VERSION

Bridge Program Evaluation

3 Month Follow up Assessment

Client Name:					
Date of Birth:					
Client File Number (SAMIS):					
Site (circle):	1.Miracle Haven (Morisset)	2. Endeavour (Morisset)	3. Blue Mountains	4. Central Coast	5. Canberra
	6. Brisbane (Moonyah)	7. William Booth (Sydney)	8. Gold Coast	9. Townsville	
Date of Assessment:					
Time of assessment:					
	Commenced		Completed		
Date left rehab					
Follow-up Period	**3 months**	**6 months**	**9 months**	**12 months**	

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ILLAWARRA INSTITUTE FOR MENTAL HEALTH

University of Wollongong

Salvation Army Recovery Service Centre Follow-up Version 1.
Addiction Severity Index 5th Edition

MEDICAL STATUS

M1. * How many times *since you left the S.A Program* have you been hospitalized overnight for medical problems? ☐☐
- Include O.D.'s and D.T.'s. Exclude detox, alcohol/drug,psychiatric treatment and childbirth (if no complications).

Enter the number of ***overnight*** hospitalizations for medical problems.

M6. How many days have you experienced medical problems in the past 30 days? ☐☐
- Include flu, colds, injuries, etc. Include serious ailments related to drugs/alcohol, which would continue even if the patient were abstinent (e.g., cirrhosis of liver, HIV, HCV, HBV abscesses from needles, etc.).

For Questions M7 & M8, ask the patient to use the Patient Rating scale.

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

M7. How troubled or bothered have you been by these medical problems in the past 30 days? ☐
- Restrict response to problem days of Question M6.

M8. How important to you now is treatment for these medical problems? ☐
- If client is currently receiving medical treatment, refer to the need for ***additional*** medical treatment by the patient.

Note: The patient is rating their need for additional medical services or referrals from your agency, above any services they may already be getting.

EMPLOYMENT/SUPPORT STATUS

E4a. Are your job options limited by lack of transportation? ☐
0=No 1= Yes

E9 Does someone contribute the majority of your support? ☐
0 - No 1 - Yes
- Is patient primarily financially supported on a regular basis from family/friends.

Include spouse's contribution. Exclude support by an institution. "Housing" is considered the majority of someone's support.

E11. How many days in the past 30 did you work for pay? ☐☐
- Include days actually worked, paid sick days and paid vacation.

E19. How many days have you experienced employment problems in the past 30 days? ☐☐
- Include inability to find work, if they are actively looking for work, or problems with present job in which that job is jeopardized.
- If the patient has been incarcerated or detained all of the past 30 days, code "NN", they can't have had problems

For Questions E20 & E21, ask the patient to use the Patient Rating scale.

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

E20. How troubled or bothered have you been by these employment problems in the past 30 days? ☐
- If E19=N, code N

E21. How important to you now is counseling for these employment problems? ☐
- Stress help in finding or preparing for a job, getting training for a job, not giving them a job.

ALCOHOL/DRUGS

Note: Route of Administration (ROA) Types:

1. Oral (anything swallowed)
2. Nasal (or any other sub- coetaneous membrane administration)
3. Smoking
4. Non-IV injection (such as IM or "skin popping"
5. IV (shooting directly into a vein).

•. In cases where two or more routes are used, the most serious route should be coded. The routes listed are from least severe to most severe.

		Past 30 Days	ROA
D1	Alcohol (any use at all, 30 days)	☐☐	☐
D2	Alcohol - to intoxication	☐☐	☐
D3	Heroin	☐☐	☐
D4	Methadone	☐☐	☐
D5	Other Opiates/Analgesics	☐☐	☐
D6	Barbiturates	☐☐	☐
D7	Sedatives/Hypnotics/ Tranquilizers	☐☐	☐
D8	Cocaine	☐☐	☐
D9	Amphétamines/Stimulants	☐☐	☐
D10	Cannabis	☐☐	☐
D11	Hallucinogens	☐☐	☐
D12	Inhalants	☐☐	☐
D13	More than 1 substance (including alcohol)	☐☐	■
D37	Nicotine	☐☐	

If any item D3 - D11 Route of Administration = 4 or 5 (injection)

D38. Since you entered The Salvation Army rehab have you used needles or works after someone else had used them? ☐ 0=No 1= Yes

D38a. How many times in the past 30 days? ☐☐

- If D38 past 30 days = 0, then D38a = N

D19a. How many times *since you left the S.A Program* have you been treated for Alcohol or Drug abuse? ☐☐

- Include detoxification, halfway houses, in/outpatient counselling, and AA (if 3+ meetings within one month period).

D21a. How many of these treatments, *since you left the S.A Program,* were detox only: ☐☐

- If D19a = 00, then question D21a = NN
- Note: Code the number of treatments listed in D19a that consisted only of Detoxification and no other treatment.

D25. How many <u>days</u> in the past 30 have you been treated in an outpatient setting for alcohol or drugs in the past 30 days? ☐☐

- Include days attended AA/NA, other support groups, OP detox, methadone or treatment, etc.

D26. How many days in the past 30 have you experienced Alcohol problems? ☐☐

• Include: Craving, withdrawal symptoms, disturbing effects of use, or wanting to stop and being unable to.

For Questions D28+D30, ask the patient to use the Patient Rating scale.
The patient is rating the need for additional substance abuse treatment.

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

D28. How troubled or bothered have you been in the past 30 days by these alcohol problems? ☐

D30. How important to you now is treatment for these alcohol problems? ☐

D27. How many days in the past 30 have you experienced drug problems? ☐☐

• Include: Craving, withdrawal symptoms, disturbing effects of use, or wanting to stop and being unable to.

For Questions D29+D31, ask the patient to use the Patient Rating scale.
The patient is rating the need for substance abuse treatment.

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

D29. How troubled or bothered have you been in the past 30 days by these drug problems? ☐

D31. How important to you now is treatment for these drug problems? ☐

D37a. Have you used nicotine replacement therapy (NRT) during the last 30 days? This might include patches, gum, sprays, lozenges, inhalers etc.

No 0 ☐

Yes 1 ☐

D37b. How do you see yourself as a cigarette smoker? Please tick the box that most applies to you.

I am not ready to stop smoking 1☐

I am thinking about stopping 2☐

I have decided to stop smoking 3☐

I want to stay a non-smoker 4☐

LEGAL STATUS

L21. How many months were you incarcerated *since you left the S.A Program*? ☐☐

• If incarcerated 2 weeks or more, round this up to 1 month. List total number of months incarcerated.

L24. Are you presently awaiting charges, trial, or sentencing? 0 - No 1 - Yes ☐

L26. How many days in the past 30, were you detained or incarcerated? ☐☐

• Include being arrested and released on the same day.

L27. How many days in the past 30 have you engaged in illegal activities for profit? ☐☐

• Exclude simple drug possession. Include drug dealing, prostitution, selling stolen goods, etc

For Questions L28-29, ask the patient to use the Patient Rating scale.

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

L28. How serious do you feel your present legal problems are? ☐
- Exclude civil problems, such as divorce, etc.

L29. How important to you now is counselling or referral for these legal problems? ☐

- **NOTE:** Patient is rating need for referral (or services) from your agency to legal counsel for defence against criminal charges.

FAMILY/SOCIAL STATUS

F1. Marital Status: ☐
1-Married 3-Widowed 5-Divorced
2-Remarried 4-Separated 6-Never Married
- Common-law marriage = 1. Specify in comments.

F3. Are you satisfied with this situation? ☐
- Satisfied = generally liking the situation.
- Refers to Questions F1 & F2.

0-No 1-Indifferent 2-Yes

F4. Usual living arrangements) *since you left the S.A Program*): ☐
1-With partner & children
2-With partner alone
3-With children alone
4-With parents
5-With family
6-With friends
7-Alone
8-Controlled Environment
9-No stable arrangement

F6. Are/were you satisfied with these arrangements? ☐
0-No 1-Indifferent 2-Yes

F4a. Living arrangements past 30 days? ☐

Have you had significant periods in which you have experienced serious problems getting along with: **0 – No, 1 - Yes**
Past 30 days

F18. Mother ☐
F19. Father ☐
F20. Brother/Sister ☐
F21. Partner/Spouse ☐
F22. Children ☐
F23. Other Significant Family ☐
(specify)_____
F24. Close Friends ☐
F25. Neighbors ☐
F26. Co-workers ☐

- "Serious problems" mean those that endangered the relationship.
- A "problem" requires contact of some sort, either by telephone or in person. If no contact code "N" If no relative (ex: no children) Code N.

How many days in the past 30 have you had serious conflicts:
F30. With your family? ☐☐

Ask the patient to use the Patient Rating scale:

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

How troubled or bothered have you been in the past 30 days by:
F32. Family problems? ☐

How important to you now is treatment or counselling for these:

F34. Family problems
- Patient is rating his/her need for counselling for family problems, not whether they would be willing to attend ☐

Note: The patient is rating their need for you/your program to provide or refer them to family services, above and beyond any services they may already be getting.

PSYCHIATRIC STATUS

How many times have you been treated for any psychological or emotional problems *since you left the S.A Program*:

P1* In a hospital or inpatient setting? ☐☐

P2* **Outpatient**/private patient? ☐☐
- Do not include substance abuse, employment, or family counselling.
- Treatment episode = a series of continuous visits or treatment days, not the number of visits.

Have you had a significant period of time (that was not a direct result of alcohol/drug use) in which you have:

0-No 1-Yes
Past 30 Days

P4. Experienced serious depression-sadness, hopelessness, loss of interest? ☐

P5. Experienced serious anxiety/tension uptight, unreasonably worried, inability to feel relaxed? ☐

P6. Experienced hallucinations-saw things/heard voices that others didn't see/hear? ☐
Code other psychotic symptoms here also.

P7. Experienced trouble understanding, concentrating, or remembering? ☐

Note: Patient can be under the influence of alcohol/drugs for these questions.

Have you had a significant period of time (regardless of alcohol and drug use) in which you have:

0-No 1-Yes
Past 30 Days

P8. Experienced trouble controlling violent behaviour including episodes of rage, or violence? ☐

P9. Experienced serious thoughts of suicide? ☐
- Patient seriously considered a plan for taking his/her life.

P10. Attempted suicide? ☐
- Include actual suicidal gestures or attempts.

P12. How many days in the past 30 have you experienced these psychological or emotional problems? ☐☐
- This refers to problems noted in Questions P4-P10.

For Questions P13-P14, ask the patient to use the Patient Rating scale

0 = not al all, 1 = slightly, 2 = moderately, 3 = considerably, 4 = extremely

P13. How troubled or bothered have you been by these psychological or emotional problems in the past 30 days? ☐
- Patient should be rating the problem days from Question P12.

P14. How important to you now is treatment for these psychological or emotional problems? ☐

Note: The patient is rating their need for you/your program to provide or refer them to psychological/psychiatric services, above and beyond treatment they may already be getting somewhere else.

Script

That is the end of our questions.

Thank you so much for agreeing to participate in the study.

What address would you like your gift certificate mailed to?

Home address	

Is it OK for us to contact you again in about 6-months time to answer similar questions?

1. Yes
2. No

(if yes)

What is the best telephone number to contact you on? Do you have an e-mail address?

Phone			
	Home	Work	Mobile
E-mail			
Website			

Thanks again for your time.

INTAKE AND FOLLOW-UP MEASURES

THE LIFE ENGAGEMENT TEST (LET)

Use the following scale to indicate your agreement with each of the statements below.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. There is not enough purpose in my life.	1	2	3	4	5
2. To me, the things I do are all worthwhile.	1	2	3	4	5
3. Most of what I do seems trivial and unimportant.	1	2	3	4	5
4. I value my activities a lot.	1	2	3	4	5
5. I don't care very much about the things I do.	1	2	3	4	5
6. I have lots of reasons for living.	1	2	3	4	5

DAILY SPIRITUAL EXPERIENCES SCALE (DSES)

The list that follows includes items you may or may not experience. Please consider if and how often you have these experiences, and try to disregard whether you feel you should or should not have them. In addition, a number of items use the word 'God.' If this word is not a comfortable one, please substitute another idea that calls to mind the divine or holy for you.

	Never or almost never	Once in a while	Some days	Most days	Every day	Many times a day
1. I feel God's presence.	1	2	3	4	5	6
2. I experience a connection to all life.	1	2	3	4	5	6
3. During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns.	1	2	3	4	5	6
4. I find strength in my religion or spirituality.	1	2	3	4	5	6
5. I find comfort in my religion or spirituality.	1	2	3	4	5	6
6. I feel deep inner peace or harmony.	1	2	3	4	5	6
7. I ask for God's help in the midst of daily activities.	1	2	3	4	5	6
8. I feel guided by God in the midst of daily activities.	1	2	3	4	5	6
9. I feel God's love for me, directly.	1	2	3	4	5	6
10. I feel God's love for me, through others.	1	2	3	4	5	6
11. I am spiritually touched by the beauty of creation.	1	2	3	4	5	6

	Never or almost never	Once in a while	Some days	Most days	Every day	Many times a day
12. I feel thankful for my blessings.	1	2	3	4	5	6
13. I feel a selfless caring for others.	1	2	3	4	5	6
14. I accept others even when they do things I think are wrong.	1	2	3	4	5	6
15. I desire to be closer to God or in union with Him	1	2	3	4	5	6

	Not at all close	Somewhat close	Very close	As close as possible
16. In general, how close do you feel to God?	1	2	3	4

HEARTLAND FORGIVENESS SCALE (HFS)

In the course of our lives negative things may occur because of our own actions, the actions of others, or circumstances beyond our control. For some time after these events, we may have negative thoughts or feelings about ourselves, others, or the situation. Think about how you typically respond to such negative events. Next to each of the following items write the number (from the 7-point scale below) that best describes how you typically respond to the type of negative situation described. There are no right or wrong answers. Please be as open as possible in your answers.

1	2	3	4	5	6	7
Almost always false of me		More often false of me		More often true of me		Almost always true of me

1. Although I feel badly at first when I mess up, over time I can give myself some slack.

2. I hold grudges against myself for negative things I've done.

3. Learning from bad things that I've done helps me get over them.

4. It is really hard for me to accept myself once I've messed up.

5. With time I am understanding of myself for mistakes I've made.

6. I don't stop criticizing myself for negative things I've felt, thought, said, or done.

7. I continue to punish a person who has done something that I think is wrong.

8. With time I am understanding of others for the mistakes they've made.

9. I continue to be hard on others who have hurt me.

10. Although others have hurt me in the past, I have eventually been able to see them as good people.

11. If others mistreat me, I continue to think badly of them

12. When someone disappoints me, I can eventually move past it.

PARTICIPANT INFORMATION SHEET AND CONSENT FORM

University of Wollongong

Client Participant Information Sheet
The Salvation Army Recovery Service Centres
Evaluation of a residential program for people with psychiatric and substance use disorders

Who is doing the study?
Dr Peter Kelly, Prof Frank Deane and Dr Trevor Crowe are the chief investigators on the project, which is based at the Illawarra Institute for Mental Health at the University of Wollongong. Geoff Lyons and Kane Mortlock are Ph.D students who will also be working on the project and will use data collected in their doctoral theses.

What is the study about?
The purpose of this research is to evaluate the effectiveness of the Salvation Army Recovery Service Centres. We are interested in exploring the range of activities provided by the centres and how these might assist individuals to meet their recovery goals. The research project's findings will be used to improve the treatment services provided by the Salvation Army.

What do I need to do?

1. Give permission. Before we can collect any information we firstly need to obtain your permission to be involved in the study. It is important that you carefully read this 'information sheet' and 'consent form' to ensure that you understand what is involved in the research. If you would like further information on the study you can also contact Dr Kelly, Prof. Deane, or Dr. Crowe at the University of Wollongong by calling 02 4221 4207.

2. To be able to evaluate The Salvation Army Recovery Service Centres we need to measure how individuals may change whilst they are attending the program. We will measure this is several ways. The first is to ask your case manager how they think you are doing and how well treatment is progressing. We will collect this information by asking your case manager to complete a brief questionnaire at regular intervals. We will also review your case record to obtain your mental health history, involvement in the treatment program and reason for discharge.

3. We will also ask you to complete a questionnaire to measure how you are feeling. This questionnaire will involve questions on your physical and mental health, drug and/or alcohol use and spirituality. The questionnaire will be completed when you first enter the service with the support of Salvation Army staff. It is anticipated that completion of the initial questionnaire will take approximately 60 minutes.

   Once a resident of the program you will be asked to complete a briefer version of the questionnaire. This will take approximately 20 to 35 minutes. You will be asked to complete the questionnaire after you have been in the program for 2 weeks, and then at 2-monthly intervals during your stay. When you leave the program you will also be asked to complete the questionnaire.

4. **To understand the effects of the program we will also be contacting you by telephone or mail once you leave.** We may contact you during the week following your discharge to confirm you contact details and complete your exit interview if required. A more detailed interview will occur 3-months and 12-months after you have left the service. The questionnaire will include questions on your physical and mental health, drug and/or alcohol use and spirituality. The

5

interviews will take approximately 30 minutes to complete. To compensate you for your time, you will receive a $20 gift certificate for each interview completed.

5. If we are unable to contact you following your discharge from the program we would like to conduct a brief 2-minute interview with someone who is close to you that might be able to provide this information. This will typically be the person you have specified as your Next Of Kin to The Salvation Army staff. You will also be provided with an opportunity to suggest other people (e.g. family, friends, other service providers) who you think might be able to provide information. **This will occur when you complete the Addiction Severity Index with The Salvation Army.**

6. We would be asking the person if they have noticed improvements in your substance use, gambling, mental & physical health, relationships, legal problems, employment and overall direction in life. If the person you specified did not want to answer the questions they could simply refuse when contacted by the researchers. We will only be contacting this person if the research team is unable to locate you first on the phone numbers you have provided. Personal information will not be provided to relatives, friends or other service providers. However, the person will be informed that you have recently attended a Salvation Army Recovery Service Centre.

Is there any risk or burden if I decide to participate?
The main burden will be related to the time it takes to complete the assessment. There is a very small risk that you might think some of the questions in the questionnaires are too personal. However, you have the right to refuse to answer any specific questions.

It is not the aim of this research to examine your involvement in any serious criminal activities. If you choose to discuss any serious criminal activity you should avoid identifying any specific individuals who may have committed crimes in any way. Serious criminal activity covers offences such as drug trafficking, serious assaults, sexual assaults, child abuse or neglect, murder and manslaughter. For example, if you say that you have trafficable quantities of drugs we are obligated to inform the Police. As this research is concerned with substance use the researchers will not report your personal drug use to The Salvation Army staff or the Police.

Even if you agree to participate in the study, you can choose to withdraw from the study at a later date. If you choose not to participate in the study, this will in no way have an effect on your relationship with your support or treatment services or the University of Wollongong. **Participation is entirely voluntary**.

Are there any benefits expected?
People often find that when they complete the questionnaires and interview it helps them reflect on their progress and clarify what it is about treatment that is helping them. Results from the questionnaires will also be used by your case manager to assist in your treatment.

All clients who complete the follow-up interviews will receive a $20 gift certificate.

The study will also help provide suggestions to improve the drug and alcohol services provided by the Salvation Army. In this way you are making a contribution to improving services for other people who use Recovery Service Centres in the future.

How will my information be collected and used?
Information collected from you during your initial assessment and throughout your stay at the Recovery Service Centre will be kept within your client file. Information collected from you will be used by your case manager to support your treatment.

To assist with locating you for a follow-up telephone interview when you are discharged from the program, we will ask for your current contact details. As it is common for people to move or change telephone numbers following attendance at the program we would also like to get alternate numbers and addresses to contact you on. With your permission, this may include contact details for relatives, friends or other service providers. Family, friends or service providers will only be contacted if the research team is unable to locate you first on the phone numbers you have provided. Personal information will not be provided to relatives, friends or other service providers. They will only be informed that you have agreed to participate in a follow-up study of Recovery Service Centres, conducted by the University of Wollongong on behalf of The Salvation Army, and that we are attempting to contact you for a brief telephone interview. Personal information will not be provided to relatives, friends or other service providers. However, the person will be informed that you have recently attended a Salvation Army Recovery Service Centre. As previously mentioned, if we are unable to contact you we would ask your Next of Kin or another person you have suggested about your progress since you left the program (e.g. drug use, gambling, mental health).

We will keep your information confidential by using a code number instead of your name when we transfer your information into a database. All questionnaires and interview material will be stored securely at the University of Wollongong. The information may be used for publication in scholarly research journals, reports to the Salvation Army, student theses, and conference presentations. You will not be identifiable in any publications.

What if I have more questions?
You may have additional questions that you wish to ask about the research before you decide whether to participate. You can contact Dr Peter Kelly, Prof. Deane, or Dr. Crowe at the University of Wollongong by calling 02 4221 4207. If you have any concerns or complaints regarding the way in which the research is or has been conducted, you can contact the Secretary of the University of Wollongong Human Research Ethics Committee on Phone: (02) 4221 4457, Fax: (02) 4221 4338 email: **research_services@uow.edu.au**.

University of Wollongong

Client Participant Consent Form

The Salvation Army Recovery Service Centres
Evaluation of a residential program for people with psychiatric and substance use disorders

The researchers are: Dr Peter Kelly, Prof Frank Deane, Dr Trevor Crowe, Geoff Lyons and Kane Mortlock.

I have been given information about the study 'The Salvation Army Recovery Service Centre: Evaluation of a residential program for people with psychiatric and substance use disorders'. I have discussed the project with The Salvation Army staff and have been offered the opportunity to discuss the research project with researchers (Dr Kelly, Prof Deane, or Dr Crowe) who are conducting this research at the Illawarra Institute for Mental Health at the University of Wollongong.

I understand that, if I consent to participate in this project I will be asked to:

- Give permission for the researchers to access information from my case file.
- Complete questionnaires at regular intervals during my stay at The Salvation Army Recovery Service Centre.
- Be contacted by a research assistant from the University of Wollongong after I leave the program to complete a telephone interview.
- Researchers may use the contact details of my Next of Kin, family, friends or other services that I have provided to The Salvation Army to help locate me. If the researchers are unable to locate me they may complete a brief telephone interview with my Next of Kin or another person I have suggested. We would be asking the person if they have noticed improvements in your substance use, gambling, mental & physical health, relationships, legal problems, employment and overall direction in life since leaving The Salvation Army Recovery Service Centre.

I have been advised of the potential risks and burdens associated with this research, which include completion of questionnaires that may contain personal questions, and have been given an opportunity to contact the researchers and ask any questions I may have about the research and my participation.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research at any time. My refusal to participate or withdrawal of consent will not affect my relationship with The Salvation Army or the University of Wollongong.

If I have any enquiries about the research, I can contact Dr Kelly, Prof Deane, or Dr Crowe at the University of Wollongong by calling 02 4221 4207.or if I have any concerns or complaints regarding the way the research is or has been conducted, I can contact the Ethics Officer, Human Research Ethics Committee, Office of Research, University of Wollongong on Phone: (02) 4221 4457, Fax: (02) 4221 4338 email: **research_services@uow.edu.au**.

By signing below I am indicating my consent to participate in the research titled '**The Salvation Army Recovery Service Centres**: Evaluation of a residential program for people with psychiatric and substance use disorders' conducted by Prof Deane and Dr Crowe as it has been described to me in the information sheet and discussed with Salvation Army staff. I understand that the data collected from my participation may be used for journal publications, organisational reports, research theses, and conference presentations, and I consent for it to be used in that manner.

Sign:_____

Name (please print):_____ Date: _____

ETHICS CORRESPONDENCE

University of Wollongong

INITIAL APPLICATION APPROVAL
In reply please quote: HE07/044
Further Enquiries Phone: 4221 4457

29 March 2007

Professor Frank Deane
Illawarra Institute for Mental Health
University of Wollongong

Dear Professor Deane,

I am pleased to advise that the Human Research Ethics application referred to below, as modified in your correspondence of 21 March 2007, has been **approved subject to the following condition/s:**

i) Thank you for our helpful phone discussion and your subsequent email which clarified the nature of the ethical problem raised by the possibility of phone tapping by law enforcement agencies. We accept that it would be very difficult to raise this matter directly with your potential participants without arousing irrational feelings towards the project. We suggest a modification of your telephone interview reminding participants that their responses will be recorded by the investigators.

Ethics Number:	HE07/044
Project Title	'Lake Macquarie Recovery Service Centre': Evaluation of a residential program for people with psychiatric and substance use disorders.
Researchers:	Professor Frank Deane, Dr Trevor Crowe, Mr Peter Kelly, Ms Sarah Mason
Approval Date:	27 March 2007
Expiry Date:	26 March 2008

The University of Wollongong/SESIAHS Health and Medical HREC is constituted and functions in accordance with the NHMRC *National Statement on the Ethical Conduct in Research Involving Humans*. The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document. As evidence of continuing compliance, the Human Research Ethics Committee requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforseen events that might affect continued ethical acceptability of the project

You are also required to complete monitoring reports annually and at the end of your project. These reports are sent out approximately 6 weeks prior to the date your ethics approval expires. The reports must be completed, signed by the appropriate Head of Unit, and returned to the Research Services Office prior to the expiry date.

Yours Sincerely,

Associate Professor Arthur Jenkins
Chairperson, Human Research Ethics Committee

Research Services Office University of Wollongong NSW 2522 Australia
Telephone: +61 2 4221 3386 **Facsimile:** +61 2 4221 4338
research_services@uow.edu.au www.uow.edu.au/research
CRICOS Provider No: 00102E

HE07/044

9th September 2008

A/Professor Arthur Jenkins
Chairperson
Human Research Ethics Committee
University of Wollongong

Dear A/Professor Jenkins

Ethics Number: HE07/044
Project Title: 'Lake Macquarie Recovery Service Centre': Evaluation of a residential program for people with psychiatric and substance use disorders.

We would like to make of the following amendments to our ethics approval.

1. Expansion of the research program
   We have received funding from The Salvation Army to expand the evaluation of all of their Recovery Service Centres. The project will now evaluate their Lake Macquarie, Central Coast, Sydney, Blue Mountains, Canberra, Gold Coast, Brisbane, and Townsville centres. It is anticipated that we will start collecting data from these sites in October 2008.

2. Addition of researchers
   We would like to add two doctoral students who will be drawing data from this research project (1) Geoff Lyons and (2) Kane Mortlock.

3. Significant aspects of treatment
   We will not be conducting the interviews with clients regarding the significant aspects of their treatment (i.e. the 15 minute face-to-face audio-taped interviews with the participants). Subsequently, we have removed this from the ethics application.

4. Access to client assessment data
   In the original ethics application it was specified to the clients that their individual information would not be shared with The Salvation Army staff and that their assessments would be kept at the University of Wollongong. We have modified our protocol and now intend to have The Salvation Army staff enter the assessment data within their electronic case notes system (SAMUS). This will provide a major advantage for clients & case managers, as they will be able to use the assessment data to monitor clinical improvements. We have updated the participant information sheet to reflect this:

Please find attached the updated participant information and consent forms, and the measures we will be using.

We look forward to hearing from you regarding these changes.

Thankyou,

Dr Peter Kelly

Prof Frank Deane

Dr Trevor Crowe

University of Wollongong

AMENDMENT APPROVAL - ISLHD
In reply please quote: HE07/044
Further Enquiries Phone: 4221 3386
SF:SH

20 September 2011

Professor Frank Deane
Illawarra Institute for Mental Health
Bldg 22.G18
University of Wollongong

Dear Professor Deane,

I am pleased to advise that the amendments dated 5th September 2011 to the following Human Research Ethics application have been approved.

Ethics Number:	HE07/044
Project Title:	Evaluation of The Salvation Army Recovery Service Centres
Researchers:	Professor Frank Deane, Dr Trevor Crowe, Mr Peter Kelly, Ms Sarah Mason, Ms Elizabeth Cridland, Ms Jenna Tregarthen
Amendments:	Additional Researchers: Meredith Whittington, Geoffrey Lyons, Kane Mortlock, Emily Cale, Carol Mo, Brie Turner
Approval Date:	21 October 2010
Expiry Date:	20 October 2011

Please remember that in addition to reporting proposed changes to your research protocol the HREC requires that researchers immediately report:

- serious or unexpected adverse effects on participants
- unforseen events that might affect continued ethical acceptability of the project.

The University of Wollongong/ ISLHD Health and Medical HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research.

A condition of approval by the HREC is the submission of a progress report annually and a final report on completion of your project. The progress report template is available at http://www.uow.edu.au/research/rso/ethics/UOW009385.html. This report must be completed, signed by the appropriate Head of School and returned to the Research Services Office prior to the expiry date.

If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email rso-ethics@uow.edu.au.
Yours sincerely

Associate Professor Sarah Ferber
Chair, UOW & ISLHD Health and Medical
Human Research Ethics Committee

cc: Governance Officer, Research Directorate, ISLHD

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