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Benefits of Self-Forgiveness on Well-Bieng and Self-Forgiveness Facilitating Factors

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Benefits of Self-Forgiveness on Well-Being and Self-Forgiveness
Facilitating Factors

by
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ABSTRACT

The current study examined archival data from 61 individuals who completed a psycho-educational intervention program in London, UK. Participants were ex-substance abusers with a history of alcohol and other drug (AOD) use disorders who were motivated to enhance their subjective quality of life. The degree of benefit that participants' derived from participation in the intervention program was assessed. Specifically, the current study sought to answer two broad questions. First, "Are there benefits of self-forgiveness on well-being?" among individuals in Stage 2 recovery from AOD use disorders. Second, if there were benefits of self-forgiveness on well-being, "What treatment-related process variables facilitated individuals' capacity to forgive themselves?"

To assess these two themes, the benefits of self-forgiveness and self-forgiveness facilitating factors, two design approaches to hypothesis testing were applied: a longitudinal design and a cross-sectional design. Specifically, the longitudinal design examined treatment-facilitated changes in self-forgiveness by assessing the relations between changes in self-forgiveness and changes in various well-being indicators using pre-treatment, post-treatment, and four-month follow-up data. The cross-sectional design, in contrast, examined the relations between dispositional levels of self-forgiveness and levels of the well-being variables. It was hypothesized that treatment-facilitated changes in self-forgiveness and individual differences in the capacity to forgive the self would be significantly related to well-being outcomes. With respect to self-forgiveness facilitating factors, it was hypothesized that the degree of individuals' engagement in interpersonal

amends and therapeutic alliance with their counselor would significantly predict treatment-facilitated changes in self-forgiveness and overall levels of self-forgiveness.

Overall, the results indicated that the capacity to forgive the self was predictive of enhanced well-being outcomes among individuals engaged in Stage 2 recovery from their AOD use disorders. However, no significant relations between treatment-facilitated changes in self-forgiveness and well-being were found. The relations found between dispositional levels of self-forgiveness and enhanced well-being outcomes are theorized to be explained by a number of different mechanisms. For example, the benefits of self-forgiveness are discussed as possibly arising from being an adaptive emotion-focused coping strategy. Finally, the implications of the current findings on the addiction treatment field and well-being, addiction, and self-forgiveness scholarship are discussed.

DEDICATION

To my parents_ thank you for your love, support, and beautiful presence in my life. I am forever grateful for you.

To Albert_ my "little" brother, thank you for also being a good friend.

ACKOWLEDGEMENTS

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I. INTRODUCTION

I.1 ADDICTION DISORDERS: UNDERSTANDING RECOVERY

The focus of the present study is *recovery* from alcohol and other drug (AOD) use disorders. Understanding recovery requires recognizing and appreciating the vast problems that are associated with AOD use disorders. As will be discussed, the problem of AOD use dis0orders involves high prevalence rates and a broad scope of negative consequences to individuals' physical and psychological health, as well as financial and psychosocial impacts on society. The problems AOD use disorders are associated with typically are chronic. Consequently, recovery from AOD use disorders is a multi-stage process. Furthermore, recovery from AOD use disorders extends beyond mere attainment of abstinence to a subjective quality of life and a restoration of social functioning. Thus, recovery should be understood within a holistic framework. A number of factors have contributed to an increasing recognition that recovery is 'more than' abstinence. These influences are discussed along with the corresponding implications on the addiction treatment and scholarship fields.

The Problem of AOD Use Disorders

AOD use disorders are associated with high prevalence rates, a myriad of negative consequences to individuals, and have significant impacts on society. With respect to prevalence, epidemiological research indicates that AOD use disorders are an international problem and alcohol is the leading substance abused in Canada and the United States (Canadian Addiction Survey [CAS], 2004; Substance Abuse and Mental Health Services Administration [SAMSHA], 2002). Specifically, according to US

prevalence data reported for 2001-2002, alcohol abuse occurred at a rate of 4.65% and alcohol dependence occurred at a rate of 3.81% (Grant, Dawson, Stinson, Chou, Dufour, & Pickering, 2004). Similar prevalence rates have been reported in Canada. For example, according to data reported in the CAS, a large telephone survey conducted across the country in 2003, approximately 80% of the Canadian population aged 15 or older were found to be regular consumers of alcohol in the preceding year (i.e., were current drinkers). Furthermore, of those current drinkers, approximately 17% were assessed to be at high risk for developing an AOD use disorder using the Alcohol Use Disorder Identification Test (AUDIT; World Health Organization, 1993). The AUDIT is a well-known screening instrument, which employs a scoring algorithm to reliably identify hazardous patterns of alcohol use that are highly suggestive of dependency. In sum, the epidemiological data indicate that alcohol use and abuse are highly prevalent in Canada and the US. This is further compounded by the possibility that the actual rates of problematic substance use are higher than those reported due to methodological factors of epidemiological research. Specifically, inherent challenges of epidemiological research as well as specific challenges due to the methodology employed may impede access to some populations. For example, the use of telephones (e.g., the CAS was a telephone survey) and the internet impede access to some substance using individuals, such as individuals who are homeless. Research has consistently shown, however, that homeless individuals are a population that are vulnerable to substance abuse (e.g., Glasser & Zywiak, 2003; Fountain, Howes, Marsden , Taylor, & Strang, 2003; O'Toole, Gibbon, & Hanusa, 2004). Therefore, the reported prevalence rates of substance abuse should be considered con-

servative estimates of the extent of the problem of substance abuse in Canada and the US.

The implications of high prevalence rates of alcohol and other substance abuse are that the physical and psychological well-being of individuals is seriously compromised. From a physical health standpoint, substance abuse is associated with an array of health complications. For example, alcohol abuse is associated with endocrinological disease (e.g., diabetes), liver sclerosis, heart disease, and gross neuropsychological deficits (e.g., Mojtabai & Singh, 2007). Furthermore, alcohol dependence can lead to death through toxicity due to overdose or through withdrawal symptoms that are not medically managed. From a psychological standpoint, the consequences of alcohol abuse are equally broad and chronic (e.g., Dongier, 2005; Li, Hewitt, & Grant, 2004). Individuals with substance use disorders have been found to exhibit higher rates of mood, anxiety, and personality disorders than individuals in the general population (Compton, Thomas, Stinson & Grant, 2007; Grant, Stinson, Dawson, Chou, Dufour, Compton et al., 2004). For example, Compton and colleagues (2007) surveyed a large American sample ($N = 43,093$) to assess psychiatric co-morbidity of substance use disorders. Using the Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS), a structured diagnostic interview developed by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), Compton and colleagues found that individuals with an alcohol disorder had significantly higher rates of psychiatric co-morbidity than individuals without an alcohol disorder. Specifically, individuals with an alcohol disorder were reported to be approximately three times more likely to be concurrently diagnosed with Major Depression. High rates of psychiatric co-morbidity among individuals with an

AOD use disorder have been found by other research as well. For example, Hasin, Nunes, & Meydan (2004), using a sample of 233 individuals with an AOD use disorder, found that the risk of being concurrently diagnosed with Major Depression climbs to approximately seven times greater than individuals without an AOD use disorder. In sum, AOD use disorders significantly compromise the physical and psychological well-being of individuals.

In addition to impairing the physical and psychological functioning of individuals, AOD use disorders adversely impact society as a whole in a number of significant ways. Substance abuse disorders are the fifth largest cause of preventable disability worldwide (Ezzati, Lopez, Rodgers, Vander Hoorn, & Murray, 2002). As such, substance abuse disorders are associated with high rates of unemployment and lost productivity, factors that adversely impact the economics of society (Harwood, Fountain & Livermore, 1998). Furthermore, the adverse health consequences of substance abuse place serious financial burdens on the public health care system (McLellan, O'Brien, Lewis, & Kleber, 2000; Office of National Drug Control Policy, 1998). For example, according to a Canadian survey conducted in 2002, substance abuse was responsible for 39.8 billion dollars in net public health care costs, and alcohol abuse alone, was responsible for 3.3 billion dollars in direct treatment costs (Thomas, 2004 cited in Collin, 2006). In addition to these economic costs, substance use disorders are associated with negative psychosocial impacts. For example, alcohol compromises the safety of communities through its associations with fatal traffic accidents (Hingson, Heere, & Edwards, 2008), domestic violence (Caetano, Nelson & Cunradi, 2001), and fetal alcohol syndrome (Sokol,

Delaney-Black, & Nordstrom, 2003). Alcohol abuse is also associated with legal

problems. For example, according to a report published in 2001 in the US,

55% of the referrals to substance abuse treatment programs came from the criminal

justice system (Drug Abuse Services Information System, 2001). Therefore, the adverse

impacts of AOD use disorders on society are clear and as a result, funding toward

research and prevention efforts continue in Canada (Collin, 2006). In summary, given the

vast individual and societal-level impacts of AOD use disorders, they represent a real

problem and thus, there is a vested interest in Canadian and American societies to

diagnose and treat AOD use disorders.

<div align="center">Diagnosis and Treatment</div>

Problematic substance use are classified and discussed in a number of different

sources. In the *Diagnostic and Statistical Manual, Fourth Edition-Text Revision* (DSM-

IV-TR; American Psychiatric Association, 1994), problematic substance use is classified

under the category label "Substance Use Disorder" (SUD). Within this diagnostic

category are two classes of diagnoses that vary in intensity: *substance abuse* and

substance dependency.

The diagnosis of substance abuse requires that there be a significant impairment

in the individual's functioning. Impairment in functioning that is considered significant

includes (a) a failure to fulfill major obligations at work, school, or home, (b) continued

use of the substance(s) in situations that result in physical hazard to self and others

(e.g., driving while intoxicated), (c) legal problems, and/or (d) pervasive social or

interpersonal problems. The diagnosis of substance dependence, on the other hand,

requires that there be a significant impairment in functioning (i.e., abuse) *and* evidence of tolerance and withdrawal.

Tolerance refers to an individual's need to consume increasing amounts of the substance in order to achieve the desired effect(s) or an individual's diminished effect(s) to previously consumed amounts of the substance. Withdrawal refers to an umbrella of physical or psychological symptoms that are experienced by an individual as levels of the substance in his or her system drop. Consequently, withdrawal symptoms, unlike tolerance, tend to occur in patterns depending on the class of substance. This characteristic nature of withdrawal symptoms is referred to as a substance's *withdrawal syndrome*. For example, alcohol withdrawal syndrome involves central nervous system hyperactivity, which leads to symptoms of *delirium tremens* (DT) such as seizures, confusion, agitation, and disorientation.

In addition to the distinction between substance abuse and substance dependence, several other terms are frequently used to refer to problematic substance use. For example, the terms "addiction" and "addictive behaviour" are popular. The Substance-Related Disorders Work Group, part of the DSM-V's Task Force, is in fact considering adopting the label "Addiction and Related Disorders" to replace the current diagnostic category label SUD. One appealing feature of the term *addiction* is it encompasses substance-based disorders as well as psychological disorders, such as problem gambling or Internet usage. Consequently, scholars who favour the use of the term highlight the parallels between substance-based and psychologically-based disorders. For example, both psychologically-based and substance-based addictions have high rates of psychiatric

co-morbidity, tend to occur together and have chronic clinical courses (Potenza, 2006). Another term used to refer to problematic substance use is "harmful use". The term *harmful use* is adopted in the *International Classification of Diseases-Tenth Edition* (ICD-10; World Health Organization, 1993) and although arguably vague, it highlights the negative consequences of addictions. Finally, the term "alcohol and other drug use disorders" (AODUD) or for short, "alcohol and other drug" (AOD), is popular, particularly in addiction scholarship. One advantage of the term AOD use disorders is it brings alcohol misuse to the forefront, which is useful given that alcohol is the leading substance misused in Canada and the US as previously noted. The term AOD also does not exclude the misuse of other drugs or substances besides alcohol. In sum, although there are several different terms used to refer to problematic substance use, the choice of using one over another is likely a matter of preference and practice. The term *AOD use disorder* is used throughout the sections that follow for two reasons. First, it is used because it is specific to substance-based disorders, which is consistent with the focus of the current study. Second, it is used because it highlights alcohol abuse and most of the current sample endorsed a specific history of alcohol abuse.

Similar to the diversity in the classification of AOD use disorders, the addiction treatment field can be grouped into two distinct approaches to recovery. One approach consists of *professional-based services* while the other approach consists of what are known as *mutual-aid support groups*. With respect to professional-based interventions to recovery, these include a variety of services that are delivered by credentialed professionals serving in different capacities. For example, these professionals include

physicians and nurses who are typically involved in detoxification treatment centers, and behavioural medicine specialists and mental health counsellors employed in inpatient and outpatient rehabilitation programs. An important trend in the addiction treatment delivery system emerging over the past 15 years has been a move of the delivery of treatment from primarily residential settings to primarily outpatient care (e.g., Horgan & Merrick, 2001). For example, according to US statistics, in the early 1990s, over 50% of substance abuse treatments were delivered in residential settings, in 1996 over 60% of substance abuse treatments were delivered in an outpatient setting and in 2002, more than 85% of substance abuse treatments were delivered in an outpatient setting (SAMHSA, 2002; McLellan, Carise, & Kelber, 2003; Horgan et al., 2001). Outpatient substance abuse treatment programs either focus exclusively on the substance abuse or focus on dual disorders (e.g., substance abuse and depression).

The second broad class of approaches to recovery, mutual-aid support groups, is nonprofessional-based. Thus, by definition, twelve-step programs, such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and other mutual aid support groups (e.g., Self-Management and Recovery Training [SMART]), are supportive. It is important to note that while mutual aid support groups are non-professional based, some individuals are employed and it is common practice to recruit individuals who they themselves have personal experiences with AOD use disorders. For example, many addiction counsellors are ex-addicts. The term *mutual-aid* refers to this idea and the emphasis that is generally placed on experiential, peer-specific knowledge to effect change in mutual-aid support groups (Humphreys, 2004). Thus, the addiction treatment field can be broadly classified

into these two distinct approaches to recovery, those that are professional-based, and those of mutual-aid support groups.

Given the face differences between professional-based services and mutual aid-support groups in their approaches to recovery, the question that naturally emerges is their relative utilization rates. Obtaining accurate and comprehensive utilization rates, however, is difficult for a variety of reasons. For example, the value of anonymity that is embraced in mutual-aid support groups does not permit rigorous collection of information. Similarly, professional-based services may not consistently collect information on treatment histories, due to limited administrative resources. The available data are mixed in terms of the relative utilization of professional versus nonprofessional-based services by individuals with AOD use disorders.

There is some evidence that indicates that individuals with AOD use disorders appear to utilize both at some point during their recovery (e.g., Magura, 2007). In other words, the addiction career trajectories of most individuals with AOD use disorders involve both professional and nonprofessional-based interventions. For example, Dawson and colleagues (Dawson et al., 2006) surveyed treatment-seeking individuals and found that approximately 80% indicated that they were concurrently attending AA, a well-known mutual-aid support group. Other scholars (e.g., Humphreys, 2003, 2004; Moos, 2008) have argued that mutual-aid support groups are utilized by individuals with AOD use disorders at significantly higher rates than are professional-based programs. The general growth of the self-help movement is cited as one possible reason for this, along with various features of mutual-aid support groups that enhance their appeal. For

example, the wide availability and no cost features of mutual-aid support groups, as well

as their provision of addiction-specific social support have been cited as possible factors

accounting for their popularity (Tonigan & Conners, 2008). Furthermore, there is some

anecdotal evidence that some individuals with AOD use disorders prefer involvement in

mutual-aid support groups than professional-based services due to having generally

negative attitudes about institutions. Thus, one conclusion that may be tentatively drawn

is that the dual approaches to recovery found in the addiction treatment field, although

different, should not be viewed as mutually exclusive. Rather, it would be prudent for

researchers and clinicians alike to better understand the unique features and services of

the dual approaches to recovery and to integrate this knowledge towards the goal of

providing a broad-spectrum approach to recovery to their clients.

<u>Conceptual Models of Recovery</u>

The questions "What constitutes recovery?" and "How can recovery be

facilitated?" are asked by individuals in recovery, by researchers, and by clinicians alike.

The first question refers to the conceptual understanding of recovery, whereas the second

question concerns an inquiry into the *process* of recovery.

To begin to answer the first question, "What constitutes recovery?", it is

important to note that the field's understanding of recovery has evolved over time,

leading some scholars to refer to the changes as representing a *paradigm shift* (e.g.,

Davidson & White, 2007) as originally described by Thomas Kuhn (1962). Specifically,

traditional views of recovery were characterized by a focus on behaviours related to the

substance abuse (Magura, 2007). For example, traditional scholars defined recovery by

the attainment of abstinence or partial abstinence (i.e., moderation). These narrow traditional views of recovery contrast with contemporary accounts, which view recovery within a holistic framework. Specifically, recovery today is increasingly recognized as a *multi-stage* process concerning *multiple domains of functioning*. This conceptualization of recovery, by definition, is holistic and broad.

This holistic conceptual framework in which to understand recovery was in part influenced by the recognition that AOD use disorders are associated with chronic problems, which some scholars have likened to diabetes, arthritis, and hypertension (e.g., O'Brien & McLellan, 1996). Consequently, recovery necessarily is a long-term process and frequently, it involves chronic care. It is important to note, however, that not all individuals may require chronic care or even professional care. That is, many individuals with AOD use disorders may be able to function adequately with little or no assistance. This phenomenon has been referred to as "spontaneous recovery" (e.g., Toneatto, Sobell, Sobell, & Rubel, 1999). For the majority of individuals with AOD use disorders, however, relapse is a major problem (e.g., Forechimes, Feldstein, & Miller, 2008). Specifically, according to data published in the Drug Abuse Treatment Outcome Study (DATOS), a large longitudinal study that examined the effectiveness of substance abuse treatment programs in the US, half of all participants were readmissions (i.e., have received treatment in the past, relapsed, and were readmitted) and more than half of these individuals (54%) had relapsed within the first two years following their discharge (Grella, Hser, & Hsieh, 2003). Anecdotally as well, individuals with AOD use disorders describe struggling through relapses before they are able to maintain long-term

abstinence. Thus, it seems prudent to conceptualize recovery from AOD use disorders as a complex multi-stage process.

In addition to being multi-staged, recovery from AOD use disorders is multi-dimensional. Specifically, recovery concerns not only the direct behaviours related to the substance abuse (e.g., drinking) but also the indirect "lifestyle" variables that comprise subjective quality of life. One publication in the Journal of Substance Abuse Treatment (JSAT) in 2007 that seems to have been especially instrumental in disseminating this broad, holistic framework in which recovery should be understood was the Betty Ford Institute Consensus Panel Report (BFICPR). Specifically, the BFICPR defined recovery from AOD use disorders as "a voluntary maintained lifestyle [that is] comprised of sobriety, personal health, and citizenship" (p. 222). The idea that recovery involves a series of lifestyle and subjective quality of life variables is important for a number of reasons. First, these ideas reinforce the view that recovery from AOD use disorders necessarily involves attending to broad-spectrum domains of functioning. Specifically, a recovery lifestyle is one that is marked by not only a reduction in substance use or abstinence but also by personal well-being and citizenship. That is, a recovered individual is an individual with a subjective quality of life and who is a contributing member to society. Echoing the ideas of the BFICPR on recovery, Laudet (2007) used the term "bountiful living" and Borkman (2008) described recovery as "a new of living" (p. 9). Thus, these broad-based descriptions of recovery captured in the BFICPR and by other scholars represented a significant departure from the prior narrow traditional views of recovery. Second, a holistic framework of understanding recovery as concerning

substance-related outcomes and quality of life dimensions is, by definition, less pathology-focused and more consistent with Positive Psychology constructs of "flourishing" and "thriving" (Seligman, 2008; Waterman, 2007). The re-definition of recovery within a holistic framework was likely the result of many influences. One theory, however, that appears to have been especially instrumental in influencing current understanding of recovery as a multi-stage process was the *transtheoretical model of change* developed by Prochaska and DiClemente (1984; Prochaska, DiClemente, & Norcoss, 1992).

<div align="center">*Transtheoretical Model of Change*</div>

The Transtheoretical Model of Change (TTM) is an integrative model that describes behavioural change and which, has been applied to a wide variety of problem behaviours (e.g., smoking, obesity, unsafe sexual practices, alcohol abuse, etc.). Specifically, TTM is based on four constructs, which are purported to be key instruments of change: *self-efficacy*, *decisional balance*, *processes of change*, and *stages of change*.

Self-efficacy, one of TTM's constructs, was adapted from Bandura's self-efficacy theory (Bandura, 1977). Specifically, self-efficacy refers to the degree of confidence that an individual has regarding their ability to cope with specific high-risk situations without relapsing. For example, individuals with an AOD use disorder with high self-efficacy are confident in their ability to attend a birthday party without drinking. In contrast, individuals with low self-efficacy are not confident that they can drive past the store where they previously purchased their alcohol, for example.

The construct of decisional balance also concerns an individual's assessment but

in this case, the assessment concerns the relative weight of the advantages and disadvantages (i.e., pros and cons) of a particular decision. It is important to note that it is not only the *quantity* of the pros and cons that matter, but also the *quality* or relative importance of each benefit and each cost that an individual identifies. For example, an individual with an AOD use disorder who identifies a number of benefits of continuing to drink but only one cost would be tipped in the direction of the decision to continue drinking. However, if for example the cost is the loss of his or her spouse, the decisional balance would be tipped in the other direction toward not drinking. Thus, decisional balance directly impacts behaviour and the likelihood of behavioural change.

The third construct of TTM, processes of change, refers to a series of at least ten experiential and behavioural activities that are believed to facilitate individuals' moving through the stages of change. An example process of change is "consciousness-raising", which is described as a cognitive process of increasing an individual's awareness of the problematic behaviour. For example, consciousness-raising in drinking individuals may be facilitated by a number of activities, including talking with friends and family about the impact that the drinking had on their relationships. Another example process of change that is more behavioural is "stimulus control". Stimulus control involves the management of one's environment to support goals of abstinence and to prevent relapse. For example, frequently individuals who want to quit drinking will remove all alcohol from their home.

Finally, the construct of stages of change is a key organizing construct in TTM and perhaps, one of its most well-known elements. Within TTM, change is defined as a

process that involves a series of stages (Prochaska & Velicer, 1997). Specifically, TTM delineates six stages of change: *Pre-contemplation*, *Contemplation*, *Preparation*, *Action*, *Maintenance*, and *Termination*. Briefly, individuals engaged in the Pre-contemplative stage of change are unaware that their substance use are problematic whereas individuals engaged in the Contemplative stage of change are increasingly recognizing they have a problem and are beginning to consider (i.e., contemplate) change. During the Contemplation stage, individuals also weigh the costs and benefits of their substance use (and costs of quitting). In the Preparation stage, however, individuals typically have already made the decision to change and they engage in a number of behaviours to enhance their likelihood of success and 'prepare' for the next stage: Action. For example, during the Preparation stage an individual may gather information on the long-term physical consequences of alcohol abuse, gather information on treatment options, and begin to make arrangements for treatment. The Action stage involves the implementation of change. For example, for the drinking individual in an action stage, abstinence may be initiated. The Maintenance stage consists of ongoing efforts to prevent relapse and a return to old behaviours. Consequently, the Maintenance stage lasts a long period of time and may even last indefinitely. Finally, the Termination stage is distinguished from the Maintenance stage in that during this stage, the individual no longer has urges or cravings to return to drinking, for example, and exhibits a strong sense of self-efficacy. In other words, the individual no longer expends energy toward maintenance. In summary, the constructs of TTM were highly instrumental in reinforcing the ideas of recovery as a multi-stage, dynamic process and a significant departure from traditional perspectives.

Stage 2 Recovery

The term "Stage 2 recovery" is sometimes used to refer to the later phase of recovery that contrasts with *Stage 1 recovery*. Specifically, in Stage 1 recovery, the primary focus is managing the substance-related behaviours, such as drinking. The focus in Stage 2 recovery, in contrast, is the pursuit of a subjective quality of life. In other words, during this stage individuals have already attained an adequate control of their substance-related behaviours and are now seeking well-being. Although Brown (1985) is usually credited with being the first to use the terms Stage 1 and Stage 2 recovery and to explicitly delineate between these two phases of recovery, other scholars besides Brown have discussed similar ideas. For example, the terms "emotional sobriety" (Wilson, 1953), "wellbriety" (Coyhis, 1999), and "transcendent recovery" have been used. Common among these terms is the recognition that recovery from AOD use disorders is a multi-stage process that concerns multiple domains of functioning. While Stage 1 recovery variables, such as abstinence, are clearly important, Stage 2 recovery variables of well-being and functioning are also equally important. And for some scholars like Larsen, "...real recovery begins with Stage II--the rebuilding of the life that was saved in Stage I" (1985, p. 2).

A direct practical implication of this developmental (i.e., multi-stage, multi-dimensional) framework in understanding recovery is on the addiction treatment field. Specifically, there is a need to consider the particular stage or phase of recovery of an individual in recovery to guide interventions. TTM, in fact, emphasizes the importance of "stage-matching", noting that the success of an intervention rests on it. In other words,

individuals engaged in Stage 2 recovery require a set of interventions that are inherently different from those required by individuals engaged in Stage 1 recovery.

Echoing the argument that recovery approaches to AOD use disorders must take into account individuals' multiple domains of functioning, O'Brien and McLellan wrote a paper titled the "Myths about the Treatment of Addiction" (1996). In their paper, O'Brien and McLellan argued that although addictions are chronic disorders not unlike diabetes, arthritis and hypertension, there is a biased tendency among professionals as well as the general public to perceive addictive disorders as acute conditions like pneumonia or a broken leg. They cite brain pathways' changes that endure long after an individual has discontinued use of a substance as well as the host of medical, social, and occupational difficulties that are associated with addiction that make detoxification inadequate intervention. Consequently, recovery is erroneously equated with abstinence and the gold standard treatment is considered detoxification. In contrast, the recognition that AOD use disorders are chronic conditions concerning impairment in multiple domains of functioning would result in more realistic and useful perspectives on treatment. Specifically, O'Brien and McLellan advocate broad-based approaches to recovery, which facilitate an 'improvement' in different domains of functioning rather than a 'cure'. That is, successful treatment is one that leads to substantial improvement in at least three areas: substance use, increased personal health and social functions, and decreased threats to public safety and health. They conclude that a change in the attitudes of professionals and the general public is necessary such that approaches to recovery from AOD use disorders should be viewed as more long-term and involving a broad-spectrum of

interventions.

<center>Broad-Spectrum Approaches to Recovery from AOD Use Disorders</center>

The term "broad-spectrum" refers to recovery approaches to AOD use disorders that attend to both Stage 1 and Stage 2 recovery outcomes, as discussed. In other words, a broad-spectrum approach to recovery would attend to the physical facets of recovery, such as abstinence, as well as the longer-term, more enduring psychological facets of recovery, such as well-being and quality of life. Today, a trend toward adopting broad-spectrum recovery approaches to AOD use disorders can be seen. This trend toward broad-spectrum approaches to recovery has, in part, naturally emerged from the paradigm shift in the understanding of recovery, as was discussed. An additional possible impetus for the trend toward broad-spectrum approaches to recovery is the high relapse rates associated with AOD use disorders that have consistently been reported(e.g., Forcehimes, Feldstein & Miller, 2008). As noted, there is evidence that most individuals with AOD use disorders cycle through abstinence several times prior to being able to achieve sustained abstinence. Consequently, the high relapse rates reported suggest that narrow-focused approaches to recovery may be inadequate in effectively preventing relapse (e.g., Miller & Sanchez-Craig, 1996). Thus, there is a need for the development and implementation of broad-spectrum approaches to recovery. Furthermore, Laudet, Becker and White (2009) state there is a "need for the addiction field to continue moving away from the pathology-focused model of care toward a broader model that embraces dimensions of positive health as a key outcome" (p. 227). The grassroots organization and mutual aid support group known as Alcoholics Anonymous (AA) is cited as an

exemplary, broad-spectrum holistic approach to facilitating recovery from AOD use disorders (Magura, 2007).

A number of potential changes has been proposed to implement more broad-spectrum approaches to recovery. Specifically, Davidson and White (2007) advocate the integration of "recovery-oriented interventions" into existing professional services. For example, one recovery-oriented intervention is treating the recovering individual as the primary agent of change and as 'expert' in his or her recovery. Davidson and White also stress the importance of professionals tailoring interventions to the specific needs and stage of recovery of their clients. In sum, the central feature of a broad-spectrum approach to recovery is attending to the full person.

The role of identity-related variables has also emerged as an important topic in discussions on facilitating full recovery from AOD disorders (e.g., Denzin, 1993; Baker, 2000). Specifically, issues related to identity-diffusion or a poorly developed self-concept has been implicated in the onset and maintenance of AOD disorders (Denzin, 1993; Scwartz, 2006). In other literature, alcoholics have been found to have what is called a "divided self-concept" (e.g., Corte, 2007). Thus, a broad-spectrum approach to recovery from AOD disorders involves attending to these identity issues, and facilitating self-transformations. For example, some scholars have emphasized the importance of facilitating individuals' development of new self-schemas (e.g., Corte & Stein, 2007) that consist of positive beliefs about the self, including *recovery-related schemas,* such as "I am a recovering alcoholic" or "I am self-efficacious". Scholars who advocate assisting individuals to develop new schemas argue that in so doing, the self-concept of the

substance-abusing individual becomes less diffuse, which is a risk factor for the maintenance of substance abuse. Also, the development of new schemas that are positive may offset the abundant negative schemas that substance abusing individuals have (Corte et al., 2007). Other scholars have emphasized the importance of assisting individuals in solidifying their sense of self as an "addict". For example, the standard greeting in AA "Hi, my name is...and I am an alcoholic" reflects this idea of embracing the addict identity. According to scholars with this viewpoint (e.g., Matto, Miller & Spera, 2006), the benefits of solidifying an 'addict' identity lie in assisting individuals in developing a clear and focused sense of self, which theoretically counters the chronic identity diffusion, 'inner emptiness', and divided self-concepts that may have been previously experienced (e.g., Denzin, 1993; Brown, 1985). In summary, while the debate among scholars on the exact nature of self-transformations necessary for full recovery may continue, what is clear is the need to embrace a broad-spectrum approach to recovery and that such an approach would necessarily involve attending to more than abstinence or moderation. Rather, well-being lies at the heart of recovery.

<u>Summary and Relevance to the Current Study</u>

Recovery from AOD use disorders, as discussed, is increasingly viewed within a holistic framework. That is, recovery from AOD use disorders is increasingly recognized as a dynamic, multi-stage process that concerns multiple dimensions or domains of functioning. Consequently, there is a need for recovery approaches to be broad-spectrum and to attend to the unique needs of individuals based on their particular stage of recovery. Similarly, adopting a holistic model of recovery requires the addiction

treatment research field to examine not only outcomes that are substance-related but also, outcomes related to quality of life and well-being.

The current study analyzed archival data from a sample of individuals who were engaged in Stage 2 recovery from AOD use disorders. Specifically, the current study analyzed data from sixty-one participants who completed a five-month psychosocial intervention program that was designed to enhance their quality of life by assisting them in learning to forgive. The current study attempted to address the gap in the literature on Stage 2 recovery variables by examining predictors of well-being among the sample. Well-being, which is discussed next, was conceptualized as the presence of *Positive Well-Being* variables and the absence of *Negative Well-Being* variables.

I.2 WELL-BEING

In the previous section, I discussed the field's increasing recognition that recovery from AOD use disorders is a multi-stage process with multiple dimensions of Stage 1 and Stage 2 recovery variables. Following from this holistic framework of understanding recovery, I highlighted the need in the addiction treatment field to implement broad-spectrum interventions addressing substance-related outcomes but also outcomes related to the subjective quality of life of recovering individuals. Consequently, well-being is highly relevant, as will be discussed in this section.

Similar to the questions that were asked about recovery, the questions "What constitutes well-being?" and "How can well-being be enhanced?" are asked. Specifically, I begin with a review of the general conceptual literature on well-being, followed by a focused review of the literature on well-being issues among individuals with AOD use

disorders. Finally, I discuss the potential implications on the addiction treatment and research fields.

<div align="center">Conceptual Models of Well-Being</div>

Well-being and living "the good life" are age old topics that have been discussed by philosophers and early psychologists alike (e.g., Jahoda, 1958; Jung, 1933; Maslow, 1968). The topic of optimal human functioning has in recent years, however, captured a surge of scholarly interest (Cowen, 1991). Some scholars have explained this renewed interest in the construct of well-being as in part reflecting the growth of Positive Psychology (e.g., Sheldon & Kasser, 2001; Seligman, 1998; Seligman & Csikszentmihalyi, 2000; Ryan & Deci, 2001). Positive Psychology is a subfield that, unlike traditional subfields, focuses on optimal human functioning rather than on mental illness and pathology.

Aristotle was one such early scholar who was fascinated with well-being. Aristotle's writings, in fact, continue to influence contemporary understanding of optimal human functioning. For example, in his legendary book *Nichomachean Ethics* (translated by Ross, 1925), Aristotle sought to answer the question "What constitutes optimal human living?" He coined the term *eudaimonia* to refer to a more enduring state of well-being than mere happiness. Specifically, Aristotle described eudaimonia as "...conditioned upon self-truth and self-responsibility" (translation by Norton, 1976, p. xi). In sum, although Aristotle recognized the importance of happiness and the pursuit of pleasurable experiences (i.e., hedonia), he advocated a view of optimal human functioning as consisting of a deeper sense of meaning and purpose in one's life (Johnston, 1997).

Similarly, early psychologists' descriptions of well-being bore resemblance to Aristotle's concept of eudaimonia. For example, Maslow (1968) discussed healthy and optimal development, which he described as involving *self-actualization*, unity, and integration. Rogers (1962) discussed fully functioning individuals as those displaying *congruency* and a sense of *agency* in their lives.

In terms of the contemporary literature on well-being, two traditions can be identified. In one tradition, the core question that is asked is "What makes people happy?" while in the other tradition, the core question that is asked is "What constitutes positive or optimal functioning?" In the first tradition, well-being is conceived as the result of good feeling states and satisfaction with one's life. The term *subjective well-being* (SWB) is used in this body of research. SWB has been described as "emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener, Eunkook, Lucas, & Smith, 1999, p. 277). Consequently, the assessment of SWB generally involves the assessment of three components: the presence of positive affect, life satisfaction, and the absence of negative affect (Kahneman, Diener, & Schwartz, 1999). In sum, at the heart of this tradition of research on well-being is a focus on "feeling good".

In contrast, the second tradition in well-being research emerged from a dissatisfaction with the view that well-being is equated with happiness. Rather, in this tradition, well-being is conceptualized more broadly and taps into a more eudaimonic dimension rather than happiness per se (e.g., Seligman, 2002; Diener & Seligman, 2004; Csikszentmihalyi, 1997; Keyes, 1998). Specifically, scholars in this tradition critically

question the long-term benefits of happiness. For example, an article by Ryff (1989) was titled "Happiness is everything, or is it? Explorations on the meaning of psychological well-being" Thus, for these well-being scholars, although happiness is accepted as an important dimension of well-being, the relation between happiness and optimal functioning is viewed as neither exact nor linear. For example, consider the sociopathic individual who derives pleasure (i.e., happiness) from hurting and manipulating others or the individual with bipolar illness who cycles through manic or hypomanic episodes. Although these individuals experience happiness, they are not healthy. In sum, at the heart of this tradition of research on well-being is a focus on meaning and purpose. The term *psychological well-being* (PWB) is used to capture these dimensions of well-being and distinguish it from SWB.

In addition to these two separate traditions in well-being scholarship, researchers have attempted to explicate specific dimensions that are believed to be integral to optimal functioning. According to one model, optimal functioning consists of three domains: *emotional well-being*, *social well-being*, and *psychological well-being* (Ryff & Keyes, 1995). Emotional well-being taps into the components of SWB, namely the experience of positive affect, absence of negative affect, and satisfaction with life. Social well-being, on the other hand, concerns an individual's interpersonal functioning, such as their sense of affiliation or attachment, communal contributions, and degree of integration and acceptance within a larger group. The domain category, Psychological well-being, is even more broad and taps into different dimensions. For example, one comprehensive model of PWB developed by Ryff and colleagues (Ryff, 1989; Ryff & Singer, 2008) identifies

six dimensions that have been repeatedly discussed by scholars throughout history. These dimensions are reviewed briefly below, along with how they relate to ideas that have been discussed in other theories.

Specifically, the six dimensions of PWB identified in Ryff's model are: *Autonomy*, *Environmental Mastery*, *Personal Growth*, *Positive Relations with Others*, *Purpose in Life*, and *Self-Acceptance*. The dimension of Autonomy concerns the degree of comfort and self-direction that an individual possesses. Ryff and colleagues developed a scale that assesses these dimensions known as the Psychological Well-Being Scale. They found that individuals scoring high on the dimension of Autonomy endorse confidence in their personal opinions even if they are different from the views of others. Autonomy has also been discussed in *Self-determination Theory* (SDT; Ryan & Deci, 2000, 2001) as a basic psychological need. Specifically, SDT delineates basic psychological needs, which if met, result in well-being. The dimension of Environmental Mastery refers to individuals' feelings of competence in managing their lives. This dimension is closely related to, and perhaps even identical, to the basic psychological need of *competence* that is described in SDT. Environmental Mastery also seems conceptually related to the broader construct of self-efficacy, originally discussed by Bandura (1977) and identified as an instrument of change in TTM, as discussed. Personal Growth, on the other hand, was described by Ryff and colleagues as reflecting an orientation to life that is marked by a commitment to growth, improvement, and self-realization (Ryff & Singer, 2008). Individuals who score high on this dimension tend to display openness to new experiences and a value of continued development and self-

improvement. That is, these individuals view self-knowledge as the gateway to achieving well-being. In contrast, individuals low on the dimension of Personal Growth have been found to endorse feelings of stagnation, be uninterested in their lives, and seem unable to foster new attitudes or behaviours (Ryff & Singer, 2008). Positive Relations with Others concerns the degree of warm, satisfying, and trusting relationships that an individual is able to cultivate with others. This dimension of psychological well-being parallels the psychological need of *relatedness* that is discussed in SDT. That is, social well-being is an important dimension because as individuals, we do not live in a vacuum. "Living the good life" assumes living *amongst* others. The dimension of Purpose in Life taps into individuals' degree of meaning and sense of direction in life. According to Ryff and Singer (2008), individuals high on this dimension tend to be more goal-oriented, assign meaning to their past and present, and hold beliefs that enable them to make ongoing meaning of their life events. Finally, the dimension of Self-Acceptance concerns an individual's adoption of a positive regard towards the self that is unconditional or non-contingent on outcome. Individuals who are self-accepting are those who possess a positive attitude toward themselves, tend to accept their strengths and weaknesses, and tend to adopt a positive stance about past life events and behaviours (Ryff & Singer, 2008).

In conclusion, a review of well-being scholarship highlights the multi-dimensional nature of the construct and consequently, the complexity of the question "What constitutes living the good life?" The two separate traditions discussed in well-being scholarship, those adopting the construct of SWB and those adopting the construct

of PWB, capture two important dimensions of well-being (Ryan & Deci, 2000; McGregor & Little, 1998). Beyond a theoretical basis, there is some empirical support for the distinct nature of these two dimensions of well-being (e.g., Compton, Smith, Cornish, & Qualls, 1996). Specifically, Compton and colleagues examined the relations between 18 indicators of mental health using factor analytic procedures. They found two distinct factors that closely mapped onto descriptions of SWB and PWB in the literature. Importantly, however, Compton and colleagues found moderate associations between the factors, suggesting that these two dimensions of well-being, although distinct, are related. In summary, well-being scholarship has implications on the addiction treatment field. On the most basic level, the implication is that professionals working to facilitate the well-being of individuals recovering from AOD use disorders need to recognize that optimal functioning is multi-dimensional. It consists of feeling good (i.e., subjective well-being), having a sense of meaning and purpose in one's life (i.e., psychological well-being), and functioning within a larger group (i.e., social well-being).

<div align="center">Correlates of Well-Being</div>

Well-being, by definition, has significant bearing on individuals' physical and mental health. For example, well-being has been found to be positively correlated with self-esteem and overall adjustment (e.g., Sheldon & Kasser, 1995; Ryff & Singer, 2008; Ryan & Deci, 2001). Well-being also has been found to significantly correlate with physical functioning. For example, Ryff & Singer (2008) studied the physical correlates of well-being using scores on the PWB scale and a variety of physiological procedures, including functional magnetic resonance imaging (*f*MRI), blood sampling, and the stress

test. They found that individuals' well-being was significantly correlated with the activities of specific physiological systems, including the cardiovascular, neuroendocrine, and immune system. Ryff and Singer (2008) speculated that these observed associations between well-being and physical functioning may be partially explained through the effects of well-being on effectively regulating individuals' physiological systems. A lack of well-being, in contrast, has been empirically shown to have vast negative implications on individuals' physical and mental health. For example, individuals endorsing a low sense of meaning and purpose in life have been found to have more psychiatric disorders than individuals who endorse a higher sense of meaning and purpose (e.g., Diener et al., 1999). One topic that is especially pertinent to the current study is the relation between AOD use disorders and well-being.

<center>AOD Use Disorders and Well-Being</center>

A negative relation between AOD use disorders and well-being has been consistently reported in the literature (e.g., Scherer, 2010; Worthington, 2006; Potenza, 2006). Specifically, a lack of well-being has been suggested to lead to AOD use disorders. At the same time, AOD use disorders have been suggested to lead to impaired well-being. Given that the focus of the current study is recovery, it is important to understand the different ways that AOD use disorders impact individuals' well-being in order to intervene appropriately.

AOD use disorders significantly compromise individuals' well-being in a number of ways. For example, a large metanalytic study by Donovan and colleagues (2005) examined the relation between active substance use and quality of life (QoL). QoL is a

latent variable that assesses general well-being. They found that substance use was strongly negatively correlated with QoL. Furthermore, individuals who reported prior relapses were at greater risk for deterioration of QoL than individuals who reported no prior relapses. Given the already noted high relapse rates associated with AOD use disorders (e.g., Forechimes et al., 2008), the results of Donovan and colleagues' meta-analytic study highlight the poor well-being outcomes among individuals with AOD use disorders. Specifically, individuals with AOD use disorders experience impaired functioning in the three domains of well-being discussed, namely emotional well-being, social well-being, and psychological well-being.

With regard to emotional well-being, individuals with an AOD use disorder are vulnerable to co-morbid psychiatric symptomatology, as discussed earlier (e.g., Potzena, 2006), and their experiences are marked by suffering, existential distress, and despair (Hart & Singh, 2009). Similarly, the social well-being of individuals with AOD use disorders is also impaired. For example, these individuals are commonly estranged from family, friends, and loved ones in part due to direct consequences of their addictive disorders on their relationships. Furthermore, individuals with AOD use disorders commonly experience shame, which is discussed in greater depth shortly, leading them to avoid others and lead a solitary existence. The result is a pervasive sense of isolation and impaired social well-being. In addition to the impairments in subjective and social well-being, AOD use disorders have been associated with a number of negative consequences on individuals' psychological well-being. Two specific negative psychological well-being outcomes associated with AOD use disorders are a poor sense of meaning or purpose,

and shame.

From a theoretical perspective, the negative association between substance abuse and meaning and purpose is hardly surprising. Empirically also, AOD use disorders have been found to be negatively associated with meaning and purpose (e.g., Gomes & Hart, 2009; Waisberg & Porter, 1994). Specifically, Waisberg & Porter (1994) used a sample of drinking individuals to examine the association between alcohol consumption and meaning and purpose in life. They found that the amount of alcohol consumed by an individual was negatively correlated with an individual's degree of meaning and purpose in life. That is, individuals who reported drinking the most heavily were also individuals who ascribed the lowest degrees of meaning and purpose. Furthermore, the negative association between alcohol consumption and meaning and purpose generalized to other forms of substance use besides alcohol. Given that Aristotle's notion of eudaimonia rests on the idea that having a sense of meaning and purpose in life leads to a more enduring state of well-being, this reported negative association between AOD use disorders and meaning and purpose underscores the compromised psychological well-being of individuals with AOD use disorders. Furthermore, it has been suggested that meaning and purpose in life benefit not only the well-being of the individual him or herself, but also the well-being of others with whom the individual is involved. Thus, AOD use disorders appear to impact the well-being of individuals and their family, and loved ones.

The second noteworthy negative psychological well-being outcome associated with AOD use disorders is shame. The association between shame and AOD disorders is discussed at length in the empirical literature (e.g., Scherer, 2010; Webb et al., 2009,

2006). Specifically, AOD use disorders have been found to be associated with not only the experience of shame (i.e., state shame) but also the internalization of shame (i.e., trait shame). Unlike its cousin emotion, guilt, shame is a pervasive negative evaluation of one's entire or "global self" (Gramzow & Tangney, 1992, p. 99; Lewis, 1971; Tangney, Stuewig, & Mashek, 2007). As such, shame is a deeply painful emotion that coincides with the belief that one is incompetent (Robins, Tracy, & Shaver, 2001), inadequate (Kaufman, 1989), worthlessness, powerlessness (Tangney, 1991), despicable (Tangney, 1991; Gramzow & Tangney, 1992), and "…faulty, tainted, perhaps dreadful or rotten" (Dillon, 2001, p. 64).

There are several different lines of evidence that have implicated shame in the onset, progression, and maintenance (i.e., relapse) of AOD use disorders (e.g., Scherer, 2010; Webb, Robinson, Brower, & Zucker, 2006). For example, one line of evidence has suggested that shame creates conditions for maladaptive coping through substance abuse (e.g., Holahan, Moos, Holahan, Cronkite, & Randall, 2001; Dearing et al., 2005; Worthington, Scherer, & Cooke, 2006; Scherer, 2010). For example, in two recent studies by Boyd and Mackey (2000) and Zakrzweski and Hector (2004) examining motivations for alcohol consumption, a motivation to avoid or escape negative emotions, such as shame, was found to be positively correlated with drinking behaviour, including consumption levels. In another recent study by Scherer (2010), AOD use was found to be motivated by a desire to cope with underlying feelings of shame. In sum, the results from the body of research on the association between shame and AOD use disorders are consistent with the negative-affect hypothesis of substance abuse that states that

substance use is motivated by a desire to reduce negative affect.

A second line of evidence in the literature has argued that substance use leads to feelings of shame. Specifically, substance use leads to feelings of a loss of control, hopelessness, and low self-esteem (e.g., Merrit, 1997; Ehrmin, 2001) and eventually, feelings of shame. For example, individuals may act in ways that are 'shameful' when under the influence of a substance (e.g., dis-inhibitory effects of alcohol). To escape acknowledging their behaviour and the ramifications of their behaviour, individuals may engage in substance use. Therefore, shame maintains the substance use. In summary, AOD use disorders severely impact the emotional, social, and psychological well-being of individuals. Consequently, discussions of recovery necessarily include discussions on well-being and resoration of individuals' subjective quality of life.

<div align="center">Toward a Model of Recovery as Enhancing Well-Being</div>

Well-being issues lie at the heart of discussions on recovery from AOD use disorders. Individuals with AOD use disorders represent an especially vulnerable population who are susceptible to co-occurring psychological difficulties and relapse, as already discussed (e.g., White, 2007; Magura, 2007). Furthermore, according to the negative affect relief model, substance abuse is an emotion-focused coping strategy aimed at alleviating high levels of subjective distress (Tapert, Ozyurt & Myers, 2004; Young, & Oei, 1993). Arguably then, addressing underlying deficits in well-being among substance users may provide an indirect avenue to interrupt the addiction cycle and in doing so, facilitate recovery. Finally, well-being issues among recovering individuals are not only important because of their potential positive impacts on clinical outcomes, such

as relapse prevention, but also because all individuals *deserve* to live "the good life" (Humphreys, 2004).

<center>Assessment of Well-Being</center>

The assessment of well-being generally involves assessing the two distinct components of subjective well-being and psychological well-being that were discussed. It is important to note, however, that social well-being is also an important component of well-being and its assessment can vary substantially. Frequently used measures of subjective well-being and psychological well-being are briefly reviewed here.

Subjective well-being is operationalized by an affective component (i.e., happiness) and a cognitive component. Happiness is assessed through the use of various self-report measures using either a Likert-response scale format or a checklist format. An example of a measure that uses a Likert-response scale is the Scale of Positive and Negative Experiences (SPANE; Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi et al., 2009). Specifically, the SPANE is composed of 12 emotions, such as "bad", "joyful", and "contented" and asks individuals to rate on a 5-point scale how frequently they experienced the emotion with 1 = *very rarely or never* to 5 = *very often or always*. Therefore, measures such as the SPANE, which use a Likert-response scale, permit a more graded assessment of individuals' affective component of well-being. An example of a measure that uses a checklist format is the Multiple Affective Adjective Checklist (MAACL; Zuckerman & Lubin, 1965). The MAACL asks individuals to indicate the presence and absence of a list of emotions, with a *state* and *trait* form. A Total score on the MAACL is computed as well as composite scores (specifically, Anxiety, Depression,

Hostility, Positive Affect, and Sensation-Seeking). One noteworthy procedure that has been applied to mood checklists is computing a *hedonic balance score*. A hedonic balance score is an index of the ratio of positive to negative emotions that are experienced by an individual. The computation of a hedonic balance score is further discussed in the Method chapter (see pp.109-111). The use of a hedonic balance score permits an examination of individuals' relative experiences of positive and negative emotions. Scholars in favour of the use of a hedonic balance score argue that the procedure provides a more reliable index of the affective component of individuals' well-being. Specifically, the effects of response styles (e.g., social desirability) are less than in the use of unipolar measures (Larsen & Diener, 1992).

The cognitive component of SWB, Life satisfaction, has been described as a "global assessment of a person's quality of life according to his (or her) chosen criteria" (Shin & Johnson, 1978, p.478). Judgments of life satisfaction rest on how well an individual perceives that his or her life meets some internal standard. Thus, life satisfaction has a global quality, which frequently leads to its assessment through the use of a single question. For example, one question that is frequently used in the literature comes from World Values Survey (2010), "All things considered, how satisfied are you with your life as a whole these days?" Individuals use an 11 point response scale with 0 = *extremely dissatisfied* and 10 = *extremely satisfied*. Another popular question is taken from the General Social Survey (2008); http://www.statcan.gc.ca): "Taken all together, how would you say things are these days?" Would you say that you are very happy, pretty happy, or not too happy?" Still, some researchers prefer to use multiple-item scales

to assess life satisfaction. For example, the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item measure with items such as "In most ways, my life is close to my ideal" and "So far I have gotten the important things in life I want" that uses a 7-point response scale with 1 = *strongly disagree* and 7 = *strongly agree*.

Psychological well-being, on the other hand, is generally operationalized by meaning and purpose in life. Meaning and purpose in life is generally assessed by multiple item scales because the construct is less global than life satisfaction. Two example measures that are frequently used to assess meaning and purpose are Meaning in Life Questionnaire (MLQ; Steger, Frazier, Oishi, & Kaler, 2006) and the Purpose in Life scale (PIL; Crumbaugh & Maholick, 1969). The MLQ is a 10-item scale that assesses two separate components: the *presence* of meaning in one's life and the *search* for meaning. For example, individuals are asked to rate their agreement with the statements "I understand my life's meaning" and "I am looking for something that makes my life feel meaningful" using a 7-point response scale with 1 = *strongly disagree* and 7 = *strongly agree*. The PIL is composed of 20 attitudinal statements that individuals complete on the basis of varying response options. For example, "If I should die today, I would feel that my life has been..." with 1= *completely worthless* and 7 = *very worthwhile*. In summary, well-being is a multi-dimensional construct and its assessment should include an assessment of at least the two dimensions of subjective well-being and psychological well-being through the use of multiple measures.

<u>Summary and Relevance to the Current Study</u>

Well-being is a multi-dimensional construct with at least two distinct dimensions: happiness and meaning and purpose in life. The literature consistently reports a negative relation between substance use and quality of life, depressive and anxiety symptomatology, and shame. Given that recovery is increasingly recognized as concerning not only behaviours associated with the substance use itself but also quality of life, well-being represents an important topic in discussions.

The current study sought to enhance understanding of the well-being issues that impact individuals engaged in Stage 2 recovery from AOD use disorders. Specifically, the current study examined self-forgiveness as a predictor of well-being variables. Two components of well-being were assessed: Positive well-being and Negative well-being. Positive well-being was assessed by measures of the two dimensions of happiness, and meaning and purpose in life as is consistent with a review of the literature. Negative well-being was assessed by measures of depressive symptomatology, anxiety, and shame. Thus, the current study attempted to address the gap in the literature on recovery outcomes that are unrelated to the substance abuse itself and in doing so, sought to enhance understanding of the full recovery of individuals with AOD use disorders.

I.3 SELF-FORGIVENESS

From the discussions thus far, it should be apparent that AOD use disorders seriously compromise the well-being of individuals. That is, even after substance related behaviours have been adequately managed (i.e., Stage 1 recovery), individuals' subjective quality of life continues to be impaired. Previously, I discussed the field's embrace of a

holistic conceptual framework of recovery. This holistic paradigm of recovery highlights the need for broad-spectrum approaches to recovery that would not only attend to physical outcomes of recovery (e.g., abstinence) but also to well-being and subjective quality of life (i.e., Stage 2 recovery). Thus, an important question that emerges is "How can well-being be facilitated?"

In this section, self-forgiveness is discussed as one predictor of well-being. Specifically, I present a model of self-forgiveness as an adaptive emotion-focused coping strategy that has benefits on well-being. First, I distinguish authentic self-forgiveness from pseudo self-forgiveness. Next, I review the preliminary evidence on the benefits of self-forgiveness on mental health outcomes. Also discussed are the potential benefits of learning to forgive the self among individuals recovering from AOD use disorders.

<div align="center">Authentic Self-Forgiveness</div>

A prerequisite task to discussing the benefits of self-forgiveness on individuals' mental health is first understanding what authentic self-forgiveness is. Specifically, the term *authentic self-forgiveness* is used to distinguish it from pseudo or false self-forgiveness (Baumeister, Exline & Sommer, 1998; Hall & Fincham, 2005; Fischer & Exline, 2006). The two necessary criteria of authentic self-forgiveness are honesty and responsibility, as discussed below.

<div align="center">*Honesty*</div>

Honesty represents the first of two necessary criteria for authentic self-forgiveness to emerge and thus, for an individual to forgive themselves for a past deed. Being honest includes acknowledging the facts of one's behaviour along with their implications.

Although the criteria of honesty may seem simple or easy initially, exercising honesty with oneself is indeed a difficult process. This is because the human instinct is to self-protect from painful truths about the self, making self-deception a common phenomenon. Self-deception is accomplished through a number of defenses, such as denial, rationalization, and minimization. In other cases, self-deception may even be borne out of a proud or narcissistic stance that one is 'perfect'. Therefore, to exercise honesty with oneself is to be willing to forgo the comforts that self-deception affords and to deal with painful emotions that come from acknowledging one's behaviour and its implications. The implications of one's behaviour may be directly on the self (i.e., what it means about the person) or on others (e.g., what it means for a friend or a family member).Thus, painful emotions of guilt and shame are tolerated and must "...be fully experienced before one can move towards self-forgiveness" (Hall & Fincham, 2005, p. 625).

Responsibility

The second requisite criterion for authentic self-forgiveness is taking responsibility. Taking responsibility concerns 'doing something about' the information that emerged from exercising honesty and 'taking an honest look at oneself', so to speak. The mere process of honest self-examination represents the first step in taking responsibility. That is, to exercise honesty and to acknowledge the ramifications of one's past deeds and failures is a preliminary form of taking responsibility. Taking responsibility, however, does not end with mere acknowledgment of past behaviour. Rather, taking responsibility involves a series of steps and following through with a commitment to 'do different' in the future (Dillon, 2001).

In summary, honesty and responsibility-taking are required for authentic self-forgiveness. Pseudo or self-forgiveness, in contrast, is a failure to exercise honesty and to take responsibility for one's behaviour. Some scholars have described pseudo self-forgiveness as a 'letting one's self off the hook' (Holmgren, 1998; Dillon, 2001; Fisher & Exline, 2006). Also, pseudo self-forgiveness frequently involves adopting an attitude of forgetting, condoning, or excusing one's fallibility (Elder, 1998; Enright, Freedman, & Rique, 1998).

<div align="center">Conceptual Models of Self-Forgiveness</div>

The criteria of honesty and responsibility-taking that were discussed only represent preliminary tasks in self-forgiveness and grasping what self-forgiveness is requires a review of the theoretical and empirical literature. Prior to undertaking this review, however, it is important to note that the literature on self-forgiveness may not be very accessible for a number of reasons. First, the theoretical literature on self-forgiveness is characterized by diverse contributions by scholars from varying fields, including philosophers, theologians, and psychologists. It is perhaps owing to this diversity that the language used may at times be ambiguous or vague. Second, the young state of the literature on self-forgiveness, in comparison with the state of the literature on interpersonal forgiveness, compels more descriptive language. Third, self-forgiveness is an inherently complex construct. For example, "forgiving oneself" carries many idiosyncratic meanings and evokes different emotions. Therefore, although in any scholarship there is a need to arrive at basic conceptual consensus, consumers of the self-forgiveness literature should hardly be surprised to not find 'hard and fast rules'.

Adopting an attitude of openness would likely help piece together the various descriptions of self-forgiveness that have been offered into a coherent framework.

One step in understanding self-forgiveness is to examine the basic ideas underlying self-forgiveness that have been discussed by philosophers, like Aristotle and Kant, and early psychologists, like Jung and Maslow. As will be seen, the ideas underlying self-forgiveness have been discussed long before the birth of the empirical literature on self-forgiveness. For example, Aristotle discussed human *virtues,* defining them as balanced states. Self-forgiveness captures a balanced state toward the self and to that extent, it is a virtue. Kant discussed at length the human condition as *inherently imperfect*. He emphasized *self-respect*, defined as the process by which we recognize our intrinsic worth in the face of our inherent fallibility. Self-forgiveness rests on these Kantian ideas of intrinsic worth and self-respect. That is, although the self is held accountable for its wrongdoing, its worth is not dependent on it. Jung stressed the important role of self-knowledge and self-realization in psychological health. Self-forgiveness leads to these processes because it requires honesty, which leads to self-knowledge and it requires responsibility-taking, which leads to self-improvement. Finally, Rogers' concept of unconditional positive regard captures the essence of self-forgiveness. Thus, although the empirical literature on self-forgiveness is young, the ideas underlying self-forgiveness have been long discussed by past scholars.

Another step in understanding self-forgiveness is consideration of the spectrum of situations in which it is relevant or applicable. In the contemporary literature, self-forgiveness is discussed as relevant in situations where the transgression is against

another individual, against one's self, or against both (e.g., Snow, 1993). Self-forgiveness is also relevant in situations where the transgression was merely a matter of error or carelessness (Holmgren, 1998) as well as in situations where the transgression was a reflection of major character flaws or problematic values (Murphy, 1999). According to Luskin (2002), there are four broad classes of individuals for whom self-forgiveness is relevant. The first category consists of individuals who blame themselves for not succeeding at an important life task, such as obtaining a university degree, a job, or a life partner. The second category consists of individuals who blame themselves for not taking necessary actions to help themselves or to help someone else. For example, a parent who did not seek medical attention for a personal illness or for a child's illness. Third are individuals who blame themselves for hurting another person, such as a spouse who was unfaithful. Fourth are individuals who blame themselves for self-destructive behaviours, such as addiction. Thus, it may be apparent that issues of self-forgiveness can arise in a wide variety of situations.

Another important step in understanding self-forgiveness is reviewing the conceptual consensus among scholars on the process of self-forgiveness. Specifically, there is agreement among researchers that self-forgiveness is a deliberate process that, by definition, unfolds over time. This process is frequently colloquially referred to as "letting go". Specifically, the process of self-forgiveness has been described as a process of abandoning self-contempt (Holmgren, 1998), of extending the self goodwill (Burton-Nelson, 2000), and of making "good to ourselves for our failings" (Snow, 1993, p. 75). It is important to recognize that self-forgiveness does not require that an individual "rid(s)

themselves of all feelings of guilt or remorse" (Fischer & Exline, 2006, p. 131). Thus, the process of self-forgiveness is not that of letting go of all remorse but rather it is letting go of the 'all good' or the 'all bad' stance toward the self. Self-forgiveness has been described as "a willingness to abandon self-resentment in the face of one's own acknowledged objective wrong, while fostering compassion, generosity, and love toward oneself" (Enright and the Human Development Study Group, 1996, p.115). In doing so, Rutledge (1997) argues that self-forgiveness maintains our ongoing psychological health (paraphrased in Wang, 2006). Finally, Bauer and colleagues perhaps put it best when they stated that self-forgiveness "...allows for a future that is not determined by the past" (Bauer et al., 1992, p.150).

Besides these generalities, several researchers have attempted to delineate specific therapeutic stages of the self-forgiveness process. One such process model is that of Enright and the Human Study Group (1996), which is discussed in a later section. Another process model of the therapeutic stages of self-forgiveness that has recently been proposed is that of Jacinto & Edwards (2011). Specifically, Jacinto and Edwards identify four broad therapeutic stages: *Recognition*, *Responsibility*, *Expression*, and *Re-creating*. Briefly, Recognition involves the individual's increasing awareness of forgiveness as a choice. Responsibility involves assessing one's role in the transgression with the goal not being to entirely absolve oneself of feelings of guilt or remorse but rather to assume reasonable accountability given our inherent fallibility and 'imperfectness'. The Expression stage comprises any number of symbolic activities, such as writing the self a letter of forgiveness. Finally, in the Re-creating stage, the authors state "one's life

requires a renewed self-image that incorporates the past and gives direction to the future"
(Jacinto & Edwards, 2011, p. 429).

To summarize, there are at least three theoretical points of agreement among
forgiveness researchers (e.g., Enright, 1996; Hall & Fincham, 2005; Fischer & Exline,
2006; Dillon, 2001; Holmgren, 1998). First, self-forgiveness is recognized as a process
that is intentional and deliberate. That is, self-forgiveness emerges from an individual's
conscious 'working through' of thoughts and emotions concerning a particular past deed.
Second, given that self-forgiveness involves this 'working through', researchers agree that
self-forgiveness requires time and effort. Third, self-forgiveness emerges when negative
affect, such as shame, remorse, and guilt, return to neutral or positive levels. Beyond
these points of general consensus, three theoretical models of self-forgiveness that are
discussed in the literature are reviewed here. The first of these models is that of Enright
and colleagues' (1996), the second is that of Hall and Fincham (2005, 2008), and the third
is that of Worthington and colleagues (2006).

According to Enright and colleagues' conceptual model, self-forgiveness is a
process that unfolds across four broad-stages, namely: *Uncovering*, *Decision*, *Work*, and
Deepening (Enright, 2001). During the first stage of Uncovering, individuals process
affective and cognitive reactions about their wrongdoing. Negative affective reactions,
such as shame, feelings of contempt, remorse, and guilt are consequently experienced.
Cognitive reactions in the forms of thought such as "I am unworthy" or "I am terrible"
also commonly emerge during this stage. During the second stage, Decision, individuals
have what Enright and colleagues describe as "a change of heart" marked by a decision to

forgive the self. Implicit in this decision to self-forgive is a commitment, which can be a private or internal process. In other words, neither the decision nor the commitment to forgive the self has to be made public or be shared with another individual. Following this decision to self-forgive, individuals engage in the Work phase through an increasing awareness of the ramifications of their actions. This heightened awareness naturally lead to feelings of guilt, shame, and remorse and to alleviate these emotions, the individual begins to take a number of behavioural steps to make changes and "right their wrong" through self-improvement. The Deepening phase is the culmination of the processes in the earlier stages. Specifically, this stage is marked by multiple shifts that take place in an individual's thoughts, feelings, beliefs, and actions toward the self. On the bases of these four stages, Enright developed a structured self-forgiveness intervention program that is composed of twenty therapeutic processes (see Appendix C for a list of the 20 processes). This intervention program was utilized as one of the treatment conditions in the parent study on which the current study is based.

Hall and Fincham's model (2005, 2008) departs from Enright's model of self-forgiveness in that it operationalizes the process on a motivational rather than behavioural level. In fact, Hall and Fincham's model of self-forgiveness borrows from a model of interpersonal forgiveness that was developed by McCullough and colleagues (McCullough, Rachal, Sandage, Worthington, Brown, & Hight, 1998). Specifically, McCullough and colleagues describe interpersonal forgiveness and Hall and Fincham define self-forgiveness as "a set of motivational changes" (p. 4) characterized by (a) decreasing avoidance motivations, (b) decreasing revenge motivations, and (c) increasing

benevolence motivations. For example when applied to self-forgiveness, an individual becomes decreasingly motivated to avoid reminder stimuli of their transgression, decreasingly motivated to punish themselves (e.g., engage in self-destructive behaviour), and increasingly motivated towards self-kindness and self-compassion. On the bases of these three motivational shifts, Hall and Fincham's model delineates a number of factors, referred to as "determinants", which either facilitate or hinder the self-forgiveness process. Specifically, the model delineates a number of emotional determinants, social-cognitive determinants, and offense-related determinants. For example, shame and guilt are emotional determinants whereas an individual's attribution style is a social-cognitive determinant. These determinants may either facilitate or hinder self-forgiveness. The severity of a transgression is an offense-related determinant, whereby more severe transgressions are more difficult to forgive.

<u>Self-Forgiveness: An Adaptive Emotion-Focused Coping Strategy</u>

The third model of self-forgiveness that is discussed is Worthington and colleagues' model (Worthington, 2006; Worthington & Scherer, 2004). Specifically, Worthington and colleagues conceptualize self-forgiveness as an adaptive *emotion-focused coping strategy*. Specifically, according to Worthington and colleagues, the benefits of learning to forgive the self are the result of helping individuals deal with painful emotions more adaptively. In order to appreciate this mechanism of action of self-forgiveness as an adaptive emotion-focused coping strategy, a basic review of emotions and emotion regulation is provided.

Emotions are one of two sources of information by which we organize our

experiences and making meaning of events in our lives (e.g., Greenberg & Pascual-Leone, 2001). Emotions are comprised of visceral sensations, which are experienced on a physiological level, and action tendencies, such as "approach" or "withdraw". For example, the emotion of shame has been found to be associated with a constricted gastric reaction, a curled lip, and tendencies to withdraw and hide (e.g., Tangney & Dearing, 2002). Together, these visceral sensations and approach tendencies form the basis of what is referred to as an *affect*. Importantly, a specific affect is independent of the cognitive processes that follow, such as the thoughts, explanations, and interpretation that an individual assigns the affective experience. These cognitive processes represent a second mode, separate from emotions, by which individuals make meaning of their experiences.

Given the poignant role that emotions play in human experience, it is no surprise that individuals try to influence their emotions in different ways, on a daily basis. These efforts at influencing emotions are broadly referred to as *emotion regulation* (Morris & Reilly, 1987). For example, individuals may to influence which emotions they have, when they have them, and how they express them. One model groups emotion regulation efforts as falling into two broad classes: *antecedent-focused emotion regulation* and *response-focused emotion regulation* (Gross, 1998). In antecedent-focused emotion regulation, there are efforts to influence the *input* of emotions. For example, an individual may select or avoid a certain situation, modify a certain situation, or divert one's attention toward or away from a certain situation. In contrast, response-focused emotion regulation involves efforts to influence the *output* of emotions. For example, an individual may employ different strategies to either intensify or diminish an ongoing emotion. Brooding

and ruminating, for example, represent strategies that intensify an emotion whereas distraction represents a strategy that diminishes an ongoing emotion.

A topic that is related to emotion regulation is *coping*. Coping is an umbrella term that refers to *how* individuals deal with distressing events and emotions. One parsimonious model of coping delineates between two separate types of coping: *problem-focused* and *emotion-focused* (Lazarus & Lazarus, 1988). Problem-focused coping refers to efforts that are directed at solving or managing the problem that is causing distress directly. This form of coping includes instrumental or situation-specific actions that are taken by an individual to address the distress and consequently, this form of coping is direct. Emotion-focusing coping, on the other hand, refers to efforts that are directed at managing the feelings of distress. This may include talking about the distressing feelings, cognitively re-appraising one's responsibility, and so forth. There seems to be a general consensus among researchers that while both types of coping can be useful, the relative utility of a problem-focused versus emotion-focused coping strategy depends on the nature of the distressing emotion and the nature of the particular situation.

Worthington and colleagues argue that self-forgiveness represents an adaptive form of emotion-focused coping for individuals in recovery from AOD use disorders. Specifically, Worthington and colleagues discuss two ways that self-forgiveness benefits recovering individuals. First, self-forgiveness provides an emotional strategy of dealing with negative emotions, such as guilt and shame. That is, the individual who self-forgives a past failure processes their underlying feelings of guilt and shame and in doing so, meaning can be made. Second, processing emotions results in new information and

makes possible new cognitive and behavioural strategies. In other words, attending to emotions and working through them allows the individual to get 'unstuck', so to speak, and to engage with life differently. For example, an individual who has acknowledged his or her feelings of guilt about a past failure or interpersonal injury may consider different strategies of self-improvement and making amends to the person that he or she hurt, respectively.

In summary, self-forgiveness provides an adaptive process by which negative emotions can be processed or worked through and, by definition, self-loathing and self-condemnation become diminished. Thus, the implication is that self-forgiveness enhances general well-being. A second implication, however, is self-forgiveness particularly enhances the well-being of individuals with AOD use disorders. That is, self-forgiveness provides these individuals with an adaptive emotion-focused coping strategy and in doing so, it serves to decrease the likelihood of the individual engaging in maladaptive coping behaviours, such as substance use (e.g., Dearing et al., 2005, Webb et al., 2006; Scherer, 2010, Worthington, 2005). For example, in a study by Ianni and colleagues (Ianni, Hart, Hibbard, & Carroll, 2010) that examined the relationship between self-forgiveness and alcohol misuse using a sample of university students, a positive relationship between alcohol abuse and shame was found. However, self-forgiveness was found to mediate the relationship such that individuals high on shame (i.e., shame-proneness) but also high on self-forgiveness (i.e., trait self-forgiveness) showed lower levels of alcohol abuse. These results suggested that self-forgiveness was a protective emotion-focused coping strategy among individuals who are prone to shame and more broadly, self-forgiveness is an

adaptive emotion-focused coping strategy for individuals in recovery.

Correlates of Self-Forgiveness

While the benefits of other-forgiveness on physical and emotional health are relatively established in the literature, the empirical literature on the benefits of self-forgiveness is comparatively young. With respect to the benefits of interpersonal forgiveness, Toussaint and Web (2005) recently reviewed 18 studies and consistently found that interpersonal forgiveness was associated with enhanced individual outcomes. For example, interpersonal forgiveness is associated with decreased levels of anxiety, anger, and depression. They concluded that interpersonal forgiveness has direct benefits on mental health. Additionally, interpersonal forgiveness also seems to reduce individuals' risk for the development of mental illness. It has been suggested that the reduction in risk of mental illness that forgiving individuals have is partially mediated by reductions in rumination. That is, individuals who forgive others ruminate less and rumination has been linked to many mental health disorders, such as obsessive-compulsive disorder, generalized anxiety disorder, depression, anxiety, and anger, as well as in physical health disorders. Thus, the benefits of interpersonal forgiveness are well-known and publicized in the empirical literature.

Despite the relative young state of the empirical literature on self-forgiveness, there is preliminary evidence suggesting that learning to forgive oneself is equally beneficial to mental health as is forgiving another individual. Specifically, self-forgiveness has been shown to be associated with enhanced mental health, overall adjustment, and enhanced interpersonal functioning. Most of this research, however, is

typically cross-sectional, correlational research that has examined how forgiveness of self relates to personality features of the forgiver. In other words, most of the research has examined a tendency toward self-forgiveness (i.e., trait self-forgiveness).

With respect to mental health, individuals with a propensity toward self-forgiveness, (i.e., high trait self-forgiveness) are those who show high "forgivingness". The term forgivingness, which can apply to self-forgiveness and other-forgiveness, refers to a dispositional level variable of individuals' tendencies toward forgiveness of self and forgiveness of others, respectively (Berry, Worthington, O'Connor, Parrott, & Wade, 2005). According to Worthington, Witvliet, Pietrini, and Miller (2007), forgivingness is what is most typically associated with positive health outcomes rather than state forgiveness. For example, individuals high on trait self-forgiveness have been found to exhibit higher self-esteem, tend to experience more positive than negative emotions, and generally fare better in psychological well-being (Mauger et al., 1992; Ross, Kendall, Matters, Wrobel, & Rye, 2004). Individuals high on self-forgiveness also seem to be less vulnerable to psychological difficulties, including depressive and anxiety symptoms and personality traits of neuroticism, introversion and hostility (Maltby, Macakskill, & Day, 2001; Ross et al., 2004). In contrast, individuals with a low propensity toward self-forgiveness (i.e., low trait self-forgiveness) have been found to experience more anger, including angry after-thoughts and angry memories (Barber, Maltby, & Macaskill, 2005). Furthermore, unforgiveness toward the self or toward others is highly correlated with anger poses another physical risk for individuals. Specifically, anger has been linked to decreased immune functioning (e.g., O'Leary, 1990). Anger also has been found to be a

robust predictor of rumination, which has well-publicized deleterious effects on well-being, including depression, anxiety, and post-traumatic stress disorder (e.g., Nolen-Hoeksema, 1987).

In addition to the positive associations between learning to forgive oneself and mental health, there is preliminary evidence suggesting that trait self-forgiveness is also important in adjustment. For example, in a study conducted by Romero and colleagues (Romero, Kalidas, Elledge, Chang, Liscum, & Friedman, 2006) that examined predictors of psychological adjustment among their sample of women with breast cancer, self-forgiveness was positively correlated with adjustment. Specifically, women with self-forgiving attitudes (i.e., high on trait self-forgiveness) were significantly less prone to mood disturbances than women without self-forgiving attitudes. Furthermore, women with self-forgiving attitudes were found to fare significantly higher on various measures of quality of life. Romero and colleagues concluded that self-forgiveness appears to have protective benefits against the potentially negative effects that illnesses have on individuals' psychological well-being.

Finally, benefits of self-forgiveness have been shown to extend to the domain of interpersonal functioning (e.g., Hall & Fincham, 2005; Barber, Maltby, & Macaskill, 2005; Snow, 1993). One salient benefit of self-forgiveness on interpersonal functioning is through its anger reducing effects. For example, Barber and colleagues examined the association between self-forgiveness and anger using a sample of university students (Barber, Maltby, & Macaskill, 2005). They found that self-forgiveness was strongly negatively correlated with anger, angry after-thoughts or memories (i.e., rumination), and

revenge motivations. Thus, Barber and colleagues' results suggest that difficulties forgiving the self are associated with anger. The association between low levels of self-forgiveness and anger has several implications. Specifically, anger is associated with a number of negative relationship outcomes. For example, anger may compel behaviours that impair relationships, including aggression and hostility. Anger may also lead to resentment and consequently, distance and mistrust in the relationship. Furthermore, individuals who have a tendency toward anger generally adopt a condemning stance toward others. In the face of injury, they are unable to forgive and instead adopt a condemning stance. This condemning stance and inability to forgive in the face of injuries has at least two negative effects. First, given that emotional injuries in human relationships are inevitable, condemning those who hurt us and being unable or unwilling to work through a rupture in a relationship likely risks the loss of the relationship. Second, adopting a condemning stance toward those who hurt and generalizing this to others acts as a barrier to relatedness and the general feeling of being a target and consequently, a sense of alienation. Alienating behaviours, withdrawal, and avoidance become appealing, further impairing interpersonal functioning. Arguably, the negative association between self-forgiveness and anger may in part emerge from a lack of empathy for others. Empathy, according to some theorists, facilitates self-forgiveness in that the individual extends the self that which they extend others (e.g., Snow, 1993).

<div align="center">Self-Forgiveness and AOD Use Disorders</div>

Especially pertinent to the current study is the emerging evidence on the protective benefits of self-forgiveness against alcohol misuse (e.g., Webb, Robinson,

Brower, & Zucker, 2006; Webb, Robinson, & Brower, 2009). For example, Webb and colleagues (2006) examined the relationship between self-forgiveness and alcohol use among a sample ($N = 157$) of individuals with an alcohol disorder entering a community-based substance abuse treatment program. Following discharge and at 6 months follow-up, the results showed that the degree of self-forgiveness endorsed by the individuals was negatively correlated with the frequency of drinking. In another study by Webb and colleagues (Webb et al., 2009) also using a treatment-seeking sample ($N = 126$), the relationship between self-forgiveness and various indicators of mental health were examined. At post-charge and at 6 months follow-up, Webb and colleagues consistently found that the degrees of self-forgiveness that individuals endorsed were strongly, positively correlated with indices of mental health. Specifically, self-forgiveness was found to be significantly correlated with decreased levels of anxiety, interpersonal sensitivity, paranoid ideation, and hostility. A plausible conclusion as articulated by Webb and colleagues is "self-forgiveness appears to have a salutary relationship with the mental health of people entering treatment with alcohol problems" (Webb et al., 2009, p. 63). In another study by Webb and colleagues (Webb et al., 2006) using a sample of individuals in an outpatient rehabilitation program, greater levels of self-forgiveness were associated with reduced negative consequences of drinking. Furthermore, levels of self-forgiveness were more predictive of better substance-related outcomes than levels of other-forgiveness. Given these preliminary findings, self-forgiveness seems to have implications on recovery from AOD use disorders. Specifically, a number of implications on addiction scholarship and the addiction treatment field are worthy of mention.

From a research perspective, one potential implication is there is a need to examine self-forgiveness issues among individuals recovering from AOD use disorders. Specifically, there is a need to examine if self-forgiveness predicts recovery-related outcomes, such as well-being. That is, does self-forgiveness have significant bearing on individuals' well-being and second-stage recovery? Research examining self-forgiveness among recovering individuals would also address the gap in the literature in addressing non-substance-related outcomes, as was discussed earlier.

The emerging literature suggesting that self-forgiveness has therapeutic benefits among individuals with AOD use disorders implies that interventions specifically targeting self-forgiveness should be considered. As was discussed earlier, the subjective quality of life of individuals recovering from AOD use disorders continues to be impaired even after the substance-related behaviours are managed. Thus, interventions aimed to enhance well-being are of paramount importance and self-forgiveness interventions represent one such promising avenue.

Specifically, the preliminary evidence suggesting that self-forgiveness is an adaptive form of emotion-focused coping seems promising. Furthermore, self-forgiveness may have indirect benefits on individuals' hope and self-esteem (Strelan, 2007). This further reduces the need to cope by using alcohol and increases individuals' degree of self-efficacy, which is a well-established protective factor against relapse (e.g., Scherer, 2010; Webb et al., 2006). Also with respect to relapse, recall that self-forgiveness, by definition, restores an individual's relationship with him or herself and in doing so, self-forgiveness reduces the sense of "brokenness" (Bauer et al., 1992, p. 54), which may

compel substance use (e.g., Horsbrugh, 1974; Halling, 1994). In summary, there is a need for the addiction treatment field to assess the efficacy of self-forgiveness facilitating interventions on enhancing individuals' well-being.

<p style="text-align:center">Assessment of Self-Forgiveness</p>

Despite the young state of the empirical literature currently, the assessment of self-forgiveness can be made differently with one broad distinction being on a state or trait-level. State-level assessments of self-forgiveness typically involve measures that inquire about self-forgiveness about a specific transgression or situation. Consequently, these measures are frequently referred to as situational measures of self-forgiveness. An example of a situational measure of self-forgiveness that was recently developed by Wohl and colleagues (Wohl, DeShea & Wahkinney, 2008) is the State Self-Forgiveness Scale (SSFS). Specifically, the SSFS assesses an individual's degree of positive attitudinal shifts in three domains: affective, cognitive, and behavioural which, according to the authors, are suggestive of self-forgiveness.

Trait measures of self-forgiveness, in contrast, do not inquire about a specific transgression or situation. Instead, these assessments of self-forgiveness inquire about an individual's propensity or general tendencies toward self-forgiveness. Consequently, trait self-forgiveness measures typically present general statements that individuals rate their degree of agreement with. For example, two frequently used trait measures of self-forgiveness are the Forgiveness of Self scale (FoS; Mauger et al., 1992) and the Self-Forgiveness subscale of the Heartland Forgiveness Scale (HFS; Thompson et al., 1998). The FoS is composed of 15 statements and a true/false response format with higher

scores being indicative of a greater degree to be self-forgiving. The HFS-SF consists of 6 statements, which unlike on the FoS, have a 7-point response scale with 1 = *almost always false of me* to 7 = *almost always true of me*. Another dispositional measure of self-forgiveness, the Multi-Dimensional Forgiveness Scale (MFS; Tangney, Boone, Fee, & Reinsmith, 1999), which is not as frequently used as the FoS or HFS, offers a unique response format. Specifically, in the MFS, individuals are presented with a series of 8 hypothetical scenarios of transgressions and are asked to rate their likelihood of being able to self-forgive each transgression.

Despite the availability of different assessment instruments of self-forgiveness, a number of limitations in the current state of the assessment of self-forgiveness are noteworthy. Fischer and Exline (2006) have outlined a number of these limitations. Specifically, one limitation they discussed related to how most of the available instruments of self-forgiveness do not explicitly assess whether an individual has accepted responsibility for their transgression. However, this limitation only pertains to state measures of self-forgiveness because these measures ask about a specific transgression or situation. Responsibility-taking, however, is an important dimension that distinguishes authentic self-forgiveness from pseudo processes, as were discussed earlier. Fischer and Exline recommend that instruments assessing self-forgiveness that are developed in the future should include an explicit assessment of responsibility-taking. Doing so would advance the study of authentic self-forgiveness.

A second criticism of the current state of the assessment of self-forgiveness that was discussed by Fischer and Exline related to how scores on instruments of self-

forgiveness are interpreted. Specifically, some of the instruments assess self-condemnation and low scores are generally interpreted as indicating self-forgiveness. Fischer and Exline, however, found self-condemnation was moderately associated with remorse, which has potential adaptive benefits. Fischer and Exline recommend that future self-forgiveness assessments include an assessment of not only self-condemnation but also of remorse.

Finally, an inherent limitation of the assessment of self-forgiveness concerns issues related to self-report questionnaires in general. Like all latent psychological constructs that are assessed using self-report questionnaires, there is a degree of unavoidable unreliability and respondent bias. Research that includes third-party responses, such as the reports of a close other, may prove instrumental in increasing the external validity of the research on self-forgiveness.

<div align="center">Summary and Relevance to the Current Study</div>

Although self-forgiveness is less understood conceptually and the benefits associated with self-forgiveness are less well known than those of interpersonal forgiveness, there has been a surge of scholarly interest in self-forgiveness in recent years. Preliminary evidence indicates that self-forgiveness has benefits on individuals' mental health and well-being. Furthermore, self-forgiveness seems to be especially relevant to the well-being of individuals in recovery from AOD use disorders because it provides individuals with an adaptive way to cope with distressing emotions (Worthington et al., 2006). In doing so, self-forgiveness reduces individuals' need to engage in maladaptive coping behaviours, such as substance use.

The current study examined archival data from a sample of 61 individuals who completed a five-month psychosocial intervention program designed to enhance subjective quality of life by learning to forgive themselves and others. The current study asked two broad questions: "Are there benefits of self-forgiveness on well-being?" and if so, "What treatment-related process variables facilitated clients' learning to forgive themselves?" Well-being was conceptualized as consisting of the presence of a component of positive well-being, using measures of happiness and meaning and purpose, and the absence of a component of negative well-being, using measures of anxiety, depression, and shame. Two treatment-related process variables were examined: specific involvement in the twelve-step program's Amends steps (i.e., Steps 8 & 9) and degree of therapeutic alliance.

I.4 ALCOHOLICS ANONYMOUS

In the previous sections, I discussed the vast and chronic problems that are associated with AOD use disorders. As a result, I discussed how recovery from AOD use disorders is increasingly being understood within a holistic framework where multiple stages and different domains of functioning are attended to. Consequently, there is advocacy for broad-spectrum approaches to facilitating recovery in the addiction treatment field. By definition, broad-spectrum approaches attend to physical recovery variables, such as abstinence, as well as psychological recovery variables, such as well-being or subjective quality of life. In this section, I discuss the popular grassroots organization and mutual-aid support group known as Alcoholics Anonymous (AA) as an exemplary model of a broad-spectrum approach to facilitating recovery from AOD use

disorders. Specifically, I begin with providing some background information about AA as an orientation. Next, the literature on AA's effectiveness is summarized, and the trend toward professionally delivered *Twelve-Step Facilitation* (TSF) interventions is discussed. Finally, the twelve-step program, which forms the core of AA and other groups, is discussed with a focus on Steps 8 and 9, which are commonly referred to as "Amends" steps. I theorize on how engagement in these Amends steps facilitates self-forgiveness.

Background Information

Alcoholics Anonymous (AA) developed more than seventy years ago and its popularity today is apparent. For example, according to a 1996 report by AA World Services Inc., AA's own publication forum, it is estimated that more than 60,000 AA groups exist in North America alone and more than 90,000 AA groups exist worldwide. Furthermore, although reliable member estimates are harder to obtain (e.g., due to anonymity), it has been estimated that more 2 million recovering alcoholics attend AA (AA World Services Inc., 1996). These figures beg the questions "What exactly is AA?" and "What's so special about AA?"

AA is referred to as *community based mutual-aid support group*, a term that communicates the central features of the organization. First, it is *community based* in contrast with professional approaches to the treatment of AOD use disorders, such as hospital programs. The descriptor *mutual-aid* refers to the fact that AA groups are run by individuals who are ex-substance abusers themselves. According to a survey by Laudet (2008), the average length of continuous abstinence from alcohol among AA members

was approximately 8 years. Other than this shared substance abusing history, AA members are diverse. For example, according to a 2005 report by the AA World Services Inc. that randomly surveyed 750 AA groups across Canada and the United States, 65% of AA members were men, the mean age was 48 years, and 71% were currently employed.

Part of the answer to the question "What's so special about AA?" is the fact that AA was the first to introduce and codify a *Twelve-Step* program to recovery (see the "The Big Book "; AA World Services Inc., 1939-2001). Today, a search conducted on the popular free web-based encyclopaedia Wikipedia of the term "Twelve-Step programs" shows a list of more than 32 groups, ranging from *Gamblers Anonymous* to *Clutterers Anonymous*. The question then perhaps becomes "What's so special about twelve-step programs?" The short answer is twelve-step programs offer an alternative conceptualization of recovery that undoubtedly is appealing to recovering individuals.

<div align="center">AA's Conceptualization of Recovery</div>

AA's only criterion of membership is that individuals have a *desire to stop drinking*. This is remarkably different from the implicit, and sometimes explicit, requirement of many professional-based services of abstinence. Although some professional-based services adopt a moderation perspective, frequently referred to as *Moderation Management* and *Harm Reduction* programs, still AA's philosophies are unique. Specifically, AA understands abstinence or 'being dry' as merely one step in recovery. AA advocates complete abstinence but views abstinence not as the end goal of recovery. Rather, abstinence is viewed as a only a *necessary but insufficient criterion* of *full recovery*. Full recovery in AA is understood to be abstinence plus what AA calls

emotional sobriety. Emotional sobriety is described in various ways and at length in AA's literature (AA, 1952). For example, it is described as the attainment of "joy", "peace", and "tranquility". In other words, full recovery in AA is not concerned only with drinking outcomes but also non-drinking outcomes, such as quality of life and well-being.

One useful framework to understand how AA's conceptualization of recovery differs from traditional professional-based programs is offered by Magura (2007). Specifically, Magura offers a classification schema of treatment approaches to AOD use disorders that is based on two dimensions, and yields a four-fold typology. The two dimensions are *Arrest* and *Recovery*. Models of Arrest target the substance misuse, including initiating or sustaining abstinence and moderation. Models of Recovery, in contrast, target "holistic changes in attitudes, beliefs, and lifestyles for addicted persons" (p. 354). On the basis of these two dimensions, approaches to the treatment of AOD use disorders can be classified. Consequently, AA is classified as a Model of Arrest and a Model of Recovery. In other words, individuals who are engaged in Stage 1 recovery and have a *desire* or motivation *to stop drinking* are supported in their goals of abstinence. Individuals who have achieved long-term abstinence and are engaged in Stage 2 recovery, on the other hand, are supported in their pursuit of a subjective quality of life. The cardinal vehicle is the *Twelve-Step Program.*

<div align="center">Twelve-Step Program</div>

The *Twelve-Step Program* is based on twelve central tenets, known as the *Twelve-Traditions,* and codified list of tasks, known as the *Twelve Steps*. Several traditions are noteworthy because they capture the essence of AA. For example, Tradition 2 states: "For

our group purpose, there is but one ultimate authority - a loving God as He may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern". Ideas of "common welfare" and "unity" and members' governance are found repeatedly. Related to this, Tradition 8 states: "Alcoholics Anonymous should remain forever nonprofessional, but our service centers may employ special workers". This tradition highlights AA's defining feature of mutual-aid as noted earlier. In Tradition 12, "Anonymity is the spiritual foundation of all our Traditions..." the value placed on anonymity is evident (see Appendix H).

The "Twelve Steps" of the twelve-step program can be conceptually grouped into three different categories: Steps 1 through 3, known as the Conversion steps; Steps 4 through 9, known as the Cleansing steps; Steps 10 through 12, commonly referred to as Building a New Life. Appendix G reproduces the twelve-steps as published by AA. The Conversion steps, Steps 1 through 3, are referred to as such because they represent attitudinal shifts regarding spirituality. Specifically, Step 1 states "We admitted we were powerless over alcohol - that our lives had become unmanageable." Step 2 states "Came to believe that a Power greater than ourselves could restore us to sanity" and Step 3 states "Made a decision to turn our will and our lives over to the care of God as we understand Him." Thus, Steps 1 through 3 represent attitudinal shifts toward spirituality, which are believed to be foundational steps in recovery.

The Cleansing steps, Steps 4 through 9, build on these attitudinal shifts and consist of various intrapsychic and interpersonal tasks, which are thought to represent the heart of the twelve-step program. Specifically, the six Cleansing steps can be grouped

into three pairs that are complementary to each other: Steps 4 and 5; Steps 6 and 7; Steps 8 and 9. With respect to the first pair, Step 4 states "Made a searching and fearless moral inventory of ourselves" and Step 5 states "Admitted to God, to ourselves, and to another human being the exact nature of our wrongs". Therefore, Step 4 involves an intrapsychic process whereby past transgressions, character flaws, and personal shortcoming are acknowledged and Step 5 extends the process to the interpersonal by sharing it with another individual. Together, as will be discussed later, Steps 4 and 5 represent important tasks from the perspective of self-forgiveness. In contrast, the second pair of cleansing steps have a spiritual theme rather than an intrapsychic or interpersonal one. Specifically, Step 6 states "Were entirely ready to have God remove all these defects of character" and Step 7 "Humbly asked Him to remove our shortcomings". Therefore, again Step 7 represents a behavioural extension of the spiritual intrapsychic processes that were begun in Step 6. The final pair of cleansing steps, Steps 8 and 9, shares the pattern. Specifically, Step 8 states "Made a list of all persons we had harmed, and became willing to make amends to them all" and Step 9 states "Made direct amends to such people wherever possible, except when to do so would injure them or others". Steps 8 and 9 can be conceptualized as representing engagement in an amends process. In the current study, engagement in these amends steps of the twelve-step program is hypothesized to facilitate self-forgiveness, as will be discussed later. In summary, the Cleansing steps involve a series of both intrapsychic as well as interpersonal tasks, which are believed to "cleanse" the individual of aspects that act as barriers in their recovery. In fact, preliminary evidence suggests that the cleansing steps may represent active ingredients of the twelve-

step program that are implicated in efficacy. For example, Gomez and Hart (2009) found that engagement in Steps 4 and 5 had a robust salutary effect on abstinence, assessed as lower rates of relapse to drinking, and were significantly correlated with fewer depressive symptoms, and increased levels of meaning and purpose.

The final steps, Steps 10 through 12, of the twelve-step program are referred to as Building a New Life because these steps represent a maintenance phase of the tasks undertaken in the previous steps. Specifically, Step 10 states "Continued to take personal inventory and when we were wrong promptly admitted it". Thus, Step 10 is maintenance of Steps 4 and 5. Step 11 states "Sought through prayer and meditation to improve our conscious contract with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out". Thus, Step 11 can be said to be maintenance of the Conversion steps as well as Steps 6 and 7. Finally, Step 12 states "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". Step 12 encourages fellowship, which is central to AA.

One closing remark about the twelve-steps is important and that is, it is apparent from the language in the twelve-step program material that spirituality is emphasized. For example, the word "God" is used on numerous occasions and Steps 2 and 3 involve a spiritual orientation of 'turning it over to God'. The phrase "God as we understand Him" is used throughout the twelve-step material and reflects the broad perspective of spirituality that is embraced. Nonetheless, the twelve step program can be characterized as having a heavy spiritual focus. It has been observed recently that issues related to

spirituality are increasingly being integrated in mainstream interventions. For example, Hodge (2011) incorporated spirituality components in a cognitive-behavioural therapy intervention. She found spirituality enhanced therapeutic outcomes. Nonetheless, an emphasis on spirituality may be off-putting to some individuals and consequently, a twelve-step program, such as AA, may not be a 'good fit' and may even be a 'bad fit' for some individuals. Furthermore, the phrasing of some of the twelve steps has been the subject of criticism. For example, the phrasing of Step 1 "admitted we are powerless over alcohol" has been criticized for advocating a victim stance (i.e., "powerless"), which is antithetical to self-efficacy that has been shown to be an important predictor of positive drinking outcomes. AA supporters, in turn, may respond by explaining that the "powerlessness" referred to in Step 1 does not equate with "helplessness" but rather it refers to adopting a stance whereby one recognizes their addiction is a problem that is beyond their control and in doing so, engage in the twelve-step journey to overcome. The debate is complex and beyond the scope of the interests of the current study. What is, however, of interest in the current study are the factors in AA which potentially explain positive outcomes. This goal is guided by the large body of empirical literature that reports AA's effectiveness.

AA's Efficacy & Effectiveness

In the treatment outcome literature, two terms that are used are *treatment efficacy* and *treatment effectiveness.* Treatment efficacy refers to treatment outcomes that were derived from controlled clinical trials, typically comparing outcomes of at least two treatment conditions. Treatment effectiveness, on the other hand, refers to treatment

outcomes derived from studies examining treatment outcomes of interventions as they naturally are conducted. In other words, treatment effectiveness research is more concerned with issues of external validity and treatment efficacy research is more concerned with internal validity. A review of both the literature examining effectiveness and efficacy of AOD treatment approaches indicates that AA is *at least as effective and efficacious* as other intervention approaches as will be discussed below (e.g., Emrick, Tonigan, Montgomery, & Little, 1993; Ferri, Amato, & Davoli, 2006; Kelly, Magill, & Stout, 2009).

Emrick and colleagues' meta-analytic study is considered by many one of the most important studies that examined AA's effectiveness. Specifically, Emrick and colleagues reviewed approximately 200 AA outcome studies and summarized the major findings using effect size estimates, considered by many an integral component of treatment outcome. Across all the studies they reviewed, they found AA affiliation had a robust effect on drinking outcomes. AA affiliation also was found to be consistently positively correlated with non-drinking outcomes such as psychological health, social functioning, employment, and legal situation. Thus, Emrick and colleagues concluded that AA affiliation was a significant predictor of positive drinking and non-drinking outcomes.

In addition to the therapeutic benefits of AA affiliation, Emrick and colleagues and others (e.g., Cloud, Ziegler, & Blondell, 2004) found the degree of AA involvement also has therapeutic benefits on drinking outcomes. The degree of AA involvement can be assessed by a long list of variables, such as whether or not an individual has a sponsor, is a

sponsor to others, and/or is involved in AA fellowship such as making 'twelve-step calls' (calling familiar members who may have been absent). Fiorentine and Hillhouse (2006) assessed another component of AA involvement, *beliefs strength,* operationalized as the degree by which an individual endorses various twelve-step ideologies. They found that beliefs strength of AA members positively predicted better drinking outcomes. Furthermore, a study by Gomes and Hart (2009) looked at AA involvement, operationalized as frequency of meeting attendance and engagement in specific 'step-work'. They found that AA involvement was significantly correlated with greater levels of abstinence, lower levels of depression, and a stronger conviction that life has meaning and purpose. In another study by Hart and Singh (2010) using a sample of problem-gamblers ($N = 68$) engaged in treatment, results from regression analyses showed that increases in participants' adherence to AA practices from pre-treatment to post-treatment were predictive of enhanced quality of life. Therefore, it is apparent from a review of the literature that AA has therapeutic drinking and non-drinking benefits that Humphreys (2004) states "no knowledgeable person disputes" (p. 115). The current debate, in turn, concerns whether these reported findings of AA's effectiveness are an over-estimate due to methodological factors. The interested reader can refer to Morgenstern, Labouvie, McCrady, Kahler, & Frey (1997) and McKeller, Stewart, & Humphreys (2003) for arguments on both sides. From a less research and more clinical perspective, twelve-step programs offer some things to individuals recovering from AOD use disorders that are worth examining and justify the current trend toward *Twelve-Step Facilitation* interventions.

Twelve-Step Facilitation

Twelve-Step Facilitation (TSF) interventions are, by definition, delivered by professionals working with individuals recovering from AOD use disorders with a primary goal of facilitating greater attendance or greater degree of involvement in a twelve-step program, such as AA. Over the past 5 to 10 years, the treatment of AOD use disorders field has witnessed a trend toward the implementation of TSF interventions. Several scholars have attempted to explain the trend in the field toward professionally-delivered TSF interventions (e.g., Moos, 2008).

Specifically, Moos (2008) has suggested that the mounting empirical evidence on AA's effectiveness has contributed to the trend toward TSF interventions. That is, given the evidence that AA is effective, it logically follows that professionals working with individuals recovering from AOD use disorders should facilitate individuals' involvement in AA. The idea of capitalizing on different avenues of what we know 'works' to meet individuals' needs is a common one in clinical practice. TSF interventions embrace this spirit precisely.

A second plausible impetus for TSF interventions are the promising preliminary results evaluating TSF interventions directly. For example, Project MATCH (1993) was one such large multi-site randomized clinical trial study that compared three alcohol treatments, including a TSF treatment condition. As will be described in a later section, although the main objective of Project MATCH was testing the validity of the patient-treatment matching hypothesis, it confirmed that TSF therapy leads to enhanced levels of AA attendance, engagement in AA activities, and enhanced step-work involvement in the

long-term at 1 and 3 years follow up (Tonigan, Connors, & Miller, 2002). Twelve-step participation after treatment, in turn, has been found to be associated with improved abstinence outcomes for up to three years (Magura, 2007; Fiorentine & Hillhouse, 2005). Emerging evidence also suggests that the benefits of TSF interventions extend beyond enhancing AA involvement variables. Rather, there is preliminary evidence that indicates that TSF interventions have direct benefits on drinking-related outcomes (Humphreys & Moos, 2001). Humphreys and Moos (2001) compared abstinence rates among participants involved in a TSF therapy condition and a Cognitive Behavioural Therapy (CBT) condition. They found that 45 percent of the participants in the TSF condition maintained complete abstinence one year after discharge whereas 36 percent of the participants in the CBT condition did. These results support the conclusion made by some scholars that adherence to AA recovery practices appear to be especially important in the aftercare phase of treatment during individuals' ongoing recovery (e.g., Brown, O'Grady, Farrell, Flechner, & Nurco, et al., 2001; Kelly & Myers, 2007; McKeller et al., 2003; Morgenstern, Bux, Labouvie, Blanchard, & Morgan, 2002; Heuber & Tonigan, 2007). Thus, the preliminary evidence on the benefits of TSF interventions is promising and undoubtedly contributes to the trend toward their implementation.

In addition, there are several implications that follow from the emerging literature on the benefits of TSF interventions enhancing twelve-step involvement, which is associated with enhanced overall outcomes. One clinical implication that has been suggested by some scholars is that TSF interventions should be incorporated as adjunct components in treatment (e.g., Humphreys, 2004). This would result in individuals being

connected with a mutual-aid support group where they would continue to receive support after professional treatment has concluded. From a research perspective, there is a need to examine whether the benefits of TSF therapy extend beyond substance-related outcomes. Most of the existing literature has examined the benefits of TSF therapy on drinking outcomes (for an exception, see Gomes & Hart, 2009). If TSF therapy is found to be beneficial in enhancing individuals' second-stage recovery and subjective quality of life, research can examine if TSF interventions can be tailored to a specifically target a domain of functioning, such as interpersonal functioning. Thus, the preliminary evidence on the benefits of TSF interventions is promising but many questions remain to be answered empirically.

<div align="center">Proposed Mechanisms of Action</div>

Given the mounting evidence on AA's efficacy and effectiveness as was reviewed, it perhaps comes as no big surprise that researchers have attempted to explain *why* the twelve-step program is associated with enhanced drinking and non-drinking outcomes. That is, there is an emerging literature that has sought to identify the *active ingredients* of the twelve-step program (e.g., Moos, 2008; Kelly et al., 2009; Olson, Jason, Ferrari, & Hutcheson, 2005). Another term that is frequently used in this literature is *mechanisms of behaviour change* (e.g., Morgensten & McKay, 2007; Nock, 2007), which are described as being "the process or series of events through which one variable leads to or causes change in another variable" (Nock, 2007, p. 55). From these efforts, several broad psychological processes have been identified.

Kelly and colleagues (2009) conducted a large meta-analytic study systematically

reviewing the available literature on mechanisms of behaviour change of the AA program. They summarized several categories of mechanisms of behaviour change, namely: *common factors*, *specific AA practices*, and *specific AA constructs.* For example, the common factors mechanisms of behaviour change included *self-efficacy, a commitment to abstinence*, and *active coping efforts.* That is, these factors seem to mediate the relation between AA involvement and positive individual outcomes. Kelly and colleagues concluded "Thus, one way that AA appears to work is by boosting confidence in participants' perceived ability to handle common relapse-related situations or circumstances" (2009, p. 246).

Moos (2008) utilized *social control theory* and *stress and coping theory* to help explain the active ingredients of the AA program. Specifically, Moos identified several relationship dimensions that are integral to the program's effectiveness. For example, *cohesion* and *social support* according to Moos are what mediate positive therapeutic outcomes associated with AA involvement.

Olson and colleagues (2005) applied the *transtheoretical model of change* (Prochaska, DiClemente, & Norcoss, 1992) to identify possible mechanisms of behaviour change of the AA program. Specifically, Olson and colleagues discussed how the AA program facilitates different processes, which are integral change processes. The AA program facilitates processes of *consciousness raising*, *self-reevaluation*, and *helping relationships.* These processes are integral to change and are theorized to be driving the associations between AA and enhanced outcomes. For example, several researchers have discussed the role of helping relationships in affecting change. Riessman discussed the

benefits of what he called "helper therapy" (1965) and Jung used the metaphor of a "wounded healer" in discussing the benefits of helping relationships.

Finally, a recently published study by Kelly, Stout, Scott, Molly, and Pagano (2010) hypothesized that AA's effectiveness may be explained by a possible mediating effect of anger reduction. That is, according to Kelly and colleagues, part of the *why* of AA's effectiveness is through assisting individuals in 'letting go' of anger. Many twelve-step tasks presumably accomplish this anger reduction. Kelly and colleagues' results, using mediation analyses, were non-significant. Their study, however, demonstrates scholars' continuing efforts to identify active ingredients of the AA program. Examining specific twelve-step 'step-work' represents yet another possible avenue to identifying possible mechanisms of change. The current study examined the role of AA's step-work on effecting one outcome: self-forgiveness. In the sections that follow, I discuss AA's Cleansing steps with a focus on Steps 8 and 9.

<u>Cleansing Steps: Engagement in the Amends Process Facilitates Self-Forgiveness</u>

The Cleansing steps, as briefly described earlier, represent a significant proportion of the twelve-step tasks undertaken by individuals. Specifically, the Cleansing steps involve a series of intrapsychic and interpersonal tasks. As noted, the Cleansing steps can be grouped into three complimentary pairs: Steps 4 and 5, Steps 6 and 7, and Steps 8 and 9. Preliminary evidence has indicated that engagement in the 'step-work' of AA is associated with enhanced drinking and non-drinking outcomes. However, this literature has only examined general step-work involvement (Gomes & Hart, 2009 is an exception, as noted). Consequently, little is known about the incremental effects of engagement in

specific step-work. The current study examines engagement specifically in Steps 8 and 9. Therefore, in the sections below, Steps 8 and 9 are discussed in detail and how they may theoretically facilitate self-forgiveness.

Step 8: "Made a list of all persons we had harmed, and became willing to make amends to them all"

Step 8 involves two parts. The first part, "made a list of all persons we had harmed", is an acknowledgment of one's past transgressions. In other words, it is a cognitive process of identifying the "What?" Acknowledgement, however, is also an affective process because in order to acknowledge something as a "harm done", the individual has considered the emotional answer to the "so what?" question. The second part of Step 8, "and became willing to make amends to them all", is a motivational-level process that follows from the acknowledgements made in the first part. Specifically, becoming willing to make amends for past transgressions involves an individual beginning to take responsibility for the harms he or she have identified. These dual components of Step 8 have a number of benefits from a broad psychological perspective as well as from the perspective of facilitating self-forgiveness.

From a broad psychological perspective, Step 8's component of identifying past failures and transgressions requires that an individual engage in a process of self-evaluation. By definition, self-evaluation or introspection requires letting go of common defenses, such as denial, minimization, or projection. With this open stance toward learning about oneself, new information is free to emerge and forms the foundation to potential change. Thus, self-evaluation provides an opportunity for change to be made. A

second psychological benefit of identifying one's transgressions is a renewed sense of agency. That is, implicit in the identification of past transgressions is a recognition and acceptance of one's role in doing or causing these harms to another or to self. Although this recognition leads to strong feelings of guilt, remorse, and shame, it serves as the second foundational step of change. As clinical anecdotes would confirm, it is nearly impossible for an individual to change something they do not acknowledge exercising agency in. Part of the change comes in the second part of Step 8, which is becoming *willing* to make amends for the harms identified. This again reinforces the individual's sense of agency. Furthermore, this part of Step 8 can be said to engender hope. That is, not only can one 'come clean' with one's self on past failures but also one can 'do something about it'. Importantly, in Step 8, 'doing something about' past transgressions is only on a motivational level (i.e., "became willing" to make amends) and consequently, it represents an important change. The change precisely emerges in the individual's approach to interpersonal injuries. Specifically, a willingness to approach others harmed replaces the avoidance that the individual may have previously engaged in. This shift in (motivations related to) one's interpersonal approach represents another significant change.

In addition to these broad psychological processes, Step 8 may, theoretically, facilitate self-forgiveness specifically in a number of different ways. First, in order to acknowledge the harms done to other and the self in the first part of Step 8, the individual must exercise honesty. This honesty is a necessary criterion for self-forgiveness to emerge. Second, developing a willingness to 'right the wrongs' represents a degree of

taking responsibility. This responsibility- taking is the second necessary criterion for self-forgiveness to emerge. Thus, Step 8 facilitates self-forgiveness on the most basic level by meeting the requisite criteria of honesty and responsibility taking.

On a deeper level, Step 8 facilitates self-forgiveness by engendering empathy. Specifically, the acknowledgment of harms necessarily involves answering the 'so what?' question, as noted or putting one's self in another's shoes. Empathy emerges from this stance of taking the perspective of another individual. In a situation where the harm was done to one's self, acknowledging the harm requires one adopt the perspective of the 'receiving' self or the part of the self that was harmed. Empathy, whether it is toward another individual or toward the self, facilitates self-forgiveness. Specifically, empathy toward another individual requires recognition of a common humanity. This recognition of a common humanity is the building block of adopting a self-forgiving stance. In other words, a different self-to-others stance emerges where self-contempt is no longer possible. Empathy toward the self for the harms previously caused leads to a different self-to-self stance. Furthermore, developing a willingness to make amends in the second part means that the individual begins the internal work of self-forgiveness. Specifically, the individual begins to consider the "how" of their self-improvement.

Step 9: "Made direct amends to such people wherever possible, except when to do so would injure them or others"

Step 9, as noted, is complimentary to Step 8, which is a motivational level of making amends. Specifically, Step 9 involves making "direct amends" and enacting the readiness to make amends that was achieved in Step 8. It is important to recognize that

not all situations are appropriate for making direct amends as is stressed by the clause "wherever possible". This clause serves at least two important functions. First, it safeguards against individuals making direct amends in situations that are risky or unsafe. Situations can have physical or psychological risk to the individual making the amends themselves or to the receiving individuals. For example, a violent individual would introduce physical risk should direct amends be made. The clause "wherever possible" also is important through its implication that there may be some situations where making direct amends is not possible. For example, making direct amends to a deceased individual is not possible. In sum, not including the inappropriate situations, Step 9 involves making direct amends to individuals who were harmed. It is important to note that an interpersonal amend is more than an explicit acknowledgment of the hurt that was caused or a mere apology. Rather, an interpersonal amend is a proposal, a plan of change, and an offer of restitution.

From a broad psychological perspective, Step 9 has direct consequences on interpersonal functioning. Consequences may be on a specific relationship but Step 9 also has consequences on general interpersonal functioning. The consequences on a specific relationship involve mending the relationship. That is, the impact of saying 'I am sorry, and how can I make my wrongs right?' has the potential to repair a relationship on a psychological as well as a behavioural level. Psychologically, making amends with someone previously harmed redefines the relationship whereas behaviourally, reconciliation with the individual may be possible. It is important to note that the outcome of making amends in Step 9 is beyond the person's control and the AA literature

emphasizes that. Thus, for the individual undertaking Step 9, the goal is not so much that their amend-making is received but rather that they make amends or "sweep their side of the street" as an expression commonly used in AA. In addition to the consequences on a specific relationship, Step 9 has consequences on general interpersonal functioning as noted. As discussed in Step 8, the change involves a shift from avoidance to *approach.* More specifically, Step 9 requires an individual to adopt a humble interpersonal approach marked by a commitment to 'right one's wrongs'. Sachs (2009) discussed making amends as ego- deflating, and these ego-deflating effects produce psychological benefits.

In addition to these broad psychological benefits, Step 9 facilitates self-forgiveness specifically in a number of different ways. Step 9 represents the tasks of the Work stage in Enright's process-model of self-forgiveness that was discussed earlier (Enright, 1996). Specifically, the process of making amends is taking ownership for one's harmful behaviour and accepting responsibility to change it. Amends, however, are not to be made for the purpose of reconciliation or being forgiven as already noted. However, forgiveness and reconciliation are common by-products of making interpersonal amends. This experience of being forgiven by another individual is powerful in facilitating self-forgiveness. The humility required in Step 9 facilitates self-forgiveness through facilitating empathy as in Step 8. Finally, the fact that the outcome of Step 9 is outside the control of the individual crystallizes one's self-other boundary. In other words, the individual comes to realize that he or she cannot rely on others to absolve themselves from guilt and shame and instead, the decision to self-forgive emerges.

<u>Summary and Relevance to the Current Study</u>

Twelve-step programs have an influential place in the treatment of AOD use disorders, particularly as recovery is embraced within a holistic framework. The mounting evidence on the efficacy of AA and other twelve-step programs has served to enhance their popularity, and have influenced a trend toward twelve-step facilitation (TSF) interventions. Furthermore, there have been research efforts recently to identify the active ingredients and potential mechanisms of behavioural change of the twelve-step program.

The current study analyzed archival data from participants who were regular twelve-step program attendees. Participants completed a 5-month psychosocial program that was designed to enhance their subjective quality of life by learning to forgive. The benefits on well-being that were derived from learning to forgive themselves were examined. Clients' engagement in interpersonal amends, as captured by Steps 8 and 9, were hypothesized to facilitate learning to forgive the self. Thus, the current study sought to contribute to the emerging literature seeking to identify potential mechanisms of behaviour change responsible for enhanced recovery outcomes.

I.5 STUDY PURPOSE, RATIONALE, AND HYPOTHESES

The current study utilized archival data from a clinical intervention study that was designed to enhance the subjective quality of life of individuals with a history of AOD use disorders. The parent study is briefly described below to orient the reader, and the purpose, rationale, and hypotheses of the current study are outlined.

<u>Parent Study</u>

The parent study, which was funded by the John Templeton Foundation, was conducted by primary investigators Kenneth Hart and David Shapiro. The parent study was inspired by Project MATCH, a clinical trial of alcohol treatment funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Project MATCH is considered by many to have been the largest clinical trial of alcohol treatment, involving nine treatment sites across the United States (e.g., Connecticut, New Mexico, Wisconsin, Washington, Rhode Island, Texas, and North Carolina). Project MATCH participants were recruited from outpatient alcohol treatment programs ($N = 952$) and from 'after-care' or maintenance treatment programs ($N = 774$)

A central assumption and impetus for Project MATCH was that "no single treatment approach is effective for all persons with alcohol problems" (http://www.commed.uchc.edu/match/default.htm). Therefore, Project MATCH sought to examine how various client attributes interacted with treatment, known as an *Aptitude by Treatment Interaction* (ATI) effect. Based on a series of a priori hypotheses, patients were assigned to one of three treatment conditions: Twelve Step Facilitation Therapy, Motivational Enhancement Therapy, or Cognitive-Behavioural Coping Skills Therapy. The Urn Randomization technique (Stout et al., 1994) was used to match and balance various clients' attributes to treatment conditions to allow ATI effects to be tested. Participants were re-evaluated on various outcomes (e.g., changes in drinking patterns, quality of life) every 3 months for the first year, and then at 2 and 3 years following treatment.

The parent study, which was inspired by Project MATCH as noted, also was a controlled clinical trial that utilized Urn randomization to match and balance clients to one of two psychosocial intervention programs. Specifically, participants were assigned either to a Spiritual Forgiveness condition or a Secular Forgiveness condition. Participants were ex-substance abusers who had achieved long-term abstinence and were engaged in second-stage recovery from AOD use disorders. One of the main hypotheses of the parent study was that participants' degree of treatment benefit(s) would be moderated by two pre-treatment client attributes: empathy and spirituality. Specifically, it was hypothesized that participants who score higher on empathy at pre-treatment would derive more benefit from the Secular Forgiveness condition, which emphasizes empathy than participants who score higher on spirituality at pre-treatment, who were expected to derive more benefit from the Spiritual Forgiveness condition, which emphasizes spirituality. The overall results did not support the ATI hypotheses. No differential therapeutic benefits were found as a function of treatment condition assignment by pre-treatment levels of spirituality and empathy.

A second objective of the parent study was to compare the therapeutic benefits in "emotional and social health: (Hart & Shapiro, APA Paper Presentation, 2002) that were derived by participants from participating in the intervention programs. The results indicated comparable therapeutic gains by participants in both treatment conditions. However, when participants' pre-treatment levels of empathy were examined as predictors of positive outcome, the results showed that participants with higher levels of empathy at pre-treatment seemed to derive more therapeutic benefits than individuals

with lower levels of empathy. Thus, the results suggested that empathy may represent an important client attribute that encouraged therapeutic gains from participation in both treatment programs.

<u>Study Purpose & Rationale</u>

The current study sought to enhance understanding of Stage 2 recovery from AOD use disorders using archival data from the parent study. Specifically, archival data from sixty-one participants who completed the psychosocial intervention program were analyzed to answer two broad questions. First, "Are there benefits of self-forgiveness on well-being?" The short-term and longer-term benefits of self-forgiveness on well-being were examined using two methodological approaches: longitudinal design approach, and cross-sectional design approach. In addition, the benefits of self-forgiveness on well-being over and above the benefits of other-forgiveness on well-being were examined. In doing so, the current study empirically assessed the incremental predictive effects of self-forgiveness on well-being using the more well-known benefits of other-forgiveness as a benchmark.

The second question asked was a natural extension of the first question. That is, if there were benefits of self-forgiveness on well-being, "What treatment-related process variables facilitated self-forgiveness?" Two treatment-related process variables were hypothesized to facilitate self-forgiveness: therapeutic alliance and twelve-step involvement. The expectation that therapeutic alliance would facilitate improvements in clients learning to forgive themselves was guided by theory and the vast literature indicating that therapeutic alliance has direct bearing on treatment outcome (e.g., for a

review, see Martin, Garske, & Davis, 2000). Twelve-step involvement was operationalized as specific involvement in Steps 8 and 9 in the twelve-step program. Based on theorizing (see pp.72-77), it was expected that clients who had engaged in an interpersonal amends process would show improvement in their capacity to self-forgive.

There were a number of different rationales that guided the inquiries made in the current study. Specifically, one rationale of the current study's focus on well-being recovery variables is the paucity of research on Stage 2 recovery. That is, the vast majority of the existing literature focuses on substance-related outcomes. Despite this, AOD use disorders are increasingly recognized as chronic conditions and individuals' subjective quality of life continues to be compromised after abstinence is achieved. Thus, embracing a holistic framework in which to understand recovery should correspond with research on well-being recovery outcomes. The current study addresses this gap in the literature by examining well-being recovery variables among a sample of individuals who were motivated to enhance their subjective quality of life.

A second rationale of the current study is advancement of self-forgiveness scholarship. The empirical literature on self-forgiveness is in its early stages of development, particularly in comparison with the empirical literature on other-forgiveness. However, emerging evidence has shown that self-forgiveness is associated with therapeutic benefits. The current study sought to examine the benefits of self-forgiveness on the well-being of recovering individuals. Thus, the current study aimed to contribute to the empirical body of knowledge of the benefits of self-forgiveness. Furthermore, the current study examined the benefits of self-forgiveness on well-being

that are independent of the benefits of other-forgiveness. In doing so, the current study sought to refine prior research by controlling for the benefits of other-forgiveness on well-being. Furthermore, simultaneously examining self and other forgiveness advances theory on the incremental validity of these forgiveness constructs.

A third rationale for the current study's examination of treatment-related process variables is the emerging scholarly interest in identifying the active ingredients or mechanisms of behavioural change in interventions in general and in the twelve-step program specifically. The mounting evidence on the efficacy of twelve-step programs, such as AA, has compelled questions such as "What accounts for these positive outcomes?" In the current study, twelve-step involvement, operationalized as specific involvement in an interpersonal amends process (i.e., Steps 8 and 9) was tested as a treatment-related process variable that facilitates improvements in clients' learning to forgive themselves. Furthermore, the current study examined the predictive effects of therapeutic alliance on self-forgiveness. In summary, the current study sought to enhance understanding of two 'process' level variables that were hypothesized to facilitate self-forgiveness. In doing so, the current study carried several potential clinical implications, such as potentially providing meaningful information to professionals working to facilitate the second-stage recovery of individuals with AOD use disorders.

<div align="center">Hypotheses</div>

As noted, two broad inquiries were made in the current study, which were "Are there benefits of self-forgiveness on well-being?" and "What treatment-related process variables facilitate self-forgiveness?" On the bases of these two broad inquiries, four

smaller questions were asked: two assessing the benefits of self-forgiveness: short-term and longer-term benefits and two assessing the predictive effects of twelve-step involvement and therapeutic alliance on self-forgiveness. To answer these questions, two methodological approaches to testing were utilized: a longitudinal design approach, and a cross-sectional design approach.

Specifically, Hypotheses 1 through 4 used longitudinal data in the form of raw scores from one assessment phase to predict raw scores from a later assessment or change scores. Hypotheses 5 through 8 used cross-sectional data with raw scores from a specific assessment phase (i.e., pre-treatment, post-treatment, or follow-up) to predict raw scores at the same assessment phase. For ease of organization and clarity, the hypotheses are presented below in numerical order and organized by their pertinence to the two broad questions that were asked

Longitudinal Design

Question 1: Are there benefits of self-forgiveness on well-being?

Two hypotheses assessed the benefits of self-forgiveness on well-being: short-term benefits and longer-term benefits. The short-term benefits of self-forgiveness on well-being were tested using pre-treatment and post-treatment data. The longer-term benefits of self-forgiveness on well-being were tested using pre-treatment, post-treatment, and four-month follow-up data.

Short-term Benefits of Self-Forgiveness: Hypothesis 1 made predictions about the short-term benefits of self-forgiveness on well-being. Specifically, the short-term benefits of self-forgiveness on well-being were assessed using change scores from pre-treatment

to post-treatment. Hypothesis 1 had two parts: Hypothesis 1a and Hypothesis 1b.

Hypothesis 1a sought to examine the predictive effects of change scores in self-forgiveness on change scores in well-being. Hypothesis 1b also examined the predictive effects of change scores in self-forgiveness on change scores in well-being but did so while controlling for the predictive effects of change scores in other-forgiveness. Of note, although the positive well-being variables of meaning and purpose, and happiness were assessed at post-treatment, they were not assessed at Time 1. Consequently, change scores of the positive well-being variables could not be computed. Thus, Hypotheses 1a and 1b tested the short-term benefits of self-forgiveness on the negative well-being variables of depression, anxiety, and shame.

Hypothesis 1a: Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in negative well-being from pre-treatment (Time 1) to post-treatment (Time 2)

Hypothesis 1b   Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in negative well-being from pre-treatment (Time 1) to post-treatment (Time 2), independent of the predictive effects of change scores in other-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2)

Longer-term Benefits of Self-Forgiveness: Hypothesis 2 assessed the longer-term benefits of self-forgiveness and also had two parts: Hypothesis 2a and Hypothesis 2b. Similar to Hypothesis 1, change scores were computed. However, to assess longer-term benefits of self-forgiveness, change scores on the negative well-being criterion variables

from pre-treatment to follow-up were computed. That is, Hypotheses 2a and 2b sought to examine the predictive effects of change scores in self-forgiveness on sustainable change scores in the negative well-being variables.

Hypothesis 2a: Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) and to follow-up (Time 3) will predict change scores in negative well-being from pre-treatment (Time 1) to follow-up (Time 3)

Hypothesis 2b: Self-forgiveness scores at the end of treatment (Time 2) will predict negative well-being variables' scores and the positive well-being variables' scores at four months follow-up (Time 3).

Question 2: What treatment-related process variables facilitated clients' learning to forgive themselves?

To assess the second broad question that was asked in the current study, three hypotheses were made. Specifically, two treatment-related process variables were hypothesized to facilitate self-forgiveness: twelve-step involvement, and therapeutic alliance. Twelve-step involvement was operationalized as engagement in the twelve-step program's interpersonal amends steps, Steps 8 and 9 and therapeutic alliance was operationalized by a sum score derived from data obtained during participation in the psychosocial treatment program (i.e., process assessment battery).

Hypothesis 3b sought to assess the longer-term predictive effects of twelve-step involvement on self-forgiveness by using change scores in self-forgiveness from pre-treatment to four month follow-up. That is, Hypothesis 3b was similar to Hypothesis 2a

in being interested in examining sustainable improvement.

Hypothesis 3a: Change scores in twelve-step involvement from pre-treatment

(Time 1) to post-treatment (Time 2) will predict change scores in

self-forgiveness from pre-treatment (Time 1) to post-treatment

(Time 2)

Hypothesis 3b: Change scores in twelve-step involvement from pre-treatment

(Time 1) to post-treatment (Time 2) and to follow-up (Time 3) will

predict change scores in self-forgiveness from pre-treatment (Time

1) to follow-up (Time 3).

Hypothesis 4:   Therapeutic alliance (summed score) at the end of treatment (Time

2) will predict self-forgiveness scores at follow-up (Time 3)

Cross-sectional Design

Question 1: Are there benefits of self-forgiveness on well-being?

As previously, two hypotheses assessed the benefits of self-forgiveness on well-

being: short-term benefits (Hypothesis 5a and Hypothesis 5b) and longer-term benefits

(Hypothesis 6). To assess the short-term benefits of self-forgiveness on well-being, post-

treatment raw data were used to assess the longer term benefits of self-forgiveness on

well-being, follow-up raw data were used.

Short-term Benefits of Self-Forgiveness: As previously, the predictive effects of

self-forgiveness on well-being were examined alone (Hypothesis 5a) as well as while

controlling for other-forgiveness (Hypothesis 5b). Of note, only the negative well-being

variables of depressive symptoms, anxiety, and shame-proneness were assessed at Time 1

but at Time 2, the positive well-being variables of meaning and purpose, and happiness were also assessed.

Hypothesis 5a: Self-forgiveness scores at Time 1 and at Time 2 will predict

negative well-being scores at Time 1 and at Time 2, respectively.

Hypothesis 5b: Self-forgiveness scores at Time 1 and at Time 2 will predict

negative well-being scores at Time 1 and at Time 2, respectively,

independent of the predictive effects of other- forgiveness scores at

Time 1 and at Time 2.

Longer-term Benefits of Self-Forgiveness: As noted, data obtained at four month follow-up were used to assess the longer-term associations between self-forgiveness and well-being.

Hypothesis 6:   Self-forgiveness scores at Time 3 will predict negative and positive

well- being scores at Time 3.

Question 2: What treatment-related process variables facilitated clients' learning to

Forgive themselves?

As before, the treatment-related process variables of twelve-step involvement and therapeutic alliance were tested for their predictive effects on self-forgiveness levels. For twelve-step involvement, data at the different assessment phases was examined but for therapeutic alliance, the only data available were at post-treatment (Time 2).

Hypothesis 7:   Twelve-step involvement scores at Time 1, at Time 2, and at Time

3 will predict self-forgiveness scores at Time 1, at Time 2, and at

Time 3, respectively.

Hypothesis 8:   Therapeutic alliance (summed score) at Time 2 will predict self-

forgiveness scores at Time 2
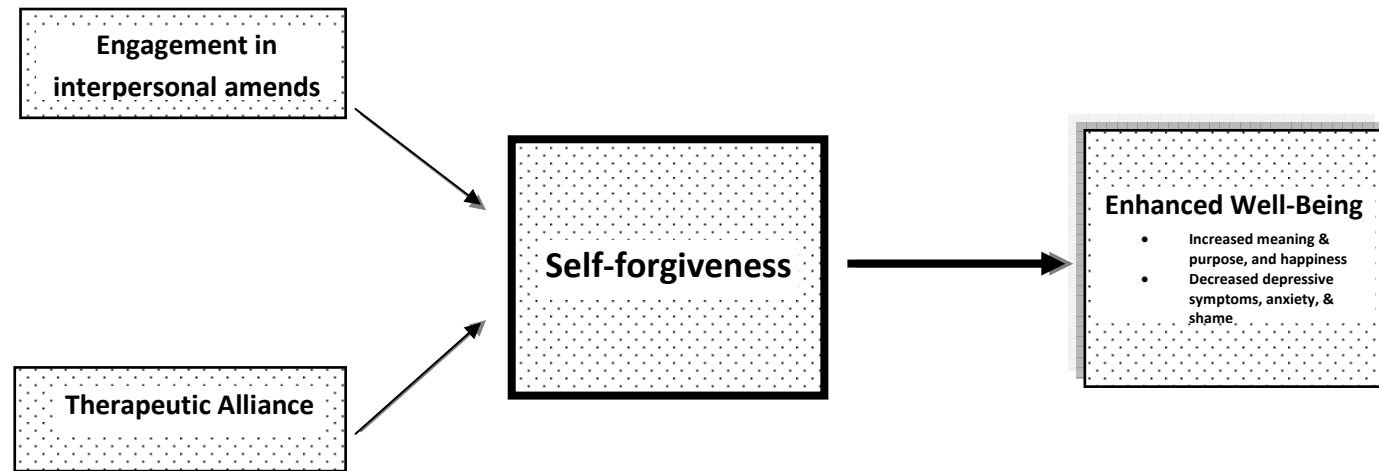
Figure 1. Proposed theoretical model of the association between engagement in interpersonal amends (i.e., twelve-step involvement in Steps 8 and 9) and therapeutic alliance facilitating self-forgiveness and self-forgiveness facilitating enhanced levels of well-being.

II. METHOD

II.1 PARTICIPANTS

<u>Recruitment Procedures</u>

The participants in the parent study were recruited using print advertisements in the community (London, UK) as well as in specialized recovery-oriented newsletters. Advertisements called for participants who were ex-substance abusers and who were interested in enhancing their quality of life through participating in a 5-month psycho-educational intervention program. Individuals interested in the study called the study voice messaging service where they were provided with preliminary information on the study and eligibility criteria. One hundred and fifty-four individuals were interested in participating and were deemed initially eligible to participate. These individuals were mailed the baseline questionnaire packet and 95 participants (62%) returned the completed baseline battery. Of those, 84 participants were accepted into the study (Figure A1 in Appendix A, p.350).

<u>Inclusion & Exclusion Criteria</u>

Various inclusion and exclusion criteria were applied in the parent study. Figure A2 in Appendix A (p. 351) is a replication of the *Prerequisites for Participation* clause in the Informed Consent Agreement participants completed.

Several of the inclusion criteria are important to elaborate on here. First, all participants had to be currently attending a twelve-step group, such as Alcoholics Anonymous, because the focus of one of the treatment conditions was facilitating twelve-step involvement and participants were randomly assigned to the treatment conditions. Second, participants had to have been current twelve-step program attendees for a

minimum of 6 months. This criterion ensured that participants would have an adequate familiarity with the twelve-step program. Third, participants had to have been continuously abstinent from their drug of abuse for a minimum of one year prior to participation. This criterion was necessary because the focus of the parent study was second-stage recovery.

Similarly, a number of exclusion criteria were applied as outlined in Figure A2. For example, participants with a history of suicide attempt(s) after entering a twelve-step recovery program and participants who were currently in an abusive relationship were excluded for ethical concerns regarding the potential unavailability of resources and mismatch with the level of care that may potentially be required.

<u>Informed Consent & Ethics Approval</u>

Participants were provided with a comprehensive Information Sheet and Informed Consent Agreement (see p. 353-356, Appendix A). The parent study was approved by the University of Leeds Research Ethics Board (1999). Ethics approval for current archival study was granted by the University of Windsor's Research Ethics Board (REB # 29528; Appendix B)

<u>Basic Demographics</u>

Table 1 displays the basic demographics of the completer sample ($N = 61$; see Tables 6 and 7 on p. 132 for information on the non-completer sample). The sample was comprised of more females than males (59%) and the majority were White/Caucasian (86.9%). With regard to religious affiliation, the two highest proportions of participants indicated that they were Christian (26.2% Catholic & 13.1% Protestant) and Other (36%).

The high endorsement of the Other response category may have been due to limited response categories (e.g., excluding one or more major religious groups) or it may have reflected participants' preferences (e.g., preference toward spirituality rather than a specific religious group). In terms of educational level, 39.3% had a university degree and 13.1% had a graduate or professional degree. A single item of annual income in British currency assessed the participants' socio-economic status (SES). For purposes of reporting in Table 1, response categories were converted from Great British Point (GBP) to Canadian dollars (CAD). Although this conversion provided a more familiar context to interpret the SES of the participants, it should be interpreted with caution given that there is inherent variability in standards of living across nations and the parent study was conducted in the year 2000.

Table 1
Basic Demographics of Completer Sample

Treatment Condition	N	Gender	
		Male	Female
Secular	30	13	18
Spiritual	31	12	18

Age	Mean	SD	Median	Mode	Range
	44.26	7.93	46	47	37

Religious Affiliation	Catholic	Protestant	New Age	Buddhist	Jewish	Muslim	Other	No Answer
N	16	8	6	4	1	1	22	3
%	26.3	13.1	9.8	6.6	1.6	1.6	36.1	4.9

Education	Junior School	Secondary School	At least 1 year university	University degree	Graduate/ Professional degree	Missing
N	1	8	19	24	8	1
%	1.6	13.1	31.1	39.3	13.1	1.6

Ethnicity	White/ Caucasian	Indian/ Pakistani/ Bangladeshi	Other	No Answer	Missing
N	53	2	4	1	1
%	68.9	3.3	6.6	1.6	1.6

Marital Status	Single/ Never Married	Separated/ Divorced	Married/ Co-habitating	No Answer
N	27	20	13	1
%	44.3	30.8	31.3	1.6

SES	Under 16K/yr.	Under 32K/yr.	Under 48K/yr.	Under 64K/yr.	Under 80K/yr.	Under 95K/yr.	95 +K/ yr.	No Answer
N	22	18	9	4	2	1	2	3
%	36.1	29.5	14.8	6.6	3.3	1.6	3.3	4.9

<u>Addiction-Related & Twelve-Step Demographics</u>

Table 2 displays the completer sample's addiction-related and twelve-step demographics. The addiction-related demographics that are reported include type and length of addiction, and length of abstinence. The twelve-step demographics that are reported include twelve-step group affiliation, length of affiliation, and frequency of attendance. Furthermore, information on whether participants have ever had or been a sponsor is included in Table 2. This twelve-step variable plausibly relates to the degree of involvement in the twelve-step program because sponsorship is considered a integral component of progressing through the twelve-step program.

As can be seen in Table 2, the vast majority of participants (85.3%) had an alcohol addiction and 58.1% indicated a chronic course with 20 or more years. A bi-modal frequency distribution of length of sobriety was found with approximately 28% of the participants reporting that they have been abstinent for 2 years or less, and another approximately 28 % reporting that they have been abstinent for 5 years or less.

In terms of twelve-step demographics, most of the participants (67.2%) were primarily affiliated with the twelve-step group Alcoholics Anonymous (AA) with length of affiliation ranging from less than 1 year to more than 10 years (the mode was less than 5 years). 93.4% of participants indicated that they *frequently* attend their twelve-step meetings and 89.3% have had, at some point, a sponsor. In sum, the twelve-step demographics of the sample confirmed that the participants were regular twelve-step program attendees, which suggests that they had sound knowledge of the twelve-step program.

Table 2

Addiction-Related and Twelve-Step Demographics of Completer Sample

ADDICTION						N
Type*	Alcohol	Eating	Gambling			
N	52	14	2			
%	85.3	23.0	3.3			
Length	< 5 years	<10 years	>10 years	>15 years	20 years+	
N	1	2	9	6	25	43
%	2.3	4.7	20.9	14.0	58.1	
Duration abstinent	<1 yr.	< 2 yrs.	<5 yrs.	Approx. 10 yrs.	10 + yrs.	
N	9	12	12	4	6	43
%	20.9	27.9	27.9	9.3	14.0	
TWELVE-STEP VARIABLES						N
Group affiliation	AA	NA	OA	Other**		
N	41	9	3	8		61
%	67.2	14.8	4.9	13.1		
Length of affiliation	< 1 yr.	<2 yrs.	<5 yrs.	<10 yrs.	10 + yrs.	
N	3	3	18	9	9	52
%	5.8	5.8	34.6	17.3	17.3	
Frequency of attendance	Frequently	Sometimes	Infrequently	Rarely		
N	57	4	0	0		61
%	93.4	6.6	0	0		
Ever been a sponsor	Yes	No				
N	26	30				56
%	46.4	53.6				
Ever had a sponsor	Yes	No				
N	50	6				56
%	89.3	10.7				

*Non-exclusive categories; ** Includes Al-Anon, Codependent Anonymous, Emotions Anonymous, and Gamblers Anonymous

II.2 MATERIALS

Treatment Manuals

Two treatment manuals were developed in the parent study to facilitate delivery of the treatment conditions. The treatment manuals were jointly developed by Dr. Kenneth Hart, one of the principal investigators of the parent study, and a designated senior counselor in each treatment condition. Specifically, the treatment manuals facilitated the structured delivery of ten group sessions. The overarching goal of the intervention programs was to guide clients in "letting go" of unresolved injuries and in so doing, to forgive themselves and others. For example, clients dialogued on the negative consequences of holding grudges, against self and others, such as resentment, guilt and shame. These negative emotions adversely impact well-being and block individuals from achieving a subjective quality of life (i.e., second stage recovery). Within this broad goal of assisting clients to "let go" of grievances, the two treatment manuals operationalized the process differently.

Secular Forgiveness Program

Briefly, the treatment manual used in the Secular forgiveness treatment condition operationalized the process of "letting go" using an adaptation of Enright and colleagues' forgiveness treatment program (Enright et al., 1998). Enright and colleagues conceptualize forgiveness as a process that is composed of twenty steps or mini-processes. While it is beyond the scope of interest of the current study to review the program in depth, Appendix C presents a list of the twenty therapeutic processes as operationalized by Enright and colleagues. In addition, the workshops' Table of Contents are reproduced in

Appendix D.

Spiritual Forgiveness Program

The treatment manual used in the Spiritual forgiveness treatment condition operationalized the process of "letting go" through twelve-step philosophies and facilitating the twelve-step tasks as they apply to forgiveness issues. Of particular interest in the current study were facilitation of interpersonal amends (i.e., engagement in Steps 8 and 9 of the twelve-step program). In sum, the Secular treatment condition was a twelve-step facilitation (TSF) intervention. The workshops' Table of Contents are reproduced in Appendix E for the interested reader.

Client Guidebooks

In addition to the treatment manuals that were used by the counselors, each client was provided with a *Client Guidebook*. The Client Guidebook was used by participants in a number of ways. First, clients used their Guidebook to follow along with the material presented during the group sessions. Second, clients used their Guidebook to review material between group sessions. Finally, clients used their Guidebook to complete various 'homework' assignments following each group session, as described below.

Homework

The Client Guidebook included instructions on various exercises and worksheets to be completed between group sessions. Different strategies were employed to enhance clients' motivation to complete the homework exercises. For example, counsellors began each group session with a review and discussion of the homework exercises from the previous group session. Also, counsellors 'checked-in' with clients regarding homework exercises during their phone contacts. Clients' compliance with the homework exercises

was not formally assessed during the intervention. However, at the end of treatment, clients were asked to estimate the percentage of homework they completed during the course of the treatment program. A 7-point response scale, ranging from 1 = *none of the homework was completed* to 7 = *almost all of the homework was completed* was used. Those data indicated that most of the participants completed at least some of the suggested homework exercises. Specifically, 20% indicated that they completed "almost all" of the homework exercises, 14% completed "about seventy-five percent" of the homework exercises, 10% completed "about fifty percent" of the homework exercises, and merely 2% indicated they completed "less than ten percent" of the homework exercises (see Figure A3 in Appendix A, p. 352).

II.3 DESIGN

The parent study, the Forgiveness of Addiction Recovery Project (FARP), was a randomized controlled clinical trial funded by the John Templeton Foundation (1999). The study utilized an *urn randomization* design (Stout, Wirtz, Carbonari, & Del Boca, 1994) to match and balance participants to the two treatment conditions. Specifically, clients were balanced on sex and two pre-treatment (i.e., baseline) measures: dispositional levels of empathy and spirituality. One of the main objectives of the parent study, as noted, was testing treatment benefits moderated by client attributes. The parent study employed a longitudinal design with participants being assessed at three separate times: pre-treatment (Time 1), post-treatment (Time 2), and at four months follow-up (Time 3). More information about the counsellors who delivered the intervention, the structure of the intervention program, and the assessment phases are provided below.

Counsellors

The counsellors that led the group sessions were recruited through popular employment forums in London, UK. Eight counsellors (5 males, 3 females) were selected from a pool of applicants. The counsellors, with the exception of the two senior counsellors, were randomly assigned to the Secular or the Spiritual forgiveness treatment condition. All of the counsellors were experienced group facilitators, and had prior experiences working as paraprofessional addiction workers. The Mean length of experience of the counsellors in addiction counselling was 6.6 years. The Mean length of sobriety of the counsellors, where applicable, was 10.2 years. The Mean age of the counsellors was 40.1 years old.

Two of the eight counsellors were designated as *senior counsellors*, as noted, and were assigned additional responsibilities. Senior counsellors were selected on the basis of having lengthier field experience and a demonstrated aptitude for assuming a leadership role. One senior counsellor was assigned to the Secular treatment condition and the other senior counsellor was assigned to the Spiritual treatment condition. The responsibilities of the senior counsellors included developing the treatment manual with the primary investigator, Kenneth Hart, and supervising their team of junior therapists (3 in each treatment condition). Supervision involved initial training, which consisted of approximately 12 hours of learning the content of the treatment manuals, and ongoing problem-solving and support.

Treatment Structure

The intervention program was delivered using a single-counsellor model and 10

workshops. Workshops were scheduled approximately every two weeks and the treatment program spanned approximately five months.

Each workshop was 90 minutes in length, with the first 15 minutes used for *check-in* and the last 15 minutes used for *wrap-up* and completion of the process assessment batteries. During the check-in, counsellors reviewed and discussed the previous workshops' suggested homework exercises, as noted. The structure of the workshops was comprised of a didactic and an experiential component. During the didactic component, counsellors provided psycho-education on a variety of topics (see Appendix D and E for the workshops' Table of Contents). The experiential component typically involved clients reflecting on a variety of topics with counsellors guiding the discussions. The Mean number of participants attending in a group session, across all the counsellors, was 6.30 (*SD* 2.21) with a range of 5.50.

In addition to attending the bi-weekly group sessions, participants had a 20 minute phone contact with their counsellor between group sessions. The purpose of the telephone contact was two-fold. First, the phone contact provided participants with an opportunity to clarify any unclear material from the previous group session. Second, the phone contact provided counsellors with an opportunity to monitor participants' well-being and to informally gauge their progress in treatment.

<div align="center">Assessment Phases</div>

The parent study utilized a longitudinal design, as noted. Specifically, participants completed assessment batteries at 3 separate times: pre-treatment (Time 1), post-treatment (Time 2), four months follow-up (Time 3), as well as during the intervention (Time 4).

See Table 3 for the names of the instruments that were included in each assessment phase and Figure 2 for a summary of the variables assessed by time. With the exception of the process assessment battery, the batteries were mailed to participants, completed individually, and mailed back pre-paid postage envelopes.

Table 3

Instrument Names and Summary of Variables by Phase of Assessment

Pre-Treatment Assessment Battery	Post-Treatment Assessment Battery	Follow-up Assessment Battery
DEMOGRAPHICS QUESTIONNAIRE Age, sex, marital status, education, SES, religious affiliation, frequency of religious/spiritual practices, twelve-step group affiliation, addiction type, length of addiction, length of abstinence, and other twelve-step variables		
FORGIVENESS - Heartland Forgiveness Scale - Self-Forgiveness Scale - Other-Forgiveness Scale	FORGIVENESS - Heartland Forgiveness Scale - Self-Forgiveness Scale - Other-Forgiveness Scale	FORGIVENESS - Heartland Forgiveness Scale - Self-Forgiveness Scale - Other-Forgiveness Scale
NEGATIVE WELL-BEING - Anxiety Scale - Anxiety 1 scale - Anxiety 2 scale - Depression Scale - Test of Self-conscious affect - Shame-proneness scale	NEGATIVE WELL-BEING - Anxiety Scale - Anxiety 1 scale - Anxiety 2 scale - Depression Scale - Test of Self-conscious affect - Shame-proneness scale	NEGATIVE WELL-BEING - Anxiety Scale - Anxiety 1 scale - Anxiety 2 scale - Depression Scale - Test of Self-conscious affect - Shame-proneness scale
TWELVE-STEP INVOLVEMENT - Step 8 Involvement - Step 9 Involvement	TWELVE-STEP INVOLVEMENT - Step 8 Involvement - Step 9 Involvement	TWELVE-STEP INVOLVEMENT - Step 8 Involvement - Step 9 Involvement
	POSITIVE WELL-BEING - Meaning & Purpose - Happiness	POSITIVE WELL-BEING - Meaning & Purpose - Happiness

Therapeutic Alliance

Time 4
Process
Assessment
Battery

5 months

4 months

Time 1
Pre-Treatment
Assessment
Battery

Time 2
Post-Treatment
Assessment
Battery

Time 3
Follow-up
Assessment
Battery

- Demographics
- Forgiveness- self & other
- Negative well-being: depression, anxiety, & shame-proneness
- Twelve-step Involvement- Step 8 & Step 9

- Forgiveness- self & other
- Negative well-being: depression, anxiety, & shame-proneness
- Twelve-step Involvement- Step 8 & Step 9
- Positive well-being: happiness & meaning and purpose

- Forgiveness- self & other
- Negative well-being: depression, anxiety, & shame-proneness
- Twelve-step Involvement- Step 8 & Step 9
- Positive well-being: meaning and purpose

Figure 2. Summary of variables in assessment batteries at Time 1, Time 2, Time 3, and Time 4.

II.4 INSTRUMENTATION

Demographics Questionnaire

The demographics questionnaire, which was part of the pre-treatment assessment battery, collected information on participants' basic demographics, including age, sex, religious affiliation, ethnicity, marital status, educational level, and annual income. In addition to these basic demographic variables, addiction-related and twelve-step group demographics were collected. Participants' basic demographics, addiction-related demographics, and twelve-step group demographics are reported in Tables 1 and 2, respectively (see p.94 and p.96).

Forgiveness Measures

Forgiveness was assessed in the parent study using two measures: the *Heartland Forgiveness Scale* (HFS; Thompson, Snyder, Hoffman, Michael, Rasmussen et al., 2005) and the *Transgression-Related Interpersonal Motivation inventory* (TRIM; McCullough, Rachal, Sandage, Worthington, Brown et al., 1998). Briefly, the HFS is a measure of forgiveness and the TRIM is a measure of *unforgiveness.* In the current study, the HFS was used to assess participants' self and other-forgiveness, and the TRIM was included as a validity measure in the correlational analyses (results displayed in Tables 5a, 5b, and 5c on p.128-130). The HFS is described below and reproduced in Appendix F (see p. 369)

The HFS is a *dispositional* or *trait* measure of different aspects of forgiveness, including *self-forgiveness, other-forgiveness,* and *forgiveness of situations*. In the original construction of the scale, 90 items (30 items in each subscale) were generated by the authors to capture the different forgiveness facets. Forgiveness is understood to involve a

reframing of the perceived transgression, including thoughts, affect, and behavioural responses, from a negative stance to a neutral or positive stance. The original scale items were pilot tested using a large college sample ($N = 1103$) and exploratory and confirmatory factor analyses were conducted. On the bases of these analyses, the HFS was reduced to 18 items, half worded positively and half worded negatively, and three, 6-item subscales to assess self-forgiveness, other-forgiveness, and forgiveness of situations. The words "forgiveness" and "forgive" are not used in any of the items on the HFS, which according to the authors helps to avoid eliciting participants' idiosyncratic definitions. The instructions of the HFS are to read the statements, and to indicate their level of agreement using a 7-point scale ranging from 1= *almost always false of me* to 7= *almost always true of me* yielding a total HFS score and three subscale scores.

In the parent study and current study, only the Self-Forgiveness and Other-Forgiveness subscales were used. Sample items from the HFS-SF subscale are "Although I feel badly at first when I make a mistake, over time I can give myself some leeway" and "I hold grudges against myself for negative things I've done "(reverse-scored). Sample items from the HFS-OF subscale are "Although others have hurt me in the past, I have eventually been able to see them as good people" and "I continue to punish a person who has done something that I think is wrong (reverse scored). Subscale scores range from 6 to 42 with higher scores indicating greater tendencies toward forgiveness and lower scores indicating lesser tendencies toward forgiveness. In addition, Thompson and colleagues offer an interpretation scheme based on subscale score ranges (subscale score ranges: 6-18 = one is *usually unforgiving* of the self or others; 19-29 = one is about *as*

likely to forgive the self or others *as to not forgive* the self or others; 30 - 42 = one is *usually forgiving* of the self or others).

The HFS has good psychometric properties. For example, previously reported estimates of internal consistency by Thompson and colleagues (2005) were Cronbach alphas of .72 to .75 for the HFS-SF subscale and .78 to .81 for the HFS-OF subscale. Test-retest reliability analyses over a three-week interval were $r = .83$ for the HFS, $r = .72$ for the HFS-SF, and $r = .73$ for the HFS-OF (Thompson et al., 2005). Scale reliability analyses using the current study's data yielded estimates of internal consistency of the self-forgiveness subscale ranging from $\alpha = .70$ to $\alpha = .83$ and the other-forgiveness subscale ranging from $\alpha = .80$ to $\alpha = .88$ (see Table 4 on p. 124)

Well-Being Measures

Well-being was operationalized by two separate indices or components: the presence of *Positive Well-Being* and the absence of *Negative Well-Being*. Individuals with greater levels of well-being are those who fare higher on the Positive Well-Being measures and fare lower on the Negative Well-Being measures. The measures assessing each of the two components of Positive Well-Being and Negative Well-Being are described in detail below.

Positive Well-Being

Positive Well-Being was assessed by a hedonic and a eudaimonic dimension. The hedonic dimension, as previously discussed, taps into an affective facet of well-being and was operationalized by a measure of *Happiness*. In contrast, the eudaimonic dimension taps into a more enduring facet of well-being and was operationalized by a measure of

the degree of *Meaning and Purpose* in life.

Meaning and Purpose: The degree that clients endorsed a sense of meaning and purpose in their lives was assessed at post-treatment (i.e., Time 2) and at four months follow-up (i.e., Time 2). Specifically, a total score on the Meaning and Purpose scale was computed. The scale was comprised of 3 items with a with a 7-point response options, ranging from 1 = *almost all the time to* 7 = *almost never* (see Appendix F, p. 370). Two of the scale items were taken from a brief and reliable measure known as the *Sense of Coherence* scale (SOC; Antonovsky, 1987) and the third item was developed by the principal investigators of the parent study. Total scores on the Meaning and Purpose scale could range from 3 to 21, with higher scores indicating greater levels of perceived meaning and purpose in life and lower scores indicating poor levels of meaning and purpose.

The scale items tapped into facets that are related to the experience of meaning and purpose in life. Specifically, Item 1 is reverse-scored and asked "How often have you had the feeling that the things you do in your daily life or that happen have little meaning or purpose?" Item 2 assesses what is known as *comprehensibility* or the degree that individuals understand the events in their lives as predictable or "making sense". Specifically, Item 2 asked "How often have you had the feeling that the things that you things you do in your daily life or that happen to you don't make sense "they are hard to understand"?" Finally, Item 3 asked respondents to rate their agreement with the statement "There are occasions when I experience a deep meaning in life, and sense a deep purpose for my existence". Scale reliability analyses using the current study's data

yielded estimates of internal reliability that are good or acceptable (Time 2, α = .84, Time 3, α = .68; see Table 4).

Happiness: The affective dimension of positive well-being that was assessed, Happiness, was operationalized by computing a hedonic balance score using data obtained at the end of treatment (i.e., Time 2). A hedonic balance score is the ratio of positive to negative affect that are experienced by an individual. A multi-step procedure was involved in computing the hedonic balance score, as described in detail below.

Participants completed a large (132-item) affect checklist following each of the group sessions. Many of the affect adjectives included were borrowed from the *Multiple Affect Adjective Checklist* (MAACL; Zuckerman, & Lubin, 1965) and some were unique (e.g., "forgiving", "transformed"). Participants were asked to indicate whether during the past 1 to 2 weeks they experienced the presence or absence of each of the affects. Using data from the last group session, the degree of participants' hedonic balance was analyzed.

To obtain an index of participants' hedonic balance, first a smaller subset of affect adjectives was by the principal investigator. This subset included a total of 61 *Positive Affect Adjectives* and *Negative Affect Adjectives.* Affect adjectives were selected on the basis of meeting two criteria. First, only mood adjectives that had a clear positive or negative valence were selected (e.g., "happy" was selected but "clean" was not selected). Second, mood adjectives that assessed a broad range of positive and negative states were selected. Next, two raters were asked to classify each of the affect adjectives as either a positive mood adjective or a negative mood adjective. The goal of this was to obtain an

inter-rater estimate of reliability of classification of the mood adjectives. The result was a 100% agreement between the raters and the principal investigator's classification of the mood adjectives as either positive or negative. Next, from this list of 61 positive and negative mood adjectives, the principal investigator selected a smaller subset of 20 positive affect adjectives, and 20 negative affect adjectives. The selection criteria were more subjective but informally guided by knowledge of the literature on poignant positive and negative affect states. Next, the two raters were asked to select 20 positive mood adjectives, and 20 negative mood adjectives. The result was 72% of the mood adjectives selected by the principal investigator were also selected by both of the raters (see Appendix F for the final scale). Examples of positive affect adjectives included were "joyous" (or "joyful") and "quiet" (or "inner quiet"). Examples of negative affect adjectives included were "discouraged" and "displeased". Scale reliability analyses using the current study's data yielded an estimate of internal consistency of the Positive Affect subscale of $\alpha = .91$ and of the Negative Affect subscale of $\alpha = .94$ (see Table 4).

A hedonic balance score was computed using the Positive Affect Adjectives scale and the Negative Affect Adjectives scale. Specifically, the frequency of negative affect states that were endorsed were subtracted from the frequency of positive affect states that were endorsed by the individual (Deiner, 1995 for example of use of hedonic balance score). A participant's hedonic balance score could range from + 20 to - 20, with the first occurring if a participant endorsed all of the positive affect states and none of the negative affect states and the latter occurring if a participant endorsed all of the negative affect states and none of the positive affect states. Scores in the positive range indicate

that an individual is experiencing more positive than negative affect whereas scores in the negative range indicate that an individual is experiencing more negative than positive affect.

Negative Well-Being

Negative Well-being was assessed by three distinct dimensions of depressive symptoms, anxiety symptoms, and a propensity toward experiencing shame. A description of each of the measures used to tap into these dimensions is below.

Depressive Symptomatology: Clients' experience of depressive symptomatology was assessed at pre-treatment (i.e., Time 1), post-treatment (i.e., Time 2), and at four months follow-up (i.e., Time 3). Specifically, clients completed a measure consisting of 20 common depressive symptoms, such as changes in appetite and sleep, a loss of interest or pleasure in previously enjoyed activities, and a dysphoric mood (see Appendix F). Participants were asked to rate the frequency of experiencing these depressive symptoms using a 4-point response scale with 1= *rarely or none of the time* and 4 = *most or all of the time.* Total scores on the Depressive Symptoms Scale could range from 20 to 80 with low scores indicating low frequency of depressive symptoms and high scores indicating a high frequency of depressive symptoms. Scale reliability analyses using the current study's data yielded estimates of internal consistency ranging from $\alpha = .90$ to .93 (Table 4)

Anxiety: Anxiety was another aspect of Negative Well-Being that was assessed. Two scales assessing participants' experiences of anxiety were given at Time 1, Time 2, and Time 3. A Mean anxiety score was computed for each participant using their scores

on the two scales. The first anxiety scale, referred to as *Scale 1*, was composed of 7

common manifestations of anxiety, such as *worrying*, *nervousness*, and *being easily

startled* (see Appendix F). These items had a binary response option format: *true or

largely true* or *false or largely false.* Scale scores could range from 0 to 7 with lower

scores being interpreted as a low frequency of experienced anxiety symptoms, and higher

scores being interpreted as a high frequency of experienced anxiety symptoms.

The second measure, referred to as *Scale 2,* was composed of 4 items assessing

participants' intensity of experience of general anxiety. For example, respondents were

asked to rate their agreement with the statements "Usually, I've been feeling tense" and

"Usually, I've been feeling calm" (reverse scored) using a 4-point response scale, ranging

from 1 = *not at all* to 4 = *very much.* Scale scores could range from 4 to 16 with lower

scores being interpreted as lower intensities or severity of experienced anxiety, and

higher scores being interpreted as higher intensities or severity of experienced anxiety.

The mean Anxiety score was computed by calculating percentage scores for Scale

1 and for Scale 2, summing them, and averaging. Thus, mean Anxiety scores could range

from 0 to 100, with lower scores being interpreted as fewer and less intense experiences

of anxiety and higher scores being interpreted as greater and more intense experiences of

anxiety. Scale reliability analyses using the current study's data yielded a split-half

reliability estimate of $r = .77$ to $r = .97$ for Scale 1 and Cronbach alphas for Scale 2

ranging from $\alpha = .73$ to $.84$ (Table 4).

Shame: Shame was the third and final aspect of Negative Well-Being that was

assessed. The Shame-Proneness subscale of the Test of Self Conscious Affect (TOSCA)

scale was used to assess participants' propensity toward shame at Time 1, Time 2, and Time 3. The TOSCA (Tangney, Wagner, & Gramzow, 1989) is a scale designed to assess individual differences, commonly denoted by the term *proneness,* in the experience of self-conscious emotions, such as shame, guilt, pride, and embarrassment.

The TOSCA scale is composed of brief hypothetical scenarios that participants are asked to rate using multiple response sets corresponding with different self-conscious emotions (e.g., shame, guilt). An example scenario was "You are driving down the road and you hit a small animal" with the guilt response set being "You'd feel bad you hadn't been more alert driving down the road" and the shame response set being "You would think: "I'm terrible"". Each response set is rated using a 5-point response scale, ranging from 1 = *not likely to* 5 = *very likely.* Subscale scores could range from 8 to 40. Lower scores are interpreted as fewer tendencies toward experiencing the particular self-conscious emotion (e.g., shame-proneness, guilt-proneness) whereas higher scores are interpreted as greater tendencies toward experiencing the self-conscious emotion.

The TOSCA scales have sound scale construction methodology, which involved a series of steps. For example, Tangney and colleagues used a large sample to generate ecologically valid hypothetical scenarios that would evoke the self-conscious emotions. Based on those data, Tangney and colleagues selected a smaller subset of experiences that were both commonly occurring and equally relevant to males as they were to female. Finally, using another large sample, Tangney and colleagues asked respondents to provide descriptions of how they would respond on an affective, cognitive, and behavioural level, which later formed the basis of the multiple-choice response format of

the scale. In the parent study, only the negative scenarios (8) were given to clients (although the TOSCA scale also includes positive scenarios). In the current study, only the shame and guilt response sets were analyzed (see Appendix F, pp. 374-375).

According to a recent citation analysis (Robins, Noftle, & Tracy, in press), the TOSCA scale is widely utilized in social-personality research and have been the subject of a large number of validation studies (e.g., Tangney, 1991; Tangney, Wagner, Fletcher, & Gramzow, 1992; Fontaine, Luyten, De Boeck, & Corveleyn, 2001; Luyten, Fontaine, & Corveleyn, 2002). Reported estimates of internal consistency using Cronbach alphas for the Shame-proneness and Guilt-proneness scales range from $\alpha = .77$ to .75 and $\alpha = .78$ to .66, respectively (Tangney & Dearing, 2002; Fontaine et al., 2001). Test-retest reliability estimates for the Shame-proneness scale previously reported are $r = .85$ and for the Guilt-proneness scale $r = .74$ (Tangney et al., 1992). Scale reliability analyses using the current study's data yielded acceptable or good estimates of internal consistency of the Shame-proneness scale but not the Guilt-proneness scale. This is discussed in depth in the Results (pp.124-125)

Twelve-Step Involvement Measures

Twelve-Step Involvement was hypothesized to be a treatment-related process variable that would facilitate clients' self-forgiveness. Two scales operationalizing Twelve-Step Involvement were developed by the principal investigators of the parent study. Specifically, the scales assessed clients' degree of engagement in Step 8 and Step 9 of the twelve-step program.

Step 8 Involvement

Step 8 in the twelve-step program, as was discussed in detail on pages73 to 75, involves identifying the harms caused to others (and oneself) and developing a *willingness* to make amends for these transgressions. That is, Step 8 captures a *motivational* level of change from which making amends, Step 9, can follow. Clients' engagement in this step was measured by a 5 items, which tapped into their willingness to engage in various actions, such as admitting to a person they harmed that they made a mistake (Item 1; see Appendix F, p. 376) or expressing regret/remorse to the person they harmed (Item 2). Clients rated the items using a 5-point response scale, ranging from 1 = *very unwilling* to 5 = *very willing*. Scale scores could range from 5 to 25, where higher scores are interpreted as higher levels of engagement and lower scores are interpreted as lower levels of engagement in the tasks of Step 8. Scale reliability analysis using the current study's data yielded estimates of internal consistency of $\alpha = .92$ and $\alpha = .93$ (see Table 4).

Step 9 Involvement

Step 9 in the twelve-step program, as was discussed in detail on pages 75 to 77 involves a behavioural enactment of the willingness to make amends in Step 8. That is, Step 9 involves the direct making of amends for past transgressions. Clients' engagement in this step of the twelve-step program was measured by 6 items of different behaviours that are associated with making amends (see Appendix F, p. 377). Thus, an implicit assumption in Step 9 is the process of making amends entails more than the mere offering of an apology and rather, making amends requires a set of "following through" behaviour

and plans of restitution. The scale used in the current study shared similarities with Rangganadhan and Todorov's (2010) 7-item Conciliatory Behaviour Scale.

To assess the degree of engagement in the tasks of Step 9, clients were asked to imagine that they could remember all the individuals that they harmed and to rate the frequency of their engagement in different behaviour. For example, clients were asked "How often did you acknowledge to the person involved that what you did was wrong?" (Item 2; see Appendix F, p. 329) and "How often did you have to follow-up on an offer or promise of restitution by making good on your promise?" (Item 6). Items have a 7 - point response scale with 1 = *I did this with no one* to 7 = *I did this with almost everyone*. Scale scores could range from 6 to 42, with higher scores being interpreted as indicating higher degrees of engagement and lower scores being interpreted as indicating lower degree of engagement in the tasks of Step 9. Scale reliability analysis using the current study's data yielded generally acceptable estimates of internal consistency ($\alpha = .59$ and $\alpha = .65$; Table 4).

<center>Therapeutic Alliance Measure</center>

Therapeutic Alliance was the second treatment-related process variable that was hypothesized to facilitate clients in learning to forgive themselves. The degree of clients' alliance with their counsellor (i.e., Therapeutic Alliance) was assessed during participation in the program as part of the process assessment batteries (i.e., Time 4) that were given following each group session. A summed Therapeutic Alliance score for each participant was computed from data derived from three group sessions (specifically, Workshops 7, 8, and 10). In the current study, Therapeutic Alliance was assessed by a 9-

item scale tapping into Bordin's (1979, 1994) purported tripartite model of *bond*, *tasks*, and *goals*. For example, an item that assessed the bond component of therapeutic alliance was "I feel that my counsellor appreciates me" (Item 4), an item that assessed agreement on the tasks was "I believe the way we are working with my problem is correct" (Item 9), and an item that assessed agreement on the goals was "The counsellor and I are working towards mutually agreed upon goals" (Item 3; see Appendix F, p. 378). Items were rated as *true at the moment*, *not applicable/not relevant*, or *false at the moment*. Summed Therapeutic Alliance scores could range from - 27 to + 27, with a score in the negative range being interpreted as an absence of client-counsellor bond, and disagreement on the tasks and goals of therapy whereas a score in the positive range being interpreted as the presence of a client-counsellor bond, and agreement on the tasks and goals of therapy. Of note, the method chosen of coding the scale with negative and positive values was guided by the clinical consideration that an absence of bond and agreement on tasks and goals suggest a "negative" therapeutic alliance. Thus, directionality was seen as important. The absolute magnitude of participants' scores on Therapeutic Alliance was interpreted as the degree or intensity of either a positive or negative therapeutic alliance.

<div align="center">Validity Measures</div>

As previously noted, several measures were used to assess the divergent and convergent validity of the main study measures. Specifically, correlational analyses were conducted between the main study measures and three additional measures, which are described below. The results of the correlational analyses are all presented in Tables 5a to 5c on pp. 128-130.

Unforgiveness

The Transgression Related Interpersonal Motivations inventory (TRIM; McCullough et al., 1998) was used to assess unforgiveness. Specifically, it was correlated with the measure of forgiveness used in the current study, the HFS. The TRIM has reported good psychometric properties, including estimates of internal consistency, test-retest reliability (McCullough et al., 1998), and evidence of convergent and discriminant validity (McCullough et al., 2001). Briefly, the TRIM is a 12-item measure of unforgiveness marked by avoidance and revenge motivations toward an offender (see Appendix F). The TRIM-Avoidance (TRIM-A) subscale is composed of 7 items with a sample item "I live as if he/she doesn't exist, isn't around" and the TRIM-Revenge (TRIM-R) is composed of 5 items with a sample item "I will make him/her pay". Items are rated on a 5-point response scale with 1 = *strongly disagree* and 5= *strongly agree*. The TRIM yields a Total score as well as two subscale scores (later versions also include a reverse scored TRIM-Benevolence subscale). Higher scores on the TRIM indicate greater levels of unforgiveness. In the current study, TRIM scores were expected to be significantly negatively correlated with scores on the HFS-OF subscale. As can be seen in Tables 5a through 5c, the results of the correlational analyses were in the expected directions.

Empathy

The Perspective-Taking scale (Davis, 1983) was used to assess empathy as the second validity measure. The Perspective-Taking scale has reported good psychometric properties, including estimates of internal consistency and test-retest reliability (Davis,

1983). Briefly, the Perspective-Taking scale is part of a larger instrument that is designed to tap into multi-dimensional aspects of empathy. The three other subscales are Fantasy, Empathic Concern, and Personal Distress. The Perspective-taking subscale is composed of 7 items that are designed to assess a more cognitive component of empathy. Specifically, items are designed to tap into individuals' attempts to adopt the perspectives of other people or see things from their point of view. Sample items are "I try to look at everybody's side of a disagreement before I make a decision" and "I sometimes find it difficult to see things from the "other person's" point of view (reverse-scored; see Appendix F). Items are rated on a 7-point scale with 1 = *describes me extremely inaccurately* to 7 = *describes me nearly perfectly*. Possible score ranges are 7 to 49. In the current study, participants' scores on the Perspective-Taking scale are expected to be significantly positively correlated with scores on the HFS-OF subscale, guided by the literature's reports of a robust effect of empathy on inter-personal forgiveness. The results of the correlational analyses were in the expected directions.

<div align="center">*Anger*</div>

A generic measure assessing anger (see Appendix F) was included to assess the association between anger and several study measures. The anger measure consisted of 15 items rated on a 4-point scale with 1 = *almost never* to 4 = *almost always.* Sample items are "I've had a fiery temper", "I've gotten annoyed when I was singled out for correction/discipline", and "I flew off the handle". It was expected that anger would be positively correlated with the Negative Well-Being variables (depression, anxiety, and shame), be negatively correlated with the Positive Well-Being variables (Meaning and

Purpose, and Happiness), and be negatively correlated with the HFS-OF. The results of

the correlational analyses were in the expected directions.

III. RESULTS

III.1 DATA CLEANING AND HANDLING MISSING DATA

Two types of missing data were handled: *missing cases* and *missing variables.* Missing cases refer to participants who either did not return an assessment battery at a particular assessment phase or who had 20% or more blank responses on a particular assessment instrument. Missing cases were eliminated from analyses in a list-wise manner. Missing variables, on the other hand, refer to the blank responses on a specific instrument that were less than the cut off criterion of 20% of the total items. Missing variables were generally replaced with the mean of the item based on all other participants' responses.

III.2 SCALE RELIABILITY AND VALIDITY ANALYSES

All study measures were assessed for internal consistency using Cronbach alpha estimates. Table 4 displays the scale reliability estimates obtained across the different assessment phases: Time 1 (Pre-treatment), Time 2 (Post-treatment), and Time 3 (Follow-up). The internal consistencies of the Anxiety 1 and Therapeutic Alliance scales, however, were assessed using split-half reliability correlations for unequal parts because these scales were composed of binary response items. Split-half reliability coefficients are interpreted in the same manner as a correlation. To interpret the Cronbach alpha estimates, commonly accepted guidelines were used (e.g., George & Mallery, 2003). Specifically, alpha estimates of .9 or greater indicate *excellent* internal consistency, estimates of .8 to .9 indicate *good* internal reliability, and estimates of .7 to.8 indicate *acceptable* internal consistency. Scale Cronbach alphas of .6 to .7 indicate *questionable*

internal reliability whereas estimates of .5 to .6 or less than .5 indicate *poor* or

unacceptable internal reliability, respectively.

The results of the reliability analyses showed that all study instruments had

acceptable to excellent internal consistency with the exception of the TOSCA scales. The

split-half reliability coefficient of the Therapeutic Alliance scale was *r* (50) = .90 at

Workshop 7, *r* (53) = .84 at Workshop 8, and *r* (51) = .72 at Workshop 10 (data not

displayed in Table 4).

With respect to the TOSCA scales, the Cronbach alphas of the Shame-proneness

scale were .73 at Time 1, .72 at Time 2, and .66 at Time 3. Thus, the Shame-proneness

scale appeared to have acceptable internal reliability at pre-treatment and post-treatment

and questionable internal reliability at follow-up. A review of the literature indicated that

similar estimates of internal reliability have been reported for the TOSCA Shame-

proneness scale. For example, Fontaine and colleagues (Fontaine, Luyten, De Boeck, &

Corveleyn, 2001) reported a Cronbach alpha of .66. Given these similar estimates

previously reported in the literature and the acceptable estimates of internal consistency

at Times 1 and 2, the data derived from the Shame-proneness scale were considered

generally reliable.

The internal reliability estimates of the Guilt-proneness scale, in contrast, were

problematic at all phases of assessment. As can be seen in Table 4, the Cronbach alpha

estimates of the Guilt-proneness scale ranged from .49 to .55, which indicate

unacceptable internal consistency of the scale. In an attempt to improve the scale's

internal consistency, inter-item correlations were conducted at each assessment phase and

items that were poorly correlated with others were removed from the scale and reliability analyses were re-run. The results, however, were unacceptable estimates of internal consistency. A review of the literature that has used the TOSCA Guilt-proneness scale indicated that similar poor estimates of internal consistency have been found (e.g., Rusch, Corrigan, Bohus, Jacob, Brueck, & Lieb, 2007; Ferguson & Crowley, 1997). Some researchers have attempted to explain this by suggesting that the scale taps into a less maladaptive, non-ruminative form of guilt (e.g., Rusch et al., 2007) and may be more reflective of moral standards, which naturally vary depending on the situation (Harder, 1995). Consequently, the poor or unacceptable internal consistency of the Guilt-proneness scale may be due to intra-individual variability related to the hypothetical scenarios format of the scale (Jones & Kugler, 1993). The Guilt-proneness scale was not used in the main analyses.

Table 4

Scale Reliabilities at Pre-treatment, Post-treatment, and Follow-up

Scale	# Items	Time of Assessment					
		Time 1		Time 2		Time 3	
		N	α	N	α	N	α
FORGIVENESS							
Forgiveness of Self subscale	6	61	.83	55	.89	51	.70
Forgiveness of Other subscale	6	61	.80	54	.89	54	.88
POSITIVE WELL-BEING							
Meaning and Purpose	3	N/a		56	.84	52	.67
Hedonic Balance							
Positive Affect		N/a		48	.91	N/a	
Negative Affect		N/a		47	.94	N/a	
NEGATIVE WELL-BEING							
Depressive symptoms	20	59	.90	52	.92	48	.93
Anxiety symptoms	11						
Scale 1*	7	59	.77	52	.79	49	.97
Scale 2	4	59	.73	53	.84	50	.84
TOSCSA Shame-proneness	8	59	.73	52	.72	47	.66
TOSCA Guilt-proneness	8	59	.49	52	.51	47	.55
TWELVE-STEP INVOLVEMENT							
Step 8 Involvement	5	61	.93	56	.93	54	.92
Step 9 Involvement	6	61	.65	42	.65	48	.59

* Split-half reliability, unequal parts

The associations between the study variables were assessed using Pearson product moment correlations at each assessment phase: Time 1 (pre-treatment), Time 2 (post-treatment), and Time 3 (follow-up). In addition, the associations between the main study variables and several other variables were assessed to gauge the convergent and divergent validity of the main study instruments. The results are displayed in Tables 5a, 5b, and 5c, respectively. Note that at pre-treatment, the positive well-being dimensions of Meaning and Purpose and Happiness were not assessed, and at follow-up, Happiness was not assessed. These are marked as "N/a" in the respective tables. The results of the correlational analyses were in the expected directions, suggesting that the main study instruments were valid in assessing the study variables. Several of the results are important to elaborate on.

First, self-forgiveness was significantly positively correlated with other-forgiveness at all times of assessment with rs ranging from .36 (Time 3) to .71 (Time 2). Other-forgiveness was significantly negatively correlated with the three negative well-being dimensions of depression, anxiety, and shame with r ranging from -.11 (Time 3 Depression) to -.45 (Time 2 Shame). Therefore, other-forgiveness was simultaneously significantly correlated with self-forgiveness, and the negative well-being criterion variables. Thus, in addition to theoretical rationale for including other-forgiveness in the analyses testing the predictive effects of self-forgiveness on well-being (i.e., to assess the incremental validity of self-forgiveness), the results of the correlational analyses suggested an empirical rationale for including other-forgiveness as a covariate variable.

It is important to note also that although the Guilt-proneness scale had unacceptable internal reliabilities at all phases of assessment as discussed, its association

with the Shame-proneness scale was nonetheless assessed. Guilt-proneness was found to be significantly positively correlated with shame-proneness at Time 1 [r (59) = .32, p =.01], at Time 2 [r (52) = .36, p<.01] and at Time 3 [r (46) = .40, p<.01] but not with self-forgiveness, other-forgiveness, depression, or anxiety. The positive association found between guilt-proneness and shame-proneness was consistent with the theoretical literature indicating that the two emotions are frequently experienced simultaneously. The lack of a significant association between guilt-proneness and depression and anxiety, on the other hand, was consistent with the suggestion made that the TOSCA Guilt-proneness scale may tap into a less maladaptive form of guilt which, if that was the case, it would not be expected to significantly co-vary with other negative well-being variables. Thus, the absence of concurrent associations between guilt-proneness, forgiveness, and negative well-being indicated guilt-proneness did not need to be included as a covariate variable in the analyses testing the predictive effects of self-forgiveness on negative well-being.

Finally, the results testing the associations between the main study measures and the validity measures were also in the expected directions at all assessment phases. Specifically, unforgiveness, as assessed by the Transgression-Related Motivations Inventory (TRIM), was significantly negatively correlated with self and other-forgiveness with rs ranging from - .30 (Time 2 Self-Forgiveness) to - .47 (Time 3- Other Forgiveness). Anger was significantly negatively correlated with other-forgiveness (Time 2, r = -.38; Time 3, r = -.40) and significantly positively correlated with depression, anxiety, and shame with rs ranging from .26 (Time 1 Shame) to .71 (Time 3 Anxiety). Finally, the cognitive component of empathy, perspective-taking, was significantly positively correlated with self and other-forgiveness with rs ranging from .35 (Time 3 Self-

Forgiveness) to .66 (Time 2 Self-Forgiveness). Thus, the results of these correlational

analyses provided evidence of convergent validity of the main study measures.

Table 5a

Zero Order Correlations Amongst Measures of Forgiveness, Negative Well-Being, Twelve-Step Involvement, and Validity Measures at Time 1 (Pre-treatment)

Time 1 (Pre-Tx)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
FORGIVENESS												
1. Self-forgiveness												
2. Other-forgiveness	.43**											
NEGATIVE WELL-BEING												
3. Anxiety	-.55**	-.24										
4. Depression	-.59**	-.26*	.75**									
5. Shame	-.49**	-.25*	.42**	.52**								
POSITIVE WELL-BEING												
6. Meaning & Purpose	N/a	N/a	N/a	N/a	N/a							
7. Happiness	N/a	N/a	N/a	N/a	N/a	N/a						
TWELVE-STEP INVOLVEMENT												
8. Step 8 Involvement	.19	.38*	-.10	-.06	-.13	N/a	N/a					
9. Step 9 Involvement	.23	.45**	-.32*	-.30*	-.10	N/a	N/a	.36*				
VALIDITY MEASURES												
10. Unforgiveness	-.14	-.36*	.19	.23	.09	N/a	N/a	-.39*	-.18			
11. Anger	.18	.09	.11	.49**	.26*	N/a	N/a	-.07	-.02	.06		
12. Empathy	.37*	.55**	-.45**	-.37*	-.36*	N/a	N/a	.33*	.51**	-.19	.03	

Note. Variables as assessed by: 1. Heartland Forgiveness Scale-Self-Forgiveness subscale; 2. Heartland Forgiveness Scale- Other-Forgiveness subscale; 5. TOSCA Shame-Proneness scale; 10. Transgression-Related Motivations Inventory; 12. Perspective-Taking subscale; * *p* <.05; **p<.001

Table 5b

Zero Order Correlations Amongst Measures of Forgiveness, Negative Well-Being, Positive Well-Being, Twelve-Step Involvement, and Validity Measures at Time 2 (Post-treatment)

Time 2 (Post-Tx)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
FORGIVENESS												
1. Self-forgiveness												
2. Other-forgiveness	.71**											
NEGATIVE WELL-BEING												
3. Anxiety	-.34*	-.26										
4. Depression	-.45*	-.25	.80**									
5. Shame	-.51**	-.45*	.44*	.50**								
POSITIVE WELL-BEING												
6. Meaning & Purpose	.41*	.40*	-.26	1.28*	-.09							
7. Happiness	.44*	.31*	-.33*	-.38	-.25	.33*						
TWELVE-STEP INVOLVEMENT												
8. Step 8 Involvement	.31*	.34*	-.21	-.04	-.24**	.17	.21					
9. Step 9 Involvement	.30*	.28	-.15	-.23	.15	.01	.33	.08				
VALIDITY MEASURES												
10. Unforgiveness	-.30*	-.42*	.48**	.40*	.20	-.42*	-.37*	-.23	-.25			
11. Anger	-.17	-.38*	.37*	.23	.36*	-.38	-.36*	-.15	-.24	.28		
12. Empathy	.66**	.56**	-.18	-.16	-.50**	.21	.23	.23	.23	-.15	-.31*	

*Note. See Table 5a; * p <.05; **p<.001*

Table 5c

Zero Order Correlations Amongst Measures of Forgiveness, Negative Well-Being, Positive Well-Being, Twelve-Step Involvement, and Validity Measures at Time 3 (Follow-up)

Time 3 (Follow-up)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
FORGIVENESS												
1. Self-forgiveness												
2. Other-forgiveness	.36*											
NEGATIVE WELL-BEING												
3. Anxiety	.40*	-.19										
4. Depression	-.38*	-.11	.83**									
5. Shame	-.49**	-.40*	.18	.23								
POSITIVE WELL-BEING												
6. Meaning & Purpose	.49**	.36*	.35*	.32*	-.55*							
7. Happiness	N/a	N/a	N/a	N/a	N/a	N/a						
TWELVE-STEP INVOLVEMENT												
8. Step 8 Involvement	.37*	.41*	-.31*	-.31*	.05	.05	N/a					
9. Step 9 Involvement	.21*	.40*	.17	-.01	.35*	.30*	N/a	.35*				
VALIDITY MEASURES												
10. Unforgiveness	-.32*	-.47**	.31*	.26	.20	-.25	N/a	-.38*	-.28			
11. Anger	-.34*	-.40*	.71**	.67**	.21	-.34**	N/a	-.14	-.08	.28		
12. Empathy	.35*	.59**	-.24	-.11	-.34*	-.35*	N/a	.33*	.17	-.39*	-.28	

*Note. See Table 5a; * p <.05;**p<.001*

III.3 PRELIMINARY ANALYSES

Sample Retention and Attrition

Eighty-four individuals were eligible to participate in the parent study (refer back to Figure A1 in Appendix A for initial recruitment figures). Of those, 61 participants (73%) completed the treatment program and 23 (27%) were non-completers. Of the 23 non-completers, 9 individuals (39%) dropped out prior to attending the first group session. Tables 6 and 7 summarize information on the completer and non-completer sample.

Table 6

Age, Sex, and Number of Workshops Attended of the Completer and Non-completer Sample

	Gender		Age			#Workshops Attended		
			M	SD	Range	Mean	SD	Range
Completer Sample (*N* = 61)			44.26	7.93	37	7.90	2.00	5
	Male	25	43.40	7.14	23			
	Female	36	44.86	8.48	37			
Non-completer Sample (*N* = 23)			39.00	8.28	28	1.17	1.37	5
	Male	7	40.14	7.38	19			
	Female	16	38.50	8.82	28			

Table 7

Completer and Non-completer Sample by Treatment Condition

		Treatment Condition		Total N
		Spiritual	Secular	
Completer Sample	N	30	31	61
	%	49.2	50.8	72.6
Non-completer Sample	N	14	9	23
	%	60.9	39.1	27.4

Several analyses were conducted to examine if the completer and non-completer sample varied significantly on age, gender, or treatment condition assignment. Specifically, Chi-square analyses were conducted to explore if there were any significant patterns of gender or treatment condition assignment by completion status. The results were non-significant for gender [X^2 (1) = .79, $p =$. 38] and for treatment condition assignment [X^2 (1) = .92, $p =$. 34]. Thus, gender and treatment condition assignment were found to be unrelated to completion status. To examine if there was a significant difference in the ages of the completer and non-completer sample, an independent sample *t*-test was conducted. Specifically, the mean age of the completer sample (44.3 years; data derived from Table 6) was compared with the mean age of the non-completer sample (39.0 years). The results were significant [*t* (84) = -2.69, $p =$. 01], indicating that the mean ages of the completer and non-completer sample were significantly different. To further assess the role of age in completion status, if any, a Pearson product moment correlation was conducted between age and completion status. The results were *r* (84) = .28, $p =$ .009, indicating that participants' age was significantly positively correlated with completion status.

<div align="center">Treatment Dosage</div>

The degree of exposure that participants had to the psychoeducational program was assessed by examining two variables: attendance rates and number of group sessions attended. Table 8 displays the attendance figures of the ten group sessions separate for the two treatment conditions and Figure 3 displays the frequency distribution of the number of group sessions attended collapsed across the two treatment conditions.

In terms of attendance rates, 31 participants were assigned to the Secular

forgiveness treatment condition (data derived from Table 7) and 30 participants were assigned to the Spiritual forgiveness treatment condition. The mean number of attendees in the Secular forgiveness treatment condition was 25.60 ($SD = 5.50$) with a minimum of 16 and a maximum of 31 attendees in all group sessions. The mean number of attendees in the Spiritual forgiveness treatment condition was 25.20 ($SD = 3.60$) with a minimum of 21 and a maximum of 30 attendees in all group sessions. An independent samples *t*-test was conducted to assess if there was a statistically significant difference between the mean attendees of the two treatment conditions. The results were non-significant [$t(9) = -.25$, $p =. 81$], suggesting that on the whole, participants in the two treatment conditions attended at comparable rates. That is, the dosages of the two treatment conditions were comparable.

The second variable that was assessed was the number of group sessions that were attended by participants. The mean number of group sessions attended was 7.90 ($SD = 2.00$; data derived from Table 3) and the mode was 9 group sessions (see Figure 3). Thus, the results indicated that participants attended most of the psychosocial program and on that basis, can be said to have received a high dosage of the treatment program.

Table 8

Attendance Numbers Across Workshops Separate for the Two Treatment Conditions

		Workshop Number										Total N
Treatment Condition		1	2	3	4	5	6	7	8	9	10	
Secular												
	n	31	31	31	31	26	26	19	16	22	23	31
	%	100	100	100	100	84	84	61	52	71	74	
Spiritual												
	n	30	23	30	26	25	27	22	21	24	25	30
	%	100	77	100	87	83	90	73	70	80	83	
												61
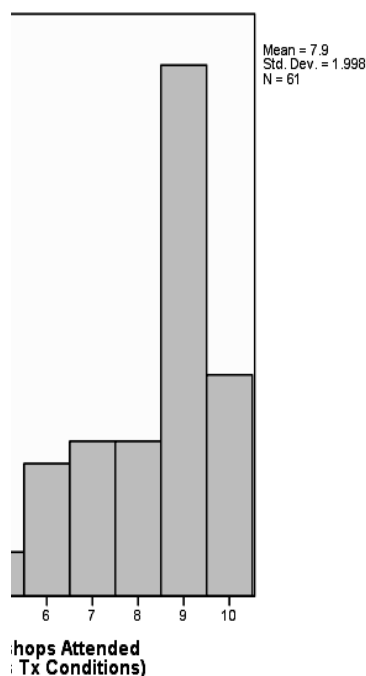
Figure 3. Frequency distribution of the total number of group sessions attended by clients in both treatment conditions.

Basic Descriptive Data of Key Study Variables

Table 9 presents the means and Standard Deviations of the key study variables

separate by the phase of assessment. Specifically, data on each of the study variables is

reported for three time points: pre-treatment (Time 1), post-treatment (Time 2), and four

months follow-up (Time 3). The exceptions to this were the positive well-being variables

of Meaning and Purpose, which was assessed at Times 2 and 3, and Happiness, which was

assessed at Time 2 only. Please note that the the Ns varied across time due to missing

cases.

As can be seen in Table 9, means of self and other-forgiveness increased from

Time 1 to Time 2 and means of the negative well-being criterion variables of depression,

anxiety, and shame decreased from Time 1 to Time 2. Note that Therapeutic Alliance,

which is a sum score derived from data obtained at Workshops 7, 8, and 10, had a mean of

17.0 ($SD = 9.9$) with $n = 50$.

Table 9

Means and Standard Deviations of All Key Study Variables By Time of Assessment

	Time 1 (Pre-Tx)			Time 2 (Post-Tx)			Time 3 (Follow-up)		
	N	*M*	*SD*	*N*	*M*	*SD*	*N*	*M*	*SD*
FORGIVENESS									
Self-Forgiveness	61	24.2	6.3	55	27.5	6.6	51	27.4	4.3
Other- Forgiveness	61	22.2	6.2	54	28.1	6.0	54	26.8	5.6
NEGATIVE WELL-BEING									
Shame	59	26.5	5.5	52	23.9	5.3	47	24.2	4.7
Depression	59	48.2	10.8	52	41.4	11.9	48	39.7	11.5
Anxiety	59	66.0	18.4	53	56.9	23.1	50	52.4	24.9
POSITIVE WELL-BEING									
Meaning & Purpose		N/a		56	13.11	3.30	52	13.46	2.73
Happiness		N/a		47	1.23	7.7		N/a	
TWELVE-STEP INVOLVEMENT									
Step 8 Involvement	61	18.9	4.3	56	21.0	3.6	54	21.1	3.8
Step 9 Involvement	61	25.1	5.9	42	27.1	6.4	48	25.5	7.0
Total Step 8 & Step 9 Involvement (sum variable)	61	43.9	8.5	42	48.5	7.6	48	46.4	9.2

In addition to these raw score means, change on the study variables during different intervals was examined. Specifically, change scores were computed for three intervals: pre-treatment to post-treatment (T1 - T2), pre-treatment to follow-up (T1 - T3), and post-treatment to follow-up (T2 - T3). Table 10 displays the mean change scores for each study variable by interval. Note that for the positive well-being variable of Meaning and Purpose, only one change score was computed (i.e., T2 – T3). Figures 4a through 4g below display the frequency distributions of participants' change scores on the study variables at the different intervals.

Table 10

Mean Change Scores on All Key Study Variables Across Different Assessment Intervals

	INTERVAL		
	T1 – T2	T1 – T3	T2 – T3
	Mean Change Score (N)	Mean Change Score (N)	Mean Change Score (N)
FORGIVENESS			
Self-Forgiveness	+ 3.07 (59)	+ 2.80 (59)	- 0.27 (59)
Other- Forgiveness	+ 5.49 (59)	+ 4.78 (54)	- 0.93 (54)
NEGATIVE WELL-BEING			
Shame	- 2.22 (55)	- 2.00 (46)	+ 0.02 (46)
Depression	- 6.05 (55)	- 7.25 (47)	- 0.66 (47)
Anxiety	- 9.82 (58)	- 12.91 (48)	- 2.39 (49)
POSITIVE WELL-BEING			
Meaning & Purpose	N/a	N/a	- 0.08 (50)
Happiness	N/a	N/a	N/a
TWELVE-STEP INVOLVEMENT			
Step 8 Involvement	+ 2.23 (56)	+ 2.46 (54)	+ 0.43 (51)
Step 9 Involvement	+ 1.52 (42)	+ 0.90 (48)	- 0.56 (34)
Total Step 8 & Step 9 Involvement (sum variable)	+ 3.54 (42)	+ 2.98 (48)	- 0.10 (34)
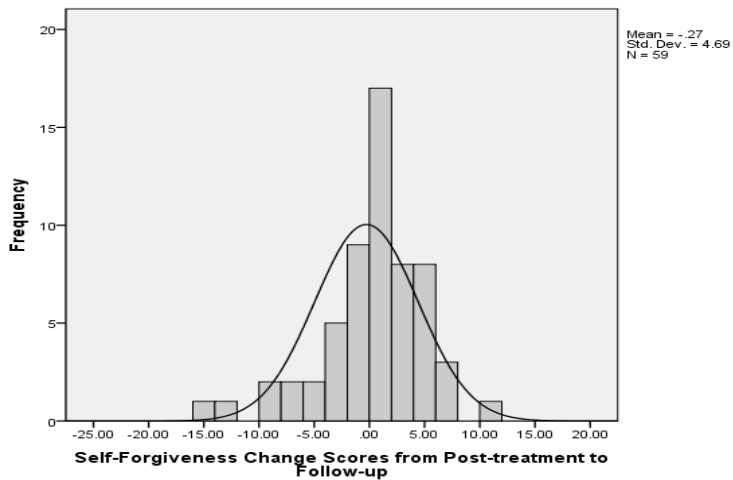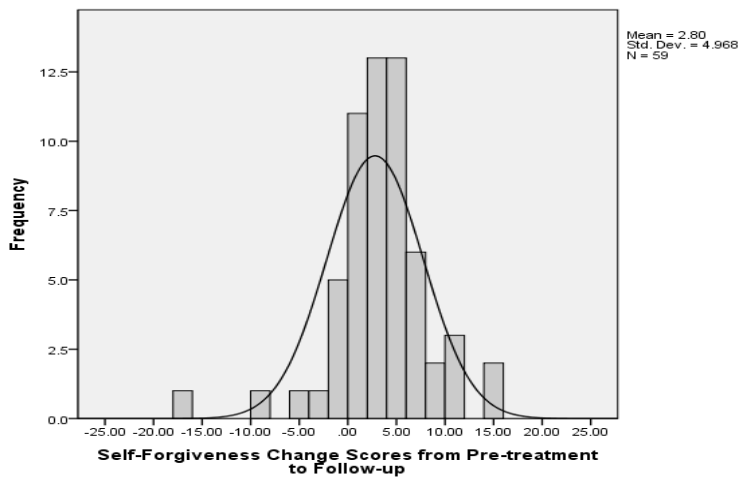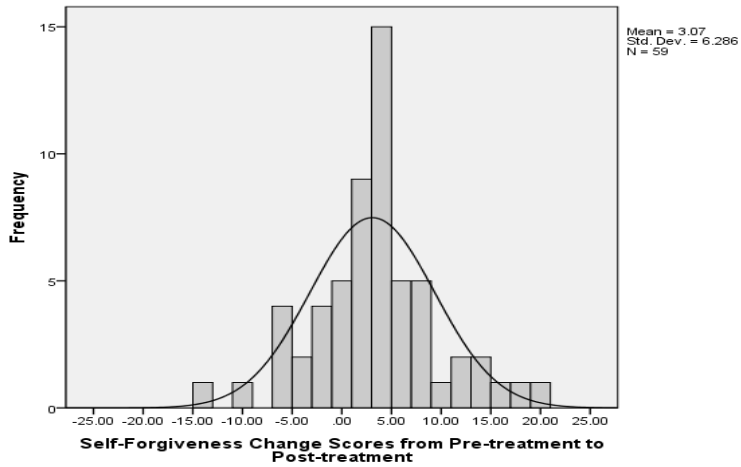
Figure 4a. Frequency distributions of self-forgiveness change scores at the different intervals.
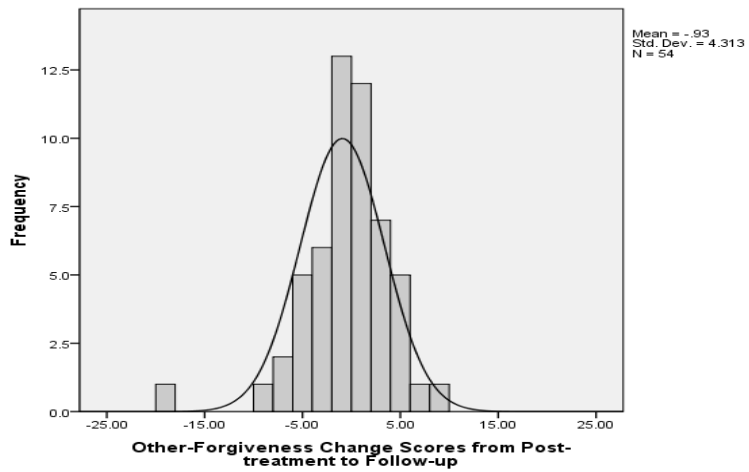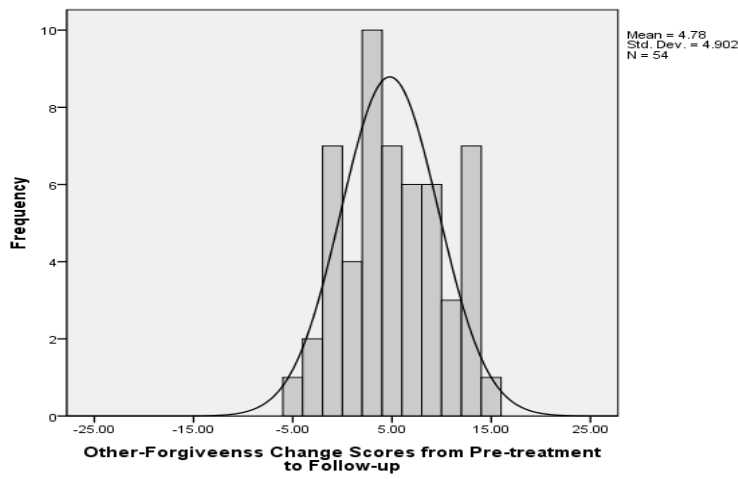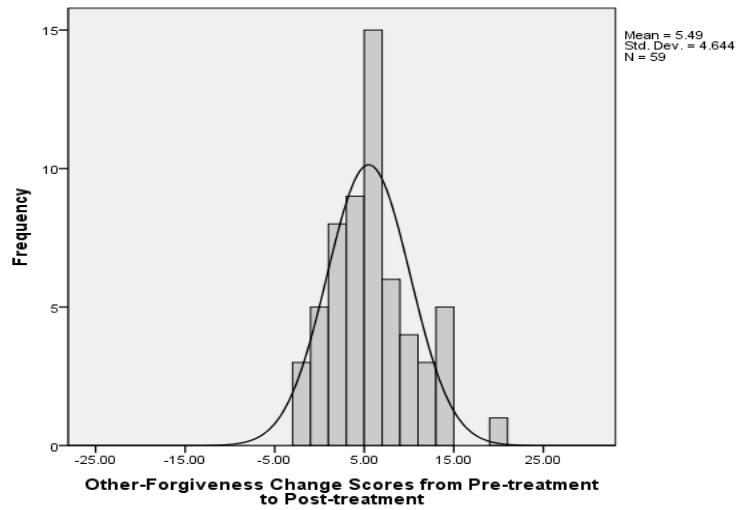
Figure 4b. Frequency distributions of other-forgiveness
change scores at the different intervals.
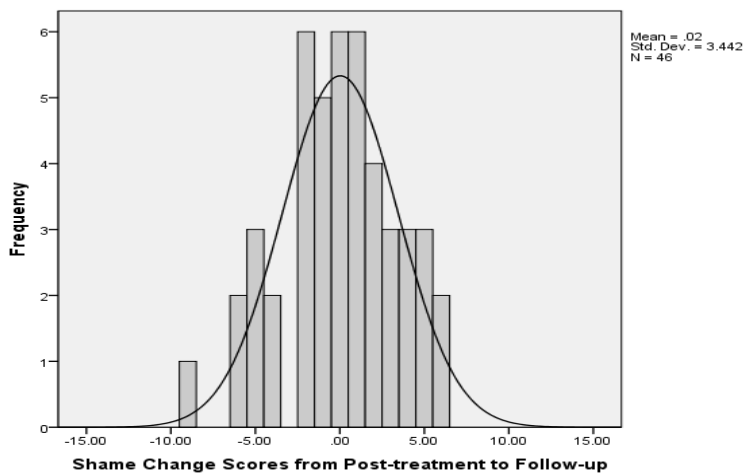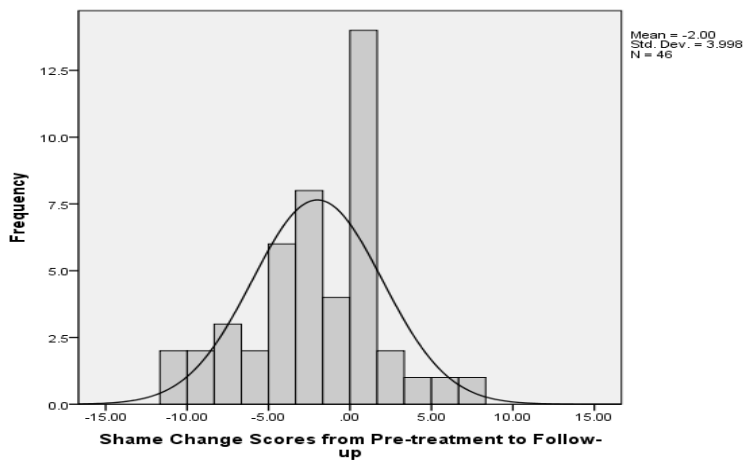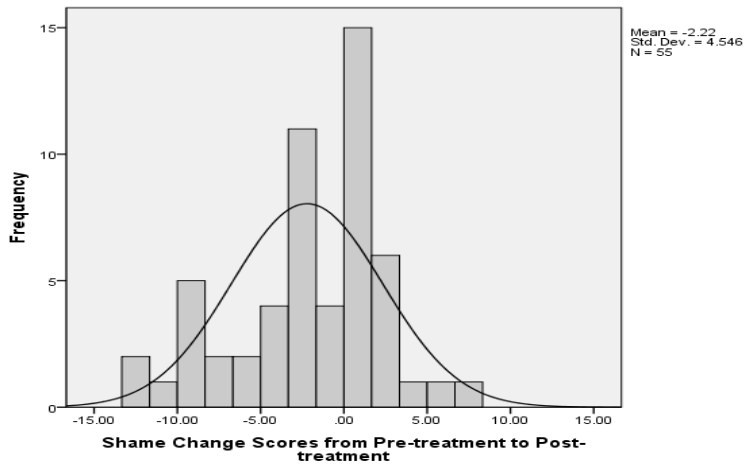
Figure 4c. Frequency distributions of shame change scores at the different intervals.

Mean = -6.05
Std. Dev. = 8.858
N = 55

Mean = -7.25
Std. Dev. = 9.897
N = 47

Mean = -.66
Std. Dev. = 10.825
N = 47
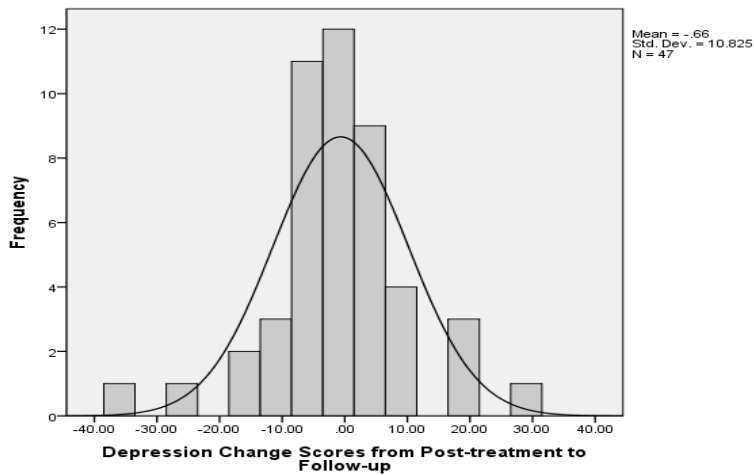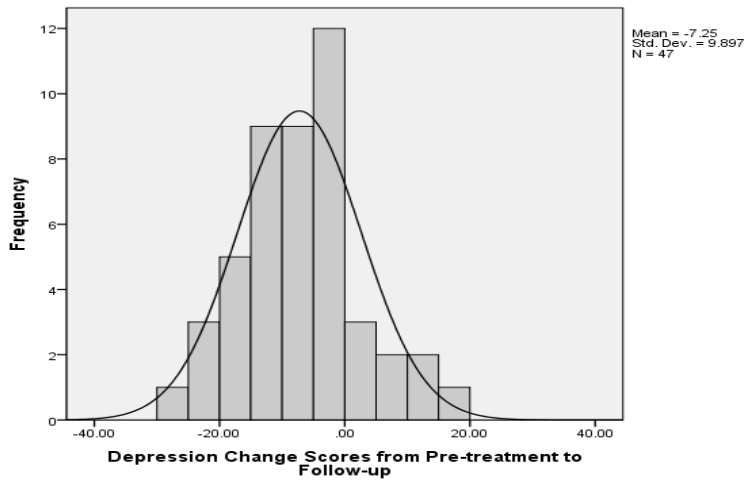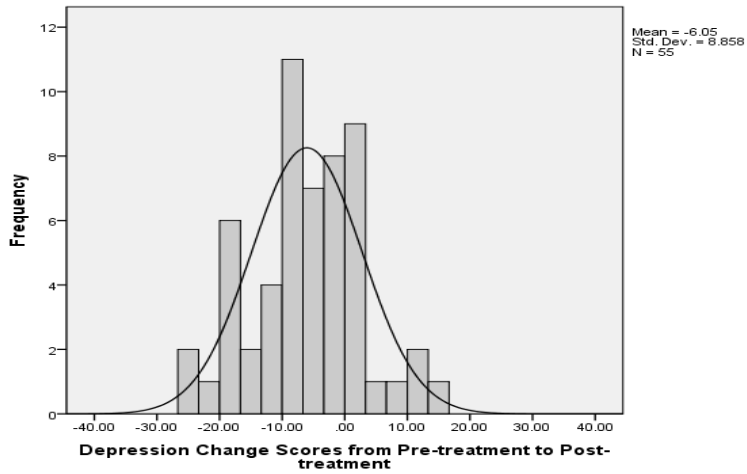
Figure 4d. Frequency distributions of shame
change scores at the different intervals.
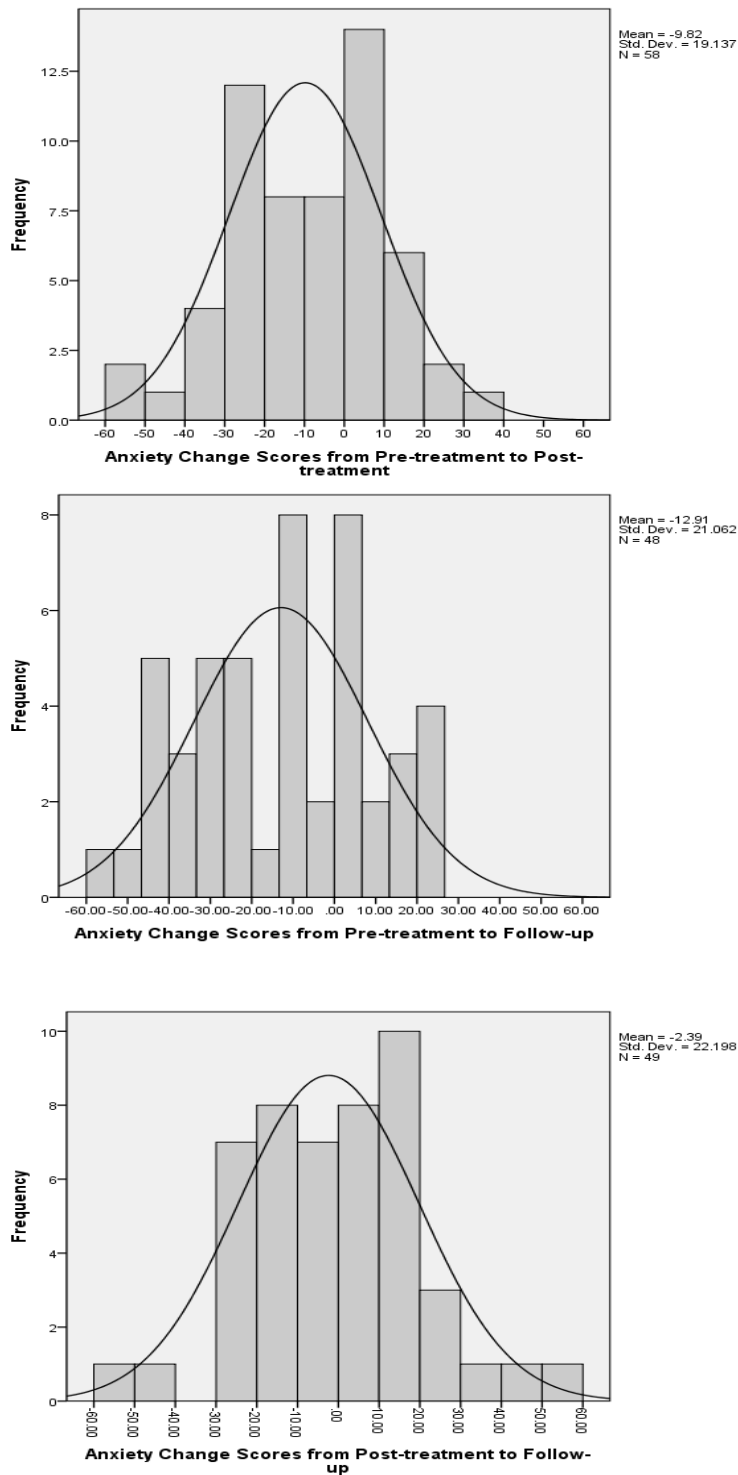
Figure 4e. Frequency distributions of anxiety
change scores at the different intervals.
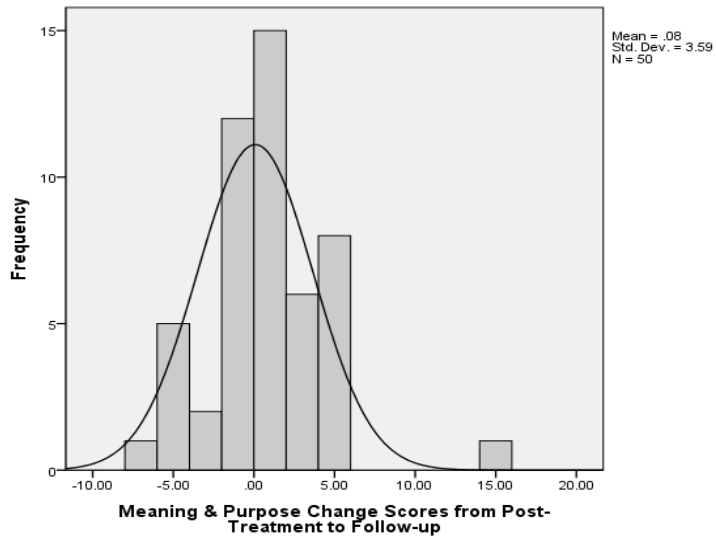
Figure 4f. Frequency distributions of meaning & purpose change scores from post-treatment to follow-up.

Mean = 3.55
Std. Dev. = 7.382
N = 42

Total Step Involvement Change Scores from Pre-treatment to Post-treatment

Mean = 2.98
Std. Dev. = 7.561
N = 48

Total Step Involvement Change Scores from Pre-treatment to Follow-up

Mean = -.10
Std. Dev. = 7.669
N = 34

Total Step Involvement Change Scores from Post-treatment to Follow-up
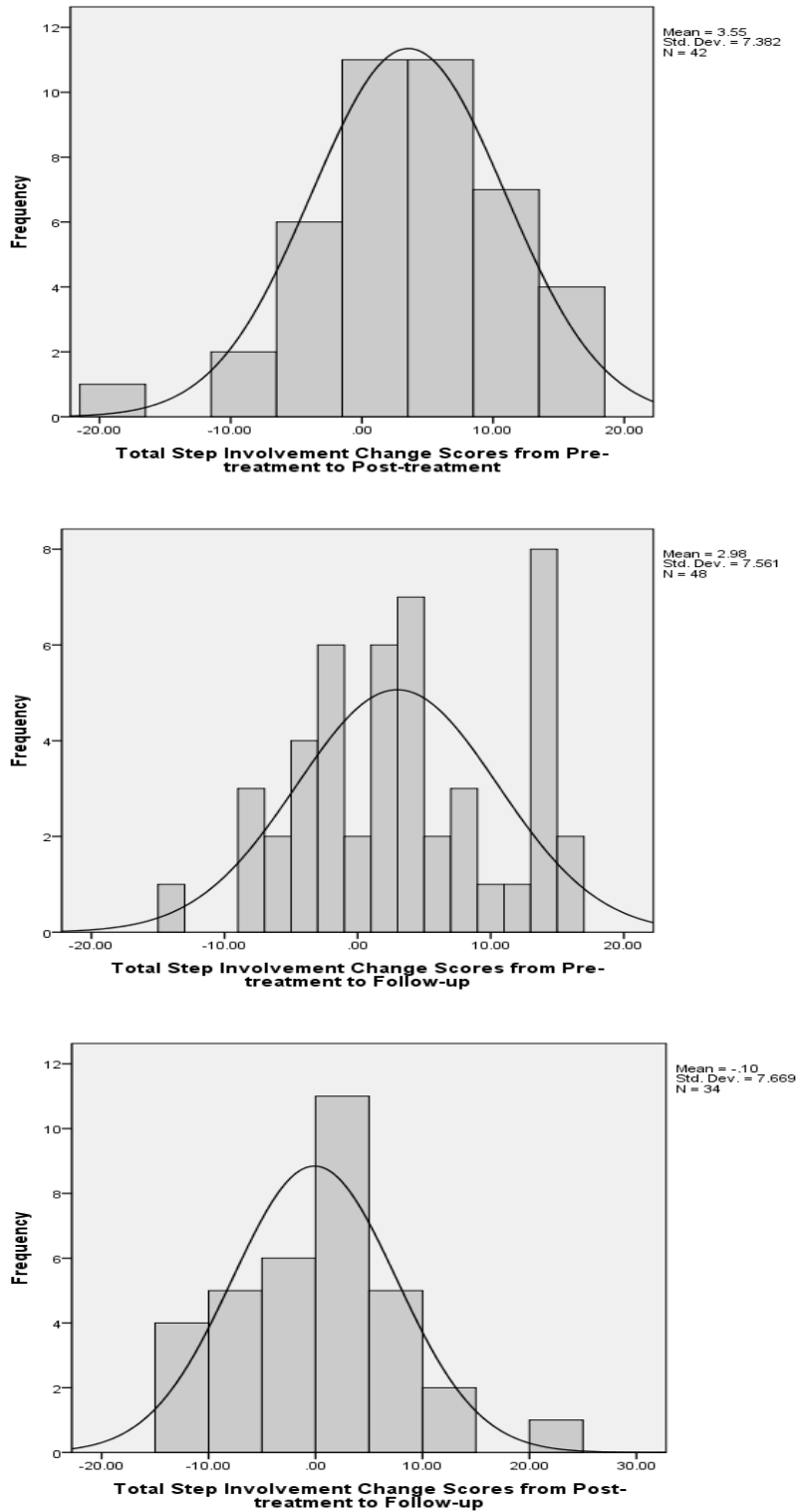
Figure 4g. Frequency distributions of total twelve-step
Involvement change scores at the different intervals.

<center>Correlations</center>

Correlational analyses were conducted to further examine the relations between the study variables (refer back to Tables 5a-5c for the preliminary correlational analyses, pp. 128-130). First, participants' educational level, marital status, age, and gender were examined for any significant associations with self and other-forgiveness scores at all phases of assessment. The results of these analyses showed non-significant associations between forgiveness scores (self and other) at the different assessment times and these demographics of participants. For example, self-forgiveness scores at post-treatment (Time 2) were non-significantly correlated with educational level [r (59) = -.010, p = .941], marital status [r (59) = -.015, p = .913], age [r (59) = .085, p = .523], and gender [r (59) = .144, p = .276]. Thus, the results of these correlational analyses indicated that there was no need to control these demographic variables in the regression analyses.

Next, partial correlations were conducted to examine the associations between the study variables and self-forgiveness, and other-forgiveness at the end of treatment (Time 2). Specifically, in one set of partial correlations, the associations between self-forgiveness and the study variables were examined while holding other-forgiveness constant, and in the second set, the associations between other-forgiveness and well-being were examined while holding self-forgiveness constant. The results are displayed in Tables 11 and 12, respectively.

Table 11

Partial Correlations between Self-Forgiveness Scores and Study Variables at Time 2(Post-Tx) with Other-Forgiveness scores held Constant.

	Shame	Anxiety	Depression	Meaning & Purpose	Happiness	Total Step 8 & Step 9 Involvement
Constant: Other-Forgiveness, Time 2						
Self-Forgiveness Time 2	-.30*	-.26	-.39**	.25	.21	.18

* p <. 05, ** p <. 005

Table 12

Partial Correlations between Other-Forgiveness Scores and Study Variables at Time 2 (Post-Tx) with Self-Forgiveness scores held Constant.

	Shame	Anxiety	Depression	Meaning & Purpose	Happiness	Total Step 8 & Step 9 Involvement
Constant: Self-Forgiveness Time 2						
Other-Forgiveness Time 2	-.33	-.09	-.01	-.24	-.04	.07

As can be seen by the results displayed in Tables 11 and 12, self-forgiveness appears to be the primary variable that has significant associations with the study variables. Specifically, when self-forgiveness scores were held constant, other-forgiveness was not significantly correlated with any of the study variables as can be seen in Table 12. Thus, these results suggested that the associations observed between other-forgiveness and the study variables (i.e., Tables 5a-5c, pp.128-130) were partially due to associations between self-forgiveness and the study variables. In contrast, as can be seen in Table 11, when other-forgiveness scores were held constant, self-forgiveness continued to be significantly correlated with the negative well-being variables of shame and depressive symptoms. Self-forgiveness, however, was no longer significantly associated with anxiety, the positive well-being variables of Meaning and Purpose and Happiness, or twelve-step involvement. Thus, these results provided additional rationale to including other-forgiveness scores as a covariate variable in the analyses testing the predictive effects of self-forgiveness on well-being.

Finally, the associations between participants' change scores on the different study variables were examined. Specifically, the associations between participants' change scores at three intervals were assessed: pre-treatment to post-treatment (Time 1 – Time 2), pre-treatment to follow-up (Time 1 – Time 3), and post-treatment to follow-up (Time 2 – Time 3). The results are displayed in Tables 13, 14, and 15, respectively.

Table 13

Zero-order Correlations between Change scores from Pre-treatment to Post-treatment on Forgiveness, Negative Well-Being and Twelve-Step Involvement.

Time 1- Time 2 (Pre-treatment to Post-treatment)	1.	2.	3.	4.	5.	6.	7.	8.
FORGIVENESS CHANGE SCORES								
1. Self-forgiveness								
2. Other-forgiveness	.28*							
NEGATIVE WELL-BEING CHANGE SCORES								
3. Anxiety	-.13	-.09						
4. Depression	-.20	-.37*	.51**					
5. Shame	-.04	-.68	.29*	.28*				
POSITIVE WELL-BEING CHANGE SCORES								
6. Meaning & Purpose	N/a	N/a	N/a	N/a	N/a			
7. Happiness	N/a	N/a	N/a	N/a	N/a	N/a		
TWELVE-STEP INVOLVEMENT CHANGE SCORES								
8. Total Step 8 & Step 9 Involvement	.17	.15	-.21	-.18	-.17	N/a	N/a	

* p <.05, **p<.001

Table 14

Zero-order Correlations between Change scores from Pre-treatment to Follow-up on Forgiveness, Negative Well-Being and Twelve-Step Involvement.

Time 1- Time 3 (Pre-treatment to Post-treatment)	1.	2.	3.	4.	5.	6.	7.	8.
FORGIVENESS CHANGE SCORES								
1. Self-forgiveness								
2. Other-forgiveness	.89							
NEGATIVE WELL-BEING CHANGE SCORES								
3. Anxiety	.07	.17						
4. Depression	-.05	.28	68**					
5. Shame	-.22	-.22	.13	.22				
POSITIVE WELL-BEING CHANGE SCORES								
6. Meaning & Purpose	N/a	N/a	N/a	N/a	N/a			
7. Happiness	N/a	N/a	N/a	N/a	N/a	N/a		
TWELVE-STEP INVOLVEMENT CHANGE								
8. Total Step 8 & Step 9 Involvement	.22	.13	.15	.18	-.14	N/a	N/a	

* p <.05, **p<.001

Table 15

Zero-order Correlations between Change scores from Post-treatment to Follow-up on Forgiveness, Negative Well-Being, Meaning & Purpose, and Twelve-Step Involvement.

Time 2- Time 3 (Post-treatment to Follow-up)	1.	2.	3.	4.	5.	6.	7.	8.
FORGIVENESS CHANGE SCORES								
1. Self-forgiveness								
2. Other-forgiveness	.38*							
NEGATIVE WELL-BEING CHANGE SCORES								
3. Anxiety	.03	.30*						
4. Depression	-.15	-.50**	.69**					
5. Shame	-.07	-.15	.03	.11				
POSITIVE WELL-BEING CHANGE SCORES								
6. Meaning & Purpose	.22	.13	-.07	-.13	.17			
7. Happiness	N/a	N/a	N/a	N/a	N/a	N/a		
TWELVE-STEP INVOLVEMENT CHANGE								
8. Total Step 8 & Step 9 Involvement	.22	.18	.05	-.19	.18	-.06	N/a	

* p <.05, **p<.001

The correlational results of participants' change scores on the study variables revealed several noteworthy results. First, participants' degree of improvement in learning to forgive the self from pre-treatment to post-treatment was significantly positively correlated with improvement in learning to forgive others [r (59) = .28, p <.05; see Table 13]. This significant association between improvements in self and other forgiveness was also found when examining change scores from post-treatment to follow-up [r (54) = .38, p <.05) but not from pre-treatment to follow-up.

Second, participants' improvements in self-forgiveness were non-significantly associated with the well-being variables or twelve-step involvement across the different intervals. Participants' change scores in other-forgiveness, however, were significantly negatively correlated with change scores on negative well-being variables (see Tables 13, 14, & 15). Thus, these results indicated that improvements in learning to forgive others were significantly associated with improvements in negative well-being.

Finally, the results showed that participants' improvement in one negative well-being variable was positively correlated with improvement in another negative well-being variable. For example, improvement in anxiety from pre-treatment to post-treatment was significantly positively correlated with improvement in depression [r (54) = .51, p<.001] and shame [r (54) = .29, p <.05]. However, when change was examined for the intervals pre-treatment to follow-up, and post-treatment to follow-up, only improvements in anxiety and improvements in depression continued to be significantly positively correlated [r (46) = .68, p <.001 and r (47) = .69, p <.001, respectively]. These results were consistent with expectations given the literature's reports of high rates of co-morbidity between anxiety and depression. In summary, the results of the correlational analyses examining the

associations between participants' change scores on the study variables at different intervals revealed some significant associations. Several analyses were conducted to further examine participants' changes on the study variables, as described next.

<p style="text-align:center">Did Clients Change During Treatment?</p>

A main question of interest in the current study was whether clients' improvements in learning to forgive themselves predicted improvements in well-being. Therefore, preliminary analyses were conducted to examine the study variables' means across time and whether there were significant mean differences as a function of time. The first decision concerned whether to examine the means of the study variables separately by treatment condition or alternatively, to collapse the means across the two treatment conditions. Two analyses were conducted to help determine this.

First, a one-way analysis of variance (ANOVA) procedure was conducted to see if the means of the separate study variables significantly varied at the end of treatment as a function of the treatment condition. Thus, treatment condition (2 levels) was entered as the between-subjects factor and each study variable Time 2 scores were entered as the within-subjects factor. Table 16 below displays the results.

Table 16

Results from one-way ANOVA Examining Mean Differences on the Study Variables at Post-treatment (Time 2) With Treatment Condition as the Between-Subjects Factor.

Dependent Variable	Source	Sum of squares	df	Mean Square	F	p
FORGIVENESS						
Self-Forgiveness	Between Groups	18.90	1	18.90	.452	.504 (.510)
	Within Groups	2385.12	57	41.844		
Other-Forgiveness	Between Groups	60.828	1	60.828	1.819	.183
	Within Groups	1906.562	57	33.448		
NEGATIVE WELL-BEING						
Anxiety	Between Groups	482.021	1	482.021	.962	.331
	Within Groups	28551.906	57	500.911		
Depression	Between Groups	1.446	1	1.446	.011	.918
	Within Groups	7224.107	54	133.780		
Shame	Between Groups	25.786	1	25.786	.981	.326 (.327)
	Within Groups	1419.571	54	26.288		
POSITIVE WELL-BEING						
Meaning & Purpose	Between Groups	.057	1	.057	.005	.943
	Within Groups	597.300	54	11.061		
Happiness	Between Groups	7.153	1	7.153	.118	.732
	Within Groups	2717.273	45	60.384		
TWELVE-STEP INVOLVEMENT						
Step 8 Involvement	Between Groups	.077	1	.077	.006	.940
	Within Groups	723.852	54	13.405		
Step 9 Involvement	Between Groups	5.786	1	5.786	.139	.711
	Within Groups	1667.000	40	41.675		
Total Step & Step 9 Involvement	Between Groups	26.70	1	26.70	.456	.503
	Within Groups	2341.78	40	58.54		

Note. Corrected *p*-levels using Welch's statistics are in brackets.

To assess whether the results of the one-way ANOVA are reliable, the data were examined for whether or not they met the appropriate assumptions. Specifically, the assumptions of independent samples, normality, and homogeneity of variance were examined. For these particular analyses examining only Time 2 (post-treatment) scores, the assumption of independent samples was met. Histograms of the dependent variables at Time 2 were examined and these suggested that the assumption of normality was generally met (see Appendix I). The assumption of homogeneity of variance was tested using Levene's statistic. All of the dependent variables were found to satisfy the assumption of homogeneity of variance, with the exception of self-forgiveness and shame ($p = .014$ and $p = .007$, respectively). Consequently, the degrees of freedom (and corresponding p levels) of self-forgiveness and shame were corrected using Welch's statistic. Note that the corrected p levels are placed in brackets in Table 16. In summary, the data appeared to satisfy the assumptions of the one-way ANOVA and thus, the results can be interpreted with confidence. That is, as can be seen in Table 16, treatment condition was not significant for any of the study variables. Therefore, these results suggested that it may be appropriate to collapse the data from the two treatment conditions.

To further gain confidence in the appropriateness of collapsing the data across the two treatment conditions, a series of mixed Repeated Measures ANOVA (RM-ANOVA) procedures was conducted. Specifically, these analyses examined whether the means of any of the study variables significantly varied at any point of time as a function of the treatment condition. That is, the mixed RM-ANOVA procedure permits examination of not only time effects (i.e., whether means vary across time) but also time by treatment effects, known as *interaction* effects. The term "mixed" refers to the presence of both

between-subjects and within-subject factor(s). Specifically, treatment condition (2 levels) was entered as the between-subjects factor and each study variable (3 levels) was entered as the within-subjects factor. The positive well-being variable of Meaning and Purpose, however, only had two levels (Time 2 and Time 3). The results are displayed in Table 17.

Table 17

Summary of Results of Mixed Repeated Measures ANOVA with Treatment Condition as the Between-Subjects Factor and Phase of Assessment as the Within-Subjects Factor.

Variable	Effect	MS	*df*	F	*p*
FORGIVENESS					
Self-Forgiveness (3 Levels)*	Time	196.15	1.73	11.75	.000
	Time * Tx Condition	14.31	1.73	.86	.413
	Error	16.68	98.37		
Other-Forgiveness (3 Levels)	Time	510.08	2	47.98	.000
	Time * Tx Condition	490.00	2	.46	.632
	Error	10.63	104		
NEGATIVE WELL-BEING					
Anxiety (3 Levels)	Time	2181.63	2	9.98	.000
	Time * Tx Condition	31.48	2	.14	.866
	Error	218.69	92		
Depression (3 Levels)	Time	753.04	2	15.69	.000
	Time * Tx Condition	21.18	2	.44	.645
	Error	48.00	90		
Shame (3 Levels)	Time	61.51	2	7.38	.001
	Time * Tx Condition	.68	2	.08	.921
	Error	8.34	88		
POSITIVE WELL-BEING					
Meaning & Purpose (2 Levels)	Time	1.43	1	.02	.883
	Time * Tx Condition	.023	1	.00	.953
	Error	315.82	48		
TWELVE-STEP INVOLVEMENT					
Step 8 Involvement (3 Levels)	Time	112.77	2	14.80	.000
	Time * Tx Condition	.66	2	.09	.917
	Error	7.62	98		
Step 9 Involvement (3 Levels)	Time	25.01	2	1.11	.336
	Time * Tx Condition	3.42	2	.15	.859
	Error	22.54	64		

*Greenhouse-Geisser correction of degrees of freedom and *p* levels applied.

To assess whether the results displayed in Table 17 were reliable, the assumptions underlying the mixed RM-ANOVA procedure were examined. Specifically, the mixed RM-ANOVA procedure requires that the within-subjects factor be an interval level variable (i.e., measured at equal intervals), normally distributed, and meet the assumption of sphericity, and the between-subjects factor meet the assumption of homogeneity of variance. In the current analyses, all within-subject factors were measured at equal intervals and thus, the data appropriately met this assumption. To assess the assumption of normality, histograms of each within-subjects factor were examined (see Figure J1 and J2 in Appendix J for self and other-forgiveness histograms across time). In addition, skewness and kurtosis statistics were computed to formally assess the assumption of normality. These results are displayed in Table J1 in Appendix J. In summary, several variables had skewness or kurtosis values that were outside of the acceptable range of -1 to 1 for normality. Thus, the assumption of normality was not met. However, the RM-ANOVA procedure is generally considered by researchers to be robust to violations of the assumption of normality. The assumption of sphericity was tested using Mauchly's Test of Sphericity that, if significant, indicates that the assumption of sphericity was violated. The results were non-significant for all study variables except self-forgiveness [$\chi^2 (2) =$ 9.69, $p < .05$], therefore, the Greenhouse-Geisser correction factor was applied to compensate for violation of the assumption ($\varepsilon = .863$) and the degrees of freedom were corrected (see Table 17). Finally, the assumption of homogeneity of variance in the between-subjects factor was tested using Box's Test of Equality of Co-variance Matrices. The results for all study variables were non-significant. Thus, the results of the RM-ANOVA can be considered reliable.

The results displayed in Table 17 showed a significant effect of Time on self-forgiveness, other-forgiveness, depression, anxiety, shame, and Step 8 involvement. No significant time effects were found for Meaning and Purpose (i.e., equality of Time 2 and Time 3 means) and for Step 9 involvement. Furthermore, no significant interaction effects were found for any of the study variables. That is, at no point in time did the means of the study variables vary as a function of the treatment condition. For example, the means of self-forgiveness significantly varied from Time 1 to Time 2 but were comparable at Time 1 and at Time 2 for the two treatment conditions (see Figure 5 below for an example). In summary, the results of the preliminary analyses of the one-way ANOVAs using Time 2 scores and the RM-ANOVA indicated that treatment condition did not have a significant effect and thus, provided empirical rationale for collapsing the data across the two treatment conditions.
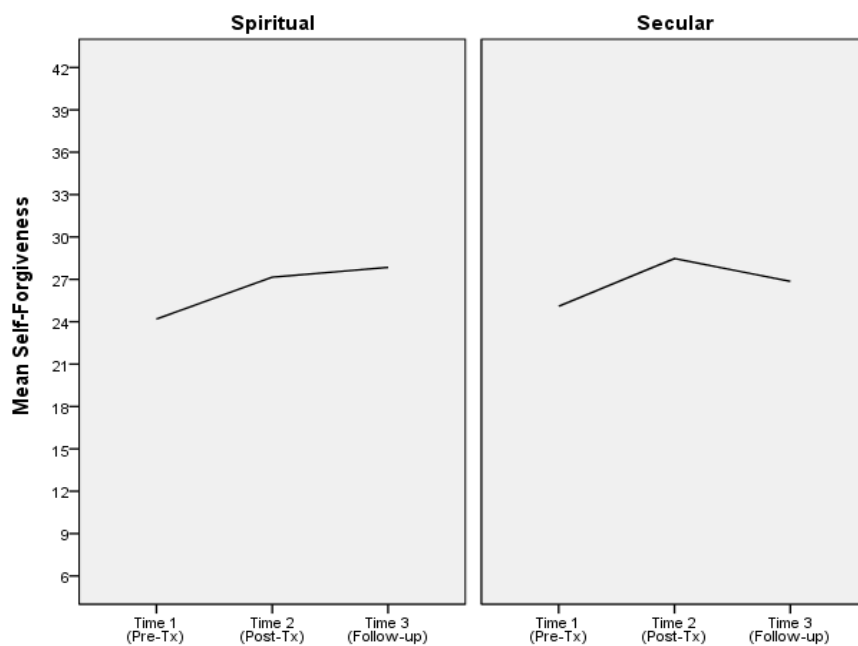
Figure 5. Mean self-forgiveness scores significantly differed across Time but not across Time * Treatment condition.

With the data collapsed across the two treatment conditions, a series of one-way RM-ANOVA were conducted to further examine the changes on the study variables across time. As noted, the strength of the repeated measures ANOVA procedure lies in the fact that data are collected from each participant at different times and thus, each participant acts as his or her own control. A significant difference found between means at two assessment points of a particular variable is consistent with the interpretation that significant change occurred. Furthermore, in a treatment outcome study, significant change tentatively suggests that the change may be, in part, due to involvement in the treatment program. Table 18 below reproduces the means of the key study variables at the different assessment phases. The mean of Therapeutic Alliance was 17.0. Table 19 displays the results of the one-way RM-ANOVAs.

Table 18

Means of All Key Study Variables at Pre-treatment, Post-treatment, and Follow-up.

		Time 1	Time 2	Time 3
		M	*M*	*M*
FORGIVENESS				
	Self-Forgiveness	24.2	27.5	27.4
	Other-Forgiveness	22.2	28.1	26.8
NEGATIVE WELL-BEING				
	Shame	26.5	23.9	24.2
	Depression	48.2	41.4	39.7
	Anxiety	66.0	56.9	52.4
POSITIVE WELL-BEING				
	Meaning & Purpose	N/a	13.1	13.5
	Happiness	N/a	1.23	N/a
TWELVE-STEP INVOLVEMENT				
	Step 8 Involvement	18.9	21.0	21.1
	Step 9 Involvement	25.1	27.1	25.5
	Total Step 8 & 9 Involvement	43.9	48.5	46.4

Table 19

Summary of Results of Repeated Measures ANOVA of Study Variables Across Time Collapsed Across the Two Treatment Conditions.

Variable (Levels)	*Wilk's Lambda*	F	*Df*	Error *df*	*p*	Partial Eta Squared
FORGIVENESS						
Self-Forgiveness (3)*	.74	11.85	1.75	54	.000	.256
Other-Forgiveness (3)	.37	48.01	2	52	.000	.630
NEGATIVE WELL-BEING						
Anxiety (3)	.67	11.14	2	46	.000	.326
Depression (3)	.52	20.53	2	45	.000	.477
Shame (3)	.79	6.03	2	44	.005	.215
POSITIVE WELL-BEING						
Meaning & Purpose (2)	1.00	.25	1	49	.865	
TWELVE-STEP INVOLVEMENT						
Step 8 Involvement (3)	.66	12.42	2	49	.000	.336
Step 9 Involvement (3)	.92	1.36	2	32	.272	
Total Step 8 & 9 Involvement (3)	.74	5.72	2	32	.263	

Note. *Greenhouse-Geisser correction of degrees of freedom and *p* levels applied; values in ( ) represent the levels of the variable.

To interpret the results of the RM ANOVA analyses, again the data were examined to assess if the assumptions have been appropriately met (see discussions on p. 156 and p. 159). The results of the sphericity assumption will be reviewed here. As previously, the sphericity assumption was tested using Mauchly's Test of Sphericity. The sphericity assumption was met for all study variables with the exception of self-forgiveness [χ^2 (2) = 8. 85, p = .01]. Consequently, a Greenhouse-Geisser correction, as before, was applied to compensate for violation of the assumption (ε = .874) and the degrees of freedom and p levels were corrected (see Table 19). In sum, the data appeared to satisfy the assumptions appropriately and thus, the results can be interpreted with confidence.

The results of the RM-ANOVAs displayed in Table 19 were significant for self-forgiveness (λ = .74, F (1.75,54) = 11.85, $p <$. 001), other-forgiveness (λ = .37, F (2, 52) = 48.01, $p <$. 001), anxiety (λ =. 67, F (2, 46) = 11.14, $p <$. 001), depression (λ =.52, F (2, 45) = 20.53, $p <$. 001), shame (λ = .79, F (2, 44) = 6.03, p =. 05), and Step 8 Involvement (λ = .66, F (2, 49) = 12.42, $p <$. 001). The results, however, were non-significant for the positive well-being variable of Meaning and Purpose (i.e., the means did not significantly differ between Post-treatment and Follow-up), Step 9 Involvement, and Total Step 8 and 9 Involvement.

Partial Eta Square values (η^2) provided an additional index of interpreting the results. Specifically, approximately 26% of the variance observed in self-forgiveness scores can be accounted for by the time of assessment (η^2 = .256). Similarly, time of assessment accounted for 63% of the variance in other-forgiveness scores, approximately 33% of the variance in anxiety scores, approximately 48% of the variance in depression

symptomatology scores, and approximately 22% of the variance in shame scores. As noted, given that the strength of the RM-ANOVA statistical procedure is its multiple comparison points for each participant, these results are consistent with the interpretation that clients showed significant change across time in the treatment program.

<div align="center">When Did Clients Change?</div>

A series of pair-wise comparisons was conducted to follow-up on the significant effects of Time on self-forgiveness, other-forgiveness, anxiety, depression, shame, and Step 8 Involvement. Specifically, three pairwise comparisons were made: pre-treatment to post-treatment, pre-treatment to follow-up, and post-treatment to follow-up. To reduce the likelihood of Type I error that increases as the number of comparisons (k) increase, a Bonferroni correction with a more stringent significance criterion was applied. Refer to Table 10 (p. 139) for the mean change scores at the different intervals. Figures 6 to 11 display the raw means by time.
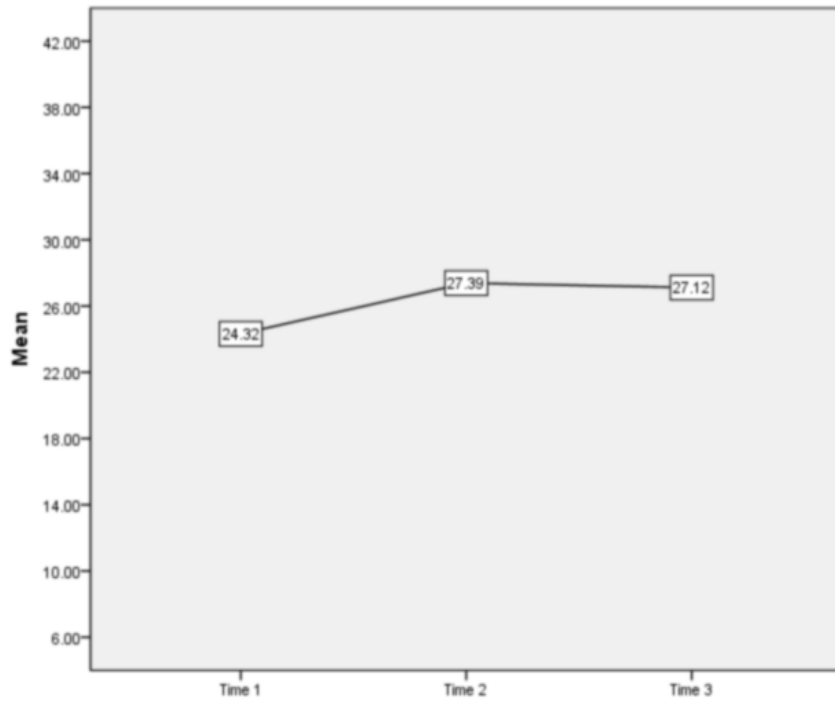
Figure 6. Mean self-forgiveness scores at pre-treatment, post-treatment, and follow-up.
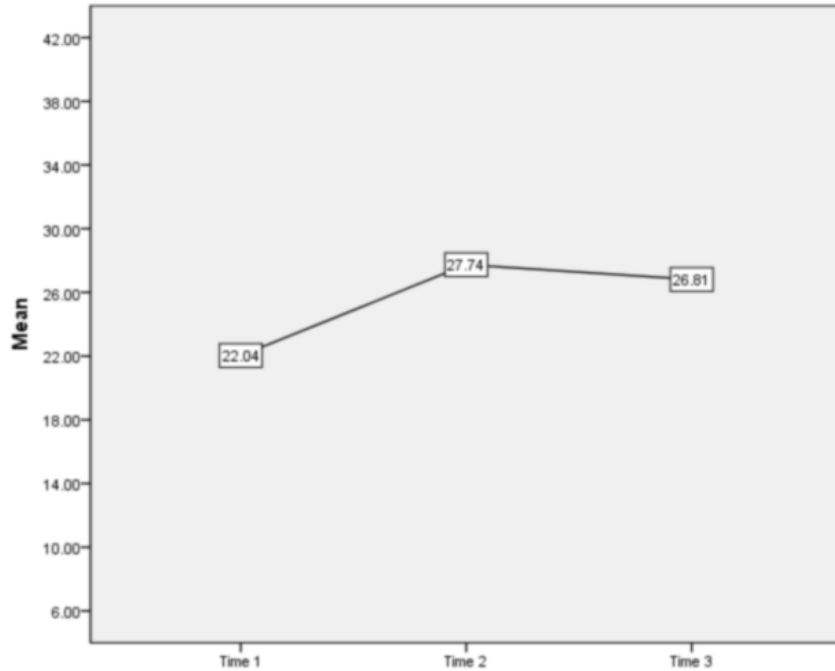
Figure 7. Mean other-forgiveness scores at pre-treatment, post-treatment, and follow-up.
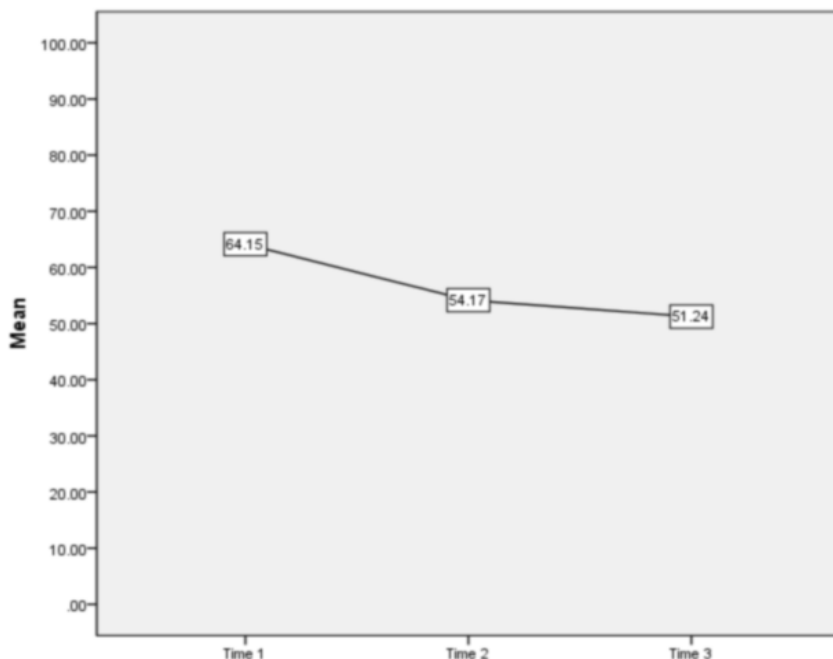
Figure 8. Mean anxiety scores at pre-treatment, post-treatment, and follow-up.
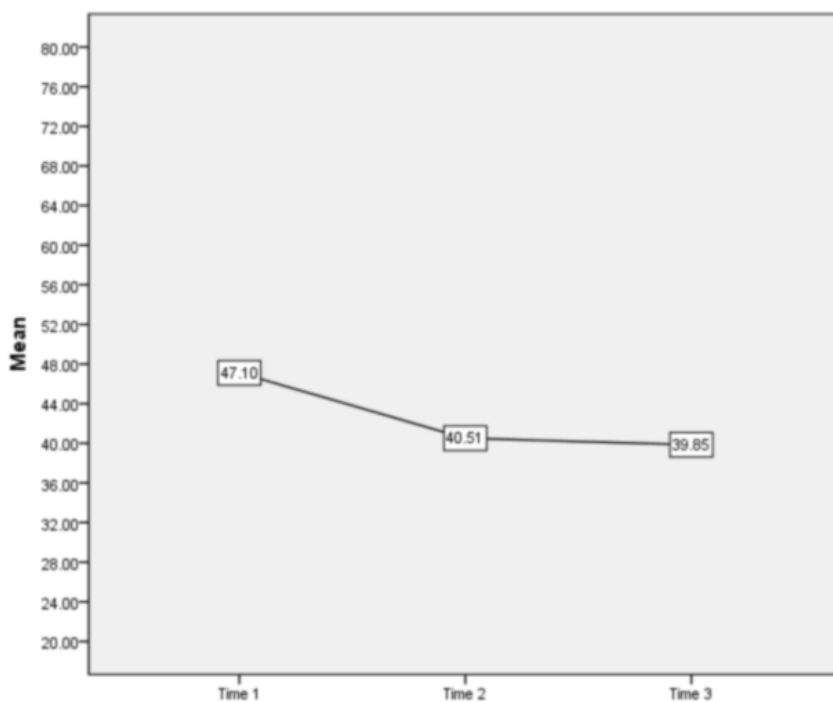
Figure 9. Mean depressive symptoms scores at pre-treatment, post-treatment, and follow-up.
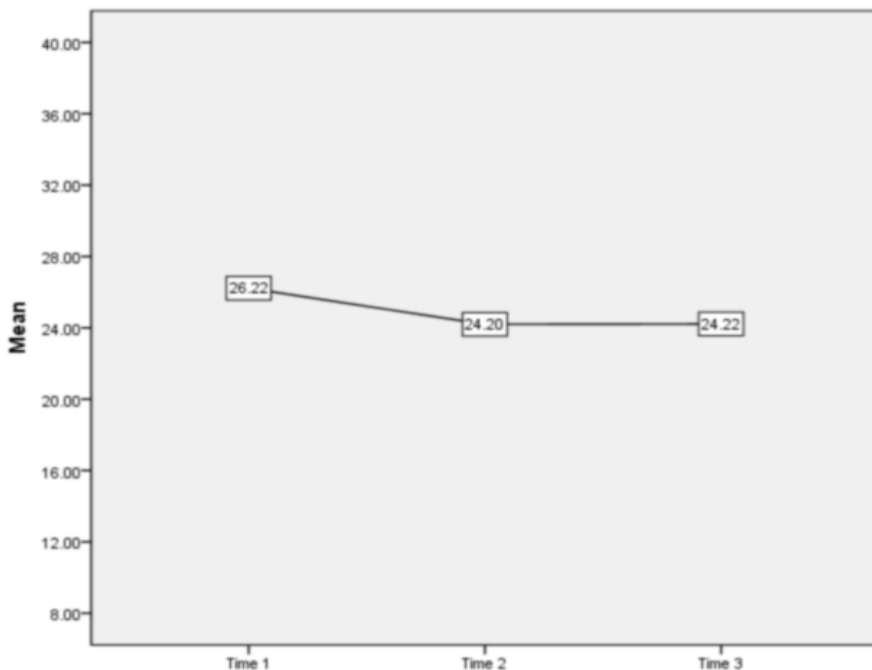
Figure 10. Mean shame scores at pre-treatment, post-treatment, and follow-up.
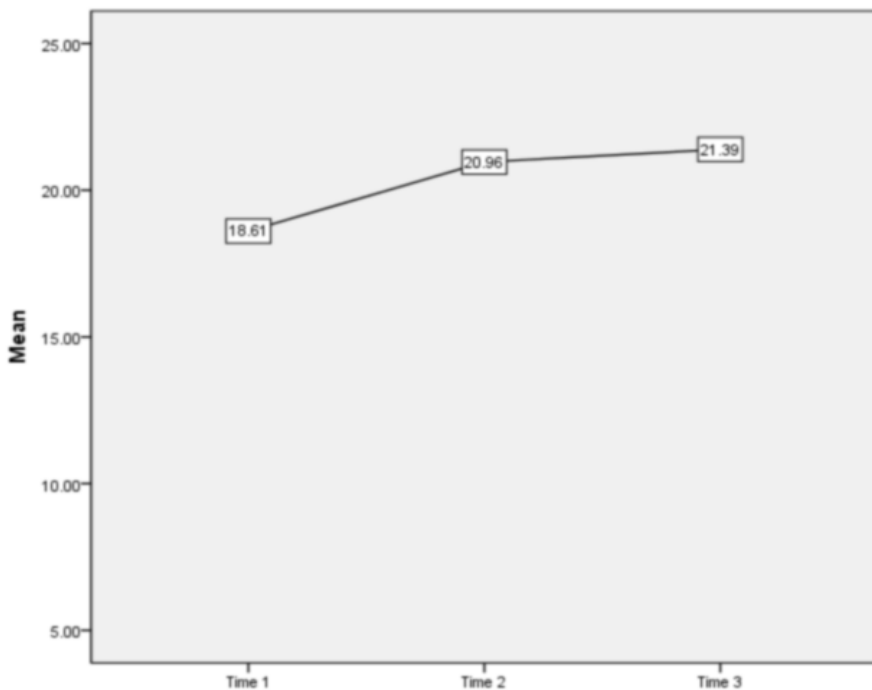
Figure 11. Mean Step 8 Involvement scores at pre-treatment, post-treatment, and follow-up.

The results of the pairwise comparisons showed significant differences in the study variables' means displayed in Figures 6 to 11 at Time 1 (Pre-treatment) to Time 2 (Post-treatment), and at Time 1 to Time 3 (Follow-up). For example, self-forgiveness scores at post-treatment and at follow-up were significantly higher than at pre-treatment [t (58) = -3.75, p <.001; t (58) = -.4.32, p <.001]. On the negative well-being variables, the same patterns of significant mean differences from Time 1 to Time 2, and from Time 1 to Time 3 were found. For example, post-treatment and follow-up scores on anxiety were significantly lower than at pre-treatment [t (57) = 3.91, p <.001; t (47) = 4.25, p <.001]. Therefore, when compared to pre-treatment levels, clients showed improvement in negative well-being at post-treatment and at follow-up. The results for Step 8 Involvement comparing Time 1 and Time 2 were also significant [t (56) = - 3.91, p <.001] and comparing Time 1 and Time 3 [t (54) = - 4.14, p <.001]. Finally, the pair-wise comparisons indicated non-significant mean differences on all study variables from Time 2 to Time 3. Therefore, the results indicated that post-treatment levels on these study variables were comparable to follow-up levels. These results are consistent with the interpretation that participants maintained the improvements from post-treatment to 4-month follow-up.

<center>Percent Change Scores & Reliable Change Index</center>

Two additional indices of change were computed to better understand the changes that clients made in self-forgiveness during treatment: *percent change scores* and a *reliable change index.* Percent change scores are an index of change based on data from two assessment points where the starting point is taken into account. Given that there were two intervals where self-forgiveness scores significantly differed, two percent change

scores were computed: from Time 1 to Time 2, and from Time 1 to Time 3.

To compute the percent change in self-forgiveness scores from Time 1 to Time 2, the formula $[(T_1 - T_2 / T_1) \times 100]$ was applied where T_1 is self-forgiveness scores at Time 1 and T_2 is self-forgiveness scores at Time 2. The mean percent change in self-forgiveness scores from pre-treatment to post-treatment was + 16.72%. The same formula was applied to compute percent change in self-forgiveness scores from Time 1 to Time 3 (replacing T_2 with T_3). The mean percent change in self-forgiveness scores from pre-treatment to follow-up was + 18.94%. Thus, the percent change scores indices indicated that clients' had substantial improvements in self-forgiveness at the end of treatment and at four months follow-up compared to their pre-treatment levels.

The reliable change index (RCI; Ferguson, Robinson, & Splaine, 2002) uses a formula to compare two means where the error associated with the measuring instrument, known as the *standard error of measurement,* is taken into account. Specifically, the standard error of measurement is the inherent variability of an instrument (i.e., test-retest reliability estimate). Therefore, the RCI provides a more reliable index of change that is based on a more stringent test of statistical significance. RCI values of 1.96 or greater, corresponding to the 95 % confidence interval, are interpreted as strongly suggestive of reliable change between two means and possibly, representing clinically meaningful change (Ferguson et al., 2002).

To compute the RCI for self-forgiveness for the intervals Time 1 to Time 2, and Time 1 to Time 3, a web-based application was used. Thompson and colleagues' (2005) test-retest reliability estimate of .72, using a one-week interval, was entered for the

standard error of measurement of the self-forgiveness scale. For the interval pre-treatment to post-treatment, the RCI was + 9.26 and for the interval pre-treatment to follow-up, the RCI was + 9.74. When using these RCI values and examining the raw score changes in self-forgiveness, the results were non-significant. That is, the raw change scores in self-forgiveness from pre-treatment to post-treatment, and from pre-treatment to follow-up were not equal to or greater than the RCI values. Thus, confidence in the reliability of the changes observed in self-forgiveness scores should be tempered.

In summary, the results of the preliminary analyses indicated that clients changed on most study variables from pre-treatment to post-treatment and from pre-treatment to four month follow-up. Thus, the results provided strong empirical rationale to test the study inquiries, broadly "Are there benefits of self-forgiveness on well-being?" and if so, "What treatment-related process variables facilitated self-forgiveness?"

III.4 RESULTS PERTAINING TO THE MAIN STUDY HYPOTHESES: REGRESSION ANALYSES

Regression analyses were used to test both sets of hypotheses, namely Hypotheses 1 through 4, which used longitudinal data, and Hypotheses 5 through 8, which used cross-sectional data. In each regression analysis, the data were examined to assess if the assumptions underlying regression analysis were appropriately met. Specifically, regression analysis requires a particular ratio of cases to independent variables to ensure sufficient power as well as having various assumptions that should be met to ensure reliability of the data, such as independence of errors, multicollinearity, linearity, homoscedasticity, and normality (Green & Salkind, 2004; Tabachnick & Fidell, 2006).

These are discussed in turn below.

The ratio of cases to independent variables concerns the number of participants needed for the results of a regression analysis to be considered reliable and valid. Green (1991) offers a general formula to determine the number of participants needed for a specific analysis based on a medium effect size. Specifically, Green's formula is $50 + 8m$, where m is the number of predictor variables. The current data were examined to assess if there were an appropriate ratio of cases to independent variables. In both sets of hypotheses, the current analyses involved either one or two predictor variables, namely self-forgiveness alone, or self and other-forgiveness. Applying Green's formula, 58 to 66 participants were required. The actual number of participants that were used in the analyses had a minimum of 45 and a maximum of 61. Thus, in some cases the actual Ns of the regression analyses were less than those required according to Green's formula. To assess how problematic the Ns were, post-hoc statistical power analyses were conducted using a web application. The results of the post-hoc power analyses indicated that the power in the analyses was 80% or greater (e.g., 91%). The power varied as a function of whether there were one or two predictors, the specific n, and R² values. Therefore, the assumption of the ratio of cases to independent variables can be said to have been generally met.

The assumptions of independence of errors and multicollinearity were examined by Durbin-Watson and tolerance statistics. Table K1 in Appendix K displays these values for all the regression models that were tested. As can be seen in Table K1, all of the regression models, with the exception of one, did not have Durbin-Watson values of less than 1 or greater than 3. These cut-off values are generally accepted as raising concerns

about independence of error (e.g., Field, 2005). The only regression model that had a

Durbin-Watson statistic that may suggest a problem was that tested in Table 24a (see

Table K1) where the Durbin-Watson statistic was 3.027. On the whole, however, the

regression models that were tested appropriately met the assumption of independence of

errors. With respect to the assumption of multicollinearity, tolerance statistics and VIF

values were examined. Field (2005) offers as a guideline that VIF values above 10 and

tolerance statistics below .2 raise serious concerns about collinearity in the data. As can be

seen in TableK1, the VIF values of all the regression models that were tested were all well

below 10 and the tolerance statistics were all above .2. Thus, the data in all the regression

models indicate that the assumption of multicollinearity was appropriately met.

To assess the assumptions of linearity and homoscedasticity, scatterplots of each

study variable were inspected (see Appendix L for the scatterplots using raw data at Time

1, Time 2, and Time 3). The scatterplots suggested that the variables were linearly

associated and there was no heteroscedasticity. Finally, the assumption of normality was

assessed by graphing frequency distributions of the study variables for both raw and

change scores datasets (see Figures 4a through 4g on p. 119-125 for the frequency

distributions of change scores and Figures I1 and I2 in Appendix I for the frequency

distributions of raw scores). In summary, both data sets did not grossly deviate from the

normal distribution. Thus, the regression models tested appeared to meet the appropriate

assumptions and thus, the results can be interpreted with confidence.

<u>Hypothesis Testing</u>

As outlined on pp.83-89, two sets of hypotheses were tested with one set using

longitudinal data, and the other set using cross-sectional data. The results of Hypotheses 1

through 4 using longitudinal data are presented first followed by the results of Hypotheses 5 through 8 using cross-sectional data.

Hypothesis 1 tested the short-term benefits of self-forgiveness on well-being and was comprised of two parts: Hypothesis 1a, which tested the predictive effects of self-forgiveness on well-being, and Hypothesis 1b, which tested the predictive effects of self and other-forgiveness on well-being. Specifically, Hypothesis 1a stated that clients' change from pre-treatment to post-treatment in learning to forgive themselves would predict change from pre-treatment to post-treatment in well-being. Given that the positive well-being variables of Meaning and Purpose, and Happiness were not assessed at pre-treatment, the predictive effects of self-forgiveness change scores on only the negative well-being variables were examined.

To test Hypothesis 1a, change scores from pre-treatment to post-treatment were computed for self-forgiveness and the negative well-being variables of depression, anxiety, and shame. To compute change in self-forgiveness, Time 1 scores were subtracted from Time 2 scores. To compute change scores for the negative well-being variables, Time 2 scores were subtracted from Time 1 scores. Thus, change scores with a positive value indicated an increase at post-treatment from pre-treatment and change scores with a negative value indicated a decrease at post-treatment from pre-treatment. Table 20 below reproduces from Table 10 (p.139) the mean change scores of the study variables for the interval pre-treatment to post-treatment (Time 1 – Time 2).

Table 20

Mean Change Scores of All Key Study Variables from Pre-treatment to Post-treatment

	N	Mean Change Score
FORGIVENESS		
Self-Forgiveness	59	+ 3.07
Other- Forgiveness	59	+ 5.49
NEGATIVE WELL-BEING		
Shame	55	- 2.22
Depression	55	- 6.05
Anxiety	58	- 9.82
TWELVE-STEP INVOLVEMENT		
Step 8 Involvement	56	+ 2.23
Step 9 Involvement	42	+ 1.52
Total Involvement	42	+ 3.54

Using the change scores data, a series of simple regressions was conducted to test Hypothesis 1a. Specifically, clients' change scores in self-forgiveness were entered as the predictor variable and change scores in each of the negative well-being variables of shame, depression, and anxiety were entered as the criterion variable. Tables 21a, 21b, and 21c display the results, respectively.

The results of the simple regressions testing the predictive effects of improvements in self-forgiveness from pre-treatment to post-treatment on improvements in negative well-being from pre-treatment to post-treatment were non-significant. Thus, Hypothesis 1a was not supported.

Table 21a
Simple Regression Testing Change Scores in Self-Forgiveness from Pre-treatment to Post-treatment Predicting Change Scores in Shame (Hypothesis 1a).

	r	r²	Adj. r²	F	df1	df2	Sig.
	.04	.00	-.02	.08	1	57	.783

Table 21b
Simple Regression Testing Change Scores in Self-Forgiveness from Pre-treatment to Post-treatment Predicting Change Scores in Depression (Hypothesis 1a)

	r	r²	Adj. r²	F	df1	df2	Sig.
	.20	.04	.02	2.27	1	57	.138

Table 21c
Simple Regression Testing Change Scores in Self-Forgiveness from Pre-treatment to Post-treatment Predicting Change Scores in Anxiety (Hypothesis 1a)

	r	r²	Adj. r²	F	df1	df2	Sig.
	.13	.02	.00	1.03	1	59	.314

Hypothesis 1b, like Hypothesis 1a, also tested the short-term benefits of self-forgiveness on well-being. Hypothesis 1b, however, examined the predictive effects of change scores in self and other-forgiveness on change scores in the negative well-being variables. Specifically, Hypothesis 1b stated that the degree of clients' change in learning to forgive themselves from pre-treatment to post-treatment would predict the degree of change in well-being from pre-treatment (i.e., Time 1) to post-treatment (i.e., Time 2), independent of clients' change in learning to forgive others (i.e., interpersonal forgiveness). Thus, Hypothesis 1b sought to examine the unique predictive effects of improvement in self-forgiveness on improvements in well-being that were independent of any effects of improvement in other-forgiveness.

To test Hypothesis 1b, a series of hierarchical multiple regression analyses (MRA) was conducted. Hierarchical MRA procedures permit examining the incremental predictive effects of more than one predictor. Specifically, other-forgiveness change scores from pre-treatment to post-treatment were entered in Step 1 and self-forgiveness change scores from pre-treatment to post-treatment were entered as the predictor in Step 2. The change scores from pre-treatment to post-treatment of each of the negative well-being variables of shame, depression, and anxiety were entered separately as the criterion variables. Tables 22a, 22b, and 22c below display the results, respectively.

Table 22a

Multiple Regression Results Predicting Change Scores in Shame from Pre-treatment to Post-treatment (Hypothesis 1b)

Predictors		R	R²	Adj. R²	ΔR²	*P*	B	SE B	β	Sig.
Other-Forgiveness	Step 1	.07	.00	-.01	.005	.621	-.067	.136	-.068	.621
Other-Forgiveness	Step 2	.07	.00	-.03	.000	.880	-.062	.144	-.063	.667
Self-Forgiveness							-.012	.102	-.017	..905

Note. Predictors using change scores from pre-treatment to post-treatment (i.e., T1 - T2 other-forgiveness, and T1 – T2 self-forgiveness)

Table 22b

Multiple Regression Results Predicting Change Scores in Depression from Pre-treatment to Post-treatment (Hypothesis 1b)

Predictors		R	R²	Adj. R²	ΔR²	*P*	B	SE B	β	Sig.
Other-Forgiveness	Step 1	.38	.14	.12	.135	.006	-.707	.246	-.367	.006
Other-Forgiveness	Step 2	.37	.13	.10	.101	.018	-.653	.260	-.339	.015
Self-Forgiveness							-.125	.184	-.092	.500

Note. Predictors using change scores from pre-treatment to post-treatment

Table 22c

Multiple Regression Results Predicting Change Scores in Anxiety from Pre-treatment to Post-treatment (Hypothesis 1b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	β	Sig.
Other-Forgiveness	Step 1	.09	.01	-.01	.009	.496	-.389	.567	-.093	.496
Other-Forgiveness	Step 2	.14	.02	-.02	.012	.423	-.237	.599	-.057	.694
Self-Forgiveness							-.346	.429	-.116	.423

Note. Predictors using change scores from pre-treatment to post-treatment

With respect to shame, as can be seen in Table 22a, neither change scores in other-forgiveness nor change scores in self-forgiveness from pre-treatment to post-treatment significantly predicted change scores in shame from pre-treatment to post-treatment. With respect to depression, as can be seen in the results displayed in Table 22b, change scores from pre-treatment to post-treatment in both other-forgiveness and in self-forgiveness significantly predicted change scores in depression from pre-treatment to post-treatment. However, when the unique contribution of self-forgiveness was examined (β = -.092), the results were non-significant. That is, although the overall regression model examining the predictive effects of change in other and self-forgiveness was significant (Adj. R^2= .10, p = .018), change in self-forgiveness resulted in decreased predictive powers than change in other-forgiveness alone (ΔR^2 =.101 from ΔR^2 = .135). Thus, the results indicated that only change in other-forgiveness significantly predicted change in depression. Furthermore, self-forgiveness did not make a significant contribution to the regression model (β= -.092, p= .500). Finally, the results pertaining to anxiety showed that neither change in other-forgiveness nor change in self-forgiveness significantly predicted change in anxiety from Time 1 to Time 2. In summary, the results did not provide support for Hypothesis 1b.

Hypothesis 2 was concerned with the longer-term benefits of self-forgiveness on well-being and had two parts: Hypothesis 2a, which tested the longer-term predictive effects of self-forgiveness on well-being, and Hypothesis 2b, which tested the longer-term predictive effects of self and other-forgiveness on well-being. Specifically, Hypothesis 2a stated that clients' change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) and from pre-treatment to follow-up (Time 3) will predict change scores in well-being from pre-treatment (Time 1) to follow-up (Time 3).

To test Hypothesis 2a, the same procedures as those that were used to test Hypothesis 1a were applied. Again, because the positive well-being variables of Meaning and Purpose, and Happiness were not assessed at Time 1, only the negative well-being variables were regressed on self-forgiveness. Tables 23a, 23b, and 23c display the results for predicting shame, depression, and anxiety, respectively. Note that in each table, the results of the predictive effects of improvement in self-forgiveness for two intervals was assessed: pre-treatment to post-treatment (i.e., T1- T2) and pre-treatment to follow-up (i.e., T1- T3).

Table 23a
Simple Regressions Testing Change Scores in Self-Forgiveness Predicting Change Scores in Shame from Pre-treatment to Follow-up (Hypothesis 2a).

Predictor	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
T1- T2 Self-forgiveness	.11	.01	-.01	.569	1	44	.455
T1- T3 Self-forgiveness	.22	.05	.03	2.202	1	44	.145

Table 23b
Simple Regressions Testing Change Scores in Self-Forgiveness Predicting Change Scores in Depression from Pre-treatment to Follow-up (Hypothesis 2a).

Predictor	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
T1- T2 Self-forgiveness	.06	.00	-.02	.149	1	45	.701
T1- T3 Self-forgiveness	.05	.00	-.02	.119	1	45	.732

Table 23c
Simple Regressions Testing Change Scores in Self-Forgiveness Predicting Change Scores in Depression from Pre-treatment to Follow-up (Hypothesis 2a).

Predictor	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
T1- T2 Self-forgiveness	.02	.00	-.02	.017	1	46	.898
T1-T3 Self-forgiveness	.07	.01	-.02	.235	1	46	.630

As can been seen in Tables 23a, 23b, and 23c, the results testing the predictive effects of improvements in self-forgiveness on longer-term improvements in negative well-being were non-significant. Neither improvement in self-forgiveness from pre-treatment to post-treatment or from pre-treatment to follow-up significantly predicted improvement from pre-treatment to follow-up on shame, depression, and anxiety. Thus, the results did not support Hypothesis 2a.

Hypothesis 2b, like Hypothesis 2a, also tested the longer-term predictive effects of self-forgiveness on well-being, stating that self-forgiveness scores at the end of treatment (Time 2) will predict well-being scores at four months follow-up (Time 3). Therefore, Hypothesis 2b predicted that regardless of the improvements in self-forgiveness from pre-treatment to post-treatment, self-forgiveness scores at the end of treatment (Time 2) would predict well-being scores in the longer-term, at four months follow-up. Because Happiness was not assessed at Time 3, Table 24 displays the results of self-forgiveness predicting only the Meaning and Purpose positive well-being variable. Tables 25a through 25c display the results for the negative well-being variables of shame, depression, and anxiety, respectively.

Table 24
Simple Regression Testing Self-Forgiveness (Time 2) Predicting Meaning & Purpose at Follow-up (Hypothesis 2b)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.33	.11	.09	5.96	1	47	.018

Table 25a
Simple Regression Testing Self-Forgiveness (Time 2) Predicting Shame at Follow-up (Hypothesis 2b)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.36	.13	.13	7.77	1	45	.012

Table 25b
Simple Regression Testing Self-Forgiveness (Time 2) Predicting Depression at Follow-up (Hypothesis 2b)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.13	.02	-.005	.749	1	46	.391

Table 25c
Simple Regression Testing Self-Forgiveness (Time 2) Predicting Anxiety at Follow-up (Hypothesis 2b)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.23	.05	.032	2.61	1	48	.113

The results testing the longer-term predictive effects of self-forgiveness on the positive well-being variable of Meaning and Purpose were significant (see Table 24). Self-forgiveness scores at Time 2 significantly predicted approximately 9% of Meaning and Purpose scores at follow-up (Adj. R^2 = .09, $p <$. 05). With respect to negative well-being, self-forgiveness scores at the end of treatment significantly predicted shame at follow-up but not depression or anxiety. Specifically, self-forgiveness scores at the end of treatment accounted for approximately 13% of the variance in shame scores at follow-up (Adj. R^2 = .13, $p <$ .05). Thus, the results testing the predictive effects of self-forgiveness at the end of treatment on longer-term well-being provided partial support for Hypothesis 2b. Self-forgiveness scores at the end of treatment significantly predicted participants' Meaning and Purpose, and shame at four months follow-up.

Finally, although Hypothesis 2b did not make explicit predictions about the incremental predictive effects of self-forgiveness on longer-term well-being beyond the effects of other-forgiveness, these follow-up analyses were conducted. Specifically, two hierarchical MRA procedures were conducted to examine predictive effects of other and self-forgiveness on Meaning and Purpose, and shame. The results are displayed in Tables 26 and 27, respectively.

Table 26

Results from Multiple Regression Analysis for Predicting Meaning & Purpose at Follow-up

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.24	.06	.04	.057	.089	.105	.061	.238	.089
Other Forgiveness,	Step 2	.29	.08	.04	.030	.125	.038	.084	.087	.650
Self-Forgiveness							.090	.078	.218	.256

Note. Predictors using Time 2 scores

Table 27

Results from Multiple Regression Analysis for Predicting Shame at Follow-up

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.31	.10	.08	.097	.034	-.227	.103	-.311	.034
Other-Forgiveness,	Step 2	.37	.14	.10	.040	.039	-.078	.146	-.107	.595
Self-Forgiveness							-.197	.138	-.286	.160

Note. Predictors using Time 2 scores

With respect to the regression results pertaining to the positive well-being variable of Meaning and Purpose (see Table 26), the results were non-significant. That is, other and self-forgiveness scores at the end of treatment did not significantly predict Meaning and Purpose scores at follow-up. With respect to the negative well-being variable of shame, both other and self-forgiveness significantly predicted shame scores at follow-up. Specifically, other-forgiveness explained approximately 8% of the variance in shame scores at follow-up but other-forgiveness and self-forgiveness explained approximately 10% of the variance in shame scores at follow-up. That is, when self-forgiveness was added to the regression equation, it resulted in incremental predictive powers of $\Delta R^2 = .04$. Thus, the results testing the longer-term predictive effects of self-forgiveness on well-being partially supported Hypothesis 2b but the follow-up analyses conducted indicated that self-forgiveness significantly predicted only shame at follow-up, independent of the predictive effects of other-forgiveness.

The results pertaining to Hypotheses 3 and 4 testing the two treatment-related process variables of therapeutic alliance and twelve-step involvement that were hypothesized to facilitate self-forgiveness are presented next. Hypothesis 3 made predictions about the role of Twelve-Step Involvement in facilitating self-forgiveness and had two parts: Hypothesis 3a, which assessed the short-term self-forgiveness facilitating effects of twelve-step involvement, and Hypothesis 3b, which assessed the longer-term self-forgiveness facilitating effects of twelve-step involvement. Specifically, Hypothesis 3a stated that change scores in twelve-step involvement from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2). To test Hypothesis 3a, a simple regression was

conducted with change scores from pre-treatment to post-treatment in Total Twelve-step Involvement entered as the predictor and change scores from pre-treatment to post-treatment in self-forgiveness entered as the criterion variable. To compute the Total Twelve-step Involvement change score from pre-treatment to post-treatment, Time 1 Total Twelve-step Involvement at Time 1 were subtracted from Time 2 Total Twelve-step Involvement. Recall that Total Twelve-step Involvement is a summed variable consisting of Step 8 Involvement and Step 9 Involvement. As before, change scores with a positive value indicated an increase in twelve-step involvement from pre-treatment to post-treatment, and change scores with a negative value indicated a decrease in twelve-step involvement from pre-treatment to post-treatment. For ease of reference, Table 28 below reproduces from Table 10 (p. 139) the *m*ean change scores of Twelve-step Involvement during the three intervals: pre-treatment to post-treatment, pre-treatment to follow-up, and post-treatment to follow-up. Table 29 displays the results testing Hypothesis 3a.

Table 28

Mean Change Scores of Total Twelve-step Involvement at the Different Intervals

Total Twelve-step Involvement Change Score	N	Mean Change Score
T1- T2	42	+ 3.55
T1-T3	48	+ 2.98
T2-T3	34	- 0.10

Table 29

Simple Regressions Testing Change Scores in Total Twelve-step Involvement from Pre-treatment to Post-treatment Predicting Change Scores in Self-Forgiveness (Hypothesis 3a).

r	r²	Adj. r²	F	*df1*	*df2*	Sig.
.17	.03	.005	1.21	1	40	.278

As can be seen in Table 29, increases in Total Twelve-step Involvement from pre-treatment to post-treatment did not significantly predict improvements in self-forgiveness from pre-treatment to post-treatment [$F(1, 40) = 1.21$, $p = .278$]. Thus, the results did not support Hypothesis 3a.

Hypothesis 3b also assessed the role of total twelve-step involvement in facilitating self-forgiveness but, unlike Hypothesis 3a, tested the longer-term effects of twelve-step involvement in facilitating self-forgiveness. Specifically, Hypothesis 3b stated that change scores in twelve-step involvement from pre-treatment (Time 1) to post-treatment (Time 2) and from pre-treatment to follow-up (Time 3) would predict change scores in self-forgiveness from pre-treatment (Time 1) to follow-up (Time 3).

To test Hypothesis 3b, the same procedures as those that were used to test Hypothesis 3a were applied. Table 30 displays the results of the predictive effects of change in twelve-step involvement at two intervals: pre-treatment to post-treatment (i.e., T1- T2) and pre-treatment to follow-up (i.e., T1- T3) on improvements in self-forgiveness from pre-treatment to follow-up. As can be seen in Table 31, increases in twelve-step involvement from pre-treatment to post-treatment, and from pre-treatment to follow-up, did not significantly predict improvement in self-forgiveness from pre-treatment to follow-up. Thus, the results did not support Hypothesis 3b.

Table 30

Simple Regression Testing Change Scores in Total Twelve-step Involvement Predicting Change Scores in Self-forgiveness from Pre-treatment to Follow-up (Hypothesis 3b)

Predictor	r	r²	Adj. r²	F	df1	df2	Sig.
T1- T2 Total Twelve-step Involvement	.19	.04	.012	1.007	1	40	.227
T1- T3 Total Twelve-step Involvement	.22	.05	.028	2.32	1	46	.132

Hypothesis 4 predicted that clients' degree of therapeutic alliance with their counselors will predict self-forgiveness scores at follow-up (Time 3). Recall that the variable Therapeutic Alliance is a sum score that is derived from data obtained during the course of treatment (i.e., Time 4). To Test Hypothesis 4, first correlational analyses were conducted to examine the associations between Therapeutic Alliance, and self-forgiveness scores at Times 1, 2, and 3. The results of the correlational analyses are displayed below in Table 31. As can be seen in Table 31, no significant associations were found between therapeutic alliance and self-forgiveness scores at any phase of assessment. Given these non-significant correlational results, there was no empirical rationale to test Hypothesis 4 using regression analyses.

Table 31

Zero-Order Correlations between Therapeutic Alliance and Self-Forgiveness

	1.	2.	3.	4.
1. Self-forgiveness T1 (Pre-treatment)				
2. Self-forgiveness T2 (Post-treatment)	.52*			
3. Self-forgiveness T3 (Follow-up)	.64*	.69*		
4. Therapeutic Alliance	-.02	.01	.11	

* p<.001

Hypotheses 5 through 8 tested the same inquiries of Hypotheses 1 through 4 using cross-sectional data. That is, data from a specific assessment phase were used to predict data from the same assessment phase. Specifically, the benefits of self-forgiveness on well-being were assessed in terms of short-associations (Hypothesis 5) and in terms of longer-term associations (Hypothesis 6). Similarly, the associations between self-forgiveness and Twelve-Step Involvement (Hypothesis 7) and Therapeutic Alliance (Hypothesis 8) were tested.

Hypothesis 5 tested the short-term associations between self-forgiveness and well-being and had two parts: Hypothesis 5a, which tested the predictive effects of self-forgiveness on well-being, and Hypothesis 5b, which tested the predictive effects of both other and self-forgiveness on well-being. Specifically, Hypothesis 5a stated that self-forgiveness scores at Time 1 and at Time 2 will predict well-being scores at Time 1 and at Time 2, respectively.

To test Hypothesis 5a, a series of simple regression analyses was conducted to evaluate how well self-forgiveness scores at the baseline (Time 1) and at the end of treatment (Time 2) predicted well-being scores at Time 1 and at Time 2, respectively. Note that at Time 1, only the negative well-being variables (shame, depression, and anxiety) were assessed (see Tables 32a to 32d). At Time 2, however, the positive well-being variables of Meaning and Purpose, and Happiness were assessed (see Tables 33a to 33c) as well as the negative well-being variables (see Tables 34a to 34d).

Table 32a
Simple Regression Analysis Testing Self-Forgiveness at Pre-treatment (Time 1) Predicting Shame (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.49	.24	.23	18.34	1	57	.000

Table 32b
Simple Regression Analysis Testing Self-Forgiveness at Pre-treatment (Time 1) Predicting Depression (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.59	.34	.33	29.93	1	57	.000

Table 32c
Simple Regression Analysis Testing Self-Forgiveness at Pre-treatment (Time 1) Predicting Anxiety (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.55	.30	.29	24.82	1	57	.000

Table 32d
Simple Regression Analysis Testing Self-Forgiveness at Pre-treatment (Time 1) Predicting Overall Negative Well-Being (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.66	.43	.42	42.15	1	56	.000

Table 33a
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2)
Predicting Meaning and Purpose (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.43	.18	.17	12.20	1	54	.001

Table 33b
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting
Happiness (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.44	.19	.17	10.36	1	45	.002

Table 33c
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting
Overall Positive Well-Being (Hypothesis 5a)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.50	.25	.23	14.47	1	44	.000

Table 34a
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting Shame (Hypothesis 5a)

r	r²	Adj. r²	F	*df1*	*df2*	Sig.
.50	.25	.24	18.40	1	54	.000

Table 34b
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting Depression (Hypothesis 5a)

r	r²	Adj. r²	F	*df1*	*df2*	Sig.
.41	.17	.16	11.20	1	54	.001

Table 34c
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting Anxiety (Hypothesis 5a)

r	r²	Adj. r²	F	*df1*	*df2*	Sig.
.33	.11	.09	6.55	1	55	.013

Table 34d
Simple Regression Analysis Testing Self-Forgiveness at Post-treatment (Time 2) Predicting Overall Negative Well-Being (Hypothesis 5a)

r	r²	Adj. r²	F	*df1*	*df2*	Sig.
.49	.24	.23	17.21	1	54	.000

As can be seen in Tables 32a to 32d at Time 1, self-forgiveness significantly predicted all the negative well-being variables: shame (Adj. r^2 = .23, $p <$. 001), depression (Adj. r^2 = .33, $p <$. 001), and anxiety (Adj. r^2 = .29, $p <$. 001). Furthermore, an Overall Negative Well-Being variable was created by summing z-scores of anxiety, depression, and anxiety. Self-forgiveness scores at Time 1 significantly predicted Overall Negative Well-Being at Time 1 (Adj. r^2 = .42, $p <$. 001; see Table 33d). Thus, the results provided support for Hypothesis 5a that self-forgiveness scores at Time 1 would predict well-being at Time 1.

As can be seen in Tables 33 and 34, the results of the regression analyses evaluating how well self-forgiveness scores at the end of treatment (i.e., Time 2) predicted well-being were also significant. With regards to positive well-being, self-forgiveness significantly predicted Meaning and Purpose (Adj. r^2 = .15, $p <$. 05), Happiness (Adj. r^2 = .17, $p <$. 05), and Overall Positive Well-Being (Adj. r^2 = .25, $p <$. 001; see Table 34c). With regards to negative well-being, self-forgiveness significantly predicted shame (Adj. r^2 = .24, $p <$. 001), depression (Adj. r^2 = .16, $p =$. 001), anxiety (Adj. r^2 = .09, $p <$.01), and Overall Negative Well-Being (Adj. r^2 = .23, $p <$. 001; see Table 34d). Thus, the results provided support for Hypothesis 5a that self-forgiveness scores at Time 2 would predict well-being at Time 2. Figure 12 below summarizes the results of testing Hypothesis 5a.

Time 1: Pre-treatment
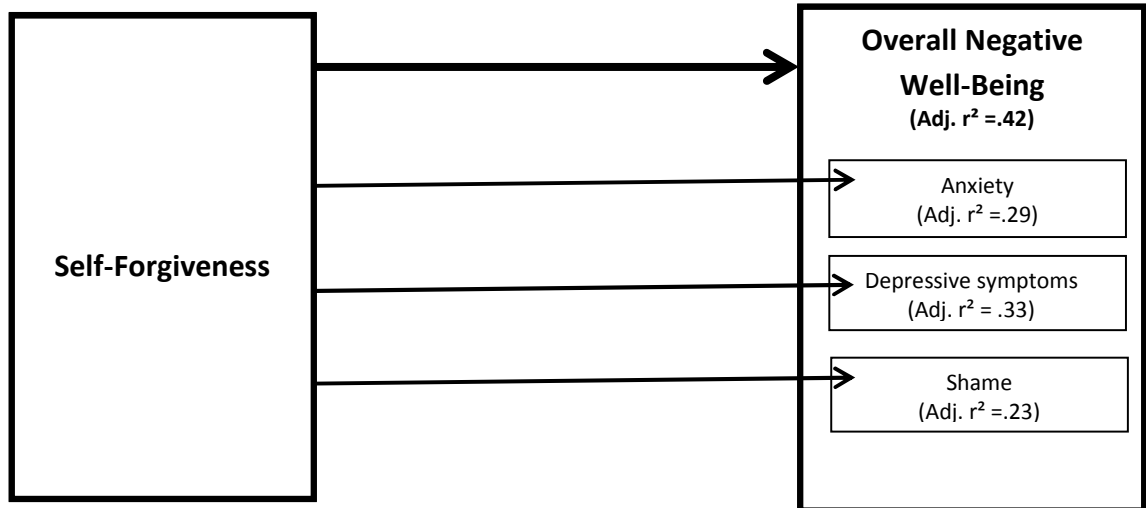
Time 2: Post-treatment
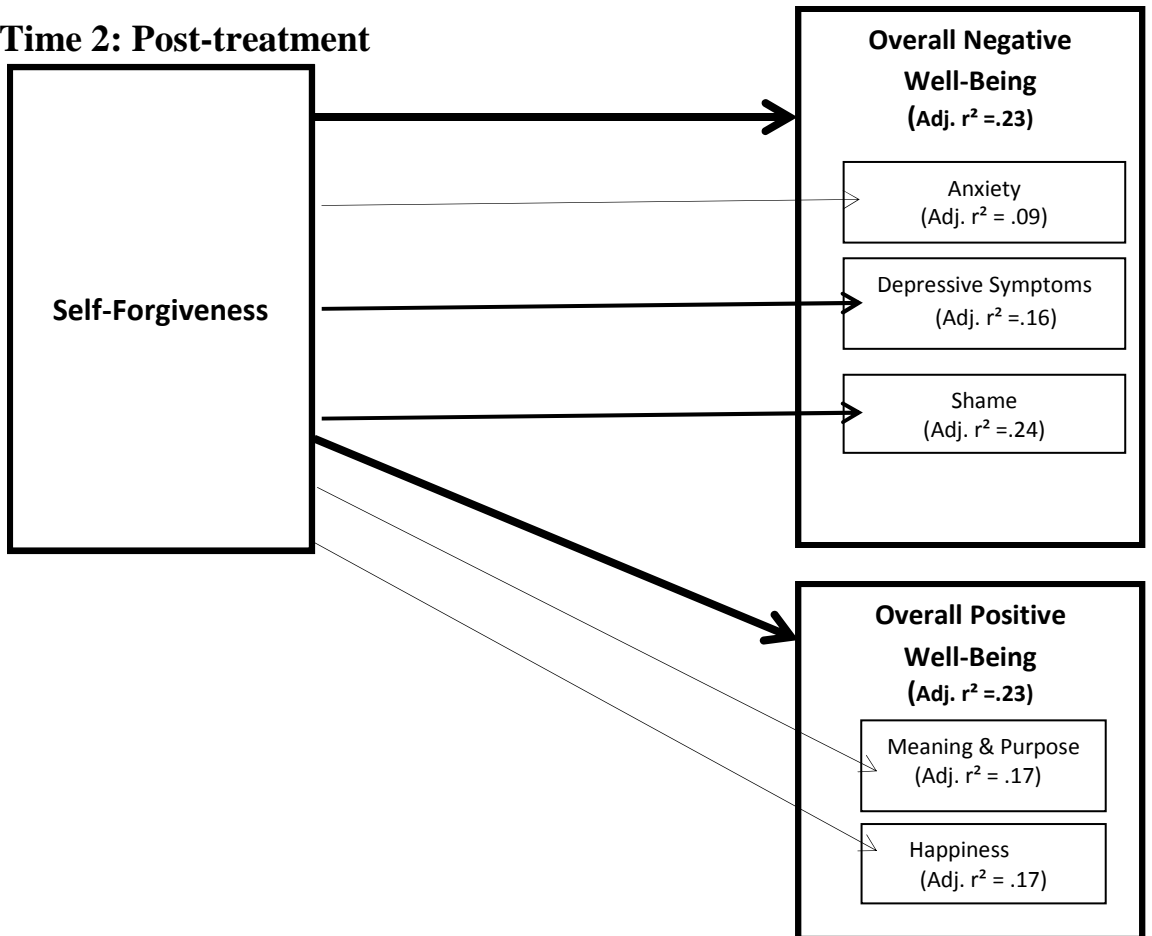
Figure 12. Summary of the significant predictive effects of self-forgiveness on the negative and positive well-being variables at Time 1 and Time 2 (Hypothesis 5a).

To test Hypothesis 5b, which stated that self-forgiveness scores at Time 1 and at Time 2 will predict well-being scores at Time 1 and at Time 2, respectively, independent of the predictive effects of other-forgiveness scores at Time 1 and at Time 2, a series of hierarchical MRA was conducted. Other-forgiveness scores at each assessment phase were entered in Step 1 of the regression model using the ENTER method and self-forgiveness scores at the corresponding assessment phase were entered in Step 2. As noted previously, only the negative well-being variables (shame, depression, and anxiety) were assessed at Time 1 but at Time 2, both the positive and negative well-being variables were assessed. Tables 35a to 35d below display the results for predicting negative well-being at Time 1 and Tables 36a to 36c and Tables 37a to 37d display the results for predicting positive well-being and negative well-being at Time 2, respectively.

Table 35a
Results from Multiple Regression Analysis for Predicting Shame at Pre-treatment (Time 1; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.25	.06	.05	.06	.057	-.222	.114	-.249	.057
Other-Forgiveness	Step 2	.50	.25	.22	.18	.000	-.050	.114	-.056	.662
Self-Forgiveness							-.415	.112	-.470	.000

Note. Predictors using Time 1 scores

Table 35b
Results from Multiple Regression Analysis for Predicting Depression at Pre-treatment (Time 1; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.26	.07	.05	.07	.049	-.445	.222	-.257	.049
Other-Forgiveness	Step 2	.59	.35	.32	.28	.000	-.033	.205	-.019	.837
Self-Forgiveness							-.993	.203	-.579	.000

Note. Predictors using Time 1 scores

Table 35c
Results from Multiple Regression Analysis for Predicting Anxiety at Pre-treatment (Time 1; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.24	.06	.04	.06	.071	-.696	.379	-.236	.071
Other-Forgiveness	Step 2	.55	.30	.28	.25	.000	.004	.364	.001	.990
Self-Forgiveness							-1.59	.356	-.551	.000

Note. Predictors using Time 1 scores

Table 35d

Results from Multiple Regression Analysis for Predicting Overall Negative Well-Being at Pre-treatment (Time 1; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.30	.09	.08	.09	.020	-.123	.052	-.304	.020
Other-Forgiveness	Step 2	.66	.43	.41	.34	.000	-.015	.045	-.037	.746
Self-Forgiveness							-.257	.045	-.640	.000

Note. Predictors using Time 1 scores

Table 36a

Results from Multiple Regression Analysis for Predicting Happiness at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.38	.14	.13	.14	.004	.213	.071	.378	.004
Other-Forgiveness	Step 2	.44	.20	.17	.05	.003	.083	.099	.147	.405
Self-Forgiveness							.162	.088	.342	.070

Note. Predictors using Time 2 scores

Table 36b

Results from Multiple Regression Analysis for Predicting Meaning & Purpose at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.24	.06	.04	.06	.101	.338	.202	.242	.101
Other-Forgiveness	Step 2	.44	.19	.16	.14	.009	-.162	.264	-.116	.542
Self-Forgiveness							.651	.239	.513	.009

Note. Predictors using Time 2 scores

Table 36c

Results from Multiple Regression Analysis for Predicting Overall Positive Well-Being at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.34	.13	.09	.11	.022	.564	.238	.336	.022
Other-Forgiveness	Step 2	.50	.25	.21	.14	.008	-.094	.324	-.056	.772
Self-Forgiveness							.792	.284	.538	.008

Note. Predictors using Time 2 scores

Table 37a

Results from Multiple Regression Analysis for Predicting Shame at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.43	.19	.17	.19	.001	-.372	.105	-.433	.001
Other-Forgiveness	Step 2	.52	.27	.24	.08	.000	-.139	.140	-.162	.324
Self-Forgiveness							-.305	.127	-.392	.020

Note. Predictors using Time 2 scores

Table 37b

Results from Multiple Regression Analysis for Predicting Depression at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.23	.05	.03	.05	.094	-.434	.254	-.226	.094
Other-Forgiveness	Step 2	.42	.18	.15	.13	.005	.223	.331	.116	.502
Self-Forgiveness							-.863	.300	-.495	.006

Note. Predictors using Time 2 scores

Table 37c

Results from Multiple Regression Analysis for Predicting Anxiety at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	*p*	B	SE B	*β*	Sig.
Other-Forgiveness	Step 1	.20	.04	.02	.04	.145	-.751	.509	.195	.145
Other-Forgiveness	Step 2	.33	.11	.08	.07	.046	.219	.683	.057	.750
Self-Forgiveness							-1.273	.619	-.365	.044

Note. Predictors using Time 2 scores

Table 37d

Results from Multiple Regression Analysis for Predicting Overall Negative Well-Being at Post-treatment (Time 2; Hypothesis 5b)

Predictors		R	R²	Adj. R²	ΔR²	p	B	SE B	β	Sig.
Other-Forgiveness	Step 1	.34	.11	.10	.11	.011	-.144	.055	-.337	.011
Other-Forgiveness	Step 2	.49	.24	.21	.13	.001	.003	.071	.006	.970
Self-Forgiveness							.192	.064	-.496	.004

Note. Predictors using Time 2 scores

At Time 1, as can be seen from the results displayed in Tables 35a to 35d, when self-forgiveness was added to the regression model, it significantly and uniquely predicted all of the negative well-being variables (see Figure 13 for the summary of the Beta weights). Specifically, when self-forgiveness was added in the regression model, it predicted an additional 18 % of variability in shame scores at Time 1 than other-forgiveness predicted alone ($\Delta R^2 = .06$, $p = .057$), an additional 28% of variability in depression scores ($\Delta R^2 = .28$, $p < .001$), and an additional 25% of variability in anxiety scores ($\Delta R^2 = .25$, $p < .001$). When the summed variable Overall Negative Well-Being was regressed on self and other-forgiveness, self-forgiveness significantly and uniquely predicted approximately 34% of the variability in overall negative well-being scores at Time 1. In addition, when the Beta weights were examined (see Tables 35a to 35d), only self-forgiveness was found to make a significantly unique contribution to the regression equation. Thus, the results provided support for Hypothesis 5b that self-forgiveness scores at Time 1 significantly and uniquely predicted well-being at Time 1.

The results of the MRA testing how well self-forgiveness at Time 2 predicted the well-being variables, independent of the predictive effects of other-forgiveness were significant, with the exception of predicting happiness (see Tables 36a to 36c for the positive well-being variables, and Tables 37a to 37d for the negative well-being variables). Thus, the results provided partial support for Hypothesis 5b that self-forgiveness scores at Time 2 would significantly and uniquely predict well-being at Time 2. Figures 13 and 14 below summarize the unique predictive effects of self-forgiveness on the negative well-being variables at Time 1, and the negative and positive well-being variables at Time 2, respectively.

Time 1: Pre-treatment
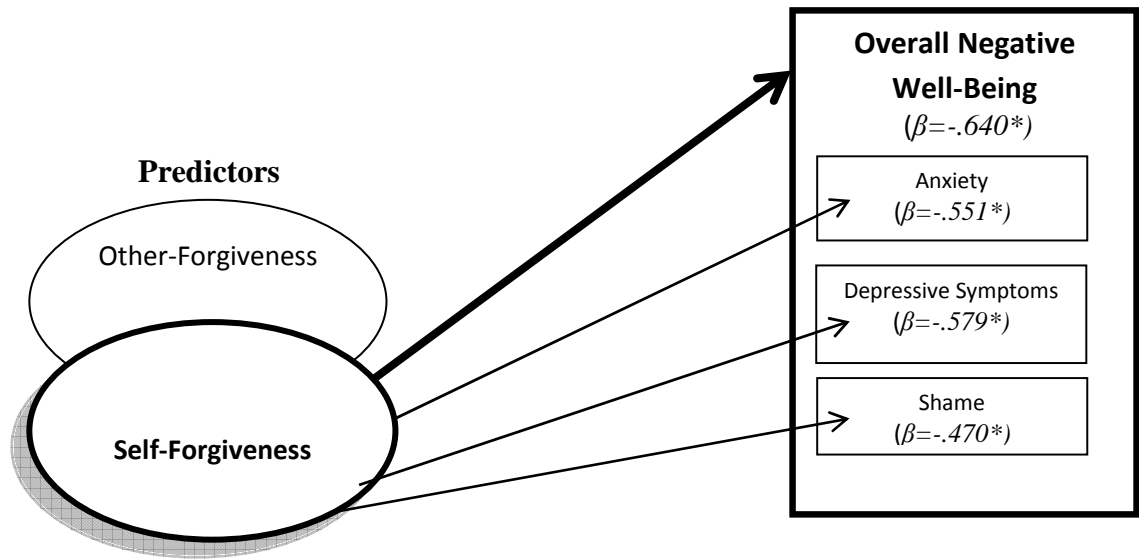
Figure 13. Summary of the unique predictive contributions of self-forgiveness on the negative well-being variables at Time 1(Hypothesis 5b).
* = *p*<.001

Time 2: Post-treatment

Predictors

Other-Forgiveness

Self-Forgiveness

Overall Negative Well-Being
(*β= -.496***)*

Anxiety
(*β= -.365*)*

Depressive Symptoms
(*ß=-.495**)*

Shame
(*β= -.392*)*

Overall Positive Well-Being
(*β=.538**)*

Meaning & Purpose
(*β=.513**)*

Happiness
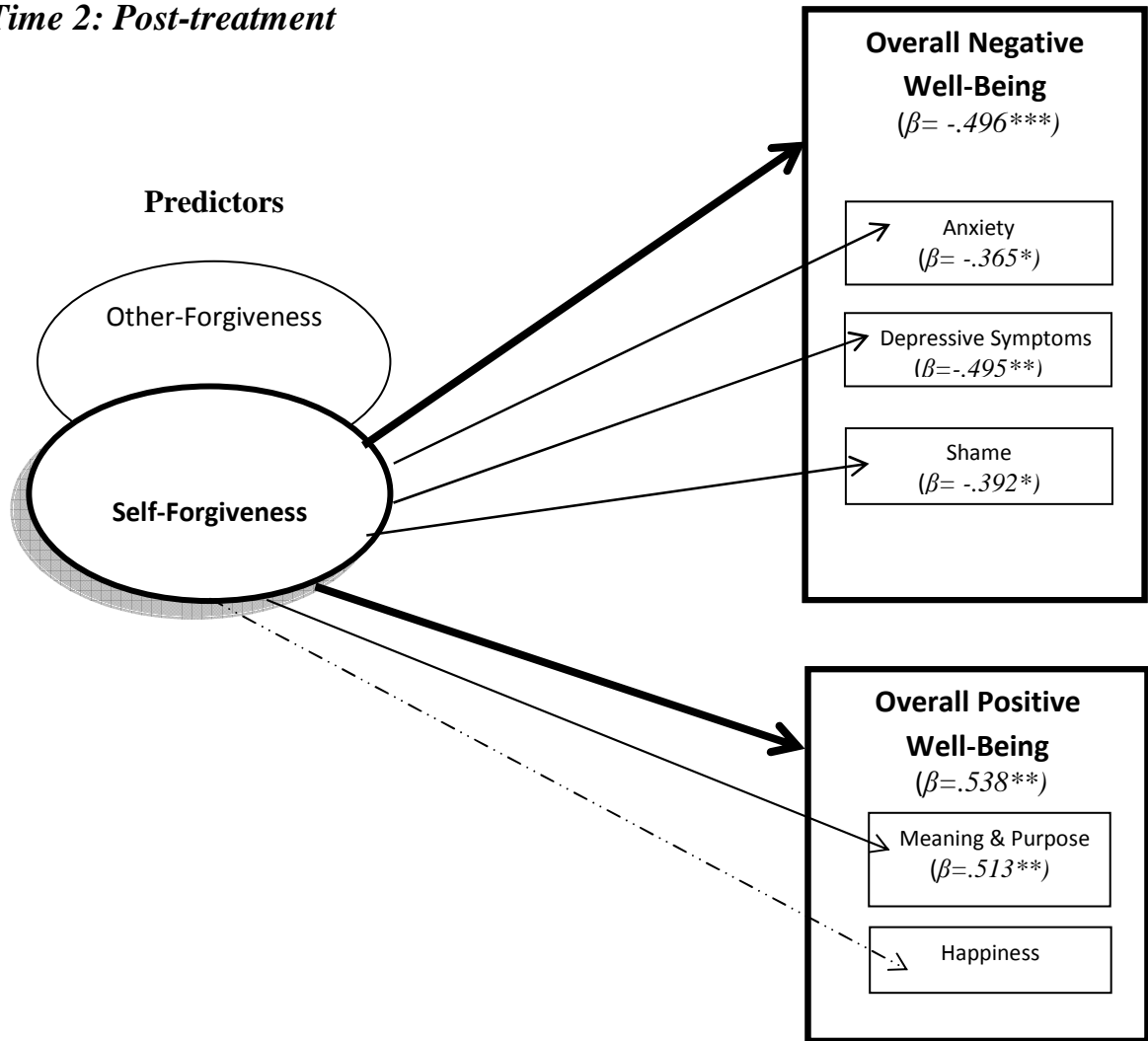
Figure 14. Summary of the significant and non-significant unique predictive effects of self-forgiveness on the negative and positive well-being variables at Time 2 (Hypothesis 5b) * = *p<*.05, ** = *p* <.01, *** = *p<*.005

significant

non-significant
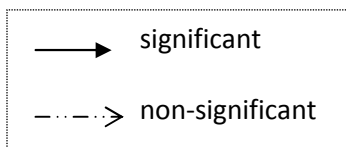
To test Hypothesis 6, which made predictions about the longer-term benefits of self-forgiveness on well-being, a series of simple regressions were conducted. Specifically, Hypothesis 6 stated that self-forgiveness scores at follow-up (Time 3) will predict well-being scores at follow-up. Importantly, because Happiness was not assessed at follow-up, only the predictive effects of self-forgiveness on Meaning and Purpose at follow-up was assessed, as displayed in Table 38. The predictive effects of self-forgiveness on the negative well-being variables at follow-up are displayed in Tables 39a to 39d.

Table 38
Simple Regression Testing Self-Forgiveness at Follow-up (Time 3) Predicting Meaning and Purpose at Follow-up (Hypothesis 6)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.43	.19	.17	11.57	1	50	.001

Table 39a
Simple Regression Testing Self-Forgiveness at Follow-up (Time 3) Predicting Shame at Follow-up (Hypothesis 6)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.40	.16	.14	8.46	1	45	.006

Table 39b
Simple Regression Testing Self-Forgiveness at Follow-up (Time 3) Predicting Depression at Follow-up (Hypothesis 6)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.25	.06	.04	3.08	1	46	.086

Table 39c
Simple Regression Testing Self-Forgiveness at Follow-up (Time 3) Predicting Anxiety at Follow-up (Hypothesis 6)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.26	.07	.05	3.43	1	48	.070

Table 39d
Simple Regression Testing Self-Forgiveness at Follow-up (Time 3) Predicting Overall Negative Well-Being at Follow-up (Hypothesis 6)

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.35	.12	.10	5.80	1	43	.020

The results of the regression analyses testing the predictive effects of self-forgiveness at follow-up on the positive well-being variable of Meaning and Purpose at follow-up were significant (Adj. r^2 = .17, p = .001). The regression analyses testing the predictive effects of self-forgiveness at follow-up on the negative well-being variables at follow-up yielded significant and non-significant results (see Tables 39a to 39d). Specifically, self-forgiveness significantly predicted shame (Adj. r^2 = .14, $p<.01$) and Overall Negative Well-Being (Adj. r^2 = .10, $p<.01$) but did not significantly predict depression or anxiety (see Tables 39b and 39c). Thus, these results provided only partial support for Hypothesis 6. Specifically, self- forgiveness scores at follow-up significantly predicted Meaning and Purpose, shame, and Overall Negative Well-Being scores at follow-up. Figure 15 below summarizes the associations between self-forgiveness and well-being at follow-up.

Time 3: Follow-up
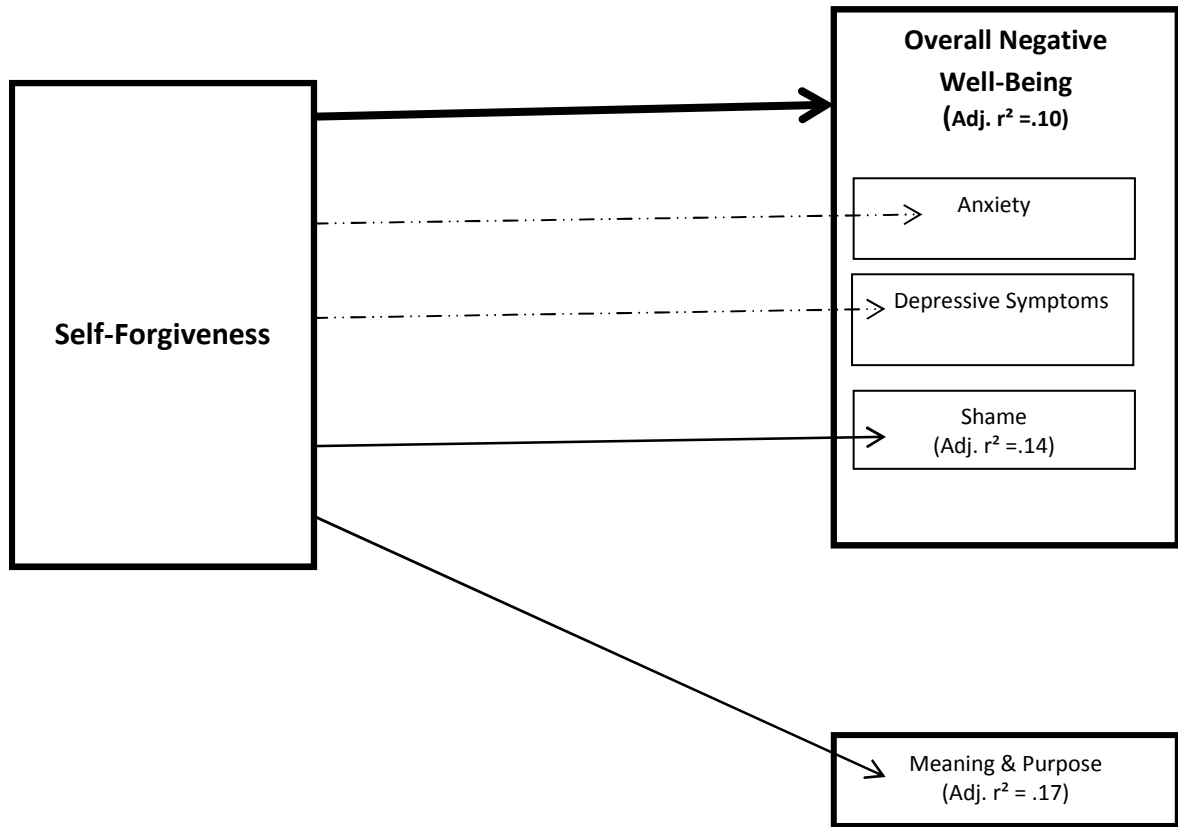
Figure 15. Summary of the significant and non-significant longer-term associations found between self-forgiveness and the negative and positive well-being variables at Time 3 (Hypothesis 6).

significant
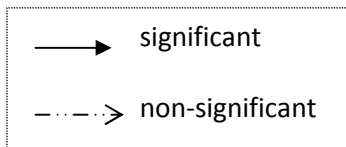
non-significant

Finally, Hypotheses 7 and 8 made predictions about the effects on self-forgiveness of two treatment- related process variables: twelve-step involvement and therapeutic alliance. Given that therapeutic alliance was found to be non-significantly correlated with self-forgiveness scores across all phases of assessment (see Table 31), there was no empirical rationale to test Hypothesis 8 and only Hypothesis 7 was tested.

Specifically, Hypothesis 7 stated that twelve-step involvement scores at Time 1, at Time 2, and at Time 3 will predict self-forgiveness scores at Time 1, at Time 2, and at Time 3, respectively. To test Hypothesis 7, a series of simple regressions were conducted with Step 8 Involvement, Step 9 Involvement, and Total Twelve-step Involvement as predictors and self-forgiveness scores at Time 1, Time 2, and Time 3 as the criterion variable. Table 40 displays the results for Time 1, Table 41 displays the results for Time 2, and Table 42 displays the results for Time 3.

Table 40a

Simple Regression Testing Step 8 Involvement Predicting Self-Forgiveness at Pre-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.23	.05	.04	3.34	1	59	.073

Table 40b

Simple Regression Testing Step 9 Involvement Predicting Self-Forgiveness at Pre-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.19	.04	.02	2.26	1	59	.138

Table 40c

Simple Regression Testing Total Twelve-step Involvement Predicting Self-Forgiveness at Pre-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.26	.07	.05	4.24	1	59	.044

Table 41a
Simple Regression Testing Step 8 Involvement Predicting Self-Forgiveness at Post-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.31	.09	.07	4.16	1	40	.048

Table 41b
Simple Regression Testing Step 9 Involvement Predicting Self-Forgiveness at Post-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.31	.09	.08	5.55	1	54	.022

Table 41c
Simple Regression Testing Total Twelve-step Involvement Predicting Self-Forgiveness at Post-treatment (Hypothesis 7).

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.37	.14	.11	6.291	1	40	.016

Table 42a
*Simple Regression Testing Step 8 Involvement Predicting Self-Forgiveness at Follow-up
(Hypothesis 7).*

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.23	.05	.03	2.913	1	54	.094

Table 42b
*Simple Regression Testing Step 9 Involvement Predicting Self-Forgiveness at Follow-up
(Hypothesis 7).*

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.28	.08	.06	3.91	1	46	.050

Table 42c
*Simple Regression Testing Total Twelve-step Involvement Predicting Self-Forgiveness at
Follow-up (Hypothesis 7).*

	r	r²	Adj. r²	F	*df1*	*df2*	Sig.
	.34	.12	.10	6.19	1	46	.017

The results pertaining to Time 1 (see Tables 40a to 40c) were significant for Total Twelve-step Involvement [F (1, 59) = 4.31, p <.05] but neither Step 8 Involvement nor Step 9 Involvement alone. At Time 2, however, Steps 8 and 9 Involvement as well as Total Twelve-step Involvement all significantly predicted self-forgiveness scores at the end of treatment (see Tables 41a to 41c). Specifically, Step 8 Involvement predicted 7% and Step 9 Involvement predicted 8% of the variance in self-forgiveness scores at the end of treatment. Together, Total Twelve-step Involvement, predicted 10 % of self-forgiveness (Adj. r^2 = .10, p <. 05). At Time 3, Step 9 Involvement significantly predicted self-forgiveness scores at follow-up [F (1, 46) = 3.91, p = .05] as did Total Twelve-step Involvement [F (1, 46) = 6.83, p < .05]. Thus, overall the results provided partial support for Hypothesis 7 that twelve-step involvement significantly predicted self-forgiveness. Figure 16 summarizes the associations found, across time, between twelve-step involvement and self-forgiveness levels.
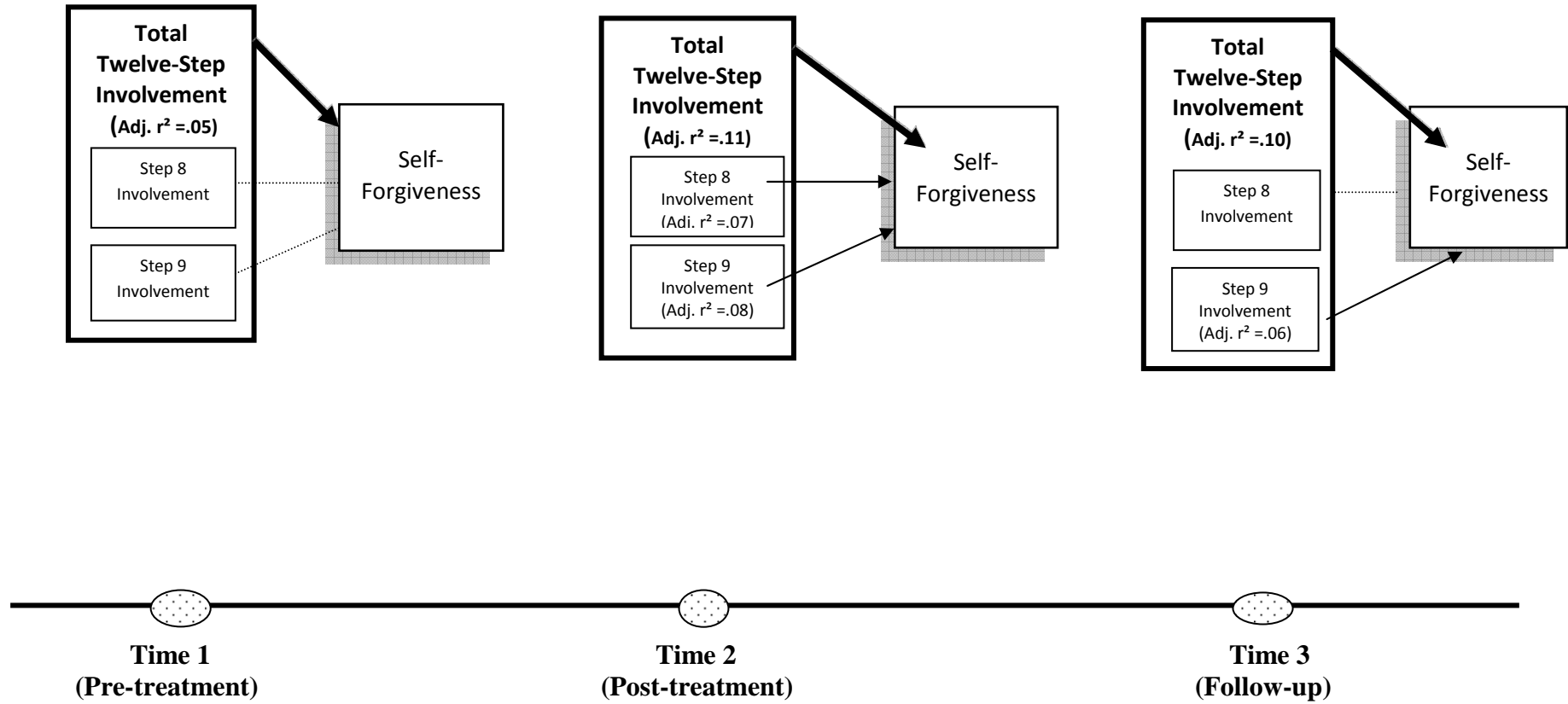
Figure 16. Summary of significant predictive effects of twelve-step involvement on self-forgiveness levels across time (Hypothesis 7).
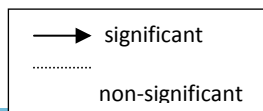
III.5 SUPPLEMENTARY ANALYSES

Supplementary analyses were conducted to help answer the two broad questions asked in the study, "Are there benefits of self-forgiveness on well-being?" and if so, "What treatment-related process variables facilitated self-forgiveness?" These supplementary analyses and the results are discussed. Table 43 summarizes the variables examined in the supplementary analyses.

Table 43

Summary of Variables Examined in Supplementary Analyses

Analyses pertaining to the question:		Phase of Assessment	Variable Description
Are there benefits of self-forgiveness on well-being?			
	1. Relapse	Time 2 & Time 3	1 item - Response options: yes/no "During the past five months, have you experienced a slip/relapse?"
	2. General Health	Time 1, Time 2, & Time 3	1 item 10-point response scale
	3. State Shame	Time 4	2 items from mood adjective checklist - Response options: present/absent "shame" and "ashamed"
	4. State Meaning & Purpose	Time 4	2 items from mood adjective checklist - Response options: present/absent "sense of meaning" and "sense of purpose"
What treatment-related process variables facilitate self-forgiveness?			
	1. Twelve-Step Meeting Attendance	Time 2 & Time 4	1 item - Sum variable "Over the past…., approximately how many twelve-step meetings did you attend?"

2.	Therapeutic Bond	Time 2, Time 3, & Time 4	• 1 item taken from the Therapeutic Alliance scale • Response options: mostly false at the moment, inapplicable, mostly true at the moment. • "I feel that my counselor appreciates me"

Note. Time 1 = pre-treatment, Time 2 = post-treatment, Time 3 = 4 months follow-up, and Time 4 = process assessment battery during treatment.

Are there Benefits of Self-Forgiveness on Well-Being?

The associations between self-forgiveness and relapse, general health, state

shame, and state meaning and purpose were examined

Relapse

Pearson product moment correlations were conducted to assess the relationship

between self-forgiveness and relapse. Specifically, the associations between self-

forgiveness scores at the end of treatment (Time 2) and at four months follow-up (Time

3) with self-reports of relapse at the corresponding phases of time were examined. The

results of the correlational analyses are presented in Table 44.

Table 44

Zero-order Correlations Between Self-Forgiveness and Slips/Relapses

	1.	2.	3.	4.
1. Self-Forgiveness (Time 2)				
2. Self-Forgiveness (Time 3)	.60*			
3. Slip/Relapse (Time 2)	.07	.27		
4. Slip/Relapse (Time 3)	.01	.16	.86*	

*p <.001

As can be seen in Table 44, self-forgiveness scores at Time 2 and Time 3 were non-significantly associated with relapse at Time 2 and Time 3. However, relapse at Times 2 and 3 were significantly positively correlated [r (55) = .86, p <. 001] as were self-forgiveness scores at Times 2 and 3 [r (55) = .60, p <. 001]. The frequency of relapse at Time 2 and Time 3 were explored. At Time 2,

5 (9.1%) of the 55 participants reported a relapse and at Time 3, 3 (5.7%) of the 53 participants reported a relapse. Thus, the present sample of participants showed stability with respect to their physical sobriety. However, these low frequencies of relapse result in a constricted range of scores, which prevents an adequate assessment of the association between self-forgiveness and relapse.

General Health

The association between self-forgiveness and general health was examined using data from pre-treatment (Time 1), post-treatment (Time 2), and four months follow-up (Time 3). General health was assessed by a single-item that asked participants to rate their current health using a 10-point Health Ladder response scale (see Figure 12 in Appendix F). A response of 10 represented the best possible health and a response of 1 represented the worst possible health. The mean general health at Time 1 ($N = 59$) was 9.66 ($SD = 16.9$), mean general health at Time 2 ($N = 52$) was 6.7 ($SD = 1.9$), and mean general health at Time 3 ($N = 50$) was 6.7 ($SD = 2.0$). Figure 17 displays the means of general health across Time 1, Time 2, and Time 3.
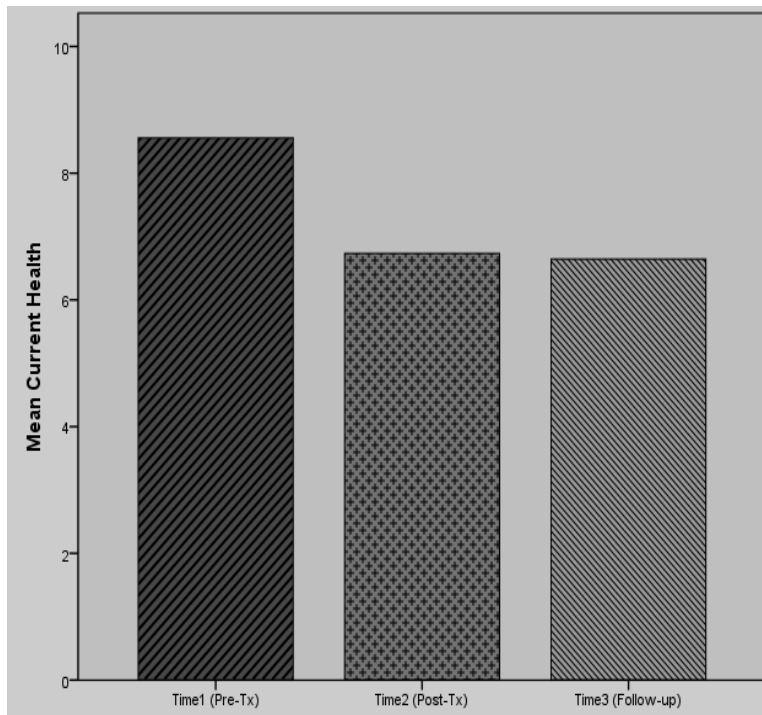
Figure 17. Means of general health at pre-treatment, post-treatment, and at follow-up with a maximum score of 10.

First, a series of simple *t*-tests was conducted to examine if the means on general health significantly varied across time. The results were non-significant, suggesting that the general health of participants was generally stable. Next, Pearson product moment correlations were conducted to examine the associations between self-forgiveness and general health. The results of the correlational analyses were non-significant. Finally, Chi-square analyses were conducted to further assess if there was a significant relationship between self-forgiveness and general health. Scores of 8 to 10 on general health were re-coded as High, and scores of 1 to 3 on general health were re-coded as Low. Similarly, self-forgiveness scores that ranged from 30 to 42 were re-coded as High self-forgivers, and scores that ranged from 6 to 18 were re-coded as Low self-forgivers. These score ranges were selected on the basis of Thompson and colleagues' (2005) interpretation scheme (see pp.106-107). The results of the Chi-square analyses were non-significant [X^2 (6) = 6.8, p =. 34], indicating that there were no significant patterns between levels of self-forgiveness and levels of general health. It is important to note, however, that recoding the variables into the top and bottom scores ranges significantly constricted the number of cases available for the analyses, which may have significantly impacted the power of the analyses.

<center>*State Shame*</center>

The association between self-forgiveness and state shame was examined using data obtained during the course of the treatment program (i.e., process assessment batteries/Time 4). Data on state shame were derived from two shame adjectives on the mood checklists that participants completed at workshops 4, 7 and 10: *ashamed* and

shamed. Therefore, at each point of assessment, state shame scores could be 0(no state shame adjectives were endorsed), 1 (one state shame adjective was endorsed), or 2 (the two state shame adjectives were endorsed). Figure 18 displays the frequency distributions of state shame at the three assessment points.
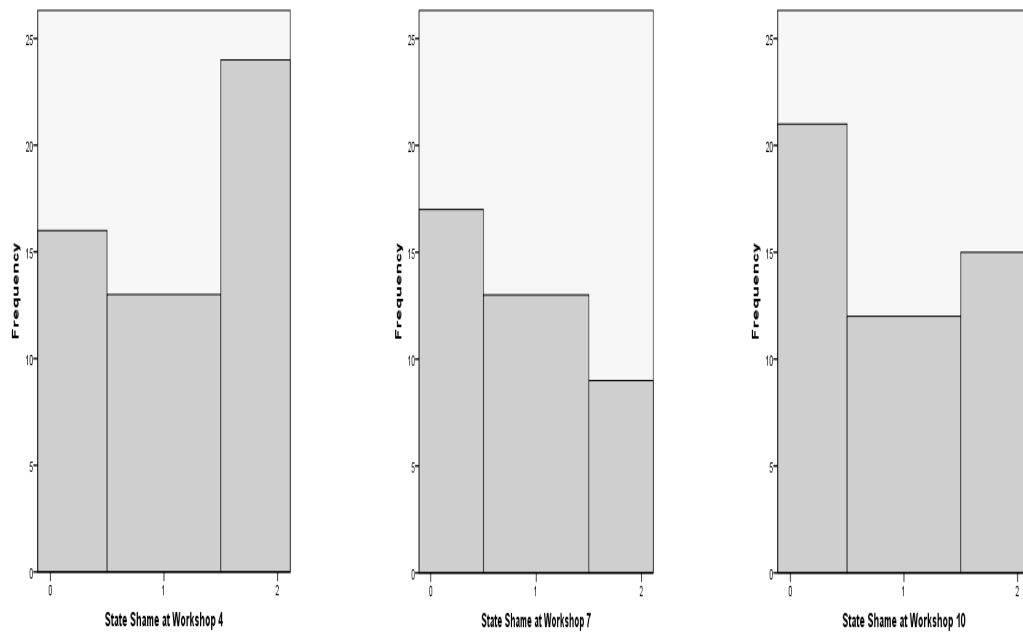
Figure 18. Frequency distributions of state shame at the different assessment times.

As can be seen by the frequency distributions displayed in Figure 18, at Workshop 4 most participants endorsed a high degree of state shame (score of 2) but at Workshops 7 and 10, most participants endorsed no state shame (score of 0). Thus, the frequency distributions suggested that there was a decrease in state shame across time.

To begin to assess the association between self-forgiveness and state shame, first a Total state shame score was computed for each participant. Total state shame was computed by summing state shame scores at Workshops 4, 7, and 10. Therefore, Total state shame scores could range from 0 to 6 with lower values indicating fewer experiences of state shame and higher values indicating more experiences of state shame. The mean Total state shame was 2.9 (SD = 1.72). It is important to note, however, that because Total state shame was a summed variable, missing values at any of the three assessment points led to missing cases and consequently, data from only 29 participants were available. This small *N* did not permit Pearson product moment correlations to be conducted to examine the associations between self-forgiveness and state shame.

State Meaning and Purpose

The association between self-forgiveness and state meaning and purpose was examined also using data obtained during the course of the treatment program (i.e., process assessment batteries/Time 4). Data on state meaning and purpose was derived from three adjectives on the mood checklists that participants completed at workshops 4, 7 and 10.
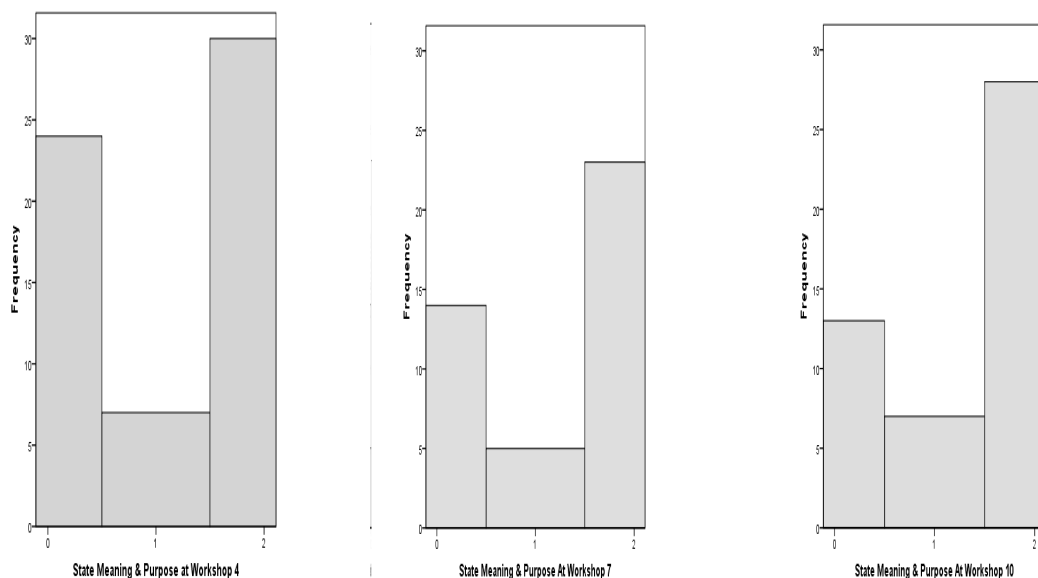
Figure 19. Frequency distribution of State Meaning and Purpose Scores.

Table 45
State Meaning and Purpose Across Time.

		ASESSMENT PHASE		
		Workshop 4 (N = 61)	Workshop 7 (N = 42)	Workshop 10 (N = 48)
Neither Meaning *nor* Purpose (score of 0)				
	N	24	14	13
	%	39.3	33.3	27.1
Meaning *or* Purpose (score of 1)				
	N	4	5	7
	%	11.5	11.9	14.6
Meaning *and* Purpose (score of 2)				
	N	30	23	28
	%	49.2	54.8	58.3

As can be seen by the frequency distributions displayed in Figure 19, across the three assessment points, most participants endorsed either having a sense of meaning and purpose (score of 2) or neither a sense of meaning nor a sense of purpose (score of 0). However, when percent frequencies were examined, the absence of state meaning and purpose decreased across time, and the presence of state meaning and purpose increased across time (see Table 45).

Finally, to examine the relationship between state meaning and purpose, and self-forgiveness, Pearson product moment correlations were conducted using Total state meaning and purpose scores and self-forgiveness scores at Time 2. The Total state meaning and purpose score was computed by summing the state meaning and purpose scores at the three assessment points. Therefore, Total state meaning and purpose scores could range from 0 to 6. The mean Total state meaning and purpose was 3.70 ($SD = 1.85$; $N = 37$). The results of the correlational analyses were significant [r (36) = .37, $p <. 05$). Thus, the results indicated that state meaning and purpose were positively associated with self-forgiveness at the end of treatment.

<u>What treatment-related process variables facilitate self-forgiveness?</u>

Supplementary analyses examining the role of twelve-step involvement variables and therapeutic bond on facilitating self-forgiveness were conducted.

Twelve-step Involvement

In the main analyses, twelve-step involvement was operationalized as engagement in the amends steps_ Steps 8 and 9. Supplementary analyses of whether participants' frequency of attendance of twelve-step meetings related to self-forgiveness were

conducted. Specifically, participants reported the number of twelve-step meetings they had attended throughout the course of the treatment program (Workshops 2 to 10). Table 46 displays the mean number of twelve step meeting that were attended between the workshops.

Table 46
Descriptive Statistics of Participants' Attendance at Twelve-step Meeting.

Interval	N	Mean Attendance of Twelve-Step Meetings	SD	Min, Max
Workshop 2-3	53	4.74	3.68	0, 16
Workshop 3-4	54	4.57	3.71	0, 20
Workshop 4-5	43	4.63	3.59	0, 14
Workshop 5-6	51	4.57	3.48	0, 20
Workshop 6-7	41	4.34	3.26	0, 12
Workshop 7-8	36	3.97	3.18	0, 12
Workshop 8-9	45	4.40	3.10	0, 12
Workshop 9-10	48	4.31	3.20	0, 12

As can be seen in Table 46, participants were regular attendees of twelve-step meetings. The *m*ean number of twelve-step meeting attended was approximately 4 per interval (i.e., 2 per week). A Pearson product moment correlation was conducted to assess the association between Mean twelve-step meeting attendance and self-forgiveness scores at Time 2. The results were non-significant [r (55) = -.008, p = .953), indicating that twelve-step meeting attendance was not significantly associated with self-forgiveness at the end of treatment.

Therapeutic Bond

The second supplementary analysis conducted to contribute to understanding treatment factors that may have facilitated self-forgiveness scores at the end of treatment was related to therapeutic alliance. In the main analyses, Therapeutic Alliance was hypothesized to be a treatment-related process variable that would facilitate self-forgiveness. This was the expectation primarily on the basis of clinical intuition given that therapeutic alliance is a well-established construct, which the literature has consistently implicated in treatment outcome. Given the non-significant associations found between therapeutic alliance and self-forgiveness, supplementary analyses examining one component, therapeutic bond, were conducted. Specifically, the bond component of therapeutic alliance is concerned with the degree that clients sense that they are liked, appreciated, or *prized* by their counselor.

To explore the relationship between self-forgiveness and therapeutic bond, participants' responses to the item "I feel the counselor appreciates me" were summed to compute a Total Therapeutic Bond score using data derived from Workshops 7, 8, and 9.

Therefore, Total Therapeutic Bond scores could range from - 3 to + 3 with negative

values indicating an absence of feeling liked by their counselor and positive values

indicating a presence of feeling liked by their counselor. Figure 20 displays the frequency

distribution of Total Therapeutic Bond scores.
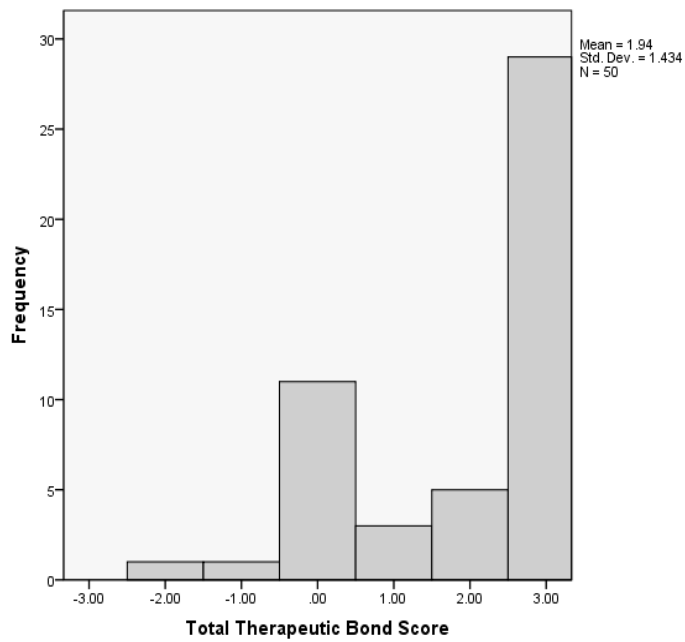
Figure 20. Frequency distribution of Total
Therapeutic Bond Scores

As can be seen by the frequency distribution displayed in Figure 20, most participants (58 %; n = 29) felt appreciated by their counsellor (mode Therapeutic Bond score = 3). Merely 4% (n = 2) of the participants had a Total Therapeutic Bond score of -1 and -2. Thus, the frequencies of Total Therapeutic Bond indicated that the vast majority of participants were high on the aspect of feeling appreciated. Using the Total Therapeutic Bond scores, a Pearson product moment correlation was conducted to assess its association with self-forgiveness at Time 2 and at Time 3. The results were non-significant at Time 2 [r (56) = .06, p = .69] and at Time 3 [r (53) = .17, p = .27]. Thus, the results were consistent with the non-significant associations found between therapeutic alliance and self-forgiveness.

Summary of Results

In summary, the results of testing the main study hypotheses produced a mix of significant and non-significant results. With respect to the set of hypotheses using longitudinal data in the form of change scores, no significant predictive relationships were found between improvement in self-forgiveness and improvement in negative well-being. However, levels of self-forgiveness at post-treatment significantly predicted levels of shame, and meaning and purpose at follow-up (Hypothesis 2b). With respect to the set of hypotheses using cross-sectional data, the overall results were significant. That is, levels of self-forgiveness were significantly predictive of levels of the negative well-being variables of shame, depressive symptomatology, and anxiety, and significantly predictive of levels of the positive well-being variable of meaning and purpose. Furthermore, twelve-step involvement but not therapeutic alliance were found to be

significantly predictive of levels of self-forgiveness. Tables 47 and 48 summarize the

results of testing of the hypotheses using longitudinal data and those using cross-sectional

data, respectively. All of the findings are reviewed and discussed in the next chapter

Table 47

Summary of Hypothesis Testing of Hypotheses 1 to 4 Using Longitudinal Data

	Hypothesis	Supported		Adj. R^2 *(p)*
Short-term Benefits of Self-Forgiveness on Well-being (pp.174-180)				
Hypothesis 1a:	Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in negative well-being from pre-treatment (Time 1) to post-treatment (Time 2).		X	
Hypothesis 1b:	Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in negative well-being from pre-treatment (Time 1) to post-treatment (Time 2), independent of the predictive effects of change scores in other-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2).		X	
Longer-term Benefits of Self-Forgiveness on Well-being (pp.180-187)				
Hypothesis 2a:	Change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2) and to follow-up (Time 3) will predict change scores in negative well-being from pre-treatment (Time 1) to follow-up (Time 3).	T1-T2 T1-T3	X X	
Hypothesis 2b:	Self-forgiveness scores at the end of treatment (Time 2) will predict negative and positive well-being scores at four months follow-up (Time 3).		√ partial	• Meaning & purpose: Adj. r^2 = .09 (*p* = .018) • Shame: Adj. r^2 = .13 (*p* = .012)
Treatment-related process variables facilitating self-forgiveness (pp.187-193)				
Hypothesis 3a:	Change scores in twelve-step involvement from pre-treatment (Time 1) to post-treatment (Time 2) will predict change scores in self-forgiveness from pre-treatment (Time 1) to post-treatment (Time 2). Change scores in twelve-step		X	

Hypothesis 3b:	involvement from pre-treatment (Time 1) to post-treatment (Time 2) and to follow-up (Time 3) will predict change scores in self-forgiveness from pre-treatment (Time 1) to follow-up (Time 3).	T1-T2	X
		T1- T3	X
Hypothesis 4:	Therapeutic alliance (summed score) at the end of treatment (Time 2) will predict self-forgiveness scores at follow-up.		Not tested: ns correlations

Note. X = not supported

Table 48

Summary of Hypothesis Testing of Hypotheses 5 to 8 Using Cross-sectional Data

Hypothesis		Supported		Adj. R ² (*p*) & ΔR² where applicable
Short-term Benefits of Self-Forgiveness on Well-being (pp.194-208)				
Hypothesis 5a:	Self-forgiveness scores at Time 1 and at Time 2 will predict negative well-being scores at Time 1 and at Time 2, respectively.	Time 1	√	• Shame: Adj. r² = .23, (*p*<.001) • Depression: Adj. r² = .33, (*p* <.001) • Anxiety: Adj. r² = .29 (*p* <.001) • Overall Negative Well-Being: Adj. r² = .42 (*p*<.001)
		Time 2	√	• Meaning & purpose: Adj. r²= .17 (*p* = .001) • Happiness: Adj. r² = .17 (*p*= .002) • Overall Positive Well-Being: Adj. r ² = .23 (*p* <.001) • Shame: Adj. r² = .24 (*p* <.001) • Depression: Adj. r² = .16 (*p* = .001) • Anxiety: Adj. r² = .09 (*p* = .013) • Overall Negative Well-Being: Adj. r² = .23 (*p* <.001)
Hypothesis 5b:	Self-forgiveness scores at Time 1 and at Time 2 will predict negative well-being scores at Time 1 and at Time 2, respectively, independent of the predictive effects of other-forgiveness scores at Time 1 and at Time 2.	Time 1	√	• Shame: Adj. R² = .22 (*p* <.001), ΔR² = .18 • Depression: Adj. R² = .32 (*p* <.001), ΔR² = .28 • Anxiety: Adj. R ² = .28 (*p* <.001), ΔR² = .25 • Overall Negative Well-Being: Adj. R ² = .41 (*p* <.001), ΔR² = .34

		Time 2	√ partial	• Meaning & purpose: Adj. R ^{2} = .16 (p= .009), ΔR^2 = .05
Hypothesis 5b Cont'd.				• Happiness: ns
				• Overall Positive Well-Being: Adj. R^2 = .21 (p= .008), ΔR^2 = .14
				• Shame: Adj. R^2 = .24 (p <.001), ΔR^2 = .08
				• Depression: Adj. R^2 = .15 (p= .005), ΔR^2 = .13
				• Anxiety: Adj. R^2 = .08 (p <.05), ΔR^2 = .07
				• Overall Negative Well-Being: Adj. R^2 = .21 (p= .001), ΔR^2 = .13
Longer-term Benefits of Self-Forgiveness On Well-being (pp.209-212)				
Hypothesis 6:	Self-forgiveness scores at Time 3 will predict positive and negative well-being scores at Time 3.		√ partial	• Meaning & purpose: Adj. r ^{2} = .17 (p = .001)
				• Shame: Adj. r^2 = .14 (p = .006)
				• Overall Negative Well-Being: Adj. r^2 = .1 0,(p = .020)
Treatment-related process variables facilitating self-forgiveness (pp.213-218)				
Hypothesis 7:	Twelve-step involvement scores at Time 1, at Time 2, and at Time 3 will predict self-forgiveness scores at Time 1, at Time 2, and at Time 3, respectively.	Time 1	√ partial	• Total Step 8 & Step 9 Involvement: Adj. r^2 = .05 (p <.05)
		Time 2	√	• Step 8 Involvement: Adj. r^2 = .07 (p <.05)
				• Step 9 Involvement: Adj. r^2 = .08 (p <.05)
				• Total Step 8 & Step 9 Involvement: Adj. r^2 = .11 (p <.05) (p <.05)
		Time 3	√ partial	• Step 9 Involvement: Adj. r^2 = .06 (p <.05)
				• Total Step 8 & Step 9 Involvement: Adj. r^2 = .10 (p <.05)

Hypothesis 8:	Therapeutic alliance (summed score) at Time 2 will predict self-forgiveness scores at Time 2	Not tested

Note. √ = supported

IV. DISCUSSION

Two broad inquiries were made in the current study, specifically "Are there benefits of self-forgiveness on well-being?" and if so "What treatment-related process variables facilitate self-forgiveness?" To answer these two broad inquiries, two sets of hypotheses were tested that employed different methodology. Specifically, to answer the first question about the benefits of self-forgiveness on individuals' well-being, longitudinal and cross-sectional data on well-being indicators were examined. Positive well-being indicators consisted of meaning and purpose, and happiness. Negative well-being indicators consisted of depressive symptoms, anxiety, and shame-proneness. The longitudinal data examined the relation between individuals' change in self-forgiveness and change in the various well-being indicators. It was predicted that changes in self-forgiveness would significantly predict changes in well-being. Thus, the results from these analyses sought to shed light on treatment-facilitated changes in self-forgiveness (aka, state self-forgiveness). In contrast, the cross-sectional data examined the relations between levels of self-forgiveness and levels of the various well-being indicators. It was predicted that regardless of the treatment-facilitated changes in self-forgiveness, individual differences in the capacity to self-forgiveness would significantly predict well-being. Thus, the results from these analyses sought to shed light on dispositional self-forgiveness.

The second broad theme examined was the treatment-related variables that facilitated individuals' self-forgiveness. Specifically, two treatment variables were examined: therapeutic alliance and twelve-step involvement. Again in the longitudinal

design hypotheses, the temporal relations between changes in self-forgiveness (i.e., treatment-facilitated self-forgiveness) and changes in engagement in interpersonal amends (i.e., twelve-step involvement) were assessed. The results of the hypotheses examining individual differences in self-forgiveness and treatment-facilitated self-forgiveness are discussed in detail in the sections that follow. Briefly, with respect to the first theme regarding the benefits of self-forgiveness, overall the results suggested that individual differences in the capacity to forgive the self are significantly predictive of enhanced well-being outcomes. Treatment-facilitated changes in self-forgiveness, however, did not significantly predict an improvement in well-being. Thus, the general conclusion drawn is self-forgiveness levels appear to have beneficial outcomes of well-being. With respect to the second theme regarding self-forgiveness facilitating factors, overall the results suggested that interpersonal amends, but not the quality of therapeutic alliance an individual has with his or her counsellor, are significantly predictive of self-forgiveness. However, treatment-facilitated change in individuals' engagement in interpersonal amends did not significantly predict change in the capacity to self-forgive. For ease of organization and clarity, the results of testing of each hypothesis will be reviewed and discussed in sequence in the sections that follow. Next, a broader discussion framed by the two broad inquiries of the study is offered along with a discussion of the potential implications of the current findings on the addiction treatment field and scholarship on self-forgiveness, well-being, and addiction. Finally, the strengths and limitations of the parent and current study are outlined and recommendations for future research are made.

IV.1 DISCUSSION OF RESULTS PERTAINING TO TREATMENT-
FACILITATED CHANGES IN SELF-FORGIVENESS

As noted, Hypotheses 1 through 4 utilized longitudinal data to assess the relations between changes in self-forgiveness and changes in well-being, and two treatment-related process variables that were hypothesized to facilitate changes in self-forgiveness: therapeutic alliance and twelve-step involvement. Specifically, Hypothesis 1 made predictions about the short-term benefits of forgiving the self on well-being and had two parts: Hypothesis 1a and 1b. Hypothesis 1a assessed the predictive effects of change scores in self-forgiveness on increases in well-being and Hypothesis 1b assessed the predictive effects of change scores in self and other-forgiveness on change scores in well-being. Whereas Hypothesis 1tested the short-term benefits of self-forgiveness on well-being, Hypothesis 2 made predictions about the longer-term benefits of self-forgiveness on well-being and also had two parts: Hypothesis 2a and 2b. Hypothesis 2a used change scores on self-forgiveness and change scores on the negative well-being criterion variables from Time 1 to Time 3 and Hypothesis 2b used Time 2 raw scores of self-forgiveness to predict Time 3 raw well-being scores. Finally, Hypotheses 3 and 4 assessed the predictive effects of the two hypothesized self-forgiveness facilitating variables of twelve-step involvement and therapeutic alliance. The results pertaining to each of the hypotheses are discussed below in sequence.

Hypothesis 1a

Hypothesis 1a stated that participants' change scores in self-forgiveness from pre-treatment to post-treatment would predict change scores in the negative well-being

criterion variables. That is, Hypothesis 1a predicted that improvement in self-forgiveness from Time 1 to Time 2 would predict improvement in depression, anxiety, and shame. Support for Hypothesis 1a would be consistent with the interpretation that there are short-term benefits of learning to forgive the self on well-being. The results of the regression analyses were non-significant. Change scores in self-forgiveness from Time 1 to Time 2 did not significantly predict change scores in depression, change scores in anxiety, change scores in shame, or change scores in the sum variable overall negative well-being.

There are several different possibilities of interpreting the results of testing Hypothesis 1a. One obvious interpretation is that among the current study's sample, the degree of change in self-forgiveness from pre-treatment to post-treatment did not significantly predict the degree of change in the negative well-being variables of depression, anxiety, and shame. That is, these results may imply a non-significant conceptual relation between increases in the capacity to forgive oneself and improvement in negative well-being.

A second possible interpretation, however, is that the results may have been influenced by methodological factors. Specifically, it is possible that participants' improvements in self-forgiveness and improvements in the negative well-being variables from pre-treatment to post-treatment were narrow in range. In turn, a constriction in range may have seriously influenced the ability of the regression model to detect a significant effect, if one existed. A third possibility, which also relates to methodology, may concern the instruments' sensitivity. Specifically, the measures employed to assess self-forgiveness, other-forgiveness, and shame were dispositional (i.e., trait) measures.

By definition, these measures are designed to assess broad-based tendencies. Thus, the use of change scores on these instruments may have influenced the possible variance since change would, from a theoretical perspective, be more likely to be small and from a clinical perspective, changes in individuals' tendencies would be expected to unfold across time. Consequently, these factors may have influenced the non-significant results.

Finally, the results may be interpreted in light of considering clinically significant change. The results of the preliminary analyses that were conducted consistently showed that post-treatment (as well as follow-up) scores on the study variables were significantly different from pre-treatment scores. More specifically, the results indicated that participants changed on the study variables in the favourable direction across time in the study. For example, participants showed significantly greater levels of self and other-forgiveness and significantly lower levels of shame, depression, and anxiety at post-treatment. These statistically significant changes, however, do not necessarily reflect clinically significant change.

Assessing clinically significant change is a complex topic. However, it may be inferred from greater magnitude of change as well as from correlations with other variables. A clinically significant change in the capacity to forgive oneself would be expected to correspond with changes in an individual's approach to situations and to relationships. For example, individuals learning to forgive themselves may be more accepting of self and others. Therefore, assessing variables such as acceptance or interpersonal functioning may provide an opportunity of inferring clinically significant improvement in self-forgiveness. Similarly, assessing clinically significant change in the

negative well-being variable of depressive symptomatology or anxiety may include

obtaining third-party reports. For example, information from a spouse on the individual's

mood or levels of activities may corroborate the information obtained from a self-report

depressive symptoms inventory. Thus, assessing clinically significant change is

important. In the current study, however, improvement in self-forgiveness and in the

negative well-being variables were only assessed by self-reports on single instruments.

Therefore, it is possible that the results of testing Hypothesis 1a may reflect an absence of

absence of assessing the relation between clinically significant improvement in self-

forgiveness and clinically significant improvement in the negative well-being variables.

<u>Hypothesis 1b</u>

Hypothesis 1b stated that participants' change scores in self-forgiveness from pre-

treatment to post-treatment would predict change scores in negative well-being from pre-

treatment to post-treatment, independent of the predictive effects of change scores in

other-forgiveness from pre-treatment to post-treatment. In other words, Hypothesis 1b

assessed the short-term incremental predictive effects of self-forgiveness on well-being.

The results of the regression analyses were mixed. Neither change scores in other

forgiveness nor change scores in self-forgiveness from pre-treatment to post-treatment

significantly predicted change scores in shame or change scores in anxiety from pre-

treatment to post-treatment. Change scores in other-forgiveness and change scores in self-

forgiveness, however, were significantly predictive of change scores in depression. A

closer examination of the beta weights, however, revealed that although the overall model

testing the predictive effects of other-forgiveness and self-forgiveness on depression was

significant, change scores in self-forgiveness specifically did not make a significant contribution to the regression model. Thus, the results did not support Hypothesis 1b. Again, the different possibilities of interpretations that were discussed earlier can be applied to the results of testing Hypothesis 1b. The significant finding that improvement in other-forgiveness from pre-treatment to post-treatment predicted improvement in depression warrants additional discussion, however.

One natural place to begin interpreting this finding was a review of the prior research on the correlates of other-forgiveness. This review indicated that other-forgiveness has been previously found to be associated with decreased levels of depression (e.g., McCullough, Bellah, Kilpatrick, & Johnson, 2001; Ross et al., 2004). Thus, the current finding of improvement in other-forgiveness predicting improvement in depressive symptoms was consistent with prior findings. From a clinical perspective, the positive association between other-forgiveness and decreased depressive symptoms makes theoretical sense. That is, as individuals improve in their capacity to "let go" and forgive others whom they felt hurt by, they concurrently experience fewer symptoms of depression. Specifically, individuals who forgive others ruminate less about the wrongs they were subjected to (e.g., Thompson et al., 2005) and rumination has been identified as a robust risk and maintaining factor for depression (e.g., Nolen-Hoeksema, 1987). Thus, the current finding implied that the capacity to forgive others is associated with an improvement in depressive symptomatology.

Importantly, an issue that emerges from the results of testing Hypothesis 1b is that of causality or directionality of the found relations between the variables. Specifically,

the results of Hypothesis 1b cannot be interpreted as indicating that improvement in other-forgiveness *leads* to improvement in depressive symptoms. The opposite direction of relationship is possible. That is, improvement in depressive symptoms may lead to improvement in other-forgiveness. In other words, although the data utilized in Hypothesis 1b were from two separate assessment points (i.e., change scores), the results cannot be interpreted as indicating a causal relationship between other-forgiveness and depressive symptoms because there was no experimental manipulation of either variable and there was no control group. In Hypothesis 2b that will be discussed shortly, however, data from one assessment phase (Time 2) were used to predict data at a later assessment phase (Time 3). In doing so, a temporal relationship can be inferred but not a causal one.

Hypothesis 2a

Hypotheses 2a (and 2b) assessed the longer-term benefits of self-forgiveness on well-being by examining data obtained four months following the end of the psychosocial treatment program (i.e., follow-up). Specifically, Hypothesis 2a stated that participants' change scores in self-forgiveness at two intervals, from Time 1 to Time 2 and from Time 1 to Time 3, would predict change scores in the negative well-being variables from Time 1 to Time 3. By examining change scores in depression, anxiety, and shame from pre-treatment to follow-up, Hypothesis 2a sought to assess the sustainable effects of self-forgiveness on the negative well-being variables. The results of the regression analyses testing Hypothesis 2a were non-significant. Neither change scores in self-forgiveness from pre-treatment to post-treatment nor change scores in self-forgiveness from pre-treatment to follow-up significantly predicted shame, depression, or anxiety change

scores from pre-treatment to follow-up. The non-significant results of testing Hypothesis 2a were not surprising given the non-significant results of testing Hypothesis 1a, as were discussed.

The results of testing Hypothesis 2a were also consistent with the results of the preliminary analyses that were conducted. Specifically, the results of the preliminary analyses consistently showed that post-treatment scores were non-significantly different from follow-up scores. That is, participants did not change significantly at follow-up from post-treatment levels. Consequently, we would expect that the results would be similar to those obtained for testing Hypothesis 1a, which were non-significant. Therefore, the same possibilities of interpreting the results that were discussed earlier would apply.

<u>Hypothesis 2b</u>

Hypothesis 2b also assessed the longer-term benefits of self-forgiveness on well-being. Specifically, Hypothesis 2b stated that self-forgiveness levels at the end of treatment would predict well-being levels at follow-up. Thus, Hypothesis 2b differed from the previous hypotheses in that it did not utilize change scores. The results of testing Hypothesis 2b were mixed. Levels of self-forgiveness at post-treatment significantly predicted levels of meaning and purpose, and shame at Time 3 but not levels of anxiety or depression. These findings have several implications.

The first implication is that given that the data were obtained from two different temporal points, Time 2 and Time 3, there are grounds to infer temporal directionality in

the relationship between self-forgiveness and meaning and purpose, and shame. That is, levels of self-forgiveness can be inferred to be associated with greater levels of meaning and meaning and purpose, and reduced shame in the long-term. Specifically, the results implied that self-forgiveness levels may have bearing on the degree of meaning and purpose that individuals ascribe to their lives, and to reduced experiences of shame. This relationship between self-forgiveness and enhanced meaning and purpose, and decreased shame are consistent with prior findings reported in the literature. For example, in a study by Webb and colleagues (Webb et al., 2006) using a sample of substance abusers, purpose in life was significantly positively correlated with self-forgiveness at baseline and at follow-up. Lyons, Deane, and Kelly (2010) have recently proposed that forgiveness and purpose in life are "spiritual mechanisms" that facilitate recovery. If this is, in fact, the case, several potential implications to the addiction treatment field follow, as will be discussed in a later section.

Hypothesis 3a & 3b

Hypothesis 3a examined the predictive effects of involvement in the twelve-step program's amends steps, Steps 8 and 9, on self-forgiveness levels from pre-treatment to post-treatment. Specifically, Hypothesis 3a stated that participants' change scores in Step 8 and in Step 9 from pre-treatment to post-treatment would predict change scores in self-forgiveness. The results of testing Hypothesis 3a were non-significant. Change scores in both Step 8 involvement and Step 9 involvement did not significantly predict change scores in self-forgiveness from pre-treatment to post-treatment.

Hypothesis 3b also examined the predictive effects of participants' engagement in

the amends steps on self-forgiveness. Specifically, Hypothesis 3b sought to examine the longer-term sustainable effects of twelve-step involvement on self-forgiveness by using change scores on self-forgiveness from pre-treatment to follow-up. The results of testing Hypothesis 3b were also non-significant, which again were not very surprising for the same reasons offered previously when discussing the results of Hypothesis 2a. Specifically, self-forgiveness levels at follow-up were not significantly different from self-forgiveness levels at post-treatment, and increases in twelve-step involvement from pre-treatment to post-treatment did not significantly predict improvement in self-forgiveness form pre-treatment to post-treatment.

The results of testing Hypotheses 3a and 3b may be interpreted in several different ways. The most obvious interpretation is that the results were reliable and that among the current sample, the relationship between involvement in the twelve-step program's amends steps and self-forgiveness was non-significant. However, the other possible explanations relating to methodology, including a constricted range of scores, are tenable. One particular possibility is that the instrumentation used to assess twelve-step involvement and self-forgiveness may have influenced the results. Specifically, the measures assessing participants' engagement in Step 8 and in Step 9 were designed to be more specific. For example, participants are asked to imagine a specific situation in which they have hurt someone and to indicate their willingness to make amends (i.e., Step 8) and their actual measures of making amends (i.e., Step 9). However, the instrument used to assess self-forgiveness, as noted, is a dispositional measure assessing general tendencies suggestive of a capacity to forgive the self (e.g., Item 1"Although I

feel badly at first when I make a mistake, over time I can give myself some leeway", Item 3 "Learning from bad things that I've done helps me get over them"; see Appendix F, p.320). Thus, the different levels of variables assessed may have confounded the results. That is, from a theoretical perspective it can be speculated that engagement in an amends process may be significantly related to self-forgiveness of a specific situation but this may not extend to other situations (i.e., dispositional self-forgiveness). Thus, the results of testing Hypotheses 3a and 3b may be interpreted as engagement in reparative behaviour is not predictive of improvement in dispositional levels of self-forgiveness.

Hypothesis 4

Finally, Hypothesis 4 made predictions about another treatment-related process variable that was hypothesized to facilitate self-forgiveness: therapeutic alliance. Specifically, Hypothesis 4 stated that therapeutic alliance levels at the end of treatment would significantly predict self-forgiveness levels at four month follow-up. The rationale for Hypothesis 4 came from the clinical literature showing that therapeutic alliance is a robust treatment variable that has been implicated in positive outcomes (for a review article, see Martin, Garske, & Davis, 2000). Given that the parent study was a treatment outcome research and self-forgiveness was a primary outcome variable of interest in the current study, Hypothesis 4 sought to examine the relationship between participants' degree of therapeutic alliance with their counsellors and their self-forgiveness levels. As discussed in the results, however, the predictive effects of therapeutic alliance on self-forgiveness were not formally tested in a regression model due to non-significant correlations found between therapeutic alliance and self-forgiveness at all phases of

assessment. A key assumption of regression analyses is that the variables have a linear relationship, which was not found in the current data.

The non-significant correlations found between therapeutic alliance and self-forgiveness warrant some discussion. The construct of therapeutic alliance is well-established in the clinical treatment literature. Specifically, it has been shown to have salutary effects on positive treatment outcomes. That is, consistent reports state that the degree that clients report that they have a bond and agreement on the tasks and goals of therapy with their counsellors seems important to outcome. In the current study, a main outcome variable of interest was self-forgiveness and according to the results of the preliminary analyses, participants showed improvements in self-forgiveness at post-treatment and follow-up. Furthermore, participants' summed therapeutic alliance scores were high, suggesting that they had a high degree of bond, and agreement on the tasks and goals of therapy with their counsellors. Taken together, the absence of significant correlations between therapeutic alliance and self-forgiveness was interesting and several potential explanations are offered.

Again, the obvious interpretation of the non-significant correlations between therapeutic alliance and self-forgiveness is that, among the current sample, the degree of therapeutic alliance that participants had with their counsellors was weakly and non-significantly associated with their levels of self-forgiveness, as were assessed. Note that there are two caveats in this interpretive statement. The first caveat relates to the phrase "in the current sample". That is, the non-significant correlations found cannot be generalized to other samples. The second caveat relates to the phrase "as were assessed."

That is, the non-significant correlations found are not only limited to the current sample but also to the current instrumentation. In sum, the results of the correlational analyses should only be interpreted within the bounds of the current study.

A second possible explanation of the non-significant correlations, however, relates to power and specifically, the likelihood of Type II error. Specifically, the correlational analyses examining the associations between therapeutic alliance and self-forgiveness have a smaller N. Generally, a small N increases the likelihood of failure to detect a significant association when one exists (i.e., Type II error). The reason for the small N was that the variable therapeutic alliance was a summed variable, which was computed on the basis of data obtained from three separate group sessions (i.e., process assessment batteries). Consequently, missing cases on more than one process assessment battery were excluded from the analyses and this resulted in more missing cases. Thus, the results of testing Hypothesis 4 should be interpreted with caution due to the possibility of Type II error due to a smaller N.

A third possible explanation of the non-significant correlations relates to a more conceptual possibility. Specifically, therapeutic alliance is a complex variable and as such, its association with self-forgiveness may be complex, such as a curvilinear relationship for example. To explore this possibility, therapeutic alliance was correlated with self-forgiveness using the Spearman rank procedure. The Spearman rank procedure does not assume that there is a linear function between two variables and therefore, it permits examining another kind of relationship between variables. The results of these analyses were non-significant. In summary, the association between therapeutic alliance

and self-forgiveness is not clear at the present time.

A fourth explanation, which is believed to seriously challenge the reliability of the non-significant correlations found between therapeutic alliance and self-forgiveness relates to the instrument that was used to measure therapeutic alliance. Specifically, the therapeutic alliance scale that was used was composed of nine items, which tapped into three purported components of therapeutic alliance: bond, agreement with tasks, and agreement with goals (e.g., Bordin, 1994). As previously discussed, the bond component refers to clients' perceived affective connection, warmth, and a sense of being liked or appreciated by their counsellor while the components of agreement with the tasks and goals of therapy refer to clients' perceived 'match' with what they hope to accomplish and how to go about it with their counsellors. That is, therapeutic alliance is multi-dimensional. Consequently, a valid assessment of therapeutic alliance needs to also be multi-dimensional, nuanced, and sophisticated. The therapeutic alliance scale used in the current study, however, was seriously lacking. Specifically, although the scale items sought to tap into the different dimensions corresponding to the tripartite model of therapeutic alliance of bond, tasks, and goals, the items had a binary response format. Participants were asked to indicate their agreement with the statements using the response categories: "mainly false at the moment", "irrelevant/not applicable", or "mainly true at the moment". This response format was problematic for several reasons.

From a general perspective, binary response formats of this nature are frequently problematic from a statistical perspective. Specifically, binary response formats result in a constricted range of possible scores and this constricted range, as noted earlier, results

in ceiling and floor effects. From a more focused perspective of assessing therapeutic alliance, the binary response format of the scale was problematic from a validity perspective. As noted, the construct of therapeutic alliance is complex and multi-dimensional. The scale's response options of "mostly true at the moment" or "mostly false at the moment" assume, however, that there are unequivocal responses. This is arguably an invalid assumption. In summary, the non-significant correlations found between therapeutic alliance and self-forgiveness should be interpreted in light of the questionable reliability and validity of the instrument that was used in the current study.

To summarize, the results of testing Hypothesis 1 through 4, improvement in self-forgiveness was not found to significantly predict improvement in the negative well-being variables either in the short-term or in the longer-term. However, when overall levels of self-forgiveness at the end of treatment were examined for their predictive effects on clients' well-being at follow-up, two significant findings emerged. Specifically, self-forgiveness levels at the end of treatment significantly predicted the degree of meaning and purpose that clients ascribed to their lives at follow-up, and their propensity toward experiencing shame at follow-up. The results of testing each of Hypotheses 5 through 8 are discussed next. As noted, this set of hypotheses assessed the same two broad questions, which were "Are there benefits of self-forgiveness on well-being?" and if so, "What treatment- related process variables facilitate self-forgiveness?" Unlike the previous set of hypotheses, however, Hypotheses 5 through 8 utilized cross-sectional data to examine the associations between self-forgiveness and well-being, and twelve-step involvement and self-forgiveness. It is important to recognize, however, that because

cross-sectional data involves examining the relationships between variables at the same time of assessment, interpretation of directionality is not possible. Instead, the results of testing Hypotheses 5 through 8 are interpreted as indicative of associations between the variables, as will be discussed.

IV.2 DISCUSSION OF RESULTS PERTAINING TO DISPOSITIONAL LEVELS OF SELF-FORGIVENESS

The overall results of testing Hypotheses 5 through 8 were significant and implied that there were significant short-term and longer-term benefits of dispositional levels of self-forgiveness and well-being, and that engagement in the twelve-step program's amends steps, Steps 8 and 9, facilitated levels of self-forgiveness. As before, the results of each hypothesis along with its potential implications are discussed separately below.

Hypothesis 5a

Hypothesis 5a stated that self-forgiveness levels at pre-treatment and self-forgiveness levels at post-treatment would predict levels of the negative well-being variables at pre-treatment and levels of the negative and positive well-being variables at post-treatment, respectively. Thus, Hypothesis 5a sought to test the short-term beneficial associations between the capacity to self-forgiveness and well-being. The results of testing Hypothesis 5a were significant. Self-forgiveness levels at pre-treatment significantly predicted levels of depression, anxiety, and shame and at post-treatment, levels of self-forgiveness significantly predicted levels of depression, anxiety, and shame, and levels of the positive well-being variables of meaning and purpose, and happiness. Thus, the results indicated that there was a significant positive linear relationship between

levels of trait self-forgiveness and levels of well-being among the current sample of individuals in Stage 2 recovery from AOD use disorders. These results can be interpreted in a number of a different ways.

The most basic level of interpreting the results is that self-forgiveness levels are significantly positively associated with positive well-being levels, and significantly negatively associated with negative well-being levels. This interpretation would be consistent with previous research that has shown that trait-self forgiveness is associated with a variety of positive mental health outcomes. For example, individuals high on trait self-forgiveness have been reported to fare better in psychological well-being and to experience more positive than negative emotions (e.g., Mauger et al., 1992; Ross, Kendall, Matters, Wrobel, & Rye, 2004). Individuals high on trait self-forgiveness have also been found to have lower rates of depressive and anxiety disorders (e.g., Ross et al., 2004; Ross, Hertenstein, & Wrobel, 2007; Maltby, Macakskill, & Day, 2001). Thus, the current findings that trait self-forgiveness levels at pre-treatment and at post-treatment were significantly predictive of levels of negative well-being, including depression, anxiety, and shame, and significantly predictive of levels of positive well-being, including meaning and purpose, and happiness, were consistent with the literature. However, given the already noted issue of directionality, the results of testing Hypothesis 5a cannot be interpreted as trait self-forgiveness leads to enhanced well-being. It is possible, for example, that enhanced well-being leads to higher levels of trait self-forgiveness, and it is also possible that a third common factor leads to both high levels of trait self-forgiveness and enhanced well-being.

<u>Hypothesis 5b</u>

Hypothesis 5b also examined the short-term associations between self-forgiveness and well-being but did so while taking into account the associations between other-forgiveness and well-being. Of note, the results of the correlational analyses testing the association between self-forgiveness and other-forgiveness provided added empirical rationale for testing Hypothesis 5b. Specifically, the correlational results showed that self-forgiveness was positively correlated with other-forgiveness across all phases of assessment (i.e., Time 1, Time 2, and Time 3) and the strength of their relationship was moderate to strong. Furthermore, change scores in self-forgiveness at two assessment intervals (pre-treatment to post-treatment, and post-treatment to follow-up) were significantly positively correlated with change scores in other-forgiveness. Thus, the results of the correlational analyses using raw scores as well as change scores consistently indicated a positive association between self-forgiveness and other-forgiveness.

Given the nature of correlational analyses in general, the directionality of the positive association found between self-forgiveness and other-forgiveness cannot be ascertained. However, there may be at least three theoretical possibilities. Specifically, it is plausible that the capacity to generally forgive others who hurt us increases the capacity to generally forgive ourselves when we have let others down. Conversely, it is possible that the capacity to forgive ourselves is what increases the likelihood that we are able to consider forgiving others. Finally, it is possible that a third variable is what accounts for increased general tendencies toward forgiving the self as well as forgiving

others. Regardless of the exact nature of the relationship between self-forgiveness and other-forgiveness, however, the current finding that they were positively associated was interesting as prior research has produced mixed results.

Specifically, some prior research has reported a positive correlation between self-forgiveness and other-forgiveness, which has led some researchers (e.g., Hall and Fincham, 2005) to highlight the parallels between them. For example, self-forgiveness and other-forgiveness are processes that unfold over time. Other research, however, has argued that self-forgiveness and other-forgiveness have different bearing on mental health. For example, Thompson and colleagues (2005) used a student sample to examine the relationships between trait self-forgiveness, trait other-forgiveness, and mental health outcomes. Their results showed that low trait self-forgiveness was more consequential to mental health than low trait other-forgiveness. Specifically, they found that participants low in the capacity to self-forgiveness (i.e., low trait self-forgiveness) were at greater risk for depression and anxiety than participants with low trait other-forgiveness. Consistent with these findings, some prior correlational research has reported only a weak association between self-forgiveness and other-forgiveness (e.g., Ross, Kendall, Matters, Rye, & Wrobel, 2004) and some have reported a non-significant association (e.g., Mauger et al., 1992; Thompson et al., 2005). Thus, the prior findings in the literature on the relationship between self-forgiveness and other-forgiveness appear to be mixed. In the current study, however, self and other-forgiveness were simultaneously examined on the basis of their theoretical similarities. The positive correlations found between self-forgiveness and other-forgiveness in the correlational analyses, however, provided added

empirical rationale for including other-forgiveness in Hypothesis 5b.

Specifically, Hypothesis 5b stated that self-forgiveness levels at pre-treatment and at post-treatment would significantly predict levels of the negative well-being variables at pre-treatment and levels of the negative well-being variables and the positive well-being variables at post-treatment, respectively, independent of the predictive effects of other-forgiveness. That is, Hypothesis 5b sought to test the unique predictive effects of self-forgiveness on well-being. The results of testing Hypothesis 5b were significant with the exception of predicting happiness at post-treatment. That is, pre-treatment self-forgiveness levels significantly and uniquely predicted (i.e., over and above the predictive effects of other-forgiveness) levels of depression, anxiety, and shame. Post-treatment levels of self-forgiveness significantly and uniquely predicted levels of depression, anxiety, shame, and meaning and purpose. These results indicated that the significant associations that were found between self-forgiveness and the well-being variables in the preliminary correlational analyses (see Tables 5a-5c) were not better accounted for by associations between other- forgiveness and well-being. With respect to happiness, however, neither self nor other-forgiveness levels was a significant predictor. This finding implied that self and other-forgiveness have a non-significant association with happiness, which evokes an interesting discussion.

The finding that levels of self-forgiveness and levels of other-forgiveness do not significantly predict levels of happiness challenge another common criticism of forgiveness in general. Specifically, forgiveness is commonly criticized for being hedonistic and motivated by a desire "to feel good". Some researchers (e.g., Vitz &

Meade, 2011) have criticized self-forgiveness specifically for being a narcissistic endeavor. However, the current findings were that levels of self and other-forgiveness did not significantly predict levels of happiness. In contrast, self and other-forgiveness did significantly predict meaning and purpose in life, which, as previously discussed, refer to a deeper, eudaimonic dimension of well-being. Thus, the current finding implied that the benefits of self-forgiveness (and of other-forgiveness) relate to a deeper dimension of positive well-being that surpasses a motivation to "feel good".

<div align="center">Hypothesis 6</div>

Hypothesis 6 assessed the longer-term beneficial associations between self-forgiveness and well-being by using follow-up data. Specifically, Hypothesis 6 stated that levels of self-forgiveness at follow-up would predict levels of negative well-being and levels of positive well-being at follow-up. The results of testing Hypothesis 6 were mixed. Levels of self-forgiveness at follow-up significantly predicted levels of meaning and purpose, and shame but did not significantly predict levels of depressive symptoms or levels of anxiety. The findings that self-forgiveness predicted meaning and purpose, and shame at follow-up were consistent with the results obtained in testing Hypotheses 5a and 5b. That is, the results indicated that similar to the associations between self-forgiveness and well-being observed in the short-term, self-forgiveness had longer-term beneficial associations with these two well-being variables at four months follow-up. Again, these results carry several potential implications to the addiction treatment field and the self-forgiveness and well-being fields, as will be discussed.

The non-significant predictions of self-forgiveness levels on depressive symptoms

and anxiety, however, were inconsistent and have several different implications. The non-significant prediction of self-forgiveness levels at follow-up of depressive symptoms and anxiety may imply that the associations between self-forgiveness and these negative well-being variables do not extend in the longer-term for a variety of reasons. For example, one potential reason may relate to the very nature of these negative well-being variables. Specifically, depressive symptoms tend to be episodic with most individuals experiencing periods of waxing and waning symptoms. In other words, individuals tend to endorse depressive symptoms in varying intensities across time. Similarly, anxiety symptoms have the potential of being exacerbated by situational triggers. Consequently, the associations between self-forgiveness and depressive symptoms and anxiety are from a theoretical perspective expected to be less stable across time. Given that Hypothesis 6 utilized data obtained four months following the end of the treatment program, it is possible that the absence of a significant linear relationship between levels of self-forgiveness and levels of depressive symptoms and anxiety at follow-up, unlike at the previous two assessment points, may reflect underlying features of the negative well-being variables.

Hypothesis 7

Finally, Hypotheses 7 and 8 sought to test the effects of twelve-step involvement and the effects of therapeutic alliance on self-forgiveness levels. As noted previously, Hypothesis 8 was not formally tested in a regression model given the non-significant correlations that were found between therapeutic alliance and self-forgiveness, as discussed. Thus, only Hypothesis 7 was tested. Specifically, Hypothesis 7 predicted that

participants' levels of engagement in Step 8 and Step 9 at Time 1, Time 2, and at Time 3 would predict levels of self-forgiveness at Time 1, Time 2, and Time 3, respectively. The results of testing Hypothesis 7 were mixed. With respect to Time 1, neither Step 8 involvement nor Step 9 involvement was found to be significant predictors of self-forgiveness levels at pre-treatment. However, Total Twelve-step Involvement, a summed variable, was a significant predictor of self-forgiveness levels at pre-treatment. With respect to Time 2, both Step 8 involvement and Step 9 involvement independently predicted levels of self-forgiveness at post-treatment. Finally at Time 3, only Step 9 involvement as well as Total Twelve-step Involvement significantly predicted levels of self-forgiveness at follow-up. The patterns of results of testing Hypothesis 7 were interesting and several attempts to interpret them are offered below.

With respect to the results obtained for the pre-treatment phase of assessment, the finding that neither Step 8 involvement nor Step 9 involvement alone predicted self-forgiveness levels but Total Twelve-step Involvement did suggests that a constricted range of scores may have influenced the results. That is, Total Twelve-step Involvement was a summed variable and naturally, it had a wider range of scores than either Step 8 involvement or Step 9 involvement alone. Thus, the results obtained pertaining to Time 1 are consistent with the interpretation that the tasks underlying Step 8 and Step 9 together had a significant positive association with self-forgiveness levels.

The results obtained for the post-treatment phase of assessment were also consistent with the predictions made. Specifically, it was expected that participants' levels of engagement in the twelve-step program's amends steps would increase from pre-

treatment to post-treatment given that one of the treatment conditions, the Spiritual

forgiveness program, directly facilitated engagement in these two steps. Furthermore, the

significant associations that were found supported the theorized mechanisms of action of

why engagement in an amends process facilitate self-forgiveness, as were first presented

in the introduction (see pp.73-77) and further elaborated on below.

Step 8 of the twelve-step program involves a dual process: acknowledging past

transgressions and developing a willingness to make amends for those transgressions.

Step 9 is a complimentary step, which involves actual behavioural follow through of

making amends for past transgressions. Step 8 and Step 9 can be conceptualized as

representing the Preparation and Action stages of the transtheoretical model of change

(Prochaska & DiClemente, 1984). Within the context of self-forgiveness, the tasks

undertaken by individuals engaged in Steps 8 and 9 facilitate self-forgiveness.

Specifically, Step 8's process of acknowledging past transgressions requires the

individual to engage in a process of reflection and self-evaluation. This self-evaluation is

a requisite criterion of self-forgiveness. That is, recall that two cardinal requisites for

authentic self-forgiveness are honesty and responsibility-taking. Honesty implies that an

individual engage on thorough introspection and an identification of past transgressions,

character flaws, and personal shortcomings. Responsibility-taking, on the other hand,

implies that the individual 'does something about it', so to speak. This naturally begins on

an intrapsychic level and then extends outward behaviourally. Thus, the tasks of Step 8

represent key processes facilitating self-forgiveness.

Step 9, which involves the actual processes of making amends, continues to

facilitate self-forgiveness. Making amends is a complex endeavour, one that is not equated to merely offering an apology or merely acknowledging the hurt that was caused to an individual. Instead, making amends requires adopting a humble approach about the self in relation to others. In effect, the individual who is making amends states "I made a mistake, I am sorry...How can I make this right?" Following from this, any number of reparative behaviours may be possible, including apology (Exline, DeShea, & Holeman, 2007), admission of wrongdoing (Eaton, Struthers, & Santelli, 2006), seeking forgiveness (Witvliet, Ludwig, & Bauer, 2002), and offering restitution (Witvliet, Worthington, Root, Sato, Ludwig, & Exline, 2008). Regardless of the exact form of a reparative behaviour, however, the individual, by definition, must acknowledge actual or perceived wrongdoing and must assume a posture of humility and vulnerability with another individual. Furthermore, the motivational vehicle of reparative behaviour is not reconciliation per se. Rather, reparative behaviour must originate from a sincere positive regard, concern, and empathy for the injured party. The idea that reparative behaviours are motivated by benevolent motivations and empathy toward another individual was supported by the results of the correlational analyses that were conducted. Specifically, the results of the correlational analyses showed that empathy, assessed by the perspective-taking subscale, had some positive correlations with Steps 8 and 9 (e.g., it was significantly positively correlated with Step 8 and Step 9 at pre-treatment, and significantly positively correlated with Step 8 at follow-up). Thus, there was some evidence from the correlational analyses that suggested that reparative behaviour may be motivated by a dimension of empathy. Plausibly, an individual's stance of due diligence

in making amends and "righting the wrongs" challenges his or her self-contempt and lack of self-forgiveness. Therefore, engagement in an amends process represents robust mechanisms of action in facilitating self-forgiveness. The results obtained in the current study support these conclusions as does an emerging body of literature, which has shown that reparative behaviours facilitate self-forgiveness processes (e.g., Ingersoll-Dayton & Krause, 2005; Hall & Fincham, 2008; Exline, Root, Yadavalli, Martin, & Fischer, 2011). Hall and Fincham's theoretical model of self-forgiveness (2005) identified conciliatory behaviour as mediating the relationship between guilt and self-forgiveness. Furthermore, Zechmeister and Romero (2002) found that self-forgiving offenders were more likely to report apologizing and making amends to the individual they injured than were offenders who had not forgiven themselves.

In Exline and colleagues' recently published study (2011), the effects of a laboratory-based exercise designed to facilitate reparative behaviours on self-forgiveness levels was examined. Specifically, during the laboratory exercise, Exline and colleagues' sample of university students ($N = 87$) listened to an audiotape recording that instructed them to focus on four components. Specifically, participants were asked to focus on 1) their role in a specific interpersonal offense where they said hurtful words to another person, 2) reflect on actual reparative behaviour they engaged in and on potential reparative behaviour, 3) consider attitudes they have about forgiving themselves, and finally 4) engage in an imagery exercise releasing negative emotions they were harbouring against themselves. Two weeks following the intervention, participants completed a reparative behaviours measure and a brief self-forgiveness scale composed

of three items. On the reparative behaviours measure, participants indicated if they had engaged in any of the following behaviours: seeking forgiveness, confession, apology, reconciliation, or other efforts to "make things right" (Exline et al., 2011, p. 108). Among the results reported by Exline and colleagues, specific reparative behaviour (e.g., apology) was found to be significantly positively correlated with self-forgiveness. Furthermore, the results of their regression analyses indicated that levels of reparative behaviours were a significant predictor of increases in levels of self-forgiveness at two weeks follow-up. Thus, Exline and colleagues' results empirically showed that engagement in reparative behaviours facilitate self-forgiveness for a specific transgression.

Given the results obtained in the current study and in the emerging empirical literature showing that reparative behaviour facilitates self-forgiveness, the question that emerges is "What factors predict reparative behaviour?" Exline and colleagues' study (2011) identified that participants who engaged in reparative behaviour prior to the intervention were more likely to engage in reparative behaviour during the two-week post-intervention interval. That is, reparative behaviours seem to be more likely to continue if there were earlier efforts. A second finding in Exline and colleagues' study was that participants were more likely to engage in reparative behaviour if the transgression occurred within a significant relationship. That is, reparative behaviour seems to be more likely within the context of a close and significant relationship than a distant relationship. The effects of relationship closeness and commitment have previously been discussed in the literature as facilitating interpersonal forgiveness.

Finally, feelings of remorse and guilt, speculatively, may motivate reparative behaviour. Specifically, remorse and guilt arise when individuals accepts responsibility for a hurt they caused another individual and it is to this extent that those emotions are sometimes described as serving an adaptive function. The action tendencies of guilt are to approach and repair (e.g., Fisher & Exline, 2006). Thus, guilt and remorse facilitate reparative behaviour, which the current findings suggest facilitate self-forgiveness.

Finally, one additional result from the correlational analyses relating to reparative behaviour and self-forgiveness related to perspective-taking, which was the dimension of empathy assessed. Specifically, the capacity to perceive things from the perspective of another individual was found to have positive associations with Steps 8 and 9, as noted. Furthermore, perspective-taking was found to be positively correlated with self-forgiveness at all phases of assessment. This finding was consistent with the finding that empathy facilitates interpersonal forgiveness. However, a review of the prior literature examining the association between empathy and self-forgiveness revealed mixed results. Prior research has generally identified empathy as negatively associated with self-forgiveness, which is inconsistent with the current finding. For example, Hall and Fincham's (2005) model of self-forgiveness identified empathy as a self-forgiveness inhibiting variable. Other research has implicated empathy as a mediating variable in the relationship between guilt and self-forgiveness (e.g., Zechmeister & Romero, 2002; Macaskill et al., 2002). That is, guilt is negatively associated with self-forgiveness and empathy explains this relationship. In a recent study by Ranggandhan and Todorov (2010), however, two different dimensions of empathy were assessed for their

associations with self-forgiveness. Specifically, Ranggandhan and Todorov examined personal distress, which is a dimension of empathy that involves feelings of discomfort when faced with the distress of others, and other-oriented empathy, which refers to the feelings of compassion and concern for others. Their results suggested that not all dimensions of empathy were inhibitors of self-forgiveness. Specifically, only personal distress was found to significantly inhibit self-forgiveness. Therefore, the inhibiting or facilitating effects of empathy on self-forgiveness seems to be dependent on specific dimension of empathy. The current finding was that self-forgiveness was positively associated with the perspective-taking (i.e., cognitive) dimension of empathy. This finding challenged the criticism that self-forgiveness is motivated by individualistic goals or inherent deficiencies in empathy. That is, contrary to the criticism, self-forgiveness does not appear to be associated with a failure to see things from the perspective of others. Again, while it is not possible to ascertain the exact nature of the relationship between perspective-taking and self-forgiveness, speculatively, perspective-taking may mediate the relationship between individuals' capacity to forgive themselves and engage in reparative behaviour (see Figure 1 on p. 90). It is hoped that future research examining these variables would shed light on the nature of their relationships.

To summarize the results of testing Hypothesis 5 through 7, levels of self-forgiveness were significantly predictive of improved levels of the negative well-being variables of depressive symptoms, anxiety, and shame, and enhanced levels of the positive well-being variable of meaning and purpose. Furthermore, the predictive effects of self-forgiveness on well-being were unique and incremental to the predictive effects of

other-forgiveness on well-being. However, neither levels of other-forgiveness nor levels of self-forgiveness significantly predicted levels of happiness. With respect to the effects of twelve-step involvement, participants' engagement in the twelve-step program's amends steps significantly predicted levels of self-forgiveness. Engagement in reparative behaviour is consequently identified as one variable that facilitates individuals' capacity to self-forgive. Overall, the results obtained provided some insight into the two broad questions that were asked, which were "Are there benefits of self-forgiveness on well-being?" and if so, "What treatment-related process variables facilitate self-forgiveness?" These topics are discussed further in light of the overall results that were obtained.

IV.3 POTENTIAL BENEFITS OF SELF-FORGIVENESS

To summarize, self-forgiveness was hypothesized to have both short-term and longer-term beneficial effects on well-being. The short-term beneficial effects of self-forgiveness on well-being were examined using data obtained at the beginning and at the end of the five months long psychosocial treatment program (i.e., pre-post) and the longer-term beneficial effects of self-forgiveness on well-being were assessed using data collected four months following the end of the psychosocial program (i.e., follow-up). Two sets of hypotheses, as were discussed, were tested. In one set of hypotheses, the relationships between participants' changes in self-forgiveness and changes in well-being variables were assessed. Thus, these analyses sought to assess whether the degree of change in the capacity to forgive the self was predictive of the degree of change in the negative well-being variables of anxiety, depressive symptoms, and shame. Although the positive well-being variables of meaning and purpose and happiness were assessed, these

variables were not assessed at pre-treatment and consequently, it was not possible to examine their change from pre-treatment to post-treatment. Overall, the results of the analyses using change scores were non-significant. In the second set of hypotheses, the relationships between overall levels of self-forgiveness and overall levels of the negative well-being variables and the positive well-being variables were examined. The results of these analyses showed consistent significant associations between self-forgiveness and enhanced well-being. Specifically, self-forgiveness levels significantly predicted reduced anxiety, depressive symptoms, shame, and increased meaning and purpose. Thus, these results suggested that the answer to the question "Are there benefits of self-forgiveness on well-being?" is yes.

Although the cross-sectional evidence cannot be used to address the temporal nature of the relationship between self-forgiveness and enhanced well-being, the evidence suggests that trait self-forgiveness has beneficial associations with well-being outcomes of individuals in Stage 2 recovery from AOD use disorders. Speculatively, self-forgiveness may protect individuals against the experience of negative well-being variables through a number of different mechanisms. For example, individuals who adopt self-forgiving tendencies may be less prone to experiencing common symptoms of distress like anxiety, depressive symptoms, or shame because of the attitudes that underlie self-forgiveness. The attitudes underlying self-forgiveness are, by definition, balanced. That is, self-forgiveness entails adopting balanced attitudes toward the self as well as balanced attitudes toward the self in relation to others and to the world at large. The balanced attitudes toward oneself that are captured by self-forgiveness involve views

of the self as neither 'all bad' nor as 'all good'. The balanced attitudes toward the self in relation to others and to the world at large entail viewing the self as neither all helpless (i.e., a victim) nor as all evil (i.e., perpetrator). Plausibly, these balanced attitudes would protect against anxiety, depressive symptoms, and shame, which are fuelled by remarkably different cognitive patterns. For example, common thought patterns in anxiety include catastrophic, rigid, and unrealistic beliefs, as well as tendencies to discount the positives. Thus, the individual prone to anxiety generally fears 'losing control' or some variant of being 'less than' perfect. In contrast, the individual with self-forgiving attitudes does not have their worth dependent on their performance because they recognize their inherent imperfectness. Thus, on a theoretical level, the attitudes underlying self-forgiveness would seem to protect against vulnerability to anxiety.

By the same token, depression is often characterized by biased thought patterns that are commonly referred to as the "cognitive triad", which were first discussed by Aaron Beck (e.g., Beck, Rush, Shaw, & Emery, 1979). The cognitive triad of depression is characterized by thoughts of the self as worthless, thoughts of the self in relation to others as helpless, and thoughts about the future as hopeless. In addition, individuals with depression attribute events to internal and global reasons, which are assumed to be stable (Beck et al., 1979). For example, in response to an interpersonal injury, the individual with depression may conclude 'I am bad, all of me is bad, and I will always be bad'. The rigidity of the attributions of depressed individuals results in errors, which maintains the depressive symptoms. In fact, cognitive therapists working with individuals with depression assist them in challenging these cognitive patterns and reaching more

balanced conclusions. For the individual with self-forgiving attitudes, the stance toward interpersonal injuries is "I made a mistake, some of me is bad, but I can grow and improve on myself".

Shame represents another diametrically opposite stance toward the self than self-forgiveness. Specifically, individuls who experiences shame believes that they are wholly unworthy, incompetent or unlovable. That is, unlike guilt, shame rests on a negative evaluation of the entire self rather than on a specific behaviour or situation. It is undoubtedly this hyper focus on the self, which is negative and global, that accounts for the deleterious effects that shame has on an individual's sense of well-being (e.g., Robins et al., 2001). The global nature of shame also lends to it being deeply entrenched, leading some to use the term *internalized shame* (e.g., Tangney, 1991; Kaufman, 1989). To adopt self-forgiving attitudes, in contrast, is to take a balanced stance toward the self, such that although an interpersonal injury may bring about shame, it does not define the entire self. Thus, again from a theoretical perspective the attitudes underlying self-forgiveness would protect against the globally negative attributions of the self that are inherent in shame. Thus, one theoretical explanation of the beneficial associations between self-forgiveness and enhanced well-being is through its effects on protecting against symptoms of distress such as anxiety, depressive symptoms, and shame.

In addition to individual tendencies in attitudes, forgiveness, by definition, involves shifts in thoughts, behaviours, and emotions about a specific interpersonal injury or transgression. In interpersonal forgiveness, the shifts occur toward another individual and in self-forgiveness, the shifts are toward the self. Specifically, thoughts about the self

shift from being general and negative to being concrete and balanced. For example, the individual who has forgiven him or herself comes to recognize that their behaviour and perhaps even some aspect of his or her person was at fault rather than their entire person. Self-forgiveness also results in shifts in behaviour because, by definition, it involves a commitment to 'right the wrongs' and self-improvement. Engaging in interpersonal amends, for example, represents one such shift in behaviour that is involved in the process of self-forgiveness. Finally, self-forgiveness results in shifts in emotions about the self. For example, in self-forgiveness the emotion of shame is transformed into more adaptive emotions, such as guilt and remorse. Emotions of guilt and remorse provide the individual with information that something was not 'right' and in doing so, it serves an adaptive function. Specifically, the emotions of guilt motivate interpersonal reparative behaviour, which facilitate self-forgiveness. In summary, a second potential explanation of why the capacity to forgive the self is beneficial to well-being is that self-forgiveness, by definition, involves shifts in thoughts, behaviour, and emotions toward the self.

Another theoretical model of explaining how and why self-forgiveness may have beneficial effects on well-being is that self-forgiveness provides an adaptive way of coping with distressing emotions when they arise. That is, the benefits of self-forgiveness may be derived from its effects of acting as an adaptive emotion-focused coping strategy, as were discussed earlier. This conceptual model of self-forgiveness, developed by Worthington and colleagues (Worthington, 2006; Worthington & Scherer, 2004), not only has face validity but also has been supported empirically.

For example, in a recent study by Wohl, Pychl, and Bennett (2010) on

procrastination among university students, self-forgiveness for previous procrastination about an upcoming examination was found to significantly decrease future procrastination. To explain these results, Wohl and colleagues proposed that self-forgiveness "allows the individual to move past their maladaptive behaviour" (p. 806) by letting go of the negative affect. Negative affect, such as shame, leads to avoidance behaviours and rumination (e.g., Thompson et al., 2005). Thus, Wohl and colleagues' findings were consistent with the conceptual model of self-forgiveness as an adaptive emotion-focused coping strategy.

The role of emotional processing in self-forgiveness has been discussed by several researchers. For example, Emmons (2000) has argued that forgiving individuals tend to have well-developed emotion-management skills. These emotion-management skills, in turn, allow forgiving individuals to constructively work through their negative emotional responses to interpersonal injuries. Thus, dealing with painful, negative emotions lies at the heart of forgiveness. In fact, Emmons' position can be extended such that not only do self-forgiving individuals have well-developed emotion-management skills, but also the practice of self-forgiveness makes accessible an adaptive form of emotion-focused coping (Hodgson & Wetheim, 2007).

In summary, the beneficial associations between self-forgiveness and well-being may be theoretically explained in a number of different ways. As discussed, self-forgiveness may protect individuals against experiencing symptoms of distress and when experienced, self-forgiveness may provide individuals with an adaptive way to deal with them. Consequently, self-forgiveness may have a number of implications, particularly on

the addiction treatment field and fields of scholarship, as discussed below.

IV.4 IMPLICATIONS FOR THE ADDICTION TREATMENT FIELD

As discussed in detail in the introduction, AOD use disorders are associated with vast physical and psychological problems that are chronic. Consequently, recovery from AOD use disorders involves managing the physical aspects of the addiction (i.e., Stage 1 recovery) and the restoration of the psychological domains of functioning (i.e., Stage 2 recovery). That is, recovery should be understood within a holistic framework such that it is recognized as a multi-stage process involving multiple domains of functioning, including abstinence, citizenship, and a subjective quality of life. Following from this holistic understanding of recovery, interventions facilitating recovery need to be tailored to the particular needs of individuals. Prochaska and DiClemente (1984)'s transtheoretical model of change stresses that the success of an intervention depends on the match between an intervention and the individual's particular stage of change. In summary, recovery efforts addressing substance-related outcomes and addressing well-being and subjective quality of life outcomes are equally important. The parent study, on which the current study was based, examined the utility of interventions facilitating Stage 2 recovery. Based on the current finings, clinical interventions facilitating self-forgiveness arguably represent a promising avenue of facilitating Stage 2 recovery from AOD use disorders.

Stage 2 recovery refers to a later stage of recovery whereby individuals have achieved long-term abstinence from their substance of abuse and are motivated to enhance their subjective quality of life. Self-forgiveness may represent one such vehicle

by which individuals can attain a subjective quality of life, one that is marked by a greater sense of meaning and purpose, and few anxiety, depressive symptoms, and shame. Therefore, a major potential implication of the current findings is that professionals working with individuals in Stage 2 recovery from AOD use disorders may want to consider self-forgiveness as a targeted clinical intervention.

Self-Forgiveness Interventions

To date, no research has examined the clinical efficacy of self-forgiveness interventions with substance abusing individuals, with one exception (Scherer, 2010). Given the preliminary evidence on the beneficial associations of self-forgiveness and individuals' outcomes, this gap in the field likely does not reflect a lack of interest. Instead, that self-forgiveness interventions have not yet been examined empirically likely reflects the generally young state of the empirical literature on self-forgiveness and perhaps a lack of specific knowledge on *how* to facilitate self-forgiveness. Other-forgiveness interventions, in contrast, have been assessed for their clinical utility among individuals with substance abuse disorders (e.g., Lin, Mack, Enright, Krahn, & Baskin, 2004; Worthington et al., 2006). For example, Lin and colleagues (2004) designed and implemented a 12-week structured intervention of interpersonal forgiveness therapy among a sample of 40 individuals with a substance misuse disorder diagnosis. Participants were randomly assigned to either the forgiveness therapy condition or to an individual therapy condition. Lin and colleagues hypothesized that anger and depression act as risk factors for maladaptive coping through the use of substances, such as alcohol. Consequently, they predicted that participants in the forgiveness therapy condition would

have lower levels of alcohol consumption than individuals who received individual therapy only. Their overall results supported their hypotheses. Specifically, individuals who completed the forgiveness therapy program were significantly less likely to consume alcohol at the end of treatment and at four month follow-up than individuals who only received individual therapy. Furthermore, Lin and colleagues found significant correlations between participants' change scores on a measure of interpersonal forgiveness and change scores on a measure assessing anger, anxiety, and alcohol consumption. They concluded that there are therapeutic benefits of forgiveness-specific interventions among substance-abusing individuals and consequently, forgiveness interventions should be considered as adjunct components in the care of individuals with AOD use disorders.

In another interpersonal forgiveness intervention, Worthington and colleagues (2006) facilitated a five-stage process model of interpersonal forgiveness. The five stages are summarized by the acronym REACH, namely: Recalling the hurt, Empathizing with the offender, offering the Altruistic gift of forgiveness, making a Commitment to forgive, and Holding onto forgiveness. According to Worthington and colleagues, the mechanism of action of forgiveness therapy, whether it is interpersonal forgiveness or self-forgiveness, comes from reducing negative emotions, such as shame. These shame-reduction functions of forgiveness, in turn, reduce the impetus for maladaptive coping, such as substance use and abuse.

Finally, one recent study that has examined the clinical efficacy of a self-forgiveness intervention specifically among substance-abusing individuals was that of

Scherer (2010). Specifically, Scherer designed and implemented a single session self-forgiveness intervention ($N = 38$) using Worthington's process model, as discussed, and motivational interviewing techniques (see Scherer, 2010 for intervention manual). Scherer's results revealed significant increases in participants' self-reported levels of self-forgiveness and levels of drinking refusal self-efficacy (i.e., the ability to abstain from drinking). Corresponding with these increases in self-forgiveness and drinking refusal self-efficacy, Scherer's participants also reported significant reductions in state shame about a specific alcohol related transgression. Thus, Scherer's findings provided direct empirical support for the efficacy of self-forgiveness interventions on drinking and non-drinking outcomes among individuals with AOD use disorders.

Given the mounting suggestion in the literature that self-forgiveness is associated with beneficial outcomes of well-being and the preliminary evidence on the utility of self-forgiveness interventions, there is a need to develop, implement, and evaluate self-forgiveness interventions. As noted, some researchers have suggested that self-forgiveness interventions be included as an adjunct component in the care of individuals with AOD use disorders. Still others argue that the benefits of self-forgiveness on health, coping, and overall well-being imply self-forgiveness interventions in of themselves ought to be considered a primary component of treatment (e.g., Worthington et al., 2007). The question that naturally emerges and which, was asked in the current study was "What treatment-related process variables facilitate self-forgiveness?" Self-forgiveness might be facilitated in several ways, as will be discussed next.

Self-forgiveness Facilitating Factors

The effects of two treatment-related process variables on facilitating self-forgiveness were assessed in the current study: therapeutic alliance, and twelve-step involvement. With respect to therapeutic alliance, although it was not reliably assessed in the current study, there are plausible reasons to expect that it would be associated with levels of self-forgiveness. Arguably, a positive therapeutic alliance theoretically may provide an individual with the conditions to reconsider their capacity to self-forgive. For example, a bond that is characterized by warmth, unconditional positive regard, and a balanced stance of a counsellor may provide an individual with a corrective emotional experience. This corrective emotional experience may enable the individual to self-forgiveness. Arguably also, a positive therapeutic alliance with one's counsellor may also theoretically provide the necessary and safe space in which individuals can explore and process their attitudes toward self-forgiveness. That is, at the heart of unforgiveness is self-condemnation and shame such that an individual believes that their transgression and perhaps even their person is despicable and consequently 'unforgivable'. Having a safe therapeutic space to bring to the forefront such painful thoughts and feelings about oneself, and going into the pain of remembering the details would likely only happen in the context of a safe and positive therapeutic alliance. Finally, a positive therapeutic alliance with one's counsellor, by definition, is a bridge of the gap between two individuals, the helper and the person receiving help. This psychological contact between an individual and their counsellor is powerful from the perspective of self-forgiveness. On the most basic level, it heightens the possibilities of mirroring and modeling. That is,

counsellors who are self-forgiving themselves have the potential to impart the attitudes of self-forgiveness indirectly to an individual through their 'person'. On a deeper level, the contact between an individual and their counsellor represents a 'real-time' truth of self-forgiveness: two imperfect beings who are bound to be at fault at some point through the course of their relationship. Thus, from a theoretical perspective, therapeutic alliance may have bearing on self-forgiveness processes and represents a fruitful topic of future research.

The second treatment-related process variable facilitating self-forgiveness that was examined was involvement in the twelve-step program's amends steps, Steps 8 and 9. As discussed, engagement in an amends process and more broadly, in reparative behaviour facilitates self-forgiveness processes. Thus, one strategy of facilitating self-forgiveness is facilitating individuals' engagement in making amends for past transgressions, and engaging in any number of reparative behaviours.

In addition to these variables of therapeutic alliance and engaging in interpersonal amends, there are several strategies that may be employed to facilitate self-forgiveness. For example, professionals working with individuals dealing with issues of self-forgiveness may engage them in a dialogue on the costs of holding on to their negative feelings toward the self and of their self-contempt. Such a dialogue would be productive in enhancing awareness of the emotional, health, and interpersonal costs of a lack of self-forgiveness and thereby, increase dissonance and motivation for self-forgiveness. Exploring individuals perceived benefits and meta-cognitions about unforgiveness of the self would also be productive. For example, one commonly perceived benefit of

unforgiveness of others is a belief that it protects against future hurt by the individual (Hanna, 2007, unpublished master's thesis). In the case of unforgiveness of the self, an individual may perceive that it is 'justified punishment' or that it serves as a reminder for self-improvement. Therefore, exploring the perceived costs and perceived benefits of self-forgiveness and unforgiveness of the self are two useful general interventions to facilitate self-forgiveness.

A second general strategy is providing psychoeducation. Specifically, psychoeducation can be provided on what self-forgiveness is and what it is not. For example, self-forgiveness can be described as a process of 'working through' past transgressions and getting 'unstuck'. Self-forgiveness, however, is not pardoning, excusing, or ridding oneself of all guilt or remorse. Providing psychoeduation also on the differences between authentic and pseudo self-forgiveness is an effective intervention. For example, authentic self-forgiveness should be understood as requiring time and hard work whereas pseudo self-forgiveness is a failure to take responsibility for one's transgressions.

Third, individuals who are motivated to self-forgive can be assisted in a number of ways. The use of imagery techniques, for example, can be helpful. For example, professionals can guide the individual in visualizing themselves releasing their negative thoughts, behaviour, and feelings about themselves about a specific transgression. In a study by Witvliet and colleagues (2002), participants imagined that they were seeking forgiveness from an individual they hurt and that the injured party had granted them forgiveness. Witvliet and colleagues' results showed that the imagery exercise had a

significant association with increased levels of self-forgiveness. In addition to visual imagery exercises, writing exercises can be used to either process the thoughts, feelings, and behaviour toward the self, or to symbolize the renewed stance of self-forgiveness.

Fourth, self-forgiveness may be facilitated through not only assisting individuals in engaging in interpersonal amends but also engagement in two other steps of the twelve-step program_ Steps 4 and 5. Specifically, Step 4 involves individuals' preparation of what is known as a *personal inventory*. A personal inventory is a list of previous transgressions, character flaws, and personal shortcomings. Step 5 involves individuals to share the content(s) of their personal inventories with another individual. Together, the tasks involved in these two steps would theoretically be beneficial in facilitating self-forgiveness. By preparing the personal inventory, an individual exercises honesty and self-examination, which are the two cardinal requisites for self-forgiveness to emerge as a possibility. Sharing the content of the personal inventories has cathartic functions but also acts as a first step in shifting one's stance with the self from that of victim to that of agency and the 'choice' of self-forgiveness. Furthermore, the courage required to share one's past transgressions, character flaws, and personal shortcomings would simultaneously result in a degree of self-acceptance and a commitment to *do* or to *be* different in the future.

In summary, facilitating the psychological tasks of Steps 4 and 5 of the twelve-step program along with the general and specific strategies noted seem promising and may be utilized by professionals working with their clients who are struggling with issues of self-forgiveness. The strategies available may perhaps only be limited by clients'

willingness and readiness to consider self-forgiveness, as well as counsellor's own personal experiences and openness to the potential virtues that are derived from self-forgiveness. As Baker stated (2000) from her interviews with women in recovery from addictive disorders, self-forgiveness may in fact have far-reaching applications in the substance abuse treatment field. In addition to the potential implications on the addiction treatment delivery field, the current findings also carry a number of important potential implications to the empirical fields. Specifically, the potential implications to self-forgiveness, well-being, and addiction scholarship fields are discussed.

IV.5 IMPLICATIONS FOR SELF-FORGIVENESS SCHOLARSHIP

 Two broad classes of implications to self-forgiveness scholarship can be identified: those pertaining to theory development, and those pertaining to future research direction. On a theoretical level, the greatest implication of the current findings relates to construct validity. As noted, although the ideas underlying self-forgiveness have long been discussed by philosophers like Kant and early psychologists like Maslow, the empirical study of self-forgiveness has only emerged within the last decade or so. In contrast, the empirical study of other-forgiveness, considered by many to be self-forgiveness' sister construct or 'step-child' (Hall & Fincham, 2005) has been developing for the past several decades and thus, is relatively mature. The current findings, however, implied and added to the emerging literature that self-forgiveness is associated with beneficial outcomes. Furthermore, there was support for the conclusion that the benefits of self-forgiveness on well-being were independent of the benefits of other-forgiveness on well-being. Thus, the current findings supported the incremental construct validity of

self-forgiveness. That is, the current findings provided original evidence that self-forgiveness is not interchangeable with other-forgiveness although the constructs are theoretically linked. Another implication to the self-forgiveness scholarship field concerns how self-forgiveness relates to several other constructs discussed in the literature. Specifically, self-forgiveness seems to be conceptually related to three other constructs: self-esteem, self-compassion, and self-acceptance as discussed.

<u>Self-Esteem</u>

Self-esteem is a long and well-established construct that has been discussed in the literature. Self-forgiveness seems to share theoretical linkage to self-esteem in that both involve an assessment of the self as worthy. Specifically, individuals with high self-esteem believe that they are adequate (Rosenberg, 1965) and a self-forgiving individual believes that they are worthwhile despite past failures or shortcomings. Therefore, theoretically both self-esteem and self-forgiveness seem to represent a healthy stance toward the self.

One important distinction between self-esteem and self-forgiveness, however, is their varying processes of origination. Specifically, self-esteem is dependent on an assessment of oneself as adequate and commonly 'better than' some external standard or reference point. This inherent social-comparison feature of self-esteem leads to fluctuation. More problematically, the inherent social-comparison feature of self-esteem has been found to be associated with negative consequences, including narcissistic tendencies (Morf & Rhodewalt, 2001), blaming and aggression (Sedikides, 1993), anger (Baumeister, Smart, & Boden, 1996), and prejudice (Fein & Spencer, 1997). In contrast,

self-forgiveness is not dependent on social comparison and authentic self-forgiveness does not fluctuate across time. Thus, the association between self-esteem and self-forgiveness can be summarized as the first being a necessary but insufficient criterion for the latter (e.g., Enright, 1996; Strelan, 2007).

Self-compassion

A second construct that seems conceptually related to self-forgiveness is self-compassion, which has also only recently received scholarly attention (e.g., Gilbert & Irons, 2005; Gilbert & Proctor, 2006; Neff, 2003a, 2003b). Self-compassion has been conceptualized from at least two different perspectives, that from a physiological-attachment theory perspective (e.g., Gilbert et al., 2005; Gilbert et al., Proctor, 2006) and that from a mixed psychological-Buddhist perspective (Neff, 2003b; Neff, Rude, & Kilpatrick, 2007; Neff, Hseih, & Dejitthirat, 2005). The mixed psychological-Buddhist perspective of self-compassion is reviewed here. From a theoretical perspective, self-compassion is compassion toward the self. Compassion emerges when we are open to the suffering and pain of another individual and in response to this awareness, we neither run nor disconnect. Instead, in compassion, we allow ourselves to feel kindness, and a kinship to the suffering of another. Thus, self-compassion is extending to the self those elements. Neff describes self-compassion as "offering nonjudgmental understanding to one's pain, inadequacies, and failures, so that one's experience is seen as part of the larger human experience" (Neff, 2003, p. 87). Specifically, Neff defines three broad dimensions that self-compassion entails, including their polar opposites. Specifically, self-compassion involves self-kindness (or the absence of self-judgment), a sense of

common humanity (versus isolation), and mindfulness (rather than over-identification). On the bases of these three dimensions, Neff and her colleagues have developed the Self Compassion Scale (SCS; Neff, 2003), which is designed to assess individuals' varying degrees on the six dimensions.

As may be evident, there are some conceptual similarities between the constructs of self-forgiveness and self-compassion. Neff states that "…feeling compassion for oneself is similar to feeling forgiveness for oneself" (Neff, 2003, p. 87). Specifically, the dimension of self-compassion of self-kindness is theoretically similar to the benevolence and extending the self "good-will" in self-forgiveness (e.g., Enright, 1996; Hall & Fincham, 2005). Similarly, the dimension of common humanity of self-compassion parallels the Kantian assumption of inherent worth that is central to self-forgiveness. Furthermore, self-compassion has also been discussed by Neff as representing a "useful emotional-approach coping strategy" (Neff, 2003, p. 92) whereby negative emotions are adaptively dealt with rather than avoided, which intensifies the emotions. It is not clear, however, if the dimension of mindfulness versus over-identification parallels self-forgiveness processes or is unique to self-compassion. Thus, from a theoretical or conceptual perspective, self-forgiveness and self-compassion seem related.

In addition to the conceptual parallels between self-forgiveness and self-compassion, both constructs are associated with beneficial outcomes. That is, the constructs are similar as well from the perspective of outcomes. For example, levels of self-compassion have been found to predict greater levels of happiness, optimism, and personal initiative (Neff, Rude, & Kilpatrick, 2007). In contrast, individuals endorsing

low levels of self-compassion have been found to report greater degrees of psychiatric symptomatology, such as anxiety, depression, neuroticism, and rumination (Neff, 2003a; Neff, Hseih, & Dejitthirat, 2005; Neff et al., 2007). Thus, the outcomes related to self-compassion seem to bear similarities with the outcomes associated with self-forgiveness.

Despite the conceptual and empirical associations between self-compassion and self-forgiveness, prudence should be exercised in declaring them to be interchangeable. Consider, for example, the varying scope or breadth of self-compassion versus self-forgiveness. Specifically, the dimension of mindfulness of self-compassion, as noted, is unique and seems to allude to a broader, more encompassing stance toward the world. Although self-forgiveness involves a stance toward not only the self but also the self in relation to others, it seems more specific or narrower in focus than self-compassion. This potentially distinguishing feature is consistent with Neff's view(personal correspondence, 2009) that although both self-compassion and self-forgiveness represent a healthy relationship with oneself, self-compassion refers to a broader relationship with not only oneself but also one's self in relation to the world. Thus, the association between self-compassion and self-forgiveness may be that self-forgiveness is a necessary but insufficient criterion for self-compassion. However, future research should empirically assess their associations.

<div align="center">Self-acceptance</div>

A third construct that bears conceptual resemblance to self-forgiveness is self-acceptance. Although the term has been used by numerous researchers in passing, few have conducted empirical research on the construct of self-acceptance. One group of

researchers who has discussed self-acceptance from an empirical standpoint has been Ryff and colleagues (e.g., Ryff & Singer, 2008). According to Ryff and her six-dimension model of psychological well-being, self-acceptance refers to the degree by which an individual adopts a stance of positive regard toward the self. Importantly, self-acceptance is, by definition, unconditional and not contingent on a specific outcome, like self-esteem is. Instead, individuals who are high on the dimension of self-acceptance tend to accept their strengths and weaknesses, and to accept past events and behaviours (Ryff & Singer, 2008). It is perhaps this feature of unconditional positive regard and the word "acceptance" that evokes criticism of the construct. That is, a common criticism of self-acceptance is that it is passive in that by 'accepting' one's shortcomings, the possibilities for change and improvement vanish. A review of the theoretical literature and Ryff's writings on the subject, however, do not permit a response to this criticism. That is, it is not clear at present from an empirical standpoint if self-acceptance is correlated with resignation, passivity, and even deleterious individual outcomes. What is clear, however, is that the ideas underlying self-acceptance seem to conceptually relate to those of self-forgiveness. This is especially the case with trait self-forgiveness, or *forgivingness* of the self. That is, self-acceptance seems to relate to a dispositional level variable that would be similar to dispositional self-forgiveness. Whether the constructs differ and if so, how they differ are questions that are yet unanswered.

A recently published article by Vitz and Meade (2011) titled "Self-forgiveness in Psychology and Psychotherapy: A critique" argues that what is meant by self-forgiveness is actually better represented by the use of the term self-acceptance. Specifically, Vitz

and Meade reject the use of the term self-forgiveness and self-forgiveness theory on the basis of four specific criticisms. Briefly, the first criticism is that self-forgiveness causes "splitting of the selves" (p. 253) such that a 'bad' aspect of the self is forgiven by another, 'good' aspect of the self. Self-forgiveness then marries the selves again and re-integration occurs. Vitz and Meade argue that not only is splitting an immature ego defense but also failure to achieve reintegration is a significant risk for some individuals. The second criticism refers to the "intrinsic conflict of interest" of self-forgiveness. That is, Vitz and Meade highlight the inherent problems in objectivity of the self being both the offender as well as the forgiver. Third, they criticize self-forgiveness on the claim that it "promotes narcissism, and appeals to narcissists". Given the potentially far reaching implications of this criticism, it is only mentioned here but not addressed because addressing it would have to be thorough and consequently, outside the scope of the interests of this section. Finally, Vitz and Meade argue that the use of the term "forgiveness" is inaccurate and misleading because it suggests that other and self-forgiveness have more in common than the empirical literature has shown. This criticism is based on the empirical literature that has discussed the different psychological processes involved in self-forgiveness versus those involved in other-forgiveness. Instead, Vitz and Meade argue that the benefits described in the literature that are assigned to self-forgiveness are, in fact, derived from self-acceptance. They conclude by stating that they "strongly suggest that self-acceptance be substituted by the term self-forgiveness…" (p. 261). As noted, responding to the criticisms that were put forth by Vitz and Meade is outside the scope of interest of the current section. It does, however,

highlight the need for a better understanding of how the construct of self-forgiveness is conceptually related to that of self-acceptance and whether, as Vitz and Meade argue, self-acceptance and not self-forgiveness is what accounts for the benefits discussed in the literature and this term should be used instead.

In summary, although self-forgiveness, self-esteem, self-compassion, and self-acceptance seem to tap into conceptually related domains of a healthy stance toward the self, the extent that these constructs overlap and their unique variance has not to date been examined in the empirical literature. Thus, future research would benefit from simultaneously examining these variables to better conceptually delineate between them. Beyond a purely theoretical differentiation, future research should also consider shedding light on whether the constructs of self-forgiveness, self-compassion, and self-acceptance have varying implications for the well-being of individuals in Stage 2 recovery from AOD use disorders.

IV.6 IMPLICATIONS FOR WELL-BEING SCHOLARSHIP

The findings in the current study pose a number of potential implications to the empirical literature on well-being. Specifically, well-being was assessed using a multi-measure approach such that variables of positive well-being and variables of negative well-being were simultaneously examined. The negative well-being variables of anxiety, depressive symptoms, and shame indicate the presence of distress and thus, the absence of well-being. The positive well-being variables assessed, on the other hand, directly tapped into dimensions of well-being previously discussed in the literature: meaning and purpose, and happiness. Meaning and purpose represents a eudaimonic dimension of

well-being and happiness represents a hedonic dimension of well-being. The results indicated that levels of self-forgiveness had a significant association with all levels of the negative well-being variables but only the meaning and purpose dimension of the positive well-being variables. This finding confirms the validity of the eudaimonic and hedonic dimensions of well-being. Specifically, the results implied that the empirical study of well-being would benefit from simultaneously assessing different dimensions of well-being.

IV.7 IMPLICATIONS FOR ADDICTION SCHOLARSHIP

Perhaps the greatest implication on addiction scholarship is the need to examine the utility of broad-based recovery approaches. That is, given that recovery is understood within a holistic framework and the high relapse rates and poor well-being outcomes associated with AOD use disorders, there is a need to evaluate broad-based approaches to recovery. As discussed, evaluating the efficacy of self-forgiveness interventions in facilitating the subjective quality of life of individuals in recovery from AOD use disorders represents one important future research direction.

Another fruitful area of exploration for the addiction research field relates to continued efforts to identify the active ingredients of mutual aid support groups, such as AA. Given the consistently reported efficacy of twelve-step programs on drinking and non-drinking outcomes (e.g., Emrick et al., 1993), the identification of mechanisms of behaviour change would advance understanding and provide professionals with valuable clinical resources in intervening with their clients. The current findings that engagement in the interpersonal amends steps, Steps 8 and 9, of the twelve-step program add to the

empirical evidence indicating that AA involvement is associated with positive outcomes (e.g., Cloud et al., 2004). Furthermore, the current findings support the preliminary findings by Gomes and Hart (2009) that specific engagement in AA's step-work is associated with positive outcomes of well-being. Specifically, Gomes and Hart (2009) found that engagement in Steps 4 and 5 was predictive of increased levels of meaning and purpose. Finally, the current findings of Steps 8 and 9 facilitating self-forgiveness, and the beneficial associations of self-forgiveness and well-being support the need for continued future research identifying potential mechanisms of behaviour change in the twelve-step program. This research would provide added empirical support for the current trend in the field toward Twelve-Step Facilitation (TSF) interventions and, as noted, provide professionals with valuable strategies of intervention.

Third, a broader issue in addiction scholarship that is important to discuss is the research to practice gap. Specifically, a major concern that has been discussed in the literature is that there is currently little to no reciprocity of knowledge between the addiction research and addiction treatment fields (e.g., Lamb, Greenlick, & McCarty, 1998; McLellan, 2002). For example, despite the field's increasing recognition of recovery from AOD use disorders as a multi-stage, multi-dimensional process, as was captured by the Betty Ford Institute's Consensus Panel Report (BFICPR; 2007), there is a paucity of research on non-substance related, quality of life outcomes. Similarly, in the addiction treatment filed, there is a disproportionate emphasis placed on substance-related outcomes (e.g., detoxification and harm-reduction treatment programs). Therefore, a major gap between the bodies of knowledge on recovery and the addiction

treatment field seems to exist. To reduce this gap, future addiction scholarship should aim to examine Stage 2 recovery variables, such as well-being and subjective quality of life, and efforts to bridge the gap between addiction researchers and addiction treatment providers should be considered a priority (e.g., Brown & Flynn, 2002).

Finally, another implication to the addiction treatment research field specifically concerns the nature of outcome data that is collected. Specifically, given that AOD use disorders are associated with psychosocial problems such as crime and unemployment and that recovery from AOD use disorders involves not only abstinence but also an improvement in social functioning and citizenship, the implication is that addiction treatment research should collect information on these outcomes. With this agenda, McLellan, McKay, Forman, Cacciola, and Kemp (2005) advocate "concurrent recovery monitoring" (CRM). Specifically, CRM involves an assessment of the traditional outcomes of reduction in drug use as well as an assessment of outcomes related to social functioning, and decreased threats to society. The term "concurrent" in CRM refers to the repeated nature of the assessment during treatment. According to McLellan and colleagues, these ongoing assessments provide meaningful opportunities for timely clinical intervention. Thus, addiction scholarship should consider assessing information relevant to not only the short-term goals of recovery of substance use reduction but also information relevant to the longer-term goals of recovery of improved personal health, social functioning, and subjective quality of life.

IV.7 STRENGTHS AND LIMITATIONS

Several strengths and limitations of the parent study, on which the current study

is based, as well as the current study are outlined and discussed.

<center>Parent Study</center>

The parent study had a number of methodological strengths that are noteworthy. One methodological strength was the sample. Specifically, the participants that were recruited to and who completed the psychosocial intervention program of the parent study had a history of AOD use disorders. However, the participants had achieved long-term abstinence from their substances of addiction and were engaged in Stage 2 recovery, or the pursuit of a quality of life. Secondly, the participants were all regular twelve-step program attendees and data collected during the parent study indicated that they attended an average of two meetings a week. Thus, the clinical nature of the sample of the parent study as well as their participation in a twelve-step program provided the unique opportunity to examine Stage 2 recovery variables, and purported active ingredients of the twelve-step program.

A second methodological strength of the parent study was its two treatments, randomized design. Specifically, the parent study utilized Urn randomization techniques to match and balance clients to one of the two treatment conditions to test the patient-treatment matching hypothesis, which was inspired by Project MATCH (1997, 1998). Therefore, although the parent study did not have a control group, its design represented a strength.

A third group of methodological strengths of the parent study was the use of different assessment phases (i.e., longitudinal) and a variety of instruments in each

assessment battery. Furthermore, clients were assessed throughout the course of participation in the treatment program in the form of process assessment batteries. This was consistent with McMellan and colleagues CRM model, that was discussed earlier (McMellan et al., 2005). Thus, the parent study's methodology of different assessment phases and the use of comprehensive assessment batteries represented one group of strengths.

In addition to these methodological strengths, a second class of strengths of the parent study was clinical. Specifically, the parent study designed, implemented, and compared two interventions that sought to assist clients in forgiving. In doing so, the parent study sought to facilitate the well-being and Stage 2 recovery of the participants. Therefore, the parent study answered the call in the field to examine the clinical utility of interventions facilitating the subjective quality of life of recovering individuals. Specifically, one of the treatment conditions was an adaptation of a well-known forgiveness intervention program developed by Enright and the Human Study Group (1996) while the other treatment condition was a Twelve-Step Facilitation (TSF) intervention as applicable to Stage 2 issues. Therefore, another clinical strength of the parent study was it provided an opportunity to empirically assess the efficacy of an already developed forgiveness intervention program as well as empirically assess the efficacy of a TSF intervention of Stage 2 recovery. In addition, the delivery of the interventions through a structured manual and the use of eight counsellors as well as senior counselors who provided ongoing supervision increased the likelihood of treatment fidelity. Finally, the parent study contributed to the emerging literature on

forgiveness therapy among individuals with a history of AOD use disorders.

Current Study

The parent study's strengths that were noted naturally extend to the current study, given the use of archival data. By the same token, limitations of the parent study are discussed in light of limitations of the current study. Therefore, in the paragraphs that follow the strengths and limitations of the current study are discussed, and directions for future research offered.

One group of strengths of the current study relates to theory. Specifically, the hypotheses put forth in the current study married two broad fields of inquiry, specifically the field of addiction scholarship and the field of Positive Psychology. In doing so, the current study contributed to scholarship on recovery and on self-forgiveness. Specifically, the current study contributed to the body of knowledge on Stage 2 recovery by examining predictors of well-being and more so, it responded to the call in the addiction research field to identify potent active ingredients and mechanisms of behaviour change in the twelve-step program. Specifically, the current study examined the effects of engagement in the amends steps of the twelve-step program, Steps 8 and 9. Simultaneously, the current study contributed to the growing body of literature on self-forgiveness. The results not only confirmed the validity of the construct, and its associations with enhanced well-being outcomes, but also its incremental validity to other-forgiveness. Thus, the current study had a number a strengths from the perspective of theory development.

From a methodological perspective, the current study refined and advanced the fields of well-being, and self-forgiveness scholarship. With respect to well-being scholarship, the current operationalization of the construct of well-being using multiple measures tapping into different dimensions was a strength. As noted, the multi-measure approach to conceptualizing and operationalizing well-being resulted in valuable findings, such as the finding that self-forgiveness levels predicted meaning and purpose levels but not happiness levels. This finding helps to advance the understanding of the relationship between self-forgiveness and positive well-being and therefore, the operationalization of the two variables of positive well-being represented a current strength. Furthermore, happiness was operationalized using hedonic balance scores, which represent a more sophisticated assessment of happiness that takes into account the relative frequency of positive to negative emotions. Therefore, this approach to assessing happiness refined prior research that has employed raw data from mood checklists. Related, the current meaning and purpose measure was comprised of three items tapping into not only perceived meaning but also comprehensibility. Recall that comprehensibility refers to the degree that an individual perceives events in their life as "making sense". Therefore, the current measure of meaning and purpose arguably tapped into important constituents. Finally, two types of forgiveness were included in the current study: trait self-forgiveness, and trait other-forgiveness. As noted, although self-forgiveness was the primary variable of interest in the current study, by including other-forgiveness, the incremental validity of self-forgiveness was assessed. Given the young current state of the self-forgiveness empirical literature, the simultaneous assessment of

other-forgiveness served as a benchmark by which to assess the benefits of self-forgiveness against.

Also from a methodological perspective, the current study's testing of two sets of hypotheses was a strength. Specifically, in one set of hypotheses, participants' change on specific study variables were computed and used to predict change on other study variables. Thus, these hypotheses permitted a an assessment of a more nuanced relationship between the study variables (i.e., if the degree of change in one variable was predictive of the degree of change in the other variable). In the other set of hypotheses, in contrast, cross-sectional data was used to examine the associations between the study variables. This dual approach to examining the relations between the study variables, using change scores as well as cross-sectional data, has been used by previous researchers (e.g., Webb, Robinson, Brower, & Zucker, 2006). In addition to providing potentially different information, this dual approach to testing the relations between study variables seem especially valuable during the young or early stages of scholarship.

In terms of the current study's weaknesses and limitations, two broad classes are identified: those pertaining to the sample, and those pertaining to the methods that were employed. With respect to the sample, the participants were limited in at least two ways. First, in some analyses there were smaller Ns than desired. Insufficient Ns threaten the external validity (i.e., generalizability of the findings) as well as increase the likelihood of Tyle II error (i.e., failure to detect a true effect). Thus, future research with larger clinical samples should attempt to replicate the current findings. Second, the majority of the participants identified as Caucasian (approximately 70%) and Christian (approximately

26% Catholic and approximately 13% Protestant). Therefore, the sample was highly homogeneous in ethnicity and religious group affiliation with a bias toward Christian-White individuals. Again, homogeneity in samples seriously impacts the generalizability of findings. Furthermore, given the meaning-laden nature of the construct of forgiveness within different religious traditions, the primarily Christian current sample seriously calls into question the external validity to other, non-Christian samples. Finally, the vast majority of the sample endorsed a history of alcohol or other drug abuse. Consequently, the term AOD use disorder is used throughout the manuscript. However, the current findings may not extend to individuals in recovery from non-substance related addictions, such as Internet usage. In summary, the current sample characteristics compel future research to utilize a larger and more ethnically and religiously heterogeneous sample of individuals with a history of other addictions.

The second broad class of limitations of the current study relates to methodology. First, temporal inconsistency in the parent study's assessment of the positive well-being variables of meaning and purpose, and happiness represents a current weakness. Specifically, meaning and purpose was only assessed at post-treatment and at four month follow-up. Therefore, data on meaning and purpose at pre-treatment was not available. Similarly, data on happiness was only available at the end of treatment. Therefore, the inconsistent temporal assessment of the positive well-being variables did not permit examining their relations with improvement in self-forgiveness at the different assessment points. Future research should examine the temporal relations between self-forgiveness and these positive well-being variables at different phases of treatment.

A second group of methodological weakness relating to instrumentation were the measures used to assess therapeutic alliance, and to assess self-forgiveness. With respect to the measure used to assess therapeutic alliance, as discussed earlier at length (see pp. 255-258). In summary, the current measure of therapeutic alliance was poor from a reliability and validity perspective, leading to questionable reliability of the results obtained. Future research examining treatment-related process variables and self-forgiveness should therefore assess the effects of therapeutic alliance using more sophisticated and sound instruments. The measure used to assess self-forgiveness, the Heartland Forgiveness Scale, has at least one limitation. Specifically, the HFS is designed to be a dispositional measure and as such, the scale items utilize generalized language. Thus, by using general language, the scale attempts to tap into individual tendencies toward self-forgiveness. At the same time, the general language used in the scale items makes unclear whether intrapersonal or interpersonal transgressions are in question. That is, it is unclear if the responding individual is considering their tendencies toward self-forgiveness when they have hurt another individual (i.e., interpersonal transgressions) or when they have caused themselves some hurt (i.e., intrapersonal transgressions). Although it is unclear at the present time if the distinction between intrapersonal and interpersonal transgressions is important, future research may want to explore this by using measures that delineate between the two events.

Third, the current study did not assess clinically significant change in self-forgiveness or the other study variables. As noted previously, in a treatment outcome research, the assessment of clinically significant change is arguably very important.

Furthermore, Hypotheses 1 and 2 sought to examine if changes in self-forgiveness predicted improvement in negative well-being. Thus, an assessment of clinically significant change seems even more important. Future research looking to examine similar questions should therefore include an assessment of clinically significant change. As noted, clinically significant change can be inferred from any number of third variables, or third party reports.

A fourth methodological weakness of the current study's efforts to identify potential active ingredients of the twelve-step program was the lack of assessment of two other steps: Steps 4 and 5, which theoretically may facilitate self-forgiveness. Specifically, Step 4 in the twelve-step program involves the process of identifying past transgression, character flaws, and personal shortcoming in a personal inventory. Step 5, a complimentary step, involves sharing the personal inventory with another individual. From a self-forgiveness theoretical perspective, the tasks of Steps 4 and 5 would be expected to facilitate self-forgiveness processes. Thus, given the theoretical linkage between these steps and self-forgiveness, and the amends steps, future research should include an assessment of Steps 4 and 5.

Finally, the results of the current study on the short-term and longer-term benefits of self-forgiveness on well-being primarily came from cross-sectional evidence. Only one of the longitudinal hypotheses, Hypothesis 2b, showed that post-treatment levels of self-forgiveness predicted meaning and purpose levels and shame levels at follow-up. Thus, some inference of a temporal relationship between levels of self-forgiveness and levels of meaning and purpose can be inferred. For the most part, however, the evidence was

cross-sectional, which although useful, future research needs to replicate with longitudinal, experimental designs. Related, the longer-term benefits of self-forgiveness on well-being were assessed using data obtained four months following treatment (i.e., Time 3). This may be considered both a strength and a limitation. Specifically, the strength is that follow- data was collected. In the clinical research field, the challenges of collecting follow-up data are well-known. However, the duration of time between the end of treatment and the follow-up phase of assessment was merely four months. Given that, in the current study, broad-based tendencies of self and other-forgiveness were assessed, as well as broad-based tendencies toward shame, longer-term follow-up data would have potentially provided valuable information. For example, the shifts in individuals' tendencies toward self-forgiveness would be expected to unfold across time. Similarly, clinically significant changes in shame-proneness would likely emerge in degrees across time. Thus, future research using longitudinal designs should aim to have assessment phases past the four months to 6, 12 months and ideally longer.

In conclusion, the noted limitations of the current study and its parent study, from which archival data were analyzed, suggest several avenues for future research. What we know, however, is that self-forgiveness is a relevant topic in discussions on recovery from AOD use disorders. What we also know is that there is a vested interest in facilitating recovery from AOD use given the vast economic and societal costs of these chronic conditions. With these motivations and a belief that each individual should live the "bountiful life" to use Laudet's term (p. 2007), self-forgiveness, well-being, and addiction researchers, and treatment providers have a responsibility to enhance

understanding of and facilitate the subjective quality of life of individuals in Stage 2

recovery from AOD use disorders.

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Appendix A
Parent Study Relevant Information

```
┌─────────────────────────────────────────┐
│              N = 1, 024                  │
│ Individuals called the voice mail        │
│            recruitment line              │
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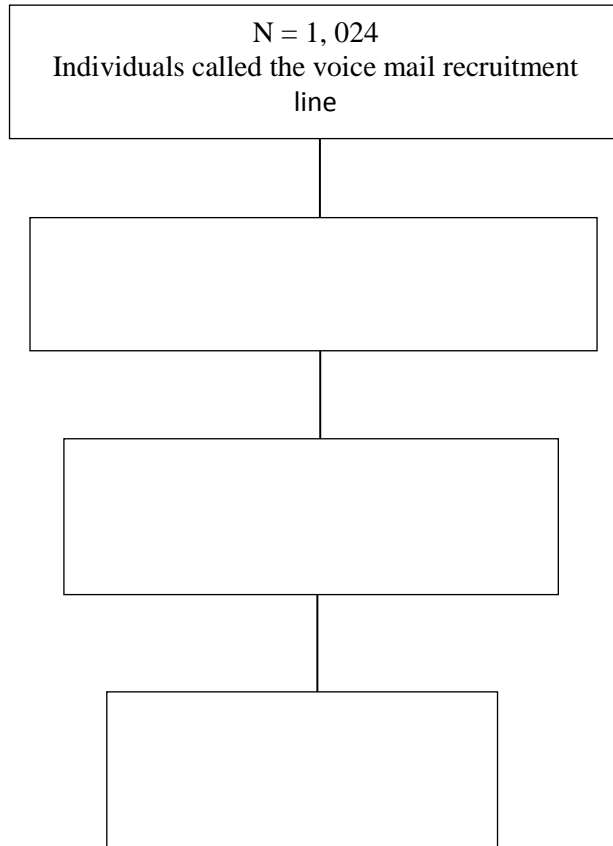
*Figure A1. Flo*wchart of Participants' Recruitment and Retention Numbers

"I understand that this is a scientific research study and that I that I may not be invited to participate.

I realize that not everyone who wants to participate can actually take part. I acknowledge there are pre-requisites to participation. Furthermore, I understand I may only be invited to participate if I satisfy these preconditions. However, even if I satisfy the criteria, I understand the project staff may still not invite me to participate.

In this connection, I understand I can only participate if I can agree that the following statements are true of me: **(1)** I am currently an English speaking regularly attending member of a self-help mutual-aid support group based on the 12-Step addiction recovery programme (originally developed by Alcoholics Anonymous); **(2)** my 12-step affiliation with my particular 12-Step fellowship has extended back *at least* six months **(3)** if my particular addiction was drugs or alcohol, I have been abstinent continuously for *at least* one year immediately prior to today; **(4)** I can read English at a level which allows me to understand the average article in an up-market tabloid newspaper; **(5)** I have not already officially completed my entire 8th Step (harms list) and I have not completed all of my 9th step amends; **(6)** I am unhappy because of my inability to let go of resentments and feel forgiveness may help solve this problem; **(7)** I have never been convicted of a serious crime involving either the threat of violence or the act violence; **(8)** I have a telephone number at which I will be easily reached at specified regular times over the next 12 months; **(9)** I am aged 18 or over **(10)** I have no known communicable disease or contagious medical condition; **(11)** I have not attempted to commit suicide since entering 12-step recovery; **(12)** there is no one I know of who is so angry with me as to attempt to take my life; **(13)** I am not currently involved in any seriously abusive relationships characterized by an ongoing pattern in which I am being repeatedly and brutally victimized by severe emotional, sexual or physical violence."

Figure A2. Replication of Pre-requisites for Participation taken from the Informed Consent Agreement
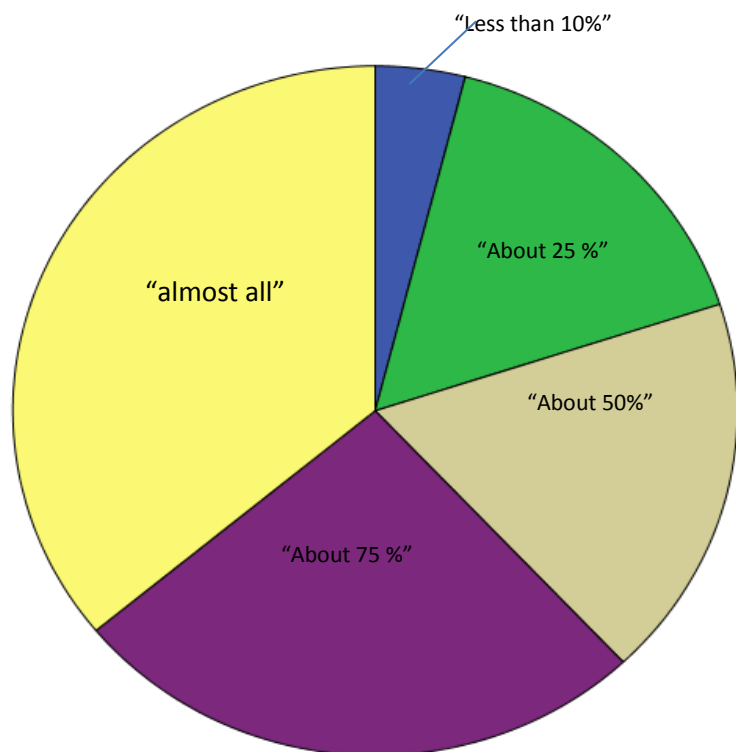
Figure A3: Self-reports of percentage of homework completed during treatment (*N* = 50)

Participant's Informed Consent Agreement

[*Note: Do not write on this agreement until you understand the entire contents of both this document and the accompanying information sheet*]

I, _____ [PRINT YOUR NAME CLEARLY] voluntarily agree to take part as a subject in the 'Forgiveness for Addiction Recovery Project,' which is being funded by a research grant from the John Templeton Foundation to Dr. Ken Hart of Leeds University. I understand that I may not be invited to participate, and that returning the Informed Consent Agreement and Questionnaire in the post are not guarantees of being invited.

A. _**Study aims & purposes**_. I understand the aim of this scientific investigation is to study how different people benefit from two different types of forgiveness-related educational/training programmes aimed at helping overcome emotional unhappiness associated with holding resentments against people. I understand that – if I am invited to participate – I will be free to withdraw my agreement to participate at any time, with no penalty or cost to myself.

1. _**General features of the study.**_ Furthermore, I realize that the study will involve education and training programmes consisting of ten two-hour group seminars which meet in London on a fortnightly basis. The times of the meetings will likely be in the evening (if on a weeknight) or afternoon (if on a weekend). The programme I receive will be based on one of the following two approaches:

    (i)   psychoeducational training workshops to foster a greater willingness and ability to forgive people who have treated me unfairly or hurt me and towards whom I hold a grudge, or

    (ii)   psychoeducational training workshops to foster greater forgiveness of others and also greater
    willingness and ability to seek out people whom I have treated unfairly and make amends.

I agree that the type of forgiveness treatment programme I receive will be decided by the researchers, who will use a method based on chance (like a random toss of a coin). Thus, I acknowledge that, if I am selected to participate, I will have a 50% chance of being assigned to each of the two training programmes. I agree to attend the programme to which I am assigned, although I also understand that I may withdraw at any time.

Please refer to point 4 'Participant Obligations' on the information sheet before reading section C

C.   _**Details of what the study will involve**_. As part of the research for the study, I understand I will be contacted by telephone (by my counselor) and asked (by the researchers) to fill out four main questionnaires concerning aspects of my personal history as well as my beliefs, emotions, and behaviours. The accompanying questionnaire is an example of one of these 'main' questionnaires. Completing one of these questionnaires will require just under an hour of my time, on each of four different

occasions: twice before I start the programme, and twice during the 3 months following my completion of the programme. At the end of each of the individual 120 minute forgiveness seminars, I will be asked to fill out additional questionnaires, to give my views and reactions concerning the workshop itself. These "mini-questionnaires" will take about 15 minutes of my time, and this time will be built-in to the 120 minutes allotted to the seminar. Also, on a fortnightly basis, I will receive a 20-minute telephone call from the counselor who is leading my seminars. I understand the purpose of the call is to help me get the most out of the programme. During the two weeks between each meeting, I will be asked to complete activities provided in the Client Guidebook, and this will require 15-20 minutes of my time on a daily basis for the duration of the 5 month long programme. These activities may involve some "journaling" (i.e., writing). Sometimes, I will be asked to share what I have journaled in the Client Guidebook with the group who is attending the Workshops. I understand the Client Guidebook activities and public sharing in the group are both designed to help me get the most benefit from taking part. The first follow-up questionnaire will be posted to me one week after completing the programme, and the second follow-up questionnaire will be posted to me three months after that. I understand that I will be expected to return to the researchers all of the posted questionnaires in pre-paid return addressed envelopes, which will be provided to me.

Please refer to point 1 'Benefits/Advantages' on the information sheet before reading the next section

D. _**Reimbursement/Compensation**_. I have been told that I will receive partial compensation to help defray travel costs in the form of gift vouchers that I can spend at any branch of Boots the Chemist.

- Voucher given at every meeting: an average value of £4.00 voucher per questionnaire (if all 10 workshops are attended) ...……… £40.00 in vouchers
- Voucher given at end-of-programme, when 1 week follow-up Questionnaire is returned to us in post ....…………………. £10.00 in vouchers
- Voucher given at end-of-programme, when 3 month follow-up Questionnaire is returned to us in post ....………………. £15.00 in vouchers

**Please refer to point 2 'Risks/Harms/Inconveniences' and also refer to point 3 'Confidentiality & Anonymity on the information sheet prior to reading the next section.**

E. _**Indemnity.**_ I recognize that despite the many built-in safeguards, there is nevertheless still a slight and remote risk of harm, and I understand that the University of Leeds has in place financial compensation arrangements for damage/loss/injury should something unexpected and untoward happen as a result of my participation.

F. _**Pre-requisites for Participation.**_ I understand that this is a scientific research study and that I that I may not be invited to participate. I realize that not everyone who wants to participate can actually take part. I acknowledge there are pre-requisites to participation. Furthermore, I understand I may only be invited to participate if I satisfy these preconditions. However, even if I satisfy the criteria, I understand the project staff may still not invite me to participate.

In this connection, I understand I can only participate if I can agree that the following statements are true of me: **(1)** I am currently an English speaking regularly attending member of a self-help mutual-aid support group based on the 12-Step addiction recovery programme (originally developed by Alcoholics Anonymous); **(2)** my 12-step affiliation with my particular 12-Step fellowship has extended back *at least* six months **(3)** if my particular addiction was drugs or alcohol, I have been abstinent continuously for *at least* one year immediately prior to today; **(4)** I can read English at a level which allows me to understand the average article in an up-market tabloid newspaper; **(5)** I have not already officially completed my entire 8th Step (harms list) and I have not completed all of my 9th step amends; **(6)** I am unhappy because of my inability to let go of resentments and feel forgiveness may help solve this problem; **(7)** I have never been convicted of a serious crime involving either the threat of violence or the act violence; **(8)** I have a telephone number at which I will be easily reached at specified regular times over the next 12 months; **(9)** I am aged 18 or over **(10)** I have no known communicable disease or contagious medical condition; **(11)** I have not attempted to commit suicide since entering 12-step recovery; **(12)** there is no one I know of who is so angry with me as to attempt to take my life; **(13)** I am not currently involved in any seriously abusive relationships characterized by an ongoing pattern in which I am being repeatedly and brutally victimized by severe emotional, sexual or physical violence.

G.   Acknowledgment *of Pre-Requisites for Participation*. By signing this Informed Consent document, I am agreeing the statements listed above are true of me.

H.   _Conditions of Involuntary Termination of Participation_. Should I relapse during the course of attending the workshops, and experience a significant worsening of my addiction, I understand I may be asked to discontinue my participation in the study and receive a referral to an appropriate treatment service. Also, if, for any reason, the counselor leading my seminars judges that I am having a significant adverse reaction to the programme, I may be asked to discontinue my participation, and receive a referral to an appropriate treatment service. I may also be asked to withdraw from the study if, for any reason, I am judged to pose a danger to my own welfare or the welfare of others. Other possible reasons for termination without my consent are:

• if I repeatedly fail to attend the treatment seminars for no good reason or without informing the seminar leader either before or immediately afterward of my absence
• if I repeatedly have a disruptive influence in the forgiveness seminars
• if I repeatedly fail to ensure regular telephone contact is made with the seminar leader
• if I repeatedly fail to utilize the Client Guidebook or share my experiences concerning Guidebook activities during group meetings
• if any of the 13 pre-requisite conditions noted above (in F') are found to be untrue of me.
• if the funding source decides to stop or cancel the study, or if the study is stopped for other reasons

(I). _Before Signing This Document_.   We hope this INFORMED CONSENT AGREEMENT (ICA) document helps you understand what your rights and responsibilities are. We encourage you to please ask us about any aspect of your involvement (or possible involvement) in the study that we might not have explained adequately. If you are unsure about anything, ask for clarification. Also, if, during the course of the study, you have any complaints or concerns, you should feel free to ring the

Chair of the Ethics Committee, School of Psychology, University of Leeds (Dr. Anna Madill, 01132335750). Whilst this study has already received approval from the Leeds Ethics Committee, Dr. Madill is responsible for ensuring that the welfare of research participants is maintained to sufficiently high standards.

Please carefully consider the nature of the study and the information provided in this Agreement Document before you agree to participate. We recommend you take at least a couple of days to think about your participation. If appropriate, consult with family and/or other people such as your 12-step sponsor: people who can give you good advice. If, after thinking it over, you decide you would like to participate, sign below and provide the information requested (date, etc). It is not possible to participate in this study without giving your consent below.

INFORMED CONSENT AGREEMENT

I, the undersigned, have read and fully understood the information and explanation given in the INFORMATION SHEET and this INFORMED CONSENT AGREEMENT. In full knowledge of what is involved, I consent to my voluntary participation in this research project entitled, "Forgiveness for Addiction Recovery Project."

I acknowledge that a second copy of this consent form is attached, and I will keep that copy for my records.

Your Signature: _____ Printed Name of Subject: _____
(Print clearly, same as on top of the cover page)

Postal Address of Subject:_____

_____

Subject's Telephone Number: _____ Today's Date: _____

* *

Please return this ICA in the self-addressed stamped envelope provided.

Be sure not to include your questionnaire in the same envelope as this ICA. The questionnaire should be sent to us in a separate envelope before the deadline specified, which is January 2000.

Appendix B
University of Windsor REB Approval

Office of the Research Ethics Board

University
of Windsor

thinking forward

Today's Date: October 17, 2011
Principal Investigator: Ms. Wegdan Hanna
REB Number: 29528
Research Project Title: REB# 11-196: Predicative effects of self-forgiveness on well-being in individuals in second-stage recovery: The mediating effects of twelve-step involvement and 'step-work'
Clearance Date: October 13, 2011
Project End Date: August 31, 2012
Milestones:
Renewal Due-2012/08/31(Pending)

This is to inform you that the University of Windsor Research Ethics Board (REB), which is organized and operated according to the Tri-Council Policy Statement and the University of Windsor Guidelines for Research Involving Human Subjects, has granted approval to your research project on the date noted above. This approval is valid only until the Project End Date.

A Progress Report or Final Report is due by the date noted above. The REB may ask for monitoring information at some time during the projects approval period.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the REB. Minor change(s) in ongoing studies will be considered when submitted on the Request to Revise form.

Investigators must also report promptly to the REB:
a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

Forms for submissions, notifications, or changes are available on the REB website: www.uwindsor.ca/reb. If your data is going to be used for another project, it is necessary to submit another application to the REB. We wish you every success in your research.

Pierre Boulos, Ph.D.
Chair, Research Ethics Board

c.c. Dr. Kenneth Hart, Psychology, Supervisor

This is an official document. Please retain the original in your files.

401 Sunset Avenue, Windsor, Ontario, Canada N9B 3P4 . tel: 519.253.3000 ext. 3948 . web: www.uwindsor.ca/reb

Appendix C
Enright's Forgiveness Intervention

20-Step Process Model of Forgiveness (Enright et al., 1998)

Uncovering Phase

1. Examination of psychological defenses

2. Confrontation of anger; the point is to release, not harbour the anger

3. Admittance of shame, when this is appropriate

4. Awareness of cathexis

5. Awareness of cognitive rehearsal of the offense

6. Insight that the injured party may be comparing oneself with the injurer

7. Realization that oneself may be permanently and adversely changed by the injury

8. Insight into a possible altered "just world" view

Decision Phase

9.   A change of heart/conversion/new insights that old resolution strategies are not working

10. Willingness to consider forgiveness as an option

11. Commitment to forgive the offender

Work Phase

12. Reframing, through role taking, of who the wrongdoer is by viewing him or her in context

13. Empathy and compassion toward the offender

14. Acceptance/absorption of the pain

Deepening Phase

15. Giving a moral gift to the offender

16. Finding meaning for oneself and others in the suffering and in the forgiveness process

17. Realization that oneself has needed others' forgiveness in the past

18. Insight that one is not alone

19. Realization that oneself may have a new purpose in life because of the injury

20. Awareness of decreased negative affect, and, perhaps, increased positive affect, if this begins to emerge, toward the injurer; awareness of internal, emotional release

Appendix D
Secular Forgiveness Treatment Condition- Table of Contents

WORKSHOP 1
THE JOURNEY BEGINS
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Appendix F
Instruments

Instrument/Variable Name: Heartland Forgiveness Scale (HFS)
Author(s): Thompson et al. (1998)

> In the course of our lives, negative things may occur because of our own actions or the actions of others. For a period of time after these things happen, we may have unpleasant thoughts or feelings about others or ourselves. In this part of the questionnaire, we want you to think about how you currently react to bad situations, negative events, or unpleasant circumstances.
>
> For each of the following statements, mark the number (from the scale below) that best describes how you currently react when bad things happen. There are no right or wrong answers. Please be as honest as possible.

1. Although I feel badly at first when I make a mistake, over time I can give myself some leeway:

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

2. I hold grudges against myself for negative things I've done (reverse-coded)

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 made a mistake: (reverse-coded)

5. With time, I am understanding of myself once I've made a mistake:

6. I don't stop criticizing myself for negative things I've felt, thought, said, or done: (reverse-coded)

7. I continue to punish a person who has done something that I think is wrong (reverse coded):

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 (reverse coded):

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 (reverse coded):

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

Self-Forgiveness subscale: Items 1-6
Other Forgiveness subscale: Items 7-12

Instrument/Variable Name: Meaning & Purpose

Author(s):   (Items 1 and 2 taken from the Sense of Coherence (SOC) Scale, Antonovsky, 1987)

1.   During the last 5 months, how often have you had the feeling that the things you do in your daily life or that happen to you have little meaning or purpose? (reverse-coded)

1	2	3	4	5	6	7

Almost always   more often false   more often true   almost always
False of me   of me   of me   true of me

2.   During the last 5 months, how often have you had the feeling that the things that you do in your daily life or that happen to you don't make sense (they're hard to understand?)

1	2	3	4	5	6	7

Almost always   more often false   more often true   almost always
False of me   of me   of me   true of me

3.   There are occasions when I experience a deep meaning in life, and sense a deep purpose for my existence.

1	2	3	4

Strongly Disagree   disagree   Agree   Strongly Disagree

Instrument/Variable Name: Hedonic Balance (i.e., Happiness)

Author(s): N/A

Instructions: Below are lists of words, some of which possibly describe how you've been feeling over the last week. Please go down each column, ticking the words that best fit your mood over the last 7 days. Tick as many boxes as apply. Go with your first reaction.

Positive Affect Adjectives	Negative Affect Adjectives
1. Cheerful	1. Afraid
2. Contended	2. Agitated
3. Free	3. Angry
4. Good/Good-natured	4. Bitter
5. Happy	5. Blue/Depressed
6. Healthy	6. Discouraged
7. Joyful/Joyous	7. Disgusted
8. Light-hearted	8. Displeased
9. Merry	9. Gloomy
10. Peaceful	10. Hopeless
11. Pleased	11. Hostile
12. Pleasant	12. Inpatient
13. Quiet/Inner Quiet	13. Irritated
14. Safe	14. Miserable
15. Satisfied	15. Rejected
16. Secure	16. Sad
17. Soothed	17. Sullen
18. Strong	18. Tense
19. Whole	19. Unhappy
20. Willful	20. Worrying/Worried

Instrument/Variable Name: Depressive symptoms scale
Author(s): none

Instructions: Below is a list of the ways you might have felt or behaved. How often have you felt this during the past 5 months or so? There are no 'right' or 'wrong' answers.

1. I was bothered by things that usually don't bother me.

1	2	3	4
Rarely or none	Some or a little	Occasionally or a moderate	Most or all of the time
Of the time	of the time	amount of the time	

2. I did not feel like eating; my appetite was poor.

3. I felt that I could not shake off the blues even with help from my family and friends.

4. I felt that I was just as good as other people (reverse coded)

5. I had trouble keeping my mind on what I was doing.

6. I felt depressed.

7. I felt that everything I did was an effort.

8. I felt hopeful about the future (reverse coded)

9. I thought my life had been a failure.

10. I felt fearful.

11. My sleep was restless.

12. I was happy (reverse coded)

13. I talked less than usual.

14. I felt lonely.

15. People were unfriendly.

16. I enjoyed life (reverse coded)

17. I had crying spells.

18. I felt sad.

19. I felt that people disliked me.

20. I could not get 'going'.

Instrument/Variable Name: Anxiety symptoms
Author(s): none

Scale 1

Instructions: The following are statements that people might use to describe themselves. There are no 'right' or 'wrong' answers. Just be honest and mark the answers that truthfully describe your average mood during the past 5 months or so.

1. I often found myself worrying about something   *True or Largely True*   *False or Largely False*

2. I suffered from nervousness

3. I was easily startled by things that happen unexpectedly

4. I sometimes got myself into a state of tension and turmoil as I thought of the day's events

5. I often lost sleep over my worries

6. Minor setbacks sometimes worried me too much

7. There were days when I was 'on edge' all the time.

Scale 2

Instructions: Please mark the most appropriate box. Just indicate how you've been feeling in the past 5 months or so. There are no 'right" or 'wrong' answers. Tell us about your typical or usual mood.

1. Usually, I've been feeling calm (reverse coded)

        Not at all   Somewhat   Moderately   Very much

2. Usually, I've been feeling tense

3. Usually, I've been feeling relaxed (reverse coded)

4. Usually, I've been feeling worried

Instrument/Variable Name: Test of Self Conscious Affect (TOSCA)
Author(s): Tangney, Wagner, & Gramzow (1989)

This part of the questionnaire asks you to use the power of your imagination. Below are a number of hypothetical scenarios that people might encounter in day-to-day life. Each scenario is followed by several common reactions.

As you read each scenario, try to imagine yourself in that situation. Then indicate the likelihood that you would react in each of the ways described. We ask you to rate all responses because people may react in more than one way to the same situation.

Scenario 1: Imagine that you make plans to meet a friend for lunch at 1 pm. At 5 o'clock, you realize you forgot and you stood them up.

(a) Would you think something similar to this: "I'm inconsiderate"?

1	2	3	4	5
Very unlikely	unlikely		likely	very likely

(b) Would you think that you should make it up to them as soon as possible?

1	2	3	4	5
Very unlikely	unlikely		likely	very likely

Scenario 2: Imagine that you're at work and you break or damage your co-workers equipment and then try to cover it up so that no one finds out:

(a) Would you think something similar to this: "This is making me anxious. Need to either fix it or get someone else to"?
(b) Would you think about quitting?

Scenario 3: Imagine that you make a mistake at work and find out a co-worker is blamed for the error:

(a) Would you keep quiet and avoid the co-worker?

(b) Would you feel unhappy and eager to correct the situation?

> Scenario 4: Imagine that you are driving down the road, and you hit a neighbor's pet:

(a) Would you think something similar to this: "I'm terrible?"
(b) Would you feel bad you hadn't been more alert driving down the road?

> Scenario 5: Imagine that while out with a group of friends, you make fun and joke about a friend who's not there:

(a) Would you feel small...like a rat?"
(b) Would you apologize and talk about that person's good points?

> Scenario 6: Imagine that you make a big mistake on an important project at work. People depending on you and your boss criticizes you:

(a) Would you feel like you wanted to hide?
(b) Would you think something similar to this: "I should have recognized the problem and done a better job"

> Scenario 7: Imagine that you are taking care of your friend's dog while they are on holiday and the dog runs away:

(a) Would you think something similar to this: "I am irresponsible and incompetent"?
(b) Would you be more careful next time?

> Scenario 8: Imagine that you attend your co-worker's housewarming party and you spill wine on their new cream-colored carpet but you think no one notices:

(a) Would you stay late to help clean up the stain after the party?
(b) Would you wish you were anywhere but at the party?

Shame-proneness subscale: 1a, 2b, 3a, 4a, 5a, 6a, 7a, 8b
Guilt-proneness subscale: 1b, 2a, 3b, 4b, 5b, 6b, 7b, 8a
Instrument/Variable Name: Step 8 Involvement

Author(s): Kenneth Hart and David Shapiro (1999)

Instructions: Now some questions about your own actions that might have caused someone else to feel hurt or upset. Use the power of your imagination to think of a situation in which you had caused someone you know to suffer in some way.

Imagine that you have done something that has harmed someone....

(1) How willing would you be to admit to the person you had harmed that you had made a mistake?

1	2	3	4	5
very unwilling	somewhat unwilling	more willing than unwilling	somewhat willing	very willing

(2)... How willing would you be to express regret or remorse to the person you hurt?

(3)....How willing would you be to offer an apology to the person you hurt?

(4)....How willing would you be to make an offer of restitution to the person you hurt?

(5) ....How willing would you be to follow through with the actions necessary for restitution? (i.e., to make amends as they say in Step 9 of your 12-step fellowship)

Instrument/Variable Name: Step 9 Involvement

Author(s): Kenneth Hart & David Shapiro (1999)

Instructions: Continue to think about things you've done that might have caused someone else to feel hurt or upset.

Imagine that you can remember the names of everyone you might have hurt or upset during the past year (or five months)...

(1)...**.**How often did you acknowledge to the person involved you had hurt them?

☐ I did this with almost everyone

☐ I did this with about 75% of the people

☐ I did this with about half of the people

☐ I did this with about 25% of the people

☐ I did this with about 10% of the people

☐ I did this with less than 10% of the people

☐ I did this with no one

(2) ... How often did you acknowledge to the person involved that what you did was wrong?

(3) ...How often did you express regret or remorse for your actions?

(4) ...How often did you say you were sorry and left it at that? (reverse scored)

(5) ...How often did you make a 9th step amends to someone for a mistake you have committed?

(6) ...How often did you have to follow-up on an offer or promise of restitution by making good on your promise?

Instrument/Variable Name: Therapeutic Alliance

Author(s): none

1. I don't think the counsellor understands what I'm trying to accomplish by participating in this programme (reverse scored)

False at the moment   Not applicable/Not relevant   True at the moment

2. I am confident in the counsellor's ability to help me

3. The counsellor and I are working towards mutually agreed upon goals

4. I feel that the counsellor appreciates me

5. We agree on what is important for me to work on

6. The counsellor and I trust one another

7. The counsellor and I have different ideas on what my problems are (reverse coded)

8. We have established a good understanding of the kind of changes that would be good for me

9. I believe the way we are working with my problem is correct

Instrument/Variable Name: Transgression-Related Motivations Inventory (TRIM)-12

Author(s): McCullough et al., 1998

Instructions: Please think about one specific person who treated you unfairly or hurt you at some point in the past. Take a moment to visualize in your mind the events and the interactions you have had with the person who you currently resent the most. Try to see the person in your mind's eye and pause to recall what happened. Please the initials of the person you most resent here. Below are a set of statements about this person. It is likely that you have experienced this type of resentment with more than one person, but please answer the questions that follow in relation to the specific person whose initials you've written above. For the following statements, please indicate your current thoughts and feelings about the person. Use the following scale to indicate your agreement with each of the statements.

1. I'll make him/her pay:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. I keep as much distance as possible between me and the person I resent:

3. I wish that something bad would happen to the person I resent:

4. I live my life as if he/she doesn't exist, isn't around:

5. I don't trust the person I resent:

6. I want the person I resent to get what he/she deserves:

7. I find it difficult to act warmly toward the person I resent:

8. I avoid the person I resent:

9. I'm going to get even with the person I resent:

10. I've cut off the relationship with the person I resent:

11. I want to see the person I resent hurt and miserable:

12. I've withdrawn from the person I resent:

Revenge Subscale: 1, 3, 6, 9, and 11
Avoidance Subscale: 2, 4, 5, 7, 8, 10, and 12

Instrument/Variable Name: Perspective-Taking Scale

Author(s): Davis (1983) Empathy Scales

Instructions: The following statements again inquire about your thoughts and feelings in a variety of situations. Please indicate how well each statement describes you. Mark the appropriate box on the scale beneath each statement.

READ EACH STATEMENT CAREFULLY BEFORE RESPONDING

1. I sometimes find it difficult to see things from the "other person's" point of view (reverse-coded)

1	2	3	4	5	6
Describes me extremely inaccurately	Describes me very inaccurately	Describes me inaccurately	Describes me well	Describes me very well	Describes me nearly perfectly

2. I try to look at everybody's side of a disagreement before I make a decision
3. I sometimes try to understand my friends better by imagining how things look from their perspectives
4. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments (reverse coded)
5. I believe that there are two sides to every question and try to look at them both
6. When I'm upset at someone, I usually try to "put myself in his shoes" for a while
7. Before criticizing somebody, I try to imagine how I would feel if I were in their place

Instrument/Variable Name: Anger scale

Author(s): none

Instructions: Please read the statements below and describe how you have been feeling, generally, during the last five months or so. There are no 'right' or 'wrong' answers. The important thing is to be as honest and truthful as possible.

1. Over the past 5 months, I've had a fiery temper

1	2	3	4
Almost never	Sometimes	Often	Almost always

2. Over the past 5 months, I've been quick tempered.

3. Over the past 5 months, I've been a hot-headed person

4. I've gotten annoyed when I was singled out for correction/discipline

5. It made me furious when I was criticized in front of others.

6. I've gotten angry when slowed down by others' mistakes.

7. I've felt infuriated when I did a good job and got a poor evaluation.

8. Over the last 5 months, I flew off the handle.

9. I've felt annoyed when I was not given recognition for doing good work.

10. I've felt irritated with people who thought they were always right.

11. Over the last 5 months, I've said nasty things when I got mad.

12. Over the last 5 months, I've felt irritated.

13. Over the last 5 months, I've felt angry.

14. When frustrated, I've felt like hitting someone.

15. When I was pressured, it made my blood boil.

Instrument/Variable Name: Health Ladder

Author(s): unknown

10	← Best Possible Health
9	
8	
7	
6	
5	
4	
3	
2	
1	← Worst Possible Health
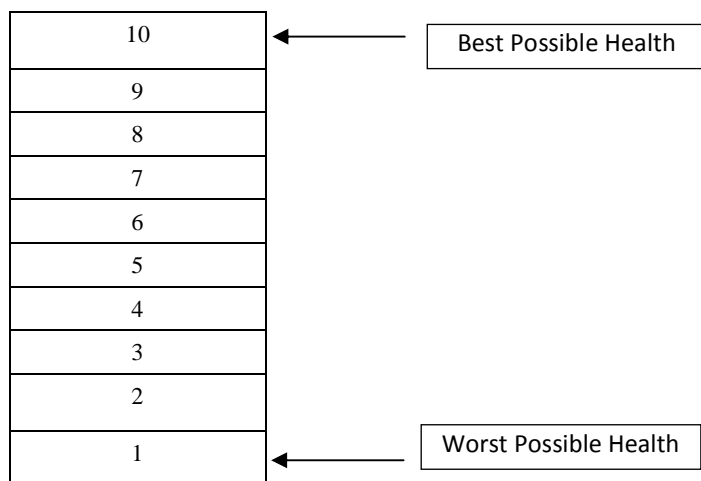
Figure 12. Health Ladder item assessing participants'
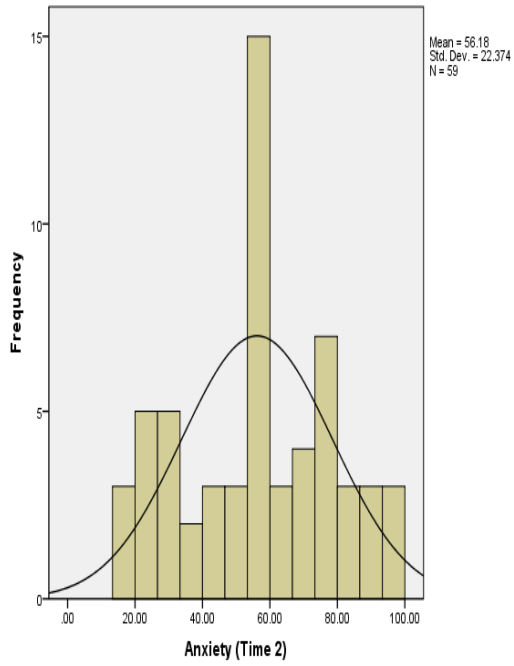general health at pre-treatment, post-treatment, and follow-up.
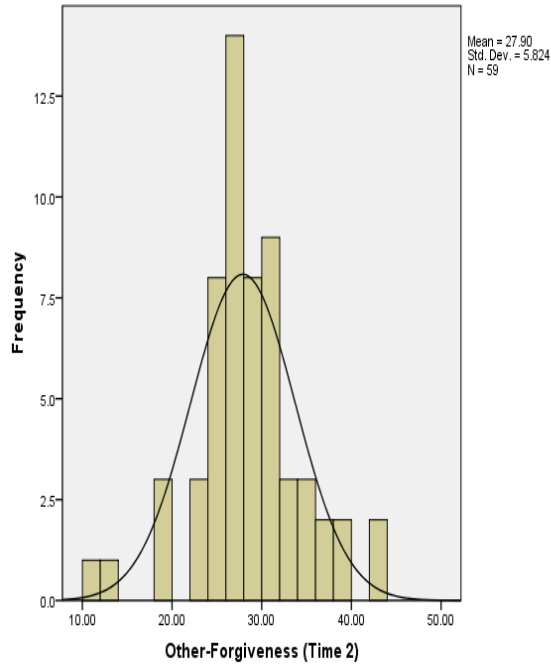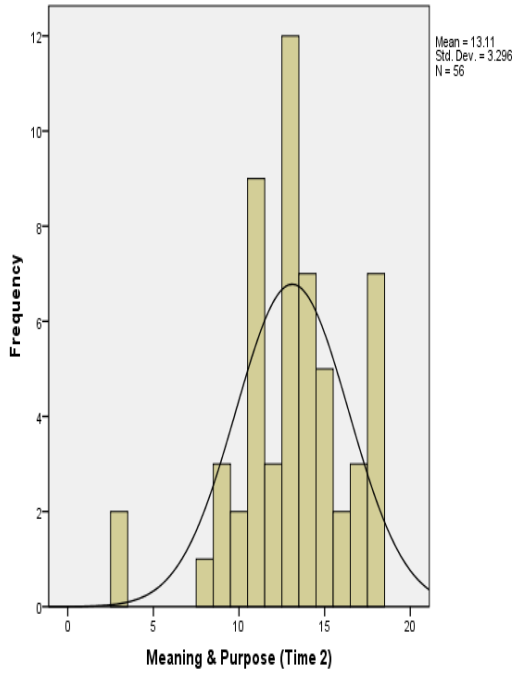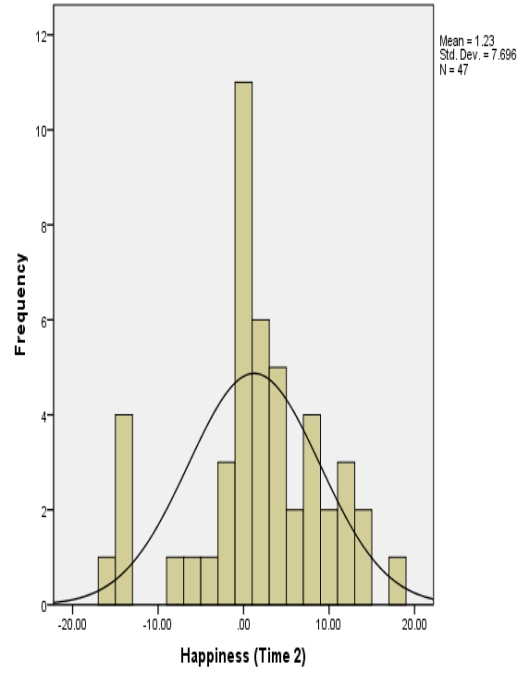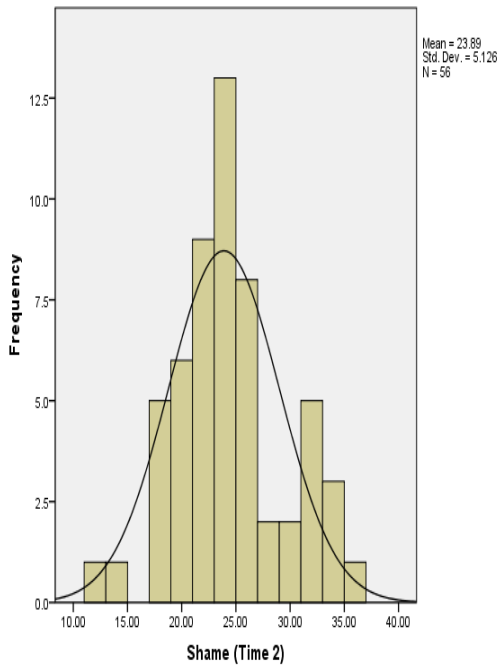
Appendix G

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 understand 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 contract with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.

12. Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.
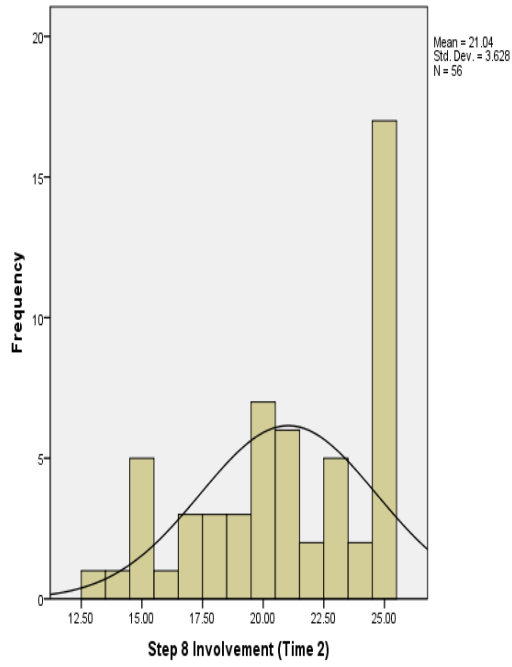
Appendix H
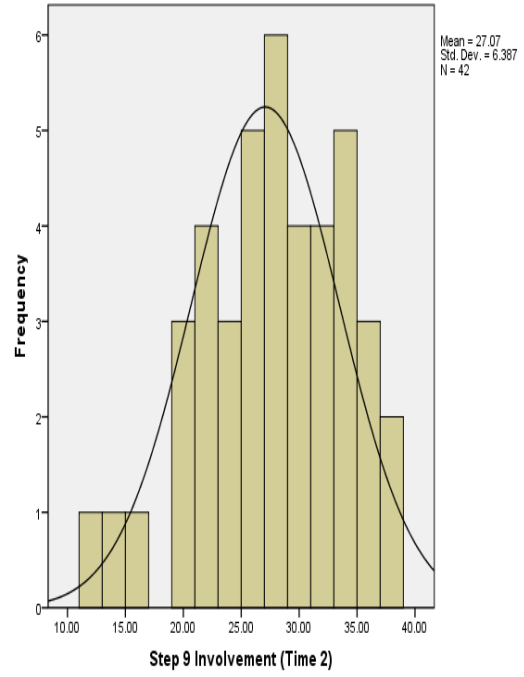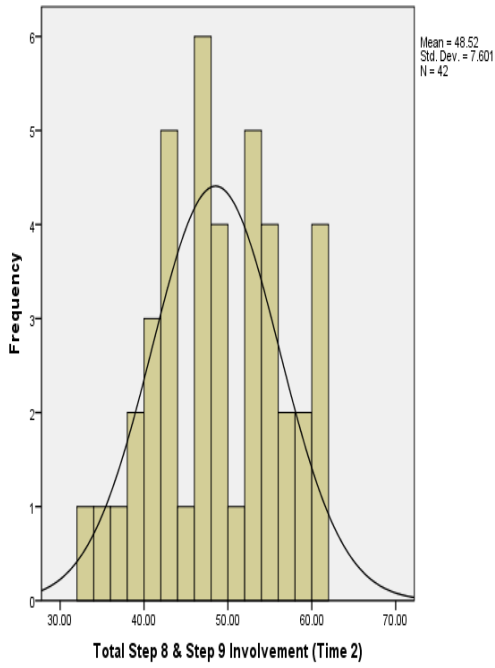## Twelve Traditions of Alcoholics Anonymous

1.   Our common welfare should come first: personal recovery depends upon A.A. unity.

2.   For our group purpose there is but one ultimate authority- a loving God as He may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern.

3.   The only requirement for A.A. membership is a desire to stop drinking.

4.   Each group should be autonomous except in matters affecting other groups or A.A. as a whole.

5.   Each group has but one primary purpose- to carry its message to the alcoholic who still suffers.

6.   An A.A. group ought never endorse, finance, or lend the A.A. name to nay related facility or outside enterprise, lest problems of money, property and prestige divert us from our primary purpose.

7.   Every A.A. group ought to be full self-supporting, declining outside contributions.

8.   Alcoholics Anonymous should remain forever nonprofessional, but our service centers may   employ special workers.

9.   A.A., as such, ought never be organized; but we may create service boards or committees directly responsible to those they serve.

10.   Alcoholics Anonymous has no opinion on outside issues; hence the A.A. name ought never be drawn into public controversy.

11.   Our public relations policy is based on attraction rather than promotion; we need always maintain personal anonymity at the level of press, radio, and films.

12.   Anonymity is the spiritual foundation of all our Traditions, ever reminding us to place principles before personalities.

Appendix I
Frequency Distributions – Post-treatment (i.e., Time 2) Raw Scores

Mean = 27.90
Std. Dev. = 5.824
N = 59

Other-Forgiveness (Time 2)

Mean = 56.18
Std. Dev. = 22.374
N = 59

Anxiety (Time 2)

Mean = 27.39
Std. Dev. = 6.438
N = 59

Self-Forgiveness (Time 2)

Mean = 41.41
Std. Dev. = 11.462
N = 56

Depression (Time 2)

Mean = 23.89
Std. Dev. = 5.126
N = 56

Shame (Time 2)

Mean = 1.23
Std. Dev. = 7.696
N = 47

Happiness (Time 2)

Mean = 13.11
Std. Dev. = 3.296
N = 56

Meaning & Purpose (Time 2)

Mean = 21.04
Std. Dev. = 3.628
N = 56

Step 8 Involvement (Time 2)

Total Step 8 & Step 9 Involvement (Time 2)

Mean = 48.52
Std. Dev. = 7.601
N = 42

Step 9 Involvement (Time 2)

Mean = 27.07
Std. Dev. = 6.387
N = 42

Appendix J

Frequency Distributions of Within-Subjects Factors Across Time & Assessment of Assumption of Normality
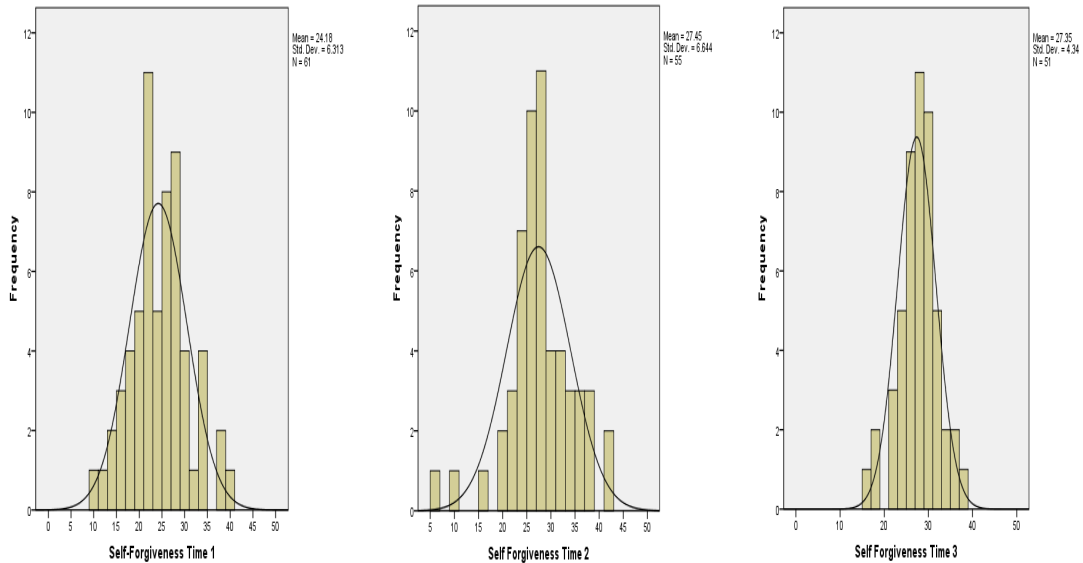
Figure L1. Frequency Distributions of Self-Forgiveness Scores at Time 1 (Pre-Tx), Time 2 (Post-Tx), and Time3 (Follow-up)
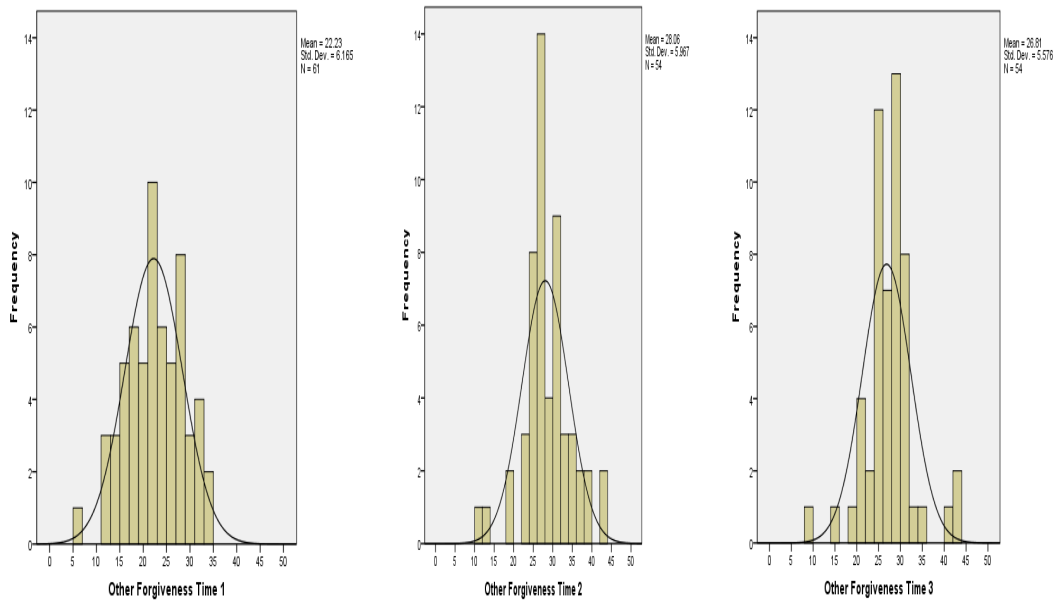
Figure L2. Frequency Distributions of Other-Forgiveness Scores at Time 1 (Pre-Tx), Time 2 (Post-Tx), and Time3 (Follow-up)

Table J1

Skewness and Kurtosis Statistics for Each Within-subjects Factor

Within-subject Factor (Levels)	Time	N	Skewness	Kurtosis
Self- Forgiveness (3)				
	1	61	.190	.075
	2	59	-.437	2.072
	3	59	-.663	1.842
Other-Forgiveness (3)				
	1	61	-.187	-.389
	2	59	-.089	1.451
	3	54	.108	2.795
Anxiety (3)				
	1	59	-.339	-.511
	2	50	-.102	-.783
	3	50	.117	-1.246
Depression (3)				
	1	59	-.221	-.760
	2	56	.353	-.467
	3	48	.712	.015
Shame (3)				
	1	59	-.506	-.350
	2	56	.328	-.003
	3	47	-.204	.412
Meaning and Purpose (2)				
	1	56	-.774	1.588
	2	52	.061	-.834
Step 8 Involvement (3)				
	1	61	-.153	-.871
	2	56	-.497	-.896
	3	54	-1.150	1.512
Step 9 Involvement (3)				
	1	61	-.204	-.920
	2	42	-.408	-.228
	3	48	-.044	-1.076

Appendix K
Assessment of Assumption of Multicollinearity

Table K1

Summary of Statistics Pertaining to the Assumptions of Independence of Errors and Multicollinearity.

Regression Model Table #	Predictor	Criterion	Durbin Watson	Tolerance	VIF
23a	T1-T2 Other-forgiveness	T1-T2 Shame	2.47	.905	1.105
	T1- T2 Other forgiveness, T1-T2 self-forgiveness	As above		.903	1.105
23b	T1-T2 Other-forgiveness	T1-T2 Depression	1.99	.905	1.105
	T1- T2 Other forgiveness, T1-T2 self-forgiveness	As above		.932	1.105
23c	T1-T2 Other-forgiveness	T1-T2 Anxiety	2.257	.902	1.109
	T1- T2 Other forgiveness, T1-T2 self-forgiveness	As above			
24a	T1-T2 Self-Forgiveness	T1-T3 Shame	3.027	1	1
	T1 – T3 Self-Forgiveness	As Above	2.926	1	1
24b	T1-T2 Self-Forgiveness	T1-T3 Depression	2.231	1	1
	T1 – T3 Self-Forgiveness	As Above	2.190	1	1
24c	T1-T2 Self-Forgiveness	T1-T3 Anxiety	2.147	1	1
	T1 – T3 Self-Forgiveness	As Above	2.163	1	1
25	T2 Self-Forgiveness	T3 Meaning & purpose	1.927	1	1
26a	T2 Self-Forgiveness	T3 shame	1.695	1	1
26b	As above	T3 depression	2.246	1	1
26c	As above	Time 3 anxiety	2.248	1	1
27	T2 other-forgiveness	T3 Meaning & purpose	1.985	.519	1.925
	T2 other-forgiveness, T2 self-forgiveness	As above		.523	1.192

28	T2 other-forgiveness	Time 3 Shame	1.734	1	1
	T2 other-forgiveness, T2 self-forgiveness	As above		.532	1.912
30	T1-T2 Total Twelve Step Involvement	T1-T2 Self-forgiveness	1.796	1	1
31	T1- T2 Twelve-Step Involvement	T1- T3 Self-forgiveness	1.524	1	1
	T1-T3 Total Twelve-step Involvement	T1- T3 Self-forgiveness	1.815	1	1
33a	T1 self-forgiveness	T1 shame	2.164	1	1
33b	As above	T1 depression	2.143	1	1
33c	As above	T1 anxiety	2.283	1	1
33d	As above	T1 overall negative well-being	2.204	1	1
34a	T2 self-forgiveness	T2 Meaning & purpose	1.445	1	1
34b	As above	T2 Happiness	2.113	1	1
34c	As above	T2 overall positive well-being	2.511	1	1
35a	As above	T2 shame	1.904	1	1
35b	As above	T2 depression	1.668	1	1
35c	As above	T2 anxiety	2.246	1	1
35d	As above	T2 overall negative well-being	1.838	1	1
36a	T1 other-forgiveness	T1 Shame	2.184	1	1
	T1 other-forgiveness and T1 self-forgiveness	As above		.831	1.203
36b	T1 other-forgiveness	T1 depression	2.151	1	1
	T1 other-forgiveness and T1 self-forgiveness	As above		.831	1.203
36c	T1 other-forgiveness	T1 anxiety	2.283	1	1
	T1 other-forgiveness and T1 self-forgiveness	As above		.814	1.229
36d	T1 other-forgiveness	T1 overall negative well-being	2.214	1	1
	T1 other-forgiveness and T1 self-forgiveness	As above		.825	1.212
37a	T2 other-forgiveness	T2 Meaning and purpose	1.532	1	1
	T2 other-forgiveness and T2 self-	As above		.493	2.030

	forgiveness				
37b	T2 other-forgiveness	T2 Happiness	2.105	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.514	1.945
37c	T2 other-forgiveness	T2 overall positive well-being	2.488	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.470	2.129
38a	T2 other-forgiveness	T2 Shame	1.919	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.521	1.920
38b	T2 other-forgiveness	T2 Depression	1.657	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.521	1.920
38c	T2 other-forgiveness	T2 anxiety	2.2356	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.524	1.910
38d	T2 other-forgiveness	T2 overall negative well-being	1.837	1	1
	T2 other-forgiveness and T2 self-forgiveness	As above		.521	1.920
39	T3 self-forgiveness	T3 Meaning & purpose	1.844	1	1
40a	T3 self-forgiveness	T3 shame	1.755	1	1
40b	As above	T3 depression	2.306	1	1
40c	As above	T3 anxiety	2.314	1	1
40d	As above	T3 overall negative well-being	2.039	1	1
41a	T1 Step 8 Involvement	T1 self-forgiveness	1.925	1	1
41b	T1 Step 9 Involvement	As above	1.973	1	1
41c	T1 Total twelve-step Involvement	As above	1.882	1	1
42a	T2 Step 8 Involvement	T2 self-forgiveness	1.811	1	1
	T2 Step 9 Involvement	As above	1.678	1	1
	T2 Total twelve-step Involvement	As above	1.814	1	1

43a	T3 Step 8 Involvement	T3 self-forgiveness	1.547	1	1
43b	T3 Step 9 Involvement	As above	1.791	1	1
43c	T3 total twelve-step Involvement	As above	1.492	1	1

Appendix L
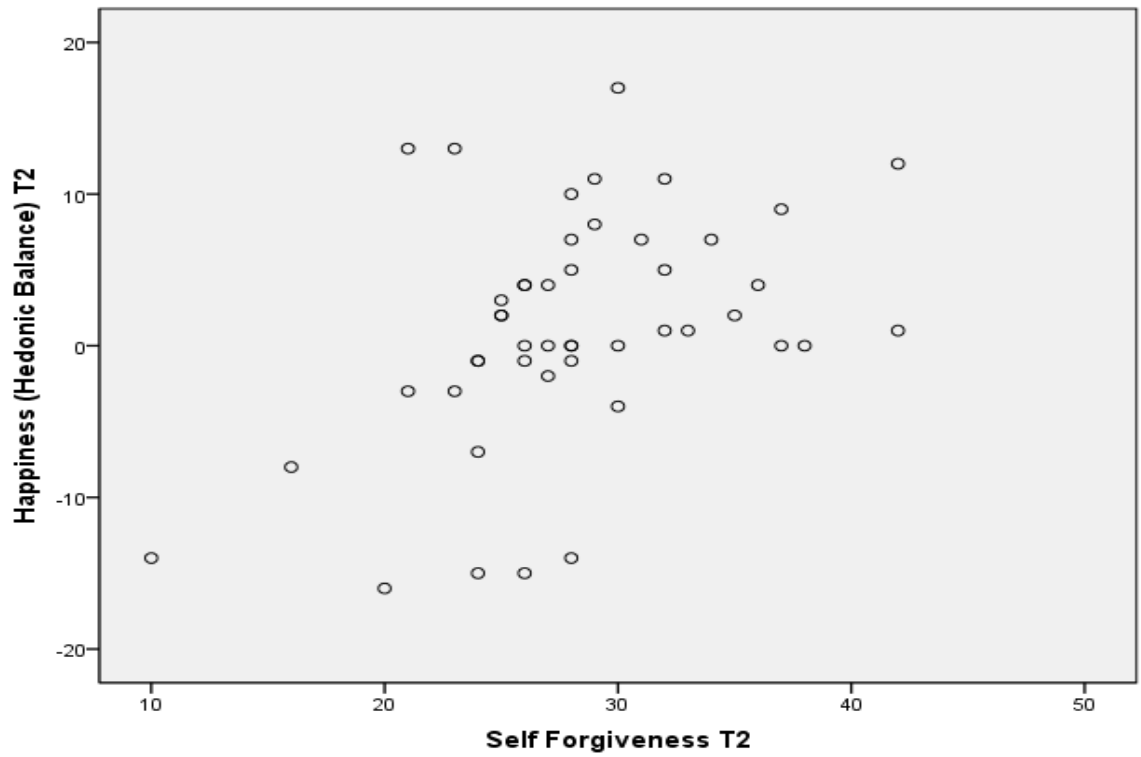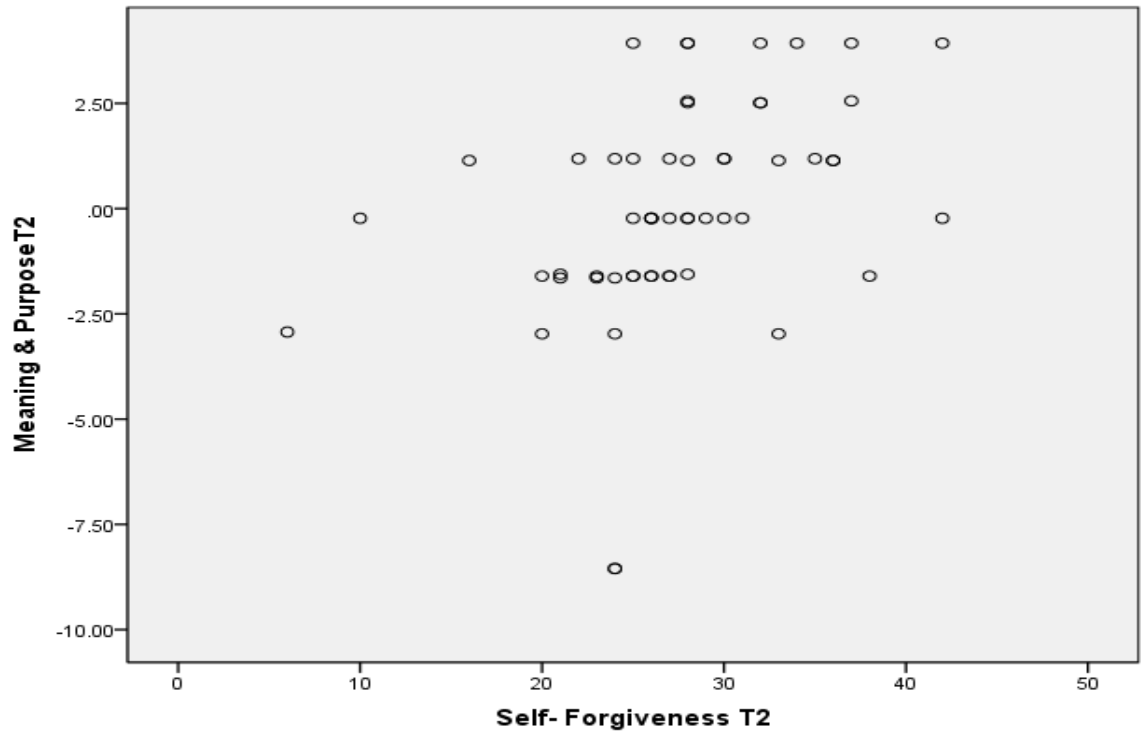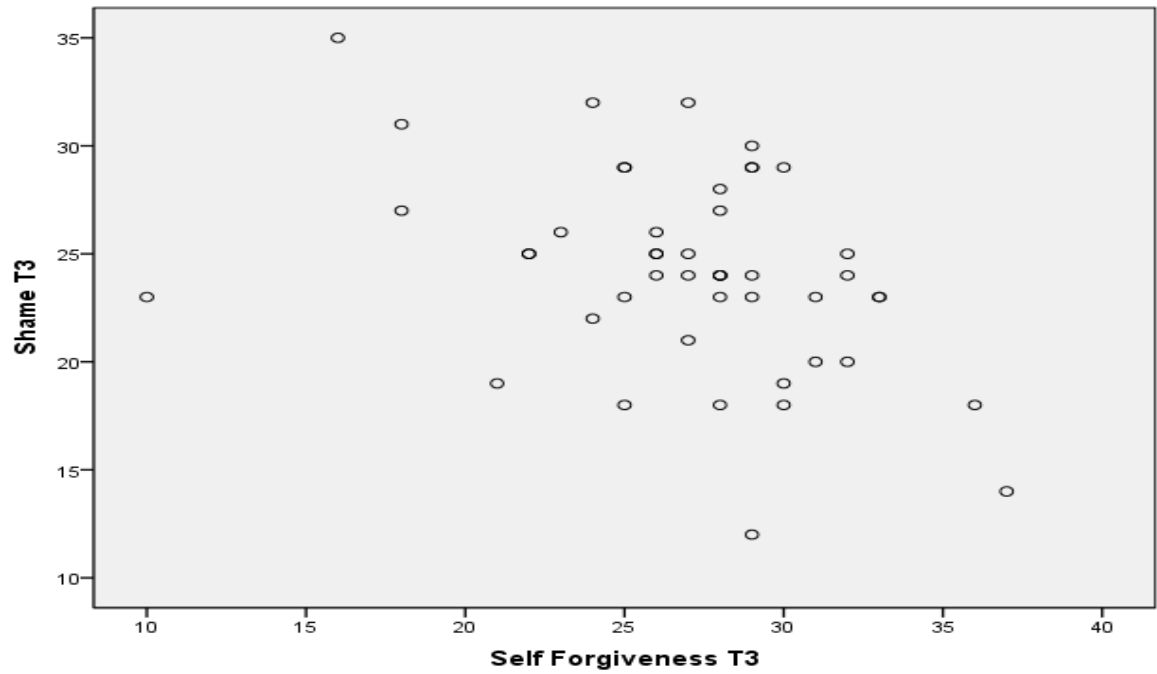## Scatterplots Using Raw Scores
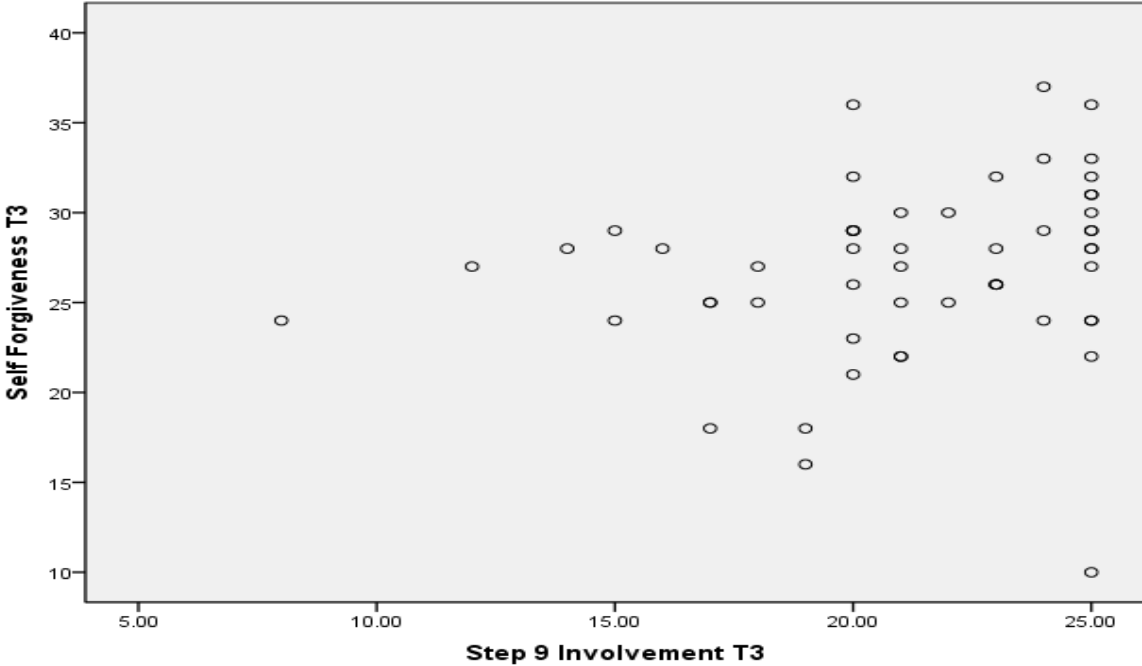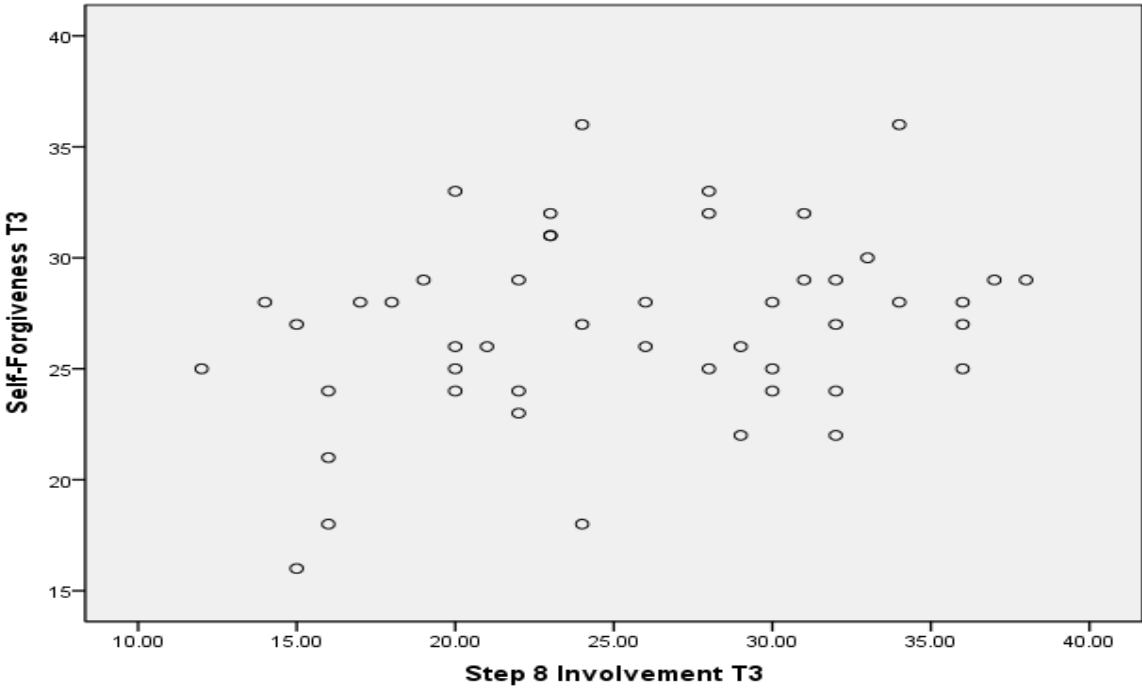**Time 1 Scatterplots**
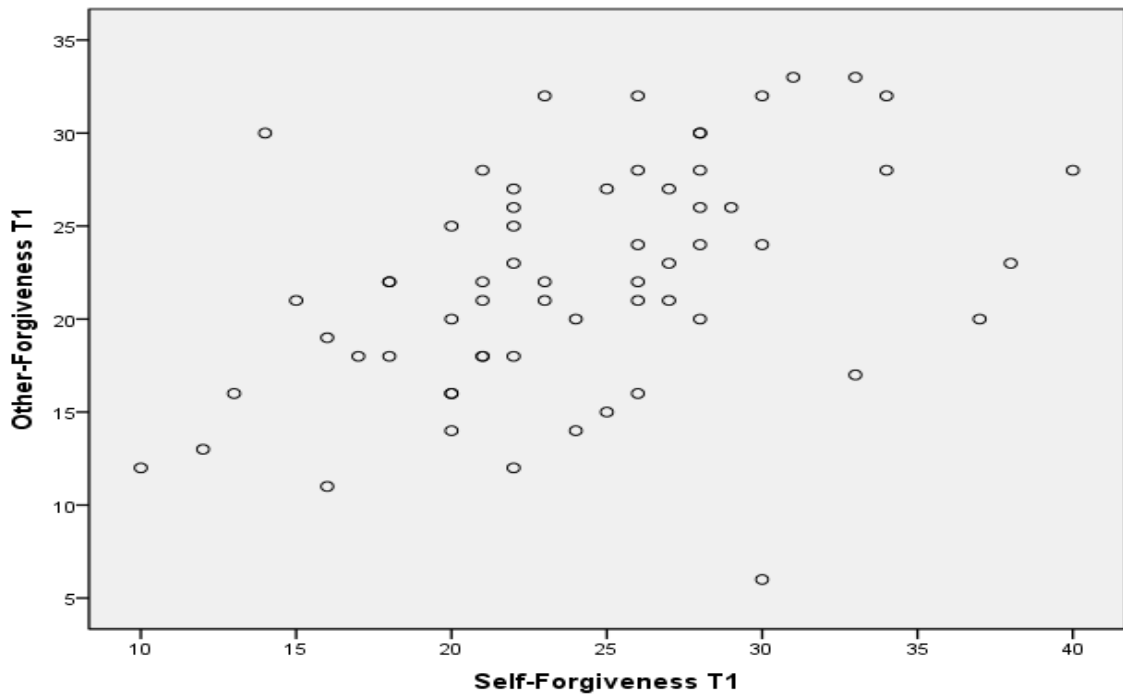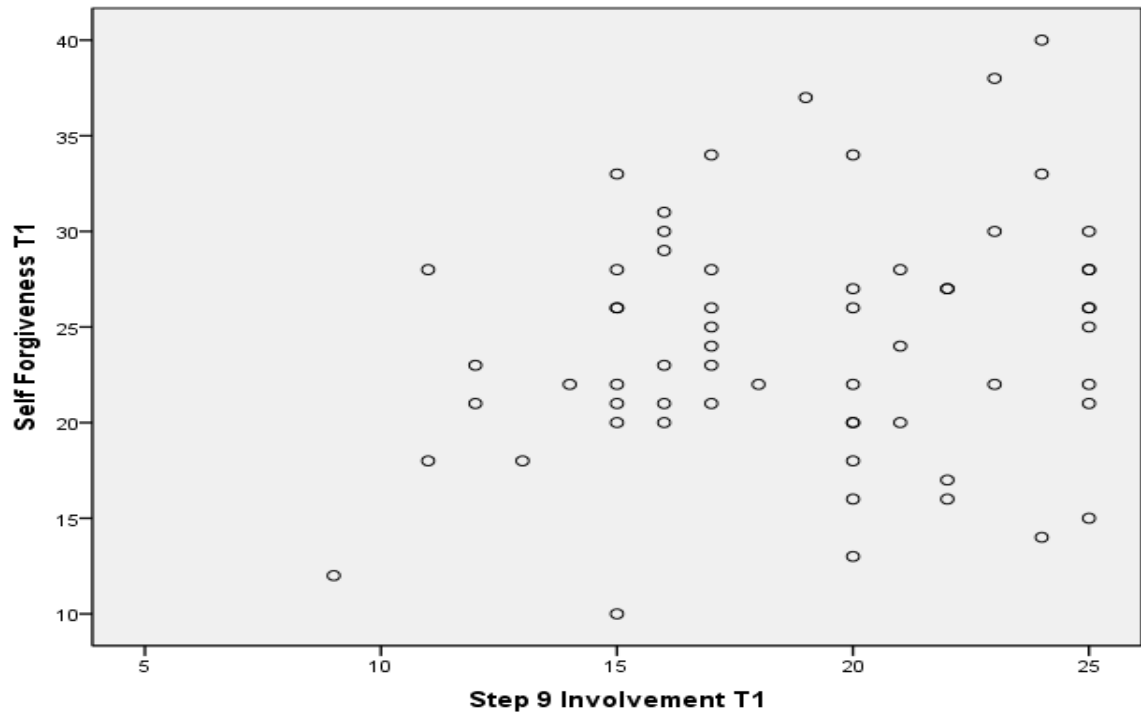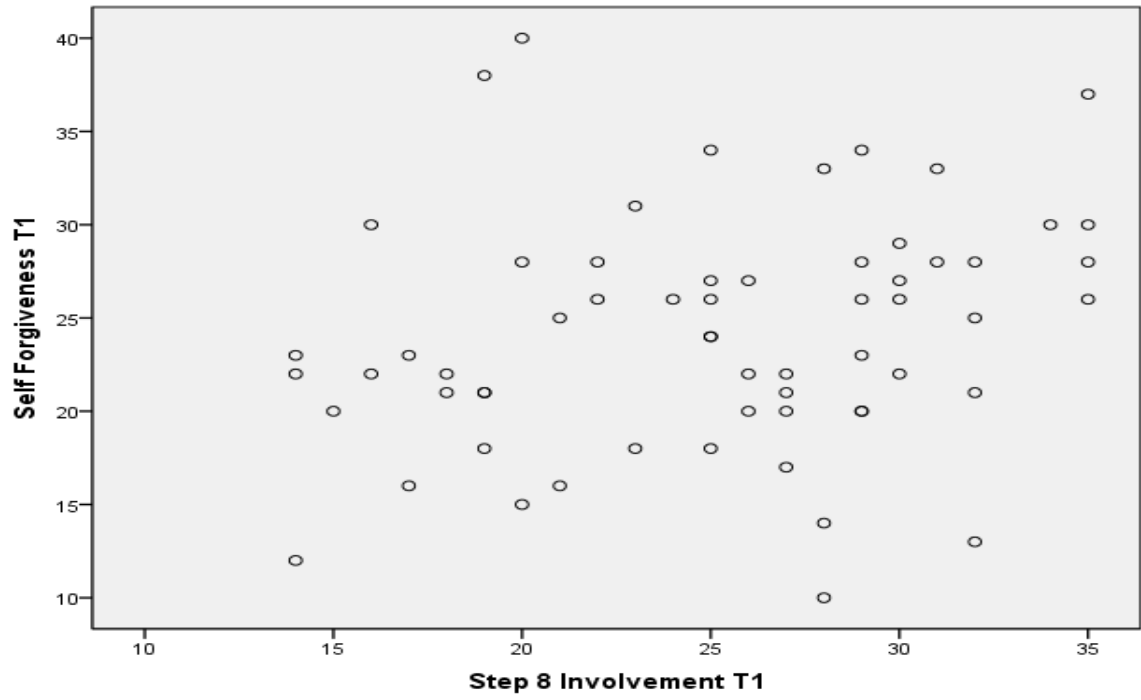
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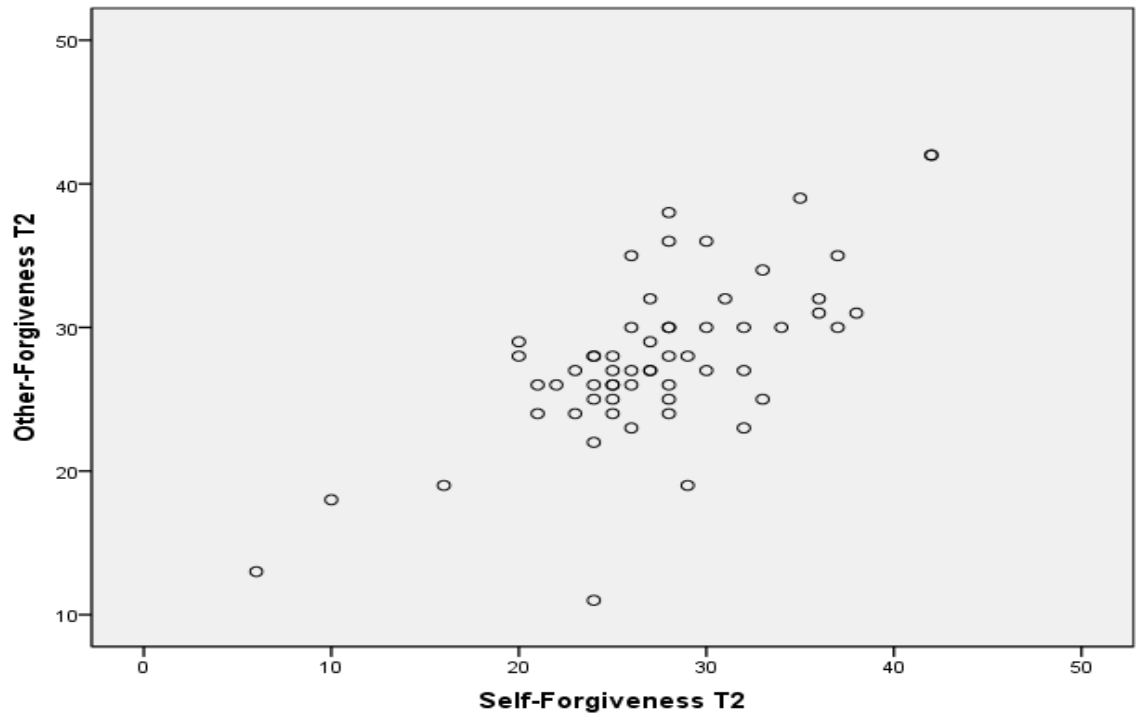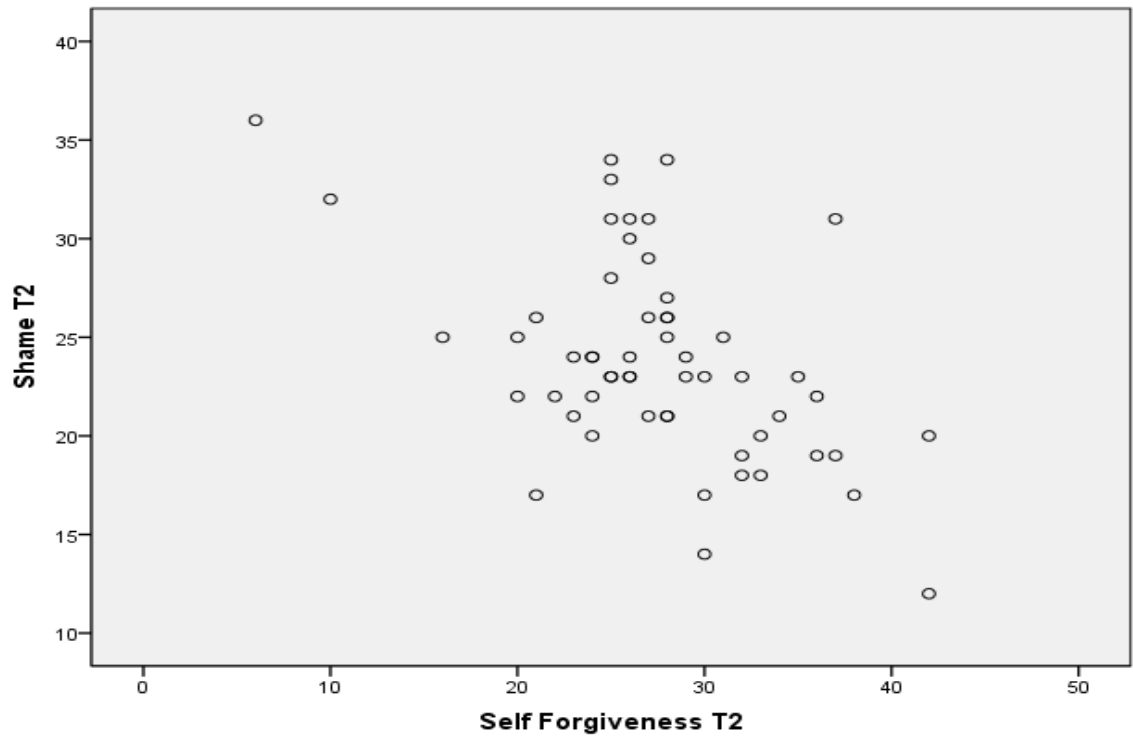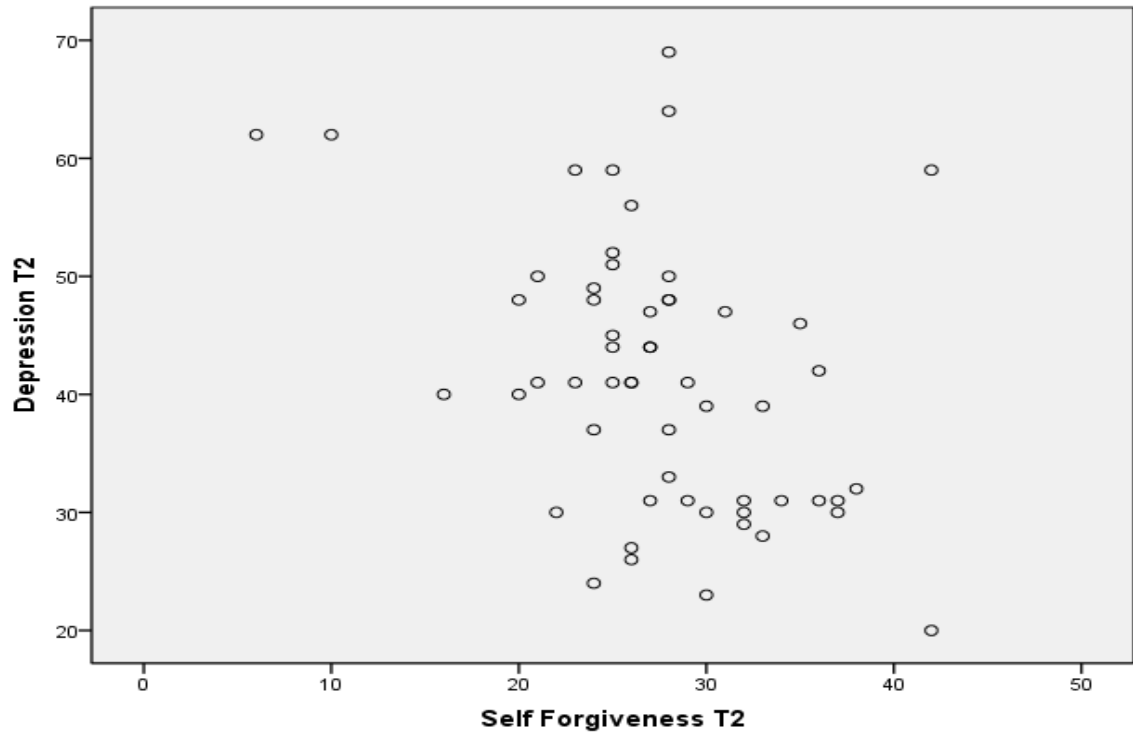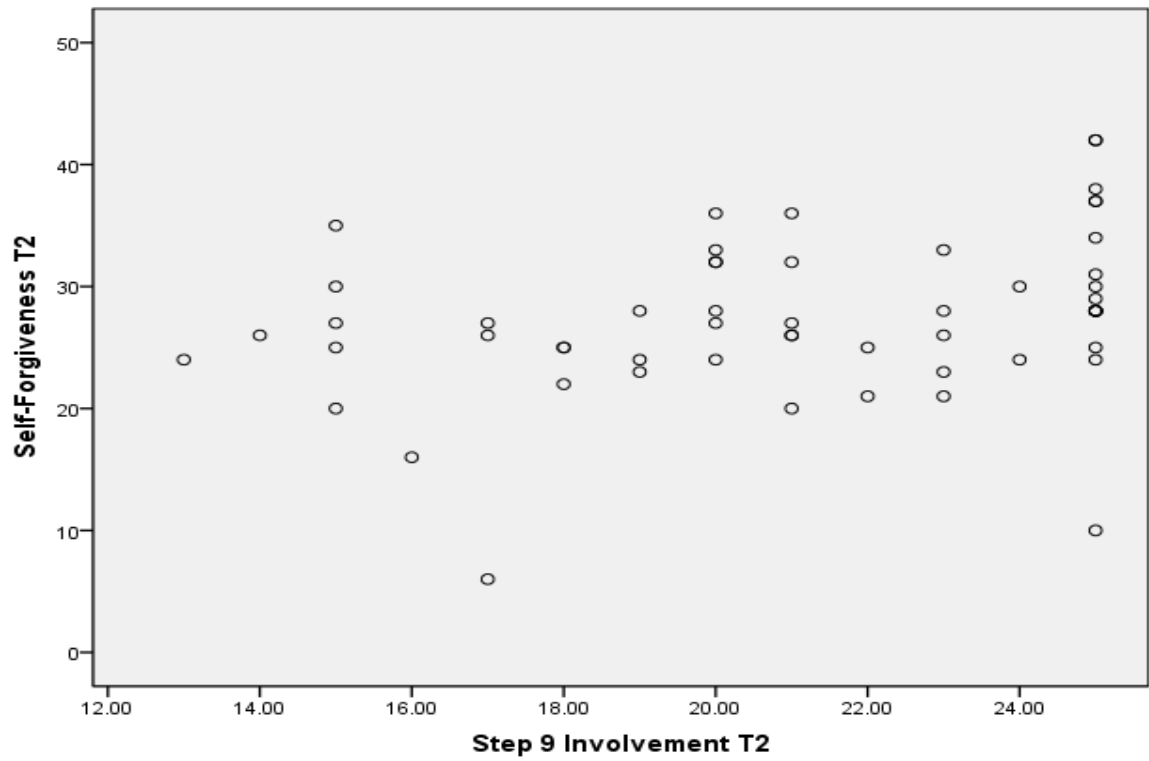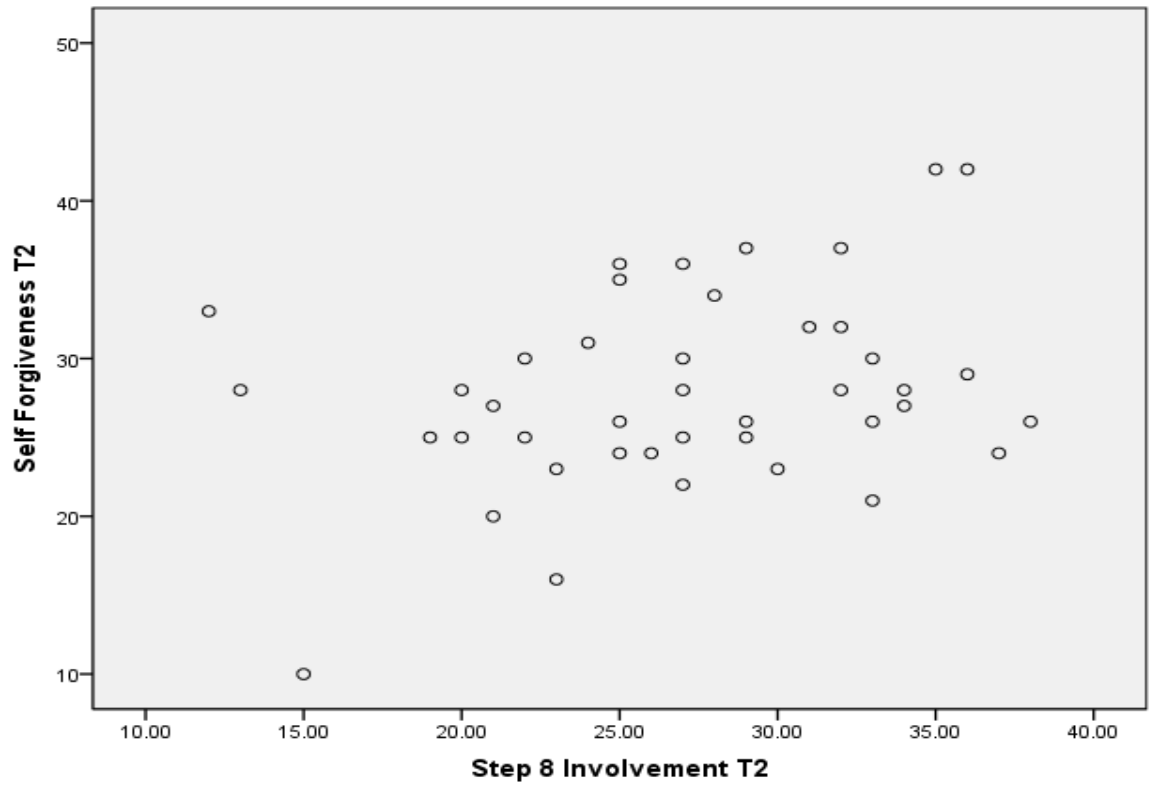
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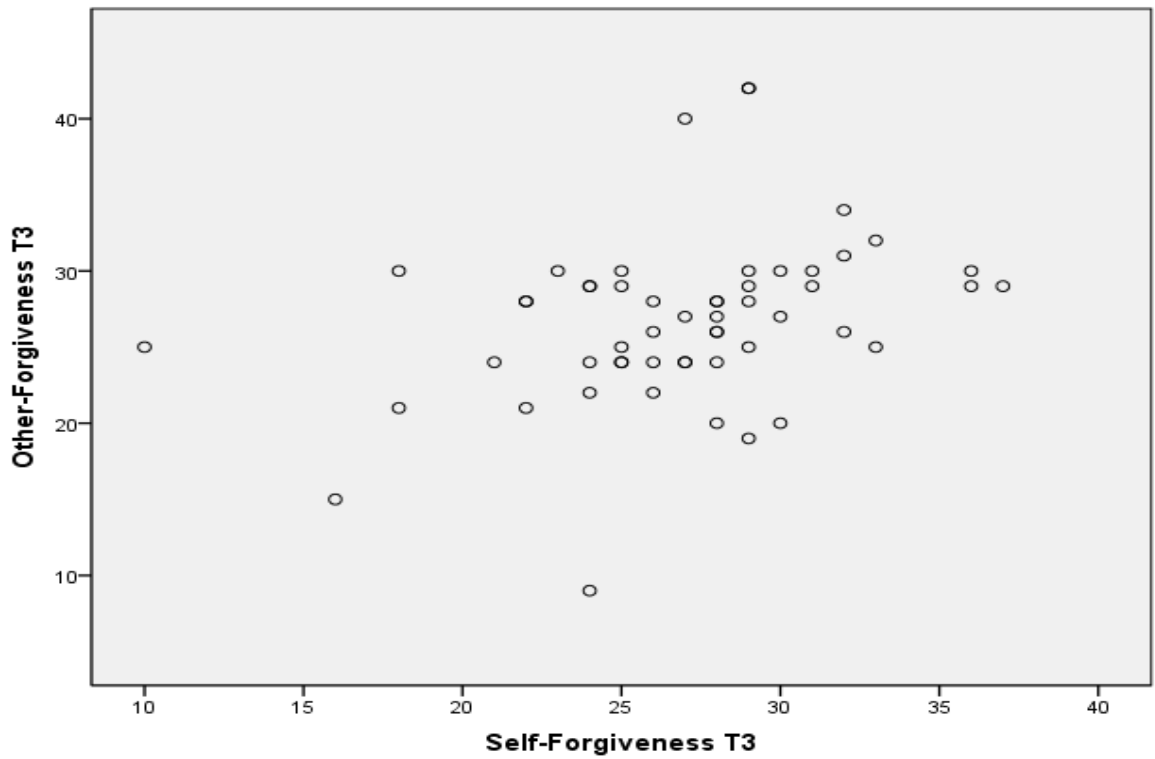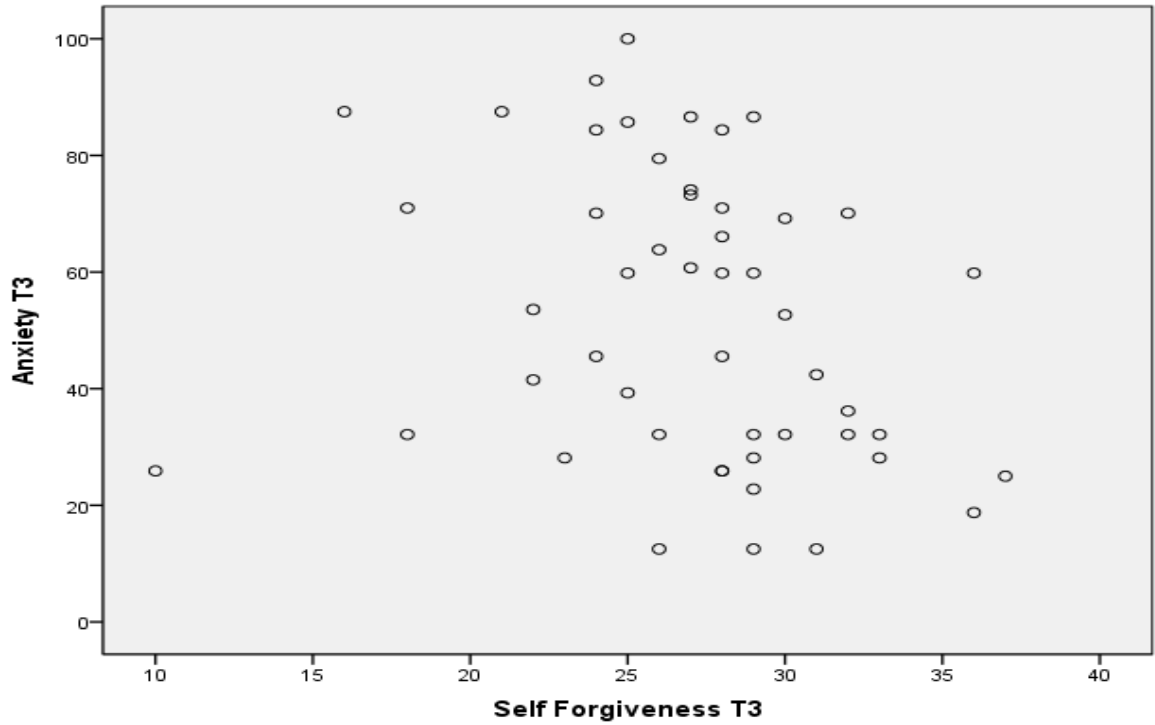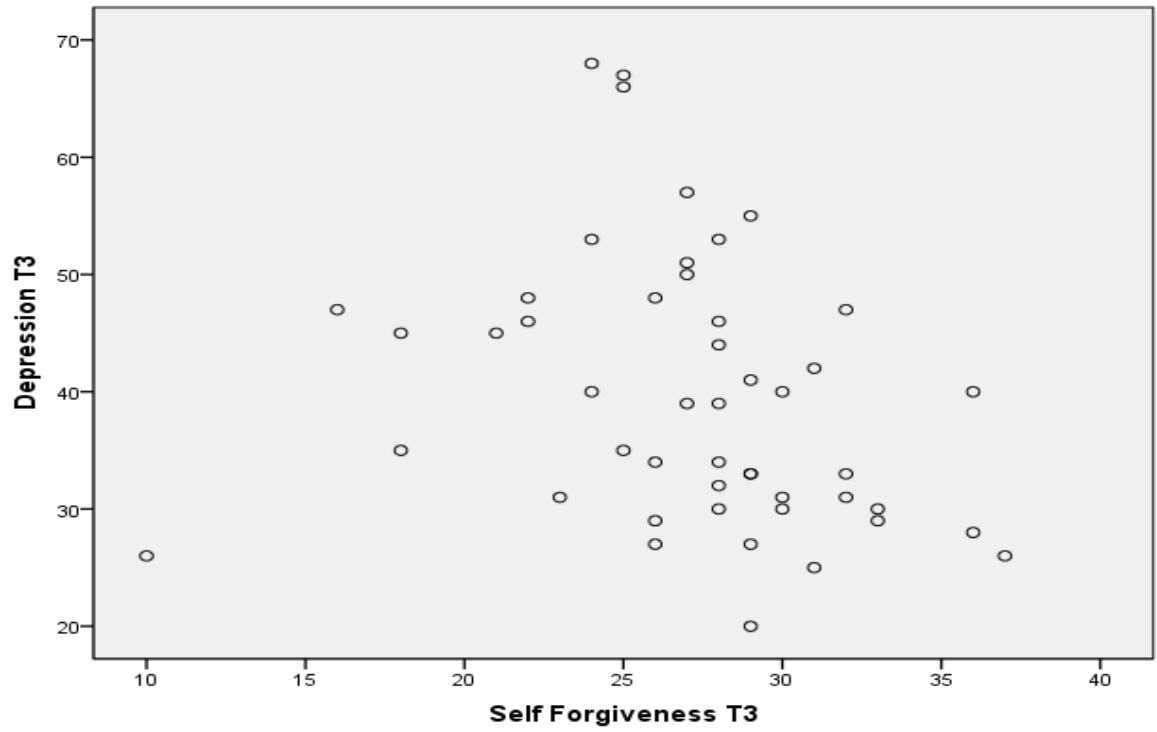
VITA AUCTORIS

Wegdan E. Hanna was born in Cairo, Egypt in 1979. She immigrated to Canada as a child and earned her Bachelor of Arts (Honours Psychology) degree from the University of Ottawa in 2002. She began her graduate studies in Clinical Psychology at the University of Windsor in 2005 and obtained her Master of Arts degree in 2007. She completed the requirements for the Doctor of Philosophy-Clinical Psychology degree from 2007 to 2012. She plans on pursuing a career of clinical practice, research, and teaching.