ASSESSING THE EFFECTS OF BRIEF INTERVENTIONS ON MOOD AND DREAM IMAGERY IN RECOVERING ALCOHOL AND DRUG ADDICTS

A Thesis Submitted to the Committee on Graduate Studies in Partial Fulfillment of the Requirements for the Degree of Master of Arts in the Faculty of Arts and Science.

TRENT UNIVERSITY
Peterborough, Ontario, Canada
© Copyright by Nicolle J Miller 2014
Psychology M.A. Graduate Program
September 2014
ABSTRACT

Assessing the Effects of Brief Interventions on Mood and Dream Imagery in Recovering Alcohol and Drug Addicts

Nicolle J Miller

Addiction can lead to a plethora of health, social and economical problems. Substances are used for mood regulation, and therefore, waking day mood is extremely important during recovery of alcohol and drug addiction. The current study examined the effects of Meditation and Sleep Mentation Therapy on mood levels. All participants were male, and currently in treatment programs or early stages of recovery from alcohol and drug addiction. Participants were tested for anxiety and depression and were asked to provide a recent dream, prior and post to participating in the intervention. Dreams were scored using Hall and Van de Castle guidelines for scoring imagery. Results are consistent with previous research in that mood levels changed over the course of the meditation period. Implications for future research are discussed as well as applications of Sleep Mentation Therapy and Meditation in clinical and applied practice.

Keywords: Addiction, Meditation, Dream Therapy, Mood
Dedication

I would like to dedicate this to Heather H. You truly are an inspiration and have made a very important impact on not only my career but also my life.
Acknowledgements

I would like to thank the following people for their support and assistance in developing this thesis project. First and foremost I would like to thank Dr. Teresa DeCicco for her endless support and guidance throughout this process. Your constant encouragement and openness has helped expand my mind, heart and spirit. The opportunities you have provided have made a lasting impact on my life and I cannot thank you enough. You have definitely gone above and beyond your supervisorial obligations, and I am forever grateful to have you as a teacher, mentor and friend.

I would also like to thank Dr. Carlyle Smith, for his support and effort throughout this project and others. I would like to thank Patrick Fox for his encouragement and help to enhance this project. Thank you to my family, who always keep me grounded and happy.

Finally, I would like to thank everyone at Paul J. Sullivan Centre-Renascent, and Park Road South Community Home for accommodating this project. A very special thank you to all the participants who were open to new experiences and ideas during this chapter of their lives. We wish you health, happiness and continued recovery in your future endeavors.
# Table of Contents

Abstract .......................................................................................................................... ii
Dedication ...................................................................................................................... iii
Acknowledgements ..................................................................................................... iv
Table of Contents ........................................................................................................ v
List of Tables ................................................................................................................ vi
List of Appendices ........................................................................................................ vii
Introduction ................................................................................................................ 1
  Alcoholism and Alcohol Abuse .................................................................................. 3
  Drug Abuse ................................................................................................................ 4
  Drug Testing ............................................................................................................... 6
  Comorbidity ............................................................................................................... 7
  Criteria for Treatment ............................................................................................. 8
  Cure vs. Care ........................................................................................................... 9
  Treatment Methods ............................................................................................... 10
  Meditation ............................................................................................................... 15
  Meditation as a Treatment ..................................................................................... 16
  Dreams & Dream Therapy ..................................................................................... 17
  Early Recovery ....................................................................................................... 19
  Dream Content ...................................................................................................... 20
  Addiction & Dreams ............................................................................................. 21
Present Study & Hypotheses ..................................................................................... 23
Method ......................................................................................................................... 24
  Research Participant and Study Treatment Site ...................................................... 24
  Measures ............................................................................................................... 25
    Questionnaires ................................................................................................... 25
      Demographics .................................................................................................. 25
      Becks Anxiety Inventory ................................................................................. 25
      Becks Depression Inventory .......................................................................... 26
      Dream Measure ............................................................................................... 26
      Projective Method for Dream Interpretation ................................................... 26
Dream Content.........................................................26
Procedure........................................................................30
Analyses ..........................................................................32
Results..............................................................................32
  Dream Imagery...................................................................32
  Mood Levels Pre- and Post-Treatment................................33
  Dream Imagery and Mood...............................................37
  Meditation and Dream Therapy.......................................38
  Exploratory Analysis ....................................................38
Discussion...........................................................................41
  Dream Imagery ...............................................................41
  Mood Levels Pre and Post Intervention............................42
  Dream Imagery and Mood...............................................43
  Exploratory Analysis ....................................................44
  Important Implications ................................................44
  Limitation ........................................................................45
  Future Directions .........................................................46
  Conclusion ......................................................................47
References...........................................................................48
List of Appendices............................................................57
List of Tables

Table 1: Baseline Demographics  
Table 2: Correlation BAI and Dream Imagery  
Table 3: Correlation BDI and Dream Imagery  
Table 4: Mood Differences Pre & Post Meditation  
Table 5: Mood Differences Pre & Post Meditation and Dream Therapy  
Table 6: Control Mood Differences
# List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>Consent Form</td>
<td>57</td>
</tr>
<tr>
<td>Appendix B</td>
<td>Demographics Information</td>
<td>61</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Dream Record Sheet</td>
<td>63</td>
</tr>
<tr>
<td>Appendix D</td>
<td>Assessment of Mood 1</td>
<td>64</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Assessment of Mood 2</td>
<td>67</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Mindfulness Relaxation Meditation Script Example</td>
<td>70</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Projective Method of Dream Interpretation</td>
<td>72</td>
</tr>
<tr>
<td>Appendix H</td>
<td>Participant Feedback Sheet</td>
<td>74</td>
</tr>
</tbody>
</table>
Assessing the Effects of Brief Interventions on Mood and Dream Imagery in Recovering Alcohol and Drug Addicts

Alcohol and drug addiction is one of today’s most problematic illnesses, which can lead, not only to health problems, but also to social, economic and occupational damage (DeCicco & Higgins, 2009; Haydon, Rehm, Fischer, Monga & Adlaf, 2005; Tuten, DeFulio, Jones & Stitzer, 2011). There are many treatments currently used for addiction, including residential programs, support groups, individual therapy and cognitive behavioural therapy. Two underutilized therapeutic interventions are that of dream therapy and meditation. Interestingly, “…the study of dreams played an important part at the origin of cognitive therapy (Montangero, 2009 p239)”, but dreams are still not frequently used as a common treatment. The hesitation in using dream therapy exists even with the plethora of research indicating the importance for waking day representations, and general benefits of using dreams as a therapeutic tool (DeCicco, 2007; Hill, 1996; King & DeCicco, 2009; Pesant & Zadra, 2004). The reason for this is that clinicians are not properly trained in the modality (Peseant & Zadra, 2004). Waking day mood also becomes very important during recovery of alcohol and drug addiction, as the substances worked as mood regulators (DeCicco & Higgins, 2009). With that, meditation has been seen across literature as a very beneficial tool to help regulate mood, and has been used for those experiencing critical illness, reducing anxiety and depression in students, and those incarcerated to name a few (Bowen et al., 2006; DeCicco et al., 2010; Miller & DeCicco, 2012). Both dream therapy and meditation were implemented as an
intervention method for men in recovery from alcohol and/or drug addiction in this study.

One of the standing theories in dream research is the continuity hypothesis, stating that dream imagery is continuous with waking thought processes (DeCicco, 2007; King & DeCicco, 2009; Schredl, Berger & Riemann, 2009). With respect to addictions, this suggests that those who suffer with addiction in their waking day life may have specific dream imagery representing both their illness and recovery. Interestingly, dream research has linked dream imagery with waking day mood (DeCicco, 2007; King & DeCicco, 2009; Pesant & Zadra, 2004), which suggests that drug addiction, mood, and dreams should be examined simultaneously. Drug addiction is greatly related to mood disorders, including anxiety, major depression, general anxiety disorder, and more (Donovan et al., 2011; Fenton et al. 2011; Haydon et al., 2005). According to Fenton and colleagues (2011) the relationship between drug addiction and mood is related to decreased treatment outcome and therefore, may be used for prediction of continued drug use. In line with this rationale is the notion that dream imagery has also been shown to predict waking day outcomes (DeCicco & Higgins, 2009; DeCicco, Lyons, Pannier, Wright & Clarke, 2010). Therefore, treating the mood disorder monitored through dream imagery, may have a positive effect on treatment outcome, and, be an important factor in the discontinued use of illicit drugs.

Meditation, as a form of treatment, has been found to be effective for regulating and treating anxiety in a variety of forms, and has had a noticeable
MEDITATION, MOOD & DREAM IMAGERY

presence in psychotherapy since at least the 1970’s (Burns, Lee & Brown, 2011). Meditation has also been linked to waking day mood and dream imagery (Miller & DeCicco, 2012; Jones & DeCicco, 2009). Thus, the purpose of the present study is to examine how a form of meditation and dream therapy, used as an intervention, effects waking day anxiety and depression levels for those in recovery from drug and alcohol addiction. Changes in dream imagery will also be examined as this is known to be an indicator of waking day mood (DeCicco, 2007; Jones & DeCicco, 2009; Miller & DeCicco, 2012).

Alcoholism and Alcohol Abuse

In 2001 the The World Health Organization stated that alcohol dependence within the general population was up to five percent and between five and fifteen percent for hazardous or harmful drinking (Sareen, Chartier, Kjernusted & Stein, 2001). Sareen et al. (2001) conducted a study with a Canadian sample in regards to the comorbidity of phobic disorders and alcoholism and record the lifetime prevalence of alcohol dependence or abuse to be almost 17 percent in Ontario. As outlined in Heather (1998), “Addiction can be defined as an increased tolerance, withdrawal and ‘loss of control’ … compulsion to take a drug on a periodic or continuous basis” (p3). Specifically, alcoholism can be defined as repeated alcohol-dependent impairment which includes interpersonal, cognitive, legal, occupational, and health problems, due to repeated drinking (Schuckit, 1994; DeCicco & Higgins, 2009). Although alcoholism has long been noted as having genetic factors, Schuckit (1994) notes that relying solely on genetics can be problematic. With that, Schuckit (1994) wanted to investigate the deciding factors for family members that have the
same genes but some do and some do not become alcoholics. Schuckit (1994) found a strong relation between a less intense response to an alcohol challenge and the later development of alcohol abuse or dependence, suggesting participants who had less of a response to greater amounts of alcohol appeared to suffer from alcoholism later in life. Interestingly, this less intense response to alcohol did not, nor did family history predict, dependence on other drugs (other than alcohol), or greater risk of major psychiatric disorders. There was however, a trend toward higher risk of cannabinoil use, a substance found in cannabis (marijuana), for those who had a family history (Schuckit, 1994).

Schuckit et al. (1998) then wanted to examine what the difference was between alcohol dependence with and without a physiological component. The physiological characteristics of dependence indicate a more severe course of alcoholism. Alcohol-dependent subjects who reported a physiological component also demonstrated more alcohol related problems, more intense alcohol use, twice the number of alcohol related physiological complications, and five times the rate of alcohol induced emotional/psychiatric symptoms (Schuckit et al., 1998). This indicates that those who experience the physiological characteristics of addiction, rather than just dependence, suffer more severely in a variety of ways, both physically and mentally. Overall, alcoholism is a physiological illness with both physical and psychological symptoms and may have dangerous consequences.

Drug Abuse

According to Statistics Canada, five percent of males in Ontario experience drug abuse or dependence (excluding cannabis), 49.4 percent cannabis use, and 10
percent experience mood disorders. Drug abuse classification and treatment can be complicated due to variations in diagnostic parameters and comorbidity of other disorders. Two important factors in identifying and treating drug abuse are tolerance and withdrawal.

Tolerance of substances increases after continued prolonged use. With that, there is also a pavlovian effect on tolerance, and or, situational specificity of tolerance (Siegel, 2005). Cues associated to the drug elicit responses that weaken the drugs effect and without these cues tolerance levels decrease significantly due to an unfamiliar environment (Siegel, 2005). There are many cues that function as a conditional stimuli, both effects tolerance and withdrawal of the drug (Siegel, 2005).

Research has shown that self- administration cues such as small doses of a drug can act as a cue to drug onset and therefore, contribute to drug tolerance (Siegel, 2005). Siegel (2005) describes using therapies to rid the association between cues and systematic effects of the drug. These therapies work by presenting the substance dependent client with these cues without presenting the drug (Siegel, 2005), and therefore, the addicts confronts the stimuli without experiencing the responses evoked. Continued experience thus maintains abstinence.

There has been much discrepancy over the parameters of alcohol and drug abuse. Over the years, tolerance and withdrawal to substances have been part of the disorder spectrum, but past research shows when using alcohol, cocaine, opiates, amphetamines, sedative-hypnotics, and cannabinoids, both tolerance and withdrawal are not necessarily related to dependence problems (Schuckit et al., 1998). As such, this can lead to difficulty diagnosing and treating the addiction.
Most drug abuse surveys in Canada focus on illicit drugs, rather than prescription drug abuse (Haydon et al., 2005). Although illegal substances are a major contributor, Haydon et al., (2005) explains that prescribed drug abuse is extremely problematic within Canada. The authors describe that Valium, Tylenol 3, and MS Contin were the three substances most in demand according to a survey of downtown Vancouver, and were sold from 15-50 times the pharmacy prices. In five cities across Canada, the most used prescription drug class used are the Benzodiazepines, followed by Tylonal 3/4, Dilaudid, Percocet/Percodan and other opioid prescription drugs (Haydon et al., 2005). The key for intervention is to decrease the abuse and accompanying negative consequences, involving all parties, including physicians, pharmacists, and companies (Haydon et al., 2005).

Finally, emotions can also act as a cue; according to Siegel (2005) negative emotions commonly provoke withdrawal distress and craving. Perhaps if therapists can decrease negative emotions and mood fluctuation, such as decreasing anxiety and depression, they could potentially decrease cues associated to the drug elicited responses.

**Drug Testing**

There are many ways to test for drugs and alcohol, as traces of chemicals are present for different periods of time and therefore, vary in detectability. Some methods used to test for drugs include urine, oral fluid, sweat, and hair (Donovan et al., 2011). There are many advantages and disadvantages to these methods, and deciding the appropriate method depends on the situation, the drug itself, and the detection period. For example, urine testing has the advantage of onsite availability,
accuracy and reliability; it has high drug concentrations, low cost, and a large
database for interpretation. The disadvantages include a need for privacy and same
sex observers to collect; there is also a short detection window. The detection period
for alcohol is about 12 hours and 2 to 4 days for other drugs, with the exception of
chronic cannabis use which the detection period is much longer. This is one of the
most popular testing procedures within treatment facilities. For recent drug use, oral
testing is the best option, as it has a short detection time and therefore, would have to
be used continuously to monitor sobriety. Oral testing can also be done one-site, and
is more convenient as it does not need same sex observers, or as much privacy. As is
the case with urine, oral testing uses laboratory based screening, but drug
concentration can be lower (Donovan et al., 2011).

Comorbidity

There is a plethora of research on drug use disorders comorbidity with mood
disorders such as anxiety, depression and personality disorders (Fenton, 2011). It
appears the association between alcoholism and subtypes of anxiety is greater with
phobic and panic disorders, as well as generalized anxiety states” (Merikangas,
Delmonte (1985), shame and guilt are two emotions regularly experienced as
psychological symptoms associated with anxiety. Another common co-occurring
mood disorder experienced when suffering from drug and/or alcohol addiction is
depression (Fenton et al., 2011). Depression is one of the most pervasive problems in
mental health but it is still reported that at least one-third of primary care patients
escape early detection (Hill, 2003). There are several treatments for depression,
ranging from individual therapy to holistic techniques and traditional medicine (Kohn, 2008). Treatment of depression is necessary regardless of style (social or pharmaceutical), as depression tends to worsen without treatment (Howard, 2003).

According to Afifi, Enns, Cox and Martens (2005), depression is twice as prevalent in Canadian adolescence in comparison to childhood and is one of the leading causes of disability due to functional impairments and development of other mental disorders. With that, research has found a positive association between depression and alcohol abuse (Afifi et al., 2005; Paterson & Markou, 2007). Depression can be very dangerous (Paterson & Markou, 2007), combine with the dangerous effects of drug abuse, and lead to fatality. The comorbidity of depression and drug addiction can be explained by drug dependence being maintained through positive reinforcement of drug use and negative effects of withdrawal (Paterson & Marjou, 2007). The authors explain how the depressive symptoms that are associated with drug withdraw; can lead to continued use and dependence of the substance as an avoidance mechanism. Thus, treating the depression may in fact help treat the addiction, as it may lessen the withdraw symptoms.

Criteria for Treatment

Deciding whether treatment is needed has been long debated in the vast amount of literature. Tiffany et al. (2011), describes an expert panel recommending 5 domains; change in self-efficacy, psychosocial functioning, network/social support, craving, and quality of life. The authors note low self-efficacy has consistently been a predictor of chronic drug use, and treatment tends to focus on increasing self-efficacy.
Psychosocial functioning has long been a key factor in determining psychiatric disorders and measurement of mental health within the DSM, and addiction is no exception (Tiffany et al., 2011). Support is also correlated with substance-use disorders, as most users tend to surround themselves with other users, and as such, this can influence both use and abstinence. Craving is associated with addiction, as both a diagnostic tool, and a barrier for abstinence (Tiffany et al., 2011). Finally, quality of life reflects the users’ perspective of their physical, mental, and social lives as a result of both their illness and treatment. Quality of life has been associated with alcohol, heroin, cocaine, and nicotine dependence (Tiffany et al., 2011). Remarkably, treatment has been seen to positively affect all five of the above factors, increasing self-efficacy, psychosocial functioning, support, quality of life, and decreased cravings (Tiffany, et al., 2011, p713). This illustrates how treatment for those suffering from a Substance Use Disorder (SUD) can improve their daily life.

Cure vs. Care

Clinical researchers and practitioners debate the best protocol for treating drug dependence. This difficulty stems from the variety of professionals and perspectives involved in the process of treatment (Donovan, et al. 2011). Clinicians want clinically meaningful changes, whereas, the client wants improvement and reduction in symptom severity and to increase their quality of life. In comparison, researchers may be looking at the implication of specific interventions (Donovan, et al. 2011). With that, the overall common goal of intervention is to improve quality of life by reducing or eliminating drug use (Tiffany et al. 2011). Donovan et al. (2011) specifies two forms of recovery; Full Recovery (cure), which refers to eliminating
use, and Harm Minimization (care), which refers to reducing use. There are also four types of abstinence according to Donovan et al. (2011), Continuous, which continued abstinence from beginning to end; Prolonged, which is continuous with a short grace period at the beginning; Point Prevalence, seen as only a short abstinence (7 days); and Repeated point prevalence, which is point prevalence at repeated follow ups.

Different dependence problems and addictions require different treatments due to their differing needs and in some cases, abstinence is not possible. The type of substance needs to be considered when deciding the best choice of abstinence, for example, nicotine and alcohol. Small controlled amounts of alcohol are not necessarily harmful, but even a small amount of nicotine is harmful (Donovan et al. 2011). There are also tapering treatments available, such as the Methadone Program, used to treat those dependent on opiates. Nicotine dependence is different from other drug dependencies because, although nicotine is physically unhealthy, there are no immediate and imperative psychosocial problems. Consequently, the best way to treat nicotine dependence is long-term continuous abstinence (cure) (Donovan et al., 2011).

The stage of addiction should also be taken into consideration with alcohol, such that, those who are high-risk drinkers may have to practice harm-reduction (care) to control their addiction, whereas those who are dependent on alcohol may have to exercise full recovery (cure) (Donovan et al., 2011). The various drug addictions require a variety of different treatments in order to be effective.

Treatment Methods

To begin discussing treatment for addiction is to begin discussing
treatment for mental health. There have been an excess of treatments for mental health disorders over time, including psychiatric disorders as a result of chronic addiction. In 1995, Canada began to reduce the number of psychiatric hospitals to treat mental health disorders, which historically was the only option (Lesage et al., 2000). There is much debate over the benefits and detriments of deinstitutionalization. A major criticism in the literature of deinstitutionalization is the increased burden on relatives and the increase risk of homelessness, imprisonment, or impact on other institutions such as nursing homes (Lesage et al., 2000). With that, the major rebuttal Lesage et al. (2000) notes is that those consequences are due to an unsuccessful integration into the community.

Lesage et al. (2000) conducted a study at the largest psychiatric hospital in Canada in 1989, to assess how well clients, who had been hospitalized for at least one year, were integrated into the community. Of the ninety-six patients discharged, the majority of them now reside in professionally supervised group homes (27%) and nursing homes (23%), the remaining clients lived with foster families or in hostels, some were back in a psychiatric hospital or living with relatives (8%), and less than five percent lived in supervised apartments (Lesage et al., 2000). Interestingly, the negative aspects of deinstitutionalization were not present in this study. Clients did not burden relatives because most were discharged into supervised residential settings, fewer than five percent were lost to follow up, none were found in jail or prison and although one third were in nursing homes, this was deemed appropriate for patients with a considerable loss of autonomy due to physical incapacity (Lesage et al., 2000). Supported living environments provided these clients with hygiene, meals
and transportation, but there were unmet needs. The unmet needs were revision of medication, counseling for specific psychiatric needs, and individualized behavioural programs (Lesage et al., 2000). When looking at addiction and treatment, this integration back into the community is also vital for continuous sobriety and decreased recidivism.

A recovery home is an example of supported housing and a supportive environment for someone leaving treatment. Housing has been noted as one of the most important living arrangements for those recovering from a SUD (Tuten et al., 2011). “Recovery houses are operated typically by individuals in recovery and require the residents to pay rent, remain abstinent, and obey house policies” (Tuten et al., 2011, p. 973). Tuten et al. (2011) investigated the value of abstinence-contingent housing, which allows support with maintaining sobriety after detoxification. This study compared the success rate for those clients in one of three groups; those who received usual care (referral for after care), those who were placed in a recovery house immediately following assessment, and those clients who received reinforcement-based intensive out-patient treatment (RBT) (including cognitive behavioural therapy, group therapy, abstinence-contingent recreational activities, vocational assistance, and individual counseling) as well as being placed in a recovery house. Tuten et al. (2011) found that sobriety success was highest in the third group, those who received abstinence-contingent housing and RBT, in comparison to those who were just being placed in a recovery house and those who received the usual care. Today, people are not involuntarily hospitalized until they pose an immediate threat to themselves or someone else (Andre, Jaber-Filho,
Another program used for treating addiction, specifically alcoholism, is Alcoholics Anonymous (A.A.). A.A. utilizes a 12-step program to teach alcoholics how to live without alcohol by addressing mood changes consequently due to abstaining from alcohol (DeCicco & Higgins, 2009). A.A. differs from other treatment programs as it is “…non-professional, self-supporting, multiracial, apolitical, and available almost everywhere. (A.A. World Services, NY)”, in which members share their experiences with one another and offer services or sponsorship to any alcoholic coming into A.A. Members of A.A. can join a home group, which is normally local to their residence and they attend this group regularly. With that, A.A. members have the ability to attend meetings anywhere as they are offered globally. Groups such as A.A. and N.A. (Narcotics Anonymous) are community recovery resources, that offer management and support through the 12-steps that evidently assist in the treatment of substance use disorders (Kelly, Stout & Slaymaker, 2012). Kelly et al. (2012), investigated the importance of attendance and active involvement in the 12-steps in regards to Psychological distress, Motivation for abstinence, Substance use consequences, Abstinence self-efficacy, Commitment to sobriety, Severity of substance dependence, and Substance use outcomes, which consisted of the percentage of days abstinent (PDA), and found that increasing attendance and active involvement in 12 step programs following treatment for SUD is associated with better substance outcomes.

Twelve step programs have been used in drug and alcohol treatment for years, and are based off of ‘helping one another’, with no set rules or regulations (A.A.
World Services, NY). The twelve steps help the addict come to acceptance, admit the nature of their wrongs, make amends, improve conscious and experience a spiritual awakening (A.A. World Services, NY). There have been many studies on the effectiveness of 12 step programs with much success.

Chi, Campbell, Sterling and Weisner (2011) conducted a 12-Step attendance trajectory over 7 years, and found that adolescents who continued to attend 12-step programing had better outcomes. The authors highlight that not only early but also persistent attendance appears to be the most beneficial. With that, those who did continue to attend 12 step meetings did eventually decline overtime (Chi et al., 2011), highlighting the importance of teaching skills that can be continued even if not attending meetings.

Who we are: We in A.A. are men and women who have discovered, and admitted, that we cannot control alcohol. We have learned that we must live without it if we are to avoid disaster for ourselves and those close to us (A.A. Publications, NY).

Finally, Tiet, Ilgen, Byrnes, Harris and Finney (2007) wanted to investigate whether residential treatment settings in fact do provide more beneficial treatment for subgroup patients. Participants were classified as being part one of five groups; in-patients, residential, SUD domiciliary (home), outpatient or intensive outpatient. Tiet et al. (2007), found that those with “…higher levels of SUD severity had significantly better 6-month outcomes if they were treated in in-patient/residential treatment settings rather than in out-patient settings… (438).” This finding indicates that although psychiatric hospitals have been on a steady decline, structured in-patient
treatment for a subgroup of clients is beneficial to recovery.

Meditation

Meditation has developed into many different forms and can be utilized in a variety of ways. There are self-taught meditation techniques, such as Natural Stress Relief (NSR) Meditation (Coppola & Spector, 2009) as well as therapy and/or therapist guided meditation, such as Mindfulness Based Cognitive Therapy (Schreiner & Malcolm, 2008). There are meditations that require the use of materials, such as CD’s as well as meditations that involve repetitive movement or verbal noise (Burns et al., 2011) or most typically, a mantra.

Concentrative attention during meditation can be focused on a variety of objects, such as a sound (mantra), a candle flame, or the breath (Delmonte, 1985). One of the theories developed around the success of mantra-based meditation is explained by Delmonte (1985), in which it is noted that Boals (1978) contended that classical conditioning elicits changes in the direction of relaxation when the mantra becomes a conditioned relaxation stimulus. Subsequently, the mantra may become a conditioned stimulus eliciting a conditional relaxation response in terms of frontalis EMG (Delmonte, 1985). In layman’s terms, when the mantra is associated with relaxation, repeating the mantra will help allow the body to be signaled to relax, and overtime the mantra will induce the meditative state.

NSR meditation is a mental technique practiced for 15 minutes twice a day, which reduces stress and anxiety by inducing a physiological state of deep rest (Coppola & Spector, 2009). This technique, notes Coppola and Spector (2009), has
been seen to reduce state anxiety and increase self-actualization through an increase in autonomy, creativity, inner satisfaction, alertness, and productivity. NSR meditation is self-taught by listening to an audio file, and has been noted to be as effective as TM when reducing trait anxiety (Coppola & Spector, 2009). Practicing NSR meditation continuously has a positive correlation with self-actualization, which Coppola and Spector (2009) state is a natural consequence of the elimination of stress and anxiety through deep rest, while remaining mentally alert. NSR meditation appears to be a valuable tool for psychologists, researchers, and clinicians. One of the most common uses for meditation used by therapists and clinicians is to help reduce the symptoms of stress and its related symptoms such as anxiety and depression.

*Meditation as a Treatment*

Meditation as stated in Alterman et al. (2004), has successfully benefitted patients with mental illness, terminal illness, correctional inmates and those suffering from substance abuse problems. “As a treatment for substance use disorders (SUDs), mindfulness practices can provide an environment that is tolerant of different religious beliefs, allows for flexible treatment goals, and has less associated stigma than traditional treatment programs” (Bowen et al., 2006, p. 343). The authors note a study that used Vipassana Meditation (VM) for an incarcerated population, led to a decrease in recidivism, depression, and anxiety among other things. Bowen et al. (2006) found that inmates who additionally participated in VM in comparison to only regular workshops had a decrease in substance use, including alcohol, marijuana, and crack cocaine. The investigators also found those who participated in the meditation also had a decrease in psychiatric symptoms, had more internal alcohol-related locus
of control, and experienced higher levels of optimism. Meditation has been tested as the sole treatment for smoking and was found to lead to greater reductions in smoking behaviour, for those who received Mindfulness Training (Bewer et al., 2011). One way to evaluate meditation as an intervention can be through the analysis of dream imagery in combination with waking day measures (DeCicco, 2007).

A mindfulness technique defined as “…a meditative resting of the entire field of attention, including all sensory and mental contents” (p. 262) was used for a group of men residing in a sober house (Alterman et al., 2004). Medical problems were shown to decrease for the experimental group while increasing for the group not receiving meditation (Alterman et al., 2004). Participants also continued to practice this meditation after the study, indicating beneficial outcomes (Alterman et al., 2004).

Witkiewitz, Marlatt and Walker (2005) conducted a study using mindfulness meditation as a treatment for addictive behaviours and found it to be stable and secure. The authors proposed a cognitive behavioural intervention using mindfulness to accept thoughts and feelings, such as craving in high risk situation and using these skills to develop coping mechanisms. Mindfulness within addiction can include becoming aware, accepting with complete non-judgment the initial craving or trigger, then allowing for a realistic relapse prevention plan. Craving is inevitable, according to Witkiewitz et al. (2005) and teaching coping strategies in combination with mindfulness practice allow the client to build an association between mindfulness and relapse prevention skills.

_Dreams and Dream Therapy_

One of the dominant and current theories of dreams is the Continuity
Hypothesis, which suggests that waking day life and experiences are continued into dream imagery (Hall & Nordby, 1972; King & DeCicco, 2007). Dream research shows that dreams are in fact organized and meaningful, reflecting waking day issues (Hill, 1996). This has been reflected in people suffering with an addiction to alcohol, in that thoughts and feelings continued into their dreams (DeCicco & Higgins, 2009). Heaton, Hill, Hess, Leotta and Hoffman (1998) explain, “…dreams reflect unresolved emotional concerns and function to integrate or assimilate these concerns into a person's existing memory system” (p. 147). This allows for meaning to be derived in regards to waking day, by connecting emotional past and present situations (Heaton et al., 1998).

Literature also demonstrates the physiological connection between dreaming and addictions, such that exposure to drugs upregulates dopaminergic neurotransmission in the ventral tegmentum (Johnson, 2001). Johnson (2001) notes that this “…upregulation both stimulates increased dreaming and introduces as new drive, whose object is addictive drugs.” (p. 17).

With that, DeCicco (2007) notes that dream interpretation techniques connect dreams to the dreamer’s waking life through dream content, and this has been found with cancer patients, those suffering with PTSD, depression, anxiety and addiction (Dale & DeCicco, 2012; Dale, DeCicco & Miller, 2013; DeCicco & Higgins, 2009). Hill (1996) explains that dream interpretations allow therapist to gain a better understanding of what is troubling their clients.

Hill et al. (1998) explain that exploring dreams allow access to valuable information in regards to their clients waking day life and unresolved conflicts.
Research and training within the area of dream therapy is essential as “…therapists may be intimidated by the disturbing, emotionally intense imagery of many dreams, or they may be uncertain about how to proceed with the dream interpretation.” (Hill et al., 1998, p. 148). Therapists can assist the client through the interpretation of their dream, such as using the Hill (1996) cognitive-experimental model. This model includes three stages, the exploration stage, Exploring dream imagery and emotion, the Insight stage, understanding the dream in relation to waking day life and the Action stage, developing a course of action in waking day life (Heaton et al., 1998). There are also worksheets developed to allow the client to work through their own interpretation without the guidance of a therapist.

An example of an easy and inexpensive dream interpretation technique developed by DeCicco (2007) is The Storytelling Method (TSM). TSM utilizes dream content and associations to develop a story and gain meaningful discovery for the dreamer. DeCicco (2007) found that the story developed from associations is a significant predictor of discovery (Dale & DeCicco, 2012; Dale, DeCicco & Miller, 2013; Clarke, DeCicco & Navara, 2010; DeCicco et al., 2010; DeCicco, Donati & Pini, 2012).

*Early Recovery*

As stated in Simpson, Joe, Dansereau and Flynn (2010), the early stage of recovery reflects the beginning of changes in clients thinking and acting. Early recovery is so vital as recorded by Laudet and White in 2008 because of “…consequences of the past, lack of resources, poor housing, physical and mental health, [and] deteriorated social and family ties” (Shumway, Bradshaw, Harris &
Baker, 2013, p. 5). Those in early recovery are extremely high risk for relapse; positive influences include hope, resilience, family function and motivation according to Shumway et al. (2013).

Simpson et al. (2010) found that those who have a strong relationships with their therapist appear to be twice as likely to experience positive changes in psychosocial functioning, including anxiety, depression, self-esteem, social conformity, risk-taking and decision making (p. 1735). Having increased psychosocial functions results in positive behaviours and treatment and retention (Simpson et al., 2010).

Andre et al. (2003) conducted a study on violent substance abuse patients who were involuntarily hospitalized, and found predictors of recovery included a lower age of admission, active treatment, achievement of planned treatment goals and regular attendance at self-help groups. Early recovery focuses on cessation of use and is normally done in an inpatient treatment centre (Shumway et al., 2013). Waking day emotional states can be monitored through dream content.

Dream Content

Dream content and themes are studied with the use of Content Analysis, which allows a researcher to examine what the content recalled by the dreamer may indicate. Hall and Van de Castle designed this system of Content Analysis in 1996 (Barcaro, 2010). Another form of dream therapy is the Dream Interview Method (DIM) described in Pesant and Zadra (2004), with the assumption that dream content represents waking day life through metaphors and symbols. There are three phases, the therapist asks the client to describe major dream elements, and then to bridge
those elements to their waking day life, and finally develop changes they can make to their waking day life, building on what they learned.

Hill (1996, 2003) developed a Cognitive-Experiential Model of Dream Interpretation, with three stages including exploration, insight and action (Pesant & Zadra, 2004). Again, these stages take the dreamer through the dream, making links to waking day life to find meaning the dreams, which leads to the action stage. The action stage is vital, as it allows the dreamer to make changes in their waking day life through what they leaned about themselves, this allows for a change in behaviour to begin (Hill, 1996).

There are also group dream therapies, such as the Ullman Method, developed by Ullman in 1996 (Pesant & Zadra, 2004). This method is completed in groups, so that each group member can project their lives onto each other’s dream. Essentially, dream work can be done by the dreamer themselves with dream interpretation worksheets (DeCicco, 2007), in a clinical setting and/or in groups (Pesant & Zadra, 2004). For the purpose of this study, the Projective Method (DeCicco, 2007) of dream interpretation will be used as group therapy is beneficial for those experiencing addiction (DeCicco & Higgins, 2009; Tuten et al., 2011) and the use of projections helps widen the dreamer’s insight (Pesant & Zadra, 2004).

**Addictions and Dreams**

Mental health has repeatedly been associated with dreams throughout the scientific literature (King & DeCicco, 2009). With respect to the continuity hypothesis, both physical and mental well being has been linked to dreams (Jones & DeCicco, 2009; Schredl et al., 2009). Accordingly, during active drinking, dreams appear to be unpleasant and contain drinking, observing drinking, talking about
drinking, craving, and a repressed desire to drink (DeCicco & Higgins, 2009). Interestingly, DeCicco and Higgins (2009) note that dreams of recovering alcoholics normally contain drinking in some form of imagery as well. Again, in regards to the continuity hypothesis, those who drink or experience cravings to drink in their waking day life, continue this behaviour into their dreams. Physical health has also been seen incorporated into ones’ dream with specific dream imagery (King & DeCicco, 2007). King and DeCicco (2007) reinforced these findings suggesting that people who score lower in emotional well being and higher in depression experience more sadness, anger, aggression, violent and negative dreams. Those who suffer from addiction have lower emotional well being and may also suffer from depression, suggesting their dreams may include this negative affect as well.

Johnson (2001) reviewed the dreams of a woman through the first 48 months of her sobriety and found that 23 percent of all her dreams were rated as drug dreams. Johnson (2001) explains that the ventral tegmental pathway drives animals to seek food, water and sex, and also produces cravings for drug and drug-associated stimuli due to episodic drug exposure. The author also notes the same ventral tegmental pathway is activated during dreaming, specifically Rapid Eye Movement (REM) sleep. This link may be why patients in detox and treatment programs describe drug dreams, such that they are craving the drugs because of this up regulation, as this pathway both increases dreaming and cravings. This finding suggests that drug dreams can be a very important tool in recovery for both the patient and therapist. Johnson (2001) also notes that one third of the participant’s dreams had a sexual theme to them, which may be explained by this pathway as well, due to the food,
water, and sex drive linkages. The current study will examine dream content and a dream therapy method in relation to recovering alcohol and drug use.

Present Study

The purpose of this study is to examine the relationship among Dream Therapy and Meditation interventions with respect to waking day anxiety and depression for those recovering from alcohol and drug addiction. More specifically, this study will investigate and compare the effects of Dream Therapy and Meditation versus no dream therapy and meditation intervention, on waking day anxiety and depression levels.

Hypotheses:

1) Hypothesis 1 states that waking day depression and anxiety will be reflected in dream imagery, as was found in previous studies (Jones & DeCicco, 2009; Zanasi et al., 2010). Anxiety will be shown through multiple scene changes, and depression through negative affect and mood imagery (Miller & DeCicco, 2012; 2013; Clarke, DeCicco & Navara, 2010).

2) Hypothesis 2 states that measures of waking day anxiety and depression will decrease after two weeks of Meditation (Coppola & Spector, 2009).

3) Hypothesis 3 states that measures of anxiety and depression will decrease after two weeks of Dream Therapy. Using dreams in therapy may help increase self-awareness, insight, and self-understanding (Pesant & Zadra, 2004).

4) Hypothesis 4 states that the number of scene changes in dream imagery will decrease after 2 weeks of meditation for people with moderate to high anxiety,
and that negative affect and imagery will decrease after 2 weeks of meditation for people with moderate to high depression (Zanasi et al., 2010).

5) Hypothesis 5 states that the number of scene changes in dream imagery will decrease after 2 weeks of Dream Therapy for people with moderate to high anxiety, and that negative affect and imagery will decrease after 2 weeks of Dream Therapy for people with moderate to high depression (King & DeCicco, 2007; Schredl et al., 2009; Zanasi et al., 2010).

6) Hypothesis 6 states that both intervention groups (meditation and dream therapy) will have less depression, anxiety and negative dream imagery after two weeks than the control group, which had no intervention over 2 weeks (Delmonte, 1985; Hill, 1996; Montangero, 2009; Pesant & Zadra, 2004).

7) Hypothesis 7 in exploratory analyses, it is hypothesized that dream imagery will significantly predict lower levels of anxiety and depression in hierarchical regression models.

**Method**

*Participants*

The participants were 18 men from Park Road South Community Home, a recovery house in for men suffering from alcohol and drug addictions, as well as Renascent’s Paul J. Sullivan Centre, a residential treatment facility for men suffering from alcohol and drug addictions. All participants volunteered for this study and were asked to participate in a Meditation and Dream Therapy workshop, fill out mood measures and record their dreams over a period of four weeks.

*Research participants and study/treatment site*
The study participants included 18 substance-dependent men who were in a treatment or recovery facility, both in the Greater Toronto Area. Regular treatment included one-on-one and group therapy, with a twelve-step focus, among other techniques. All participants partook in the intervention program, but voluntarily participated in the study, and completed full informed consent procedures. The study was also approved by the Tri-Council at Trent University Review Ethics Board, and both facilities. Control and experimental data were collected at each facility, some participants were part of both control and experimental group, but the majorities were only part of one group.

Demographics collected included age, duration of using (years), duration of recovery (weeks), their drug of choice, marital status, highest level of education, whether they have a diagnosed psychiatric disorder and if so, whether they were currently taking medication for that disorder, their meditation history and whether they were self-declared as spiritual (Table 1).

**Measures**

*Questionnaires*

DEMOGRAPHICS. The following demographics were asked of the participants: age, drug of choice, duration of using, duration of recovery, psychiatric/medical disorders, meditation and spirituality history.

BECK ANXIETY INVENTORY. The Beck Anxiety Inventory (BAI) (Beck, 1988) is a 21-item self-report questionnaire that was used to measure the participants’ pre and post anxiety levels. The BAI measures the severity of an individual’s anxiety. The
BAI has been found to be both valid and reliable in previous research (Steer et al., 1997).

**BECK DEPRESSION INVENTORY.** To measure the participant’s pre and post depression levels, The Beck Depression Inventory (BDI) was used, as it measures symptoms of severity (Beck et al., 1961). The BDI has been found to be both valid and reliable (Beck et al., 1961).

*Dream Measure*

THE PROJECTIVE METHOD. This measure involves group projections on sleep mentation and has been found to be both valid and reliable (DeCicco, 2007).

*Dream Content*

All the participants were asked to hand in one dream that they had experienced within the last week before meditation (pre condition), and one dream from the current week after meditation (post-condition). The same collection was done before and after dream therapy was implemented. Each participant was asked for 2 dreams per intervention, subsequently 2 or 3 dreams total. All dreams were content analyzed using Content Analysis, designed by Hall and Van de Castle (1966).

Content Analysis uses a scoring system of dream imagery, chosen through themes. Categories were chosen in regards to frequency within the dreams as well as previous research. For example anxious imagery has been correlated with animals and scene changes, and depressive imagery has been correlated with dark colours and negative affect (Jones & DeCicco, 2009; Zanasi et al., 2010).
### Table 1:

*Baseline demographics of participants*

<table>
<thead>
<tr>
<th>Measures</th>
<th>All N=18</th>
<th>Control N=5</th>
<th>Experimental N=13</th>
</tr>
</thead>
<tbody>
<tr>
<td>% (#)</td>
<td>% (#)</td>
<td>% (#)</td>
<td></td>
</tr>
<tr>
<td><strong>Age M(SD)</strong></td>
<td>41 (13.36)</td>
<td>37.8 (13.59)</td>
<td>42.23 (13.62)</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>50 (9)</td>
<td>40 (2)</td>
<td>53.8 (7)</td>
</tr>
<tr>
<td>Married</td>
<td>22.2 (4)</td>
<td>20 (1)</td>
<td>23.1 (3)</td>
</tr>
<tr>
<td>Common Law</td>
<td>27.8 (5)</td>
<td>40 (2)</td>
<td>23.1 (3)</td>
</tr>
<tr>
<td><strong>LOE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>55.6 (10)</td>
<td>60 (3)</td>
<td>53.8 (7)</td>
</tr>
<tr>
<td>College/University</td>
<td>33.3 (6)</td>
<td>40 (2)</td>
<td>30.8 (4)</td>
</tr>
<tr>
<td>Trades</td>
<td>5.6 (1)</td>
<td>0</td>
<td>7.7 (10)</td>
</tr>
<tr>
<td>Other</td>
<td>5.6 (1)</td>
<td>0</td>
<td>7.7 (1)</td>
</tr>
<tr>
<td><strong>Drug of Choice</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>50 (9)</td>
<td>60 (3)</td>
<td>46.2 (6)</td>
</tr>
<tr>
<td>Crack/Cocaine</td>
<td>16.7 (3)</td>
<td>20 (1)</td>
<td>15.4 (2)</td>
</tr>
<tr>
<td>Opiates/Opioid</td>
<td>16.7 (3)</td>
<td>20 (1)</td>
<td>15.4 (2)</td>
</tr>
<tr>
<td>Poly</td>
<td>16.7 (3)</td>
<td></td>
<td>23.1 (3)</td>
</tr>
<tr>
<td><strong>Duration of Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 Year</td>
<td>16.7 (3)</td>
<td>20 (1)</td>
<td>15.4 (2)</td>
</tr>
<tr>
<td>5-10 Years</td>
<td>5.6 (1)</td>
<td>20 (1)</td>
<td></td>
</tr>
<tr>
<td>&gt;10 Years</td>
<td>27.7 (5)</td>
<td>20 (1)</td>
<td>30.8 (4)</td>
</tr>
<tr>
<td></td>
<td>Recovery (w)</td>
<td>Psyc Disorder</td>
<td>Medication</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>44.4(8)</td>
<td>50(9)</td>
<td>72.2(13)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>60(3)</td>
<td>20(1)</td>
</tr>
<tr>
<td></td>
<td>53.85(7)</td>
<td>46.2(6)</td>
<td>30.8(4)</td>
</tr>
<tr>
<td></td>
<td>&lt;1</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>27.8(5)</td>
<td>50(9)</td>
<td>27.8(5)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>60(3)</td>
<td>80(4)</td>
</tr>
<tr>
<td></td>
<td>30.8(4)</td>
<td>53.8(7)</td>
<td>69.2(9)</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>27.8(5)</td>
<td>72.2(13)</td>
<td>50(9)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>20(1)</td>
<td>60(3)</td>
</tr>
<tr>
<td></td>
<td>30.8(4)</td>
<td>46.2(6)</td>
<td>30.8(4)</td>
</tr>
<tr>
<td></td>
<td>5-10</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>16.7(3)</td>
<td>66.7(12)</td>
<td>50(9)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>60(3)</td>
<td>60(3)</td>
</tr>
<tr>
<td></td>
<td>15.4(2)</td>
<td>53.8(7)</td>
<td>69.2(9)</td>
</tr>
<tr>
<td></td>
<td>10-20</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>16.7(3)</td>
<td>66.7(12)</td>
<td>72.2(13)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>60(3)</td>
<td>20(1)</td>
</tr>
<tr>
<td></td>
<td>15.4(2)</td>
<td>53.8(7)</td>
<td>46.2(6)</td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>11.1(2)</td>
<td>50(9)</td>
<td>27.8(5)</td>
</tr>
<tr>
<td></td>
<td>20(1)</td>
<td>60(3)</td>
<td>80(4)</td>
</tr>
<tr>
<td></td>
<td>7.7(1)</td>
<td>53.8(7)</td>
<td>69.2(9)</td>
</tr>
<tr>
<td>No</td>
<td>61.1(11)</td>
<td>20(1)</td>
<td>76.9(10)</td>
</tr>
</tbody>
</table>

*Note.* M=Mean; SD= Standard Deviation; Age=Age of participants; Martial Status= Self-declared martial status; LOE=Level of Education; Drug of Choice= Participants drug of choice; Duration of Use= Number of years participants have been using drugs and/or alcohol; Recovery (w)= Number of weeks participants have been sober; Psych Disorder= Clinically diagnosed psychiatric disorder; Medication=Whether or not participants are currently taking medication for their psychiatric disorder; Meditation= Meditation history; Frequency= Frequency of meditation experience; Spirituality=Do you consider yourself spiritual.
The categories chosen for this study were: Drugs (alcohol or drugs), Using, Searching and Selling substances; Using Fail, the inability to use; Friendly, Sexual and Aggressive Social Interactions; Family Members (current/ex partners, children and parents); Objects (paraphernalia); Fear Group (Afraid, Scared, Distress), Nervous Group (Nervous, Jittery); Hostile Group (Hostile, Irritated), Upset and Guilt Group (Guilty, Ashamed) emotions; Anxious Emotions; Animals; Dark Colours; Violence; Failure; Familiar and Unfamiliar Characters in association with substance use; Buildings associated with substance use (e.g. LCBO, Bar, Methadone Clinic); Male and Female Characters.

**Procedure**

All participants volunteered to participate in this study, were informed of the purpose and their right to withdraw at any time. The researcher met with the participants everyday (or as appropriate) for the duration of the study. During the first meeting the participants filled out a consent form (Appendix A) as well as a Demographics form (Appendix B). The first phase of the study was the control, which were men currently in a twenty-one day treatment program. The participants were asked to fill out their initial package, including a recording of a dream they had experienced within the previous week using a Dream Record worksheet (Appendix C), as well as the BAI (Appendix D) and BDI measures (Appendix E). The participants then filled out a second package after a period of two weeks with no intervention in place, to act as a control.

The second phase of this study then included another cohort of participants who are currently residing in a Recovery House (Park Road South Community
These participants were provided with an initial package which included the consent and demographic information, and asked to fill out the Dream Record worksheet (with a dream they experienced within the last week), the BDI and BAI measures. The participants were then encouraged to start keeping a Dream Journal (Journals were provided) for at least the duration of the study. The participants then filled out a second package after a period of two weeks, meditating once a day for 15 minutes. The meditation was therapist-guided and performed at the participants’ residence in the form of a workshop. The mindfulness-based meditation ran for 15 minutes daily, for a total of 2.5 hours of meditation over two weeks. The second package then included both mood measures (BDI and BAI), as well as a Dream Record of a dream they experienced within the last week.

After observing positive behavioural changes and positive feedback from the participants, the meditation continued into the second intervention phase. The participants then attended a Dream Therapy workshop three times a week, for two weeks, participating in the Projective Method for dream interpretation (Appendix F), led by the researcher. The Projective Method is a group therapy based form of dream interpretation that involves projecting ones’ life onto another person’s dream. A fourth package was filled out, including one Dream Record and both mood measures after an additional two weeks of Meditation and Dream Therapy.

The third and final phase of this study included repeating these steps with another group of participants residing at a treatment centre. The intervention implementation was suppose to be counter balanced, such that some participants would begin with 2 weeks of meditation and some participants would begin with 2
weeks of dream therapy. This original procedure was altered; because after the initial group received 2 weeks of meditation, participants stated that they felt so much better that meditation could not be withdrawn from any future participants. After discussion with the supervising clinician ethically the meditation therapy could not be withdrawn from any future participants.

All participants were fully informed of the study and signed a consent form. They were debriefed once the experiment was completed. There was also a Participant Feedback sheet (Appendix G) that was available to all participants.

Analyses

SPSS Statistics 21.0 was used for all statistical analyses. All dreams were scored using the Hall and Van de Castle (1966) guidelines for scoring dream imagery, through themes.

Results

Dream Imagery

In order to test hypothesis one, the Hall and Van de Castle system of content analyses was used to score and analyze anxiety and depression imagery. Correlations were then conducted to observe whether waking day anxiety and depression measures are linked with specific dream imagery. A correlation was conducted to test whether there was a significant relationship between BAI scores and the frequency of Scene Changes, Anxious Emotion and Animals. Although no significant correlations were found with typical anxious imagery, there was a significant correlation between pre-treatment BAI scores and the frequency of Objects (paraphernalia) \( r = .59, p < .05 \), and Upset emotions \( r = .66, p < .01 \) in dream imagery. Indicating before intervention
implementation, as participants’ anxiety scores increased, the frequency of Paraphernalia and Upset dream imagery appear to increase as well. Contrary to predictions, there were no significant correlations between BAI after intervention implementation and specific dream imagery (See Table 2).

A correlation was also conducted between BDI scores and negative dream imagery, including Dark, and Failure with no significant correlations found. However there were significant correlations between BDI scores and Using (r = -.47, p<.05), Sexual Social Interactions (r = .47, p<.05) and Confusion (r = .63, p<.01) dream imagery before intervention implementation. This suggests that as depression scores increased, Using dream imagery decreased, but both Sexual social interactions and Confusing imagery increased before any treatment intervention. Contrary to prediction, there were no significant correlations between BDI post interventions and specific dream imagery (See Table 3).

**Mood Levels pre- and post-intervention**

Hypothesis two was tested using t tests to compare anxiety and depression levels pre and post meditation interventions. All assumptions were met, the outliers were removed and the variance was normally distributed. There was a significant difference between anxiety levels before (M = 20.25, SD = 13.15) and after (M = 15.88, SD = 12.26) two weeks of meditation intervention (t(15) = 2.6, p<.05). Suggesting that anxiety levels significantly decreased after the implementation of meditation. The paired sample t test also illustrated a significant difference between depression levels pre (M = 18.40, SD = 8.65) and post (M = 11.63, SD = 5.98) meditation intervention (t(15) = 2.89, p<.05) (See Table 4).
Table 2:

**Correlation BAI and Dream Imagery**

<table>
<thead>
<tr>
<th>BAI-PRE</th>
<th>ScChang</th>
<th>AnxEmot</th>
<th>Animal</th>
<th>Object</th>
<th>Upset</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>-0.22</td>
<td>-0.05</td>
<td>-0.22</td>
<td>0.59*</td>
<td>0.66**</td>
</tr>
</tbody>
</table>

*Note. BAI= Beck Anxiety Inventory; ScChang= Scene Change in imagery; AnxEmot=Anxious Emotion imagery; Animal= Animal imagery; Object= Paraphernalia imagery; Upset=Upset imagery.  
*p < 0.05  **p < 0.01
### Table 3

**Correlation BDI and Dream Imagery**

<table>
<thead>
<tr>
<th></th>
<th>BDI-Pre</th>
<th>DarkCol</th>
<th>Failure</th>
<th>Using</th>
<th>Sexual</th>
<th>Confusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDI-Pre</td>
<td>1.00</td>
<td>.07</td>
<td>-.15</td>
<td>-.47*</td>
<td>.47*</td>
<td>.63**</td>
</tr>
</tbody>
</table>

*Note. BDI-Pre=Beck Depression Inventory pre intervention; DarkCol=Dark Colours imagery; Failure=Failure Imagery; Using= Using drug and/or alcohol; Sexual=Sexual Interaction imagery; Confusion=Confusing imagery.  
*p < .05 **p < .01
Table 4

*Mood Differences Pre & Post Meditation*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre Intervention</th>
<th>Post Intervention</th>
<th>t(15)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>BAI</td>
<td>20.25</td>
<td>13.15</td>
<td>15.88</td>
</tr>
<tr>
<td>BDI</td>
<td>18.4</td>
<td>8.65</td>
<td>11.63</td>
</tr>
</tbody>
</table>

*Note. BAI= Beck Anxiety Inventory; BDI=Beck Depression Inventory Pr Intervention=Pre Condition; Post Meditation=Post Condition; M=Mean; SD= Standard Deviation.
*p < .05*
As stated above, Meditation was continued throughout the Dream Therapy intervention. Therefore, hypothesis three was tested with a t-test to compare pre and post anxiety and depression levels after practicing Meditation and Dream Therapy for two weeks. There was a significant difference between anxiety scores before (M = 25.40, SD = 14.12) and after (M = 17.6, SD = 9.21) intervention (t(4) = 2.9, p<.05). Anxiety levels did significantly decrease after implementing the Meditation and Dream Therapy for two weeks. However, there was no significant difference between pre (M = 19.2, SD = 10.09) and post (M = 17.20, SD = 7.92) depression scores, after Meditation and Dream Therapy (See Table 5).

**Dream Imagery and Mood**

To test hypothesis four, Content Analyses and t tests were used to determine whether the frequency of scene changes in dream imagery significantly decreased, after two weeks of meditation for participants with moderate to high anxiety and whether or not the frequency negative affect decreases significantly after two weeks of meditation for participants with moderate to high depression. This hypothesis was not supported, as there were no scene changes within the dream of those suffering from moderate to high anxiety. Those who experienced moderate to high/extreme depression and experienced negative affect dream imagery did not significantly decrease after 2 weeks of meditation.

Likewise, hypothesis five was tested using Content Analysis and t tests to determine whether or not the frequency of scene changes in dream imagery significantly decreased after two week of Dream Therapy for participants with moderate to high anxiety, and if negative affect and negative imagery significantly
decreased after two weeks of Dream Therapy for participants with moderate to high depression. This hypothesis was not supported, as there were no scene changes within the dream of those suffering from moderate to high anxiety. There was also no significant difference for those suffering from moderate to extreme depression with respect to the frequency of negative affect dream imagery after 2 weeks of both meditation and dream therapy.

Meditation and Dream Therapy

To test hypothesis six, a one-way ANOVA was to be performed to indicate whether both intervention groups had less anxiety, depression and negative dream imagery after two weeks in comparison to the control group. Although anxiety and depression decreased for the control group, it was not statistically significant (see Table 6). Unfortunately due to high attrition rate, the intervention and control sample sizes were too small and unequal to conduct reliable analyses and therefore, were not performed.

Exploratory Analysis

Finally, hypothesis seven included exploratory analyses, inquiring whether dream imagery would significantly predict lower levels of anxiety and depression in hierarchical regression models. A linear regression was conducted to determine if dream imagery was predictive of mood. After conducting a correlation, between BAI scores and dream imagery, both Object and Upset were entered into a stepwise regression. At step one Upset was entered into the regression equation and was significantly related to moderate to high anxiety (F(1, 5) = 9.95, p<.05). The multiple correlation coefficient (R = .82), indicated approximately 66.5 percent of the variance
Table 5

*Mood Differences Pre & Post Meditation and Dream Therapy*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre M</th>
<th>Pre SD</th>
<th>Post Med + DT M</th>
<th>Post Med + DT SD</th>
<th>t(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI</td>
<td>25.4</td>
<td>14.12</td>
<td>17.6</td>
<td>9.21</td>
<td>2.9*</td>
</tr>
<tr>
<td>BDI</td>
<td>19.20</td>
<td>10.09</td>
<td>17.2</td>
<td>7.92</td>
<td>0.67</td>
</tr>
</tbody>
</table>

*Note. BAI= Beck Anxiety Inventory; BDI=Beck Depression Inventory; Pre Intervention=Pre Condition; Post Med + DT=Post Meditation + Dream Therapy; M=Mean; SD= Standard Deviation.

*p < .05*
Table 6

*Control Mood Differences*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre M</th>
<th>SD</th>
<th>Post M</th>
<th>SD</th>
<th>t(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI</td>
<td>20</td>
<td>13.56</td>
<td>14.8</td>
<td>13.21</td>
<td>2.28</td>
</tr>
<tr>
<td>BDI</td>
<td>15.2</td>
<td>8.87</td>
<td>8.0</td>
<td>2.17</td>
<td>1.87</td>
</tr>
</tbody>
</table>

*Note.* BAI = Beck Anxiety Inventory; BDI = Beck Depression Inventory; Pre = Pre Condition; Post = Post Condition; M = Mean; SD = Standard Deviation.

*p < .05*
of BAI scores could be accounted for by Upset dream imagery, before intervention was implemented.

Another regression was performed to see whether or not specific dream imagery was predictive of depression levels. A stepwise regression indicated that Confusion within dream imagery is predictive of moderate to extreme depression ($F(1, 6) = 32.26, p<.001$). The multiple correlation coefficient ($R = 0.92$) indicated approximately 84.3 percent of the variance of BDI scores could be accounted for by Confusion within dream imagery before an intervention was implemented.

**Discussion**

*Dream Imagery*

Contrary to past research, which suggests those who are suffering from moderate to high anxiety, scene changes within dream imagery was not correlated with anxiety levels (DeCicco & Higgins, 2009). With that, previous research also suggests that addicts tend to isolate themselves from other people and layperson daily routines, especially when using for long periods of time. Isolation prevention is actually built into their treatment programs, for example most treatment facilities do not allow the clients to stay in single rooms, have technology (computers, cell phones etc.) to control for this isolation. With that, if their waking day patterns are very different in comparison to other populations it is therefore not as unexpected that they may experience different dream patterns.

There is however a positive relationship between anxiety scores and Object-Paraphernalia and Upset dream imagery. This indicates that before treatment, having frequent Paraphernalia and Upset imagery within sleep mentation may indicate
moderate to high anxiety. Both the client and clinician can use this to measure mood fluctuations and seek or provide treatment as necessary. A participant in the control group experienced a dream, which included Paraphernalia and Using, for example:

Had a dream of Fentanyl and oxys and crack it felt as real that it was true woke up checked my pocket to see if it was there. I was using by myself smoking these drugs off of tin foil and pipe also dreamt about going to jail of something I’ve done in the past (Participant 5-DIA03G).

This second example was a dream experienced by a participant in the intervention group that included Paraphernalia and Negative Affect:

I wake up in my dream to find myself watching my wife using my drug (heroin). The sense of anger and the smell of vinegar fill my mind and nose. She continues in the same manner as me, heating a spoon and the smell of the lighter fill the air. I am helpless she can’t hear me nor can I touch her to stop her. She starts to lie, steal and neglect our children again I yell and I scream but no reaction (Participant 15-LIN07N).

**Mood Levels pre and post intervention**

As predicted, anxiety and depression scores did in fact decrease after two weeks of meditation. This indicates that meditation may help alleviate anxious emotions and symptoms. As noted above, the procedure was modified to continue meditation throughout the intervention program, such that dream therapy was conducted in addition to meditation as opposed to replacing it. This was adjusted as clients claimed they felt much better and the clinical supervisor saw improved behaviours. These claims are supported in the results, such that both anxiety and depression did in fact decrease significantly after 2 weeks of meditation.
Again, Meditation was continued in addition to the Dream Therapy intervention. Likewise, anxiety did in fact decrease significantly after two weeks of Meditation and Dream Therapy. This suggests that Meditation and Dream Therapy conducted together has a positive impact on mood, and appears to decrease anxious and depressive affect. In addition to the statistical analysis, participants were given the availability to leave comments for the researcher, as testimonials of the program. When asked whether or not they felt the program had benefited them in their treatment, one of the participants wrote:

…I am an addict of cocaine and opiates (10 yrs coke, 5 years opiates) when detoxed my emotions were (*alive*) and noisy in my head. This form of meditation had such an impact that it helped me ‘quiet’ some of this noise and anxiety became more manageable each day. And could use myself when needed. I find this was a key piece of my treatment; and will continue to use…(Ryan K, 2014)

This illustrates the perceived benefit of meditation one participant felt the intervention impacted his recovery. Again, illustrating the effectiveness of only two weeks of meditation.

*Dream Imagery and Mood*

Interestingly, sleep mentation did not appear to contain scene changes, for those participants experiencing moderate to high anxiety. This may be due to the demographics of the sample. Research suggests isolation is very problematic and common for addict (Wolffgramm & Heyne, 1995). All of the participants were post detox, very early in their recovery and therefore had most likely been isolated during
their waking day life. Although research also has found a link between scene changes and anxiety, this is for a population who may not isolate as much as addicts e.g. students. Due to the early stage of recovery, sleep mentation was not recalled as easily and therefore details of sleep mentation could have been missed. There was also a high recidivism rate, and therefore the sample size was low.

**Exploratory Analysis**

Upset dream imagery appears to be predictive of moderate to high anxiety before intervention is implemented. This indicates that the recovering addicts are not regulating their emotions, eliciting high waking day anxiety. This has strong clinical implications because emotional regulation is the key to addiction recovery.

Confusion within dream imagery appears to predict moderate to extreme depression in those who are post detox with little to no treatment. The strong clinical implication is that if clients have Confusion in their dream imagery, this may be a red flag indicating clinical depression levels and therefore, treatment may be necessary.

**Important Implications**

An important finding in this study was that the experimental design had to be changed because participants reported feeling emotionally regulated after 2 weeks of meditation. Therefore, meditation had to continue throughout the second intervention, Dream Therapy, due to ethical implications. This change was supported in the results such that, after 2 weeks of meditation participants were less anxious and depressed. Meditation appears to be more powerful than originally predicted. Here is another example of a participant testimonial in regards to the effect meditation had on him “I came to the session with excruciating itchiness in the lower back. I was squirming on
the chair itching constantly before the session. As the meditation session progressed I concentrated on my back and the itchiness completely subsided.” (Andrew G, 2014).

Another important clinical implication was the predictive value of dream imagery pre-treatment. Before any treatment was implemented, specific dream imagery predicted clinical levels of anxiety and depression, which could be used in a clinical environment.

Limitations

One important limitation to working with this population was a very high attrition rate, resulting in a low n. The original sample was 37 men in residential treatment programing, 19 relapsed leaving a total of 18, five were left in the control group and 13 completed the full intervention. This high attrition is a known problem in addiction recovery (Witkiewitz et al., 2005), which emphasizes the importance of this research.

This low n made it difficult to compare both intervention groups and control group. Although the control group did not show statistical significant decreases in anxiety and depression, comparison analyses were unable to be conducted. This also led to a low number of participants (n = 5) for the dream therapy group. This could also be due to the sample demographics. Research has found withdrawal may increase nocturnal awakenings, and therefore decrease dream recall (Schredl, 1999). This sample is very early in recovery and therefore, the short duration post detox may interfere with dream recall. With that, perhaps the duration of recovery and dream recall have a positive relationship. It would be interesting to see if the frequency of
words increases for sleep mentation recall over time such that, the longer one is in recovery the easier it is for them to recall their dream.

A third limitation of this study was that all participants are post detox and in either a residential treatment program or post treatment facility in which they are tested with urine and saliva randomly. Given the detection period for alcohol is about 12 hours and 2 to 4 days for other drugs (Donovan et al., 2011) and the relapse rate is high within this population, participants possibility could have still been using substances during data collection period. Therefore, this could have affected both dream recall and mood regulation.

**Future Directions:**

Within this study, anxiety and depression were measured to represent mood fluctuations, as they are one of the biggest indicators. With that, other mood measures should be used in future studies. As the population used in this study was high-risk, procedure and methodologies may become complicated and therefore, repeated studies are always recommended. Now that it is illustrated that participants’ mood is in fact being regulated, future studies should include follow up procedures to measure sobriety long term. Proof of the benefits of these interventions can be seen in physical appearance, their mood measures, and their sobriety.

It would also be interesting to examine outcomes beyond two weeks of meditation. Is there a ceiling effect or does mood continue to improve? Tracking the frequency of words in dream recall after two weeks would indicate if sleep mentation recall becomes easier and more frequent the longer one is in recovery. The current
study highlights the benefits of conducting a longitudinal study to allow for a more complete look at meditation effects.

Conclusion

It is important to note the complexity of the sample used in this study. Not only were the participants males suffering from severe alcohol and or drug addiction but also as the research suggest, this usually includes comorbidity of mental health problem, lower SES, criminal behaviour and, tragic circumstances (Fenton et al., 2011; Merikangas, 1998). Most of the participants within this study had discussed their criminal background, or court ordered treatment plan with the researcher. One of the participants had come from the Special Handling Unit co-located at Sainte-Anne-Des Plaines, Quebec, Canada’s highest security prison. Another participant was removed from treatment and placed within a mental health hospital due to on-going mental health illness. These occurrences suggest the sample of participants were extremely high risk for high recidivism and relapse rate. Substance abuse is problematic worldwide (Witkiewitz et al., 2005), emphasizing the importance of this research and treatment of mood regulation is imperative. Lesage et al. (2000) describes the importance of integration back into the community post treatment, as a vital for continuous sobriety and decreased recidivism. Decreased levels of anxiety and depression may help with this transition and using meditation and sleep mentation interpretation techniques can be utilized outside of treatment as well. In conclusion, it appears that these participants were using drugs and alcohol to regulate their negative mood. Therefore, without treating their mood, you cannot treat their addiction.
References


Results from a random controlled trial. *Drug and Alcohol Dependence* 119(2), 72-80. doi:10.1016/j.drugalcdep.2011.05.027


Miller, N. J., & DeCicco, T. L. (2013). Examining the Effects of Meditation on Anxiety, Depression and Dream Therapy in University Students. 30th Annual Conference of the International Study of Dreams, Virginia Beach, VI.

DOI:10.1037/a0017613.


Statistics Canada. *Table 105-1101 - Mental Health Profile, Canadian Community Health Survey - Mental Health (CCHS), by age group and sex, Canada and provinces, occasional (number unless otherwise noted), CANSIM* (database). (accessed: 2014-04-06).


List of Appendices

Appendix A: Consent Form
Appendix B: Demographics Information
Appendix C: Dream Record Sheet
Appendix D: Assessment of Mood 1
Appendix E: Assessment of Mood 2
Appendix F: Mindfulness Meditation Example
Appendix G: Projective Method of Dream Interpretation
Appendix H: Participant Feedback Sheet
Appendix A

Intervention Assessment of Recovering Alcohol and Drug Addicts with Mindfulness Meditation and Dream Therapy.

Student Investigator: Nicolle Miller
M.A. Psychology, Trent University
Phone: (905) 244-1666 E-mail: nicollemiller@trentu.ca

Faculty Investigator: Dr. Teresa DeCicco
Department of Psychology, Trent University
Phone: (905) 435-5100 E-mail: teresadecicco@trentu.ca

Information and Consent Form

Thank you for your interest in this research study. The purpose of this research is to test the effects of meditation and dream therapy on mood regulation and well-being in those recovering from alcohol and/or drug addiction.

The benefit expected from this research will be to give participants a meditation technique to help decrease future feelings of anxiousness and stress. The research will also extend the literature for dream science meditation and mood. This study requires a recording of dreams and interpretations using The Projective Method from each participant (DeCicco, 2007) to compare dream imagery, and two Measures of Mood.

By participating in this research study, you will help us to gain a better understanding of meditation and dream therapy as a tool to alleviate feelings of stress and anxiousness. We would like to conduct workshops with you including daily meditation and dream interpretation techniques. This study will include meditation once a day for two weeks, and dream therapy three times per week for two weeks. You will meet with Nicolle Miller everyday for the duration of this study. You will be asked to submit four dreams, one at the first meditation workshop, a second dream at the last meditation workshop, a third dream at the first dream therapy workshop and the fourth and last dream at the last dream therapy workshop.
The study will begin with you meeting with Nicolle Miller to fill out a package, which will include reporting a dream and filling out different measures of mood. You will then be guided through a meditation once a day for 15 minutes. After two weeks of meditation workshops you will report your second dream, and fill out the mood measures again. You will then provide a third dream record, fill out mood measures and be guided through the Projective Method of dream interpretation for two weeks. Following the two weeks of dream therapy, you will provide your last dream and mood measures.

Each meeting will last approximately one hour. It will take approximately 30 minutes to fill out measures of mood and report your dream. Each meditation will last approximately 15 minutes, for a total of 2.5 hours of meditation over two weeks. Each dream interpretation session will last approximately 30 minutes for a total of 3 hours of dream therapy over two weeks. With that, the total approximate time for this study is 5.5 hours over a 14-day period.

Participation in this study carries no risk beyond that which you encounter in everyday life. While completing the dream workshops, sharing will be required but safety will be discussed and personal information does not have to be disclosed. However, should you feel troubled by anything, or have any questions please feel free to contact Melinda Heyes or Dr. Teresa DeCicco at teresadecicco@trentu.ca or by phone at 905-435-5100.

Your participation in this study is completely voluntary. You may choose not to answer any or all of the questions posed. Should you choose to withdraw during the study, all data collected from you will be destroyed, and none will be used in the study. If any client does not wish to participate, or withdraw from this study, they can do so and still participant in the workshops. There will be absolutely no penalty for withdrawing.

All information given to us by you throughout the course of these questionnaires and dream journals will be kept strictly confidential. All data will be stored in a software package, that only Nicolle Miller, her supervisor, Dr. DeCicco and research assistants will have access to. Any hardcopies of data will be kept in a secure location where only Nicolle Miller and Dr. DeCicco can access it. No one
other than the people working on this specific project will have access to your data. All of your data will be encrypted and destroyed five (5) years following the completion of the analysis for this study. All of the information that you give will be completely anonymous. There will be no reference to your name, or any other identifying information (other than its coded number) made on the data. We may use your data in the writing of a scholarly article regarding the current research study and we request your permission to use non-identifying information from this study, as they contribute to the writing of the article.

The researchers have no commercial purpose or interest in this study. This research study has been approved by Trent University Research Ethics Committee (REB), any ethical inquiries can be made to Karen Mauro at kmauro@trentu.ca or by phone at 705-748-1011 ext: 7896, in the Office of Research.

Please do not hesitate to ask any questions that you have at any time during the course of this study. If you have questions following the completion of this study, please contact either Nicolle Miller or Dr. DeCicco, using their contact information above.

Please read the following statements carefully:

• I have been informed as to the nature and the purpose of this study as described above.

• It is my understanding that the present study will look at four dreams and discovery passages using The Projective Method of Dream Interpretation and that my participation is voluntary and anonymous. I am aware that this study will include meditation once a day, dream therapy three times a week as well as meeting filling out Mood Questionnaires.

• I understand that my participation in this study is voluntary and that I am free to withdraw my participation at any point before or during the study, with no penalty.

• I understand that if I do withdraw, I am still able to participant in the workshops to gain beneficial techniques to help decrease stress.

• I understand that my information will be kept private and confidential using methods described above.

• I permit the data I give during this lab study to be used in the analysis of research collected for the purpose of this study.
• I permit non-identifying information from my package to be used in publications regarding the findings of this study.

• I understand that this research project has received ethical approval from the Trent University Research Ethics Committee.

• I have received a copy of this consent form.

• I agree to participate in this study.

By signing my name below I confirm that I have read and understood the above information and that I freely give my informed consent to participate in this study.

Name (please print): __________________________________

Signature: __________________________________________

Date: ______________ __________________

Package Number: ____ ____ ____ ____

E.G. Mother's first name: Cyndi  Month of Birth: April=04  Father's first name: Steve  Package Number: C Y N 0 4 E

Ethics Number 23098
Appendix B

DEMOGRAPHICS INFORMATION

Instructions: Please circle, check or fill in as applicable. The information provides general information on the people participating in this study.

1. Age: ____________

2. Marital Status:  Single ____________
                  Married ____________
                  Common Law ____________
                  Other ____________

3. Level of Education:
   High School ____________
   College/University ____________
   Trades ____________
   Other ____________

4a. Drug of Choice? ____________

4b. Duration of use: circle appropriate
How many day/weeks/months/years did you use your drug of choice?

___________

5. Duration of Recovery.
circle appropriate
How many days/weeks/months/years have you been in recovery?

___________
6. Have you been diagnosed with any psychiatric disorder?
   Yes ______________
   No ______________
   Prefer not to disclose ______________

6a. If yes, are you currently taking any medication?
   Yes ______________
   No ______________
   Prefer not to disclose ______________

7. Do you practice Meditation?
   Yes ______________
   No ______________
   Prefer not to disclose ______________

7a. If yes, how often?
   Very Often ______________
   Often ______________
   Sometimes ______________
   Rarely ______________

8. Would you consider yourself Spiritual?
   Yes ______________
   No ______________
   Prefer not to disclose ______________
Appendix C

Dream Record Worksheet

Please record your dream in full sentences and in as much details as possible (What you see, hear, smell, feel, colours, things, people). Please continue onto the back if necessary.
Appendix D-

Assessment of Mood-1

_Instructions:_ Please read each group of statements carefully, and then pick out the **one statement** in each group that describes the way you have been feeling during the **past month** including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Mildly but it didn’t bother me much</th>
<th>Moderately- it wasn’t pleasant at times</th>
<th>Severely- it bothered me a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling hot</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Muscle numbness or tingling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling unable to relax</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Dizzy or Lightheaded</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling wobbly in the legs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling unsteady</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Condition</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Heart racing or pounding</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nervousness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Choking feeling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Trembling hands</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unsteadiness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Terror or fear</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Afraid of losing control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Indigestion</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Flushed face</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hot or cold sweats</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Feeling scared</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Having laborious breathing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling the fear of dying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling like the worst is happening</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling faint</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix E

Assessment of Mood-2

Instructions: Please read each group of statements carefully, and then pick out the one statement in each group that describes the way you have been feeling during the past month including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group.

1. 0 I do not feel sad
    1 I feel sad
    2 I am sad all the time and I can't snap out of it.
    3 I am so sad and unhappy that I can't stand it.

2. 0 I am not particularly discouraged about the future.
    1 I feel discouraged about the future.
    2 I feel I have nothing to look forward to.
    3 I feel the future is hopeless and that things cannot improve.

3. 0 I do not feel like a failure.
    1 I feel I have failed more than the average person.
    2 As I look back on my life, all I can see is a lot of failures.
    3 I feel I am a complete failure as a person.

4. 0 I get as much satisfaction out of things as I used to.
    1 I don't enjoy things the way I used to.
    2 I don't get real satisfaction out of anything anymore.
    3 I am dissatisfied or bored with everything.

5. 0 I don't feel particularly guilty.
    1 I feel guilty a good part of the time.
    2 I feel quite guilty most of the time.
    3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
    1 I feel I may be punished.
    2 I expect to be punished.
    3 I feel I am being punished.

7. 0 I don't feel disappointed in myself.
    1 I am disappointed in myself.
    2 I am disgusted with myself.
    3 I hate myself.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>0</td>
<td>I don't feel I am any worse than anybody else.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am critical of myself for my weaknesses or mistakes.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I blame myself all the time for my faults.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I blame myself for everything bad that happens.</td>
</tr>
<tr>
<td>9.</td>
<td>0</td>
<td>I don't have any thoughts of killing myself.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I have thoughts of killing myself, but I would not carry them out.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I would like to kill myself.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I would kill myself if I had the chance.</td>
</tr>
<tr>
<td>10.</td>
<td>0</td>
<td>I don't cry any more than usual.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I cry more now than I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I cry all the time now.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I used to be able to cry, but now I can't cry even though I want to.</td>
</tr>
<tr>
<td>11.</td>
<td>0</td>
<td>I am no more irritated by things than I ever was.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am slightly more irritated now than usual.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I am quite annoyed or irritated a good deal of the time.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I feel irritated all the time</td>
</tr>
<tr>
<td>12.</td>
<td>0</td>
<td>I have not lost interest in other people.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am less interested in other people than I used to be.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have lost most of my interest in other people.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I have lost all of my interest in other people.</td>
</tr>
<tr>
<td>13.</td>
<td>0</td>
<td>I make decisions about as well as I ever could.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I put off making decisions more than I used to.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have greater difficulty in making decisions more than I used to.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I can't make decisions at all anymore.</td>
</tr>
<tr>
<td>14.</td>
<td>0</td>
<td>I don't feel that I look any worse than I used to.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I am worried that I am looking old or unattractive.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I feel there are permanent changes in my appearance that make me look unattractive.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I believe that I look ugly.</td>
</tr>
<tr>
<td>15.</td>
<td>0</td>
<td>I can work about as well as before.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>It takes an extra effort to get started at doing something.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I have to push myself very hard to do anything.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I can't do any work at all.</td>
</tr>
<tr>
<td>16.</td>
<td>0</td>
<td>I can sleep as well as usual.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>I don't sleep as well as I used to.</td>
</tr>
</tbody>
</table>
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.

19. 0 I haven't lost much weight, if any, lately.
1 I have lost more than five pounds.
2 I have lost more than ten pounds.
3 I have lost more than fifteen pounds.

20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems like aches, pains, upset stomach, or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think of anything else.

21. 0 I have not noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I have almost no interest in sex.
3 I have lost interest in sex completely.
Appendix F

**Mindfulness Relaxation Meditation Script Example**

Put your awareness into your face  
Let go of any tightening you might have there

Now slowly move your awareness  
down through your neck and into your shoulders  
Let go of any tension you might still hold there

Slowly move down through your arms and into your hands  
Putting your awareness now into your chest  
Releasing any tightening or any tension you might have there

Going down through your torso and into your hips  
Feel the chair holding you  
So securely allowing yourself to be held by that chair

Gently put your awareness into your thighs  
and move down toward your knees  
Letting the muscles get long and loose

Checking now at the backs of your knees for any tension you might have there  
Let go of any tension  
Now down through your caves and into your feet

Put all of your awareness into your left foot  
Letting it get very heavy against the ground

Now put all of your awareness into your right foot  
and let it get very heavy against the ground

Now your body is completely free of any tension you may have been carrying. Check to make sure all tension is removed from your body.

Sit here in this space and feel comfortable (Pause)

Very slowly and very gently  
A light begins to form in the middle of the ceiling  
This is a very beautiful. Very warm, white light.

You begin to feel the warmth of this light  
On the top of your head

This is very safe and very comfortable
Feel the warmth, begin to come through the very top of your head
Down through your face, warm your neck and into your chest.

As the light pushes through your head,
Allow it to push out any thoughts you don’t want there
Let the light sit in your chest and fill your heart with love and peace

Take a deep breath in and feel the warmth in your chest
Very slowly and very gently breath out
And breathe in. And breathe out
As the light filters through your head, feel it move down through your body into your stomach and into your hips

The light runs through your whole body
Through your hips down your legs
Feel the light filter through the bottom of your feet

Feel your feet on the ground, and the light leaving your bottom of your feet
Like a long warm stream
As the light leaves your body, allow it to take with it any stress and tension you may feel

This light is connecting us all in this room.
Feel it filter through you and back into the room.

Feel the light connect our energy
Allow the light to heal us
Feel the light healing us

Imagine yourself or someone in your life being wrapped in this light.
Allow the light to head that person.

Now very gently and very slowly
Hold that light within your body

It is no longer entering through your head, or leaving through feet.
Feel the peace and warmth within your body
Allow yourself to hold this feeling throughout the rest of your day.

Continue rest and rejuvenate for as long as you need, holding this light

(Long Pause-3 mins)

When you're ready. Open your eyes and come back into the room.
Appendix G

THE PROJECTIVE METHOD OF DREAM INTERPRETATION

Step One: Tools Needed

This method is best used when providing a pen and paper to all participants. This way the group members can write out the dream, and the dreamer can jot down any questions or comments when being provided feedback. Therefore, before starting, everyone should have a pen and paper.

Step Two: Protecting the Group

We are all here to share our projections with each other. Before we begin sharing, we must be reminded of three important principles. First, anything shared in this group will not leave this room. This group is a safe place for us to share with each other, so details of the dream or any projections shared will be kept amongst us. Second, safety is provided here for each of us. We are free to project and share as we agree to keep each other’s information safe. Finally, should any personal disclosure occur, we will not discuss it amongst ourselves as that private and personal information is for the dreamer alone.

Step Three: Rules of Disclosure

Before you share your dream, we emphasize that no personal disclosure is necessary, and as the dreamer, you can keep all information to yourself throughout the process. Though there is much sharing with this method, you do not have to reveal discovery or insights unless you choose to do so.

Step Four: Sharing and Taking on the Dream

One member of the group will now share a dream. Please share the dream in as much detail as possible. Each group member can make notes to remember the dream, but as the dream is being told, we will all adopt the dream as if it were our own dream imagery. The dream then becomes our own dream, and we will speak to it from that point of view.
Step Five: Projecting

We will now each project our interpretations of the dream for the dreamer. We will each, one at a time, reflect back to the dreamer what the dream means for us. Please begin your projection by stating “If this were my dream…” The dreamer is welcome to make notes or jot down questions for responding to group members after all projections are completed.

Step Six: Back to the Dreamer

Dreamer, now that everyone has provided a projection, do you have any questions for the members, or is there anything you would like to comment on?
Appendix H

Thank you for taking part in this study. You have completed a study in which the purpose was to look at whether or not meditation and/or dream therapy affected levels of anxiousness and depression measured through both mood measures and dream imagery. Researchers have been interested for many years in dream research because it is so important in our everyday lives. Much of the current research on dreams focuses on two main theories. The Continuity Theory and the Compensatory Theory (DeCicco, 2007).

In this study, we expect to find results that pertain to the Continuity Theory. Such that, if one is experiencing moderate to high levels of anxiety, and/or depression, it will be reflected in their dream imagery (Jones & DeCicco, 2009) and meditation and/or dream therapy for 28 days will lead to a decrease in such anxiety and/or depression. We also hypothesized that both intervention groups (meditation and dream therapy) will have less depression, anxiety and negative dream imagery after two weeks than the control group, which had no intervention over 2 weeks (Delmonte, 1985; Hill, 1996; Montangero, 2009; Pesant & Zadra, 2004). We performed an exploratory analysis where it was hypothesized that both meditation and dream imagery will significantly predict lower levels of depression and anxiety in hierarchical regression models.

I appreciate that you took the time to participate in this study. Your involvement will allow for better understanding of treatment for mood fluctuation in regards to addiction recovery. If you have any further questions or concerns please do not hesitate to contact the Faculty Advisor, Dr. Teresa DeCicco, or myself, you can find the contact information below. Thank you once again, and good luck in your future endeavours.
References


