THE USE OF MUSIC THERAPY INFORMED BY MOTIVATIONAL INTERVIEWING
WITH COLLEGE STUDENT DRINKERS TO INVITE "CHANGE TALK"

A Thesis
By
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ABSTRACT

THE USE OF MUSIC THERAPY INFORMED BY MOTIVATIONAL INTERVIEWING
WITH COLLEGE STUDENT DRINKERS TO INVITE "CHANGE TALK"
(May 2010)

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The effect of a single music therapy session informed by motivational interviewing

on an individual's readiness to change risky drinking behavior was investigated in 16

undergraduate college students, ages 18-24. Of the 45 students who completed the study, 16

were identified by the Alcohol Use Disorders Identification Test (AUDIT) as persons whose

alcohol consumption had become hazardous or harmful. Participants completed the Stages of

Change Readiness and Treatment Eagerness Scale (SOCRATES) prior to and following the

one week following the single session. The SOCRATES is a self-report instrument designed

to measure how ready a person is to change a specified behavior, in this case, how ready a

student is to modify his or her drinking behavior. The SOCRATES assesses whether a person

recognizes problems related to drinking, how ambivalent the person is to the idea of the

change in behavior, and whether or not the person is taking any steps to change risky

drinking behavior. Analyzing the scores of the 16 participants whose AUDIT scores were

greater than 8, a Mann-Whitney U test on pre-post change scores by condition and

examination of group means revealed that participants in the music therapy group were

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significantly more likely to report increased recognition of the need to change risky drinking behavior following the session than those in the control condition ($U = 15.50$, $p = .08$).

Further exploration of the use of music therapy informed by motivational interviewing, music therapy as a brief intervention, and music therapy with young adults may be warranted.

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CHAPTER 1

ALCOHOLISM AND SUBSTANCE RELATED DISORDERS

Alcohol dependence is indicated by evidence of symptoms of withdrawal or tolerance (American Psychiatric Association, 2000). A person with alcohol dependence, or alcoholism, will continue to drink despite serious family, health, or legal problems. Like any other disease, alcoholism lasts a person's lifetime. There are symptoms of alcoholism and this disease follows a predictable course. The risk for developing alcoholism is influenced both by a person's genetics and lifestyle (Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism [NIAAA], 2002). Alcoholism cannot be cured; it can only be prevented or treated.

A person does not have to have alcohol dependence to experience symptoms of alcohol abuse. Problems linked to alcohol abuse include not being able to meet family, school, or work responsibilities; car crashes and drunk driving arrests; and medical issues resulting from alcohol abuse. Social or moderate drinking may also be harmful – when driving, during pregnancy, or when taking medication, for example.

For a person with alcoholism, simply cutting down on alcohol consumption does not help that person's success. Abstinence is the best method for recovery success for persons with alcoholism. For persons who have not been diagnosed with alcoholism, reducing alcohol consumption may be an option for relieving symptoms related to alcohol abuse. If a person who wishes to reduce his/her alcohol consumption cannot stay within reasonable

limits, that person may consider abstaining from alcohol consumption, as well, in order to prevent alcoholism.

According to the NIAAA's publication, "Economic Perspectives in Alcoholism Research" (2001), in 1998, the overall economic cost of alcohol abuse was $185 billion. More than 70% of those costs were attributed to crime ($10.1 billion), premature death ($36.5 billion), alcohol-related illness ($87.6 billion), and lost productivity ($134.2 billion). The remaining costs were attributed to health care expenditures such as treating alcohol abuse and dependence, treating the adverse medical consequences of alcohol consumption, property and administrative costs of alcohol-related motor vehicle crashes, and criminal justice system costs of alcohol-related crime. Due to the high cost of alcohol abuse related costs, it is imperative that cost-effective approaches to treatment must be further explored.

Alcohol Use Among College Students

In college settings across our nation, students continue to die or be injured as a result of alcohol consumption (Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002). An "Update on College Student Drinking" released by the National Institute on Alcohol Abuse and Alcoholism's (NIAAA's) Task Force on College Drinking (2002) highlights the current issues and statistics related to college student drinking. Hingson, Heeren, Winter, and Wechler (2005) reported that from 1998 to 2001, the number of students who drove while under the influence (DWI) increased from 2.3 million to 2.8 million. Hingson et al. also reported that the number of alcohol-related unintentional student deaths increased 6% from 1998 to 2001, for a total of 1,700 in 2001.

NIAAA (2008) defined a *binge* as "a pattern of drinking alcohol that brings blood alcohol concentration to 0.08 gram-percent or above" (p.8). For a typical adult, this pattern

corresponds to consuming 5 or more drinks (male), or 4 or more drinks (female), in about 2 hours" (Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002, p. 3). NIAAA reported that college student binge drinking continues to rise. Wechsler et al. (2002) noted that four out of five college students reported drinking alcohol and that approximately half of those students reported binge drinking on one occasion during a period of 2 weeks prior to engaging in the study.

In a report published by the National Survey on Drug Use and Health (2006), information gathered between 2002 and 2005 noted that the rates of binge drinking reported by college students from 2002 to 2005 remained steady. During that time, 57.8% of students aged 18 – 20 reported having used alcohol in the recent month, and of those, 40.1% engaged in binge drinking and 16.6% engaged in heavy alcohol use. Heavy drinking, according to NIAAA (2002), is defined as any pattern of drinking behavior where one's blood alcohol content is brought to .08% or above. It is evident that alcohol consumption on college campuses has become a problem despite alcohol prevention interventions such as educational campaigns, alcohol awareness weeks, and grizzly wrecked car displays (Michael, Curtin, Kirkley, Jones, & Harris, 2006).

Walters & Bennett (2002) noted that colleges have recognized the issue of student drinking and have launched alcohol intervention and prevention programs for college students. It is unfortunate that some of these programs are based on models that have shown poor efficacy and have sometimes not been empirically validated. Walters et al. noted that, "in general, educational and abstinence-based approaches show the least efficacy, while other types of skills, attitudinal and feedback-based interventions based on aspects of the social learning model, appear to be more successful" (p. 223). Based on their review of college

treatment literature, these researchers found that techniques that "address expectations for alcohol's reinforcing effects, provide coping or other skills to increase self-efficacy for change, and correct perceived norms for heaving drinking, appear to most effectively reduce alcohol use among college students" (p. 226). NIAAA (2002) reported that more recent studies where skills-based interventions and motivational interviewing were used with students who were mandated to seek treatment for drinking have been effective (Barnett, Tevyaw, & Fromme, et al., 2004; Borsari & Carey, 2005; Fromme. & Corbin, 2004; Keillor, Perkins, & Horan, 1999; LaChance, 2004; Borsari & Carey, 2003).

According to Silverman (2003), "Unfortunately, no single treatment modality or type of therapy has proven more effective than another in treating persons who are chemically dependent." In this research, Silverman found that many addiction rehabilitation programs are forced to use confrontational models in their treatment programs because of time and cost restraints. Not only have confrontational therapies been found to be ineffective, it has been noted that alternative therapies, such as music therapy, can be viewed by the person in treatment as less threatening. Silverman suggests that music therapy is effective in addictions counseling not only because it is "less threatening and intrusive than traditional therapies" (p. 274) but that music therapy also has the ability to

> concentrate or focus on a particular aspect of treatment (such as coping skills, relapse prevention, support networks, mediation management, role recovery, self-esteem, etc.), thus making it quite versatile and adaptive in addressing the complicated issues faced in substance abuse treatment. (p. 274)

Even though there are a variety of approaches used in the field of addictions counseling, the use of group counseling and self-help groups, such as 12-step programs like Alcoholics

Anonymous, have been found to be more cost-effective in treating persons with addictions. Many treatment programs for persons with substance abuse treatment needs come in the form of brief interventions.

Brief Interventions

Brief interventions in the treatment and prevention of addictive disorders have been successful with a variety of populations. Michael, Curtin, Kirkley, Jones, & Harris (2006) found that group brief intervention sessions conducted with college students in Freshman Seminar Program courses were effective in reducing self-reported drinking quantity and episodes of intoxication. According to Koss and Shiang (1994), in brief therapy, the intervention used is early and prompt. The therapy is focused on the present, the goals are time limited and specific, and the therapist's style is very direct and active. To enhance coping and reduce symptoms, the goals in brief interventions are limited. Therapists focus on goals, make quick assessments, gather information to be used to work with the present situation, and use flexible intervention approaches.

Financial constraints of health care systems and mental health agencies make brief interventions a prime choice to be used by addiction counselors (Miller, 2005). Counselors may also choose to use brief therapy with their clients because of the number of clients on their caseload and in an effort to make good use of the short amount of time allowed for therapy by third party payers. Miller and Rollnick (2002) note that it is possible to facilitate change and that "even relatively brief interventions under certain conditions can trigger change" (p. 5). It should be noted that screening is an important aspect in brief therapy (Miller, 2005) and therefore brief therapy may not be suitable for every client.

Motivational Interviewing

The spirit of Motivational Interviewing (MI; Miller & Rollnick, 2002) is often used in brief interventions with persons seeking rehabilitation from substance abuse disorders. A client centered approach used to elicit behavior change by helping clients to resolve ambivalence and increase motivation for change, MI is a way of being with a client. Miller (1983) noted that a common problem in the area of addictive behavior is the lack of motivation to change. MI reflects components of Carl Rogers's (1951) humanistic theory. From the humanistic perspective, each person has an innate drive toward positive change (Miller & Rollnick, 2002), and MI seeks to help individuals find the intrinsic motivation for positive behavior change. MI is used to start the process of change; to help people get "unstuck" so that they may be able to change.

Miller and Rollnick (2002) proposed four general principles of MI to help clients progress through the stages of change and prompt change in behavior. The four general principles, which represent a refinement of those presented by Miller (1983), are:

1. support self-efficacy

2. develop discrepancy

3. express empathy

4. roll with resistance

Support Self-Efficacy. Self-efficacy refers to "a person's belief in his or her ability to carry out and succeed with a specific task" (Miller & Rollnick, 2002, p. 40). A counselor may use the three other general principles to help the client see the problem, but it is important that the counselor instill hope in the success of the client. It is the responsibility of the change facilitator to enhance the client's confidence. A counselor's own expectations of

the client's ability to change can have a strong impact on the outcome. This expectation becomes a self-fulfilling prophecy. It is not the counselor, but the client, who is responsible for choosing and making the change.

Develop Discrepancy. The principle of developing discrepancy is where MI diverts from classic client-centered counseling. In client-centered counseling, reflective listening may serve the purpose of helping a client sort out difficult issues in life or to help a client make choices, but this component of MI seeks to help the client distinguish between desired and current patterns of behavior. Ambivalence is common in the development of discrepancy, as the client sorts through beliefs and values. Discrepancy refers to the importance of the change. Miller and Rollnick (2002) noted, "when a behavior is seen as conflicting with important personal goals (such as one's health, success, family happiness, or positive self-image), change is more likely to occur" (p. 38). When skillfully implemented, MI "changes the person's perceptions (or discrepancy) without creating any sense of being pressured or coerced" (p. 39).

Express Empathy. A defining and fundamental characteristic of MI is an empathetic and client-centered counseling style. Miller and Rollnick (2002) found that what Carl Rogers referred to as accurate empathy or reflective listening is foundational to many of the skills used in MI. In the spirit of MI, the counselor employs reflective, empathic listening and expresses empathy throughout the process.

The attitude encompassing this component of expressing empathy is termed acceptance. It should be noted that agreement and approval are not the same thing as acceptance. It is important for the counselor to reflect an acceptance of a client's perspectives and beliefs without judgment, blaming, or using criticism. The counselor's attitude of

respectful listening allows the client to feel accepted for who they are, and this can help a person feel free to change. A *working* therapeutic alliance is built from the attitude of respect and acceptance, further promoting change.

   Roll with Resistance. "Rolling with resistance" refers to the process of taking the resistance offered by the client and reframing it to create a new energy for change. The ambivalent client who feels attacked may not be easily persuaded. Direct argument may also make the client feel pressed and in turn cause the client to feel defensive. In MI, one should roll with resistance in the sense that one should not directly oppose/confront the resistance. The counselor may often turn questions posed by the client back to the client, in an effort for the client to find flaws in their ideas. The client is actively engaged in the process of problem solving in rolling with resistance. Ambivalence and reluctance are common during this process, and they are viewed as occurring naturally. New goals and views are not made during this process; new perspectives and information are offered for the client to consider. Information is presented as a buffet of sorts, where the client may take whatever they want with them, and leave that which they do not want.

Motivational Interviewing and Stages of Change

   According to Miller & Rollnick (2002) an important component in a client's success is the client's readiness for change. The transtheoretical stages of change model (Prochaska, DiClemente, & Norcross, 1992) is used in the conceptualization of a client's readiness to change. It is important to note that MI "is not based on the transtheoretical model" (Miller & Rollnick, p. 130). This is a common misconception as the stages of change and MI both were developed in the 1980s. Miller and Rollnick suggested thinking of MI and the stages of change as "kissing cousins who were never married" (p. 130).

MI seeks to help a client progress through the five stages of change described by Prochaska et al. (1992). The five stages of change are precontemplation, contemplation, preparation, action, and maintenance. In the *precontemplation* stage of change, there is no intention to change behavior. In this stage of change, clients are often unaware of their problems (i.e., "I don't have a drinking problem). During this stage, people may be coerced to enter treatment as a result of threats of abandonment if the person does not change their behavior made by friends or family. The individual also may enter treatment during this stage for legal reasons (i.e., court-ordered treatment). During the *contemplation* stage of change an individual is aware of the problem, is interested in a change in behavior, but has not made a commitment to changing his/her behavior. Individuals may remain in the contemplation stage for extended periods of time because they are unable to weigh the pros and cons of the desired behavior change. Prochaska et al. described contemplation as "knowing where you want to go but not quite ready yet" (p. 1103).

The *preparation* stage is described as the point where the individual decides to make the change in behavior in the next month. Individuals in this stage often report decreasing their problem behavior, sometimes in small increments. For example, a person who wishes to quit smoking may delay their next cigarette break by 30 minutes or they may decrease their overall daily intake by 5 cigarettes (Prochaska et al., 1992). The *action* stage is when the individual actively makes a change in his/her behavior. Once the change in behavior has been made, the individual refrains from the undesired behavior (smoking, drinking, etc.) for a period of one day to six months. The *maintenance* stage of change is where the individual continues to abstain from the undesired behavior. Individuals may seek relapse prevention interventions during the maintenance stage in an effort to prevent slipping into old patterns of

behavior.

It is possible to move through the stages of change several times during the process of behavior modification. If a person relapses during treatment, the individual may regress to an earlier stage in their treatment. This does not signify failure, and success is highly individualized.

Summary

The foregoing literature suggests that effective interventions used to help a client progress through the stages of change are those in which the client feels like he/she has choices and opportunities to explore options for lifestyle change, and in which his/her self-efficacy is increased in the process. As clients progress through the stages of change, they are constantly monitoring thoughts, feelings, and emotions related to the process of the change in behavior. As a creative therapy and a facilitator for self-exploration, music therapy provides choices and opportunities for exploration of change. Since the experiences are generally designed to support the client's success, music therapy may result in increased self-efficacy. As a brief intervention, music therapy may be a potentially effective approach to treatment of issues related to substance abuse as many clients may respond more readily to the music approaches used in this form of treatment than to other forms of treatment.

CHAPTER 2

MUSIC THERAPY IN ADDICTIONS TREATMENT

Music therapy is an approach in which music is used in a systematic way by a board-certified music therapist for the enhancement or maintenance of the individual's desired quality of life. In the music therapy, relationships are formed between the music therapist, the client, and the music, and these relationships serve as the foundation for change. In the treatment of addictions and substance abuse, music therapy has been used to treat the emotional, spiritual, and physical needs of the client in recovery. Both receptive and active music experiences are used by the music therapist to address areas of need for the client.

Music Therapy: Facilitating Creativity

A major component in successful relapse prevention, recovery, and maintenance is self-awareness. Creativity may allow a person a greater sense of self-awareness. According to Treder-Wolff (1990a), "integration of creative experience into the overall treatment supports a critical aspect of recovery – the ability to make choices, take risks, and develop skills conducive to adjustment to change in significant areas of life." The use of music therapy in the addictions group work model integrates music and creativity with treatment goals. Many persons in recovery experience issues associated with grief, denial, and "addictive logic," (Nakken, 1988) which is part of the addictive personality. Creative experiences in music therapy, such as improvisation, are used to address these issues. According to Ruud (1995), improvisation influences transformation (p. 93). Soshensky (2001) added,

The creative therapeutic process seeks to contain and re-frame the addictive craving

for transformation and change in consciousness by increasing the client's ability to

access creative power to fulfill emotional and spiritual needs rather than depending on

substance use to provide an externally induced experience. (p. 47)

Soshensky (2001) further elaborated that the sense of isolation, a related and enabling

emotion in the cycle of addiction, can be counteracted through the creative act of

improvisation. Even though creativity can be sought in individual counseling, group music

therapy can be used as a source of skill development, emotional support, and information.

According to Kenny (1982), "the good therapist leaves adequate space and time for the

clients to fulfill their own creative process as part of the creation" (p.14).

Using Music and Creativity for Transformation

In Jungian therapy, a central concept is that of the shadow. Kenny (1982)

acknowledged that

shadow responds to music. It is the secret side, the quiet, hidden side. It can be the

dark side we mask so easily – evil, fear, sorrow, pain [and shadow] is death and birth.

It is larger than life, smaller than a seed. Without the shadow there is no light. (p. 41)

She continued by suggesting that in music improvisation, one may "dance" with the shadow.

Johnson (1990) described the role of the creative therapist when working with

persons in addiction recovery as being "similar to the role of the primitive shaman healer" (p.

299). She wrote, "by definition, the shaman is an artist as well as a healer, using the tools of

group ritual, imagery and imagination, rhythm and movement to evoke restoration of inner

peace and harmony" (p. 299). The role of the shaman is to communicate to the person in

recovery that all healing is within that person. The role of the arts therapist is to guide people in the journey of self-discovery, including chants and songs in our healing rituals.

Aigen (1991) examined the use of music as a transpersonal force and found that there is great interest in "shamanism, ritual, and their relationship to the process in music therapy" (p. 85). The author continued with "I believe that this interest, within music therapy at least, is due to the fact that shamanic forms of healing, as well as other ritual uses of music, represent the first efforts to effect self-transformation through music." Aigen (1991) stated that music is used as "a powerful tool for establishing deeper contact with others and thereby discovering greater meaning in life" (p. 86). As shaman, the music therapist must facilitate constructive interactions with the hidden parts of the psyche, "encouraging the client to do battle with and overcome deep fears, to learn from archetypal sources of wisdom representing one's true – and often repressed – self, thereby promoting a healthy relationship among the various psychic structures" (p. 88).

Music Therapy Interventions in Substance Abuse Treatment

Clients in addictions recovery treatment have experienced improvement in various areas of functioning as a result of music therapy interventions. Music therapy experiences allow clients in substance abuse treatment settings an alternative to verbal-only therapies or other more traditional approaches to treatment.

Hammer (1996) found that a music and imagery relaxation intervention resulted in a marked reduction of perceived stress and anxiety in staff and clients with chemical dependency. Using music therapy-related studies, Silverman (2003) found that

> although music therapy interventions such as relaxation training, lyric analysis, and
> songwriting have proven to be effective with a variety of populations (including

chemical dependency), few studies have attempted to evaluate the enjoyment and therapeutic effectiveness of these commonly practiced music therapy techniques used to treat persons who are chemically dependent. (p. 276)

Researchers have observed benefits of music in the treatment of individuals with addictions for almost 40 years. Miller (1970) noted that the use of music, particularly the use of active music making or instrument playing to accompany group singing, to be motivational in encouraging the attitude change necessary for effective substance abuse treatment. Brooks (1973) found that music increased the feeling of being a part of a group, increased group involvement, and increased communication. According to Van Stone (1973) clients reported that the music used was able to provide similar positive feelings to those experienced through the use of drugs and/or alcohol. In 1984, Doughtery used music therapy sessions to educate clients about ways to cope with emotions without using chemical substances. A year later, Wheeler (1985) examined session elements and found that music therapy was not only more beneficial for a group of persons with substance abuse issues than for a group of music therapy students but that in sessions where music and art (such as drawing to music) were used, clients were more expressive with their emotions than in sessions where other types of activities were used. It should be noted that Wheeler (1985) also found that experiences that involved music and movement were reported by the group of individuals with substance abuse issues to be less enjoyable and that the experiences increased tension. Therefore, such experiences should be used with caution with this population.

James (1988) defined goals and program elements for using a music therapy treatment approach to treating alcoholism. In this research, the author also found that clients

who were chemically dependent had lower Self Monitoring Scale (Snyder, 1974) scores than college students (James, 1986). Music therapy interventions such as lyric analysis, songwriting, and relaxation training can be used, according to Walker (1995), to develop a positive mood, an open mind, and a willingness to grow. Gallagher and Steele (2002) described program suggestions for the use of music therapy in the treatment of substance abuse/mental illness with groups of offenders.

Silverman (2003) researched the enjoyment and therapeutic effectiveness of certain music therapy interventions, using a group of women aged 19 – 65 in a residential treatment center for chemical dependence. The author found that even though the women did not indicate a preference for certain music therapy interventions, the results of the study indicated an interest in the use of music therapy interventions. The data revealed that participants enjoyed music therapy and found it to be therapeutically effective, no matter what particular type of intervention was used. Additionally, music therapy was rated by participants as helpful in addressing specific treatment areas more consistently than other types of treatment groups (p. 278)

Methods of Music Therapy in the Treatment of Addictions

Music therapy interventions such as songwriting, lyric analysis, and music-assisted relaxation have been used in populations of persons in substance abuse treatment facilities. The use of music therapy interventions in working with persons in a variety of addictions recovery facilities has been well documented in not only music therapy literature, but also the literature of other treatment modalities such as art therapy and nursing. Clinical descriptions of the use of music therapy techniques such as lyric analysis, songwriting, improvisation,

drumming, music assisted relaxation, and re-creative music groups will be explored in the following sections.

 Lyric analysis. In lyric analysis, the clients listen to a song that has been selected by a group member or the music therapist. Often clients will select songs that they enjoy listening to or will select songs that have a specific/special meaning or message that could be used for emotional exploration. After the group listens to the song, the music therapist facilitates a discussion on the content of the lyrics and/or the music in the song. In lyric analysis, clients are given an opportunity to explore thoughts, feelings, and emotions through the music and lyrics of a selected song. "Music therapy utilizes the power of music to facilitate recognition of a common identity" (Treder-Wolff, 1990b, p. 67) among a group of clients seeking the treatment of an addiction. This recognition of common beliefs and problems creates a pathway of communication necessary for personal change and group interaction (Treder-Wolff, 1990).

 Gfeller, Asmus, and Eckhert (1991) found that clients reported the use of music and text (lyrics) combined had a greater effect on mood than the use of music alone or text alone. This implies that songs are more effective in altering emotion and mood states than poetry. Jones (2005) found that clients seeking services for substance use disorders reported emotional change in a single session through the use of songwriting and lyric analysis. The results of the study indicated that negative feelings such as anxiety, regret, and guilt were decreased and positive emotions such as enjoyment and acceptance were increased as a result of the music therapy interventions.

 Songwriting. The use of songwriting as an intervention in music therapy is an opportunity for the music therapist to help the client to create music and/or lyrics as a means

of self-exploration. The song writing experience is also useful for the client in working through and resolving issues presented in therapy. With the music therapist as a facilitator, the client engages in the process of composing music and/or writing music for the experience. There are several approaches to songwriting that may be used in a music therapy setting.

In addictions treatment, songwriting may begin as a lead-in experience to a session where a lyric analysis of a pre-existing song is used to develop ideas that will be used for writing a song. Other methods that may be used in the process of songwriting according to Murphy (2008) include brainstorming (group members formulate entire lines for the song), the Cloze (a fill-in-the-blank format) procedure, and the Song Parody (using the original melody, some or all parts of the song are rewritten).

Songwriting has been used in the treatment of persons in addictions recovery as an outlet for the exploration of underlying issues in the addiction and as an outlet for self-discovery. Murphy (1983) found that the use of songwriting in music therapy in addictions counseling facilitated confronting addiction, conformity, fear, and failure. Freed (1987) found that songwriting and lyric analysis in addictions counseling increased socialization and listening skills. An increase in socialization and listening skills leads to opportunities for the giving and receiving of group member's feedback and emotional support, which have the potential for increasing self-esteem (Freed 1987).

Improvisation. In the music therapy intervention of improvisation, the music therapist helps the client to spontaneously make music using instruments and/or singing. The client decides which medium for sound will be used and also decides who will be involved in the music making (i.e. client only, therapist and client, entire group, etc.).

"The spontaneous act of improvising allows those in recovery to explore and communicate their feelings within the context of a musical container" (Murphy, 2008, p. 35). The creative process in music therapy improvisation allows the person in recovery the ability to find new paths to the transcendent self. Masking or avoiding the confrontation of emotions such as shame or grief can only inhibit the ability of a person in recovery to change. Through the process of self-exploration in music, the recovering person "increases self-awareness, taps into formerly unknown inner resources, experiences alternatives to habitual and counterproductive thought/response patterns and makes an active commitment to emotional growth and healing" (Soshensky, 2001, p. 46). The client makes an active commitment to healing and emotional growth through the formation of new paths in the process of creativity. These new paths not only tap into formerly unknown resources but also allow for self-awareness and the building of new patterns of behavior (Soshensky, 2001).

Research in the use of Music Therapy and Addictions Treatment

Music therapy and emotional change. People use drugs and/or alcohol for a variety of reasons. Emotional dysregulation, which is the inability to express or control one's emotions, is often characteristic of one who abuses substances (Blume, 2005). Moreover, it is often difficult for those who abuse drugs/alcohol to experience or identify strong emotions (Lewis, Dana, & Blevins, 2002; Tarter, 2005). Interventions used in music therapy allow not only opportunities for emotional exploration (Murphy, 1983) but also opportunities to engage affect and cognition (Wager, 1987).

Treder-Wolff (1990a) explored the use of creative process experiences in music therapy with persons in addictions recovery treatment. The author described how an addictive attitude and addictive thinking can dominate one's inner realm and in turn interfere

with one's ability to recover. These attitudes and thought patterns can be explored in a creative way through music therapy interventions. "For addicted individuals, the encounter with the self that characterizes a creative act can be painful and requires a surrender of their most deeply-defended and established forms of escape and denial" (Treder-Wolff, 1990a, p. 324).

Baker, Gleadhill, and Dingle (2007) explored the use of music therapy with a group of clients with substance use disorders for the purpose of experiencing non-drug-induced emotions. The clients in the study reported that the music therapy interventions allowed them to experience emotions without the need for substance use. The clients also reported experiencing primarily positive emotions. As a result of the study, these clinicians encouraged other clinicians to allow similar clients opportunities to explore negative emotions in the safe environment of a therapeutic setting.

Jones (2005) compared the use of song writing and lyric analysis techniques to evoke emotional change in a single session with clients with identified chemical dependence. It was found that the music therapy interventions increased feelings of enjoyment, happiness, joy and acceptance. The clients also reported that the music therapy interventions decreased feelings of guilt, regret, blame, and fear/distrust.

Participation and motivation for treatment. In a survey of 24 participants who had chemical dependence Jones (2005) found that 75% indicated that music therapy groups were "a significant tool for their recovery" (p. 102), second in ranking only to group therapy, which 92% indicated as significant. Of those who attended a single individual session, 73% found music therapy sessions as a significant tool; this increased to 77% for those attending multiple individual music therapy sessions.

Silverman (2003) found that adults attending music therapy sessions for substance abuse treatment reported that the music therapy interventions addressed treatment goals more specifically than other treatment modalities. Ross et al. (2008) found music therapy interventions to motivate persons in treatment for dual diagnoses. Adelman and Castricone (1986) proposed the use of an Expressive Arts Model in the substance abuse treatment setting because the model provided a different and non-confrontational approach to attending to resistance presented by clients.

Summary

Music therapy has been found to be successful in the treatment of persons seeking treatment for substance abuse or other types of addictions. Music therapy helps to motivate clients to be actively engaged in their treatment and recovery. This approach to treatment provides opportunities for self-exploration, creativity, and personal growth. The literature suggests that music therapy could be used in the form of a brief intervention and in the treatment of young adults in a collegiate setting for issues related to substance abuse.

The purpose of this study is to find out whether or not a single motivational interviewing informed music therapy session has impact on a college student's motivation to change current, risky, heavy drinking behavior. The researcher hypothesizes that students in the music therapy group will have more motivation to change their current drinking behavior as a result of the interventions used in the music therapy session.

CHAPTER 3

METHOD

Participants

Participants were college student drinkers, ages 18-24, recruited through a university

psychology research subject pool. Individuals were not excluded solely on the basis of

gender, race, color, or any other demographic characteristic. For this study, an age boundary

of 18-24 years of age was set to focus solely on the traditional undergraduate population. All

volunteers who registered for the study were contacted to participate. If a student indicated

on the demographic information page (see Appendix A) that his/her age was outside of the

age range (18-24) for the study his/her data were not included in the data analysis for the

study. Volunteers ($N = 45$) were randomly assigned by the researcher to either a

motivational interviewing control condition ($n = 22$) or a music therapy condition ($n = 23$).

Inclusion Criterion Measure

   Alcohol Use Disorders Identification Test (AUDIT). The AUDIT (see Appendix B)

was developed by the World Health Organization to assist in brief assessment as a simple

method of screening for excessive drinking (Babor, Higgins-Biddle, Saunders, & Monteiro,

2001). The AUDIT can be helpful in the identification of excessive drinking as the cause of a

presenting illness and it also provides a framework for intervention to help heavy drinkers

cease or reduce alcohol consumption. Several studies have reported the validity and

reliability of the AUDIT (Fleming, Barry, & MacDonald, 1991; Hays, Merz, & Nicholas,

1995; Sinclair, McRee, & Babor, 1992). The AUDIT has high internal consistency, which

suggests that the AUDIT is measuring a single construct in a reliable fashion. The test also has high test-retest reliability (r = .86) in a sample consisting of cocaine abusers, alcoholics, and hazardous drinkers (Sinclair et al., 1992). In this study, AUDIT scores were used to identify research participants whose heavy drinking met the inclusion criterion.

According to the guidelines set forth by World Health Organization (2001), an AUDIT score of 8 or higher is indicative of hazardous and harmful alcohol use. If a participant scored 8 or higher on the AUDIT measure, his/her data were included in the analysis for this study. Of the 45 students who participated in the groups for this study, 16 scored 8 or higher on the AUDIT ($n = 8$ in the control condition and $n = 8$ in the music therapy condition).

The mean age for the music therapy condition was 20.75 and 20.13 for the control condition. The mean AUDIT scores for the conditions were 10.75 (music therapy) and 12.38 (control). Of the 8 participants in the music therapy condition, 4 were male and 4 were female. In the control condition ($n = 8$), 3 participants were male and 5 participants were female. All participants in the music therapy condition indicated that they were Caucasian and those in the control condition reported the following for ethnicity: Caucasian ($n = 6$), Hispanic/Latino ($n = 1$), and Other ($n = 1$). All participants were full time, undergraduate students.

Dependent Measures

Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES). The SOCRATES (see Appendix C) assesses readiness to change in individuals who abuse alcohol (Miller & Tonigan, 1996). It is a self-report instrument designed to measure how ready a person is to change a specified behavior, in this case, how ready a student is to modify

his/her drinking behavior. This study employed Version 8 of the SOCRATES, which is comprised of 19 items derived from the original 38-40. It yields three factorially-derived scale scores: Ambivalence, Taking Steps, and Recognition, which served as dependent measures in this study. Possible scores for the Ambivalence subscale range from 4 (*low ambivalence*) to 20 (*high ambivalence*); on the Recognition subscale they range from 7 (*low recognition*) to 35 (*high recognition*); and on the Taking Steps subscale, scores range from 8 (*taking few if any steps to change*) to 20 (*actively taking steps to change*).

Procedures

Volunteers for the research study were sent an e-mail notification of the time and place they were to attend their session for the study. Sessions were held in private rooms on the university campus. The students were assigned to attend a single session at one of these two locations. The groups were conducted in cohorts of 6-8 students in each group, formed as the participants are recruited for the study.

At each session, volunteers were given information about the study. The group facilitator read aloud the informed consent information and each volunteer was asked to sign an informed consent form. After consenting to participate in the research study, the participants were asked to use a self-selected 4-digit number to label the demographic form, the AUDIT, and the SOCRATES, and to complete each of these forms. It was the participant's responsibility to remember the code they chose for the study. The researcher kept no record of any information linking participant names to participant-chosen codes.

After the data gathering portion of the session, each of the groups engaged in a brief session of either motivational interviewing-informed music therapy or verbal motivational interviewing based therapy. Session content in each of the two types of sessions was geared

toward a healthy lifestyle regarding drinking behavior. Each participant was asked to remember to use their self-selected code for the follow-up measure that would be sent to them one week following the session they attended.

Groups in both conditions began in the same way. Following a brief introduction to the study, each volunteer was asked to read and sign the informed consent form for the study. After signing the informed consent, each participant was asked to choose a code to use on the AUDIT and SOCRATES measures (and the posttest measure).

Following the data-gathering portion of the session, the motivational interviewing-informed music therapy group watched "The Beer Song" (FuggedabouditNL, n.d.) via the video projector in the room. The lyrics in the song used in this video talked about different aspects of alcohol use including social, family, and leisure uses. Various clips from episodes of the Simpsons were incorporated to highlight various aspects of drinking beer in a comical way. After the video, subjects discussed the following questions:

1. What is a benefit of alcohol use (what do you find enjoyable, what do you like)?

2. What are disadvantages of alcohol use (negative aspects, cons of alcohol use)?

3. How can you have the enjoyable and nonharmful aspects of alcohol use, without experiencing the negative aspects, if you choose to drink alcohol?

As the group members responded to the questions, the music therapist inserted responses into blanks created by omitting words from the lyrics of "With a Little Help from my Friends" by The Beatles. At the end of the discussion, the music therapist summarized the group's responses. The music therapist then passed out small percussion instruments (shakers, tambourines, buffalo drums, etc.) and asked the subjects to play along during the chorus of the song. The music therapist presented the song the group had created from the

discussion to the group members as they engaged in active music making. Participants were given instructions for completing the follow-up survey and were given an opportunity to ask questions. Those who submitted the posttest measure (a second copy of the SOCRATES) were given class credit and were compensated $10.

Following the initial data-gathering portion of the session, those in the motivational interviewing/verbal only condition explored the same questions as the music therapy group through group discussion. Following the discussion, participants were given instructions for completing the follow-up survey and were given an opportunity to ask questions. Those who submitted the posttest measure (a second copy of the SOCRATES) were given class credit and were compensated $10.

Design and Data Analysis

This study employed a randomized experimental design. Due to the small number of participants in each condition who met the inclusion criteria and violations of homogeneity of variance, Mann-Whitney U tests were used to determine if there was a difference in the change scores between the two groups (treatment vs. control) on each of the dependent measures. Due to the exploratory nature of this study, alpha for dependent variables was set at $\leq .10$.

CHAPTER 4

RESULTS

A *t*-test for independent means showed that there was no difference in age or mean

AUDIT scores between the two conditions, $t(14) = .646$, $p = .53$, and $t(15) = -1.03$, $p = .32$,

respectively.   Chi-squared analyses revealed that the participants in the two conditions did

not differ in age, academic class standing, gender, ethnic background, or treatment history

(all p's > .30).

To identify whether individuals in the study had changed in their readiness to modify

risky drinking behavior, pre-post change scores were calculated for each participant on the

subscales of the SOCRATES. Change scores were calculated by subtracting pretest scores

from posttest scores for each of the subscales. A Mann-Whitney U test was used to determine

if there was a difference in the change scores between the two groups (treatment vs. control)

on each dependent measure. Means and standard deviations by group for the three dependent

measures at pretest and posttest are given in Table 1. Mean rank, sum of ranks, results of the

Mann-Whitney U test for each of the dependent variables by group are shown in Table 2.

Ambivalence

There was no significant difference between groups at pretest in mean Ambivalence

scores (see Table 1). A Mann-Whitney U test analyzing change scores by group showed that

the two groups did not differ significantly in pretest to posttest change in Ambivalence (see

Table 2).

Table 1. *Means and Standard Deviations for SOCRATES Subscale Scores by Group at Pretest and Posttest*

	Pretest		Posttest	
Variable	*M*	*SD*	*M*	*SD*
Ambivalence				
Music Therapy	6.75	3.41	6.50	3.63
Control	8.63	4.00	8.00	2.67
Taking Steps				
Music Therapy	16.88	5.49	18.13	7.86
Control	19.38	9.53	21.88	11.28
Recognition				
Music Therapy	10.13	3.52	11.38	5.53
Control	13.00	5.58	11.63	3.66

Table 2. *Mean Rank and Sum of Ranks for SOCRATES Subscale Change Scores by Group*

	Music Therapy		Control			
Variable	Mean rank	$\sum$ ranks	Mean rank	$\sum$ ranks	*U*	*p*
Ambivalence	8.19	65.50	8.81	70.50	29.50	n.s.
Taking Steps	7.69	61.50	9.31	74.50	25.50	n.s.
Recognition	10.56	84.50	6.44	51.50	15.50	.08

Taking Steps

There was no significant difference between groups at pretest in mean Taking Steps scores (see Table 1). A Mann-Whitney U test analyzing change scores by group showed that the two groups did not differ significantly in pretest to posttest change in Taking Steps (see Table 2).

Recognition

There was no significant difference between groups at pretest in mean Recognition scores (see Table 1). A Mann-Whitney U test analyzing change scores by group showed that the two groups differed significantly in pretest to posttest change in Recognition Scores and an examination of the mean ranks reported in Table 1 for Recognition change scores revealed that the participants in the music therapy group were more likely to report increased recognition of the need to change than those in the control group (see Figure 1).
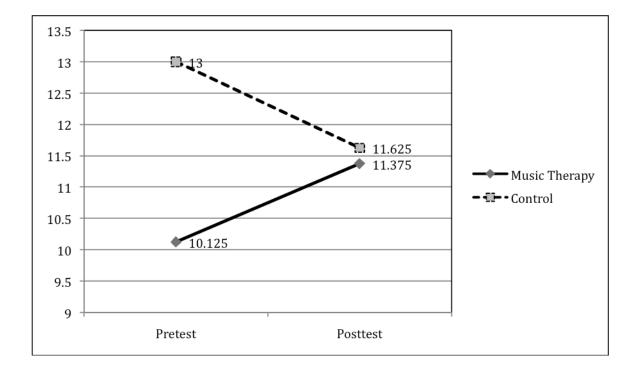

Figure 1. Mean Recognition subscale scores of the SOCRATES by group

CHAPTER 5

DISCUSSION

The present study assessed the impact of a single session of music therapy informed by motivational interviewing on an individual's readiness to change risky drinking behavior compared to a verbal motivational interviewing session. Consistent with the hypothesis, those in the music therapy group were more likely to report increased recognition of the need to change risky drinking behavior than those in the control. However, the music therapy participants did not show a difference in ambivalence toward change or in actually taking steps toward change.

Participants in the current study were not screened for risky drinking behavior prior to engaging in the single session for the study. This meant that the smaller groups conducted throughout the study contained students who did and students who did not consume alcohol. In a similar study conducted by Michael et al. (2006), college students were screened for risky drinking behavior during a pre-treatment session and then those who met the criteria were randomly assigned to one of two treatment conditions. Since the participants in the study only attended one session, there was not an opportunity to screen participants for risky drinking behavior prior to attending the single session. A self-selected coding system was used in this study to protect participant identity, should he/she have reported underage drinking. It is possible that the outcome of the experimental conditions in this study would have been different had all the participants in the groups been risky drinkers. It is also possible that responses given during the sessions were influenced by whether or not the

individual engaging in the group discussion was a drinker or a non-drinker. The presence of non-drinkers may have influenced the discussion and the outcome for drinkers.

The findings from this study indicated that the recognition scores for those in the music therapy group increased as a result of the use of music therapy as a brief intervention. The lyrics were created by the group during the decisional balance discussion, in which the group explored how to have the positive aspects of alcohol use without experiencing the negative aspects. These lyrics may have influenced those with risky drinking behavior to think about current patterns of alcohol use during the week following the session.

It is also possible that the scores for the groups were influenced by the fact that one individual conducted the sessions for the music therapy group and another individual conducted the sessions for the control group. It is possible that different components outside of the decisional balance discussion were conducted in either of the sessions, and this could have impacted participant scores at posttest.

Another component that was used during the music therapy sessions and not used in the control groups was the initial experience following the data-gathering portion of the session. At the beginning of each session conducted for the music therapy groups, the music therapist asked the group to watch "The Beer Song – Homer Simpson Style" (FuggedabouditNL, n.d.). The lyrics in the song used in this video talked about different aspects of alcohol use including social, family, and leisure uses. Various clips from episodes of the Simpsons were used throughout the video to follow the lyrics that were used. This video served as an "ice breaker," and it also provided useful information for the discussion that followed the video. The groups generally enjoyed the video, and during some groups, the participants incorporated some of the content of the video in the discussion. This researcher

would use this video in future groups and would recommend the video to other group facilitators for use during sessions that address alcohol use.

The advantages of having the music therapy experiences used in this study be informed by motivational interviewing were that the experiences were more structured than they might have been in a general music therapy session setting when addressing alcohol use and abuse. The decisional balance discussion provided an excellent source of structure for the songwriting experience, and the song reflected elements of the discussion. The only disadvantage of the music therapy experiences being informed by motivational interviewing was that the session content needed to follow the structure of the decisional balance experience, and this did not always allow flexibility in the moment to explore thoughts, feelings, and/or emotions that may have been present related to aspects of alcohol use during the discussion.

Compared to similar studies exploring the use of motivational interviewing with college student drinkers as a brief intervention, the results of this study were similar (Barnett, Tevyaw, & Fromme, et al., 2004; Borsari & Carey, 2003, 2005; Fromme. & Corbin, 2004; Keillor, Perkins, & Horan, 1999; LaChance, H., 2004; Michael et al. (2006). Silverman (2003) suggested that music therapy is effective in addictions counseling in part because it is "less threatening and intrusive than traditional therapies" (p. 274). The information presented during the music therapy informed by motivational interviewing session might have been presented to the participants in the study in a different manner than they might have previously experienced.

The present study suggested even though those in the music therapy group were more likely to report increased recognition of the need to change risky drinking behavior than

those in the control, those in the music therapy group was not different from the control group in ambivalence toward change or in actually taking steps toward change.

The present study could be made stronger in a variety of ways; modifying the study design to include only those who meet the criteria for risky drinking prior to attending a treatment session might increase the strength of the present study. The sample would have been more homogeneous and the cohorts in the sessions would have had drinking as something in common. Also, allowing more time for the session might increase the strength of the present study. A session of at least an hour to an hour and 15 minutes instead of 45 – 50 minutes would have allowed time for participants to further explore thoughts, feelings, or emotions that may develop during the session.

Recommendations for Future Research

The author offers several recommendations to future researchers conducting similar studies. First, researchers are advised to use a screening measure prior to treatment sessions to ensure cohorts of risky drinkers. While this would increase the risk to participants in states where the drinking age is 21, more homogeneous groups might influence the discussion that happens during the session and might also influence the outcome of those who engage in a session with others who are also risky drinkers.

Second, incentives for participation should be offered to encourage completion of follow-up measures. In the present study, each participant was granted class research participation credit and $10.00 cash when he/she submitted the follow-up measure. Even though most needed prompting to submit the follow-up measure, it is possible that the double incentive encouraged the participants to submit the follow-up measure.

Future studies similar to the present study should also allow those who meet the criteria for risky drinking more time in the session that they attend or multiple sessions for exploration of the subject matter. More time in the session would allow for more ways to explore current and ideal drinking, and might influence increased recognition of risky drinking behavior, decreased ambivalence about that behavior, and might result in participants reporting that they are taking more steps to modify risky drinking behavior.

Conclusion

This study represents one of the few studies that explored the use of music therapy experiences with the college student population. Several studies prior to the present study indicated that components of Motivational Interviewing had been beneficial for influencing behavior modification for college students who indicated that they were risky drinkers. The participants in the present study who participated in the music therapy groups indicated that the use of music therapy informed by Motivational Interviewing increased recognition of risky drinking.

Still, an important question must be addressed. If those who recognized risky patterns of drinking do not modify those drinking patterns, was the treatment useful? Further studies that explore the use of music therapy with college student drinkers are warranted to determine whether or not this type of treatment option would prove beneficial in this setting. Music therapy informed by Motivational Interviewing provided a non-confrontational and creative approach to addressing a very serious issue in college societies across our nation.

The music made in these sessions allowed participants a creative opportunity for self-exploration and insight into patterns of behavior that could potentially harm themselves or others. The creative acts of songwriting, lyric analysis, and active music making that were

utilized in these sessions provided an outlet for college students to interact with one another

in a safe and creative space to discuss issues related to risky drinking. Music therapy

experiences in the present study allowed participants to explore their own values, thoughts,

feelings, and beliefs about alcohol use in an effort to encourage transformation and change.

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APPENDICES

APPENDIX A

Demographic Questionnaire

Participant Number_____

Data Sheet and
Alcohol Use Disorders Identification Test (AUDIT)

Age:_____   Sex: ○ Male   ○ Female   Residence: ○ On-campus
○ Off-campus

Ethnic/Racial Group:
○ American Indian or Alaska Native   ○ Hispanic or Latino   ○ Asian
    ○ White
○ Black or African American   ○ Native Hawaiian or Pacific Islander   ○
Other

I am currently a:
○ Full-time student   ○ Part-time student

Current class standing:
○ Freshman   ○ Sophomore   ○ Junior   ○ Senior

At any time in your life, has a member of your immediate family (i.e. mother, father, sister, brother) ever been an alcoholic or a problem drinker? ○ Yes
    ○ No

Alcohol Treatment History: *(check all that apply)*
    ○ I am currently being treated for an alcohol problem
    ○ I was treated in the past for an alcohol problem
    ○ I have never been treated for an alcohol problem

Other Treatment History: *(check all that apply)*
    I have received treatment for:
        ○ Anxiety Disorder/Post-Traumatic Stress Disorder   ○ Bipolar
Disorder
        ○ Drug Abuse   ○ Depression   ○
Schizophrenia
        ○ None of the above

In the past 12 months, have you driven when you've had perhaps too much to drink?
○ Yes   ○ No

APPENDIX B

Alcohol Use Disorders Identification Test (AUDIT)

AUDIT

____**1. How often do you have a drink containing alcohol?**   (days a week)

○ Never   ○ Monthly or less   ○ 2 to 4 times a month   ○ 2   ○ 3   ○ 4   ○ 5   ○ 6   ○ 7

____**2. How many drinks* containing alcohol do you have on a typical day when you are drinking?** *A standard drink is one 12-oz. bottle of beer or wine cooler, one 5-oz. glass of wine, or 1.5 oz. liquor.*
　　○ None   ○ 1   ○ 2   ○ 3   ○ 4   ○ 5   ○ 6   ○ 7   ○ 8   ○ 9   ○ 10 ○ 11 ○ 12+

____**3.**   **For women: How often do you have <u>4 or more</u> drinks a day?**
　　　　For men: How often do you have <u>5 or more</u> drinks a day?

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____4. **How often during the last year have you found that you were not able to stop drinking once you started?**

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____**5. How often during the last year have you failed to do what was normally expected from you because of your drinking?**

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____**6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?**

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____**7. How often during the last year have you had a feeling of guilt or remorse after drinking?**

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____**8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?**

　　○ Never   ○ Less than monthly   ○ Monthly   ○ Weekly   ○ Daily or almost daily

____**9. Have you or has someone else been injured as a result of your drinking?**

　　○ No   ○ Yes, but not in the last year   ○ Yes, during the last year

____**10. Has a relative or a friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?**

　　○ No   ○ Yes, but not in the last year   ○ Yes, during the last year

APPENDIX C

Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)

Participant Number_____

Personal Drinking Questionnaire
(SOCRATES Version 8A)

INSTRUCTIONS: Please read the following statements carefully. Each one describes a way that you might (or might not) feel about your drinking. For each statement, circle one number from 1 to 5, to indicate how much you agree or disagree with it right now.

Please circle one and only one number for every statement.

	No! *Strongly Disagree*	No *Disagree*	? *Undecided or Unsure*	Yes *Agree*	YES! *Strongly Agree*
1. I really want to make changes in my drinking.	1	2	3	4	5
2. Sometimes I wonder if I am an alcoholic.	1	2	3	4	5
3. If I don't change my drinking soon, my problems are going to get worse.	1	2	3	4	5
4. I have already started making some changes in my drinking.	1	2	3	4	5
5. I was drinking too much at one time, but I've managed to change my drinking.	1	2	3	4	5
6. Sometimes I wonder if my drinking is hurting other people.	1	2	3	4	5
7. I am a problem drinker.	1	2	3	4	5
8. I'm not just thinking about changing my drinking, I'm already doing something about it.	1	2	3	4	5
9. I have already changed my drinking, and I am looking for ways to keep from slipping back to my old pattern.	1	2	3	4	5
10. I have serious problems with drinking.	1	2	3	4	5
11. Sometimes I wonder if I am in control of my drinking.	1	2	3	4	5
12. My drinking is causing a lot of harm.	1	2	3	4	5
13. I am actively doing things now to cut down or stop drinking.	1	2	3	4	5
14. I want help to keep from going back to the drinking problems that I had before.	1	2	3	4	5
15. I know that I have a drinking problem.	1	2	3	4	5
16. There are times when I wonder if I drink too much.	1	2	3	4	5
17. I am an alcoholic.	1	2	3	4	5
18. I am working hard to change my drinking.	1	2	3	4	5
19. I have made some changes in my drinking, and I want some help to keep from going back to the way I used to drink.	1	2	3	4	5

BIOGRAPHICAL SKETCH

Jessica Joan Pearson Cloud was born in Hickory, North Carolina, on March 31, 1982. She attended elementary schools in Granite Falls, North Carolina, and graduated from South Caldwell High School in June 2000. The following autumn, she entered Appalachian State University to study French Education. She was awarded a Bachelor of Science in French Education (K-12) with a minor in music in May 2004. The following autumn, she returned to Appalachian State University to study Music Therapy. Following her coursework for the degree, she was an intern in Music Therapy at Broughton State Hospital in Morganton, North Carolina in the Spring of 2007. In May 2007, she was awarded the degree of Bachelor of Music in Music Therapy. For the next year, she worked as a music therapist at Piedmont Geriatric Hospital in Burkeville, Virginia. In August of 2008, Jessica returned to Appalachian State University and began study toward a Master of Music Therapy Degree, which she completed in May 2010.

Mrs. Cloud is a member of Pi Kappa Lambda. Her home address is 142 Hawthorne Lane, Boone, North Carolina. She is married to Christopher Andrew Cloud. Her parents are Gary and Sheila Pearson of Granite Falls, North Carolina.