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The Effect of Single- Session Psychoeducational Music Therapy on Response Frequency and Type, Satisfaction with Life, Knowledge of Illness, and Treatment Perceptions in Psychiatric Patients

Michael Joseph Silverman



THE FLORIDA STATE UNIVERSITY

COLLEGE OF MUSIC

THE EFFECT OF SINGLE-SESSION PSYCHOEDUCATIONAL MUSIC THERAPY
ON RESPONSE FREQUENCY AND TYPE, SATISFACTION WITH LIFE,
KNOWLEDGE OF ILLNESS, AND TREATMENT PERCEPTIONS
IN PSYCHIATRIC PATIENTS

By

MICHAEL JOSEPH SILVERMAN

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The members of the Committee approve the dissertation of Michael J. Silverman
defended on March 22, 2007.

Jayne Standley
Professor Directing Dissertation

Bruce Holzman
Outside Committee Member

Clifford Madsen
Committee Member

John Geringer
Committee Member

Approved:

Don Gibson, Dean, College of Music

The Office of Graduate Studies has verified and approved the above named committee
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ABSTRACT

The purpose of this study was to compare group-based psychoeducational music therapy to psychoeducation in measures of satisfaction with life, knowledge of illness, treatment perceptions, and response frequency and type in psychiatric inpatients during a randomized and controlled clinical trial. Participants ($N = 105$) took part in a single session controlled by treatment manuals and facilitated by a Board-Certified music therapist. No significant differences were found between groups in measures of participant perceived helpfulness or enjoyment but there was a tendency for the music therapy group to have slightly higher means than the control group. Although not significant, the music therapy group had higher mean satisfaction with life and psychoeducational knowledge scores than the control group, indicating music therapy was more effective than psychoeducation in these measures. There were no significant differences between groups for the number of therapist questions and validations as measured by a trained observer. However, almost 11 more questions and validations were made by the therapist during the music therapy sessions. Although not significant, there were almost 20 more participant verbalizations per session during the music therapy conditions. Additionally, many of these verbalizations were categorized as self statements and cognitive insights, indicating participants in the music therapy condition were talking more about themselves and their unique situations. Congruent with this finding, during the music therapy condition, the ratios of participant self statements to therapist questions and participant cognitive insights to therapist questions were higher than in the control condition. Although not significant, the music therapy group had slightly higher social functioning means than the psychoeducational control group as measured by a rater blind to conditions at one-day follow-up. Significant correlations were found between participants' perceptions of helpfulness, enjoyment, and comfort and the total number of verbalizations they made during the session. Analyses by condition revealed no significant correlations between perceptions of helpfulness, enjoyment, or comfort and total verbal participation for the music therapy group. However, these measures were significantly correlated for the control group, indicating for higher perceived levels of helpfulness, enjoyment, and comfort the control condition had to verbally participate. The

music therapy group, however, did not have to verbally participate to have high perceptions of these variables. Significant correlations were also found between satisfaction with life and the total number of participant verbalizations but not between psychoeducational knowledge and total number of verbalizations, indicating that although not verbally active within the session, participants still learned the psychoeducational material. This was the first randomized and controlled psychiatric music therapy study using treatment manuals to control independent variables that quantitatively measured therapist and patient verbalizations and employed follow-up data measured by a rater blind to conditions. From the results of this study, it seems that music therapy can be effectively used in a psychoeducational context. Implications for psychoeducational music therapy and suggestions for future research are made.

INTRODUCTION

Throughout time, mental illness has been an enormous social problem demanding the attention of researchers, clinicians, policy makers, and society. Although there have been tremendous advancements in pharmacological and psychosocial treatments in the last 50 years, people with mental disorders still face a multitude of tribulations. Many of these persons have a poor quality of life due to their symptoms, remain isolated, or are institutionalized in hospitals or prisons. Other psychiatric consumers may commit suicide or homicide due to the severity of the symptoms they experience. Improvements in medications and psychosocial treatments have allowed some persons with mental illnesses to live productive lives in the community rather than being institutionalized in hospitals or being incarcerated by the legal system.

People with mental disorders put a tremendous strain on society. Treatment for psychiatric consumers is incredibly expensive (Gadit, 2004) as inpatient facilities operate 24 hours/day and are staffed by psychiatrists, psychologists, pharmacists, nurses, social workers, therapists, administrators, and functional staff. Often, these people are uninsured, forcing society and government to provide payment of services. Additionally, even when psychiatric patients do receive treatment, it is often inadequate (Katz, Kessler, Lin, & Wells, 1998; Murray & Lopez, 1996; Wang, Berglund, & Kessler, 2000; Young, Klap, Sherburne, & Wells, 2001). Public health interventions for psychiatric consumers in the United States are underdeveloped (Wells, Miranda, Bruce, Alegria, & Wallerstein, 2004). Due to the lack of treatment or poor treatment, hospital recidivism is frequent and mental health treatment costs remain high (Langdon, Yaguez, & Hope, 2001; Rabinowitz, Mark, Popper, & Slyuzberg, 1995). Today, psychiatric consumers are often trapped in what is commonly referred to as the 'revolving door' pattern of multiple hospitalizations (Gadit, 2004).

One of the goals of recidivism prevention is to provide an educational component that informs consumers of their illness and how to manage it. Psychoeducational programming is popular and supported by numerous randomized and controlled clinical investigations quantitatively documenting its effectiveness (Colom & Vieta, 2004; Cuijpers, 1998; Mueser et al., 2002; Munoz et al., 1995; Wells et al., 2000). Additionally,

due to current constraints of the mental health system, psychiatric consumers often are only hospitalized for a few days and thus receive brief forms of therapy (Black & Winokur, 1988; Wells & Phelps, 1990; Winston & Winston, 2002). This treatment typically involves psychoeducational curricula as policy makers have identified the need for patients to become educated about their conditions to avoid relapse (Lukens & McFarlane, 2004; President's New Freedom Commission on Mental Health, 2003). Although these services are supported by empirical investigations, additional studies evaluating dependent measures such as quality of life (Naber & Vita, 2004), psychoeducational knowledge, perceptions of treatment (National Association of State Mental Health Program Directors, 1989), and therapist and participant verbalizations are warranted to improve and refine treatments for psychiatric consumers.

Music therapy is an established healthcare profession using music to address emotional, social, and cognitive needs for people of all ages (American Music Therapy Association, 2005). Due to its flexibility and unique medium, it is an intervention commonly used with psychiatric consumers. Additionally, it can be an effective way to educate patients concerning their illness. Today, many psychiatric music therapists address psychoeducational goals in their clinical practice (Silverman, 2006a). Research in psychiatric music therapy has found music therapy can increase peer acceptance and group cohesiveness (Cassity, 1976), increase self-rated relaxation, mood, and insight (Thaut, 1989), and reduce the symptoms of psychosis (Silverman, 2003b). Studies have also suggested psychiatric patients favor music therapy interventions over other forms of psychosocial treatment (Heaney, 1992; Silverman, 2006c).

As research results are used to determine best practice in contemporary psychiatric treatment, researchers must incorporate the gold standard of scientific investigation into their designs. Thus, they apply randomized and controlled designs to demonstrate the effectiveness of the independent variable they are assessing (Leichsenring, Rabung, & Leibing, 2004; Tarrier & Wykes, 2004; Thyer, 1997). Additionally, using raters blind to condition to objectively measure aspects of psychiatric consumers' behavior or functioning is an important—yet often overlooked—aspect of high quality clinical research (Silverman, 2005). Additionally, the duration of treatment

effect is another consideration imperative to psychosocial treatment research to differentiate short-term and long-term changes (Chambless & Ollendick, 2001).

Thus, as randomized and controlled trials represent best practice in clinical research and no published studies have quantitatively evaluated psychoeducational music therapy, this study represents an attempt to research the effects of a single session of psychoeducational music therapy on psychiatric patients' perceptions of treatment, psychoeducational knowledge, satisfaction with life, and verbalizations. This study also represents a randomized and controlled clinical trial using a rater blind to conditions to objectively measure social functioning levels a day after treatment conditions.

CHAPTER 1

REVIEW OF LITERATURE

Mental Health as a Social Problem

Mental illness is a solemn and, unfortunately, a widespread social dilemma. Each year, approximately one in four adults has a diagnosable mental disorder (Kessler, Chiu, Demler, & Walters, 2005). When these statistics are applied to the 2004 United States Census residential population estimate for people ages 18 and older, it equates to approximately 57.7 million people (National Institute of Mental Health, 2006). However, the majority of the mental illness crisis afflicts six percent of the population who are diagnosed with a serious mental illness (Kessler, Chiu, Demler, & Walters, 2005). These disorders are not only common in the United States, but occur frequently in other countries. Furthermore, it is not uncommon for a person to be diagnosed with more than one mental disorder at a given time: approximately 45 percent of persons afflicted with a mental disorder meet criteria for two or more disorders (Kessler, Chiu, Demler, & Walters, 2005). Typically, the severity of the disorder is strongly related to comorbidity. As a result, comorbidity can obscure diagnoses and psychiatric and psychological treatments can be further complicated and longer in duration.

Approximately 2.4 million American adults, or 1.1 percent of the population aged 18 or older, have schizophrenia (Regier et al., 1993). Another 20.9 million American adults who are age 18 and older have a mood disorder (Kessler, Chiu, Demler, & Walters, 2005). Of the mood disorders, bipolar disorder, commonly referred to as manic depression, affects approximately 5.7 million American adults ages 18 and older each year (Kessler, Chiu, Demler, & Walters, 2005). Bipolar spectrum disorders can affect up to eight percent of the population (Angst, 1998). Major depressive disorder affects roughly 15 million American adults each year (Kessler, Chiu, Demler, & Walters, 2005) and is more common in women than in men (Kessler et al., 2003). Depressive disorders typically co-occur with anxiety disorders and substance abuse (Kessler, Berglund, Demler, Jin, & Walters, 2005), complicating diagnosis and thus, appropriate and effective

treatment methodologies. Although research has indicated that depressive disorders are both major sources of personal distress and social disability (Ormel et al., 1994), all serious mental illnesses cause a tremendous amount of stress, disability, and are a societal crisis that humanity is forced to address.

Persons with mental disorders face a milieu of social, emotional, and financial problems. Often, suicide is the result of the depression and complicated emotional and behavioral problems experienced by people with mental illnesses. In 2002, approximately 11 out of every 100,000 people successfully committed suicide in the United States (Kochanek, Murphy, Anderson, & Scott, 2004). More than 90 percent of these persons had a diagnosable mental disorder (Conwell & Brent, 1995). Although more men die via suicide than women, women attempt it two to three times as often (Weissman et al., 1999). Researchers have specifically noted the high suicide rates in the depression phase of bipolar disorder and the need for timely intervention (Vieta, 2003).

Thus, mental illness is a prevalent problem that society must confront. If untreated, enormous consequences, such as suicide, homicide, and quality of life concerns, may occur.

Mental Health Economic Implications

Unfortunately, due to the complexities and seriousness of mental health treatment, care for psychiatric consumers is extremely expensive (Gadit, 2004). As mental health institutions employ psychiatrists, psychologists, nurses, pharmacists, social workers, therapists, and unit staff, operating costs are typically very high. Many of these institutions are inpatient facilities and thus operate 24 hours/day, providing comprehensive around the clock care for patients but increasing costs substantially.

Both the costs and the burden of mental illness on productivity and health throughout the world have been underestimated for a number of years. As the prevalence of psychiatric disorders is so outsized, it inflicts a huge predicament upon society (Kessler et al., 1994): mental illness is responsible for over 15 percent of the burden of disease in countries that have established market economies, a statistic greater than the disease burden caused by all types of cancer (Murray & Lopez, 1996). Mental disorders are the leading cause of disability for people ages 15-44 in the United States and Canada

while, specifically, major depressive disorder is the leading cause of disability for this group of people (World Health Organization, 2004).

Social Security Disability Income and Supplemental Security Income are financially responsible for funding a large part of mental health care treatment. Each year, approximately 48 million people receive Social Security Disability Income and Supplemental Security Income at a cost of over \$100 billion (Marini & Reid, 2001). Persons diagnosed with a psychiatric disability account for 26 percent of these 48 million people and encompass the single largest diagnostic category of beneficiaries. Additionally, persons with severe mental illnesses are the primary diagnosis category for 10-20 percent of claims in the disability insurance industry, costing \$150 billion each year (Wagner, Danczyk-Hawley, & Reid, 2000).

Concerning specific types of mental illnesses and the costs associated with them, it is interesting to note that a research study indicated that bipolar disorder alone costs the United States \$38 billion annually (Wyatt & Henter, 1995). The authors found that of this total, \$17 billion was a result of diminished or lost productivity while \$8 billion was an end result of lost human assets linked with suicide. Since the data for this scientific investigation were collected in 1991, but the article was not published until 1995, it is probable that these costs have substantially increased.

Aside from high costs of mental illness, there are serious clinical risks associated with delayed treatment for persons with psychiatric illnesses (Kelly, Dunbar, Gray, & O'Reilly, 2002). Prolonged individual suffering, legal problems, increased morbidity, increased self-destructive behavior, and physical assaults are some of the consequences of delayed psychiatric treatment (Whitty & Devitt, 2005). Additionally, financial costs associated with mental health treatment lead to increased health care costs for all people, regardless of diagnosis (Rice & Miller, 1998; Simon, Ormel, von Korff, & Barlow, 1995). Thus, the costs of mental health treatment are incredibly expensive but are outweighed by the costs of treatment absence or delay. Although personal suffering and potential harm or loss of life cannot be easily measured quantitatively, they are important and should not be ignored.

Psychiatric Treatments

Psychotropic Medication

Current psychiatric clinical practices are under the auspices of the medical model of treatment. Even with the advent of atypical antipsychotic medication and other advances in pharmacological treatment, there are still many psychiatric consumers who find little to no benefit from traditional medications. Additionally, a meta-analysis noted that the effectiveness of newer antipsychotic medications is less than previously thought: The meta-analysis of 12,649 patients in 52 randomized and controlled trials found no evidence that atypical antipsychotic medications are better tolerated or more effective than conventional antipsychotic medication (Geddes, Freemantle, Harrison, & Bebbington, 2000). Twenty to forty percent of people with schizophrenia get little or no relief from antipsychotic medication (Tamminga, 1997) and approximately 30 percent of patients with schizophrenia still experience psychotic symptoms even though they are taking their prescribed anti-psychotic medications (Kane, 1996). Research conducted in the 1970s and 1980s reported similar results, thus questioning whether newer medications are more effective than conventional psychotropics (Curson et al., 1985; Harrow & Silverstein, 1977; Silverstein & Harrow, 1978).

Side effects are a huge problem in psychiatric treatment: when medications may be effective for psychiatric symptoms, their side effects may be problematical in contemporary psychiatric treatment (Alloy, Jacobson, & Acocella, 1999). Psychotropic medications can reduce psychiatric consumers to a 'zombie-like' state, especially when they first begin taking them as their bodies typically require a period of time to adapt to the new chemicals. Other possible side effects include constipation, dry mouth, muscle rigidity, tremors, nausea, and blurred vision. However, the worst side effect is tardive dyskinesia, a muscle disorder causing uncontrollable grimacing and lip smacking. Unfortunately, it is not treatable by other types of drugs as most other side effects are. Twenty to thirty percent of individuals on antipsychotic medication are estimated to have tardive dyskinesia (Gelenberg, 1991). Another often overlooked problem concerning medications is that they do not contribute to the development of skills and knowledge necessary for a psychiatric consumer's successful transition back into the community

(Lieberman, 1994). Although they may suppress the symptoms of the illness, medications do not prepare individuals to function in society. Thus, psychosocial components are considered integral in the comprehensive treatment milieu for persons with mental illnesses.

When comparing treatment modalities for psychiatric consumers, various data suggest that the public opinion tends to favor psychological treatments when compared to pharmacological treatments (Eccles, Freemantle, & Mason, 1999; Frank, 1998; Paykel, Hart, & Priest, 1998). These diverse psychosocial interventions are now recognized as a critical component of a comprehensive treatment approach (Department of Health, NHS Executive, 1999). Congruent with the favoritism of psychological treatments, a large ($N = 5015$) descriptive survey study in Germany found that psychotherapy is the public's preferred treatment for mental disorders while only a minority of participants noted psychotropic drugs as a first choice treatment (Riedel-Heller, Matschinger, & Angermeyer, 2005). These data may also suggest that the majority of the public still does not adequately recognize and understand the severity of mental illness as evidenced by the public's obvious skepticism of pharmacological treatments. Thus, although the medical model currently dictates practice, psychosocial interventions are an important component in the comprehensive treatment regimen of psychiatric consumers.

Medication Noncompliance

Although non-adherence has been reported in nearly every division of medicine, it is consistently one of the greatest challenges in treating persons with mental illnesses. The consequences of non-adherence can often lead to suicide or homicide, homelessness, and a pattern of multiple rehospitalizations (Corrigan, Lieberman, & Engel, 1990; Meichenbaum & Turk, 1987). Despite advances in research and technology, authors have noted that psychiatric consumers' reliable compliance with prescribed neuroleptic medications is often more the exception than the rule (Kane, 1983; Van Putten, 1974). Non-adherence rates can range from 20-50 percent for all psychiatric patient groups and is especially a problem in the treatment of schizophrenia (Fenton, Blyler, & Heinsen, 1997). In fact, as many as 70-80 percent of patients diagnosed with schizophrenia are non-adherent to their prescribed treatment regimen (Breen & Thornhill, 1998). Other data

indicate that 25 to 64 percent of consumers with bipolar disorder do not fully comply with their medication treatment (Maarbjerg, Aagaard, & Vestergaard, 1988). Additionally, 30-97 percent of patients with unipolar affective disorders are non-compliant (Pampallona, Bollini, Tibadli, Kupelnick, & Munizza, 2002). Meta-analyses in the unipolar field have reported that dropout rates of antidepressants are close to 30 percent regardless of specific type of medication (Anderson, 1998; Steffens, Krishnan, & Helms, 1997). Researchers have also estimated that 75 percent of inpatients in a first episode (Corrigan, Liberman, & Engel, 1990) and stabilized outpatients (Kissling, 1992) treated with standard medications will be noncompliant. Unfortunately, compliance rates for standard medication are congruent with those of atypical medications, producing similar results concerning medication non-adherence (Ratakonda, Miller, Gorman, & Sharif, 1997).

Although noncompliance is typically consistent despite medications or diagnoses, there is a tremendous amount of variance concerning data within noncompliance studies. The markedly large range of non-adherence rates is most likely due to discrepancies in various definitions used in studies and measurement (Colom & Vieta, 2002; Dolder, Lacro, Dunn, & Jeste, 2002). Furthermore, non-adherence can also refer to a lack of compliance concerning psychosocial interventions such as missing appointments, not following therapist's directions, or not applying appropriate coping skills during times of heightened stress.

Non-adherence has many dangerous and costly consequences. Psychiatric treatment noncompliance may be associated with increased social, economic, and clinical costs and is closely related to rehospitalization, relapse, and poor outcome in patients with severe mental illnesses (Delaney, 1998). For patients diagnosed with bipolar disorder who were classified as irregular users of the medication, the average length of hospitalization was 37 days compared to four days of regular users (Svarstad, Shireman, & Sweeney, 2001). This mammoth discrepancy in hospitalization duration is evident in both financial and quality of life measures as the resulting differences in hospitalization costs are extreme: \$9701 for irregular users versus \$1657 for regular users. Regular lithium treatment, the gold-standard and frequently prescribed mood-stabilizing medication for bipolar disorder, has been estimated to save approximately \$8 billion/year

(Wyatt, Henter, & Jamison, 2001). In fact, treatment non-compliance is such a serious problem that legal coercion is sometimes used to encourage consumers to participate in their mental health treatment, even despite a lack of empirical evidence for this controversial methodology (Watson, Corrigan, & Angell, 2005). Additionally, non-adherence and its resultants are such a social dilemma that an article was written concerning the advantages and disadvantages of knowingly concealing medications in food or drink, known as surreptitious prescribing, with patients diagnosed with schizophrenia (Whitty & Devitt, 2005). This article highlighted the pros and cons of surreptitious prescribing while noting the many ethical questions this form of treatment may bring about. However, it should be noted that, although financial costs resulting from non-compliance are high and typically easier to objectively quantify, personal consequences and quality of life issues for persons with mental illnesses are just as important and should not be overlooked due to lack of objective empirical quantitative data.

Researchers have noted non-adherence can be especially common in the treatment and management of mood and psychotic disorders as there typically is a lack of insight that tends to accompany such diseases (Colom, Veita, Tacchi, Sanchez-Moreno, & Scott, 2005; Vieta, 2005). Such lack insight may preclude a perceived need for long-term treatment (Ghaemi & Rosenquist, 2004; Peralta & Cuesta, 1998). Decision making is often compromised in psychiatric consumers due to impaired cognitive functioning levels and this contributes to non-adherence (Colom, Vieta, Tacchi, Sanchez-Moreno, & Scott, 2005). Research suggests that psychiatric consumers diagnosed with bipolar disorder have a preponderance of irrational fears responsible for the bulk of preoccupations with medication (Morselli & Elgie, 2003). Additionally, some non-adherent patients have noted that taking medication is “slavery.” They fear dependence and may consider it unnatural (Colom, Vieta, Tacchi, Sanchez-Moreno, & Scott, 2005). Patients with bipolar disorder who are psychotic can be more prone to medication non-adherence than patients who are not psychotic (Miklowitz, 1992). Again, researchers have suggested that this may be related to cognitive impairment resulting from psychosis (Martinez-Aran et al., 2004). Other factors contributing to pharmacological non-adherence may include social

stigma, myths (Kleindienst & Greil, 2004), and the opinions of significant others (Cochran & Gitlin, 1988).

Although side effects have been identified as the most common reason for medication withdrawal (Weiss et al., 1998), other research has not replicated this finding (Scott & Pope, 2002). In a descriptive study, psychiatric consumers diagnosed with schizophrenia were asked about their subjective reasons for medication compliance or non-compliance (Loffler, Kilian, Toumi, & Angermeyer, 2003). Participants noted that the main reason they were compliant with their neuroleptic treatment was the perceived benefit. Using correlation techniques, the researchers found a positive relationship between medication compliance and positive attitudes of the therapist and patients' significant others concerning pharmacological treatment. This study noted that side effects were the main reason consumers were not compliant with their medications. The researchers found that other reasons for noncompliance were the lack of insight into the disease and a lack of acceptance of the necessity of neuroleptic treatment. Furthermore, the authors found that there were no significant differences concerning compliance between participants who received conventional versus second-generation antipsychotic medications.

One possible solution to the problem of treatment non-compliance is cognitive behavior therapy, also commonly referred to as cognitive therapy. This treatment modality focuses on altering patients' thoughts, behaviors, and emotions as these three components are believed to be inter-related. A randomized and controlled study of four to six sessions of cognitive behavioral therapy proved effective with patients with psychosis (Kemp, Hayward, Applewhaite, Everitt, & David, 1996). The researchers found statistically significant differences between groups in dependent measures of compliance with treatment, attitudes toward drug treatment, and insight into illness. A similar study assessed 74 patients with psychotic disorders. Results concerning attitudes toward treatment and compliance were maintained at 18 month follow-up (Kemp, Kirov, Everitt, Hayward, & David, 1998).

Thus, treatment compliance has continued to be a major problem in the treatment of psychiatric consumers. Despite advances in drugs and treatment modalities, psychiatric patients discontinue or do not adequately maintain medication regimens leading to

frequent episodes of relapse and hospitalization. Forcing compliance is both legally and ethically complex. Therefore, mental health treatment can be very ineffective.

Current Problems in Psychiatric Care

Although psychiatric illnesses are among the leading causes of morbidity in society, such consumers diagnosed with these disorders are still not receiving adequate care (Murray & Lopez, 1996; Wang, Berglund, & Kessler, 2000; Young, Klap, Sherbourne, & Wells, 2001). Unfortunately, public health interventions for the treatment of mental illness in the United States are still underdeveloped (Wells, Miranda, Bruce, Alegria, & Wallerstein, 2004). In fact, studies conducted in the 1980s and 1990s have indicated that only a minority of persons with anxiety and depressive disorders in the United States had actually received treatment in the last year (Wang, Berglund, & Kessler, 2000). During the 1980s, a study found that only 19 percent of persons with an active mental illness had received any treatment in the past year (Robins & Regier, 1991) while in 1990, only 21 percent had received professional treatment (Kessler et al., 1994). Unfortunately, an even smaller proportion of mental health consumers have received treatment that is considered by experts to be sufficient: only seven percent of persons with major depression received treatment researchers deemed minimally adequate (Katz, Kessler, Lin, & Wells, 1998). Also, many psychiatric consumers are underdiagnosed and therefore do not obtain the care they necessitate. This may lead to additional and unnecessary personal suffering (Kunen, Niederhauser, Smith, Morris, & Marx, 2005) and greater rates of crime and suicide. Despite newer medications and advancements in various types of treatment methods, recidivism remains extremely high (Langdon, Taguez, Brown, & Hope, 2001, Rabinowitz, Mark, Popper, & Slyuzberg, 1995).

Another problem for mental health consumers is the considerable gap between research and practice in psychiatric settings (Anderson & Adams, 1996; Hollon et al., 2002; TenHave, Coyne, Salzer, & Katz, 2003). Barriers to the establishment of newer and empirically supported treatments include a lack of partnership between researchers and clinicians, inadequate characteristics of the organization/workplace, difficulty in learning new clinical techniques, and absence of knowledge and skills (Tarrier, Barrowclough,

Haddock, & McGovern, 1999). An additional concern is that, even when treatment practices prove effective during vigorously controlled research trials, they are often discontinued after the scientific studies conclude (Lin et al., 1998; Schoenwald & Hoagwood, 2001; Wells et al., 2000). Furthermore, research interventions and assessments are often designed by experts in research and sometimes do not reflect the concerns and values of administrators, consumers, and providers (Wells, Miranda, Bruce, Alegria, & Wallerstein, 2004). Reasons for these various discrepancies may involve forces both inside and outside the health care system (Institute of Medicine Committee on Quality of Health Care in America, 2001).

Managed insurance care is another problem further complicating current psychiatric care in the United States. Although newer classes of medications have become available for use and have fewer side effects, financial constraints still can deter treatment. However, as larger percentages of the United States population are covered under managed insurance care, primary care doctors are often being given the responsibility of mental health care (McFarland, 1994). Often times, these physicians are not specifically trained in prescribing psychotropic medications. Unfortunately, the impact of many of these changes is unknown and current data are necessary as many studies evaluating and describing patterns and determinants of mental health care treatment are over 10 years old (Wang, Berglund, & Kessler, 2000).

In summary, there are a number of issues that still complicate and impede current psychiatric care. Although scientific investigations may find effective treatment methodologies, they are often discontinued after data collection. Additionally, even when consumers are receiving treatment, it is often inadequate.

Brief Treatment

Due to the relatively poor treatment available, the high financial costs of hospitalization, multiple and complex issues of persons with severe mental illnesses, and even advancements in pharmacotherapy, psychiatric patients can be hospitalized for only a few days before they are discharged (Black & Winokur, 1988; Wells & Phelps, 1990; Winston & Winston, 2002). Therefore, brief, also known as time-limited, interventions

for persons who are mentally ill have become an important treatment methodology. Various research studies and authors have noted the clinical usefulness and practicality of brief therapy.

To provide the best practice in treatment and service, documenting the effectiveness of particular interventions and treatments is necessary and a top priority. It has also been noted that research may provide an increase in attention toward demonstrating the efficacy and cost effectiveness of mental health studies (Durenberger, 1989). Authors have noted that brief therapies could be a solution to this problem (Smyrnios & Kirby, 1993) and that their effectiveness has been demonstrated in controlled scientific inquiry (Kirkby & Smyrnios, 1992; Koss & Butcher, 1986). If therapy can still remain effective but involve less time for both the professional and the client, it will not only save money but bridge the gap between the number of people who are in need of treatment and the number of professionals who are able to competently provide it (Hoyt, 1985).

A great deal of effectiveness research in counseling indicates that counseling is more effective than control conditions involving no counseling (Lambert & Cattani-Thompson, 1996; Silverman, 2005). Therefore, it seems that treatment is better and more effective than no treatment. Unfortunately, there are no particular techniques or theories that are more effective than one another (Lambert & Cattani-Thompson, 1996). In fact, controlled scientific investigation has suggested that long-term psychodynamic therapy is not necessarily better therapy when compared to similar types of brief interventions (Smyrnios & Kirkby, 1993). Additionally, in review articles, researchers have supported the use of brief and time-limited therapy, noting it is becoming increasingly popular with a diverse range of treatment populations because of its effectiveness and practicality (Hill, 1992; Lambert & Cattani-Thompson, 1996). Researchers have noted that the effects of brief counseling appear to be relatively long-lasting when compared to longer types of therapy (Smyrnios & Kirkby, 1993). A noteworthy advantage of this type of treatment is costs are kept at a minimum, making therapy affordable for a greater number of consumers.

As many school counselors experience a large caseload and less time to manage it, brief and time-limited counseling techniques have been noted to be both practical and

efficient in education (Kahn, 1999). Kahn (1999) suggested using art with adolescent populations as it can achieve the typical goals of school counselors in a successful and effective manner. This article provided a step-by-step orientation to incorporating art when counseling adolescents.

Solution-focused brief counseling is another technique that may help school counselors effectively and efficiently manage their caseloads (Mostert, Johnson, & Mostert, 1997). The authors recognized the potential of this treatment modality, noting that this approach was flexible, feasible, realistic, and able to meet counseling caseloads while not involving impractical time commitments.

The effects of brief group therapy with low achieving elementary school children has also received research attention (Shechtman, Gilat, Fos, & Flasher, 1996). In a study of 142 participants who were considered low achievers, the researchers examined dependent measures of cognitive and affective functioning. The experimental group receiving brief group therapy experienced significant gains in locus of control, social acceptance, academic achievement, and self-concept. Thus, brief forms of group therapy were able to improve both social and academic aspects of well-being in low achieving elementary school children.

The effects of brief and time-limited interventions have also been explored in university settings. In a university counseling center, researchers measured 333 clients' College Adjustment Scales at baseline and after their sixth session of treatment (Nafziger, Couillard, & Smith, 1999). Although no control group was employed, there were statistically significant differences in reported symptomatology on the College Adjustment Scale at posttest. Additionally, the authors found that participants who were notably distressed had moderate to large decreases in symptomatology. In a similar study, researchers examined the effects of brief mandatory counseling on academic success and help-seeking behaviors in 131 at-risk university students (Schwitzer, Graham, Kaddoura, & Lambert, 1993). The researchers found that voluntary use of counseling increased and academic performance improved after the intervention. There was a positive relationship between persistence through graduation and voluntary help-seeking. Additionally, improvement in grade point average was inversely related to the amount of counseling sought after the intervention. As these time-limited therapies are receiving clinical

investigation with results supporting their use, directors of university counseling centers also suggest that the brief therapy model permits increased management of caseloads, thus adding to its practicality and cost-effectiveness (Kitzrow, 2005).

One study assessed solution-focused brief family therapy in a mental health facility for children (Lee, 1997). Results were based on clinical interventions with 59 children and their families. The author noted a 64.9 percent success rate during an average of 5.5 therapy sessions over a period of 3.9 months. The descriptive findings supported both the clinical effectiveness and economic practicality of solution-focused brief family therapy with a diverse range of families.

Brief therapies have also been used to address the complicated problems of bereavement. In a content analysis of empirical literature dealing with effective psychosocial services for bereaved spouses, nine experimental studies were examined in an attempt to establish elements needed for better provision of services (Potocky, 1993). The author examined interventions, research methodologies, client characteristics, practitioners, and outcomes. Results from the content analysis evince that, for spouses who were at high risk or in a large amount of distress, planned brief interventions were effective in reducing or preventing symptoms of morbid grief.

Similarly, brief treatment has also been researched in HIV positive men and women coping with loss and bereavement (Sikkema, Hansen, Kochman, Tate, & DiFranceisco, 2004). The authors assessed the effects of a group coping intervention with 235 participants. These participants were randomly assigned to a 12 week CBT group intervention or to an individual therapy on request comparison condition. Dependent variables consisted of psychiatric distress and grief and were measured at baseline and at 2-weeks post intervention. Experimental participants of both genders had significantly more reduction in psychiatric distress. Additionally, there was a strong gender effect with women experiencing greater reductions of grief and distress. The authors highlighted that this research was of additional importance as HIV-positive women had not been exclusively focused on in previous clinical research investigations.

Using the Treatment of Depression Collaborative Research Program Data from the National Institute of Mental Health, researchers evaluated the clinical significance of depression treatment (Ogles, Lambert, & Sawyer, 1995). Although treatments differed in

terms of clinical significance on the dependent measure of general symptom severity, there was considerable conformity among varied measurement methods. The researchers found that a large number of clients made consistent progress and that posttreatment scores fell within a functional distribution. A small number of participants declined despite 12 sessions of treatment. Results indicated that for outpatients with major depression, highly structured interventions can produce clinically consequential changes in diminutive periods of time.

Using a minimal contact group as a control condition, researchers have compared the long-term effectiveness of time-unlimited and time-limited psychodynamic therapy. Parents and children with psychological problems were participants. All groups evidenced significant improvements from pre to posttest, suggesting that time-limited therapy may be just as clinically effective yet more economical and practical. At the conclusion of the article, the authors noted that other clinical investigations may suggest that long-term therapy is not necessarily more effective than brief types of treatment (Smyrnios & Kirkby, 1993).

Brief group therapy has been applied successfully in clinical settings with breast cancer survivors (Lane & Viney, 2005). Results indicated that the experimental group had better scores than the wait-list control group in measures of threat, dislocation, threat to existence, and hope. Furthermore, these results were maintained at three-month follow-up evaluation, thus indicating a more stable and lasting change in participants' cognitions.

The problem solving treatment method, a specific type of brief treatment, has been found to be a successful methodology to treat psychiatric consumers quickly (Dowrick et al., 2000). In this modality, three main steps are followed: patients' symptoms are linked with their problems; problems are defined and clarified; and an attempt is made to solve the problems in a structured way. The authors noted that this treatment required less than four hours of the therapists' time because it only involved six individual sessions. This model can also be taught to various types of health professionals and, in clinical primary care trials, has been found to be as effective as pharmacotherapy for major depression (Mynors-Wallis, Gath, Day, & Baker, 2000; Mynors-Wallis, Gath, Lloyd-Thomas, & Tomlinson, 1995).

Brief cognitive behavioral therapy administered by community psychiatric nurses has been shown effective in the treatment of outpatients diagnosed with schizophrenia (Turkington, Kingdon, & Turner, 2002). This brief treatment lasted only a period of six one-hour sessions. In this randomized and controlled study, there were no differences between posttest symptoms of schizophrenia and burden of care. However, there were statistically significant differences in dependent measures of overall symptomatology, insight, and depression. Additionally, the results indicated that trained nurses can successfully deliver the intervention: it did not have to be administered by licensed psychologists and results were still beneficial to participants, making it a successful, practical, and economically sound treatment modality.

Brief interventions have also been used to successfully teach persons with bipolar disorder to identify the early symptoms of relapse and to then obtain treatment (Perry, TARRIER, Morriss, McCarthy, & Limb, 1999). The researchers used a brief intervention of 7-12 sessions to help participants identify relapse signs and to then develop an action plan with their usual treatment providers. Results indicated the intervention was a success as the time between illness episodes significantly increased. Thus, participants were able to manage their illnesses over a longer duration and prolong their time in the community. Additionally, the lengths of hospitalization for mania were reduced in the experimental group, thus also keeping psychiatric hospitalization costs lower.

A great deal of controlled research has indicated that therapy is more effective than no therapy. Additionally, brief interventions appear to have a relatively long-lasting effect and may be just as effective as more traditional longer-term therapies. Thus, it seems that brief therapies are practical, cost-efficient, and successful. Moreover, the use of this time-limited modality also allows for a greater number of consumers to receive treatment. Finally, it seems that brief types of therapies can be flexible and easily adapted to address a comprehensive range of consumer objectives.

Single Session Therapy

Single session therapy, sometimes referred to as single session work, is a treatment that lasts a solitary session. This type of convenient and practical therapy has

received research attention in a variety of clinical settings. Often times it is used as a tool for clinical investigation because participant attrition and other types of confounding variables are eliminated (Stalikas & Fritzpatrick, 1995).

Single session therapy has been used to examine therapists' ability to recognize their clients' reported reactions (Thompson & Hill, 1991). In this study, 16 therapists saw two clients who volunteered for a single session of treatment. The therapists and clients rated the perceived helpfulness of the treatment. In half of the ratings, therapists' and clients' ratings were in the same reaction cluster, thus indicating similar perceptions of helpfulness. Furthermore, the researchers noted that the therapists' ability to match their clients' responses was associated with their ability to provide beneficial clinical treatments.

Earlier research comparing treatment durations has assessed relationships between length of intervention and patient perceived outcome in 47 outpatients at a community mental health center (Silverman & Beech, 1984). Results suggested no differences between single session and multiple session clients in measures of demographic background, problem progress, assessments of agency helpfulness, and presenting problems. Therefore, these results support the clinical and cost effectiveness of single session therapy.

Single session brief counseling has been clinically assessed in high schools (Littrell, Malia, & Vanderwood, 1995). The authors studied three approaches to brief counseling: solution-focused with task, problem-focused with task, and problem-focused without task. Regardless of technique, results suggested that participants made significant changes from the second week follow-up to the sixth-week follow-up in improving the percentage of goals achieved and reducing participant apprehensions.

Other research has compared problem-focused and solution-focused approaches in single session interventions (Jordan & Quinn, 1994). The researchers found there were significant differences between the approaches when dealing with the client's perceived session positivity, outcome expectancy, problem progress, session intensity, and session smoothness. However, the researchers noted that there were no significant differences between the two treatments in dependent measures of session stimulation, problem improvement optimism, client's ability to progress, goal detection, and personal

attachment. It might be that, in order to further differentiate between treatment modalities, multiple sessions might be used. However, this would alter the research question and other investigations have evinced little differences between specific psychosocial intervention modalities (Silverman, 2005).

Single session treatment has also been used in diversity research. In a study involving the use of single session therapy, Asian American clients who had personal concerns were paired with counselors who matched or mismatched their client's worldview (Kim, Ng, & Ahn, 2005). Results indicated that clients and therapists in the worldview match condition perceived counselor empathy and working alliance stronger than those paired in the worldview mismatch condition. These results highlighted important therapeutic components within a single session of therapy. Another related research study involved African Americans. The Engagement Project was a psychosocial treatment process that incorporated single session culturally congruent interventions for African American drug users (Longshore, Grills, Annon, & Grady, 1998). During this session, the client, a counselor, and a recovering drug user watched a video and then discussed the relevance for recovery. Both articles reported positive results for their respective treatments.

Another study, although originally not designed as a single session treatment, involved participants being separated into three treatment groups that included training sessions concerning their dream recall and dream interpretation (Rochlen, Ligiero, Hill, & Heaton, 1999). Although no significant differences were found between treatment conditions, results indicated that training was not necessary but that participants were able to benefit from a single session of dream interpretation. Benefits included dream recall, attitudes, and dream interpretation.

Single session therapy has also been used to increase smoking cessation. In a large ($N = 3030$) study, smokers were randomized into three groups: self-help kit only; self-help kit and one telephone counseling intervention; and self-help kit and up to six telephone counseling sessions (Zhu et al., 1996). Both counseling treatment groups had significantly higher abstinence rates than the self-help kit only group. However, there were no significant differences between the two telephone counseling groups, suggesting

that one telephone intervention may be just as effective as multiple interventions for smoking cessation.

A research study concerning single session treatment evaluated small group AIDS education. This study found that a single session of risk reduction led by peer volunteers was more effective than four sessions led by paid counselors (Tudiver et al., 1992). Additionally, both treatment groups were more effective than a waiting list control group in the reduction of risk behaviors. However, as the single session was led by a peer volunteer, it may have been that the peer instructor, who was probably able to better relate with the participants, was the critical factor that contributed to reduced risk behaviors, not the number of sessions participants attended. Although supporting the effectiveness and practicality of single session treatment, generalizations should be made with caution due to this study's procedure.

Thus, a number of research studies have provided empirical evidence and suggested that single session therapy can be clinically effective despite its limited duration. Other advantages of this treatment method are reduced costs to the consumer, lack of attrition during research trials, and its practicality.

Psychoeducation

Psychoeducation can be defined as a mutual process between a psychiatric consumer and some type of educator attempting to increase the knowledge and illness management skills of the consumer. Through this process, relevant information is shared in a bi-directional manner so that consumers are active participants and able to share their unique and valuable personal perspectives during the session. Founded upon a biopsychosocial medical model of psychiatric disorders (Vieta, 2005), methods and content may vary but it is appropriate for patients in all stages of their illness. Sometimes this process involves members of the consumers' social network such as caregivers, spouses, family, and friends. The psychoeducation curricula contain diverse and comprehensive educational interventions administered by psychiatrists, pharmacists, nurses, case managers, psychiatric consumers, and therapists that are designed to teach psychiatric patients a wide range of knowledge and skills needed for the management of a

serious mental illness (Bisbee, 2000). Patients learn to collaborate with professionals, cope with symptoms of their mental illness, and reduce their susceptibility to the disease (Mueser et al., 2002). Psychoeducation can empower the psychiatric consumer by providing a realistic and theoretical approach toward managing the symptoms of the illness (Vieta, 2005). Throughout the psychoeducational process, participants attend classes as students, not as patients, experience less stigma (Carson & Brewerton, 1991), and ideas and support are shared with the group. This model emphasizes instruction, not therapy, while promoting social skills, pleasant activities, positive thinking, and relaxation. These theories can help the person deal with their environment in a constructive manner and can have a positive effect on the therapeutic process (Dinkmeyer, 1991). Psychoeducation has been applied in both healthcare and community settings and numerous randomized and controlled scientific investigations have suggested its effectiveness in prevention and quality improvement in primary care programs in the United States (Cuijpers, 1998; Munoz et al., 1995; Wells et al., 2000). After a comprehensive review of literature, researchers have noted its worth: “psychoeducation is among the most effective of the evidence-based practices that have emerged in both clinical trials and community settings” (Lukens & McFarlane, 2004, p. 205).

This form of treatment developed as a way to teach large numbers of psychiatric consumers the skills and knowledge they needed to successfully live in the community (Bisbee, 2000). For a number of years, psychiatry did not educate consumers in the same way that general practitioners educated their patients without psychiatric disabilities. Possible reasons for psychiatric under emphasis of education may include, but are not limited to; lack of consensus concerning the benefits of nonmedical models used to explain psychiatric disabilities/treatment; the fear of frightening or discouraging a patient by telling them about their illness; the fear that consumers may use the information to act inappropriately and avoid responsibility; the fear that information about the illness will cause consumers to remain in a “sick role”; the belief that consumers cannot assume responsibility for the disease; and the belief that consumers may not understand the concepts being taught (Bisbee, 1979).

Although many Americans currently use the internet in their homes for psychoeducation concerning symptoms and treatment (Chang, 2005), in most psychiatric

hospitals the responsibility of providing the necessary information to psychiatric consumers has fallen upon psychologists, nurses, social workers, therapists, other psychiatric consumers, and teachers (Bisbee, 2000). Characteristic subject matter areas in psychiatric patient education are avoiding drug use and abuse, stress management, coping skills, communication, assertiveness training, increasing the quality of life, relapse prevention, medication and symptom management, problem solving, self-observation, and patient rights and responsibilities. Coping skills training is a fundamental component of psychoeducational curricula and researchers have suggested that a positive coping style may be important for the rehabilitation of psychiatric consumers (Kahng & Mowbray, 2005). Psychoeducation can be used to provide coping skills that are to be used during stressful periods (Gispens-de Wied & Jansen, 2002) and can help to reduce suicide risk and the altering between manic and depressive episodes experienced by consumers with bipolar disorder (Vieta, 2005). Additionally, it can teach psychiatric consumers to recognize early signs of symptom recurrence and how to manage them.

As psychiatric treatment non-adherence is common, it is imperative that researchers and clinicians are continuously aware of the issues related to this. Therefore, researchers have suggested that including psychoeducation in routine clinical care may be a way to facilitate the potential hazards of non-compliance to psychiatric consumers (Colom, Veita, Tacchi, Sanchez-Moreno, & Scott, 2005). In fact, a study found that a group of patients with bipolar disorder receiving psychoeducation had higher serum lithium levels than a control group (Colom et al., 2005), thus indicating they were more compliant with their medication regimen as a result of psychoeducation. Therefore, the researchers considered psychoeducation itself to be a mood-stabilizer and suggested that standard pharmacological treatments should be accompanied by group psychoeducation as it increases compliance and lithium levels and thereby improves treatment outcome. Other researchers have suggested that psychoeducation is a key component in enhancing consumer compliance with neuroleptic treatment (Loffler, Kilian, Toumi, & Angermeyer, 2003).

Psychoeducation is growing at a rapid pace as it is becoming increasingly essential to provide information on successful techniques of illness management to psychiatric consumers. To date, this patient-based technique has demonstrated its efficacy

in a number of randomized and controlled clinical research studies (Colom & Vieta, 2004).

Psychoeducation incorporates several models and theories, including ecological systems theory, group practice models, stress and coping models, social support models, narrative approaches, cognitive-behavioral therapy, and various learning theories (Lukens & McFarlane, 2004). It is typically, but not exclusively, used during group settings and thus may reduce isolation, promote social skills, and normalize experiences—all important treatment areas for psychiatric consumers.

As non-adherence to psychiatric medications is often caused by a failure to understand the nature of the disease and the clinical importance of complying with neuroleptic medications, adherence can be enhanced by helping consumers to more fully comprehend their disorder and the implications for long-term pharmacological treatment. Convincing psychiatric consumers through education that a regular medication regimen is essential for effective management of the illness is an imperative component of psychoeducation as improved medication compliance can help to increase treatment effectiveness (Vieta, 2005). It should be noted, however, that psychoeducation alone is insufficient without medication for persons with severe mental illnesses—it is an adjunctive treatment and will be ineffective without an appropriate medication regimen. Thus, recent mandates have encouraged the inclusion of psychoeducation in the treatment of mental illnesses (Lukens & McFarlane, 2004) and are supported by national policymakers (President's New Freedom Commission on Mental Health, 2003). Scientific inquiry has resulted in a large amount of evidence that psychoeducational interventions may help to improve not only psychiatric consumers' knowledge of their illness and how to manage it, but quality of life, levels of social and cognitive functioning, and symptomology (Lukens & McFarlane, 2004).

Due to its flexibility and broad potential, psychoeducation has been used in the treatment of a wide range of problems. Researchers have combined pharmacological and psychoeducational treatment for youth with generalized social anxiety disorder (Chavira & Stein, 2002). Twelve participants took part in eight brief sessions of counseling with their parents involving behavioral exercises, skills coaching, and education. Significant changes in self-report ratings of depression and social anxiety were found in addition to

parents' perceptions of their children's social skills. Clinicians' global ratings of change also supported the effectiveness of the intervention.

Psychoeducational techniques have also been used with persons of various cultures diagnosed with major mental illnesses. Typically, Korean Americans' use of mental health services is often limited due to differences in perceptions of mental illness (Sue & Sue, 2003). Therefore, researchers have investigated the effects of a 10 week psychoeducational intervention with 48 Korean Americans diagnosed with schizophrenia (Shin & Lukens, 2002). Participants were randomly assigned to a control group consisting of individual supportive therapy or an experimental group consisting of a culturally sensitive psychoeducational group and individual supportive therapy. Dependent measures included psychiatric symptoms, coping skills, and attitudes concerning mental illness. The experimental group showed significantly reduced symptom severity and perception of stigma and greater coping skills post treatment. Based upon these results, the authors suggested that a culturally sensitive psychoeducational intervention could be useful in the short-term treatment of Korean Americans diagnosed with schizophrenia.

Psychoeducational interventions have been used to reduce stress and enhance psychological well-being and reduce role conflict in African American working women (Napholz, 1999). Results indicated significant differences in pre, post, and follow-up dependent measures of role conflict and satisfaction. The intervention helped participants articulate approaches for reducing role differences such as establishing priorities, separating roles, overlooking role demands, and changing attitudes toward roles.

Psychoeducation has also been used in the legal system with persons who are incarcerated. Using a sample of inmates, dependent measures were administered to participants 10 weeks pre session, during the first session, and during the final group session (Walters, 2004). Participants reported a significant gain in negative crime expectancies. Although differences were not significant, post-test positive crime expectancies were lower than pre-test negative crime expectancies, thus suggesting psychoeducation had a positive effect upon the participants.

In a study concerning children with bipolar disorder, major depressive disorder, or dysthymic disorder, researchers found that following four months of psychoeducational

programming, families described having gained knowledge, support, skills, and positive attitudes (Fristad, Goldberg-Arnold, & Gavazzi, 2002). Regardless of the specific diagnosis, participants ($N = 35$) and families benefited from the psychoeducational programming.

Researchers have compared three group models of CBT with a waiting list control condition in women with binge eating disorder (Peterson et al., 1998). Sixty-one participants were involved in the study. The CBT conditions consisted of psychoeducation in various forms: in the first condition, a doctoral therapist led a psychoeducational component, while in the other conditions, participants watched a psychoeducational video. Results indicated that all active treatment conditions showed a decrease in symptoms of binge eating over time when compared to the wait-list control group. Additionally, all three active treatment conditions had significantly greater improvement in binge eating than the control condition, suggesting that CBT, with a psychoeducational component, can be effectively delivered within an organized group setting. In a related study, 78 women with obesity were randomly assigned to receive a 12-week educational intervention, a 12-week psychoeducational intervention, or were placed in a control group (Ciliska, 1998). Dependent measures consisted of self-esteem, social adjustment, body dissatisfaction, symptoms of depression, restrained eating, bulimia scores, blood pressure, weight, and drive for thinness. While there were no significant posttest differences between the control group and the education group, the psychoeducation group improved over the control group in dependent measures of body dissatisfaction, self-esteem, and restrained eating.

As chronic physical pain is a frequent cause of disability and suffering, researchers have used psychoeducation to manage the problem in a cost-effective, successful, and accessible manner. In a randomized and controlled study, group psychoeducation was delivered to participants ($N = 102$) by nurses in a series of 12 one-hour sessions (Lefort, Gray-Donald, Rowat, & Jeans, 1998). The program, entitled the Chronic Pain Self-Management Program, had a standard protocol based on the successful Arthritis Self-Management Program. Results indicated that the experimental group receiving psychoeducation had significant short-term improvements in vitality, aspects of role-functioning, pain, life satisfaction, dependency, resourcefulness, and self-efficacy.

Furthermore, the authors noted the economic practicality of the program as it could be reliably delivered in both urban and rural settings at a low cost.

Psychoeducational techniques have been evaluated in medical facilities with women preparing for elective hysterectomies (Cheung, Callaghan, & Chang, 2003). Although there were no significant differences in the amount of post-operative requests for analgesia, women in the experimental condition who received the psychoeducational intervention reported higher levels of satisfaction, lower post-operative anxiety scores, and lower pain scores than women in the control group.

As research has suggested that spirituality and religion can be both a resource and a burden for people with severe mental illnesses, psychoeducational programs have been created to address this problem (Phillips, Lakin, & Pargament, 2002). During this program, participants discussed religious resources, hope, forgiveness, and spiritual struggles. Although no quantitative data were provided, the article reviewed participant feedback and provided clinicians with information suggesting how to deal with this unique dilemma.

Although psychoeducational techniques have been used with a variety of populations, they were originally designed to be used with psychiatric consumers. As the medical model dictates current practice in psychiatric treatment, educational components must complement the pharmacological aspect to educate patients on how to manage their illness successfully. This model provides a wide range of skills and training to psychiatric consumers so that, when discharged, they are able to cope with real-world demands in vocational, social, and living situations (Corrigan & McCracken, 2005). This model sets consumers up for success by providing them with the knowledge they need to function in the community and avoid relapse. Therefore, providing educational forms of treatment to inpatient consumers is an essential component of successful rehabilitation and stay in the community. These educational forms of treatment are becoming increasingly popular for adults with psychiatric disabilities (Mowbray et al., 2005).

In a randomized and controlled study, outpatients diagnosed with schizophrenia who were assigned to a modularized skills training condition made significant gains in medication and symptom management (Eckman et al., 1991). Video-mediated skills training modules were used to teach experimental group participants. Evaluation of skill

attainment was assessed through behavioral performances by the participants in a series of standardized role-playing tests. These performances were rated on 4-point Likert-type scales by research assistants. The learned skills were retained without significant erosion throughout a one year follow-up. Furthermore, the researchers noted that the skills training was effective and useful for the cognitive and information processing deficits typically found in schizophrenia. However, the authors noted “questions may be raised about the generalization of the skills and knowledge learned in the modules into patients’ real-life circumstances” (p. 1554). Assessing and monitoring a gain in psychoeducational knowledge remains a challenge for researchers.

A related study compared two groups of consumers with schizophrenia, with the experimental group receiving a three week educational program (Goldman & Quinn, 1988). The experimental group had a significant increase in knowledge of their illness as well as a significant decrease in negative symptoms, thus suggesting that consumers with severe mental illnesses can both learn and retain information. Additionally, the authors noted that teaching consumers about their illness can help to improve their various levels of cognitive and social functioning. In the concluding statements of their article, the authors suggested that education may have a number of benefits that may lead to reduced symptomology, specifically noting it:

counteracts fear and defensiveness, contributes to patients’ self-esteem and hope, suggests practical ways for patients to help themselves, encourages more effective communication with treatment personnel, and promotes healthy activities, including informed adherence to treatment recommendations. (p. 286).

Another study assessed the effects of nine lectures concerning psychiatric illness and treatment on a group of 67 patients with schizophrenia, bipolar, and major depressive disorder (Seltzer, Roncari, & Garfinkel, 1980). Although the authors noted there were methodological problems in the five-month follow-up testing of participants, there was a significant correlation between compliance and education. The authors suggested that the education reduced fears of side effects and dependency upon medication.

In a controlled study of 452 adult participants with depressive or adjustment disorders in the community, researchers have found that problem solving treatment and prevention of depression were effective in reducing the severity and duration and

improving the subjective mental and social functioning (Dowrick et al., 2000). The researchers used two experimental groups and a control group, comparing problem solving and a course on the prevention of depression. Outcomes after six months supported both treatments. Approximately two-thirds of participants in the problem solving condition completed the intervention while less than half who were offered the course on prevention of depression completed the course. The authors concluded that both the course on prevention of depression and problem solving treatment may be effective interventions as they are specific, easy to learn, and brief. Furthermore, the authors noted the congruence of their results and previous research (Mynors-Wallis, Gath, Day, & Baker, 2000) indicating that non-doctors can provide problem solving interventions successfully.

Researchers have incorporated a randomized controlled design, using wait-listed controls, to assess the effectiveness of a psychoeducational intervention upon consumers with depression (Brown, Elliott, Boardman, Ferns, & Morrison, 2004). At three-month follow-up, there were significant differences between groups: experimental participants were less depressed, distressed, and had higher self-reported self-esteem.

Although the efficacy of pharmacologic treatments for bipolar disorder has increased over the years, researchers have suggested there is still a need for randomized and controlled studies evaluating psychoeducation with this population (Bauer, 2001). In such a study, participants ($N = 120$) took part in group psychoeducation (Colom et al., 2003a). The researchers found that experimental treatment significantly reduced the number of patient relapses and recurrences while it increased the time of depressive, manic, hypomanic, and mixed recurrences. The group receiving psychoeducation had fewer and shorter hospitalizations. In a similar study designed to evaluate the effects of psychoeducation with patients with bipolar disorder and a personality disorder, participants were randomized into experimental ($n = 15$) and control ($n = 22$) conditions (Colom et al., 2004). At two-year follow-up, 100 percent of control participants but only 67 percent of experimental participants met criteria for recurrence. Participants in the psychoeducation group had a higher time-to-relapse and a lower number of manic and depressive episodes than the control group. The control group also spent more time hospitalized than the experimental group. The authors concluded that psychoeducation

can be a constructive intervention for psychiatric consumers with a bipolar disorder and a personality disorder. In a related study that did not evaluate consumers with personality disorders, less participants receiving psychoeducation met criteria for recurrence at two-year follow-up (Colom et al., 2003b). Additionally, there was a significant difference in the total number of recurrences and depressive episodes between groups, as the experimental condition receiving psychoeducation experienced less of these measures than the control group.

In a qualitative pilot study designed to assess what consumers value in psychoeducational occupational therapy sessions in a group inpatient psychiatric setting, researchers identified a number of themes: group structure; readiness to attend groups and process information; group milieu; voluntary attendance; supportive milieu; learning and the retention of information; and the insertion of relevant activity into the group sessions to promote interaction (Covels & Hale, 2005). The authors concluded that clinicians who provide mental health treatment sessions should be fully aware of the importance of transitioning consumers from activity sessions to psychoeducational sessions.

Research has sought to evaluate the effect of psychoeducational group therapy on quality of life with patients diagnosed with bipolar disorder (Michalak, Yatham, Wan, & Lam, 2005). Treatment was a standardized eight-week course and results suggested that group psychoeducation is associated with improved quality of life in levels of physical functioning and general satisfaction. The authors recommended the use of psychoeducation as an adjunct to traditional forms of pharmacotherapy but highlighted the need for further research.

Psychoeducation has also been used as an active control condition in scientific investigation testing the effects of functional cognitive behavioral therapy (fCBT) as an independent variable (Cather et al., 2005). The researchers measured psychotic symptoms and social functioning in participants who had diagnoses of schizophrenia or schizoaffective disorder. Participants were randomly assigned to psychoeducation or fCBT groups who received 16 weekly sessions of treatment. The researchers found that attrition for both groups was very low at seven percent and did not differ between groups, thus indicating excellent tolerability of experimental and control treatments. Additionally, there were no significant differences between groups concerning symptoms, suggesting

the efficacy of psychoeducation. The authors noted this was the first use of an active control intervention during a psychosocial research investigation and, thus, created a more rigorous comparison for the experimental condition. Therefore, this may have reduced the power to detect differences between conditions.

A comprehensive review of research, including data from 40 randomized and controlled studies, has indicated that psychoeducation can improve psychiatric consumers' knowledge of their mental illness, coping skills training can reduce the distress of symptoms, relapse prevention curricula can reduce symptom relapses and recidivism, and that behavioral tailoring can facilitate the taking of medications as prescribed by psychiatrists (Mueser et al., 2002). Specifically, studies have noted that psychiatric patients receiving psychoeducation had higher levels of assertiveness and lower levels of fear and anxiety at posttreatment. Additionally, participants receiving psychoeducation had lower hospitalization rates a year after training (Brown, 1980). A review of literature examining the efficacy of patient-focused therapies noted that psychoeducation and cognitive behavioral therapy are the psychological interventions that have been shown to be more efficient at preventing new recurrences (Colom & Vieta, 2004). The authors noted a need for efficacy studies when the illness is in its acute phase but concluded that a mixture of pharmacotherapy and psychotherapy can permit consumers with bipolar disorder to attain enhanced symptomatic and practical recovery. It should be noted, however, that a review of research concluded psychoeducation requires frequent repetition if it is to be used to promote treatment compliance with patients diagnosed with schizophrenia (Zygmunt, Olfson, Boyer, & Mechanic, 2002). Providers of psychoeducation should be aware that reiteration of information may not only be crucial for patients diagnosed with schizophrenia, but it is also important for psychiatric consumers with analogous symptomology and impaired cognitive functioning (Zygmunt, Olfson, Boyer, & Mechanic, 2002).

Educating psychiatric patients is an important aspect in contemporary psychosocial treatment. The psychoeducational literature base is strong and contains a plethora of randomized and controlled empirical investigations documenting its effectiveness. Due to its popularity and effectiveness, it has been used with a variety of populations and as an active type of control condition. However, when psychoeducation

is used as an active control condition, differences between treatment conditions are minimized, suggesting the clinical relevance and effectiveness of psychoeducation.

Family Psychoeducation

A frequently used component of psychiatric psychoeducation includes families in the treatment. A considerable amount of evidence has been compiled and suggests that family involvement is beneficial in the management of severe mental illnesses. In fact, over 30 randomized and controlled clinical trials have supported the use of family-based psychoeducational programs by showing augmented psychosocial and family outcomes, diminished relapses, and advanced symptomatic recovery in consumers diagnosed with bipolar and disorder and schizophrenia (Murray-Swank & Dixon, 2004). Research has indicated that for people with severe mental illnesses, social support is a central dynamic in attaining both educational and vocational goals (Collins, Mowbray, & Bybee, 2000). Psychoeducation involving the families of the psychiatric consumers can provide the support and instruction necessary for a successful discharge and stay in the community. Furthermore, most people who do not have a mental illness know little about them. Family based psychoeducation can serve to meet this need and thus can help family members learn how to help and support people with mental illnesses.

As noted previously, relapse rates are typically high with psychiatric consumers. A study found that persons receiving both medication alone and medication and individual therapy had relapse rates of 30-40 percent (Baucom, Shoham, Mueser, Daiuto, & Stickle, 1998). However, persons receiving at least nine months of family psychoeducation had relapse rates of approximately 15 percent.

Multiple-family psychoeducation has been compared with single-family psychoeducation in clinical trials (McFarlane et al., 1995). Participants were 172 patients who were acutely psychotic and were randomly assigned to treatment conditions. Dependent measures consisted of rehospitalization, employment, medication compliance, symptom status, and psychotic relapse. These variables were assessed during two years of supervised treatment. The multiple-family groups had significantly less cumulative relapse rates than the single-family groups. However, both groups' relapse rates were less than half the expected rate for patients taking medication and receiving individual

treatment, thus supporting the importance of psychoeducation in general. The researchers also noted that there was a cost-benefit ratio of up to 1:34 due to the cost-efficient multiple-family psychoeducational setting and its effectiveness.

Negative symptoms of schizophrenia have been assessed with psychiatric patients attending multiple-family groups (Dyck et al., 2000). Participants were 63 outpatients with diagnoses of schizophrenic disorders and were randomly assigned to the treatment group receiving multiple-family group psychoeducation at a large mental health center or the control group receiving standard care only. Negative symptoms were evaluated monthly for a year by blind raters. Results indicated that experimental participants experienced significantly reduced negative symptoms when compared to the control group. Additionally, the symptoms were significantly correlated with relapse to acute illness. The authors concluded that their intervention was effective and noted its importance as negative symptoms can be typically associated with cognitive impairment, subjective quality of life, social and occupational functioning, and relapse.

In a related study of 106 outpatients diagnosed with schizophrenia or schizoaffective disorder in a large community mental health center, multiple-family psychoeducation has been shown to be effective and practical (Dyck, Hendryx, Short, Voss, & McFarlane, 2002). Experimental participants received a two-year intervention consisting of weekly group sessions. These sessions were provided by two clinicians using a standardized protocol and focused on social support, coping skills, illness management, treatment, and the biological basis of mental illness. The experimental group had a lower rate of psychiatric hospitalization than the control group who received standard care only. The authors suggested that the implementation of multiple-family group treatment in the community mental health setting can progress hospitalization outcomes without escalating the total amount of outpatient psychiatric consumer services.

Psychoeducational techniques have also been used in countries outside of the United States and United Kingdom with family care givers (Cheng & Chan, 2005). Participants ($N = 64$) were care providers of persons with schizophrenia who were randomly assigned to a control group receiving routine care or an experimental group receiving a psychoeducation program implemented by mental health nurses. Dependent measures were self-efficacy, social support, and perception of burden of care. The

experimental group had significantly more improvement in all 3 measures, thus supporting the use of psychoeducation as a successful nursing treatment for family care givers. These randomized and well-controlled studies support the use of family-based psychoeducation. Important advantages of this treatment modality include its cost effectiveness, practicality, adaptability across cultures, and the way it incorporates supports into the treatment itself (Collins, Mowbray, & Bybee, 2000; Murray-Swank & Dixon, 2004).

Brief Psychoeducation

Due to the importance of educating psychiatric consumers and the restraints placed on mental health care providers, psychoeducation has been tested in brief psychotherapy settings. For example, in one study, researchers found organizational skills can improve by helping persons with attention deficit/hyperactivity disorder (ADHD) examine and change their feelings and actions. In this clinical investigation, participants were able to improve time management and subsequent task completion 12 sessions or less (Wiggins, Singh, Hutchins, & Getz, 1999).

As older African Americans typically have lower rates of mental health service use (Sue & Sue, 2003), researchers have examined the effects of a brief psychoeducational intervention on attendance and treatment entry in African Americans who had been referred for psychotherapy (Avider, Arian, & Stewart, 2005). Participants in the experimental condition attended a 15-minute individual psychoeducational session concerning psychotherapy. The authors found a significant difference between groups: specifically, participants in the psychoeducation group attended more therapeutic sessions than the control group. In a three-month follow-up interview, participants verbally gave complimentary impressions of the psychoeducational experience. The authors suggested that this brief intervention may promote outpatient treatment in a population who typically does not take advantage of available resources.

In a randomized controlled trial, patients with schizophrenia ($N = 64$) were assigned to one of three groups: three education sessions at weekly intervals, one educational session, or no educational session (Macpherson, Jerrom, & Hughes, 1996). The Understanding of Medication Questionnaire (UMQ) was designed by Macpherson to

measure knowledge of treatment in schizophrenia. Inter-rater reliability was high while validity was concurrent with other scales from which it was derived. While there was no significant change in the one educational session condition, knowledge about treatment and illness increased significantly in the three educational sessions experimental group. This group had higher scores on the UMQ than the group receiving a single educational session. Although three educational sessions led to increased insight, there was no change in compliance. The authors concluded “patient education can help to engage patients, improve acceptance and integration of the illness and promote appropriate use of drug therapy. It demystifies mental illness, and may reduce stigma” (p. 716).

Another study assessed a three-session psychoeducational program for persons with severe mental illnesses and post traumatic stress disorder (PTSD) in an inpatient psychiatric hospital by evaluating gains in knowledge and satisfaction with the program (Pratt et al., 2005). Seventy patients were used as their own control and attended three sessions of psychoeducation using video instruction and discussion. Results indicated that there was a significant difference between pre- and posttest scores of knowledge of trauma and PTSD as well as high levels of participant satisfaction with the program.

Thus, research has indicated that brief psychoeducation can be beneficial for a variety of psychiatric consumers. However, the research supporting this modality does note that psychoeducation requires frequent repetition (Zygmunt, Olfson, Boyer, & Mechanic, 2002). Unfortunately, brief models of psychosocial interventions typically do not provide the opportunities for frequent repetition that other authors have suggested is necessary for the adequate retention of knowledge. However, as the research repeatedly suggests that treatment is more effective than no treatment (Silverman, 2005) and brief models of psychoeducation are practical, this modality may be more effective than no treatment.

Psychiatric Music Therapy

Music therapy is an intervention commonly used in the treatment milieu of persons who have mental disorders. Music therapists can work in community mental health centers, group homes, day treatment centers, behavioral health centers at medical

facilities, and state hospitals (American Music Therapy Association, 2005). An advantage of this type of treatment is its flexibility as music therapy can be adapted to meet a plethora of consumer clinical objectives. Psychiatric music therapists are typically well-received by consumers with mental illnesses who rate them highly when compared to other forms of treatment, programming, and therapy (Heaney, 1992; Silverman, 2006c).

Although music therapy began in psychiatric institutions to address the clinical needs of World War II veterans suffering from post traumatic stress disorder (then known as ‘battle fatigue’), its role has changed dramatically, especially since the inception and advancement of psychotropic medications (Silverman, 2006a). In 1970, an article in the *Journal of Music Therapy* described contemporary trends in mental health work (Euper, 1970). The author noted a lack of an integrated treatment team approach as well as changing objectives in mental health care delivered by psychiatric music therapists:

None of these forms will permit the loosely organized, attend-if-you-wish kinds of musical activities that have characterized so much work in large hospitals. Neither will the seasonal stage productions be very feasible. The rationalizations so often given for music activities (they keep the patient busy and his mind off his troubles; they enliven the otherwise dull ward life; they provide a choir for hospital chapel services and entertainment for parties) will have to give way to more serious aims, and results in terms of patient progress will have to take precedence. (p. 25).

The author was correct in her prediction: since the publication of this article, the role and function of music therapy has changed considerably. While music activities may still be part of the clinical responsibility and job description of psychiatric music therapists, the profession has evolved in order to keep current with contemporary practice and models in mental health treatment (Silverman, 2006a).

Today, approximately 21 percent of all music therapists who are professional members in the American Music Therapy Association (AMTA) reported working in the mental health field (AMTA, 2005). This percentage is greater than any other specific client population category that music therapists serve. Recently, a descriptive survey study of psychiatric music therapists was conducted to evaluate current trends in practice. This study found that most participants facilitated group therapy as opposed to individual

therapy (Silverman, 2006a). This may be due to group format allowing a greater number of patients' access to music therapy treatment which is more cost effective than individual therapy. Other findings were that most music therapists were happy with their jobs and felt they had a positive impact on their patients. Additionally, respondents estimated 58.4 percent of their consumers met clinical objectives within the last week (Silverman, 2006a).

Despite the traditionally large proportion of therapists practicing in this area, psychiatric music therapy efficacy data are limited. Music therapy researchers have reported on the lack of quantitative research in this area (Choi, 1997; Euper, 1970; Silverman, 2003b, 2005) and the difficulties of conducting this type of research (Aldridge, 1993; Silverman, 2003b, 2005). Another reason for the undersized literature base is that very few clinical music therapists conduct psychiatric research: in a descriptive study, it was found that 74.9 percent of psychiatric music therapists do not conduct research, although over 50 percent of participants indicated they had earned a master's degree or higher (Silverman, 2006a). Other fields interested in psychosocial mental health efficacy research have similar problems, although their membership is typically much larger than that of music therapists (Silverman, 2005). Additionally, the survey study found that psychoeducational techniques and subject matter are commonly employed during psychiatric music therapy treatment: 76.1 percent of those who responded to the survey indicated they had addressed coping skills as a consumer objective during the last week (Silverman, 2006a). As previously noted, coping skills education and counseling is a fundamental component of the psychoeducational curriculum. Other results from the survey indicated participants noted they had focused on other psychoeducational areas such as decision making (60.9 percent), leisure skills, (58.0 percent), problem solving (52.9 percent), substance abuse (42.0 percent), symptom management (32.6 percent), mental health knowledge (29.7 percent), and community reintegration and resources (both 19.6 percent). However, medication management, a basic component of the psychoeducational curriculum, was the least noted objective area focused on within the last week by psychiatric music therapists (10.1 percent). It is difficult to speculate about prospective reasons for the lack of treatment concentration on

such an essential area of psychiatric consumer treatment, especially when other areas of psychoeducation were frequently addressed by psychiatric music therapists.

Although efficacy data are limited, there exist a number of music therapy studies dealing with mental illness. However, many of these studies are qualitative and provide information that may not generalize to other clients with the same diagnoses and objectives (Alexander, 1996). Today, music therapists must provide accountability for their methods and, as qualitative data does not generalize, this type of data is often times not considered as reimbursable by insurance companies and other funding agencies (Hanser, 1999; Rogers, 1995). These methods include qualitative case studies (participant observation, protocol analysis, discourse analysis, conversation analysis, voice-centered techniques, photographic analysis, diary studies, document analysis, computational modeling) and do not provide the required accountability health care providers necessitate. Furthermore, methodology not having some statement about the probability of the occurrence of the phenomenon due to random sources is often dismissed (Neufeld, 1977). Due to the importance of cost-effectiveness and generalization, qualitative research's foundation within the mental health field is still not as secure as that of quantitative research (Good & Watts, 1996). However, as a result of the various reasons previously summarized, quantitative data are not easily attainable within the given population (Silverman, 2005). Although case studies are a valuable constituent of the music therapy literature base and may provide unique insight into the treatment process, they are often criticized due to their lack of generalization (Silverman, 2006b).

Music therapy researchers have noted the difficulty of quantifying the effects of group music therapy with a group of twelve regressed clients with schizophrenia due to complicated symptomology and social functioning deficits (Frick & Pichler, 1982). Other psychiatric music therapy clinical research investigations have noted the difficulty in acquiring participants who met appropriate criteria for study inclusion (Silverman & Marcionetti, 2005a) or had difficulty obtaining a control group due to hospital regulations indicating that all patients receive music therapy treatment (Silverman & Marcionetti, 2005b).

A few published studies have quantitatively demonstrated the efficacy of psychiatric music therapy interventions. Due to the complexities of this type of research,

instead of using a separate control group, many of these studies used participants as their own control (Cevasco, Kennedy, & Generally, 2005; de l'Etoile, 2002; Jones, 2005; Silverman, 2003a; Silverman & Marcionetti, 2004, 2005a, 2005b; Thaut, 1989). These studies utilized pre and posttests to control for the individuality of each participant's illness, medications, social ability, behaviors, cognitions, and feelings. To date, only two published psychiatric music therapy studies have used a separate no treatment group as a control group (Cassity, 1976; Hayashi et al., 2002). Of these two studies, only Cassity (1976) used random assignment to determine treatment and control conditions. This researcher found that the experimental group receiving guitar lessons made significant gains in group cohesiveness and peer acceptance compared to the no contact control group. Hayashi and colleagues (2002) found significant advantages in the experimental group of chronic patients with psychosis on measures of personal relations and self-reported feelings about participation during a chorus activity. Experimental participants received one hour of music therapy once a week for four months. The control group consisted of another ward of patients who were wait-listed for the music intervention.

A number of quantitative studies have attempted to differentiate the effects of various specific types of music therapy interventions. Although positively supporting the efficacy of music therapy interventions, results from these scientific investigations have not evinced clear and consistent differences between specific types of music therapy interventions (Cevasco, Kennedy, & Generally, 2005; Jones, 2005; Silverman, 2003a; Silverman & Marcionetti, 2004). In these investigations, researchers have compared and contrasted commonly used group psychiatric music therapy interventions such as lyric analysis, songwriting, music listening, facilitated group drumming, music and movement, and music games. From these data, it seems that music therapy intervention preferences may be highly individualized. Congruent with this trend, a literature analysis of psychiatric non-music therapy studies indicated that no specific psychotherapeutic techniques exhibited dominant results over other types of techniques (Silverman, 2005).

One psychiatric music therapy study concerned psychiatric prisoner patients (Thaut, 1989). The researcher incorporated self-evaluation methods to quantitatively rate psychiatric prisoner patients in group music therapy, instrumental group improvisation, and music and relaxation interventions. The participants reported significantly higher

posttest ratings on scales of relaxation, mood/emotion, and thought/insight. A pilot study using participants as their own control attempted to provide evidence that active music therapy interventions were more effective in suppressing the symptoms of psychosis than was passive listening (Silverman & Marcionetti, 2005a). It compared two music interventions on auditory hallucinations (AH) by incorporating self-evaluation methods in an ABACA design. Participants who were actively experiencing AH rated the clarity, threat, loudness, and duration of their AH to assess the effects of reading a magazine (A), interactive live music making (B), and recorded music (C). Although results did not reach statistical significance, analysis of descriptive statistics indicated that the interactive live music making best suppressed aspects of AH. Additionally, listening to recorded music was more effective than reading magazines. However, generalizations to the population should be made with extreme caution: the sample size was diminutive ($N = 7$) due to the strict inclusion/exclusion criteria established *a priori* by the researchers.

A meta-analysis was conducted on the effects of music on the symptoms of psychosis and indicated that there were no statistically significant differences between active music therapy interventions and passive music listening (Silverman, 2003b). Although music was effective in suppressing the symptoms of psychosis ($d = .71$), there were no significant differences between live music and recorded music. Additionally, there were no significant differences between therapist selected and patient selected music. However, non-classical music was more effective than classical music, thus supporting the use of popular music in contemporary psychiatric music therapy practice. The researcher recommended that future research attempt to quantitatively define the effects of music therapy and to differentiate it from other helping professions using music to produce changes in persons with mental illnesses.

The psychiatric music therapy literature base contains 4 studies that evaluate single session therapy (Davis, 2005; Jones, 2005; Silverman & Marcionetti, 2004, 2005b). However, only two of these were published in refereed journals (Jones, 2005; Silverman & Marcionetti, 2004). Jones (2005) found that regardless of specific technique, music therapy was able to elicit positive emotional changes during a single session with people who were chemically dependent. Participants perceived the sessions as therapeutic and there were no significant differences between songwriting and lyric analysis

interventions. The researcher incorporated a pre-posttest design within a songwriting session ($n = 13$) and a lyric analysis session ($n = 13$). Silverman and Marcionetti (2004) evaluated the effects of a variety of single music therapy interventions by administering a self-rated instrument to psychiatric inpatients during songwriting, lyric analysis, music game, facilitated group drumming, or music listening interventions ($N = 189$). Participants completed the assessment instrument before the session and immediately after it. The researchers found positive results concerning mean differences of the immediate effects of their interventions on dependent measures of self-esteem, self-expression, coping skills, anger management, mood, symptoms, feelings about being at a psychiatric hospital, and subjective perception of music therapy. Similar to the Jones (2005) study, no differences were found between the various types of music therapy. However, there were notable problems within the methodology of the study. Some participants took part in only one intervention while others took part in all five interventions. Since the institution where data collection took place would not allow the researchers to employ the use of a separate no-contact control group, a repeated measures design was utilized. Due to the programmatic setup of the facility where data were collected, some participants had already received music therapy with the researchers before data collection. Additionally, the researchers developed their own instrument designed to assess a number of dependent measures and there was no reliability established for the psychometric instrument. Therefore, during a separate follow-up study Silverman and Marcionetti (2005b) used a common, reliable, and valid instrument to measure the immediate change in self-esteem before and after a single facilitated group drumming session. The researchers used the Rosenberg Scale of Self-Esteem (Rosenberg, 1965) and analyzed data according to Axis I diagnoses. Although all groups' self-esteems improved, differences were minimal and generalizations would be unwarranted. However, it was noted that the dually diagnosed group had the largest mean change. Again, due to the programmatic setup of the facility where data were collected, some participants had already received music therapy with the researchers before data collection. Davis (2005) also evaluated the immediate effect of a single music therapy intervention on persons with severe mental illnesses in an intensive outpatient treatment facility. The researcher used eight different types of music therapy interventions in a pre-

posttest design. Some participants took part in all eight interventions while others took part in only one. The researcher compared nine mood states on a Likert-type scale and found favorable results for music therapy interventions. Although results were positive and supported the use of music therapy with psychiatric consumers, due to the analogous research question, design, and circumstances, the researcher experienced the same methodological problems as Silverman and Marcionetti (2004) and, thus, only reported means and standard deviations.

To date, only one published quantitative psychiatric music therapy study has employed the use of a follow-up (Hayashi et al., 2002). In this Japanese study, follow-up evaluation four months after the intervention indicated that the advantages found in the experimental group were not long-term and the music therapy treatment only had short-term effects on participants. Therefore, two pilot studies were designed to explore possible models for such investigation in the United States (Silverman, 2006d). The purpose of the first pilot study was to compare the effects of psychoeducational talk therapy and psychoeducational music therapy on perception of helpfulness, satisfaction with life, and proactive coping skills of psychiatric patients at one-month post hospital discharge using a randomized control group design with follow-up data. Results indicated that the music therapy group had significantly higher perceptions of music therapy session helpfulness at one-month follow-up than did the talk therapy group. The music therapy group also had higher satisfaction with life and proactive coping skills than did the talk therapy group, though these differences did not reach significance. These results should be interpreted with caution as only 9 of 30 participants were able to be contacted by the researcher for the follow-up telephone interview. Therefore, generalizations should not be made with such a petite sample. The purpose of the second pilot study was to compare the effects of brief psychoeducation and brief psychoeducational music therapy on the perception of helpfulness, satisfaction with life, and proactive coping skills of psychiatric patients immediately after a single psychoeducational music therapy session. No significant differences were found between groups at immediate follow-up. Analysis of descriptive statistics indicated that the group receiving music therapy had a higher perception of helpfulness and proactive coping skills scores than did the psychoeducational control group, though these differences were not significant. During

both studies, participants consistently noted that they would want their session, be it control or experimental, to occur on a daily basis, indicating an overall need and desire for more therapeutic and educational programming. The majority of participants from both groups also noted they had used music as a coping skill in the past. Additionally, the author discussed methodological problems and provided suggestions for future research in psychiatric settings. Similar to a recent psychology research study evaluating the effects of functional CBT (fCBT) in the United States (Cather et al., 2005), both pilot studies used psychoeducation as an active control condition instead of using a pure or no-treatment type control condition. Researchers have noted that, when comparing an active type of control condition to an experimental condition, differences will be minimized as control participants still benefit from their treatment (Silverman, 2005).

Throughout the music therapy literature base, researchers and authors have consistently suggested that music can be used to teach various nonmusical goals to diverse populations (Alley, 1977; Bruscia, 1998). At a recent American Music Therapy Association conference, Cassity reported the results of a Delphi Poll he conducted with clinical training directors concerning the future of psychiatric music therapy (Cassity, 2006). This descriptive research methodology has been shown to be an accurate method of predicting future events as it incorporates experts as participants and they are able to use their peers' responses to make predictions before the results are finalized. Cassity reported that psychoeducation was to play more of an important role in the future of psychiatric music therapy. Thus, although psychoeducational music therapy has been used with clients with mental illnesses in the past, it is predicted to play an even larger role.

A recent literature analysis evaluated quantitative music therapy studies to identify the status of the current literature base and where the field needed additional research (Silverman, 2005). Results indicated that the psychiatric music therapy quantitative research base needs improvement in the following areas: demonstrating treatment results that are long-term via the use of follow-up methodology, using interventions that are controlled and standardized via manuals with specific protocols, including dependent measures other than symptoms, such as quality of life measures, increasing internal and external validity by random assignment to treatment or control

conditions rather than using participants as their own control. Furthermore, the number of participants needs to be greater than in previous psychiatric music therapy studies. To date, no psychiatric music therapy studies have employed the use of raters blind to condition—an important stipulation to provide unbiased measurement of dependent variables (Silverman, 2005). Unlike stronger research methodologies with individual therapy, most psychiatric music therapists work in the group setting. Thus, evaluating group psychiatric music therapy constitutes an important item for the research agenda.

Unique to group music therapy sessions is the idea of differentiating benefits due to attendance from that of participation. Studies have not behaviorally differentiated between groups who interact frequently with each other and the therapist and groups who interact minimally with each other and the therapist. Furthermore, no studies have attempted to identify the relationship between verbal participation during the session and the evaluated dependent measures.

Psychosocial Research Methodologies

There are many difficulties in psychosocial research. It has long been noted that the quantitative, controlled, ethically acceptable, and objective clinical investigation in psychopathology has many complications such as the presence of obscure and unreliable data, choosing between scientifically safe and clinically significant problems, issues of clinical responsibility and ethics, and complications of execution (Millon & Diesenhau, 1972). Methodological problems in psychological research include keeping clinicians blind to interventions (Drury, Birchwood, Cochrane, & MacMillian, 1996; Kuipers et al., 1997), limited information concerning the methods (Lecompte & Pelc, 1996), diminutive sample size, failure to report treatment changes that may affect outcomes (Kuipers et al., 1997), and control condition problems and complications (Kemp, Hayward, Applewhaite, Everitt, & David, 1996). Other problems include controlling confounding issues such as medication differences, varying personal and social levels, fluctuating degrees of illness and symptomology, data collection restrictions, and lack of appropriate instrumentation for measuring mental health change or stability. Additionally, confidentiality and ethical issues are also intricate: are patients legally able to give consent and are they motivated to

do so when overwhelmed by psychiatric symptoms and may exhibit a considerable lack of insight into their cognitions and behaviors? Thus, providing evidence-based research with scientific quantitative confirmation of effective treatment modalities for mental illness can be complicated, time-consuming, and difficult to control (Silverman, 2005).

Although a number of complications exist within this area of research, a common criticism of psychology effectiveness studies is the lack of documentation of the duration of the outcome. In order to demonstrate long-term treatment efficacy, it is recommended that researchers utilize follow-up methodology in order to differentiate short-term treatment effects from more stable behaviors and cognitions (Chambless & Ollendick, 2001). However, researchers employing the use of follow-up methodology, especially with psychiatric consumers, can often experience heightened attrition and other complications in attaining data (Morrison et al., 2004; Silverman, 2005, 2006d; Smith & Birchwood, 1990).

One psychotherapy noted for its strong research base is cognitive-behavioral therapy (CBT). CBT, also frequently referred to as cognitive therapy, is a structured psychosocial intervention that was developed initially for the management of depression (Beck, Rush, Shaw, & Emery, 1979). CBT is now commonly used for an extensive array of psychiatric disabilities (Salkovskis, 1996) and has been shown to have significant effects on symptoms of psychosis during short-term treatment (Bentall, Haddock, & Slade, 1994; Garety, Kuipers, Fowler, Chamberlain, & Dunn, 1994; Tarrrier et al., 1993). Larger, well-controlled studies have also supported its effectiveness during long-term intervention when compared with routine care both at posttreatment and nine-month follow-up (Kuipers et al., 1997, 1998). Other research has shown cognitive therapy to be superior to a befriending control condition at nine-month follow-up (Sensky et al., 2000).

As CBT's literature base is strong and continually enlarging, it is noted as the treatment of choice for psychiatric consumers on the webpage of the National Institute of Health. In a recent literature analysis concerning psychological treatments for mental illnesses, many aspects of the CBT research base were analyzed in an attempt to assess successful psychosocial research methodologies for persons with mental illnesses (Silverman, 2005). Various components of the studies using CBT to treat mental illnesses were compared to determine the ingredients of successful research practice. Results

indicated favorable results for the use of CBT with the given population. Many of these articles used follow-up data to differentiate between long-term treatment effects and short-term gains.

The literature analysis examined the variety of independent variable comparisons and determined that treatment was more effective than no treatment, but, when treatments were compared, few differences existed. Furthermore, if a more active type of control condition was employed, such as supportive psychotherapy, recreation and support, or psychoeducation, differences between conditions were minimized. Results of the analysis indicated that a pure control condition, such as treatment as usual or a wait-list control, provided a greater variance and differentiation between treatment conditions. Additionally, in all but one of the analyzed studies, participants were randomly assigned to treatment conditions, demonstrating the high standards incorporated in this research base (Silverman, 2005).

Another important finding from the analysis was that all psychiatric studies concerning CBT with consumers with mental illnesses used a manual to control the consistency of independent conditions. Manualizing treatments has proved to be a controversial issue as researchers argue that it does not allow for client individuality or therapist or treatment flexibility (Chambless & Ollendick, 2001). However, many researchers feel it is necessary to establish for methodological stringency, reliability, replicability, and appropriate generalizations (Silverman, 2005).

The literature analysis also noted that when various aspects of therapy were broken down in an attempt to determine the specific therapeutic components and active ingredients of CBT, no common elements were identified (Silverman, 2005). This reductionist approach, known as treatment dismantling or dissection, has attempted to pinpoint the key aspects of the intervention that renders treatment effective. However, researchers have had limited success as studies have shown equal effects between component parts (Kuipers, 2005). To date, no well-controlled trial has been able to dismantle the components of CBT for psychosis, compare it to another empirically supported psychological intervention, or identify specific successful therapeutic mechanisms (Gaudiano, 2005).

Dependent measures in studies concerning CBT were also examined and it was found that the majority of the evaluated studies assessed positive or negative psychotic symptoms as the main dependent measure (Silverman, 2005). Additionally, studies in the literature analysis evaluated social functioning, insight, recovery time, prosocial activities, coping, caregiver burden, relapse, and satisfaction with treatment. Although the evaluated studies concerning CBT chiefly focused on symptom reduction, it has been suggested that efficacy studies typically neglect considering the various characteristics of mental illnesses that may determine the overall effectiveness of the treatment (Naber & Vita, 2004). These studies have been noted to overemphasize the treatment of symptoms while failing to address other issues in the treatment of mental illness. Some researchers have recommended that future areas of scientific inquiry should focus on psychoeducational issues such as medication adherence, knowledge of side effects, and attitudes toward past or present anti-psychotic induced side effects (Lambert et al., 2004). Frequent outcome measures suggested to evaluate in future studies include: subjective well-being and quality of life; tolerability, family and care provider burden; treatment adherence; everyday functioning (Naber & Vita, 2004); incidence of depression; length of stay in hospital; relapse rates; degree of hopelessness; incidence of finding and maintaining employment; suicide risk (Ohlsen et al., 2004; Tarrier, 2005); treatment adherence; quality of life (Chambless & Ollendick, 2001); recognizing psychosocial stressors and interpersonal problems; identifying and modifying attitudes and beliefs about the disorder (Scott & Gutierrez, 2004); everyday functioning; subjective well-being; and emergency room use and incarcerations (Burns, 1998). However, there was no single dependent measure that was considered by researchers to be more standard or clinically relevant than others (Silverman, 2005).

Concerning the design of these studies, all but one study incorporated a pre-test post-test design with at least two groups. Some studies had three treatment conditions in order to compare various types of active independent variables with a passive control condition. Additionally, the majority of the studies identified and analyzed were funded. Sources of funding included grants and pharmaceutical companies (Silverman, 2005).

Another component identified with strong research designs was the use of clinician raters who were blind to the treatment condition. It was also recommended that

rating clinicians should be blind to the timing of the assessment so they are unaware of whether they are evaluating a pre- or posttest. This technique, although adding heightened methodological stringency, typically required more raters and thus further complicated the training, reliability, and funding of the study (Silverman, 2005).

In summation, the results of the literature analysis indicated that treatment is better than no treatment and using active types of the control condition minimizes differences between groups. The strongest research designs included independent variables that were typically controlled via manuals and dependent measures other than symptoms were often measured. Follow-up methodology was highly recommended and raters were blind to condition and timing (Silverman, 2005).

Behavioral Observations and Measurements in Research

Behavioral observations and measurements have been employed in a variety of research. Traditionally, these measurements have been used to observe numerous types of client behaviors after some sort of consequential intervention to evaluate the effectiveness of the intervention. In fact, in a review article concerning types of data published in the *Journal of Applied Behavior Analysis*, it was found that three-quarters of the studies reported observational data (Kelly, 1977). Furthermore, the author noted the majority of the observational methods used were variations of interval recording, event recording, trial scoring, or time-sample recording. These observations have also been used to measure types of therapist or client verbalizations during empirical investigations.

Researchers have studied interviewing behaviors to develop protocols and effective means to train future therapists. These researchers have evaluated variables such as nonverbal behavior (Mahl, 1968), language structure (Matarazzo & Weins, 1972), and overall style (Gilmore, 1973). Results of these studies suggest that the general nature of participant responding can be affected by therapist behaviors such as facial expressions and positive statements. Bergan (1977) offered operational definitions for therapist verbal behavior and a method for coding therapist and client responses. However, this was not a controlled research study and coding responses were not empirically evaluated. However, advantages of this type of coding system include being able to evaluate the effectiveness

of the treatment as measured by the number of relevant client responses, the quantification of training programs, and the development of objective standards for the assessment of therapist behavior (Iwata, Wong, Riordan, Dorsey, & Lau, 1982). During past investigations, these studies used audio and/or video recording devices for observers to measure behaviors. However, due to the rigorous restrictions imposed by internal review boards protecting client confidentiality, this type of research has been mostly discontinued.

A study designed to train clinical behavioral interviewing skills and transfer these skills to the field with actual clients was conducted in the early 1980s (Iwata, Wong, Rioran, Dorsey, & Lau, 1982). This investigation had a number of high-quality factors: all variables were carefully defined, student interviewers first learned and practiced their skills with practica students who were role playing clients, and students worked in an outpatient clinic so the researchers could assess generalization of interviewing skills. Additionally, the study “assessed interviewer effectiveness by measuring the extent to which interviewers’ questions produced client responses” (p. 192). The authors reviewed existing interviewing formats and selected 25 therapist responses to address in their training. These responses were categorized into sets of professional courtesy and behavior assessment and were scored if they occurred or did not during each 20-minute interview. Client responses were categorized into two general types: providing a description of the problem and its characteristics, and consent to the therapist recommended procedures. A multiple baseline design was used to assess the effectiveness of procedures and data were collected via the use of audiotapes. Results indicated an improvement in therapists’ interviewing skills and increases in client responding. These results transferred to working with outpatients and were maintained at four-month follow-up. Finally, to assess social validity, a panel of peers who were considered experts noted that response categories were judged highly relevant to the behavioral assessment process.

In a related follow-up study, researchers evaluated the effectiveness of an instructional manual that did not require trainer involvement compared to one-to-one instruction for the acquisition of behavioral interviewing skills in undergraduate and graduate students (Miltenberger & Fuqua, 1985). Each of the four students trained in the

study was evaluated using a multiple baseline design. Dependent variables consisted of interviewer responses that were categorized into 10 types of responses. To assess social validation, 23 PhD level professional experts rated the relevance of each question on a 5-point Likert-Type Scale. Sessions were audiotaped and results indicated that both procedures were highly effective in the acquisition of behavioral interviewing skills. Mean social validation ratings improved regardless of condition, indicating that trainer involvement was not necessary to improve students' behavioral interviewing skills.

Similar to the research question regarding the training of student counselors, Borck, Fawcett, & Lichtenberg (1982) assessed the effects of counseling and problem-solving behaviors with three undergraduate student counselors who first worked with role-playing clients. After training, the students' counseling and problem-solving behaviors increased to 89 percent. These improvements also generalized to clinical settings with non role-playing clients, evidencing the effectiveness of programs providing training for counseling and problem-solving skills with university students.

As low-income staff may have closely related problems with low-income clients (Hallowitz & Riessman, 1967), Whang, Fletcher, and Fawcett (1982) evaluated training procedures designed to teach counseling and problem-solving skills to low-income professionals. This study was an extension of a previous study that trained college students in counseling and problem-solving interventions (Borck, Fawcett, & Lichtenberg, 1982). Two low-income staff members at a community service center received a 40-hour training session that consisted of written instructions, practice, and feedback based upon their performance. First, participants role-played scripted evaluation sessions that were based on typical problems of persons with low income. Trainee behaviors were categorized into problem solving behaviors, reflection statements, and counseling session behavior. A trained observer listened to audiotapes and scored the occurrence or nonoccurrence of each type of therapist behavior using a checklist. After the role-played training sessions, actual clients were used to assess generalization of skills. These sessions were videotaped for purposes of observing and measuring data. To assess social validation, expert judges observed randomly selected videotapes and rated nine factors on a 7-point Likert-Type Scale. Judges rated the following categories: "overall satisfaction with performance of the counselor, the flow of the session, the

usefulness of the counselor, the quality of alternatives generated by the counselor, the counselor's understanding and sensitivity toward the client, and the appropriateness of the counselor's verbal and nonverbal behavior" (p. 330). Results indicated that the training was effective in all measures: post-training levels of performance were higher than pre-training, generalized to actual clients, and were maintained at eight-week follow-up.

The previously summarized research regarding behavioral measurements of therapy sessions has focused primarily on the therapist and their interviewing skills during the session. However, types of client verbalizations have also received research attention. For experimental analysis of these studies, the effects of independent variables on dependent measures have been characteristically evaluated by averaging or summarizing responding behaviors across brief time periods (Van Camp, Lerman, & Kelley, 2001). Client verbalizations were typically categorized into either the frequency of two opposite types of verbalizations or the frequency of one type of verbalization. In a study designed to increase self-initiated verbalizations with children who were diagnosed with autism, target vocalizations were selected from lists of words and phrases that were considered important for treatment (Matson, Sevin, Box, Francis, & Sevin, 1993). The frequency of correct selected verbalizations was recorded for purposes of data analysis. A related study found that a tactile prompting device could increase the frequency of verbal initiations in a child with autism (Taylor & Levin, 1998). The dependent measure of this study was the frequency of verbal initiations during 10-minute play and follow-up sessions at school. Noncontingent reinforcement has been shown to decrease the frequency of disruptive vocalizations in patients with elderly dementia (Buchanan & Fisher, 2002). Researchers have also measured the frequency of appropriate and inappropriate verbalizations in an adult who was diagnosed with psychosis and mental retardation (Dixon, Benedict, & Larson, 2001) and persons who were addicted to heroin in a treatment clinic (Petry et al., 1998). Others have measured the frequency of appropriate and bizarre verbalizations in a patient with schizophrenia (Wilder, Masuda, O'Connor, & Baham, 2001) or appropriate yes/no responses in children with developmental disabilities (Neef, Walters, & Egel, 1984). Thus, these assessed the dependent measure of the frequency of one or two types of client verbalizations.

In a study involving psychotherapy transcripts, 41 categories of client communications before therapist intervention were identified (Plutchik, Conte, Wilde, & Karasu, 1994). From these communication types, possible therapist interventions were created. Descriptions of these interactions were then sent in questionnaire form to 350 experienced clinicians who rated their degree of agreement with each of the possible responses. Of the 141 clinicians who completed the questionnaire, little relation was found in measures of experience level, gender, age, or orientation. Additionally, the authors noted there were marked disparities for different types of response alternatives, again indicating a large amount of variance between expert clinicians. Finally, another group of seven experienced clinicians used these data to develop new categorizations of 15 therapist interventions and five client communications.

In a review article concerning valid measures of cognition, Clark noted that there was not one approach superior to others (1988). The author stated that, to ensure accurate measures of cognition, specification of appropriate assessment conditions is necessary and that most measures were too narrow as they primarily focused on the frequency of negative self-statements. Thus, it does not seem that there is a best way to measure client verbalizations in a psychosocial context.

In summary, researchers have assessed types of therapist verbalizations for purposes of improving the training of student counselors. Additionally, studies have assessed the frequency of one type or two opposite types of client verbalizations. However, no research has assessed and categorized the frequency of both therapist and client behaviors during a group counseling session. Also, there is not a uniform method or protocol for assessing either therapist or client behaviors. It may be that issues of protecting the client and their confidential verbalizations restrict this type of data collection in a practical manner.

CHAPTER 2

NEED AND PURPOSE OF THE STUDY

Need for the Study

Although studies have compared types of psychotherapies and music therapy interventions, results have indicated that no types of therapy are predominantly more effective than others (Blatt, Zuroff, Bondi, & Sanislow, 2000; Elkin et al., 1989; Gaudiano, 2005; Jacobson et al., 1996; Leichsenring, Rabung, & Leibling, 2004; Thompson, Gallagher, & Steinmetz Breckenridge, 1987). Additionally, dependent measures have traditionally consisted of symptoms of mental illness and have not evaluated other possible benefits such as satisfaction with life, psychoeducational knowledge, or participant perception of helpfulness, enjoyment, and comfort. These areas are considered necessary components of comprehensive psychiatric treatment and important areas of controlled scientific investigation (Naber & Vita, 2004).

Additionally, there is a need for psychiatric music therapy research using a large number of participants in randomized and controlled trials. Behavioral observation of the frequency and types of therapist and participant verbalizations within music therapy and psychoeducational sessions seems a fertile area for investigation that has not been studied. Furthermore, no psychiatric music therapy studies have used raters blind to conditions to objectively assess dependent variables.

Purpose of the Study

The purpose of this study was to quantitatively determine the effects of a single psychoeducational music therapy session compared to a psychoeducational session without music on responses of psychiatric inpatients using the strongest research model possible: large number of participants, randomized and controlled design, written manual for music therapy and psychoeducational interventions, reliable dependent measures, and raters who were blind to condition.

A secondary purpose of this study was to examine the types of therapist and participant verbalizations during the experimental and control conditions, specifically the number of questions asked, the degree to which participants talked about themselves and their personal situations, and the number of insightful responses elicited.

Another purpose of this study was to examine if an independent clinician blind to condition noticed a difference between groups concerning measures of general social functioning on the days following treatment conditions: specifically, were patients functioning socially at a higher level during a psychotherapy group a day after music therapy treatment as measured by a rater blind to conditions?

Research Questions

1. Is there a difference between groups on post-session perceived levels of helpfulness, enjoyment, and comfort?
2. Is there a difference between groups on post-session satisfaction with life scores and psychoeducational knowledge scores?
3. Is there a difference between the observed types of therapist verbalizations during the two treatment conditions?
4. Is there a difference between the observed types of participant verbalizations during the two treatment conditions?
5. Is there a difference in verbal participation between groups? Is the music therapy group's rate or type of verbalization affected by the time allotted to music participation or by the opportunity for music participation?
6. Are there relationships between participant's total number of verbal statements during the session and scores on the dependent measures of satisfaction with life, psychoeducational knowledge, or perception of helpfulness, enjoyment and comfort?
7. Is there a difference between group social functioning levels a day after treatment as assessed by a clinician blind to condition?

CHAPTER 3

METHOD

Pilot Studies

The researcher tested instruments and procedures at the facility 6 months before data collection took place. Pilot studies (Silverman, 2006d) were conducted to examine the following:

1. If two separate sessions could be conducted within a 75-minute period
2. If follow-up data could be collected
3. The practicality and usefulness of instruments
4. The type of music therapy intervention and the music selection for the experimental group
5. The use of psychoeducation as an active control condition
6. What specific psychoeducational component to address during treatment sessions
7. The use of manuals to control independent variables

The results of the pilot studies guided the final design and procedure. The use of two separate sessions/day was eliminated as it was not practical for therapeutic or research purposes. The instruments functioned appropriately and participants were able to complete them without assistance or questions. Some measurements and questions were deleted from the posttest. Forms were modified to make them easier to read.

Participants

Participants' ($N = 105$) Axis I diagnoses were diverse and typical of most current psychiatric institutions (bipolar disorder, major depressive disorder, various types of substance abuse and dependency, schizoaffective disorder, and schizophrenia). For purposes of statistical analyses, participant diagnoses were grouped into one of four

categories according to their predominant Axis I diagnosis: depression, bipolar, schizoaffective/schizophrenia, or other. Participant demographics are depicted in Table 1.

Table 1:

Demographics

Demographic	Category	Experimental <i>n</i> = 60	Control <i>n</i> = 45
Ethnic Background	African-American	8	4
	Caucasian	51	39
	Hispanic	0	1
	Other	1	1
Gender	Female	34	27
	Male	26	18
Number of Previous Psychiatric Admissions	1 time	16	16
	2-4 times	28	19
	5 or more times	16	10
Music Therapy in Past	Yes	33	20
	No	27	25
Admission Status	Voluntary	51	37
	Involuntary	9	8
Axis I Diagnosis	Major Depressive Disorder/Depressive Disorder	20	16
	Major Depressive Disorder/Depressive Disorder with Substance Abuse/Dependency	3	8
	Bipolar Disorder	13	7
	Bipolar Disorder with Substance Abuse/Dependency	6	6
	Bipolar Disorder with PTSD	1	0
	Schizoaffective Disorder, Schizophrenia, Psychosis NOS	9	4
	Schizoaffective Disorder, Schizophrenia, Psychosis NOS with Substance Abuse/Dependency	2	1
	Substance Abuse/Dependency	3	0
	Adjustment Disorder	2	2
	Mood Disorder	1	1

Three *t*-tests for independent samples were conducted to determine if there were differences between groups in the number of participants per session, their ages, or their global assessment of functioning scores upon admission to the hospital. No statistically significant differences were found between the experimental and control conditions for these measures, all $p > .05$. Descriptive statistics for these measures are depicted in Table 2.

Table 2:

Participants per session, age, and admission global assessment of functioning

	Experimental <i>n</i> = 60		Control <i>n</i> = 45		Statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Participants per Session	4.00	1.56	3.46	1.27	$t(26) = 0.99, p = .33$
Age	36.97	13.10	41.22	14.86	$t(98) = -0.88, p = .38$
Admission GAF	39.13	5.29	39.64	4.54	$t(98) = 0.78, p = .44$

Setting

Data collection took place at a short-term 16-bed inpatient psychiatric facility in the southeastern part of the United States. The unit required patients to have insurance. Participants were scheduled for a variety of treatments on the unit: community group (daily rules and individual daily goals set during the morning), group psychotherapy, art therapy, journaling, assertiveness communication, and closure group (assessed the happenings of the day and whether patients met their goals set during community group). Participants' average length of stay was 3-5 days. All group therapy sessions took place in an activity room on the unit where other therapies took place throughout the day. During the study, participants typically sat around a rectangular table in the activity room to facilitate the completion of written consent forms and questionnaires. Some participants opted to sit on couches. No unit staff was present in the activity room during the study.

Design

The design used in experimental and control conditions was post-test only and behavioral observations during sessions. Participants in 32 sessions were randomized into experimental or control conditions by session. The numbers 1-32 were randomized into two groups and each group was assigned to a condition. Participants became a participant in the first session they attended. All participants attended one session. Sessions were conducted on Mondays and Thursdays throughout a period of five months.

This study was approved in advance by the researcher's affiliated university and by the hospital's Internal Review Board. See Appendix for Human Subjects Committee proposals, informed consent forms, and letters of approval.

Independent Variables

The independent variables were psychoeducation and psychoeducational music therapy. Both independent variables addressed the psychoeducational topic of relapse prevention. These conditions were controlled via manuals (see Appendices F and G) that were designed by the researcher and tested during pilot studies (Silverman, 2004d).

The psychoeducational programs used for experimental and control conditions incorporated supportive elements of therapy in scripted and manualized interventions (see Experimental Condition Manual Appendix F and Control Condition Manual Appendix G) delivered by the author who was a board-certified music therapist with over seven years of psychiatric clinical experience. The music therapist incorporated a cognitive behavioral approach. Both conditions were structured psychoeducational programs concerning relapse prevention. Relapse prevention as a specific psychoeducational topic was chosen as it functionally addressed consumers successfully staying in the community and not being readmitted to a psychiatric institution. Additionally, this topic was practical and efficient during a pilot study (Silverman, 2006d). Therapeutic verbal skills and techniques for both conditions were derived from the manual used by Cather and colleagues (2005). This manual was chosen because the study was recently published in a

refereed journal and the study was conducted in the United States, as with the present study.

Dependent Variables

Dependent variables were participant perceptions of helpfulness, enjoyment, and comfort. Satisfaction with life and psychoeducational knowledge were also dependent variables. Additionally, the types and frequencies of therapist verbalizations and participant responses were dependent variables. The final dependent variable was social functioning as measured by a clinical social worker who was blind to treatment conditions. This variable was measured 22 hours after treatment during a group psychotherapy session.

Measurements

Participant demographic information was obtained on the posttest: ethnic background, gender, the number of times participants had been admitted to a psychiatric hospital, age, if the participant had received music therapy before, and if the participant was admitted voluntarily. The posttest also contained 3 separate Likert-Type Scales for participants to rate how helpful the session was, how much they enjoyed the session, and how comfortable they were sharing personal details of their lives during the session. All were rated on separate 7-point Likert-Type Scales, with 1 being not helpful, not enjoyable, or not comfortable and 7 being very helpful, very enjoyable, or very comfortable. Additionally, the posttest contained the Satisfaction with Life Scale, Adapted Knowledge of Illness and Resources Inventory, and asked participants to “*Please write any comments regarding the group therapy session you just participated in*” (see Appendix I).

The Satisfaction with Life Scale (SWLS) is a global measure of life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985). Life satisfaction is an aspect in the more universal paradigm of subjective well-being. Research and theory from fields outside of rehabilitation have noted that subjective well-being consists of at least three parts:

positive affective appraisal, negative affective appraisal, and life satisfaction. Life satisfaction is differentiated from affective appraisal in that it is more cognitively than emotionally driven. It can be defined as a “global assessment of person’s quality of life according to his chosen criteria” (Shin & Johnson, 1978, p. 478). The two-month test-retest correlation coefficient for the SWLS was .82 while the coefficient alpha was .87. The SWLS consists of 5 items positively worded on a 7-point Likert-type scale (from strongly disagree to strongly agree). The scores of these items were added together for a total SWLS score. A low score of 5 would indicate low life satisfaction while a high score of 35 would indicate high life satisfaction.

The Knowledge of Illness and Resources Inventory (KIRI), (McCrary & Bisbee, 1985; personal communication, March 6, 2006) is a 30-item multiple-choice assessment used to evaluate knowledge of psychoeducational material. Three response choices are provided for each question. However, the authors had not tested the validity and reliability of the instrument. Therefore, the current researcher used five items from the original KIRI and composed six new items in the same style. To assess the validity of the Adapted Knowledge of Illness and Resources Inventory (AKIRI), it was sent to a number of mental health professionals who rated the importance of each question for persons with a severe mental illness. A total of 11 psychologists, physicians, therapists, social workers, and certified psychiatric and mental health nurses completed the ratings for each question. These professionals indicated they believed the AKIRI was an appropriate instrument for the assessment of psychoeducational knowledge and also correctly answered the questions. The nine items that were ranked highest were then used for the final version of the AKIRI. To assess test-retest reliability, 13 music therapy students completed the AKIRI two times with a month separating each test. Reliability was calculated by dividing the number of agreements by the number of agreements and disagreements (Madsen & Madsen, 1998). Test-retest reliability was high, $r = .95$. Each correct response was scored as 1 point. The scores for the nine items were added together for a total AKIRI score. Participant scores could range from no knowledge (0 points) to high knowledge (9 points).

The Group Psychiatric Event Sampling Form (GPES) was designed by the researcher (see Appendix D). A trained independent observer sat in the back of the

therapy room and completed this form during the session using event sampling. The observer did not interact with participants during the session. The GPES categorized therapist verbalizations into either questions or validations. The GPES categorized participant verbalizations into four types of statements: “other” (statements or questions not about themselves), “self” (statements made concerning themselves), “cognitive insight” (a generalization or significant insightful statement concerning their cause of illness, treatment, etc.), or “group” (statement made concerning the group therapy session they were participating in). The researcher trained two music therapy graduate students to act as data-takers using the GPES. A manual was used to train the observers (see Appendix E) and the Three Approaches to Psychotherapy videos (Psychological and Educational Films, 1965), showing live therapy sessions, were used to train observers and establish reliability of the instrument. Interobserver reliability ranged from .89 to .90. Trainer and trainee reliability ranged from .83 to .92. Two-month test-retest reliability was .90.

At the conclusion of both conditions, the researcher asked participants to identify one thing they “could do today that would make tomorrow better.” These therapist and participant verbalizations were categorized as “concluding” verbalizations. Thus, therapist and participant verbalizations were divided into two sections: the first section was during the majority of the therapy session while the second was during the final question for purposes of session closure. These verbalizations were added together for the total number of verbalizations during the entire session. Verbalizations were summed by counting their frequencies.

GPES forms were scored individually and by group. Individual and group scores had 3 levels: verbalizations made during the session, concluding verbalizations, and total verbalizations. Individual scores consisted of the total number of verbalizations made during the session by each separate participant. Group scores consisted of the total number of verbalizations made during the session by all participants.

Of the 28 experimental and control sessions where data were obtained, reliability was taken during 12 (42.9 percent) of these sessions. Reliability of the GPES ranged from .87 to .99 while overall reliability was .93. The trained observer in the experimental condition began collecting data after the song was played when the therapist asked the

first question. The trained observer in the control condition began collecting data after the therapist asked the first question.

The Social Functioning Scale was designed by the researcher and asked the rater: “In my session today, the patient functioned socially at this level:” (see Appendix J). This instrument was based on a 7-point Likert-Type Scale with 1 being “worse”, 4 being “same”, and 7 being “better”. A social worker who facilitated daily group therapy and was blind to treatment conditions was trained to use the instrument at the end of the session. This social worker assessed the participants 22 hours after experimental or control conditions. As this facility was a short-term treatment center, much attrition was to be expected with this dependent measure.

Statistical analyses were calculated using the Statistical Package for the Social Sciences (SPSS) version 13.0 (SPSS, 2004).

Procedure

After orientation to the research, explanation of informed consent, and the signing of informed consent forms (see Appendix C), the experimental condition began with the therapist playing a 12-bar blues progression where each participant was asked to state their name and how they were currently feeling during the progression. The researcher then passed out lyric sheets for “*Don’t Stop*” by Fleetwood Mac (see Appendix H). Participants listened to the song and then participated in a psychoeducational lyric analysis session focusing on relapse prevention. This condition was controlled by a scripted manual (see Appendix F).

The control condition began with each participant being asked to state their name and how they were feeling. The researcher then led a psychoeducational session focusing on relapse prevention. This condition was controlled by a scripted manual (see Appendix G).

After participants responded to the final verbal question, the researcher thanked the group members for attending, reinforced them for their work, and passed out pens and the final questionnaire (see Appendix I). After participants had completed the questionnaire, they were thanked and were able to leave the day room where treatment

conditions took place. Music was not played during the completion of the final questionnaire in either condition. Sessions lasted approximately 45 minutes.

CHAPTER 4

RESULTS

Implementation of the Independent Variable

Participants were available for 28 of the 32 (87.5 percent) randomized sessions. Thus, data were collected over a series of 28 sessions (15 experimental and 13 control). A total of 105 participants (60 experimental and 45 control) were involved in the study. Although they were given as much time as necessary to complete the assessment instruments, one experimental participant did not complete the three Likert-Type Scales measuring treatment perceptions of helpfulness, enjoyment, and comfort. Another participant did not complete the Satisfaction with Life scale. All other responses provided by these participants were used in data analyses. All other participants completed the final questionnaire in its entirety.

Perception of Helpfulness, Enjoyment and Comfort

Preliminary analyses confirmed that participant rated data met assumptions of the multivariate analysis of variance (MANOVA). As participants' ratings of helpfulness, enjoyment, and comfort were correlated at the $p < .001$ level. A multivariate analysis of variance (MANOVA) was conducted to determine if there were differences between ratings. This test was not significant, Wilk's Lambda $F(3, 100) = 1.54, p < .21, \eta^2 = .04$. The experimental group had slightly higher mean ratings of helpfulness and enjoyment, indicating participants perceived psychoeducational music therapy to be more helpful and enjoyable than psychoeducation. The control group had slightly higher mean ratings of comfort, indicating participants perceived they were more comfortable during the psychoeducation group than during the psychoeducational music therapy group. Descriptive statistics for perception of helpfulness, enjoyment, and comfort are depicted in Table 3.

Table 3:

Participant rated dependent measures

Dependent Measure	Experimental <i>n</i> = 59		Control <i>n</i> = 45		Statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Helpful	5.98	1.34	5.87	1.12	.001
Enjoyment	6.27	1.16	6.09	1.20	.001
Comfort	5.89	1.55	6.01	1.29	.001

Satisfaction with Life and Psychoeducational Knowledge

There was no significant relationship between satisfaction with life and psychoeducational knowledge, $r = .53, p > .06$. Two *t*-tests for independent samples were conducted to determine if there were differences between groups in measures of satisfaction with life and psychoeducational knowledge. Although both means were higher for the experimental group, there were no significant differences between groups, both $p > .05$. The experimental group had slightly higher mean satisfaction with life and psychoeducational knowledge scores than the control group but differences were not significant. Descriptive statistics for satisfaction with life and psychoeducational knowledge are depicted in Table 4.

Table 4:

Satisfaction with life and psychoeducational knowledge

Dependent Measure	Experimental <i>n</i> = 60		Control <i>n</i> = 45		Statistic
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Satisfaction with Life	18.03	8.01	16.18	7.63	$t(102) = 1.19, p > .23$
Psychoeducational Knowledge	7.57	1.21	7.47	1.27	$t(103) = 0.41, p > .68$

Therapist and Participant Verbalizations

To determine if there were relationships between therapist questions and verbalizations, correlations were performed on these types of verbalizations. Results were not significant, $p > .34$. To determine if there were significant differences between the number of therapist verbalizations during experimental and control conditions, t -tests for independent samples were conducted on the total number of therapist verbalizations. Although means for questions and verbalizations were higher for the experimental group, results were not significant, both $p > .06$. Thus, during the psychoeducational music therapy groups, the therapist asked more questions and gave more verbalizations than during the psychoeducational groups. Although time was devoted to music, there was no significant difference in therapist verbalizations with participants across session duration. Descriptive statistics of therapist verbalizations are depicted in Table 5.

Table 5:

Therapist verbalizations

		Experimental		Control		Statistic
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>p</i>
Session Part 1	Question	59.53	14.39	49.38	13.97	
	Validation	32.93	13.08	26.38	9.92	
Session Conclusion	Question	4.80	1.52	4.08	1.55	
	Validation	3.20	1.37	2.77	2.24	
Total	Question	64.33	15.26	53.46	14.86	.06
	Validation	36.13	13.66	29.15	10.16	.14

Concerning the type and frequency of participant verbalizations by group session, means and standard deviations were calculated first. Statistical and correlational analyses were done on ratio data beginning on page 69 to control for fluctuations in session durations and music interventions. Therapist verbalization means were higher in the control group for concluding other statements and total other statements while therapist

mean verbalizations were higher in the experimental group for all other types of verbalizations. Although standard deviations were high, the experimental group had a mean difference score of 19.32 more statements per session than the control group. Many of these responses were self and cognitive insight verbalizations. Thus, during the psychoeducational music therapy groups, participants made more overall verbalizations. Additionally, many of the additional verbalizations made by the psychoeducational group were self and cognitive insight statements. Descriptive statistics for group verbalizations are depicted in Table 6.

Table 6:

Group verbalizations

		Experimental		Control		Statistic
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>p</i>
Session Part 1	Other	88.80	26.80	84.38	35.53	
	Self	70.53	21.80	57.31	21.65	
	Cognitive	5.67	4.48	3.54	5.16	
	Insight					
	Group	0.00	0.00	0.00	0.00	
Session Conclusion	Other	5.53	4.03	5.69	5.41	
	Self	6.87	3.44	6.62	4.54	
	Cognitive	0.93	1.49	0.85	1.12	
	Insight					
	Group	0.00	0.00	0.00	0.00	
Total	Other	87.67	28.06	90.08	39.13	.85
	Self	77.40	23.53	63.92	24.19	.15
	Cognitive	6.60	5.15	4.38	5.80	.29
	Insight					
	Group	0.00	0.00	0.00	0.00	N/A
Overall	Total Verbalizations	178.47	49.51	159.15	56.73	.35

Concerning individual participant verbalizations by condition, the control group had higher means in other, concluding other, concluding self, concluding cognitive insight, and total other verbalizations. Mean responses for all other types of participant

verbalizations were higher for the experimental group. Standard deviations were consistently high when compared to the number of verbalizations, thus indicating a large amount of variance within responses types. Therefore, during psychoeducational music therapy groups, participants made more verbalizations about themselves as well as more insightful self verbalizations than participants in the psychoeducation condition. Individual response types are depicted in Table 7.

Table 7:

Participant verbalizations

		Experimental		Control	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Session Part 1					
	Other	22.23	16.48	24.38	17.87
	Self	17.83	15.37	16.60	13.22
	Cognitive Insight	1.41	2.00	1.02	1.97
	Group	0.00	0.00	0.00	0.00
Session Conclusion					
	Other	1.38	1.46	1.64	2.01
	Self	1.72	1.80	1.91	2.09
	Cognitive Insight	0.23	0.43	0.24	0.57
	Group	0.00	0.00	0.00	0.00
Total					
	Other	23.52	17.32	26.04	19.02
	Self	19.55	16.55	18.45	14.63
	Cognitive Insight	1.65	2.13	1.27	2.20
	Group	0.00	0.00	0.00	0.00
Overall					
	Total Verbalizations	44.73	33.82	46.00	32.04

In an attempt to control for the variable of time, ratios between total therapist questions and total client responses were used for statistical data analyses. This method was chosen for statistical analyses as the experimental group listened to the song that was 3:12 in duration. Additionally, although the researcher attempted to begin and conclude the session on time, many confounding factors on the psychiatric unit influenced the duration of the sessions. Thus, using ratios of therapist questions to participant responses was deemed appropriate for purposes of statistical analyses. Control mean ratios were

higher for other verbalizations/questions and total verbalizations/questions. Experimental mean ratios were higher for self verbalizations/questions and cognitive insight verbalizations/questions. Therefore, the psychoeducational music therapy group had higher ratios of the self and cognitive insight verbalizations/questions than did the psychoeducation group. Descriptive statistics for total ratios of response types to questions are depicted in Table 8.

Table 8:

Ratio of participant responses to therapist questions

	Experimental		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Other/Question	1.59	0.68	1.73	0.75
Self/Question	1.31	0.68	1.28	0.68
Cognitive Insight/Question	0.12	0.11	0.09	0.13
Group/Question	0.00	0.00	0.00	0.00
Total Verbalizations/Question	3.02	1.40	3.11	1.36

As there were statistically significant correlations between the group ratios of response types to questions, a MANOVA was conducted to determine if there were differences between conditions concerning the ratios of response types. Results were not significant, all $p > .80$. Statistically significant correlations occurred between self/question and other/question, self/question and total/question, self/question and cognitive insight/question, self/question and other/question, and cognitive insight/question and other/question. Correlations between ratios of response types to questions are depicted in Table 9.

Table 9:

Correlations between group ratios of response types to questions

Ratios	Other/ Question	Self/ Question	Cognitive Insight/ Question	Group/ Question	Total/ Question
Other/Question	1.00	.67**	.26	0.00	.92**
Self/Question		1.00	.71**	0.00	.88**
Cognitive Insight/Question			1.00	0.00	.51*
Group/Question				1.00	0.00
Total/Question				0.00	1.00

* $p < .01$, two-tailed. ** $p < .001$, two-tailed.

Relationships Between Total Verbalizations and Dependent Measures

To determine if there were relationships between participation and dependent measures, correlational analyses were performed. The total number of verbalizations was used to determine if significant relationships existed between helpfulness, enjoyment, comfort, satisfaction with life, psychoeducational knowledge, and total verbalizations.

The ratings of helpfulness, enjoyment, and comfort were significantly correlated with the number of total verbalizations made during the session, $p < .01$. Further analyses by condition revealed that there were no significant correlations between total verbal participation and helpfulness, enjoyment, or comfort for the experimental condition, $p > .08$. However, these measures were significantly correlated for the control condition, $p < .007$, indicating that verbal participation was not necessary for high perceptions of treatment only during the experimental condition.

There were no significant correlations between satisfaction with life and the total number of verbalizations for either group, $p > .11$. However, there was a significant relationship between these measures at the $p < .02$ level for the all participants, regardless of condition. Thus, participants who had a high satisfaction with life were more likely to verbalize during the session. There were no significant correlations between psychoeducational knowledge and the total number of participant verbalizations, $p > .23$,

indicating that verbal participation was not necessary to learn the psychoeducational information. All correlational data are depicted in Table 10.

Table 10:

Correlations between total verbalizations and dependent measures

	Helpful	Enjoyment	Comfort	Satisfaction with Life	Psychoeducational Knowledge
Experimental	.08	.11	.23	.21	-.04
Control	.52**	.40*	.47*	-.20	-.04
Total	.33*	.35**	.27*	.25*	.12

* $p < .05$, two-tailed. ** $p < .001$, two-tailed

Social Functioning

To determine if there were differences between conditions concerning social functioning at one day following treatment as measured by a clinician blind to condition, a t -test for independent samples was performed. Although the experimental group had a higher social functioning rating mean than the control group, there were no significant differences between groups, $p > .46$. Data were collected on 46 of the 105 (43.8 percent) total participants. Descriptive statistics are depicted in Table 11.

Table 11:

Social functioning level at one day follow-up

	Experimental			Control			Statistic
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>P</i>
Social Functioning	5.65	0.94	26	5.55	1.19	20	.46

Free Response Comments

Of the 105 participants, 28 (26.7 percent, 14 experimental and 14 control) wrote qualitative responses to the question, “Please write any comments regarding the group therapy session you just participated in.” Responses were analyzed and categorized into

three themes: compliments, thanks, and specific music comments. A manual was used to train an independent rater who was blind to written response condition (see Appendix K). Written responses could be coded as more than one type of response when appropriate. The independent observer coded responses (see Appendix L). Reliability was conducted on all 28 (100 percent) of the written qualitative responses and was .97. Results show few differences between groups. The frequencies of response types are depicted in Table 12.

Table 12:

Frequency of free response comments

Type of Response	Experimental	Control
Compliment	11	13
Thanks	3	3
Specific Music Comment	2	1

CHAPTER 5

DISCUSSION

Implementation of the Independent Variable

There were no significant differences between groups in the number of participants per group session, their ages, or their admission global assessment of functioning scores. Thus, experimental and control groups were relatively equal in these three measures, which served to ensure the sample was from the same population. Most importantly, the admission global assessment of functioning score served to make certain there were no general functioning differences between groups. The control group had a higher mean by 0.51, indicating this group was functioning at a slightly higher level than the control group, although this was not significantly different. Global assessment of functioning scores at discharge were unavailable but could constitute a dependent measure for future psychiatric studies (Silverman, 2005).

Although differences between conditions concerning the number of participants per group session were not significant, the music therapy group had more participants and a higher mean number of participants per session. As sessions were randomized, this difference may have been a result of potential participants desiring to attend music therapy groups more than psychoeducational groups. Although not objectively measured in the study, the researcher found it easier to persuade potential participants to attend music therapy sessions than control sessions. Favorable past experiences with music therapy may also have contributed to this discrepancy. In fact, 33 of the 60 experimental participants reported they had received music therapy during past admissions. This may have led to them being more apt to attend sessions. Previous research has indicated that psychiatric patients favor music therapy (Heaney, 1992; Silverman, 2006c). Additionally, participants with positive past perceptions of music therapy may have encouraged their peers to attend these sessions, noting that they would enjoy and benefit from the music therapy session. For whatever reasons, it seems that patients enjoy music therapy and enthusiastically attend sessions.

Perception of Helpfulness, Enjoyment and Comfort

There were no significant differences in participant-rated measures of helpfulness, enjoyment, or comfort between the experimental and control groups. However, the experimental group tended to have slightly higher ratings of helpfulness and enjoyment than did the control group. Since participants only attended a single session, they had nothing with which to compare their treatment condition (aside from past experiences). Thus, it would seem that psychiatric patients slightly favor music therapy interventions over an effective and active control condition, even in a randomized and controlled clinical trial. It should be noted, however, that the control group receiving psychoeducation also had high ratings of these variables, indicating that they enjoyed the intervention, found it helpful, and were comfortable during it. Furthermore, written responses (see Appendix L) and verbal responses to the therapist after the session, although not measured, indicated control participants still benefited and enjoyed their treatment condition. From these data, it seems that psychiatric consumers not only value and appreciate treatment, but seek additional knowledge and help to understand and manage their illnesses. Future research attempting to identify specific components of psychosocial treatment that participants view as helpful or clinically relevant may be without merit: the psychology field has yielded unsuccessful attempts at this type of inquiry, commonly referred to as “treatment dismantling” (Silverman, 2005).

Although participants rated helpfulness and enjoyment higher in the music therapy condition, their perceived comfort level was slightly higher in the control condition. As more self and cognitive insight statements were made in the music therapy condition, it may have been that participants were more comfortable during the control condition as they did not speak about themselves as often as they did in the music therapy condition. As the three measures of participant treatment perceptions were interrelated, potential reasons for this discrepancy are difficult to conjecture.

Participants’ ratings of helpfulness, enjoyment, and comfort were significantly correlated. From these data, it would seem that participants’ perceptions of these separate

three measurements are closely related. Thus, future research could further limit the number of subjective participant ratings and focus more on objective rating scales.

Additional analyses were conducted to determine if a participant's Axis I diagnosis affected their perception of helpfulness, enjoyment, and comfort. This analysis did not reach statistical significance, perhaps indicating that even within similar diagnoses, there is considerable variation within these perceptions.

Satisfaction with Life and Psychoeducational Knowledge

There were no significant differences between groups in valid and reliable measures of satisfaction with life and psychoeducational knowledge between groups. Satisfaction with life mean scores were only slightly higher in the music therapy group than in the psychoeducational control group. Satisfaction with life is an important dependent measure as many psychosocial studies overemphasize the treatment of symptoms and do not take into account quality of life or personal contentment variables that may contribute to the overall well-being of the individual (Silverman, 2005). Additionally, psychoeducational music therapy tended to be slightly more effective than psychoeducation as measured by an assessment of psychoeducational knowledge. Therefore, these results indicate music therapy interventions can be structured in a psychoeducational context to increase psychiatric consumers' knowledge of their illness and how to manage it. Other factors may have influenced this gain in knowledge: as participants enjoyed the music therapy intervention more than the control condition, they may have been more on task and thus retained the information better than the control group. Although previous published research has not investigated psychoeducational music therapy, the results of this randomized and controlled study support it in both satisfaction with life and psychoeducational knowledge measures.

Additional analyses were conducted to determine if a participant's Axis I diagnosis affected their satisfaction with life and psychoeducational knowledge. Again, this analysis did not reach statistical significance, perhaps indicating that even within similar diagnoses, there is considerable variation within these types of dependent measures.

Therapist and Participant Verbalizations

There were no significant differences between groups for therapist verbalizations. Although standard deviations were large, the mean frequencies of questions and verbalizations were slightly higher during the music therapy condition, despite the use of the song which lasted over three minutes. Additionally, the introduction song during which participants were asked to state their name and how they were feeling within a 12-bar blues progression took more time than the control condition introduction without music. Despite these variables, during the music therapy condition, the therapist was able to ask more than 10 additional questions than during the control condition which, in turn, led to more participant responses. With a greater number of participant responses, the therapist was able to make more validations. Additionally, with more participant verbalizations, therapist validations could be shorter in length so additional participants could contribute to the dialogue. Perhaps the structure provided by the music therapy intervention allowed the group to better stay on task and, as a result, the therapist was able to ask more questions due to this increased structure. The therapist did note that it was easier to redirect participants who were off-topic back to the music during the experimental condition. It seemed that during the control condition, redirection was more difficult and not as effective.

Although more therapist validations were provided during the music therapy conditions, statistical analyses were not performed on this variable. It was noted that this measure depended upon the overall participation and verbal interactions of the group. Thus, it fluctuated greatly in the frequency and depth of the validations provided: if a group were not interacting or verbally participating at a high level, the therapist's validations were longer in duration and more thorough to facilitate learning the psychoeducational material despite a lack of patient verbal participation. If a group verbally participated at a high level, validations were brief and not as thorough as to allow the patients to verbalize more. This study did not control for the length and thoroughness of therapist validations. Future research could investigate the frequency and thoroughness of therapist validations during group psychosocial treatments.

Concerning types of participant verbalizations, there were no significant differences between groups for the ratios of therapist questions to participant verbalizations. Additionally, there were no differences between conditions for the type of participant verbalization. Although not significant, during music therapy group sessions, there were almost 20 more participant verbalizations. Many of these verbalizations were self and cognitive insight statements, indicating participants were making statements about themselves rather than general statements. As there were significant correlations between ratios of questions to self and cognitive insight statements, it seems that the more participants verbalize about themselves, the more likely they will make a cognitive insight. It seemed that when participants were verbalizing about themselves for an extended period of time, they would often make a cognitive insight, as if they were “thinking aloud” and then “arrived” at a particularly insightful thought. Implications for clinical practice involve psychoeducational music therapy to bring forth a greater number of personal and insightful statements from participants. Perhaps participants were more willing to make personal statements due to the unique music therapy medium: participants may have been more apt to talk about themselves through the lyrics of the song rather than directly talk about themselves, as they made more self statements through the song lyrics during the music therapy condition.

Additional analyses were conducted to determine if a participant’s Axis I diagnosis affected their total verbal participation. This analysis did not reach statistical significance, perhaps indicating that even within similar diagnoses, there is considerable variation within how much psychiatric patients verbally participate. This observation was also made by the researcher and the GPES data-takers. It seems that although psychiatric patients may have similar diagnoses and symptoms, there can be a large amount of variance in their verbalization rates. Perhaps verbal participation during psychosocial interventions is more of a character trait and thus, is less affected by symptomology.

Although the “group” category was included on the GPES, during the present study, it was not used during any of the 28 sessions where data collection took place. However, as the “group” category was used during the training videos and the researcher had past experiences with psychiatric patients making these types of statements, it was

included for purposes of the present study. Perhaps this category could be removed in future studies involving the GPES.

The GPES form appeared to work well as evidenced by the consistently high inter-rater reliability. The observers using this form noted it was most difficult to accurately complete when more than one participant was talking at a time. They also noted that repetition helped to facilitate taking this type of data. Perhaps this form could be used as an educational tool to train future therapists and provide them with measurable and objective feedback data. In fact, the therapist noted completed GPES forms provided him with a “snapshot” of what happened during the session and the overall rates and types of therapist-client interactions. The GPES, or variations of it, could be used to objectively measure the question, response, validation sequence often used during verbal psychosocial interventions.

Relationships Between Total Verbalizations and Dependent Measures

One of the unique aspects of this study was that it measured the frequency and type of participant verbalizations, indicating a degree of verbal participation. Relationships between helpfulness, enjoyment, and comfort and verbal participation (as measured by the total number of participant verbalizations) were significant. Thus, it seems that the more psychiatric consumers verbally participate, the more they perceive the session benefits them in measures of helpfulness, enjoyment, and comfort. Additionally, there were more verbalizations during the music therapy conditions and the majority of these verbalizations were self statements. Therefore, it seems that music therapy encourages participation which then leads to psychiatric consumers perceiving treatment as more effective. Implications for clinical practice involve the use of music therapy to encourage greater participation and a heightened perception of therapeutic effectiveness for persons with mental illnesses.

However, analyses by condition revealed no significant correlations between perceptions of helpfulness, enjoyment, or comfort and total verbal participation for the music therapy group. These measures were significantly correlated for the control group, indicating an association between higher perceived levels of helpfulness, enjoyment, and

comfort, the control group had to verbally participate. This association was not found for the music therapy group as participants in this condition did not have to verbally participate to have high perceptions of these variables. From these data, it seems that music therapy group participants do not need to verbally participate for them to perceive the session as helpful, enjoyable, and to feel comfortable sharing details of their life, unlike the psychoeducation group. These relationships demonstrate that music therapy may affect the way participants perceive the session regardless of how much they participate. Also of consequence is the fact that psychiatric patients' perceptions of treatment are important. These consumers are recognized as having the expertise and knowledge to contribute to mental health services (National Association of State Mental Health Program Directors, 1989). Thus, their perceptions of treatment effectiveness should be taken sincerely.

There was no significant relationship between psychoeducational knowledge and total verbal participation. This lack of relationship may support theories concerning the importance of dynamic listening and vicarious learning: participants did not have to actively verbally participate but still learned the psychoeducational information as measured by the AKIRI. Although they did not verbally participate, participants learned the information as they may have been actively listening to the psychoeducational discussion. However, there was a significant relationship between satisfaction with life and verbal participation. This relationship may indicate that participants who had a higher satisfaction with life verbally participated more. Conversely, it may be that patients who participated more had a higher satisfaction with life as a result of their proactive participation. However, the satisfaction with life instrument has a high two-month test-retest reliability ($r = .82$), indicating that satisfaction with life is probably the predictor of verbal participation. From these data, it would be premature to make generalizations but future research could serve to expand on these theories.

Social Functioning

There were no significant differences between groups concerning the measure of social functioning at one-day follow-up as measured by a rater who was blind to

conditions. However, the music therapy group had a slightly higher mean social functioning rating than the control group. Generalizations concerning this difference would be premature and require further exploration in randomized and controlled research trials. As expected, there was a great deal of attrition in this measurement as the facility was designed for short-term treatment: data could only be collected on 46 of the 105 (43.8 percent) participants.

Follow-up data are essential for purposes of differentiating short-term changes from stable, enduring changes. Further longer-term follow-up measurements were not taken in light of a pilot study that indicated participants from this facility were difficult to contact at one-month post discharge (Silverman, 2006d). Although this was the first randomized and controlled psychiatric music therapy study that employed follow-up data taken by a rater blind to conditions, additional studies employing the use of follow-up data constitute a necessary item on the psychiatric music therapy research agenda (Silverman, 2005).

Free Response Comments

All written free response comments were positive and there were no major differences between experimental and control conditions. One experimental participant suggested using a song that was “not so middle of the road.” A control participant noted that the treatment would have been helpful for family members and as an outpatient session. The use of psychoeducational music therapy in outpatient psychiatric care could constitute an area for future research.

It is noteworthy that only 28 of the 105 (26.7 percent) total participants completed this section of the questionnaire. Judging from the response frequency of this type of data, future research should not solely rely upon free response written feedback. However, regardless of condition, many participants verbally thanked and/or praised the therapist after the session was completed but did not provide written feedback. Perhaps future research could measure these verbalizations to obtain a greater amount of feedback data. Additionally, regardless of condition, participants were positive, thankful, and complimentary, both in verbal and written feedback. This supports the idea that

psychiatric consumers value and appreciate their treatment and are aware that they need additional psychosocial interventions for a successful discharge and stay in the community. The treatment value evidenced from verbal and written comments is also congruent with patients' consistently high perceived levels of helpfulness, enjoyment, and comfort.

Limitations of the Study

Although results of this randomized and controlled study tend to support the clinical use of psychoeducational music therapy, generalizations should be made with caution. As these participants had medical/psychiatric insurance, generalizing these results to a psychiatric facility for persons who are indigent may be premature as there is typically a difference between the two types of psychiatric consumers and the facilities that provide treatment for them. Additionally, as treatment was delivered in a group treatment format, generalizations are only valid for other groups, not to single persons (Thyer, 1997).

Quantifying the types of therapist and participant verbalizations is a new area of study. Although these data tended to support the use of psychoeducational music therapy to elicit a greater number of self and cognitive insight statements, standard deviations were consistently high and statistically significant differences concerning verbalization types between groups were not indicated. Additionally, the therapist and GPES data-takers noted the tremendous amount of variation within groups, despite the use of treatment manuals to control independent variables. It seemed that each group session was unique and group dynamics varied from session to session despite consistent subject matter and the use of treatment manuals. Therapists and researchers should be aware of the unique individuality, challenges, and dynamics of each group.

Following years of conducting group psychiatric music therapy and being able to objectively quantify therapist and participant verbalizations in the current study, the researcher has conjectured about a "theory of one." It seemed that group treatment sessions were successful when there was at least one participant who acted as a leader during the session. This leader was always a patient. It is theorized that such a leader

might be a staff member or someone other than the leader/facilitator. This theory takes into account the individuality of each session and how a group only needs one leader to model positive group therapy behaviors such as openness, listening, sympathy, self disclosure, and support. If a group had the one leader, other members were typically more apt to verbalize and participate. If a group did not have a leader, the therapist had to “work harder” and “pull teeth” in order to elicit responses and encourage verbal participation. This theory was strengthened with the implementation of treatment manuals; despite controlling the subject matter and the type of questions asked, there was still a great deal of variation, even within groups. This theory constitutes an area for future investigation.

Answers to Research Questions

1. Is there a difference between groups on post-session perceived levels of helpfulness, enjoyment, and comfort?

There were no significant differences between post-session perceived levels of helpfulness, enjoyment, and comfort. The music therapy group had slightly higher perceived levels of helpfulness and enjoyment while the control group had slightly higher levels of comfort. Additionally, these three measures were correlated at the $p < .001$ level, indicating there were relationships between how participants perceived self-rated variables of helpfulness, enjoyment, and comfort.

2. Is there a difference between groups on post-session satisfaction with life scores and psychoeducational knowledge scores?

No, there were no significant differences between group post-session satisfaction with life and psychoeducational knowledge scores. The music therapy group had slightly higher means of satisfaction with life and psychoeducational knowledge scores than the control group, thus the use of psychoeducational music therapy was shown at least as effective as psychoeducation. There was no significant correlation between these variables, indicating no relationship between satisfaction with life and psychoeducational knowledge.

3. Is there a difference between the observed types of therapist verbalizations during the two treatment conditions?

No, there were no statistically significant differences between the observed types of therapist verbalizations during the two treatment conditions. Although more than 10 additional questions were asked and more validations were given during the music therapy sessions, standard deviations were large and there were no significant differences between conditions. It should be noted that during the music therapy condition the music itself took time. However, during the music therapy condition, the therapist was still able to ask more than 10 additional questions than during the psychoeducation condition. Perhaps the music provided the session with additional structure and thus permitted more questions by the therapist.

4. Is there a difference between the observed types of participant verbalizations during the two treatment conditions?

No, there were no statistically significant differences between the types of participant verbalizations during the two treatment conditions. Although not significant, more self, cognitive insight, and total verbalizations were made during the music therapy condition; the music therapy group had almost 20 more statements per session than the control group. Additionally, most of these statements were self and cognitive insight verbalizations despite the use of music.

5. Is there a difference in verbal participation between groups? Is the music therapy group's rate or type of verbalization affected by the time allotted to music participation or by the opportunity for music participation?

No, there were no significant differences between groups on ratios of participant verbalizations to therapist questions. Despite the use of music, there was no difference between group ratios of participant verbalizations to therapist questions. Ratios of self and cognitive insight statements to therapist questions were higher in the experimental group, indicating that participants talked more about themselves during the music therapy condition.

6. Are there relationships between participant's total number of verbal statements during the session and scores on the dependent measures of satisfaction with life, psychoeducational knowledge, or perception of helpfulness, enjoyment and comfort?

Yes, there were significant relationships between participant verbal participation and satisfaction with life and participants' perceptions of helpfulness, comfort, and enjoyment. The relationship between total verbal participation and knowledge of illness was not significant, possibly indicating participants learned the information vicariously and by actively listening to their peers and the therapist. However, analyses by condition revealed no significant correlations between perceptions of helpfulness, enjoyment, or comfort and total verbal participation for the music therapy group. These measures were significantly correlated for the control group, indicating for higher perceived levels of helpfulness, enjoyment, and comfort the control condition also verbally participated. The music therapy group, however, did not necessarily verbally participate to have high perceptions of these variables.

7. Is there a difference between group social functioning levels a day after treatment as assessed by a clinician blind to condition?

No, there were no statistically significant differences between group social functioning levels a day after treatment as measured by a blind rater. Although not significant, the music therapy group had higher social functioning levels.

Implications for Clinical Practice

Although the use of a randomized control group strengthens clinical research trials, historically, there have been problems with comparing active types of control conditions to experimental psychosocial treatment conditions (Silverman, 2005). For example, supportive counseling was designed to be an intermediate position between CBT and routine care (TARRIER et al., 1999). Research comparing CBT and supportive counseling found minimal differences (Pinto, La Pia, Mennella, Giorgio, & DeSimone, 1999; TARRIER et al., 1998, 1999; TARRIER, Kinney, McCarthy, Humphreys, & Wittkowski, 2000). Similarly, when psychoeducation is used as an active control condition, treatment effects concerning symptoms are not as profound (Cather et al., 2005). Enriched treatment as usual, which contained psychoeducational components, had similar results (Rector, Seeman, & Segal, 2003). Thus, the clinical implications of active controls

suggest that psychiatric patients benefit—and perceive that they benefit—from any type of active treatment. Therefore, when designing the current study, the researcher hypothesized that there would be minimal differences between groups due to the strong and active control condition of psychoeducation. However, the researcher decided to use an active control condition for the therapeutic benefit of the patients. Ethically, the researcher struggled with the idea of a no-contact control group. If a no contact control group had been used to compare to psychoeducational music therapy, between group differences may have been more evident and effect sizes might have been larger. However, as differences were found between groups in a number of dependent variables, this study supports the clinical effectiveness of psychoeducational music therapy during a randomized and controlled trial.

Furthermore, this study employed the use of single-session treatment. As there tended to be slight differences between group means in some of the assessed variables, it seems that there are differences between interventions even within a single-session. As hospitalizations become briefer in duration, consequently, psychiatric consumers are receiving less treatment. This study evidenced that single-session treatment was not only effective and practical, but there that music therapy can be effectively used in a brief psychoeducational context.

Suggestions for Future Research

The present study employed a lyric analysis intervention with the song, *Don't Stop*, as the independent variable. Future research could assess the effects of different types of psychiatric music therapy interventions such as songwriting, instrument playing, improvisation, facilitated group drumming, and music listening. Additionally, other songs could be used in a lyric analysis intervention.

Future research could also involve different populations where music therapy counseling interventions are appropriate: psychiatric outpatients, persons in day treatment facilities or group homes, and persons in long or short-term rehabilitation for chemical dependence. This research could assess the use of multiple music therapy sessions over a longer treatment period instead of a single music therapy session as in the present study.

Further investigations of the relationship between verbal participation and dependent measures are warranted. The present study found a significant relationship between satisfaction with life and verbal participation. As satisfaction with life is a trait characteristic, this indicated satisfaction with life was a predictor of verbal participation. Other studies could attempt to replicate this finding and evaluate relationships between verbal participation and related types of dependent measures. Studies could also compare characteristics of participants who verbally participated on a high level versus those who verbally participated on lower levels. This research could lead to identifying what types of persons make up a functional and effective group for therapy sessions. Certainly, there is a lack of studies involving the use of behavioral observation with psychiatric patients. In a psychoeducational context, this research could be used to determine effective methods of educating psychiatric consumers about their illnesses and how to manage them.

A great deal of evidence suggests that family involvement is beneficial in the management of severe mental illnesses. In fact, over 30 randomized clinical trials have verified that family-based psychoeducational programs augment psychosocial and family outcomes, diminish relapse, and advance symptomatic recovery in consumers diagnosed with bipolar disorder and schizophrenia (Murray-Swank & Dixon, 2004). Perhaps future research could incorporate music therapy to involve families in a psychoeducational context. Research has indicated that for people with severe mental illnesses, social support is a central dynamic in attaining both educational and vocational goals (Collins, Mowbray, & Bybee, 2000). Thus, paired with the results supporting psychoeducational music therapy from the current study, it seems that family-based psychoeducational music therapy could be explored in future research. In fact, during a control condition session, a participant's spouse attended the session. This spouse understood the purpose of the research and promised to just listen as to not influence data. However, at the conclusion of the session, the spouse thanked the therapist, noting how much they had learned. This person noted that people who did not have a mental illness rarely understood what it was or how to manage the lifelong problem. Therefore, involving family members in psychoeducational music therapy could be an area for future research.

Additionally, using direct behavioral measures as well as pencil and paper measures (Thyer, 1997), as done in the current study, could assess verbal participation, perceptions of treatment, and learning outcomes.

Finally, there is a need for long-term, follow-up data (Silverman, 2005). Future psychoeducational music therapy research studies could evaluate the duration of treatment effects on variables such as satisfaction with life, psychoeducational knowledge, treatment perceptions, symptoms, and other types of non-symptom measures.

APPENDIX A

Florida State University Human Subjects Approval



Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8633 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 7/27/2006

To:

Michael Silverman
2703 Pecan Road, #2
Tallahassee, FL 32303

Dept: **MUSIC SCHOOL**

From: **Thomas L. Jacobson, Chair**

A handwritten signature in black ink, appearing to read "Thomas L. Jacobson".

Re: **Use of Human Subjects in Research**
The Effect of a Single Psychoeducational Music Therapy Session on Psychiatric Patients

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Human Subjects Committee at its meeting on **6/27/2006**. Your project was approved by the Committee.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals which may be required.

If the project has not been completed by **6/26/2007** you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. The principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

cc: Dr. Jayne M. Standley
HSC No. 2006.0453

APPENDIX B

Tallahassee Memorial Healthcare Letter of Approval

Institutional Itt.'

JL

Tallahassee Memorial

Health(arc

May 10, 2006

Michael J. Silverman, MM, MT-BC 2703 Pecan Road #2

Tallahassee, FL 32303

Dear Mr. Silverman:

Your study "IRB # 2006-17 The Effect of A Single Psychoeducational Music Therapy Session on Psychiatric Patients" meets the criteria for an Expedited Review. Larry C. Deeb, M.D., Tallahassee Memorial HealthCare (TMH) Institutional Review Board (IRB) Chairperson reviewed and approved the study on **May 8, 2006** for one year.

The expiration date of this approval is **May 7, 2007**. If your study will not be completed by that date, you will need to submit to the TMH IRB an application for continuing review/approval one (1) month in advance of the expiration date.

Reporting Requirements:

- You will need to request approval before making any amendments to the informed consent and prior to implementing them;
- Report to the IRB any planned change in the study or study protocol and do not implement any change without receiving prior approval, except to eliminate immediate hazard;
- Report to the IRB any unanticipated problems involving risks to subjects;
- Report to the IRB any new information on the project that adversely influences the risk/benefit ratio;
- Report to the IRB any adverse events (AE).

There are specific forms that are used for this reporting, renewal and study closure. They are being e-mailed to you for your convenience. The forms are:

- Serious Adverse Event Reports – Internal/External
- Study Closure Form
- Continuation Review (Application for Renewal)

VH-A

Member of the Voluntary
Hospital of America (VHA)
System

- Elements of Informed Consent Checklist
- Amendment Requests Prior to Scheduled Continuation Review

If you have any questions about the forms or their use, please contact Mary Sandell at (850) 431-5676 or mary.sandell@tmh.org.

If your study is completed prior to the annual review, please provide a copy of your completed study to the Medical Staff Office at Tallahassee Memorial HealthCare so that the results may be placed in your research record. Completed study results are presented to the Institutional Review Board.

If you have any questions, please contact me or Mary Sandell at 850-431-5328.

Sincerely,



C y n t h i a B l a i r
Administrative
Liaison/IRB

cc: Jane Standley, PhD
Professor Mary Sandell

Attachments: IRB Approved Stamped Informed Consent

APPENDIX C

Participant Informed Consent Form

Tallahassee Memorial HealthCare, Inc. 2006-07
Institutional Review Board
APR: EAL
Date of Approval: 5/8/06
Date of Expiration: 5/7/07
IRB#: 2006-07
Version Date of Consent: 5/8/06

Dear Potential Research Participant:

I am a doctoral student under the direction of Dr. Jayne Standley in the College of Music at Florida State University (FSU). I am conducting a research study to evaluate the effects of a single psychoeducational music therapy session on psychiatric patients. This project is not funded or sponsored and you will not be paid or receive any compensation for your participation.

Your participation will involve participating in single psychoeducational session or a single psychoeducational music therapy session. You will participate in the psychoeducational session and fill out a survey when the session is completed. The researcher will obtain your admission diagnosis and Global Assessment of Functioning from your medical chart. A music therapy student from FSU will keep track of the types of responses you provide during the session. This student will not write down any information you provide, other than the type of response you provided. During the last 5 minutes of the session, the art therapist at Tallahassee Memorial HealthCare Behavioral Health Center will keep track of the types of responses you provide. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty (it will not affect your treatment). The results of the research study may be published, but your name will not be used. Your identity will remain confidential and be protected to the extent allowed by law. There is no likelihood that your health insurance carrier will incur any research related costs if you agree to participate. As you will be receiving psychoeducational treatment, there are no disadvantages in your participation.

Data for this study will be stored at the locked office of the researcher. If need be, the representatives of government agencies, the Tallahassee Memorial Institutional Review Board, and other persons who watch over the safety, effectiveness, and conduct of research may request and have access to the data you have provided. No other persons will have access to the data. Data will be destroyed one year after the study is completed.

There are no foreseeable risks or discomforts if you agree to participate in this study. This treatment may involve minimal risks that are currently unforeseeable. Possible benefits to you are the knowledge and treatment you will receive during the treatment.

If you choose to participate, you will receive additional group psychoeducation or music therapy services from a Board-Certified Music Therapist. The possible benefits of your participation are to evaluate how brief psychoeducational music therapy can affect persons with mental illness.

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633. If you have any questions concerning this research study, please contact me or Dr. Jayne Standley at (850) 644 4565 or [silvermanm@hounuil.com].

Sincerely,

Michael J. Silverman, MM, MT-BC

I give my consent to participate in the above study.

(signature) (date)



APPENDIX D

Group Psychiatric Event Sampling Form

Therapist: _____ Observer: _____ Date: _____
 Start Time: _____ End Time: _____ Group: _____ Setting: _____

Therapist	Patient	Behavior	Totals
1. QQ VV	1.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
2. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
3. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
4. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
5. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
6. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
7. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =
8. QQ VV	2.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
9. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
10. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
11. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
12. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
13. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
14. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =
15. QQ VV	3.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
16. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
17. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
18. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
19. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
20. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
21. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =
22. QQ VV	4.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
23. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
24. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
25. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
26. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
27. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
28. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =
29. QQ VV	5.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
30. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
31. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
32. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
33. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
34. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
35. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =
36. QQ VV	6.	OOOOO OOOOO OOOOO OOOOO OOOOO	O =
37. QQ VV		OOOOO OOOOO OOOOO OOOOO OOOOO	-----
38. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	S =
39. QQ VV		SSSSS SSSSS SSSSS SSSSS SSSSS SSSSS	-----
40. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	C =
41. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	-----
42. QQ VV		CCCCC CCCCC CCCCC GGGGG GGGGG	G =

Therapist Totals: Q = ___; V = ___ Group Totals: O = ___; S = ___; C = ___; G = ___

APPENDIX E

Group Psychiatric Event Sampling Form Manual

Group Psychiatric Event Sampling Form Training Manual

Operational Definitions of Therapist Verbalizations

Q (Question): When the therapist asks a specific question, either to the group or to a specific participant. This can be also direction such as “tell me about...” instead of asking the question.

Examples

- When I say ‘relapse prevention’, what comes to mind?
- What are some examples of coping skills?
- Mike, did you like this song? Why or why not?
- Why did you have to come back to the hospital?
- Tell me about your problems at home.

V (Validation): When the therapist validates a statement from any participant. The therapist may parrot, re-phrase, or embellish upon a participant statement. This is not a reinforcement. “Yes” is not a validation. Nonverbal behavior is also not counted as validation—only verbal responses from the therapist.

Examples

- Let me see if I am understanding you correctly...you’re saying that you don’t like the side effects of your medications so you stop taking your meds.
- Good...even though your coping skills are different than mine, they are effective for you, and that’s what is important.
- Yes, drinking and drug use never are a good thing, especially when on medications.

Operational Definitions of Participant Verbalizations

O (Other): A statement about something other than the self or group. This may be a question or part of a question or an answer to a yes/no question. In the case of a yes/no question, the information solicited by the therapist provides the type of consumer response.

Examples:

- This song had great lyrics.
- Depakote is a mood stabilizer.
- My friend drinks too much.
- Who is in responsible for discharging patients?
- Is depakote a mood stabilizer?

S (Self): When a participant says something about themselves. Usually includes an ‘I’ statement. This may be a question or part of a question or an answer to a yes/no question. In the case of a yes/no question, the information solicited by the therapist provides the type of consumer response.

Examples:

- Some of the medications I take are depakote and prozac.
- I have always liked this song.
- I feel depressed today.
- I don’t understand side effects...could you tell me more about them?
- Do you take anti-depressants?

C (Cognitive Insight): When a client has an insight into their own behavior or cognitions. This insight is usually an important statement they make. This insight may be a transfer or generalization to their personal lives.

Examples:

- This song is talking to me! I need to stop being so negative and focus on what I can do to make tomorrow better and get out of the hospital.
- I haven’t used coping skills in the past and need to add them into my life so that I can be healthy and cope with problems—this will help me stay out of the hospital.
- One thing I learned in group today is to take some time for myself...it isn’t selfish to do this and it will help reduce my life stresses.

G (Group): When a participant specifically mentions the group session in a statement.

Examples:

- I felt like this group helped me a lot today. I learned a lot and enjoyed it.
- I do not feel threatened in today’s session.
- This was fun! When do we have another session together?

How to Use the Group Psychiatric Event Sampling Form

Heading

- Start by filling the information at the top of the sheet out.
- Mike will always be the therapist.
- You are the observer.
- Start time begins as soon as Mike has collected the informed consent forms and nods at you (nonverbal cue) to begin event sampling.
- The group will always be unit 1.
- The setting will always be TMH BHC (Tallahassee Memorial Healthcare Behavioral Health Center).

Patients

- Write participant names in boxes 1-6.

- Write participant names in the order that they are sitting around the table to minimize confusion.
- You may want to write a note underneath the participant names to further cue you (red shirt, beard, etc.).

Therapist Verbalizations

- Whenever the therapist asks a question, mark a slash through Q. The therapist may ask multiple questions in a row, but you will only mark one Q.
- Whenever the therapist makes a validation, mark a slash through V. The therapist may make multiple validations in a row, but you will only mark one V.
- If the therapist makes a validation and then asks a question, you would mark V then Q.
- If the therapist asks a question and then makes a validation, you would mark Q then V.
- Two of the same therapist verbalizations cannot be marked in a row. Another type of therapist verbalization must occur before the same verbalization can be marked again.

Participant Verbalizations

- Whenever a participant makes an other statement, mark a slash through O. The participant may make multiple other statements in a row, but you will only mark one O.
- Whenever a participant makes a self statement, mark a slash through S. The participant may make multiple self statements in a row, but you will only mark one S.
- Whenever a participant makes a cognitive insight statement, mark a slash through C. The participant may make multiple cognitive insight statements in a row, but you will only mark one C.
- Whenever a participant makes a group statement, mark a slash through G. The participant may make multiple group statements in a row, but you will only mark one G.
- Two of the same participant verbalizations cannot be marked in a row. Another type of participant verbalization must occur before the same verbalization can be marked again.

Interaction Between Participants and Therapist

- After the therapist or participant make a verbalization, the person who did not make the statement can make a verbalization.
- After you mark a slash, keep your pencil down on the letter you just marked. This will keep you from being confused as to what the last statement was that you marked.

APPENDIX F

Experimental Condition Manual

Listen to song.

- Have you heard this song before?
- What did you think about this song? Did you like it? Hate it? Why?

- Okay, now, let's take a look at these lyrics. I think there are a lot of really good messages in them. Today's topic is going to be relapse prevention. As much as I enjoy having you in my group today, I don't want you to come back to the hospital. So, as we listen to this song, please keep that topic in mind.

Line 1: *if you wake up and don't want to smile.*

- Have you ever felt like that? Why?
- Is it okay to feel like that?

Lines 2-4: *if it takes just a little while, open your eyes and look at the day, you'll see things in a different way.*

- Why do you believe these lines are true?
- What do they mean when they say "open your eyes?"

Please look at the chorus, lines 5-6. *Don't stop, thinking about tomorrow, don't stop it will soon be here.*

- Why is it good to think about tomorrow?
- In what ways do you think about tomorrow?

Lines 7-8: *It'll be better than before, yesterday's gone, yesterday's gone.*

- Do you believe that tomorrow will be better than today? Why?
- Whose decision is it to make tomorrow better than today?
- Why do they sing *yesterday's gone* twice? Why is that so important?

You're doing a very nice job taking this song apart! Keep it up as we look at the second verse, lines 9-12.

Lines 9 and 10 read: *Why not think about the times to come, and not about the things that you've done.*

- Do you think this is good advice? Why or why not?

Lines 11 and 12 read: *If your life was bad to you, just think what tomorrow will do.*

- What are you going to do about it to make tomorrow better?
- How does this relate to learning from your mistakes?

Lines 13-16 are the chorus again. So let's look at the last verse, lines 17 and 18. *All I want is to see you smile, if it takes just a little while.*

- Who do you think wants to see you smile?
- What is it going to take for you to smile?
- How does this relate to taking medication?
- What do you do if your medication stopped working for you?
- Who should decide if you need more or less medication?
- How do drugs and alcohol interact with medications?
- While we are talking about medication, let's talk about side effects. What are some side effects? What should we do about them?

Lines 19 and 20 are some of my favorites. *I know you don't believe that it's true, I never meant any harm to you.*

- Who could be saying this to you?
- Are there people in your life that you can be saying this line to? Who? Why?
- How does this relate to the people at the hospital working with you?

The last couple lines, 25 and 26 repeat, *ooohhhh....don't you look back.*

- Why is this good advice?
- Why is it not good advice?
- How does this song relate to relapse prevention?
- What factor contributes most to relapse?
- What are some healthy ways to avoid coming back to the hospital?

Wow. You've done a wonderful job, really tearing this song apart and relating your personal situation to it. Are there any more questions or comments about this song?

We are running out of time, my friends. To close the group, I'd like everyone to share 1 thing they can do today that will make tomorrow better. I'll start. One thing I can do today that will make tomorrow better is to be more patient with myself. I tend to be patient with others, but not with myself. This will help me have a more positive opinion about myself and minimize my stress levels.

APPENDIX G

Control Condition Manual

Today's topic is relapse prevention.

When I say relapse prevention, what is the first thing that comes to mind?

What are some of the important things we can do to prevent relapsing?

Medication

- What are some of the meds you take? What do they do?
- What do you do if your medication stopped working for you?
- Who should decide if you need more or less medication?
- While we are talking about medication, let's talk about side effects. What are some side effects? What should we do about them?

Coping skills

- What are coping skills?
- When do you use them?
- What are some of your coping skills?

Leisure skills

- Why is your leisure time important?
- What are some leisure skills?

Symptoms

- What are some of the symptoms of your illness?
- What can you do about these symptoms?

Communication

- Who are the people you communicate here with about your treatment?
- Who are the people you will communicate with when you are discharged from the hospital?

Substance abuse

- How do drugs and alcohol interact with medications?

Planning for the future/positive thinking

- Why is it good to think about the future?
- Whose decision is it to make tomorrow better than today?
- Is it good to dwell in the past?
- What are you going to do about it to make tomorrow better?

Miscellaneous Questions

- What factor contributes most to relapse?
- What are some healthy ways to avoid coming back to the hospital?

We are running out of time, my friends. To close the group, I'd like everyone to share 1 thing they can do today that will make tomorrow better. I'll start. One thing I can do today that will make tomorrow better is to be more patient with myself. I tend to be patient with others, but not with myself. This will help me have a more positive opinion about myself and minimize my stress levels.

APPENDIX H

Don't Stop Lyrics

Don't Stop
Fleetwood Mac

1 If you wake up and don't want to smile,
2 If it takes just a little while,
3 Open your eyes and look at the day,
4 You'll see things in a different way.

CHORUS

5 Don't stop, thinking about tomorrow,
6 Don't stop, it'll soon be here,
7 It'll be, better than before,
8 Yesterday's gone, yesterday's gone.

9 Why not think about times to come,
10 And not about the things that you've done,
11 If your life was bad to you,
12 Just think what tomorrow will do.

CHORUS

13 Don't stop, thinking about tomorrow,
14 Don't stop, it'll soon be here,
15 It'll be, better than before,
16 Yesterday's gone, yesterday's gone.

Guitar Solo

17 All I want is to see you smile,
18 If it takes just a little while,
19 I know you don't believe that it's true,
20 I never meant any harm to you.

CHORUS X2

21 Don't stop, thinking about tomorrow,
22 Don't stop, it'll soon be here,
23 It'll be, better than before,
24 Yesterday's gone, yesterday's gone.

25 Oooohhhhh...Don't you look back,
26 Oooohhhhh...Don't you look back.

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, please indicate your agreement with each item by circling the appropriate number on the scale below each item. Please be open and honest in your responding.

1. In most ways my life is close to my ideal.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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2. The conditions of my life are excellent.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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3. I am satisfied with my life.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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4. So far I have gotten the important things I want in life.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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5. If I could live my life over, I would change almost nothing.

Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Neither Agree nor Disagree 4	Slightly Agree 5	Agree 6	Strongly Agree 7
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Adapted Knowledge of Illness and Resources Inventory (AKIRI)

Please circle the ONE best answer.

1. Who should decide when you need more or less medication?
 - A. You and your family.
 - B. Your doctor.
 - C. You and your doctor.
-

2. What factor contributes most to relapse of illness?
- A. Stopping medication and other treatment.
 - B. Natural relapse rates.
 - C. A family member making you ill.
-

3. Drowsiness, shaking, and dry mouth are:
- A. Desirable effects that show your medicine is working.
 - B. Unpleasant effects that show your medicine is not working.
 - C. Side effects of your medication.
-

4. What would you do if your symptoms came back despite taking your medication?
- A. Call your doctor and tell them about it.
 - B. Take more medication.
 - C. Tell your family.
-

5. Healthy ways to avoid coming back to the hospital are:
- A. Taking your medicine and using coping skills.
 - B. Avoiding talking to your family and friends.
 - C. Missing your appointments with the doctor.
-

6. Drinking alcohol while on medications:
- A. May not let the medications work the way they are supposed to.
 - B. Will make you better in the long run.
 - C. Is healthy as long as it is controlled.
-

7. Leisure skills are important because:
- A. They are an alternative to taking medications.
 - B. There is nothing else to do.
 - C. They are fun and help us enjoy life.
-

-
8. The best way to communicate with your family and friends about your illness is:
- A. Speak openly and honestly, telling them they are to blame.
 - B. Telling them about your diagnosis and treatment.
 - C. Let them see you behaving, as actions speak louder than words.

-
9. Healthy coping skills involve:
- A. Illegal activity.
 - B. Doing something to take your mind away from problems.
 - C. Solving your problem.

****Please* write any comments regarding the group therapy session you just participated in.

APPENDIX J

Social Functioning Scale

Date:

Social Functioning Scale

Patient	In my session today, the patient functioned socially at this level:						
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7
	Worse			Same			Better
	1	2	3	4	5	6	7

Please leave form for Mike Silverman, Music Therapist

APPENDIX K

Qualitative Data Manual

Written qualitative responses were divided into three areas: compliments, thanks, and specific music comments. Written responses could be coded as more than one type of response.

Compliments: This type of written comment involved any sort of reinforcement, compliment, or expression of learning or enjoyment.

Examples include but are not limited to:

- I enjoyed this group.
- I enjoyed the therapist.
- I learned a lot during this session.
- The therapist was good.
- The session was interesting.
- This group session was positive and fun.
- This session was helpful.

Thanks: This type of written comment involved any specific sort of thanks or appreciation offered by the patient to the therapist.

Examples include but are not limited to:

- Thank you.
- I appreciate your time.

Specific Music Comment: This type of written comment specifically addressed the music used in the session. This type of comment had to mention music but could thank the therapist for the music or talk about how they enjoyed the music.

Examples include but are not limited to:

- I liked the guitar playing.
- The song used was effective.
- Thank you for bringing music to the hospital.

APPENDIX L

Written Responses

Participant, Session, Condition	Written Response
3-1-E	Lots of fun
5-1-E	I enjoyed mike and his guitar playing. I also enjoyed “Don’t Stop. Thank you.
7-2-C	This was an extraordinary group, truly amazing. These are the kinds of “groups” that are actually helping!
10-2-C	Informative, helpful, enjoyed
12-3-E	Thx for your live, time, and care
13-3-E	I enjoyed it, and was helpful for my release which is coming up soon.
15-4-C	Very helpful and friendly environment – conducive to openness and honesty. Thank you!
16-4-C	It was a nice group!
17-4-C	Excellent
18-5-E	It was a very nice group session. I enjoyed it very much.
23-6-C	Excellent; very informative. Thank you!
24-6-C	Thought it was very educational should be added to the group therapy here and have this group open to family and have this as an outpatient group for family member and other with a diagnosis.
32-8-E	Thank you
33-8-E	Enjoyed!
34-8-E	Was fun and enjoyed it and made the day better!
40-9-E	This group was the most enjoyable one so far.
43-10-C	Excellent job, Mike and Melita! I thoroughly enjoyed your group! (session)
53-13-C	Music?
60-15-E	Good stuff. Next time, pick edgier song, not so middle-of-the-road.
61-16-E	I really enjoyed this session. It was very informative and fun. Should have more like them.
62-16-E	Very helpful. Help me think of knew ways of dealing with things.
68-17-C	I’ve really enjoyed this group. It is up lifting and positive.
77-19-E	Good job & good luck!
78-20-C	Good treatment/group. Wish to see you guys more often while I’m here.
92-26-E	Very nice, well-put together. Fine, young gentleman.
94-27-C	I enjoyed this session to the up most. I wish he (the counsellor) recieves mad kool points and grades for this.
104-31-C	The group was very helpful for me.
105-31-C	Very interesting – well delivered. Presenter did a good job of re-focusing when members tangented without making members feel bad. I also learned things I should know already, but am happily reminded to use to cope. Thank you for your time and interest.

APPENDIX M

Participant Demographics

Participant	Ethnic	Gender	Institution	Age	MT Past	Admission
1-1-E	2	2	3	19	1	1
2-1-E	2	1	2	46	2	1
3-1-E	2	2	3	46	1	1
4-1-E	2	2	2	62	2	1
5-1-E	2	1	2	52	2	1
6-1-E	1	2	2	39	2	1
7-2-C	2	1	2	53	1	1
8-2-C	2	2	3	40	1	1
9-2-C	2	2	3	51	1	2
10-2-C	2	1	2	59	2	1
11-2-C	2	1	1	22	2	1
12-3-E	1	1	2	53	2	1
13-3-E	2	1	2	21	1	2
14-3-E	1	2	1	43	2	1
15-4-C	2	1	1	22	2	1
16-4-C	1	2	2	43	2	1
17-4-C	2	1	3	55	1	1
18-5-E	2	1	2	49	1	1
19-5-E	2	1	1	42	2	1
20-5-E	1	1	1	20	1	1
21-5-E	2	2	2	27	1	1
22-6-C	2	1	2	67	1	1
23-6-C	2	2	1	42	2	1
24-6-C	2	1	2	24	2	1
25-7-E	1	1	3	53	1	1
26-7-E	2	1	3	37	1	2
27-7-E	2	2	2	37	2	1
28-7-E	2	2	1	42	2	1
29-7-E	2	1	2	41	2	1
30-7-E	1	2	2	46	1	1
31-8-E	2	2	3	60	2	1
32-8-E	2	1	3	42	1	1
33-8-E	2	1	1	30	2	1
34-8-E	2	1	1	18	2	1
35-8-E	2	1	5	32	1	1
36-8-E	2	2	2	18	1	1

37-9-E	2	2	2	53	2	1
38-9-E	2	2	1	51	2	2
39-9-E	2	2	3	51	1	1
40-9-E	2	1	2	20	1	1
41-9-E	2	2	1	57	2	1
42-9-E	2	1	2	28	1	1
43-10-C	2	1	1	55	1	1
44-10-C	2	1	3	32	1	1
45-11-E	1	1	2	52	1	1
46-11-E	2	1	2	24	1	1
47-11-E	2	1	1	39	2	1
48-12-E	2	2	2	29	1	1
49-12-E	2	2	2	21	2	1
50-13-C	2	2	1	57	2	1
51-13-C	2	1	2	24	1	1
52-13-C	1	1	1	24	2	2
53-13-C	2	2	1	24	2	1
54-13-C	2	1	2	47	1	2
55-13-C	2	1	1	51	2	1
56-14-E	2	1	2	21	1	1
57-14-E	2	2	3	33	1	1
58-14-E	2	2	3	22	1	2
59-15-E	2	1	2	68	1	1
60-15-E	2	2	5	30	1	1
61-16-E	1	1	2	47	2	1
62-16-E	2	1	1	26	2	2
63-16-E	2	1	1	25	2	2
64-16-E	2	1	5	32	1	2
65-16-E	2	2	5	23	2	1
66-17-C	2	1	5	55	1	1
67-17-C	2	2	2	41	1	2
68-17-C	2	1	2	52	1	1
69-17-C	2	2	3	28	2	2
70-18-C	2	1	2	55	2	1
71-18-C	2	1	2	41	2	1
72-18-C	2	1	2	35	2	2
73-18-C	2	1	1	58	2	1
74-19-E	2	1	1	49	2	2
75-19-E	2	1	1	52	1	1
76-19-E	2	2	2	19	1	1
77-19-E	2	1	5	33	1	1

78-20-C	2	2	2	48	2	1
79-20-C	2	2	2	18	2	1
80-21-C	2	1	1	50	2	1
81-21-C	4	1	1	24	2	1
82-21-C	2	1	2	69	1	1
83-21-C	2	1	3	38	1	1
84-23-C	2	2	1	21	2	1
85-23-C	1	2	2	49	1	1
86-23-C	2	2	1	20	2	2
87-23-C	2	2	1	53	2	1
88-25-E	2	2	1	20	2	1
89-25-E	2	1	2	44	1	1
90-25-E	2	1	3	35	1	1
91-26-E	2	1	2	22	2	2
92-26-E	2	2	2	19	1	1
93-27-C	2	2	2	37	1	1
94-27-C	1	2	1	21	1	1
95-28-E	2	2	2	44	2	1
96-28-E	2	1	1	31	1	1
97-28-E	4	1	3	41	1	1
98-28-E	2	2	1	41	2	1
99-28-E	2	1	2	41	1	1
100-29-C	2	1	3	65	1	1
101-29-C	2	2	2	61	2	1
102-29-C	3	1	1	28	2	1
103-29-C	2	1	3	26	1	2
104-31-C	2	2	3	29	1	1
105-31-C	2	1	2	41	2	1

Key:

Ethnic Background: 1 = African American; 2 = Caucasian; 3 = Hispanic; 4 = Other

Gender: 1 = Female; 2 = Male

Institution (number of times admitted to a psychiatric facility): 1 = 1 time; 2 = 2-4 times;
3 = 5 or more times

MT Past (have you ever had MT in the past?): 1 = Music therapy in past; 2 = no music
therapy in past

Admission: 1 = Voluntary; 2 = Involuntary

APPENDIX N

Dependent Measures

Participant	Helpful	Enjoy	Comfort	Sat Life	AKIRI
1-1-E	5	7	6	28	7
2-1-E	7	7	7	30	7
3-1-E	7	7	6	11	7
4-1-E	7	7	7	26	6
5-1-E	4	5	5	22	8
6-1-E	7	7	7	15	7
7-2-C	7	7	7	11	8
8-2-C	7	7	7	30	7
9-2-C	4	5	6	28	5
10-2-C	6	7	7	9	7
11-2-C	5	7	7	23	8
12-3-E	7	7	7	30	8
13-3-E	4	6	7	11	7
14-3-E	7	7	7	17	6
15-4-C	7	7	7	10	7
16-4-C	7	6	6	19	7
17-4-C	7	7	5	6	6
18-5-E	7	7	7	24	8
19-5-E	6	7	7	17	7
20-5-E	7	7	7	28	9
21-5-E	6	7	5	9	7
22-6-C	7	7	7	34	7
23-6-C	7	7	7	14	8
24-6-C	6	7	7	11	7
25-7-E	7	7	7	17	8
26-7-E	7	7	7	19	8
27-7-E	7	7	7	23	9
28-7-E	7	7	7	15	8
29-7-E	7	7	7	18	8
30-7-E	6	7	7	28	7
31-8-E	5	5	6	9	7
32-8-E	6	5	3	6	8
33-8-E	7	6	7	12	9
34-8-E	5	6	5	12	9
35-8-E	6	6	5	11	9
36-8-E	5	5	4	11	8

37-9-E	4	4	1	5	6
38-9-E	7	7	7	26	7
39-9-E	7	7	6	31	8
40-9-E	7	7	7	7	9
41-9-E	7	7	7	22	9
42-9-E	7	7	7	11	9
43-10-C	7	7	7	11	8
44-10-C	4	4	3	10	8
45-11-E	7	7	7	13	8
46-11-E	5	5	5	9	8
47-11-E	6	7	6	18	8
48-12-E	4	4	4	10	7
49-12-E	6	7	7	20	9
50-13-C	6	7	6	17	7
51-13-C	6	6	7	10	7
52-13-C	6	7	7	24	9
53-13-C	4	4	3	13	9
54-13-C	7	7	7	9	9
55-13-C	5	6	7	16	8
56-14-E	7	7	5	21	9
57-14-E	7	7	7	35	4
58-14-E	5	5	5	24	9
59-15-E	5	7	7	29	5
60-15-E	6	6	5	16	8
61-16-E	7	7	7	6	8
62-16-E	7	7	7	22	5
63-16-E	7	6	5	24	7
64-16-E	7	7	7	6	9
65-16-E	3	4	4	10	8
66-17-C	6	6	4	10	9
67-17-C	5	5	5	11	8
68-17-C	7	7	7	10	7
69-17-C	6	5	4	10	8
70-18-C	6	7	7	16	7
71-18-C	6	6	7	13	9
72-18-C	7	7	7	23	7
73-18-C	4	4	4	30	6
74-19-E	4	5	2	15	9
75-19-E	6	6	6	22	9
76-19-E	7	7	7	18	7
77-19-E	4	6	5	21	7

78-20-C	6	7	6	18	9
79-20-C	6	6	7	13	8
80-21-C	6	6	5	12	8
81-21-C	4	6	7	26	9
82-21-C	7	7	7	28	6
83-21-C	5	5	5	10	6
84-23-C	5	5	4	14	5
85-23-C	3	2	3	24	9
86-23-C	6	6	7	19	9
87-23-C	6	6	6		8
88-25-E	1	1	1	12	6
89-25-E	6	7	7	19	7
90-25-E	7	7	7	35	5
91-26-E	4	6	6	10	9
92-26-E	5	5	5	19	8
93-27-C	5	6	5	11	5
94-27-C	5	4	6	12	8
95-28-E	7	7	7	29	6
96-28-E	7	6	7	29	7
97-28-E	7	7	5	9	8
98-28-E	4	5	3	9	6
99-28-E				21	8
100-29-C	4	4	6	25	4
101-29-C	6	7	6	31	6
102-29-C	7	7	7	16	8
103-29-C	7	7	7	8	9
104-31-C	7	7	7	12	8
105-31-C	7	7	7	5	8

APPENDIX O

Individual Verbalizations During Session

Participant	Other	Self	Cognitive	Group
1-1-E	17	5	0	0
2-1-E	11	10	2	0
3-1-E	19	8	3	0
4-1-E	12	15	2	0
5-1-E	39	20	1	0
6-1-E	19	20	1	0
7-2-C	15	13	3	0
8-2-C	28	26	7	0
9-2-C	5	0	0	0
10-2-C	39	28	7	0
11-2-C	12	9	2	0
12-3-E	31	22	9	0
13-3-E	14	25	1	0
14-3-E	25	22	4	0
15-4-C	33	24	4	0
16-4-C	30	24	0	0
17-4-C	26	28	1	0
18-5-E	33	32	0	0
19-5-E	31	24	3	0
20-5-E	0	2	0	0
21-5-E	8	11	0	0
22-6-C	8	10	0	0
23-6-C	33	18	0	0
24-6-C	44	6	0	0
25-7-E	8	1	0	0
26-7-E	13	7	3	0
27-7-E	13	12	1	0
28-7-E	9	9	0	0
29-7-E	27	15	1	0
30-7-E	0	2	0	0
31-8-E	10	4	0	0
32-8-E	4	2	0	0
33-8-E	19	18	2	0
34-8-E	13	13	0	0

35-8-E	8	16	1	0
36-8-E	2	1	0	0
37-9-E	0	0	0	0
38-9-E	15	4	0	0
39-9-E	16	8	0	0
40-9-E	27	16	0	0
41-9-E	23	11	2	0
42-9-E	31	11	1	0
43-10-C	30	47	8	0
44-10-C	1	0	0	0
45-11-E	39	30	0	0
46-11-E	31	18	0	0
47-11-E	26	26	1	0
48-12-E	25	45	5	0
49-12-E	32	36	5	0
50-13-C	9	4	0	0
51-13-C	21	22	1	0
52-13-C	14	10	0	0
53-13-C	0	1	0	0
54-13-C	36	12	0	0
55-13-C	3	2	0	0
56-14-E	39	37	6	0
57-14-E	22	20	1	0
58-14-E	39	41	6	0
59-15-E	37	21	0	0
60-15-E	27	26	1	0
61-16-E	35	11	0	0
62-16-E	47	33	1	0
63-16-E	19	23	2	0
64-16-E	5	4	0	0
65-16-E	5	2	0	0
66-17-C	3	4	0	0
67-17-C	11	2	0	0
68-17-C	52	40	0	0
69-17-C	63	18	2	0
70-18-C	22	9	0	0
71-18-C	33	10	0	0
72-18-C	21	24	1	0
73-18-C	22	22	1	0
74-19-E	8	2	0	0
75-19-E	10	7	0	0

76-19-E	54	32	1	0
77-19-E	19	11	0	0
78-20-C	33	36	3	0
79-20-C	7	18	0	0
80-21-C	5	10	0	0
81-21-C	41	30	2	0
82-21-C	49	44	1	0
83-21-C	9	9	0	0
84-23-C	19	16	0	0
85-23-C	10	5	0	0
86-23-C	19	15	0	0
87-23-C	9	8	0	0
88-25-E	0	0	0	0
89-25-E	49	48	2	0
90-25-E	9	10	0	0
91-26-E	77	76	5	0
92-26-E	50	37	2	0
93-27-C	1	1	0	0
94-27-C	32	13	1	0
95-28-E	54	38	6	0
96-28-E	37	51	3	0
97-28-E	4	2	0	0
98-28-E	38	17	1	0
99-28-E	0	0	0	0
100-29-C	64	28	0	0
101-29-C	1	0	0	0
102-29-C	31	7	0	0
103-29-C	50	10	0	0
104-31-C	51	44	2	0
105-31-C	52	40	0	0

APPENDIX P

Individual Concluding Verbalizations

Participant	2 Other	2 Self	2 Cognitive	2 Group
1-1-E	2	0	1	0
2-1-E	1	2	0	0
3-1-E	1	1	1	0
4-1-E	0	0	0	0
5-1-E	0	4	1	0
6-1-E	0	0	1	0
7-2-C	0	2	1	0
8-2-C	0	2	0	0
9-2-C	0	0	0	0
10-2-C	1	2	1	0
11-2-C	0	0	0	0
12-3-E	1	2	1	0
13-3-E	1	1	1	0
14-3-E	0	1	1	0
15-4-C	4	3	1	0
16-4-C	5	2	0	0
17-4-C	3	6	3	0
18-5-E	0	1	0	0
19-5-E	2	1	0	0
20-5-E	0	0	0	0
21-5-E	0	1	0	0
22-6-C	3	0	0	0
23-6-C	1	3	0	0
24-6-C	0	3	0	0
25-7-E	1	1	0	0
26-7-E	1	0	0	0
27-7-E	1	3	1	0
28-7-E	1	1	0	0
29-7-E	1	2	0	0
30-7-E	0	2	0	0
31-8-E	0	0	0	0
32-8-E	2	0	0	0
33-8-E	1	1	0	0
34-8-E	0	0	0	0

35-8-E	0	0	0	0
36-8-E	0	0	0	0
37-9-E	0	0	0	0
38-9-E	0	2	0	0
39-9-E	1	0	0	0
40-9-E	0	1	0	0
41-9-E	3	5	0	0
42-9-E	1	2	0	0
43-10-C	3	3	1	0
44-10-C	0	1	0	0
45-11-E	3	3	0	0
46-11-E	4	2	0	0
47-11-E	4	3	0	0
48-12-E	2	3	0	0
49-12-E	1	1	0	0
50-13-C	0	0	0	0
51-13-C	5	3	0	0
52-13-C	2	0	0	0
53-13-C	0	0	0	0
54-13-C	3	3	0	0
55-13-C	3	2	0	0
56-14-E	1	5	1	0
57-14-E	0	2	0	0
58-14-E	1	2	0	0
59-15-E	4	0	0	0
60-15-E	3	5	0	0
61-16-E	4	1	1	0
62-16-E	1	2	1	0
63-16-E	1	1	1	0
64-16-E	2	3	1	0
65-16-E	0	1	0	0
66-17-C	0	0	0	0
67-17-C	0	0	0	0
68-17-C	9	4	0	0
69-17-C	5	2	0	0
70-18-C	1	1	1	0
71-18-C	1	1	0	0
72-18-C	0	1	1	0
73-18-C	0	0	0	0

74-19-E	4	0	0	0
75-19-E	5	3	0	0
76-19-E	4	5	1	0
77-19-E	3	1	0	0
78-20-C	1	3	0	0
79-20-C	0	3	0	0
80-21-C	0	1	0	0
81-21-C	1	2	0	0
82-21-C	2	2	0	0
83-21-C	0	0	0	0
84-23-C	0	0	0	0
85-23-C	0	2	1	0
86-23-C	1	0	0	0
87-23-C	0	0	0	0
88-25-E	0	0	0	0
89-25-E	2	1	0	0
90-25-E	0	2	0	0
91-26-E	2	8	0	0
92-26-E	2	1	0	0
93-27-C	0	0	0	0
94-27-C	1	0	0	0
95-28-E	5	6	0	0
96-28-E	1	6	0	0
97-28-E	0	1	0	0
98-28-E	3	1	0	0
99-28-E	0	0	0	0
100-29-C	3	5	0	0
101-29-C	4	2	0	0
102-29-C	2	1	0	0
103-29-C	5	4	0	0
104-31-C	3	9	0	0
105-31-C	2	8	1	0

APPENDIX Q

Total Individual Verbalizations

Participant	Total Other	Total Self	Total Cognitive	Total Group	Total Verb.
1-1-E	19	5	1	0	25
2-1-E	12	12	2	0	26
3-1-E	20	9	4	0	33
4-1-E	15	15	2	0	32
5-1-E	39	24	2	0	65
6-1-E	19	20	2	0	41
7-2-C	15	15	4	0	34
8-2-C	28	26	7	0	61
9-2-C	5	0	0	0	5
10-2-C	40	30	8	0	78
11-2-C	12	9	2	0	23
12-3-E	32	24	10	0	66
13-3-E	15	26	2	0	43
14-3-E	25	23	5	0	53
15-4-C	37	27	5	0	69
16-4-C	35	26	0	0	61
17-4-C	29	34	4	0	67
18-5-E	33	33	0	0	66
19-5-E	33	25	3	0	61
20-5-E	0	2	0	0	2
21-5-E	0	12	0	0	12
22-6-C	11	10	0	0	21
23-6-C	34	21	0	0	55
24-6-C	44	9	0	0	53
25-7-E	9	2	0	0	11
26-7-E	14	7	3	0	24
27-7-E	14	15	2	0	31
28-7-E	10	10	0	0	20
29-7-E	28	17	1	0	46
30-7-E	0	4	0	0	4
31-8-E	10	4	0	0	14
32-8-E	6	2	0	0	8
33-8-E	20	19	2	0	41
34-8-E	13	13	0	0	26
35-8-E	8	16	1	0	25

36-8-E	2	1	0	0	3
37-9-E	0	0	0	0	0
38-9-E	15	6	0	0	21
39-9-E	17	8	0	0	25
40-9-E	27	17	0	0	44
41-9-E	26	16	2	0	44
42-9-E	32	13	1	0	46
43-10-C	33	50	9	0	92
44-10-C	1	1	0	0	2
45-11-E	43	33	0	0	76
46-11-E	35	20	0	0	55
47-11-E	30	29	1	0	60
48-12-E	27	48	5	0	80
49-12-E	33	37	5	0	75
50-13-C	9	4	0	0	13
51-13-C	26	25	1	0	52
52-13-C	16	10	0	0	26
53-13-C	0	1	0	0	1
54-13-C	39	15	0	0	54
55-13-C	6	4	0	0	10
56-14-E	40	42	7	0	89
57-14-E	22	22	1	0	45
58-14-E	40	43	6	0	89
59-15-E	41	21	0	0	62
60-15-E	30	31	1	0	62
61-16-E	39	12	1	0	52
62-16-E	48	35	2	0	86
63-16-E	20	24	3	0	47
64-16-E	7	7	1	0	15
65-16-E	5	3	0	0	8
66-17-C	3	4	0	0	7
67-17-C	11	2	0	0	13
68-17-C	61	44	0	0	105
69-17-C	68	20	2	0	90
70-18-C	23	10	1	0	44
71-18-C	34	11	0	0	45
72-18-C	21	25	2	0	48
73-18-C	22	22	1	0	45
74-19-E	12	2	0	0	14
75-19-E	15	10	0	0	25
76-19-E	58	37	2	0	97

77-19-E	20	12	0	0	32
78-20-C	34	39	3	0	76
79-20-C	7	21	0	0	28
80-21-C	5	11	0	0	16
81-21-C	42	32	2	0	76
82-21-C	52	46	1	0	99
83-21-C	9	9	0	0	18
84-23-C	19	16	0	0	35
85-23-C	10	7	1	0	18
86-23-C	20	15	0	0	35
87-23-C	9	8	0	0	17
88-25-E	0	0	0	0	0
89-25-E	51	49	2	0	102
90-25-E	9	12	0	0	21
91-26-E	79	84	5	0	168
92-26-E	52	38	2	0	92
93-27-C	1	1	0	0	2
94-27-C	33	13	1	0	47
95-28-E	59	44	6	0	109
96-28-E	38	57	3	0	98
97-28-E	4	3	0	0	7
98-28-E	41	18	1	0	60
99-28-E	0	0	0	0	0
100-29-C	67	33	0	0	100
101-29-C	5	2	0	0	7
102-29-C	33	8	0	0	41
103-29-C	55	14	0	0	69
104-31-C	54	53	2	0	109
105-31-C	54	48	1	0	103

APPENDIX R

Diagnosis, Admission GAF, Social Worker Rating

Participant	Diagnosis	GAF	Social W
1-1-E	6	40	6
2-1-E	1	35	
3-1-E	5	40	
4-1-E	1	45	
5-1-E	2	35	6
6-1-E	1	55	
7-2-C	4	39	5
8-2-C	7	35	7
9-2-C	5	35	4
10-2-C	7	40	
11-2-C	1	45	
12-3-E	4	45	
13-3-E	7	35	
14-3-E	1	45	
15-4-C	2	45	
16-4-C	8	40	7
17-4-C	2	35	4
18-5-E	7	45	6
19-5-E	1	45	6
20-5-E	9	35	6
21-5-E	5	35	
22-6-C	1	45	
23-6-C	5	40	7
24-6-C	4	40	6
25-7-E	4	21	7
26-7-E	1	40	5
27-7-E	1	45	6
28-7-E	10	45	6
29-7-E	4	45	
30-7-E	1	40	
31-8-E	1	40	
32-8-E	5	39	
33-8-E	1	35	
34-8-E	1	50	4

35-8-E	1	45	5
36-8-E	5	35	
37-9-E	2	45	4
38-9-E	10	35	4
39-9-E	4	40	6
40-9-E	10	40	5
41-9-E	1	40	
42-9-E	4	40	7
43-10-C	5	40	
44-10-C	4	40	
45-11-E	8	38	
46-11-E	2	40	
47-11-E	4	40	
48-12-E	4	39	
49-12-E	4	35	
50-13-C	1	44	5
51-13-C	11	40	5
52-13-C	12	40	4
53-13-C	12	45	
54-13-C	5	35	5
55-13-C	1	40	
56-14-E	14	35	7
57-14-E	11	36	4
58-14-E	13	30	6
59-15-E	7	35	6
60-15-E	8	45	5
61-16-E	4	35	6
62-16-E	12	40	6
63-16-E	7	38	
64-16-E	4	40	6
65-16-E	8	30	
66-17-C	1	40	
67-17-C	2	30	
68-17-C	1	45	
69-17-C	1	35	
70-18-C	4	36	
71-18-C	4	35	
72-18-C	2	38	
73-18-C	2	35	6

74-19-E	1	40	
75-19-E	8	35	
76-19-E	4	41	
77-19-E	4	35	
78-20-C	2	45	7
79-20-C	1	40	6
80-21-C	2	38	7
81-21-C	1	40	7
82-21-C	4	38	4
83-21-C	5	40	4
84-23-C	7	35	
85-23-C	1	40	
86-23-C	1	40	
87-23-C	1	40	
88-25-E	1	31	5
89-25-E	5	40	7
90-25-E	8	35	
91-26-E	1	40	
92-26-E	1	40	
93-27-C	5	35	6
94-27-C	1	40	5
95-28-E	5	40	
96-28-E	12	40	
97-28-E	4	35	
98-28-E	1	45	
99-28-E	1	40	
100-29-C	4	35	
101-29-C	1	40	
102-29-C	9	55	
103-29-C	2	35	
104-31-C	1	51	
105-31-C	1	40	

Diagnosis Key:

- 1 = Major Depressive Disorder/Depressive Disorder;
- 2 = Major Depressive Disorder/Depressive Disorder with Substance Abuse/Dependency;
- 3 = Major Depressive Disorder/Depressive Disorder with Other;
- 4 = Bipolar Disorder;
- 5 = Bipolar Disorder with Substance Abuse/Dependency;
- 6 = Bipolar Disorder with Other;

- 7 = Psychosis not otherwise specified/Schizophrenia;
- 8 = Schizoaffective Disorder;
- 9 = Mood Disorder;
- 10 = Substance Abuse/Dependency;
- 11 = Schizoaffective Disorder and Substance Abuse/Dependency;
- 12 = Adjustment Disorder;
- 13 = Schizophrenia and Substance Abuse/Dependency;
- 14 = Dysthymia

APPENDIX S

Schedule

GROUP	Date	Day #
1	8/17/2006	1
2	8/21/2006	2
1	8/24/2006	3
2	8/28/2006	4
1	8/31/2006	5
2	9/4/2006	6
1	9/7/2006	7
1	9/11/2006	8
1	9/14/2006	9
2	9/18/2006	10
1	9/21/2006	11
1	9/25/2006	12
2	9/28/2006	13
1	10/2/2006	14
1	10/5/2006	15
1	10/9/2006	16
2	10/12/2006	17
2	10/16/2006	18
1	10/19/2006	19
2	10/23/2006	20
2	10/26/2006	21
2	10/30/2006	22
2	11/2/2006	23
2	11/6/2006	24
1	11/9/2006	25
1	11/13/2006	26
2	11/20/2006	27
1	11/27/2006	28
2	11/30/2006	29
1	12/4/2006	30
2	12/7/2006	31
2	12/11/2006	32

Group Key: 1 = Experimental (MT); 2 = Control (Psychoeducation)

APPENDIX T

Therapist Verbalizations

Session #	1 Question	1 Valid	2 Question	2 Valid	3 Question	3 Valid
1	58	61	4	4	62	65
2	44	49	3	3	47	52
3	66	54	2	5	68	59
4	58	26	6	9	64	35
5	67	32	5	2	72	34
6	39	11	4	3	43	14
7	39	22	4	6	43	28
8	77	22	7	5	84	27
9	57	29	6	3	63	32
10	36	20	4	1	40	21
11	72	23	6	2	78	25
12	79	36	6	3	85	39
13	63	32	6	2	69	34
14	31	44	3	4	34	48
15	78	21	5	2	83	23
16	61	30	7	2	68	32
17	52	23	4	4	56	27
18	49	36	5	1	54	37
19	54	18	3	2	57	20
20	46	31	3	4	49	35
21	45	21	2	1	47	22
23	73	31	3	1	76	32
25	47	29	4	2	51	31
26	46	48	4	4	50	52
27	34	16	2	1	36	17
28	61	25	6	2	67	27
29	73	29	7	2	80	31
31	30	18	4	4	34	22

APPENDIX U

Group Verbalizations During Session

Session #	Other	Self	Cognitive	Group
1	117	78	9	0
2	99	74	19	0
3	70	58	14	0
4	89	76	5	0
5	72	69	3	0
6	85	34	0	0
7	70	46	5	0
8	56	54	3	0
9	112	50	3	0
10	31	47	8	0
11	96	74	1	0
12	57	81	10	0
13	83	51	1	0
14	100	98	13	0
15	64	47	1	0
16	111	72	3	0
17	129	64	2	0
18	98	65	2	0
19	89	52	1	0
20	40	54	3	0
21	104	93	3	0
23	57	44	0	0
25	58	58	2	0
26	127	113	7	0
27	33	14	1	0
28	133	108	10	0
29	146	45	0	0
31	103	84	2	0

APPENDIX V

Group Concluding Verbalizations

Session #	2 Other	2 Self	2 Cognitive	2 Group	
1	4	7	4	0	0
2	1	6	2	0	0
3	2	4	3	0	0
4	12	11	4	0	0
5	2	3	0	0	0
6	4	6	0	0	0
7	5	9	1	0	0
8	3	1	0	0	0
9	5	10	0	0	0
10	3	4	1	0	0
11	11	8	0	0	0
12	3	4	0	0	0
13	13	8	0	0	0
14	2	9	1	0	0
15	7	5	0	0	0
16	8	8	4	0	0
17	14	6	0	0	0
18	2	3	2	0	0
19	16	9	1	0	0
20	1	6	0	0	0
21	3	5	0	0	0
23	1	2	1	0	0
25	2	3	0	0	0
26	4	9	0	0	0
27	1	0	0	0	0
28	9	14	0	0	0
29	14	12	0	0	0
31	5	17	1	0	0

APPENDIX W

Group Total Verbalizations

Session #	3 Other	3 Self	3 Cognitive	3 Group	Total Verb.
1	121	85	13	0	219
2	100	80	21	0	201
3	72	62	17	0	151
4	101	87	9	0	197
5	74	72	3	0	149
6	89	40	0	0	129
7	75	55	6	0	136
8	59	55	3	0	117
9	117	60	3	0	180
10	34	51	9	0	94
11	107	82	1	0	190
12	60	85	10	0	155
13	96	59	1	0	156
14	102	107	14	0	223
15	71	52	1	0	124
16	119	80	7	0	208
17	143	70	2	0	215
18	100	68	4	0	182
19	105	61	2	0	168
20	41	60	3	0	104
21	107	98	3	0	208
23	58	46	1	0	105
25	60	61	2	0	123
26	131	122	7	0	260
27	34	14	1	0	49
28	42	122	10	0	274
29	160	57	0	0	217
31	108	101	3	0	212

APPENDIX X

Group Ratios

Session #	<i>n</i>	Group	R O/Q	R S/Q	R C/Q	R G/Q	R T/Q
1	6	1	1.95	1.37	0.21	0	3.53
2	5	2	2.13	1.7	0.45	0	4.28
3	3	1	1.06	0.91	0.25	0	2.22
4	3	2	1.58	1.36	0.14	0	3.08
5	4	1	1.03	1	0.04	0	2.07
6	3	2	2.07	0.93	0	0	3
7	6	1	1.74	1.28	0.14	0	3.16
8	6	1	0.7	0.65	0.04	0	1.39
9	6	1	1.86	0.95	0.05	0	2.86
10	2	2	0.85	1.28	0.23	0	2.35
11	3	1	1.37	1.05	0.01	0	2.44
12	2	1	0.71	1	0.12	0	1.83
13	6	2	1.39	0.86	0.01	0	2.26
14	3	1	3	3.15	0.41	0	6.56
15	2	1	0.86	0.63	0.01	0	1.49
16	5	1	1.75	1.18	0.1	0	3.06
17	4	2	2.56	1.25	0.04	0	3.84
18	4	2	1.85	1.26	0.07	0	3.4
19	4	1	1.84	1.07	0.04	0	2.95
20	2	2	0.84	1.22	0.06	0	2.12
21	4	2	2.28	2.09	0.06	0	4.43
23	4	2	0.76	0.61	0.01	0	1.38
25	3	1	1.18	1.2	0.04	0	2.41
26	2	1	2.62	2.44	0.14	0	5.2
27	2	2	0.94	0.39	0.03	0	1.36
28	5	1	2.12	1.82	0.15	0	4.09
29	4	2	2	0.71	0	0	2.71
31	2	2	3.18	2.97	0.09	0	6.24

APPENDIX Y

Tallahassee Memorial Healthcare Human Subjects Application

Submission Letter

March 31, 2006

To Whom It May Concern:

Thank you for taking the time to review my submission packet.

Per attached, the Music Therapy Department and Michael J. Silverman, MM, MT-BC are requesting expedited approval from the Tallahassee Memorial Institutional Review Board to conduct a research project entitled “The effect of a single psychoeducational music therapy session on psychiatric patients” (IRB# 2006-17). As psychiatric treatment becomes more expensive, briefer in duration, and many patients are only at the hospital for a few days, it is becoming increasingly important to evaluate the effects of a single therapy session. This study will be useful in determining the effectiveness of a single psychoeducational music therapy intervention on psychiatric patients. All psychiatric inpatients at TMH Behavioral Health Center who are referred, that meet criteria as determined by medical personnel, will be selected as participants for this study. For more specific information about the study, please consult the attached proposal. After approval from your facility, this study will be submitted for consideration to the FSU Human Subjects Committee. If you have any questions, please call me at the Music Therapy Department of Florida State University at (850) 644-4565. My faculty advisor at FSU is Dr. Jayne Standley (644-4565). Again, thank you for your attention and considerations to this study.

Sincerely,

Michael J. Silverman, MM, MT-BC
Doctoral Candidate, Music Therapy
Florida State University

Protocol Synopsis

- The purpose of this study is to evaluate the effects of a single psychoeducational music therapy session on psychiatric patients.
- 2 groups will be used in this study.
- The groups will consist of all patients on TMH Behavioral Health Center on Unit 1.
- Group therapy sessions will take place on Mondays and Thursdays. Only 1 session on each of these days will be facilitated by the researcher.
- All patients will be asked to attend the group therapy sessions.
- Each day, the experimenter will randomly determine if the group therapy session is to be experimental or control. All patients on the unit will be included in the group therapy session.
- The control group will receive a single psychoeducational session concerning relapse prevention.
- The experimental group will receive a single psychoeducational music therapy session concerning relapse prevention.
- A music therapy student from FSU will be trained to observe sessions. This student will track the types of responses of the participants. The student will not track specifically what participants said during the session, but will track the type of response they provided to the therapist facilitating the group. This response sheet is included in this packet (Group Psychiatric Event Sampling) and tracks therapist statement (question or validation) and client response (statements about self, statements about the group, cognitive understandings/insights, and other types of statements).
- During the last 10 minutes of the session, the therapist will ask each participant what they learned during group. During this time, the FSU student music therapist will not track participant responses. However, the art therapist will track these responses on a separate Group Psychiatric Event Sampling form.
- Participants will complete a brief posttest after the session.
- The researcher, Michael J. Silverman, MM, MT-BC, will conduct all group sessions. He has extensive experience working in psychiatric hospitals (Florida State Hospital, Apalachee Center for Human Services, Austin State Hospital, TMH Behavioral Health Center).

Protocol

- The study design is a 2 group (control and experimental) posttest only design. Participants will complete a posttest (included in this packet) at the conclusion of the therapy session.
- Sessions and data collection will take place on Mondays and Thursdays at the 4:00 hour. This time has already been approved by the director of therapy and services at the TMH BHC.
- Data collection will take place for 7 months (starting August 1, 2006 and ending February 28, 2007).
- The control group will receive a single psychoeducational session concerning relapse prevention.
- The experimental group will receive a single psychoeducational music therapy session concerning relapse prevention.
- A music therapy student from FSU will be trained to observe sessions. This student will track the types of responses of the participants. The student will not track specifically what participants said during the session, but will track the type of response they provided to the therapist facilitating the group. This response sheet is included in this packet and tracks therapist statement (question or validation) and client response (statements about self, statements about the group, cognitive understandings/insights, and other types of statements).
- During the last 10 minutes of the session, the therapist will ask each participant what they learned during group. During this time, the FSU student music therapist will not track participant responses. However, the art therapist will track these responses on a separate Group Psychiatric Event Sampling form.
- Participants will complete a brief posttest after the session.

Informed Consent

Dear Potential Research Participant:

I am a doctoral student under the direction of Dr. Jayne Standley in the College of Music at Florida State University. I am conducting a research study to evaluate the effects of brief psychoeducational music therapy psychiatric patients. This project is not funded and you will not be paid to participate.

Your participation will involve participating in single psychoeducational session or a single psychoeducational music therapy session. You will participate in the psychoeducational session and fill out a survey when the session is completed. The researcher will obtain your admission diagnosis and Global Assessment of Functioning from your medical chart. A music therapy student from FSU will keep track of the types of responses you provide during the session. This student will not write down any information you provide, other than the type of response you provided. The art therapist at TMH BHC will document your participation in the group. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any

time, there will be no penalty (it will not affect your treatment). The results of the research study may be published, but your name will not be used. Your identity will remain confidential and be protected to the extent allowed by law. There is no likelihood that your health insurance carrier will incur any research related costs if you agree to participate.

Data for this study will be stored at the locked office of the researcher. No other persons will have access to the data. Data will be destroyed one year after the study is completed.

There are no foreseeable risks or discomforts if you agree to participate in this study. This treatment may involve minimal risks that are currently unforeseeable. Possible benefits to you are the knowledge and treatment you will receive during the treatment.

If you choose to participate, you will receive additional group psychoeducation or music therapy services from a Board-Certified Music Therapist. The possible benefits of your participation are to evaluate how brief psychoeducational music therapy can affect persons with mental illness.

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633. If you have any questions concerning this research study, please contact me or Dr. Jayne Standley at (850) 644-4565 or [silvermanmt@hotmail.com].

Sincerely,

Michael J. Silverman, MM, MT-BC

* * * * *

I give my consent to participate in the above study.

_____ (signature) _____ (date)

Investigators Brochure

Not required

Michael J. Silverman, MM, MT-BC

IRB# 2006-17

The effect of a single psychoeducational music therapy session on psychiatric patients

TMH Finance Department Questions

What is the benefit to TMH?

- TMH will receive free music therapy or free psychoeducation provided by a Board-Certified music therapist practicing at the master's level.
- Benefits to the individual participant include a free psychoeducational session or free psychoeducational music therapy session. The participant will learn relapse prevention skills and techniques from a Board Certified Music Therapist practicing at the Master's Level who has extensive clinical experience with psychiatric patients.
- After the session, the researcher will help the art therapist write session notes on participants, thus providing a free service to the TMH BHC.
- No other staff will be involved in the study.
- The art therapist at TMH BHC will not have to plan 2 groups a week as these will be the time the research is being conducted. This will allow the art therapist to address other work concerns during the time normally used to plan these 2 sessions.

Will TMH experience any incremental cost or consumption of resources to participate in the study?

- The art therapist who will be assisting the researcher would normally conduct the group. During this study, she will be in the group but not running the group therapy session. As no other staff will be used, this study will not cost TMH any staff time.
- All musical materials used in this study (guitar, CD player, CD) are property of the researcher. These materials were bought by the researcher for his clinical practice years ago.
- Other materials include pens for participants to complete their posttest. These pens are property of the researcher and were purchased years ago for his clinical practice.
- All photocopies for paper assessment instruments will be made at the FSU College of Music.
- TMH will not pay for any materials used in the study.
- TMH BHC will not pay for any materials used in the study.

Will TMH receive any payments for its participation in the study that will compare to the incremental cost or consumption of resources to participate identified above?

- TMH will not receive any payments for participating in this study.
- There will be no incremental cost or consumption of resources to participate in the above study.
- Participants will not be compensated monetarily for taking part in the study.
- No free testing will be provided.

APPENDIX Z

Florida State University Human Subjects Application

FLORIDA STATE UNIVERSITY *Application No.:*
Human Subjects Application
to the INSTITUTIONAL REVIEW BOARD
for RESEARCH INVOLVING HUMAN SUBJECTS

The Federal Government and University policy require that the use of human subjects in research be monitored by the Institutional Review Board (IRB). **The following information must be provided** when humans are used in research studies, whether internally funded, extramurally funded or unfunded. Research in which humans are used may not be performed in the absence of IRB approval.

PLEASE COMPLETE AND SUBMIT PAGES 1 AND 2 plus YOUR ANSWERS TO THE QUESTIONS (on page 3) IN TYPEWRITTEN FORM TO: HUMAN SUBJECTS COMMITTEE, Mail Code 2763, or

2035 E. Paul Dirac Drive, Box 15
100 Sliger Bldg., Innovation Park
Tallahassee, FL 32310

Researcher: Michael J. Silverman, MM, MT-BC Date: May 16, 2006

Project Title: The effects of a single psychoeducational music therapy session on psychiatric patients' proactive coping skills and satisfaction with life: A randomized and controlled study

Project Period (starting/ending dates): March 20, 2006 – March 20, 2007

Position in University (faculty, etc.) If student, please indicate FSU Faculty Advisor:

Student, Dr. Jayne M. Standley, MT-BC, faculty advisor

Department: FSU College of Music

Telephone: 850-445-8599 E-Mail Address: silvermanmt@hotmail.com

Mailing Address (where your approval will be mailed):

2703 Pecan Road, #2, Tallahassee, FL 32303

Project is (please check one): **dissertation** **teaching** **thesis** **other**

Project is: **unfunded** **funded (if funded, please complete the following):**

Funding Agency (actual/potential): 1. _____ 2. _____

Contract/Grant No. (if applicable): _____

FOR EVALUATION OF YOUR PROJECT, PLEASE CHECK THE FOLLOWING WHICH APPLY:

Mentally or Physically Challenged Subjects
Questionnaires or Surveys
Review of Data Banks, Archives, or medical records
Subjects studied at non-FSU locations

This document is available in alternative format upon request by calling (904) 644-8633

Page 1
Subjects Application (rev. 11-99)

Human

Survey Techniques: Check applicable category if the only involvement of human subjects will be in one or more of the following categories:

- Research on normal educational practices in commonly accepted educational settings
 Research involving educational tests (cognitive, diagnostic, aptitude, achievement)
 Research involving survey or interview procedures (*if checked, please see below*)
 Research involving the collection or study of existing data, documents, records, specimens

If research involves use of survey or interview procedures to be performed, indicate:

1. *Responses will be recorded in such a manner that human subjects cannot be identified, by persons other than the researcher, either directly or through identifiers linked to the subjects.*
 yes no
2. *Would subject's responses, if they became known outside the research, reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability.*
 yes no
3. *The research deals with sensitive aspects of the subject's own behavior, such as illegal conduct, drug use, sexual behavior, or use of alcohol.*
 yes no

Does Research Involve Greater Than Minimal Risk to Human Subjects? Yes No
(If yes, explain in full at Question No. 2)

"Minimal Risk" means that the risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.

I HAVE READ THE FLORIDA STATE LETTER OF ASSURANCE FOR THE PROTECTION OF HUMAN SUBJECTS IN RESEARCH AND AGREE TO ABIDE BY IT. I ALSO AGREE TO REPORT ANY SIGNIFICANT AND RELEVANT CHANGES IN PROCEDURES AND INSTRUMENTS AS THEY RELATE TO SUBJECTS TO THE CHAIR, HUMAN SUBJECTS COMMITTEE, OFFICE OF RESEARCH.

RESEARCHER (signature)

(Date)

Application (rev. 11-99)**Questions**
FOR RESEARCH INVOLVING HUMAN SUBJECTS

USE ADDITIONAL SHEETS FOR ANSWERING THE FOLLOWING QUESTIONS
PLEASE SUBMIT YOUR ANSWERS IN TYPEWRITTEN FORM

1. **GIVE A COMPLETE DESCRIPTION OF YOUR RESEARCH PROCEDURES AS THEY RELATE TO THE USE OF HUMAN SUBJECTS.** This description should include the subjects themselves (number of participants, sex, ages), instructions given to participants, activities in which subjects will participate or engage in, special incentives and experimental procedures. Please avoid the use of abbreviations or scientific terms, unless those items are defined in your procedures. ***If tests, questionnaires or surveys are to be used, copies should be attached and submitted with this application.*** If your proposed research involves humans in physical exercise, please review the committee's guidelines on the subject (available upon request).
 - The purpose of this study is to evaluate the effects of a single psychoeducational music therapy session on psychiatric patients.
 - 2 groups will be used in this study.
 - The groups will consist of all patients on TMH Behavioral Health Center on Unit 1. All these patients are 18 years of age and older.
 - Group therapy sessions will take place on Mondays and Thursdays. Only 1 session on each of these days will be facilitated by the researcher.
 - All patients will be asked to attend the group therapy sessions.
 - These patients will not be forced to attend sessions, but the researcher will encourage them to attend. If patients chose not to attend the sessions, they will not be penalized.
 - Each day, the experimenter will randomly determine if the group therapy session is to be experimental or control. All patients on the unit will be included in the group therapy session.
 - The control group will receive a single psychoeducational session concerning relapse prevention.
 - The experimental group will receive a single psychoeducational music therapy session concerning relapse prevention.
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- The control group will receive a single psychoeducational session concerning relapse prevention.
- The experimental group will receive a single psychoeducational music therapy session concerning relapse prevention.
- A music therapy student from FSU will be trained to observe sessions. This student will track the types of responses of the participants. The student will not track specifically what participants said during the session, but will track the type of response they provided to the therapist facilitating the group. This response sheet is included in this packet and tracks therapist statement (question or validation) and client response (statements about self, statements about the group, cognitive understandings/insights, and other types of statements).
- During the last 10 minutes of the session, the therapist will ask each participant what they learned during group. During this time, the FSU student music therapist will not track participant responses. However, the art therapist will track these responses on a separate Group Psychiatric Event Sampling form.
 - Psychoeducational music therapy activities will be formulated by the researcher. These activities will include such interventions as songwriting, lyric analysis, instrument playing, music games, and listening to music. These interventions will address non-musical goals of coping skills, leisure skills, decision making, problem solving, substance abuse, stress management, medication and symptom management, knowledge of disease, community supports, and relapse prevention. All music therapy interventions will be facilitated by the researcher who is a Board Certified Music Therapist practicing at the Masters' Level.
 - Psychoeducational activities will also be led by the researcher. These activities will address the needs of the patients. These sessions will be loosely structured psychoeducational sessions that and focus on coping skills, leisure skills, decision making, problem solving, substance abuse, stress management, medication and

symptom management, knowledge of disease, community supports, and relapse prevention.

- If participants are re-admitted to TMH, they will be eligible for participation in the sessions but will not complete pre or post questionnaires.

2. HAVE THE RISKS INVOLVED BEEN MINIMIZED AND ARE THEY REASONABLE IN RELATION TO ANTICIPATED BENEFITS OF THE RESEARCH, IF ANY, TO THE SUBJECTS AND THE IMPORTANCE OF THE KNOWLEDGE THAT MAY REASONABLY BE EXPECTED TO RESULT?

- There are no foreseeable risks involved with this study.

WHAT PROVISIONS HAVE BEEN MADE TO INSURE THAT APPROPRIATE FACILITIES AND PROFESSIONAL ATTENTION NECESSARY FOR THE HEALTH AND SAFETY OF THE SUBJECTS ARE AVAILABLE AND WILL BE UTILIZED?

- THIS RESEARCH IS BEING CONDUCTED BY A MASTER'S LEVEL BOARD-CERTIFIED MUSIC THERAPIST WHO WILL ENSURE THAT ALL PROVISIONS HAVE BEEN MADE TO INSURE THE HEALTH AND SAFETY OF PARTICIPANTS.
- THIS RESEARCHER HAS HAD CONSIDERABLE EXPERIENCE WORKING WITH PSYCHIATRIC PATIENTS.

3. DESCRIBE PROCEDURES TO BE USED TO OBTAIN INFORMED CONSENT. (See attached sample and tips on Informed Consent attached to this application.) ***Attach a copy of the informed consent you will use when submitting this application.*** **ALSO, PLEASE ANSWER THE FOLLOWING:**

(A) WHO WILL BE OBTAINING INFORMED CONSENT?

- THE RESEARCHER, MICHAEL J. SILVERMAN, MM, MT-BC WILL BE OBTAINING INFORMED CONSENT.

(B) WHEN WILL THE SUBJECTS BE ASKED TO PARTICIPATE AND SIGN THE CONSENT FORM?

- PARTICIPANTS WILL BE ASKED TO SIGN INFORMED CONSENT FORMS BEFORE THEY PARTICIPATE IN THE PSYCHOEDUCATIONAL SESSION.
- PARTICIPANTS WILL BE ASKED TO SIGN THE INFORMED CONSENT FORM AFTER THEY HAVE AGREED TO PARTICIPATE IN THE STUDY AND PRIOR TO THEM BEGINNING THE STUDY.

(C) IN USING CHILDREN, HOW WILL THEIR ASSENT BE OBTAINED? ("Assent" is an additional requirement. Please see attached sample regarding this procedure.)

- No children will be used in this study.

4. DESCRIBE HOW POTENTIAL SUBJECTS FOR THE RESEARCH PROJECT WILL BE RECRUITED.

- Potential participants will be recruited at the Tallahassee Memorial Healthcare Behavioral Health Center by the researcher. TMH has already approved this study.

5. **WILL CONFIDENTIALITY OF ALL SUBJECTS BE MAINTAINED? HOW WILL THIS BE ACCOMPLISHED? PLEASE ALSO SPECIFY WHAT WILL BE DONE WITH ALL AUDIO AND/OR VISUAL RECORDINGS, IF APPLICABLE, PICTURES AND PERSONAL DOCUMENTATION OF SUBJECTS BOTH DURING AND AFTER COMPLETION OF THE RESEARCH.**

- Confidentiality of all participants will be maintained at all times.
- Participants will only be identified by a number code.
- Data will be kept at the locked office of the researcher.
- All data will be destroyed 3 years after completion of data analysis.

6. **IS THE RESEARCH AREA CONTROVERSIAL AND IS THERE A POSSIBILITY YOUR PROJECT WILL GENERATE PUBLIC CONCERN? if SO, PLEASE EXPLAIN.**

- This research area is not controversial and there is no foreseeable possibility that this project will generate public concern.

7. **DESCRIBE THE PROCEDURE TO BE USED FOR SUBJECT DEBRIEFING AT THE END OF THE PROJECT. IF YOU DO NOT INTEND TO PROVIDE DEBRIEFING, PLEASE EXPLAIN.**

- Participants will be allowed to ask questions to the researcher. If participants do not have questions, the researcher will not debrief them and will thank them for their voluntary participation in the study.

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BIOGRAPHICAL SKETCH

Name: Michael J. Silverman

Birthplace: Exeter, NH

Birthyear: December 24, 1977

Higher Education: East Carolina University
Greenville, NC
Major: Music Therapy
Degree: BM (2000)

The Florida State University
Tallahassee, Florida
Major: Music Therapy
Degree: MM (2002)

The Florida State University
Tallahassee, Florida
Major: Music Therapy and Music Education
Degree: Ph.D. (2007)

Music Therapy Experience: Apalachee Center
Tallahassee, FL
2000-2001

Marnie Paul Arts Center
Austin, TX
2002-2003

Austin State Hospital
Austin, TX
2002-2004

Healing Hearts Music Therapy Services
Tallahassee, FL
2004-2007