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Ann M. Hegarty
The Effects of Alternative
Treatments Such as Yoga and
Meditation as Adjunctive Therapy
on Adolescent Alcohol Abusers with
a History of Trauma

ABSTRACT

This study was undertaken to determine whether alternative forms of treatment such as yoga and meditation, when used adjunctively with traditional therapies, are effective in the treatment of adolescents with both alcohol use disorder (AUD) and a history of trauma. There have been studies linking relaxation therapy and meditation to improved outcomes in similar adult populations but very few have studied adolescents. Given the early onset of use and abuse of alcohol by many of those who also have a history of trauma, this study sought to explore the opinions of clinicians who utilize these alternative treatments.

A total of 22 licensed mental health clinicians who treat this population participated in a mixed method web survey. Thirty-six clients were reported on, 56% of whom first used alcohol between the ages of 10 and 13. It was found that 72% of clinicians experienced these alternative methods as being effective in alleviating some of the most acute of their clients' symptoms. Furthermore, 77% of these clients found these methods effective and useful tools to use independently. The results of this small study imply that alternative treatments are useful in treating this population although this researcher experienced difficulty in recruiting participants, implying there are very few clinicians currently utilizing these methods and this subject would clearly benefit from more research.

THE EFFECTS OF ALTERNATIVE TREATMENTS SUCH AS YOGA AND MEDITATION AS ADJUNCTIVE THERAPY ON ADOLESCENT ALCOHOL ABUSERS WITH A HISTORY OF TRAUMA

A project based upon an independent investigation, submitted in partial fulfillment of the requirements for the degree of Master of Social Work

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I dedicate this thesis to my husband Phil and our sons Dylan and Quinn, without whose patient understanding this would never have been accomplished. Thank you for your enduring love, encouragement, and belief in me, as well as all the sacrifices you each have made on this journey. But especially Phil, who held down the fort as I pursued a dream; never think I took this for granted, you are my rock and safe haven rolled into one and the best friend a woman could have.

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CHAPTER I

INTRODUCTION

Alcohol use and misuse by adolescents is a major public health issue. According to Dixon, L. J., Leen-Feldner, E., Ham, L. S., Feldner, M. T., & Lewis, S. F. (2009), although a growing body of work with adolescents has substantiated a linkage between traumatic event exposure and alcohol use, very little is understood about the underlying mechanisms of this association. This information has great importance for the development of sophisticated interventions. Many and varied treatments are available for alcohol problems, but Dillworth, T. M., Kaysen, D., Montoya, H. D., & Larimer, M. E. (2009) tell us that less than 25% of individuals, i.e. adults, with Alcohol Use Disorders (AUD) will obtain care. Even less is known of the percentages of adolescents receiving needed care.

Having a close familial relationship over the years with Alcoholics Anonymous, I have been privy to hundreds of sad stories regarding alcohol abuse by teenagers. It has been a topic of even greater interest as my sons have matured into young adulthood and I see some of their cohorts falling into the grip of substance use disorders. On a more personal level, I have sought to strengthen my own spirit over the years in the disciplines of yoga and meditation and have witnessed some marvelous work with teens in these areas at our local yoga studio. While in my last internship I ran a Stress Management group for 11th grade young women where we practiced relaxation therapy, guided meditation and yoga. The response from these women was

overwhelmingly positive, and most of them have trauma histories in their families of origin. All these experiences converged into this study; our adolescents need help coping with their realities.

This study will attempt to shed light on what are some of the causes of early first use? Clark, D. B., Thatcher, D. L., & Martin, C. S. (2010) have found that childhood abuse has frequently been associated with or may even predict adolescent substance use disorders. "Among 3,559 students in grades 7 through 12, Hambuger, Leeb, and Swan (2008) found that sexual abuse, physical abuse, and witnessing violence were associated with increased preteen alcohol use." (Clark, p. 500) Clark also reports data from the National Longitudinal Study of Adolescent Health (n= 12,748) which found physical abuse and sexual abuse were associated with binge drinking as well as the accelerated onset of AUD, and accounted for the relationship between AUD and major depressive disorder, anxiety disorder, health problems, and liver disease. Are some of these adolescents seeking relief from symptoms of Post Traumatic Stress Disorder (PTSD)? Anxiety researchers have suggested that adolescents may use alcohol to avoid or reduce the symptoms of PTSD following a traumatic event, a strategy which is negatively reinforcing, thereby maintaining alcohol use (Dixon, et al., 2009). One area of exploration in this study is to determine whether there is evidence that one form of trauma is more likely to precipitate alcohol abuse than another.

A known risk factor that is particularly relevant for underage drinking is the age of first alcohol use. Palmer, R. S., Corbin, W. R., & Cronce, J. M. (2010) write that "Research has consistently shown that an earlier age of first alcohol use is associated with increased potential for the subsequent development of a maladaptive pattern of alcohol use and alcohol dependence" (p. 486). One 10 year longitudinal study concerned the speed of transition from alcohol use to abuse and from abuse to dependence among 3,021 subjects aged 14 to 24 years. They studied

early users of alcohol, cannabis, and nicotine. The results clearly showed an elevated risk of more rapid transition to AUD amongst early users of all three substances, with cannabis occurring most rapidly followed by alcohol and lastly nicotine (Buckner, J. D., Ledley, D. R., Heimberg, R. G., & Schmidt, N. B., 2008).

Given the connection between trauma and early onset of alcohol use and abuse, it follows that we need effective interventions and treatments for these youth. There is evidence that alternative treatment methods used in adult populations have yielded positive results, but few studies have included adolescent populations.

This study will examine the efficacy of using alternative forms of therapy such as relaxation therapy, meditation, yoga, acupuncture, and hypnosis adjunctively with conventional methods of therapy. This study also seeks to answer the question: Are these alternative methods effective with this population? The current study surveyed clinicians on their opinion and use of alternative therapies as they pertain to the adolescents they see in their practice who have Alcohol Use Disorder (AUD) as well as some exposure to trauma. Clinicians were asked, after identifying the client's specific disorder(s), to assess whether they saw improvement in the clients with whom these alternative therapies were utilized. They were additionally asked to opine on the client's perceptions and experience of the alternative therapy. Finally, clinicians were given the opportunity to supply any additional comments regarding their opinion of alternative therapies and their use in practice. While this study will focus on the adolescent population, these findings have significant implications in the clinical treatment of children, adolescents, and adults who are known victims of trauma. The earlier trauma is recognized, the sooner effective methods of treatment can begin. Early use of treatments such as relaxation therapy and meditation may help ameliorate a client's symptoms and accelerate the healing

process. Additionally, such interventions are lifelong tools a client can use independent of the therapist to obtain relief from the afflicting symptoms.

CHAPTER II

LITERATURE REVIEW

Adolescent alcohol use is a major problem according to findings from Monitoring the Future (MTF) which indicated that 14% of 8th graders, 35% of 10th graders, and 48% of 12th graders report at least one episode of drunkenness in the past year (Palmer, et al. 2010). The 2005 National Household Study on Drug Abuse reports that for people between the ages of 12 and 20, more than 28% report consuming alcohol in the previous month although alcohol consumption is still illegal for these individuals (Matthews, 2010). In response to these high rates of drinking in the adolescent population, the Surgeon General in 2007 issued a "Call to Action to Prevent and Reduce Underage Drinking." This report highlighted the problem and emphasized the need for identifying both risk and protective factors (U.S. Department of Health and Human Services, 2007). Binge-like alcohol consumption during adolescence clearly produces brain changes, both in terms of structure and function, which may be long lasting" (Matthews, 2010). Adolescents' early use of alcohol, while not uncommon, has severe and far reaching consequences for those involved.

Alcohol and the Adolescent Brain

Alcohol is the drug of choice among youth. Given that heavy drinking typically peaks during adolescence and then declines after age 21, (U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration [SAMHSA], 2005), it is important to study the effects of adolescent alcohol use during this critical developmental period. Adolescence is a period of development marked by changes in physiology, personality, emotionality, and neurobiology that typically encompasses ages 8 through 20 (Chin, V., Van

Skike, C., Matthews, D., 2009). During this period, adolescent personality changes may include an increase in risk-taking and reckless behaviors, which can include experimentation with drugs and alcohol, sexual promiscuity, and dangerous driving. These social issues are not confined to Western cultures. For example, Hong Kong and Singapore are also experiencing recent increases in alcohol consumption and binge pattern-drinking behaviors in adolescents (Lancaster, F.E., Brown, T.D., Coker, K.L., Elliott, J.A., and Wren, S.B. 1996).

Recent studies have found that because the adolescent brain is still developing, alcohol use during this time could adversely affect neural development and potentially have long-term consequences in both behavior and neural morphology (Chin, 2009). The hippocampus is the area of the brain that is of greatest concern, as it is necessary for learning and memory; it is also one of the most researched structures of the central nervous system. In their landmark publication, O'Keefe and Nadel (1978) argued that the hippocampus supports something akin to a cognitive map that supports the use of spatial information to organize and guide behavior. However, it is only through animal study, generally rodents, that experimental clinical data can be ethically collected regarding adolescent alcohol use.

The ability of alcohol to impair memory in humans is well known and the developing adolescent brain is particularly susceptible. The neurotoxic effects of alcohol are dosedependent, according to Palmer, et al. (2010), and there is no question that heavier drinking is more damaging to the developing brain than is a lower level of consumption. The implications of such an increased sensitivity to alcohol-induced memory impairments in adolescents are profound. Specifically, if alcohol impairs cognition more in adolescence than in adulthood, and adolescents consume greater quantities of alcohol than adults (which some studies have found), then stricter enforcement of drinking limits may be required because of the greater risk for

underage drinkers. Thus, reducing levels of alcohol use, although imperfect, may be the best way to reduce alcohol-related neurotoxicity among adolescents who have already begun to use alcohol (harm reduction model).

Traditional Methods of Treatment and Prevention

While approaches to alcoholism treatments abound, their effectiveness is far from the level that would be desirable, with relapse to alcoholism being recognized as one of the most intractable problems in the alcoholism field. Alcoholics Anonymous (AA) and counseling by alcoholism professionals are widely used treatments, but their success rates tend to be low, especially among severe alcoholics. (Taub, E., Steiner, S., Weingarten, E., and Walton, K., 1994) There are a wide range of treatment strategies that stem from the variety of concepts of addiction as well as the multidimensional nature of the condition. Among these concepts of causes are included the "temperance" model (abuse due to the pernicious nature of alcohol itself), the "disease" model (alcohol as a unique and progressive condition), the "educational" model (abuse arising from a knowledge deficit), "characterological" models (rooted in abnormalities of the personality) and the "biological" model (emphasizing genetic and physiological processes). (Taub, et al., 1994) The more integrative models include the "public health" and "biospychosocial" models. The public health model characterizes this as a type of disease with three causal factors: the agent, the host, and the environment. Similarly, the biopsychosocial model considers the dynamic interaction of biological, psychological, and social processes in relation to addiction. (Donovan, D.M., and Marlatt, G.A., 1988)

Given the fact that early age of onset of use of alcohol plays a crucial role in predicting subsequent alcohol use, it follows that prevention efforts in early adolescence typically aim at delaying the initiation of alcohol use and reducing the normative increase in the amount of

alcohol consumption. Spaeth (2010) informs us that the early intervention programs used to this end are derived from theories of developmental psychopathology which focus on risk and protective factors that promote or deter the progression of alcohol use disorders in adolescents. These are typically universal school-based programs and are found to be most effective when they are based on the social influence approach, that is, when they focus on substance-related social norms and interactively train how to avoid high-risk situations or how to resist peer pressure to use. (Lemstra, M., Bennett, N., Nannapaneni, U., Neudorf, C., Warren, L., Kershaw, T., et al., 2010) Adolescents who need help with life skills such as empathy, assertiveness, communication skills, and problem solving can benefit from this strategy. Delaying first use of alcohol is important because early use is a risk factor for AUD, however, it is probably not a sufficiently promising intervention for the disorder.

Cognitive Behavioral Therapy (CBT), with its openness in communication and workoriented, pragmatic, team-oriented approach to manage problems has had successful outcomes in
the treatment of alcohol use disorders. The cornerstone of successful CBT is relapse prevention.

This, according to Buckner, et al., (2008), includes both behavioral strategies to minimize the
likelihood of encountering urges and cravings, and cognitive restructuring exercises to counter
distorted negative thoughts about drinking. It is common that CBT clinicians will utilize a
combined approach that uses cognitive techniques along with behavioral methods including
breathing training, relaxation, and exposure therapy. However, one six week study (Rubia, 2009)
of 24 patients with major depressive disorder practicing Sahaja Meditation found a significant
reduction in the symptoms of anxiety, depression and general mental health as compared to a
control group receiving CBT. The efficacy of the same meditation technique was used with 60
people with drug abuse and they found the meditation group improved significantly more in their

depression symptoms and also in reducing physiological measured levels of both cortisol (stress hormone) and acetylcholine (neurotransmitter).

Link between Childhood Trauma and Adolescent Alcohol Use

"Child abuse has been found to predict mental disorders, substance-related problems, and health risk behaviors." (Gilbert, R., Widom, C.S., Browne, K., Fergusson, D., Webb, E. & Janson, S., 2009) In 2010 McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. found that sexual abuse, physical abuse, and witnessing violence were associated with increased preteen alcohol use among 3,559 students in grades 7 through 12. Additionally, physical abuse and sexual abuse were associated with binge drinking (Clark, 2010). Anxiety researchers, Dixon, et al., (2009), have suggested that alcohol may be used to avoid or reduce the symptoms of PTSD, a strategy that is negatively reinforcing, thereby maintaining alcohol use. Sexual abuse, physical abuse, and other stressors were more common among adolescents with alcohol use disorder (AUD) than among control adolescents and, in fact the presence of these accelerated the onset of alcohol use disorder and accounted for the relationship between this disorder and major depressive disorder. (Clark, 2010)

There is little disagreement that early substance use onset is associated with an increased risk of substance use disorder (SUD). It was consistently found that an earlier age of first use was reliably associated with heavier drinking and more negative consequences of drinking. There are several implications here. Because early onset users are at an elevated risk for substance use disorder, careful attention should be paid to factors that may 'trigger' transitions to substance use disorder in this population. Among a nationally representative sample of 4,023 adolescents, youth with a history of sexual assault were nearly five times more likely to endorse substance use than those with no such history. Studies of adult women with a history of sexual victimization

have found between 27 and 37% report lifetime alcohol problems, compared to only 4-20% of nonvictimized women (McCauley, et al., 2010). The prevalence of substance abuse in persons with Post Traumatic Stress Disorder (PTSD) is high. Conversely, the prevalence of PTSD in substance abusers is also high. Allen, (2001) states that research fails to confirm that childhood abuse and neglect (documented in court records) increase the risk of a drug abuse diagnosis, although a documented history of childhood neglect does increase risk of alcohol abuse among women. While the self-medication pathway is useful in quelling unbearable emotional states, the very same substance abuse increases the risk of trauma exposure and may also exacerbate PTSD symptoms.

Testa (2007) found that although rape and sexual victimization experiences have been hypothesized to contribute to subsequent heavy drinking and alcohol problems among women, little prospective evidence exists. Their study examined whether sexual victimization contributes to subsequent heavy drinking among a community sample of 927 women, 18-30 years of age. They tested the hypothesis that PTSD symptoms would mediate the relationship between sexual victimization and heavy drinking. They found that although sexual victimization predicted PTSD symptoms, PTSD did not contribute to subsequent heavy drinking. These findings suggest that heavy drinking is relatively stable over time and that sexual victimization does not make a substantial independent contribution to heavy drinking among women in the general population.

In another study of 49 traumatic event-exposed adolescents, whose mean age was 16.39 years, Dixon, et al. (2009) found post traumatic stress symptom levels related positively to coping-related drinking motives. Of the four drinking motives studied here (coping, enhancement, social, and conformity), coping and enhancement-related motivations were most consistently linked to excessive alcohol use among adolescents. These data are consistent with

the "self-medication" hypothesis, which suggests youth exposed to a traumatic event may use alcohol to cope with negative affect in the context of posttraumatic stress symptoms.

Race and Gender

Race and gender may be an important consideration for recognizing alcohol related problems among youth. Recent studies have found that alcohol use behaviors do vary by sociodemographic characteristics such as race and gender. (Chartier, K., Hesselbrock, M., Hesselbrock, V., 2010; Horton, E.G., 2007; Williams, J., Van Dorn, R., Ayers, C., Abbott, R., & Hawkins, J., 2007)

"For example, the 1991–2007 rates of underage drinking are highest for Whites, followed by Hispanics and then Blacks. Across this time period, males had a higher average frequency, quantity, and volume of past 30-day drinking than females. In a national sample of young adults from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), Whites compared with Blacks had a higher prevalence of both drinking and exceeding the recommended daily and weekly drinking limits." (Chartier, et al., 2010)

Williams' study investigated race and gender differences in the initiation of various types of delinquent behavior and alcohol and marijuana use among African American and Caucasian adolescents in grades 7 through 12, taking into consideration the potential direct or indirect effects of parental supervision, clarity of family rules, and association with delinquent peers. These longitudinal analyses indicate that boys were significantly more likely to initiate delinquent acts throughout adolescence. Prevalence data also show group differences for substance use. Contrary to popular assumptions, Caucasian youths' substance use rates have historically been approximately two times that of African Americans'. (Williams, et al., 2007) These differences also hold for marijuana use, with African Americans having lower use rates than Caucasians. Research investigating gender differences has also identified variation in both delinquency and arrest rates. (Chesney-Lind, 1999) Between 1980 and 2002, the increase in the

female juvenile arrest rate was greater than the increase in male rates for aggravated assaults, simple assaults, and weapons violations. (FBI, 2003) Gender differences also appear in patterns of substance use. Adolescent boys have higher rates of use, frequency of use, and binge drinking than adolescent girls. (Williams, et al., 2007; Chartier, et al., 2011) Implications for culture-specific early screening and preventive interventions are clear and a risk-focused approach to delinquency and drug use prevention may hold promise for identifying effective prevention strategies and programs.

Alternative Therapies

There is increasing interest in Complementary and Alternative Medicine (CAM) treatment approaches for alcohol and other substance use in the field of clinical social work. Though 12 Step Programs such as AA are the most prevalent approach, they do not serve the needs of all clients. Alternative/adjunctive programs such as relaxation therapy, meditation, yoga, acupuncture, and hypnosis are being used with varying levels of success. A review of earlier research concluded that the effects of these types of relaxation on AUD were difficult to interpret due to a variety of methodological problems. However, results of a more recent statistical meta-analysis which controlled for methodological differences clearly suggest that some of these procedures are effective in reducing addictions and relapse. There are over 500 studies that indicate Transcendental Meditation has beneficial effects at the physiological, psychological and social/environmental levels, all of which are important to relapse prevention and recovery from addiction (Alexander, C.N., Robinson, P., and Rainforth, M., 1994).

Adolescents with poor social and personal skills are at heightened risk to use substances as a way to cope. Relaxation training is a well-known cognitive-behavioral technique used in treating behavioral problems found in adolescents (Laselle, K. and Russell, T., 1993). Relaxation

is simple but potentially difficult for traumatized clients as many of them experience "relaxation induced anxiety" (Allen, 2001). Feelings of vulnerability during full-fledged relaxation can trigger unwanted anxiety and intrusive memories. Therefore, great care must be taken in the interest of the client's safety. Relaxation activities such as walking, hiking, or swimming which entail alertness and engagement with the environment may be an alternative for those who cannot meditate fully.

Adolescence is a very difficult period in a child's maturation process, and group counseling has proven to be a most effective setting for them to express conflicting feelings and explore self-doubts which helps normalize their experiences. For adolescents struggling with alcohol problems, symptoms of anxiety and low self esteem were successfully reduced, according to Lasselle and Russell, (1993), through relaxation training. Moreover, these findings were true for the schools' adolescent population in general. Though its efficacy is clear, Laselle found fewer than 25% of school counselors responding to the survey were actually utilizing this approach, and fewer than 40% believed it to be effective.

Extensive research is available on public health issues related to adolescent alcohol use and most researchers agree that early intervention is indicated for reducing alcohol use disorders amongst this population. (Buckner, et al., 2008; Clark, et al., 2010; Dixon, et al., 2009; Matthews, 2010; Palmer, et al., 2010) There is also general agreement that children with a history of physical, emotional, and violent trauma are at increased risk for developing a substance use disorder, especially with alcohol (AUD). (Allen, 2001; Gilbert, et al., 2009; McCauley, et al., 2010; Testa, 2007) Current treatment methods such as Alcoholics Anonymous and CBT have been studied amongst adult populations but have produced only minimal success at best, with approximately 25% of adults with AUD seeking treatment. (Donovan, 1988; Taub,

et al., 1994) There is some research on alternative forms of treatment such as meditation, relaxation, and yoga for the adult cohort, but little on the adolescent population. (Alexander, et al., 1994; Lasselle and Russell, 1993) The current study addresses the need for in-depth research on the uses of alternative therapies for adolescent alcohol abusers who also have a history of trauma by examining clinicians' professional utilization and opinions on their use of such methods.

CHAPTER III

METHODOLOGY

This study is an examination of clinicians' opinions on the clinical effectiveness of alternative forms of therapy such as yoga and meditation as adjunctive treatment of adolescent alcohol abusers with a history of trauma. Licensed mental health clinicians reported information on adolescent clients in a mixed method online survey.

Sample

To participate in this survey, certain eligibility criteria were required. Eligible English speaking clinicians must have been licensed in their respective field, worked with adolescent alcohol abusers who had some history of trauma, utilized some form of alternative therapy adjunctive to traditional methods and had access to a computer. The survey was anonymous in nature and did not collect clinicians' demographics regarding age, sex, or race. Participating clinicians (N=22) came from a variety of mental health settings with 2 Master's in Social Work (MSW); 2 Licensed Clinical Social Workers (LCSW); 12 Licensed Independent Clinical Social Workers (LICSW); 2 Licensed Mental Health Counselors (LMHC); 3 Master's level Licensed Alcohol and Drug Addictions Counselors (LADAC); and 1 Master's in Education and Rehabilitation Counseling. Participant years of licensure ranged from 2 to 28, with a mean of 13 years (S.D. = 8.4). Ten participants worked in outpatient settings, 1 in residential setting, 2 in day treatment settings, 3 in school settings, 2 in hospital settings, 3 in private practices, and 1 in a correctional institution. Two participants worked in more than one setting with 45.5% in outpatient, 9.1% in day treatment, 13.7% in private practice, 13.6% in schools, 9.1% in hospitals, 4.5% in residential, and 4.5% in a correctional institution.

Clinicians were sampled across a variety of mental health treatment settings including outpatient, residential, day treatment, school, hospital, private practice, and one corrections institution. Eligible participants worked with adolescents ages 13 to 19 and were asked to provide blinded information on a sample of these clients. Two of the clients were ages 20 and 21but began treatment in their teens.

Data Collection and Analysis

Participants were recruited using a snowball method. An email was sent to contacts within the field explaining the rationale for the study, the inclusion and exclusion criteria and a link to the web-based survey (see Appendix B). Participants were then asked to forward the recruitment email to colleagues and friends who met the inclusion criteria and to post the email on any related listservs. This study was also posted to relative listservs including those found through YahooGroups related to Clinical Social Work, Alcohol Addiction, Trauma, and Adolescent Substance Abuse. Recruitment letters were also sent, through a Psychology Today sponsored website, to approximately 100 clinicians across the country who identified themselves as working with adolescents and/or working with alternative therapies.

Prospective participants in these groups were directed to an online survey through SurveyMonkey.com comprised of 26 multiple choice and open-ended questions. After eligibility was verified, informed consent was obtained by having participants read a detailed informed consent letter (See Appendix C). Those who consented were directed to print a copy of the letter for their personal records.

After participants answered questions about personal demographics, they were asked to choose two adolescent clients who met the criteria of comorbid alcohol use disorder and a history of trauma. Participants were asked a series of questions for each of the selected clients

including age, gender, race, treatment setting, current diagnosis (es), current symptomatology, trauma history and alcohol use history (See Appendix D). They were then asked about alternative therapies utilized such as type(s) and their opinion of the effectiveness of each. They were also asked to opine on the client's assessment of the alternative treatment utilized.

It became evident the number of respondents was very sparse after three months of posting the online survey. At this time an email listserv request was sent to every state and U.S. territory's Association of Social Workers, as well as the National Association of Social Workers (NASW). Each state responded they could not forward their listservs, only the National Association of Social Workers has that authority. The NASW indicated their listserv might be available for use but they could not separate out the clinicians qualified for participation, furthermore, the cost was entirely prohibitive.

Data was collected and compiled through SurveyMonkey.com and analyzed using Microsoft Excel. Counts and percentages, including averages and standard deviations where appropriate, were calculated for each question. Qualitative data was coded for positive and negative attitudes, including both the clinicians' opinions and their perception of their clients' opinions on the efficacy of alternative therapies.

CHAPTER IV

FINDINGS

Are alternative forms of therapy such as yoga and meditation effective in adjunctively treating adolescents' alcohol use disorder? The major findings for this study indicate 72% of clinicians surveyed found that these therapies did indeed help alleviate some of the symptoms of the disorder, the most useful of these being relaxation therapy. This study also sought the possible link between childhood trauma and alcohol use disorder. A significant finding of this study is the prevalence of traumatic events in these adolescents' lives. On average, 4 categories of trauma were reported per client with the majority (57%) suffering emotional abuse, predominantly at the hands of their caregivers. (See Figure 3) Additionally, the age of first use of alcohol was considered a risk factor in the progression of alcohol use disorder and was hypothesized to be directly linked to the client's experience of childhood trauma.

Demographics

In this study 39 mental health clinicians attempted to participate in the study's online survey, of which, 27 were eligible. Twenty six participants completed the survey; however, 4 were omitted for providing incomplete data. Clients (N = 36) ranged in age from 12 to 21 years old with a mean of 16.5 years (S.D. = 2 years). Females comprised 55.5 % of clients (n= 20) and males 44.4% (n=16). Fifty-five point five percent of clients were identified as White, 19% Hispanic, 11% African American, 3% Asian, 3% Haitian, 3% Jordanian, 3% Peruvian, and 2% unidentified. Though the sample is small, it is actually a close representation of the national demographics regarding race and gender. Fifteen clients (42%) were treated in outpatient settings, 5 (14%) in schools, 4 (11%) in residential programs, 4 (11%) in day treatment

programs, 3 (8%) in hospitals, 2 (6%) in private practice, 1 (3%) in a correctional institution and 2 (6%) identified the setting as "other".

Diagnoses

Clinicians reported on the given diagnoses for their clients (see Figure 1). Clients were assigned between 1 and 5 diagnoses each with a mean of 2.5 diagnoses per client (S.D. = 1.2). The most common diagnosis for the client population was, predictably, Alcohol Abuse with 44% of clients diagnosed. The second most common diagnosis was Anxiety Disorder with 39% of clients diagnosed followed by PTSD 33%, Drug Abuse 33%, Depression 22%, ADD/HD 17%, Oppositional Defiant Disorder 17%, Bipolar Disorder 11%, Dysthymia 11%, Intermittent Explosive Disorder 11%, and Mood Disorder NOS 9%.

Symptomatology

Participants were also asked to report on their clients' symptomatology (see Figure 2). In support of clinicians' diagnoses, symptoms related to Alcohol Abuse and Anxiety Disorder were most frequently reported with 72% exhibiting anxious mood, 50% exhibiting affect dysregulation, 50% exhibiting impulsivity, 44% experiencing relational impairments, 39% exhibiting lack of focus and attention, 33% displaying changes in sleep, and 28% displaying both learning and social impairments. Other significant reported symptoms included 22% suffering from depressed mood, 22% physical aggression, 25% with a history of legal problems, and 21% exhibiting verbal aggression. A full 44% of clients were prescribed medication while under their clinicians' care. Of those reported, the most frequently prescribed were the selective serotonin reuptake inhibitors (SSRI) Lexapro and Celexa. Adderal and Ritalin were also frequently prescribed.

Traumatic Events

Traumatic events involved in the client's history were collected to better understand the nature of their trauma and possible implications and patterns for alcohol abuse (See Figure 3). Clients experienced anywhere from 1 to 13 different forms of trauma. On average, clients' trauma histories included 4 categories of traumatic events (S.D. = 3). This study indicated 67% of clients suffered from emotional abuse, 46% experienced or witnessed domestic violence, 44% experienced divorce or separation in the home, 44% were physically abused, 44% experienced chronic poverty and 39% experienced neglect. One-third of clients (33%) were victims of sexual abuse, 33% lived with an impaired caregiver while 22% were involved with foster care or the department of social services and 22% experienced the illness of a loved one.

Age of First Use and Family History

To gather information on the early impact of alcohol, clients' age of first use of alcohol was gathered from clinicians. The largest cohort (56%) was found to be between the ages of 10 and 13 years old, followed by 13 to 16 year olds at 34%, 5 to 10 year olds at 13%, and 16 to 19 year olds at 9%. These youth were treated anywhere from 1 to 36 months, with the largest group (32%) receiving treatment for 6 to 12 months. Only 3 of the clients reported on needed detoxification before treatment could begin. Clinicians were asked to provide information about any family history of alcohol abuse and 83% of clients reported familial histories, with 80% percent of fathers and 73% of mothers having a problem with alcohol. Another 20% of siblings and 13% of step fathers were also alcohol abusers. (See Figure 5)

Alternative Treatments

When asked which alternative treatments they had utilized with their clients (See Figure 4), 68% most commonly chose relaxation therapy, followed by meditation, also at 68%, yoga at

32%, 16% practiced Eye Movement Desensitization and Reprocessing (EMDR), 6.3% practiced hypnosis, and 6.3% recommended massage therapy. Many clinicians utilized more than one alternative therapy on the same client, most frequently combining relaxation therapy with meditation (62%). The majority of therapists (63%), when asked which treatment was most effective, found relaxation therapy most helpful, followed by meditation (38%), yoga (30%), hypnosis (16.7%), and EMDR (9%). More than half (51%) of clinicians reported using these treatments on approximately 1 to 10 adolescent clients, followed by 23% who used them more frequently, on 30 or more clients. Clinicians were asked their impressions of the efficacy of alternative treatments and 72% found them to be effective, as did, in their professional observation, 77% of their clients.

Client Benefits

Finally, clinicians were asked to provide any additional qualitative data on their opinion of the benefits derived from utilizing alternative therapies. Clinicians reflected on 31 of the 36 clients in the study and all commented positively on the benefits to the client. Some of the observations included:

"Helps client to focus and relax."

"Allowed client to calm down enough to discuss family history of trauma and abuse. Helped client connect with others to facilitate more trust in staff. Allowed client to have more of a sense of humor and not take things so personally – from staff and other inmates in the setting. Helped with self-acceptance. Helped ground client to prepare to discharge."

"Better self-regulation. Better management of chronic illness."

"Increased focus and affect regulation."

"One-on-one empathic and kinesthetic attunement appeared most successful in regulating mood, affect and impulsive behaviors."

"This client learned to witness his disturbing thoughts instead of engaging with them. From repeated, direct experience with the calming, heart-slowing effects of mindfulness practice and imagery, he learned to self-regulate anxiety, and he learned he could continue to function despite strong affect or somatic reactions."

"Provides the client with a self applied, empowering alternative to alcohol or drugs to modulate emotional or social distress."

"They provide the client with self soothing tools they can do on their own in the future."

"Again, the physical and active nature of the yoga seems to center folks, for her this was especially important as her body has become a site of control and not one of pleasure or pride. At the same time, it's important to be careful because as folks become aware of what they are holding in their bodies, things can come up. It's useful to have time to process after."

"She learned to be in the present moment, even if briefly, that distress only occurs when focused on past and future. She learned she has capacity to disengage from the pressure of rage when practicing stress reduction. She learned that her reaction to situations is the problem, rather than blaming the situation or others involved, and that she can control her reactions if she practices her mindfulness and calming techniques."

Clinicians describe multiple benefits derived from the various alternative treatments utilized, partly due to the wide variety of client differences, yet each found these adjunctive

treatments to be helpful and effective for reasons quite specific to their individual client. Just as therapy is individualized on a case by case basis, so too are its outcomes, as evidenced by the qualitative responses of the therapists who participated in this study.

CHAPTER V

DISCUSSION

The purpose of this mixed methods study was to determine if the use of alternative therapies such as yoga and meditation are effective in treating adolescent alcohol abusers who also have a history of trauma. The literature supports these and other alternative methods as being helpful to adults who have addiction problems (Alexander, et al., 1994; Lasselle and Russell, 1993) but the research is less than voluminous in general and very little has been done specifically on adolescents. The study's central goal of finding information on clinicians' opinions of the effectiveness of these methods in treating adolescents was successful.

This anonymous, online survey-based study yielded a much smaller number of participants than I had hoped. To participate in this study, a license to practice mental health counseling was necessary. Clinicians must have treated adolescents with both an alcohol use disorder and a history of trauma, and they must have used some form of alternative therapy such as yoga, meditation, or relaxation training. Out of 200+ clinicians recruited nationally, 38 answered "yes" to all 3 criteria questions and attempted to take the survey. Because this was a snowball method, several of the participants recruited colleagues they knew would fit the criteria. Even so, only 22 therapists completed the survey for at least one client (they were asked to report on 2 clients), reporting on a total of 36 clients.

I believe this speaks to the dearth of research and knowledge in the emergent field of alternative therapies, particularly those seeking a mind, body, and spirit connection. Mindfulness Based Stress Reduction (MBSR) is one such area of study and has its roots at the University of

Massachusetts Medical School. Jon-Kabat Zinn has introduced thousands of people to this form of meditation and purposeful awareness through the MBSR program he began at UMASS medical school. As stated in their "Stress Reduction Program" literature:

"Since 1979, the Center for Mindfulness has been dedicated to investigating and understanding the effectiveness of mindfulness-based stress reduction (MBSR) through pilot investigations, small studies, and large-scale research funded by the National Institutes of Health. Since the inception of the Stress Reduction Clinic, MBSR research at UMass and other academic medical centers has shown consistent, reliable, and reproducible demonstrations of major and clinically relevant reductions in medical and psychological symptoms across a wide range of medical diagnoses, including chronic pain conditions, over the eight weeks of the MBSR program. Maintenance of these changes continues, in some cases, up to four years of follow up."

"Consistent, reliable, and reproducible demonstrations"

So why are so few mental health clinicians practicing these proven forms of therapy? The answer to this question is beyond the scope of this study, but this study opens the door for future research. The Medical Model of our western society is typically very slow to change, especially when such change is not driven by profit. This may be why so few of our research dollars are allotted to studying such self-help, preventative type methods. The very idea of healing oneself through alternative therapies flies in the face of everything our health care system has evolved into, i.e. capitalism. As it stands, modern medicine treats diseases after the fact, rather than use every available method to prevent them in the first place. The Prevention Model is a relatively new concept of modern medicine. More research, funding, and prevention-oriented education will help move alternative therapies to the forefront of mental health treatment. While many professional graduate schools offer course work in the alternative therapies, they are not yet standardized nor widely accepted as effective.

The results of this study also support and expand upon many of the findings from previous studies on the prevalence of adolescent alcohol abuse and its link to childhood trauma. (Gilbert, R., et al., 2009; McCauley, et al.; 2010, Clark, 2010; Dixon, et al., 2009; Testa, 2007) Of the 36 clients reported on in this study, all suffered from at least one form of trauma, with the average having had experienced 4 types of trauma. It was found 67% suffered from emotional abuse, 44% experienced or witnessed domestic violence, 44% experienced divorce or separation in the home, 44% were physically abused, 44% experienced chronic poverty and 33% were victims of sexual abuse. Thirty-nine percent of the subjects experienced neglect, 33% lived with an impaired caregiver while 22% were involved with foster care or the department of social services and 22% experienced the illness of a loved one.

These findings are consistent with the literature on childhood trauma and the early use and abuse of alcohol, with general agreement that children with a history of physical, emotional, and violent trauma are at increased risk for developing a substance use disorder, especially with alcohol. (Allen, 2001; Gilbert, et al., 2009; McCauley, et al., 2010; Testa, 2007) Interesting, but not surprising, is the fact that 83% of clients report a familial history of alcohol abuse, with 80% of fathers and 73% of mothers abusing alcohol. One can, from these results, assert the connection between substance abuse and trauma exposure. We can also assume the connection between the early use of alcohol and trauma. In this study more than half (56%) the adolescents first used alcohol between the ages of 10 and 13. The high prevalence of trauma exposure and family history of alcohol use are obvious contributing factors to this early use of alcohol.

This study attempted to make a connection between a holistic approach to treating these adolescents and successful outcomes. By teaching them the skills of relaxation, meditation, breathing techniques, and more, the therapeutic community will be helping them to achieve

mastery over their affect and symptoms with tools they can take with them and use, literally, anywhere, anytime, in public or private settings. While this does not necessarily generate revenue for our profession, it is one means of helping our clients move in the direction of self-sufficiency and self-realization. The preamble to National Association of Social Worker's (NASW) Code of Ethics notes that the primary mission of the social work profession is to "enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty." (NASW, 2008, p. 1) There will always be a need for mental health counselors, but if our goal is to help, it is incumbent upon each of us to explore every method available, including the alternative therapies.

Of the eight choices of alternative therapies given to participating clinicians, (Yoga, Meditation, Relaxation Therapy, Eye Movement Desensitization and Reprocessing [EMDR], Ayurveda, Acupuncture, Homeopathy, and Massage), 68% chose to utilize Relaxation Therapy and 68% chose Meditation, sometimes using more than one method. We know adolescents with poor social and personal skills are at heightened risk to use substances as a way to cope. The literature supports relaxation training as a well-known cognitive-behavioral technique used in treating behavioral problems found in adolescents (Laselle, K. and Russell, T., 1993). This study shows how these therapists are successfully using these alternative methods of treatment. They report great relief from some of the symptoms suffered by the adolescents in this study and overall, the qualitative comments were highly supportive. Some of the supporting comments included:

"Provides the client with a self applied, empowering alternative to alcohol or drugs to modulate emotional or social distress."

"They provide the client with self soothing tools they can do on their own in the future."

"Regulation of mood, affect and impulsive behavior."

"Generally those who enjoy them can use them to center and self soothe when they are stressed, anxious, depressed, disassociating, etc."

Some clinicians also commented on the potential difficulties encountered when treating clients who have been traumatized. Relaxation, while simple in nature, may be potentially difficult for traumatized clients as many of them experience "relaxation induced anxiety" (Allen, 2001). Feelings of vulnerability during full-fledged relaxation can trigger unwanted anxiety and intrusive memories, often recreating the traumatic event.

"Again, the physical and active nature of the yoga seems to center folks, for her this was especially important as her body has become a site of control and not one of pleasure or pride. At the same time, it's important to be careful because as folks become aware of what they are holding in their bodies, things can come up. It's useful to have time to process after."

"Highly effective Resolution and integration of trauma."

"This client learned to witness his disturbing thoughts instead of engaging with them. From repeated, direct experience with the calming, heart-slowing effects of mindfulness practice and imagery, he learned to self-regulate anxiety, and he learned he could continue to function despite strong affect or somatic reactions."

This study is unique in that it is the first study designed to examine clinicians' views of the efficacy of alternative therapies used adjunctively in the treatment of adolescent alcohol abusers who also have a history of trauma. There have been studies done on adolescent alcohol abusers (Buckner, et al., 2008; Clark, et al., 2010; Dixon, et al., 2009; Matthews, 2010; Palmer, et al., 2010) to cite a few, as well as some on the effects of early childhood trauma in relation to the adolescent alcohol abuser (Gilbert, R., et al., 2009; McCauley, et al.; 2010, Clark, 2010; Dixon, et al., 2009; Testa, 2007) but none on the effects of alternative therapies on this specific population. This study has determined the majority of clinicians utilizing adjunctive, alternative therapies do indeed find them very effective in alleviating some of the client's symptoms of anxiety, affect dysregulation, impulsivity, and relationship problems. The clinicians' opinion in this area is of great import as it will determine which of these alternative methods should be further studied.

The questions used in this study are thorough and clinically significant as much information was collected on the client's biopsychosocial history including diagnosis, symptoms, family history of alcohol use disorder, and trauma history. They were designed to assess the clinical utility of alternative therapies, an aspect of treatment that has not yet been thoroughly addressed by research. Clinical utility is described as the ease and efficiency of the use of an assessment as well as the meaningfulness and relevance of the information it provides.

(Tringone, R., Millon, T., & Kamp, J., 2007) Also, as this is the first study to assess issues related to adolescents and alternative therapies, these findings are only preliminary. Although the results are compelling, future research should be conducted to replicate and extend the results of the current study.

The majority of data is quantitative in nature with some significant qualitative data collected as well. Clinicians gave their professional impressions of both their clients' opinions of the effectiveness of the alternative therapies used, as well as their own.

"Increased focus and affect regulation"

"Increase in the student's ability to focus in class and to thoughtfully handle stressful relationship issues."

"Learning to calm and soothe themselves. Learning to slow down. Learning to look inside self. Introspection. Common bond with others"

Because each client fulfilled the criteria of an adolescent alcohol abuser with a history of trauma, it can be inferred from this study that the use of alternative therapies such as meditation and relaxation will enhance their treatment, as evidenced by participating therapists' responses, which speaks to the validity of this study.

This study also has several limitations, particularly a general participant bias. As this research was conducted through a voluntary online survey it can be presumed that participants had a greater interest and/or knowledge of alternative therapies than the general clinical population. This bias may account for some of the high approval levels found within the results and therefore creates certain limitations on generalizability. The clinician sample was also unevenly distributed with social workers making up a very large portion of participants. Further studies would benefit from a sample more evenly dispersed across mental health providers.

Another limitation in this study may be the sample size. With only 22 clinicians reporting on 36 clients, the sample is limited. However, the clinicians who participated were from many and varied mental health backgrounds with a wide range of professional experience and expertise. Clients were racially diverse, from a wide range of treatment settings, with an assortment of trauma histories and diagnoses which produced a fair sample representative of

today's at-risk adolescent population. One limiting factor may have been in the study's stringent criteria, especially related to alcohol use disorder. Opening the criteria to include other substances may have yielded greater participation. My reasons for limiting the substance use to alcohol were twofold: 1) most adolescents, when they begin using substances, start with alcohol (with the exception of tobacco) and move on to harder chemicals 2) inclusion of a laundry list of substances could render the study too large and unwieldy. Given the limited time frame for this work, I felt specificity would be beneficial to the outcome.

The implication for this research is that alternative therapies such as yoga, meditation, and relaxation therapy may have clinical utility in treating adolescent alcohol abusers who also have a history of trauma. Clinicians reported that the use of such therapies helped their clients self-regulate, reduce anxiety, concentrate, focus, and gain control of their emotions and their lives. Because these are lifelong learning skills, the implications for practice are substantial. Any or all of these alternative therapies can be utilized with every demographic. Even the young child can learn to control his or her breathing and with practice develop mastery over their environment. It is one of the most ancient of virtues, self-control.

"What shall it profit a man, if he shall gain the whole word, and lose his own soul?" (Mark 8:36)

The implementation of alternative therapies in mental health counseling has enormous implications for treatment interventions and outcomes. It will open doors for a kinder, gentler form of therapy for all ages, but especially our very vulnerable adolescent population who have suffered any type of trauma. Therapists now have a myriad of choices from the alternative therapies available and when this form of adjunctive treatment becomes more acceptable, even more varieties will be evident. "Physician, heal thyself". We as clinicians should be practicing

these methods in our personal lives as well; what better testament to their efficacy than our own sincere, personal accounts?

Alternative treatment methods such as yoga, meditation, relaxation, and hypnosis are a few of the available tools therapists can utilize in their treatment of adolescents who suffer from both alcohol use disorder and a history of trauma. The majority of clinicians surveyed in this study agreed that these methods were effective in treating this population, with the largest group of clinicians finding relaxation therapy to be the most effective with their adolescent clients. Clinicians found substantial reduction in anxiety, affect dysregulation, impulsivity, hyperactivity, and depressed mood in these clients. They also found an increase in focus and attention, improved interpersonal relations, and improved sleep patterns amongst the adolescents. The results of this study offer preliminary support for the clinical utility of these alternative therapies as valid treatment adjuncts to traditional forms of psychotherapy and mental health treatment. Clinicians trying to reach the oft times unreachable adolescent will now have yet another method of connecting.

REFERENCES

- Alexander, C.N., Robinson, P., and Rainforth, M. (1994). Transcendental meditation: A comprehensive approach for the treatment and prevention of substance dependence. *Alcoholism Treatment Quarterly*, 11(1), 187-220.
- Allen, J. G. (2001). *Traumatic relationships and serious mental disorders*. New York: John Wiley & Sons.
- Author. (2008). National association of social workers code of ethics. *National Association of Social Workers*, 1.
- Buckner, J. D., Ledley, D. R., Heimberg, R. G., & Schmidt, N. B. (2008). Treating comorbid social anxiety and alcohol use disorders: Combining motivation enhancement therapy with cognitive-behavioral therapy. *Clinical Case Studies*, 7(3), 208-223. doi:10.1177/1534650107306877
- Burke, C. A. (2010). Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Child and Family Studies*, 19(2), 133-144. doi:10.1007/s10826-009-9282-x
- Chartier, K.G., Hesselbrock, M.N., Hesselbrock, V. M. (2011). Alcohol problems in young adults transitioning from adolescence to adulthood: The association with race and gender. *Addictive Behaviors*, 36(3), 167 - 174.

- Chesney-Lind, M. (1999). Challenging girls' invisibility in court. *The Annals of the American Academy of Political and Social Sciences*, 564, 185 202.
- Chin, V. S., Van Skike, C. E., & Matthews, D. B. (2010). Effects of ethanol on hippocampal function during adolescence: A look at the past and thoughts on the future. *Alcohol*, *44*(1), 3-14. doi:DOI: 10.1016/j.alcohol.2009.10.015
- Clark, D. B., Thatcher, D. L., & Martin, C. S. (2010). Child abuse and other traumatic experiences, alcohol use disorders, and health problems in adolescence and young adulthood. *Journal of Pediatric Psychology*, *35*(5), 499-510. doi:10.1093/jpepsy/jsp117
- Dixon, L. J., Leen-Feldner, E., Ham, L. S., Feldner, M. T., & Lewis, S. F. (2009). Alcohol use motives among traumatic event-exposed, treatment-seeking adolescents: Associations with posttraumatic stress. *Addictive Behaviors*, *34*(12), 1065-1068. doi:10.1016/j.addbeh.2009.06.008
- Federal Bureau of Investigation. (2003). Crime in the United States 2002. In (). Washington, D.C.: U.S. Government Printing Office.
- Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *Lancet*, *373*, 68-81.
- Horton, E. G. (2007). Racial differences in the effects of age of onset on alcohol consumption and development of alcohol-related problems among males from mid-adolescence to young adulthood. *Journal of Ethnicity in Substance Abuse*, 6(1), 1-13. doi:10.1300/J233v06n01_01

- Lancaster, F.E., Brown, T.D., Coker, K.L., Elliott, J.A., and Wren, S.B. (1996). Sex differences in alcohol preferences and drinking patterns emerge during the early postpubertal period. *Alcohol Clin. Exp. Res.*, 20, 1043-1044,1045,1046,1047,1048, 1049.
- Laselle, K. M., & Russell, T. T. (1993). To what extent are school counselors using meditation and relaxation techniques? *School Counselor*, 40(3), 178-183. Retrieved from http://search.ebscohost.com.libproxy.smith.edu:2048/login.aspx?direct=true&db=psyh&AN =1993-31437-001&site=ehost-live
- Lemstra, M., Bennett, N., Nannapaneni, U., Neudorf, C., Warren, L., Kershaw, T., & Scott, C. (2010). A systematic review of school-based marijuana and alcohol prevention programs targeting adolescents aged 10–15. *Addiction Research & Theory*, 18(1), 84-96. doi:10.3109/16066350802673224
- Matthews, D. B. (2010). Adolescence and alcohol: Recent advances in understanding the impact of alcohol use during a critical developmental window. *Alcohol*, *44*(1), 1-2. doi:10.1016/j.alcohol.2009.10.018
- McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. (2010). Incapacitated, forcible, and drug/alcohol-facilitated rape in relation to binge drinking, marijuana use, and illicit drug use: A national survey. *Journal of Traumatic Stress*, 23(1), 132-140.
- Noell, J., Biglan, A., Berendt, J., & Ochs, L. (1993). Problematic sexual situations for adolescents: Alcohol and unsafe sex. *Health Values: The Journal of Health Behavior*, *Education & Promotion*, 17(6), 40-49. Retrieved from

- http://search.ebscohost.com.libproxy.smith.edu:2048/login.aspx?direct=true&db=psyh&AN = 1994-17034-001&site=ehost-live
- Okeefe, J. and Nadel, L. (1978). *The hippocampus as a cognitive map*. Oxford, UK: Oxford University Press.
- Palmer, R. S., Corbin, W. R., & Cronce, J. M. (2010). Protective strategies: A mediator of risk associated with age of drinking onset. *Addictive Behaviors*, *35*(5), 486-491. doi:10.1016/j.addbeh.2009.12.028
- Patrick, M. E., & Schulenberg, J. E. (2011). How trajectories of reasons for alcohol use relate to trajectories of binge drinking: National panel data spanning late adolescence to early adulthood. *Developmental Psychology*, 47(2), 311-317. doi:10.1037/a0021939
- Rubia, K. (2009). The neurobiology of meditation and its clinical effectiveness in psychiatric disorders. *Biological Psychology*, 82(1), 1-11. doi:10.1016/j.biopsycho.2009.04.003
- Taub, E., Steiner, S. S., Weingarten, E., & Walton, K. G. (1994). Effectiveness of broad spectrum approaches to relapse prevention in severe alcoholism: A long-term, randomized, controlled trial of transcendental meditation, EMG biofeedback and electronic neurotherapy. *Alcoholism Treatment Quarterly, 11*(1-2), 187-220. doi:10.1300/J020v11n01_06
- Testa, M., Livingston, J. A., & Hoffman, J. H. (2007). Does sexual victimization predict subsequent alcohol consumption? A prospective study among a community sample of women. *Addictive Behaviors*, 32(12), 2926-2939. doi:10.1016/j.addbeh.2007.05.017

- Tringone, R., Millon, T., & Kamp, J. (2007). Clinical utility of two child-oriented inventories:

 The Millon Pre-Adolescent Clinical InventoryTM and the Millon Adolescent Clinical

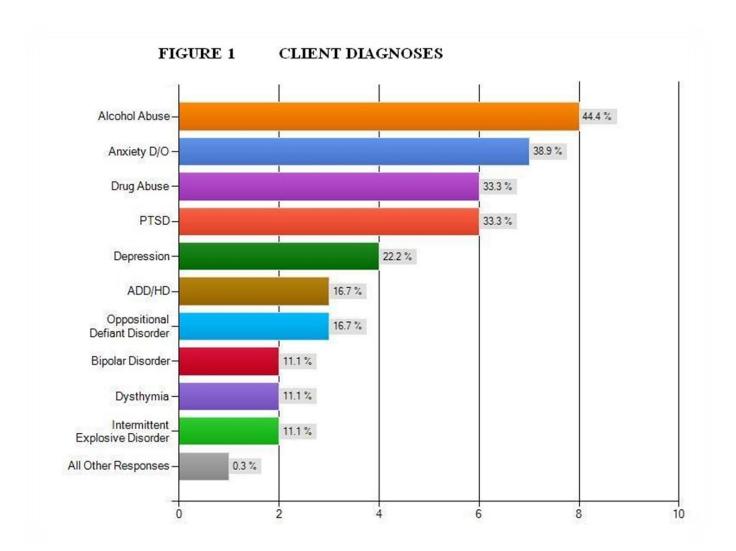
 InventoryTM. In S. R. Smith, L. Handler, S. R. Smith & L. Handler (Eds.). *The clinical*assessment of children and adolescents: A practitioner's handbook. (pp. 267-287). Mahwah,

 NJ US: Lawrence Erlbaum Associates Publishers. Retrieved from

 http://search.ebscohost.com.libproxy.smith.edu:2048/login.aspx?direct=true&db=psyh&AN

 =2006-11859-016&site=ehost-live
- Williams, J. H., Van Dorn, R. A., Ayers, C. D., Bright, C. L., Abbott, R. D., & Hawkins, J. D. (2007). Understanding race and gender differences in delinquent acts and alcohol and marijuana use: A developmental analysis of initiation. *Social Work Research*, *31*(2), 71-81. Retrieved from

http://search.ebscohost.com.libproxy.smith.edu:2048/login.aspx?direct=true&db=psyh&AN = 2009-05600-002&site=ehost-live



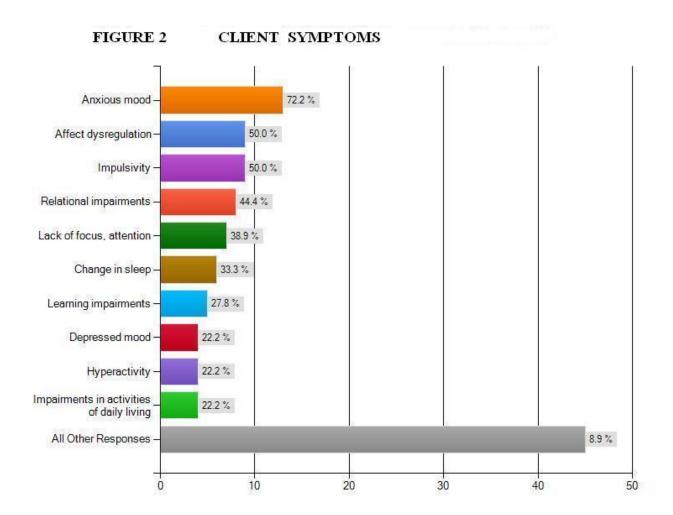
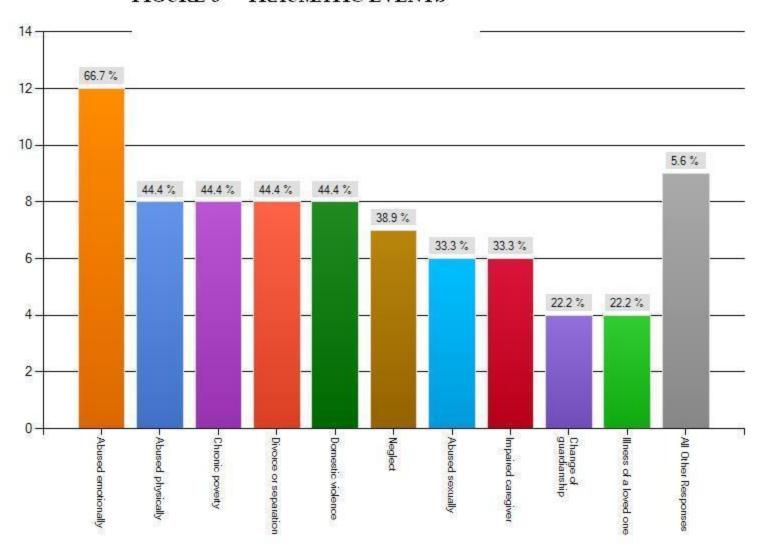


FIGURE 3 TRAUMATIC EVENTS



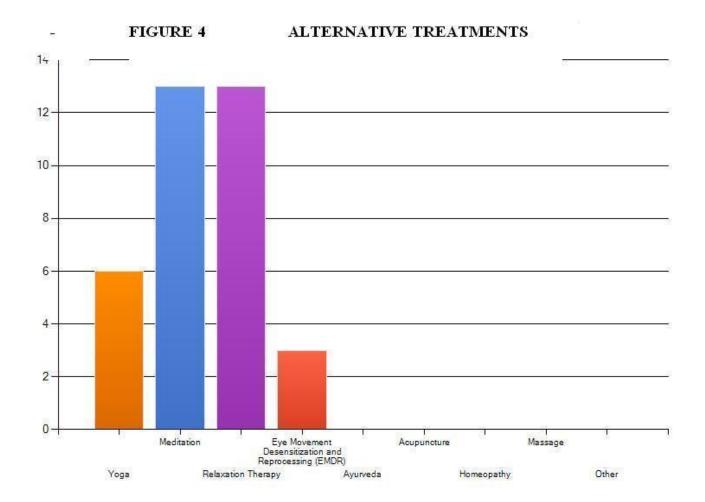
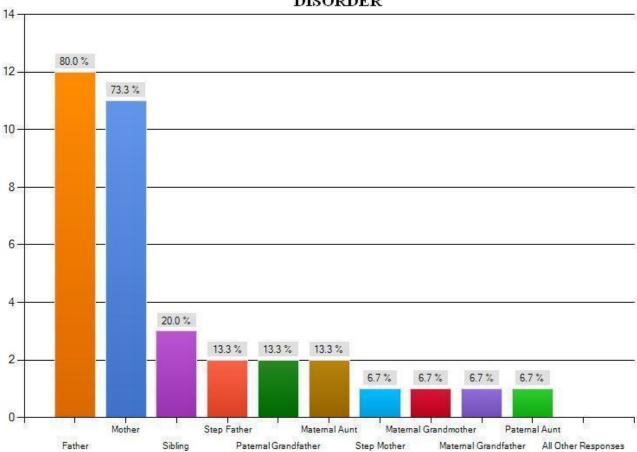


FIGURE 5 FAMILY HISTORY OF ALCOHOL USE DISORDER



APPENDIX A

HSR Approval Letter

January 18, 2011

Ann Hegarty

Dear Ann.

Your amended materials have been reviewed and they are fine. However, you missed one thing. You forgot to tell your participants in the Consent that you may present or publish your findings. This is necessary. They have to consent to this or you won't be able to make use of your findings. We are happy to give final approval to your study with the understanding that you will send Ms. Wyman your Informed Consent with the addition about presentation and publication. *Please note the following requirements:*

Consent Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your very interesting and useful project. The substance abuse by teens is certainly a serious problem.

Sincerely,

Ann Hartman, D.S.W. Chair, Human Subjects Review Committee

CC: Mary Gannon, Research Advisor

APPENDIX B

Research on Alternative Treatments for Adolescent Alcohol Use Looking for Licensed Mental Health Clinicians To Participate in a Short On-Line Survey

Hello,

My name is Ann Hegarty, and I am a graduate student at the Smith College School for Social Work. I am looking for licensed mental health clinicians to participate in a short on-line survey examining the efficacy of adjunctive therapy modalities such as yoga, meditation and relaxation in treating adolescents, ages 13 -19, who have been identified as having both a history of trauma and alcohol use disorder. If you have experience with this population, your participation in this survey would be greatly appreciated. To access the survey please click on the link: https://www.surveymonkey.com/s/MZDCZLT.

Participation in this web-based survey is entirely voluntary and anonymous and will only take 20-25 minutes to complete. You may skip any question or terminate the survey at any time but, unfortunately, due to the anonymous nature of this study, withdrawal after submission of the survey will not be possible.

I want to thank you in advance for your contribution to this study and ask that you please send this email to any and all licensed mental health clinicians working with traumatized or alcohol dependent adolescents you may know of. Posting this survey on any related listservs would also be greatly appreciated. Feel free to contact me at phegarty@charter.net if you have any questions.

Thank you for your time and your contribution,

Ann M. Hegarty

APPENDIX C

Informed Consent Letter

Dear Potential Research Participant:

My name is Ann Hegarty, and I am a graduate student at the Smith College School for Social Work. I am conducting a mixed method study to examine clinicians' opinions on the effectiveness of alternative therapies such as yoga and meditation on adolescents who have been identified as having a history of trauma as well as a diagnosis of alcohol use disorder. I am interested in whether clinicians have found these adjunctive therapies to be useful in treating some of the symptoms related to this comorbid diagnosis.

Childhood abuse has been directly linked to adolescent substance use disorder. In 2010 McCauley, et al. found that sexual abuse, physical abuse, and witnessing violence were associated with increased preteen alcohol use among 3,559 students in grades 7 through 12. Additionally, physical abuse and sexual abuse were associated with binge drinking (Clark, 2010). Anxiety researchers, Dixon, et al., (2009), have suggested that alcohol may be used to avoid or reduce the symptoms of PTSD, a strategy that is negatively reinforcing, thereby maintaining alcohol use. Sexual abuse, physical abuse, and other stressors were more common among adolescents with alcohol use disorder (AUD) than among control adolescents and, in fact the presence of these accelerated the onset of alcohol use disorder and accounted for the relationship between this disorder and major depressive disorder (Clark, 2010).

This research study for my thesis is being conducted as part of the requirements for the Master of Social Work degree at Smith College School for Social Work and future presentations and publications. I will ask you to provide demographic information about yourself, such as your degree, license, treatment setting, and years in the field. I will also ask for demographics pertaining to your chosen clients such as age, gender, race, treatment setting, current diagnosis, current symptomotology, trauma history and alcohol use history. Finally, I will question which adjunctive therapies you have utilized and which have been most helpful for your clients.

Your information will be collected anonymously through a web-based survey and will be kept confidential; no identifying information will be requested. Benefits of this study include contribution to the exploration of the clinical utility of alternative treatment modalities as well as increased awareness and knowledge of the link between trauma and alcohol use disorder among adolescents. The potential risk of participating in this study is loss of time and productivity.

This survey will take approximately 20-25 minutes to complete. Strict confidentiality will be maintained, as consistent with federal regulations and the mandates of the social work profession. All information will be collected anonymously. My research advisor will have access to the data collected. All data will be kept in a secure file for a minimum of three years, after which it will be destroyed. Participation in this project is entirely voluntary, and you may refuse to answer any question or terminate the survey at any point during participation in the project as long as you have not yet submitted your responses. In order to terminate the survey early simply leave the site. Withdrawal from this study after submission of the survey will not be possible due to the anonymous nature of the study as particular submissions will be impossible to identify.

If you have any concerns about your rights or about any aspect of the study, I encourage you to call me at XXXX or the Chair of the Smith College School for Social Work Human Subjects Review Committee at (413) 585-7974.

Thank you for your time,

Ann M. Hegarty

APPENDIX D Web Survey

Section I:

Directions: Please answer the following questions regarding your clinical experience.

- 1. What is your degree and license?
- 2. How many years have you been licensed in the field?
- 3. What is the treatment setting in which you work? (Check all that apply)
 - Out-patient
 - o Residential
 - o Day treatment
 - o In-patient
 - School setting
 - Hospital setting
 - Other: Please Specify

Section II:

Directions: There are two separate, identical questionnaires in this section. Please choose two clients with whom you have worked who fit the criteria of the study and answer as many questions as possible for each client.

- 1. What is the client's current age?
- 2. What is the client's current gender?
 - o Male
 - o Female
 - Other: Please Specify_____
- 3. What is the client's race? (Select as many as apply)
 - o African American
 - o Hispanic
 - Asian
 - American Indian
 - Pacific Islander
 - o White
 - Other: Please Specify
- 4. What is the treatment setting in which you are/were treating this client?
 - Out-patient
 - Residential
 - o Day treatment
 - o In-patient

0	School setting
0	Hospital setting
0	Other: Please Specify
5 XXII 4 /	
	the client's current diagnosis/es (Please check all that apply)
	ADD/HD
	Anxiety D/O
	Alcohol Abuse
	Asperger's Disorder
_	Autism
	Bipolar Disorder
0	T T T T T T T T T T T T T T T T T T T
0	Communication Disorder
	Depression
	Disruptive Behavior Disorder
0	Dissociative Disorder
	Drug Abuse
	Dysthymia
	Eating Disorder
	Elimination Disorder
	Intermittent Explosive Disorder
	Learning D/O
0	Mental Retardation
0	Mood Disorder NOS
0	Obsessive Compulsive Disorder
0	Oppositional Defiant Disorder
	Panic Disorder
	Pervasive Developmental Disorder
	PTSD
	Psychotic Disorder
	Reactive Attachment Disorder
	Separation Anxiety
0	Tic Disorder
0	Other: Please Specify
6. What are th	e client's current symptoms? (Please check all that apply)

- 6. V
 - affect dysregulation anhedonia

 - o anxious mood

 - change in appetite
 change in sleep
 cognitive impairments
 compulsions

 - o delusions

0	depressed mood
0	dissociation
0	encopresis
0	enuresis
0	hallucinations
0	history of legal problems
0	homicidal ideation
0	homicide attempts
0	hyperactivity
0	hyperarousal
0	hypervigilance
0	impairments in activities of daily living
0	impulsivity
0	lack of empathy
0	lack of focus, attention
0	learning impairments
0	mania
0	nightmares
0	obsessions
0	panic attacks
0	physical aggression
0	physical dysregulation
0	relational impairments
0	repetitive motor movements
0	social impairments

- suicidal ideation
 - suicide attempts

speech impairments

- o saiciae attempts
- o verbal aggression
- Other: Please Specify_____
- 7. Which events were involved in the client's trauma history? (Please check all that apply)
 - Abused emotionally
 - Abused physically
 - Abused sexually
 - o Accident which caused physical or emotional injury
 - o Change of guardianship
 - Chronic poverty
 - Client illness
 - o Divorce or separation
 - o Domestic violence
 - Forced displacement
 - Homelessness
 - o Illness of a loved one
 - o Involvement in foster care or department of social services

0	Impaired caregiver		
0	Natural disaster		
0	Neglect		
0	Traumatic loss		
0	War or terrorism		
0	Other: Please Specify		
8 Which alter	rnative therapy treatments have you utilized with this client?		
	Yoga		
0	Meditation		
_	Relaxation Therapy		
	Eye Movement Desensitization and Reprocessing (EMDR)		
	Ayurveda		
	Acupuncture		
	Homeopathy		
	Massage		
0	Other		
O	o their		
9. Which treat	tment(s) have you found most effective?		
	Yoga		
	Meditation		
	Relaxation Therapy		
	Eye Movement Desensitization and Reprocessing (EMDR)		
	Ayurveda		
	Acupuncture		
	Homeopathy		
	Massage		
0	Other		
ű	10. Where were these treatments provided?		
0	In my office		
0	Within the agency I work		
	An outside provider such as a yoga or meditation center		
	Other		
· ·			
11. Did this cl	lient need detoxification before proceeding with treatment?		
0	Yes		
0	No		
<u> </u>			

12. If yes, in what type of facility was he/she treated?

In PatientOut PatientAt-HomeOther

 6- 12 months 12 - 18 months 18 - 24 months 24 - 30 months 30 - 36 months Other 		
14. At what age did this client begin using alcohol? o $5-10$ years o $10-13$ years o $13-16$ years o $16-19$ years o Other		
15. Is there a family history of alcohol use disorder?		
o Yes		
o No		
16. If yes, please check all that apply Mother Father Sibling Maternal Grandmother Maternal Grandfather Paternal Grandfather Paternal Grandfather Maternal Aunt Maternal Uncle Paternal Juncle Maternal Cousins Paternal Cousins Other		
17. Was this client prescribed medication while under your care? O Yes No		
18. If yes, please describe medication and its use.		
10. If jes, please describe inedication and its use.		
19. What is your impression of the efficacy of this alternative treatment?		

Very effectiveEffective

13. How long is/was this client under your care?

0-3 months
 3 - 6 months

- o Ineffective
- o Very ineffective
- No opinion
- o Other
- 20. What was your client's impression of this treatment?
 - Very effective
 - o Effective
 - o Ineffective
 - o Very ineffective
 - o No opinion
 - o Other
- 21. Approximately how many adolescent clients have you treated with alternative therapies?
 - 0 10
 - 11 20
 - \circ 21 30
 - 0 30+
- 22. Please briefly describe the benefits derived from these alternative therapies