The effects of social skills training in reducing behavioral indicators of anxiety in adult male schizophrenics

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ABSTRACT

SOCIAL WORK

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THE EFFECTS OF SOCIAL SKILLS TRAINING IN REDUCING BEHAVIORAL INDICATORS OF ANXIETY IN ADULT MALE SCHIZOPHRENICS

Advisor: Jerome Schiele, DSW

Thesis dated July 1998

The purpose of this study was to determine the degree to which social skills training was effective in reducing anxiety in male mental health clients diagnosed with schizophrenia. This study is important because it attempts to fill the current literature gap regarding treatment interventions for males diagnosed with schizophrenia.

The study consisted of fifty adult male patients (N=50) between the ages of 18-55 with a diagnosis of schizophrenia. To test the effectiveness of social skills training, the participants were systematically random selected and placed in one of two groups. Group one (the control group) consisted of twenty-five males diagnosed with schizophrenia. Group two (the experimental group) consisted of twenty-five males diagnosed with schizophrenia. The experimental group received the treatment intervention of social skills training while the participants from the control group
received nothing. Anxiety was measured through specific behaviors and direct behavior observation was used to collect information on the behaviors.

Results of the T-test analysis revealed that there were statistically significant differences between the experimental and control group at posttest phase. Those in the experimental group showed more significant reduction on anxiety than the controls, indicating that social skills training was effective in reducing anxiety. Implications for future research and social work practice also are discussed.
THE EFFECTS OF SOCIAL SKILLS TRAINING IN REDUCING BEHAVIORAL INDICATORS OF ANXIETY IN ADULT MALE SCHIZOPHRENICS

A THESIS SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SOCIAL WORK

BY KENNETH DE WAYNE WHITAKER

SCHOOL OF SOCIAL WORK

ATLANTA, GEORGIA JULY 1998
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CHAPTER 1

Introduction and Statement of the Problem

Many psychiatric hospitals are heavily populated with patients diagnosed with schizophrenia. Studies on schizophrenia have shown that in the United States, one out of one hundred individuals will be diagnosed with schizophrenia. The National Institute of Mental Health (NIMH) estimates that two million Americans suffer from schizophrenia, afflicting about one to two percent of the population.

Though there is an abundance of schizophrenic research, little attention has been given to social skills training as it relates to anxiety in the life events of males diagnosed with schizophrenia. According to Perugi et al., females exhibit more severe forms of anxiety than males. Furthermore, females exhibit more types of anxiety disorders such as panic disorders and phobic disorders. In addition, it is important to understand that social skills training differs from basic skills training because of their focus in treatment; social skills focuses on the individual in relationship to others, whereas basic skills focuses on the individual's ability to care for self.

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2Ibid.
Several researchers have conducted studies on social skills training and its relationship to social anxiety within the mentally ill. Yet, these researchers operationalized social anxiety as an inability to communicate effectively; verbally or nonverbal. The findings of their research indicate that their intervention of social skills training improved the individuals ability to communicate effectively.3

The intervention of social skills training entails different components and varies from research study to research study. For example, some studies have operationalized social skills training as vocational, academic, and basic skills training.4 Yet in other studies, social skills' training is operationalized through behavior modification techniques, communication, and skills that permit independent living.5 However, in this study, the components of social skills training differ because this study incorporates a multidisciplinary approach to treatment and offers a variety of treatment interventions for anxiety.

Other studies conducted on social skills training have focused on other mental health populations diagnosis of bi-polar, mental retardation, depression and others. For instance, Ayala conducted a study dealing with anxiety reduction through alternative treatment techniques such as social skills training. Though these authors

3Van Dam Baggen, R; Kraaimaat, F.; “A group social skills training program with psychiatric patients: outcome, drop-out rate, and prediction.” Behavior Research and Therapy; 1986 Vol. 24(2) 161-169.

4Ayala, H; et-al: “An alternative to the treatment and rehabilitation of the chronically mentally ill.” Salud Mental; 1982 Spring Vol. 5(1) 87-93.

reported research on the mentally ill, further investigation found that the population consisted of individuals diagnosed with mental retardation and epilepsy. In the same way, other researchers have conducted studies using participants with a particular diagnosis and have generalized the results to the entire mental health population.

Many studies of schizophrenia consist of male and female participants. Yet the majority of schizophrenic research consist of female participants. There are many reasons for this phenomenon. First of all, schizophrenia has a severe and often times decompensating effect on females. However, the reason for the gender difference is still unknown. Because females have more debilitating effects from schizophrenia than males, researches have focused more on female sufferers of schizophrenia in search for more effective treatment interventions. This process mentioned above systematically neglects adult males diagnosed with schizophrenia. In short, there is a need to conduct the more studies examining the relationship between social skills training and anxiety in adult male schizophrenics.

Rationale of Study

If the effects of social skills training on anxiety among adult male schizophrenic patients are not addressed, the following negative consequences might occur. To begin with, increased hospitalizations of schizophrenics, for agitation, depression, and anxiety as opposed to "necessary" hospitalization for psychosis and mental decompensation.

To begin with, because of their physical stature, males represent and are considered an increased risk for violent outburst. Therefore, a second consequence
might be the increased occurrence of violent outburst. These outbursts are exacerbated by periods of increased anxiety and extreme paranoia. It is in this state that the client experiences a loss of contact with reality and is at particular risk of harm to self and harm to others.

Third, if an examination of the effects of social skills training on anxiety in adult male schizophrenics are not conducted, there could be an increase in social isolation and withdrawal. This withdrawal could be the result of a person's inability to effectively communicate signs and symptoms of distress or their inability to "relax" after an anxiety-provoking situation. Other negative consequences that might result are marked impairment in personal hygiene and grooming, lack of initiative and interest in daily activities, and marked impairment in functioning such as a student, employee or home maker.

Fourth, if an examination of the effects of social skills training on anxiety in adult male schizophrenics are not conducted, there could be an increase in successful suicides and self-mutilative behavior. This is an area of great concern for social work practitioners because males are more successful in their suicide attempts than their female counterparts. The increase in successful suicides and self-mutilative behavior could be the result of a person's inability to effectively communicate signs and symptoms of distress.

Finally, it would be beneficial for social workers to understand the effects of social skills training because it might help to foster a better client-therapist
relationship. The trust by the client towards the therapist increases the client's positive response to treatment.

**Purpose of Study**

The purpose of the study is to determine the degree to which social skills training is effective in reducing anxiety in male mental health clients diagnosed with schizophrenia.
CHAPTER 2

Literature Review

This review of the literature is organized into three broad headings: (1) Anxiety in Mental Health Clients; (2) Social Skills Training and Anxiety; and (3) Non Social Skills Interventions and Anxiety in the Mentally Ill. Throughout this literature review, various definitions and indicators of anxiety will be used. Some examples and indicators of anxiety are self-mutilative behavior, suicide attempts, depression, and anxiety disorders.

Anxiety in Mental Health Clients

Anxiety is prevalent in many psychiatric disorders, particularly schizophrenia, and is often associated with somatic illness, toxic states, and is frequent in all psychoneuroses. This section of the literature review will examine the prevalence, dimensions and outcomes of anxiety.

Prevalence of Anxiety Disorders

It is estimated that two to four percent of the population has experienced a disturbance sufficient to be diagnosed as an anxiety disorder. Anxiety disorders are a group of disturbances in which anxiety is the predominant symptom that is experienced or defended against; by avoiding the anxiety-provoking object. In
addition, anxiety is a subjective experience that can be inferred by observing a person's behavior and physiologic responses or through subjective reports.

Wise and Rieck reported that anxiety symptoms and anxiety disorders are commonly found in patients with mental illnesses. Therefore, when a client presents symptoms of anxiety, there are four diagnostic considerations a clinician must consider: (1) rule out other psychiatric disorders such as depression or delirium, (2) determine if the anxiety symptoms are secondary to an exacerbation of a medical illness or to medication side effect, (3) determine whether the anxiety predated any medical illness, and (4) distinguish between a normal reaction to stress and an adjustment disorder with anxious mood.¹ Similarly, Retamales reported that anxiety symptoms are frequently observed in allergic diseases and in many psychiatric pathologies.²

Likewise, Obaydi described cases of schizophrenia with a group of symptoms that had the essential features of flashbacks. Symptoms were characterized by memory flashes of psychotic experiences, followed by other psychiatric symptoms. However, these symptoms were less clear, less severe, than the original episodes. The findings of the three cases reported that symptoms were triggered by anxiety.³


In a study on treatment-resistant chronic mental illness, three cases were presented with chronically mentally ill men between the ages of 28-50. These individuals were thought to have various types of treatment-resistant chronic mental illness however, these diagnoses were later revised after findings indicated that symptoms of anxiety were misinterpreted as psychosis. The results of this study reveal the significant impact or role anxiety plays in the manifestation of symptoms displayed by the mentally ill.4

Hamera et. al., conducted a study, which used a symptom self-regulation model to examine the characteristics and stability of indicators of illness identified by individuals with schizophrenia. The participants in the study were interviewed to determine if they could identify indicators of illness and describe characteristics of their primary indicator. Primary indicators of illness from fifty-one subjects were categorized as feelings of anxiety, depression, and psychosis. Subjects who identified primary indicators were more confident that their indicator occurred when they were getting ill. Subjects who identified primary indicators and depressive indicators reported that their indicators were more troublesome. Finally, the results of the study reported that subjects self-reported that feelings of anxiety occurred more frequently than indicators from the other two categories (depression and psychosis).

Interestingly, many researchers have reported significant increases of symptoms in the mentally ill due to the consumption of substances such as alcohol, drugs, food,

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etc. For instance, Simmons discusses the effects of caffeine on people with mental disorders. According to this researcher, caffeine is detrimental to schizophrenic patients because psychosis and mania result when reintroduced to schizophrenic patient after a period of abstinence. Furthermore, the medication for schizophrenia treatment is adversely affected when used in combination with caffeine. Finally, caffeine can worsen or precipitate symptoms of anxiety because it can elevate moods immediately after consumption. Therefore, this researcher believes that an assessment of caffeine intake is essential for clients prior to diagnosis and treatment.

Depression

In many cases, anxiety manifests itself in a variety of forms such as depression, psychosis, and sometimes suicide attempts. Therefore, a client that presents himself with complaints of the above mentioned forms should be carefully assessed to determine if their depression, psychosis or confusion is a dimension of anxiety.

Soni et. al., investigated clinical difference between fifty-seven chronic schizophrenic patients with long stays in the hospital and fifty-seven schizophrenic patients living in the community. Patients were matched for age, gender, and diagnosis. According to the researchers, hospitalized subjects had more severe

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Soni, Som D.; Malik, Ather; Reed, Paul; Gaskell, Keith; et. al., "Differences between Chronic Schizophrenic Patients in the Hospital and in the Community."
thought disorders and negative symptoms, and those in the community had a significantly higher incidences of depression and anxiety. Results suggest that living in the community may have its price in terms of the distressing effects of affective symptoms.

Acorn, conducted a study on mental and physical health of homeless persons. This researcher investigated the extent of psychiatric problems among users of shelters for homeless persons diagnosed with schizophrenia and bipolar disorder. Findings revealed that scores on the Brief Psychiatric Rating Scale indicated that depression and anxiety were common problems in the homeless population.

In addition, ethnicity plays a significant role in the exacerbation of symptoms as a result of perceived anxiety. For instance, Lloyd noted that there were higher incidences of schizophrenia in Afro-Caribbean's than in White British controls. Lloyd also noted that rates of anxiety and depression were lower in the Afro-Caribbean as opposed to those in White British controls. The results of this study contradict the results of other studies which report an exacerbation of schizophrenic symptoms in minorities due to social adversity (e.g. racism, cultural mismatch of the patient and doctor, unemployment, poor housing, and low socio-economic status).7 However, these same factors might account for better coping mechanisms within the minority population.

Some forms of anxiety and affective disorders distinctively appear. However, symptoms of depression and anxiety frequently occur together. Therefore, many researchers have reported that the comorbidity of anxiety and depression has implications for differential diagnosis. Furthermore, this comorbidity effects the severity, course, and its responsiveness to treatment.\textsuperscript{4} The term comorbidity refers to the simultaneous occurrence of two or more mental disorders in one patient. High rates of comorbidity result from diagnostic systems that divide complex syndromes into multiple, correlated components. Finally comorbidity complicates treatment, which often times leads to increased hospitalization/treatment cost, decreased compliance, and poor response to medication therapy techniques.

Suicidal Behavior

As a result of subjective individuals subjective experiences of anxiety, suicidal behavior/gestures are the outcomes. According to current literature, anxiety has a severe and often times decompensating effect on the mentally ill. However, signs and symptoms of perceived anxiety are often times overlooked because anxiety is disguised by a variety of behaviors. For example Young, Cooke, Robb, Levitt, et. al, conducted a study on anxious and non-anxious bipolar disorder patients. This study consisted of eighty-one patients diagnosed with bipolar disorder who were grouped by affective disorders, schizophrenia, or generalized anxiety disorder. The results of this

study indicated that bipolar patients with high anxiety scores were more likely to have suicidal behavior, alcohol abuse, cyclothymia, and an anxiety disorder with a trend towards nonresponsiveness. In addition, a diagnosis of an anxiety disorder was related only to high anxiety and low scores on the Global Assessment Scale. Thus, anxiety has clinical relevance within the mental health population. In another related study, Breslau and Davis reported that a significant relationship exists between the variables of anxiety, depression and suicidal behavior. Furthermore, in a study on Anxiety, impulsivity and depressed mood as they relate to suicidal and violent behavior, Apter, Plutchik and Van Praag reported that suicidal risk was positively related to both trait and state anxiety. On the other hand, trait anxiety was negatively correlated with violent behavior. Likewise, Fawcett reported that anxiety symptoms are closely linked with suicide attempts. Therefore, anxiety is in fact one of the most clinically important symptoms in the mentally ill.

Many people with mental illness, particularly mood disorders and schizophrenia, are at greater risk of death from accidents or natural causes than the

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general population. Nevertheless, suicide remains the principal cause of death directly related to psychiatric patients; accounting for the majority of deaths in the United States. In a self-report of three cases of serious suicide attempts, schizophrenic patients expressed inner feelings of restlessness and symptoms of severe anxiety. According to the patients self reports, they maintained that the symptoms of anxiety were uncontrollable. Furthermore, these uncontrollable symptoms of anxiety caused them to have sudden suicidal urges thus ending in a serious suicide attempt.13

Azhar and Varma reported on three cases of serious suicide attempts. In this study, patients diagnosed with schizophrenia expressed feelings of inner restlessness, a need to move their legs, and severe anxiety. According to the article, all subjects self-reported that the symptoms caused them to have sudden suicidal urges.14

In other related studies, Fawcett discussed data sets from three studies, which linked anxiety symptoms with suicide attempts. Therefore, it is concluded that anxiety is the most clinically important symptoms of individuals with mental disorders. Similarly, Fawcett et al conducted another study of 954 psychiatric patients with mental disorders. These researchers reported that clinical features such as anxiety and depression were associated with suicide. Findings draw attention to the importance of anxiety symptoms as modifiable suicide risk factors within a clinically relevant period for suicidal behavior.


14Ibid., 240.
Batzel et. al., evaluated the emotional and intellectual correlates of unsuccessful suicide attempts. Subjects were administered the Minnesota Multiphasic Personality Inventory, the Wechsler Adult Intelligence Scale as well as scales measuring ego strength and anxiety. The Minnesota Multiphasic Personality Inventory demonstrated increased anxiety and decreased ego strength among those subjects with histories of suicide attempts in comparison to those without such a history. Findings revealed that unsuccessful suicidal behavior is the product of multiple conditions and circumstances, including increased emotional problems.

However, many researchers report that females exhibit severe forms of anxiety as opposed to their male counterparts: thus increasing suicidal ideation. Therefore, gender appears to play a significant role in manifestation of anxiety in clients with mental disorders, if one assumes anxiety to be a precursor to suicidal ideation. On the other hand, researchers report that the sexes do not differ in experience of depressive symptoms, psychotic symptoms, and episodes.

However, Favazza and Conterio investigated self-mutilative behavior as another disguise of anxiety. In this study, these researchers evaluated habitual self-mutilators. The results of this study indicated that self mutilative behavior was

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17 Perugi, G., et. al., 838.
impulsive and gave patients temporary relief from symptoms such as racing thoughts, depersonalization and anxiety. In addition, the inability to control patients self-mutilative behavior often led to suicide attempts.\textsuperscript{18}

Social Skills Training and Anxiety

This section of the literature will review articles that address the effects of social skills training on anxiety. Social skills training is defined as the acquisition of special skills that enhance client functioning. These include communication, relaxation, hygiene, and medication groups regarding the effects of medication. Literature reviews are articles that review and critically analyze current literature on a specific topic. On the other hand, empirical studies are articles that examine relationships among variables using the traditional methods of social science such as experimental or survey designs.

Literature Review and Critique

This subsection of the literature review will consist of articles that review the effectiveness of social skills training on anxiety in the mentally ill. It has been found that social skills' training is helpful for some schizophrenic patients. Problem-oriented supportive therapy involving clear identification of tasks, roles, behavioral responses, and consequences has been used in the management of chronic patients and in reducing anxiety. In addition, several social factors are associated with exacerbation of positive symptoms. Individuals self-reports of anxiety were likely to increase, as strong unrealistic pressure to perform to high occupational and social standards were imposed.

Mueser, Wallace and Liberman reviewed the research about the effects of social skills training in schizophrenics. In their review, these researchers discussed related methodological and clinical issues such as promoting generalization, predicting the degree of benefit, and integrating social skills training with other rehabilitation services. The findings of their literature review suggests that social skills training, when conducted using appropriate curricula and teaching techniques, helps individuals with schizophrenia acquire relevant interpersonal, instrumental, and coping skills.19

Lemos reviewed theoretical and clinical literature regarding the long-term treatment of schizophrenia. In this article, Lemos described schizophrenia as an affliction in which many congenital and acquired components lead to a vulnerable

premorbid personality. Therefore, treatment must emphasize clarity, simplicity, continuity, and reduce patients vulnerability (genetic factors, anxiety, depression, etc.) via psychotropic medication, social skills training, and social support.20

On the other hand, Hayes reviewed the occupational therapy literature on the treatment of schizophrenia and identifies four treatment categories: sensory integration, activity groups, social skills training and living skills training. The findings of this review reported that sensory integration therapy has been able to improve the motivation and affect of schizophrenic patients. Secondly, structured activity programs can contribute to a reduction in positive symptomatology. Finally, social and living skills training show promise as treatment methods to promote community functioning and reducing symptoms of anxiety.

On the other hand, Wallace critiqued literature dealing with social skills training of schizophrenic patients. In his review, Wallace reported that topographical features self-reports of anxiety and discomfort could be changed for the better by social skills training. However, Wallace reported that these changes do not occur for every patient and they do not generalize to new situations.21 Therefore, this researcher recommended that future research be directed toward the interaction between patient characteristics and training procedures.


Sardo reviewed literature on rehabilitative-behavioral methods of treating schizophrenia. In this review, this researcher discussed cognition and attention deficits in schizophrenia. This researcher also reported that cognitive-behavioral therapy combined with social skills training has been an effective form of treatment for schizophrenia. In addition, the author indicates that social skills' training reduces the symptoms of anxiety.22 Though social skills' training is effective, it is difficult to maintain the learned behavior after therapy. Likewise, family therapeutic interventions, including social skills training appear to possess promise for rehabilitation for schizophrenic patients.23

Empirical Research

Several empirical studies have been conducted to determine the effectiveness of social skills training on anxiety among the mentally ill. For example, Dobson, McDougall Busheikin, and Aldous conducted a study comparing the effects of social skills training and social milieu treatment on the symptoms of schizophrenia. Subjects were patients at a local psychiatric facility aged 18-55. Fifteen subjects completed social skills training, and thirteen completed social milieu treatment. Scores were

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assessed using the Positive and Negative Syndrome Scale (PANSS). Comparison of PANSS scores showed that both treatments were effective in reducing symptoms of anxiety in schizophrenia; yet, social skills training appeared to be more effective.24

In the same way, Spencer, Gillespie, and Ekisa compared the effects of social skills training, remedial drama, and group discussion as techniques in reducing anxiety in chronic schizophrenics. After the interventive treatments were given, only social skills' training was found to result in significant improvement in patients anxiety. Thus, the results indicate the usefulness of social skills training in improving the coping skills of chronic schizophrenic inpatients and maintaining their social functioning.25 In the same way, in a study focusing on the role of social skills training in alleviating negative symptoms of schizophrenia, Wixted et. al. reported that patients benefited from social skills training.

In a one-year study on social skills training, researchers focused treatment on recognition of the patients' lives, attentions, and environment. This study consisted of seven psychotic patients in an Italian psychiatric clinic. Therapy included conversation, problem solving, assertiveness, and token economy training. The participants of the study spent five months at the psychiatric clinic, three months in the clinic with the family, two months of social integration, and two months of


evaluation as an outpatient at the clinic. This therapeutic process reduced the number of crisis days for patients. Results indicated that these researchers operational definition social skills training was useful in helping the patients overcome anxiety as a result of life stress.26

In a related study, Hayes et. al., evaluated the effects of both activity therapy and social skills training on the social behavior and psychiatric states for eight schizophrenic patients aged 20-59 yrs. These subjects were assigned to training groups, which received activity therapy or social skills training. The findings of the study indicated overall improvements in social skills were evident.27 On the other hand, there was no effect of activity therapy.

Furthermore, another studies purpose was to determine the efficacy of social skills training with cognitive modification or social skills training alone on twenty-two "socially dysfunctional" outpatients aged 22-57 years old revealed that subjects in the two treatments showed significant improvements on behavioral and cognitive measures; both during and after treatment. In addition, subjects reported increased


levels of social activities and less anxiety during the two treatments. Furthermore, subjective reports of anxiety decreased during social performance.\textsuperscript{28}

In a related study, social skills training was found to significantly reduce anxiety as well as facilitated behavior change. Trower et. al., conducted a study on the differential response to social failure and treatment of that social failure. The treatments consisted of skills acquisition through social skills training and anxiety reduction techniques. Twenty socially unskilled psychiatric outpatients and twenty socially phobic psychiatric outpatients were exposed to either of the two treatments. Results showed that the unskilled patients responded more to social skills training and reported significantly less difficulty in social situations.\textsuperscript{29}

In a similar study on social skills training, Marzillier et. al., reported that social skills training led to a significant reduction of anxiety in the research participants. The purpose of this study was to determine and evaluate the effectiveness of systematic desensitization and social skills training. As mentioned earlier, the results of this study reported that social skills training led to a reduction of anxiety. In addition, this reduction of anxiety improved led to improved social skills and improvements in participants social lives. On the other hand, systematic


\textsuperscript{29}Trower, Peter; Yardley, Kryisia; Bryant, Bridget and Shaw, Phyllis, "The treatment of social failure: A comparison of anxiety-reduction and skills-acquisition procedures on two social problems." \textit{Behavior Modification} Vol. 2, no. 1 (June 1978): 41-60.
desensitization ran into a number of procedural difficulties and treatments were found to be ineffective.\textsuperscript{30}

In a study on the effects of social skills training in chronic schizophrenics, Bellack, Hersen, and Turner administered social skills training to one male and two female chronic schizophrenic inpatients. Interestingly, social skills training was highly successful for the female participants but was only partially effective for the male participants.\textsuperscript{31} In other investigations on the effectiveness of social skills training, Van Dam Baggen and Kraaimaat found that social skills training resulted in a decrease in anxiety and an increase in social skills. In addition, Van Dam Baggen et. al., discussed the importance of extending treatment targets to include real life situations. These researchers also reported that treatment effects were maintained when participants were remeasured three months after treatment; thus indicating the effectiveness of social skills training in the mentally ill.\textsuperscript{32} Similarly, Van Dam Baggen conducted another study investigating the effectiveness of social skills training using a cognitive behavioral approach. Results indicated that social skills treatment decreased anxiety and increased social skills.\textsuperscript{33}


\textsuperscript{33}Ibid., 281-296.
In an evaluation study on clinical social skills training, Van Dam Baggen reviewed studies on group assertion training in psychiatric populations. In this study, the participants were placed into two groups; treatment experimental group, and no-treatment control group. Both groups participated in standard clinical treatment activities. However, the experimental group showed greater improvement on measurements of anxiety than the no-treatment controls. Yet both groups showed similar levels of overall improvement on general measures of anxiety. In another related study, Varela et. al. investigated the effects of social skill training on three chronic schizophrenic patients. Results of the study indicated, that pre- and post-test scores rating anxiety levels showed a reduction in anxiety levels and an improvement in social response.

Similarly, a group of researcher conducted a study using a multiple baseline design to assess the effects of social skills training in elderly women suffering from anxiety. Results showed progressive improvement in targeted social skills with social skills training in both clinic and home settings. Concurrent with enhanced levels of social skills there were dramatic decreases of anxiety in elderly women.

Mann et. al. conducted a study that describes the development of social skills training program for application in a short-term acute schizophrenic inpatient unit.

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34Van Dam Baggen, Rien, 281-296.


This program was designed for a three to four week hospitalization and able to be delivered in an open group setting. The training program emphasizes communication skills, problem solving, affect identification, needs recognition, and social relatedness. The program utilized the following tools: group discussions, writing tasks, physical activity, education, role-play, and feedback. Results reported that the program was very effective in treating schizophrenia. Similarly, another group of researchers discussed psychosocial treatments of schizophrenia and its effectiveness in improving patient outcomes and reducing anxiety. In their findings, these researchers reported that cognitive-behavioral-oriented family intervention and social skills training, in conduction with medication, is an integral component of treatment for schizophrenia.

Monti et. al. compared the effectiveness of a systematic social skills group-training program with the effectiveness of a sensitivity group training program. The participants in this study comprised of forty-six psychiatric patients who were randomly assigned to either group (social skills training or sensitivity training) for sessions. Both self-report and observational assessment instruments were administered at pretreatment, posttreatment, and follow up. The results of this study suggest that

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37Mann, Nancy; Tandon, Rajiu; Butler, Joann; Boyd, Margo; et. al., “Psychosocial rehabilitation in schizophrenia: Beginnings in acute hospitalization." *Archives of Psychiatric Nursing* Vol. 7, no. 3 (1993): 154-162.

the anxiety levels of subjects in social skills training improved significantly more than their counterparts in sensitivity training.39

Massel et. al. compared the acquisition and generalization of conversational skills after a traditional social skill-training program to the effects of an attention focusing procedure. This study consisted of three severely thought-disordered male schizophrenic patients. The findings of this study showed significantly increased performance of conversational skills and generalization of trained behaviors after completing the attention focusing procedure.40

In a case study, a male schizophrenic patient's behavior was monitored over 12 weeks to determine the effectiveness of social skills training on the participants behavior; including anxious behavior. The participants behavior was monitored using the Assessment Schedule, Adult Training Instrument, and the patient's self report of anxiety. Surprisingly, the participant socially decompensated after the intervention of social skills training.41

In another related study, Wixted et. al. discussed the relationship between the symptomatology of schizophrenia and social skills training. The principle aim of this


study was focused on the role of social skills training in alleviating negative symptoms of schizophrenia, including anxiety. Therefore, these researchers described a procedure with emphasis on the application to the interpersonal deficits associated with negative symptoms. In short these researchers concluded that an assessment of social skills training is necessary for selecting patients that might benefit from it.42

Otero studied the efficacy of a rehabilitation program for the treatment of patients with chronic schizophrenia. There were thirty adult participants between the ages of twenty and fifty in the research study. The participants were divided into two groups of fifteen subjects each, one of which participated in the abovementioned rehabilitation program. The rehabilitation program consisted of occupational therapy, education in reading, writing, and life/social skills training. Treatment efficacy was evaluated and results indicated that the rehabilitation program was effective in reducing positive and negative symptoms of schizophrenia.43 Similarly, another researcher reported that training in social skills reduces symptoms of anxiety for patients living with persistently high expressed emotion families.44

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Non Social Skills Interventions and Anxiety in the Mentally Ill

In this section of the literature review, non-social skills interventions will be discussed. Non social skills interventions can be defined as alternative paradigms for the treatment of schizophrenia. Some are basic skills training, poetry therapy, music therapy and medication therapy.

Basic Skills Training

Basic skills training entails daily living skills which enables individuals suffering from mental illness to function at their optimal level in conjunction with other therapeutic interventions.

Ayala et. al. conducted a study on alternative treatment and rehabilitation of the chronically mentally ill. The aim of this study was to establish patients' functional capacities for reintegration into the community through the use of an applied behavior analysis model; for improving the functioning of the chronically mentally ill. The treatment intervention consisted of two phases: (1) training in social, self-care, maintenance, vocational, academic and basic skills; (2) a therapeutic community program. The participants of the research study were individuals diagnosed with schizophrenia, mental retardation and epilepsy. The results indicate a significant improvement in social and work behavior; and a reduction of anxiety levels and depression.45 Similarly, Andrews suggest that other treatment alternatives

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include medication and cognitive behavior therapy, which is effective in reducing anxiety.  

Yet in more conventional research, Frisch et. al. conducted a study on the effectiveness of stress-management training in adult male psychiatric patients. In this study, stress management training covered applied relaxation and cognitive restructuring procedures. The results of this study indicated subjects who received treatment showed significant improvements on behavioral measures of social skill. However, neither treatment group reported a decrease in anxiety or self-esteem.

Ost et. al. conducted a study on individual response patterns and the effects of different behavioral methods in the treatment of social phobia. This study was conducted on psychiatric inpatients between the ages of 20-60. Participants were classified as behavioral and physiological reactors. These participants were then placed into two different treatment groups and exposed to an external stimulus. After receiving exposure to the external stimuli, participants were randomly assigned to social skills training, while the other half received applied relaxation. These groups were compared and within-group comparisons showed that both treatments yielded significant improvements. However, subjects who were classified as physiological


reactors benefited significantly more from applied relaxation techniques than social skills training.48

In an evaluation study, Halford and Hayes reviewed studies which examined the clinical effects of social skills training and family psychoeducation were assessed. According to the article, social skills training consistently improves the social skills of schizophrenic patients. However, there has been inadequate assessment of the transfer of skills to patients' day to day lives. Therefore it is unclear if clinically significant changes in patient functioning in the community can be obtained with social skills training.49 Furthermore, family psychoeducation improves interaction between schizophrenic patients and their relatives; thus reducing family burden and patient relapse. Similarly Breslin reviewed studies describing the treatment of schizophrenia. In her review, this author found that antipsychotic agents play a dominant role in treatment, but, no one drug has been proven to be more effective. In addition, this author reported that noncompliance with medication and ineffective medications are major contributors to treatment resistance. Yet, treatment used in conjunction with drug therapy, and supportive psychotherapy that incorporates social skills training is useful. Furthermore, environmental interventions such as supervised housing and


work with families help patients to function better in the community; thus avoiding rehospitalization.30

In an evaluation of cognitive-behavioral treatment of schizophrenia, Bradshaw examined the efficacy of cognitive-behavioral techniques with four adult schizophrenics. Standardized measures of psychosocial functioning, severity of symptoms, attainment of treatment goals, and data regarding hospitalizations were used to assess change in treatment and follow up. The findings suggest that the clients experienced considerable reduction in symptoms and rehospitalizations as well as improvement in psychosocial functioning and attained treatment goals.31 Similarly, Kingdon et. al. conducted a study on the use of cognitive behavior therapy. In this study these researchers treated sixty-four schizophrenics patients with cognitive behavior therapy as an adjunct to standard treatment. The findings of the study reported that cognitive behavior therapy proved safe to use and those subjects were maintained on low levels of or no medication and required minimal hospitalization.52

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Alternative Treatment Methods in Reducing Anxiety

A variety of treatment interventions have been developed in an attempt to treat anxiety within the mentally ill. These interventions utilize clients creative skills in order to bring about total relaxation (reducing physiological responses to anxiety).

In an example of alternative treatment techniques, Silverman discusses the effectiveness of Poetry therapy in the reduction of anxiety in the mentally ill. This therapy included both reading and writing of poems. The results of this study indicated that Poetry therapy is an effective treatment intervention when used as a relaxation technique for internal anxiety.\(^{53}\) Likewise, Luber discusses the cathartic effect of poetry in therapy and the major recurrent themes found in group poetry therapy sessions. The participants were taught three structured poetry styles: cinquin, limerick, and haiku. The themes of the poetry therapy sessions were: (a) the effects of mental illness; (b) the prevalence of certain mood or feelings (primarily anxiety, depression and hostility); (c) the sense of individual identity; and (d) the family. The findings of this study indicated a reduction in self-reported symptoms of anxiety. On the other hand, there are preliminary findings, which suggest that the practice of yoga, as an anxiety relieving technique, have potential value in promoting good mental health and treatment for the mentally ill.\(^{54}\)


A group of researchers examined the effects on music therapy on two groups of participants; psychiatric and normal patients. The participants of the study consisted of individuals diagnosed with schizophrenia, neurotics, and "normal" individuals. The music was composed from the sounds of a stream and the voices of birds. The individuals diagnosed with schizophrenia and neurotics showed a statistically significant decrease in anxiety after listening for fifteen minutes.\(^5\)

Another treatment alternative is electroconvulsive therapy (ECT). Electroconvulsive therapy was introduced in the 1930's as a treatment for schizophrenia. However in recent decades it has been much more widely used for depressive illnesses and anxiety rather than for schizophrenia. Controlled trials conducted in schizophrenic patients by Taylor and Fleminger and Brandon et al showed that, in patients on neuroleptics, real ECT had a greater effect than did simulated ECT, although in both studies the difference had vanished by the twelve week follow-up.

Drug Treatments in the Reduction of Anxiety

This subsection reviews classical treatment of anxiety through the medical model of treatment, which utilizes medication.

In a study on non-sedative anxiolytic medication, the researchers treated ten psychiatric inpatients manifesting moderate to severe anxiety. At the end of the study,

a significant reduction in anxiety was observed, whereas schizophrenic symptomatology continued to worsen. In a similar study, Dominguez reviewed the literature on the use of beta-adrenergic blocking drugs in the treatment of a variety of psychiatric syndromes, including acute and chronic schizophrenia. According to Dominguez's review there have been a number of controlled trials on the role of beta-blockers in the treatment of anxiety. Results indicated that beta-blockers are more effective in decreasing the somatic symptoms of anxiety than treating symptoms of anxiety.

Yet in other treatment interventions used to reduce anxiety levels in schizophrenia, Pantelis and Barnes reported on a 33-year old male schizophrenic patient who was treated with buspirone (anti-anxiety medication) to alleviate symptoms of anxiety. Unexpectedly, this patient suffered an acute exacerbation of psychosis when treated with this medication. Findings reported that this psychotic reaction was dose dependent and re-introduction of buspirone at a modest dose helped to alleviate anxiety without exacerbating other schizophrenic symptoms.

In another related study, Haloperidol was administered to twenty four schizophrenics with an average age of thirty-six. The study consisted of eleven males

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and thirteen females. The treatment lasted an average of thirty six months. Eleven subjects started the treatment in an outpatient clinic, while the remainder were started on haloperidol in the course of a hospitalization for an acute attack of psychosis. Average scores on somatic concerns, emotional withdrawal, conceptual disorganization, tension, hostility, suspiciousness, unusual thought content, blunted affect, and anxiety all decreased.\(^5\)

Similarly, a group of researchers compared the therapeutic profiles of anatypical antipsychotic, olanzapine with haloperidol. The participants in the study had a diagnosis of schizophrenia, schizophreniform disorder, and schizoaffective disorder. To begin with, these subjects were randomly assigned to treatment with olanzapine or haloperidol. The changes in total score were measured and examined from baseline to endpoint. This study reported the mean change in positive/ negative symptoms, depression, anxiety, extrapyramidal symptoms, and drug safety were examined. Results indicated that Olanzapine demonstrated clinically superior results than Haloperidol on overall improvement; including secondary measures of depression and anxiety.\(^6\)

However, antipsychotic drugs are not curative, and their long-term benefits are not as great as their substantial short and intermediate effects. In addition, negative


symptoms are not responsive to antipsychotic drugs. Furthermore, many patients have poor responses to antipsychotic drugs and most patients suffer from incomplete responses to the medication.

Also, neuroleptic medication causes a wide range of side effects in the cardiovascular, gastrointestinal, and central nervous systems. These side effects include weight gain, dystonic reaction, akathisia and abnormal involuntary movements (tardive dyskinesia) in which females are at higher risk than males. Likewise, this increased concern regarding the side effects of medication has prompted researchers to examine clinical trials of dose reduction strategies for maintenance treatment. Other alternatives have been continuous low doses and administration of medication only during periods of anxiety, depression, and psychosis (targeted drug treatment). These strategies are effective in reducing exposure to neuroleptic drugs and maintaining general functioning, but they are associated with increased relapse rate.

In a discussion on the rationale for using antipsychotic drugs in targeted maintenance treatment, Buchanan and Carpenter reported that this treatment arose out of the recognition for its efficacy in preventing schizophrenic relapse. According to the researchers of this article, standard maintenance treatment was associated with a variety of disadvantages. Therefore targeted treatment was designed to circumvent the disadvantages by decreasing antipsychotic exposure while maintaining standard maintenance treatment. The findings of this article revealed that targeted treatment
was shown to have been effective in reducing antipsychotic exposure and effective in reducing negative symptoms (depression, psychosis, anxiety).\textsuperscript{61}

Meco, Bedini, Bonifati and Sonsini evaluated the efficacy of resperidone in the treatment of chronic schizophrenic patients. Ten patients with chronic schizophrenia were treated with resperidone for one month in a crossover study versus a placebo (used for one month). The measurement tools included the Brief Psychiatric Scale, the State-Trait Anxiety Inventory, and a rating scale for involuntary movements. The findings of the study indicate that resperidone proved efficacious in the relief of psychotic symptoms, including negative symptoms, with beneficial effects on symptoms of anxiety and depression.\textsuperscript{62} Similarly, Tran et. al. reported that Olanzapine and resperidone were safe and effective in the management of psychotic symptoms; including symptoms depression, anxiety and mania. Furthermore, Jeste et. al. evaluated the efficacy of resperidone in a heterogeneous patient population. This population consisted of 945 patients with a Diagnostic and Statistical Manual of Mental Disorders-III-Revised (DSM-III-R) diagnosis of schizophrenia. In this study resperidone treatment was maintained for one week, and then adjusted over a four week period as clinically necessary. Next, the dosage was fixed for a final four week period. The results of the study indicate that resperidone is generally well tolerated


and severe extrapyramidal symptoms were significantly reduced at the completion of the study.⁶³

Krystal et. al. conducted a study comparing the effects of treatment with chlorophenylpiperazine or a placebo on the behavioral ratings of twelve male neuroleptic-free patients with schizophrenia. Anxiety was also assessed to determine whether symptoms of schizophrenia were influenced by the stimulation of serotonin receptors. Results show that neuroleptic-free patients with schizophrenia experienced exacerbation of positive symptoms following the administration of chlorophenylpiperazine. Furthermore, anxiety levels were also increased in these patients, which raises the possibility that exacerbation in positive symptoms were secondary responses to increased arousal.⁶⁴

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Theoretical Framework

To explain how social skills training could be effective in reducing anxiety among male schizophrenics, the vulnerability stress model (vsm) of schizophrenia will be used. The vulnerability stress model of schizophrenia explains and assumes that individuals with schizophrenia are genetically predisposed. This assumption relies on the premise that (1) all human being possess the schizophrenia trait, and (2) this genetic trait passed on from one generation to the next. However the vsm asserts that the social environment is believed to be central in explaining schizophrenia and it's outcome in society.

In this regard, the vulnerability stress model of schizophrenia explains anxiety as those unforeseen and uncontrollable genetic factors interacting with an individual and their ever changing environment. This interaction between biological and psychosocial increases an individuals susceptibility for the development of schizophrenia. After the initial onset of schizophrenia, stress plays a key role in the exacerbation of symptoms. As a result, the anxiety is experienced by the individual and some of the behavioral outcomes are self mutilation, suicide attempts, and depression. Therefore positive or negative interactions of the individuals within their environment trigger the onset of schizophrenia. The onset development of schizophrenia is exacerbated by social influences such as social groups, family, work, etc. However, it's unknown to current research, as to the real “culprit” in the exacerbation of symptoms triggered by anxiety which is induced by stress encountered in the environment. Therefore interventions such as social skills training are required
to address environmental triggers which are hypothesized to exacerbate symptoms of schizophrenia.

Social skills training is based on the logic and assumption of the Vulnerability Stress Model of Schizophrenia. Within social skills training, there are several components that address anxiety experienced by schizophrenic patients. The components are: (1) everyday basics skills; (2) effective communication using verbal exercises; and (3) physical relaxation techniques. The first component could possibly reduce anxiety through a protocol, which emphasizes a daily maintenance program such as a routine medication, hygiene, vocational, work, etc. The emphasis within the basic skills component of social skills training is on helping schizophrenics achieve the normal daily functions of non-schizophrenic persons. In short, the purpose of this component is to "normalize" the daily functions of schizophrenic persons. The second component of social skills training could reduce anxiety by enabling to effectively communicate signs and symptoms of distress such as anxiety, suicidal ideation, depression, auditory and visual hallucinations. This is the critical component of social skills training. It is the component that teaches the most effective method of communication. This method of communication enables client's the ability to effectively communicate signs, and signs symptoms of distress with service providers (social workers, physicians, nurses, care managers, etc.). Finally, the third component of social skills training could reduce physiological symptoms of anxiety. This could be facilitated through relaxation techniques, which signify the importance of internal control and benefits of breathing correctly. In addition, the is component of social
skills training is geared towards providing clients with specific breathing exercises so that when also they can ease physical symptoms of anxiety. In this way, the IV of SST is self-empowering because it reinforces the significance of client's rate in the treatment process.

**Research Question and Hypothesis**

Based on the foregoing theoretical framework, literature review and general purpose of the study, the following research question and hypothesis are proposed:

**Q1:** To what extent is social skills training effective in reducing behavioral indicators of anxiety in male mental health clients diagnosed with schizophrenia?

**H1:** Social skills training will have a statistically significant effect in reducing behavioral indicators of anxiety in male mental health clients diagnosed with schizophrenia.
CHAPTER 3

Methodology

Design and Sample

The research design utilized for this study was the Classical Experimental Design which consisted of two groups; control and experimental.

The admissions diagnosis of fifty patients at a local psychiatric facility were screened for the following research criteria; age (18-55), gender (male), and a diagnosis of schizophrenia. To begin, each perspective participant had to have been admitted (voluntary or involuntary) seeking treatment for schizophrenia. After the participants were pre-screened for the abovementioned criteria, they were placed into separate and equal groups. There were a total of fifty participants in the study (N=50). Group one (control) consisted of twenty-five (n=25), systematically random selected, males between the ages of 18-55. Likewise, group two (experimental) consisted of twenty-five (n=25) males, systematically random selected, between the ages of 18-55.

The experimental group received the intervention of social skills training. This intervention consisted of daily group sessions with a social work practitioner as the facilitator. In addition, the intervention was administered daily for the duration of one hour. These sessions were designed to promote everyday basic skills, which included communication and anxiety reduction techniques. On the other hand, the
control group did not receive the intervention of social skills training. Rather the control group received medication stabilization upon admissions.

Measurement or Instrumentation

The dependent variable in this study is anxiety. For the purpose of this study, anxiety was operationally defined in behavioral terms. Anxiety was operationally defined as the frequency of times a client become angry/ hostile and withdrawn from peers and staff. More specifically, loud threatening speech and frowning facial expressions were used as indicators of anger/ hostility. Additionally, remaining in their room, refusing to participate in unit activities and not talking were indicators of withdrawing from peers and staff.

Direct behavior observation is used to determine one's level of anxiety. The measurement tool used to observe behavioral indicators of anxiety was a behavioral recording form (which was used to measure overt and covert target behaviors) which measured targeted behaviors through sampling. The form consisted of the clients identification numbers for confidentiality, a listing of targeted behaviors, dates and hours observed. More specifically, time sampling was used to observe behaviors in order to collect representative information about the target. Each behavioral indicator was measure for three hours each day for three consecutive days. These observations were conducted during three observation periods: breakfast, lunch and dinner. To give the reader an understanding of typical observation day, the researcher observed the targeted behavior utilizing unobtrusive observation while to the clients ate and socialized with other clients and staff during the three observation periods: breakfast,
lunch and dinner. Breakfast was the initial observation period, which began every morning at 8:30 a.m. Patients were called to gather in the "day area" for their breakfast trays. As patients gathered in the day area waiting for food, conversations began and behaviors were observed. The researcher notices the client's would only socialize with other client's similar acuity levels. For example, a client receiving treatment for depression would not be found socializing with a client receiving treatment for schizophrenia. Therefore is was fairly easy to observe and locate all participants of the study. However, the researcher was able to obtain even more accurate observations during the lunch and dinner periods because there were the visiting hours for the patient's. It was also during these periods that the researcher observed the majority of targeted behaviors. Frowning of the face and threatening speech was the most frequent behavioral indicators of anxiety observed.

The independent variable/intervention in this study is social skills training. This intervention entailed group sessions that were designed to promoted (1) everyday skills, (2) effective communication using verbal exercises, and (3) physical relaxation techniques.
A t-test analysis was used to examine the differences between the mean scores of the experimental and control groups on the various measures of anxiety for the pretest and posttest. To determine if mean differences between the experimental and control group were enough to reject the null hypothesis, the probability level was set at .05.

In a preliminary analysis of the data, we found that the population variances between the experimental and control groups were significantly unequal at the pretest phase for the behavioral indicator of number of times in room. This finding compromises the normality assumption and suggests that the two groups were disparate at the pretest phase on this indicator. Therefore, this behavioral indicator was deleted because it compromised the internal validity of the study.

As mentioned, it was hypothesized that social skills training will have a statistically significant effect in reducing behavioral indicators of anxiety in male mental health clients diagnosed with schizophrenia. The results of the t-test analysis for the pretest scores for the behavioral indicators of Threatening Speech, Frowning of Face, Not Talking, and Total Anxiety are provided in Table 1. As Table 1 reveals the mean for the experimental and control groups for the behavioral indicator
threatening speech was 11.40 for the experimental group and 12.56 for the control group. This is a mean difference of $t = -0.42$. Secondly, the behavioral indicator frowning of face revealed the mean for the experimental group was 13.24. On the other hand, the mean for the control group was 16.08. The mean difference for this behavioral indicator is $t = -0.97$. Next, the mean difference for the behavioral indicator of not talking was $t = -0.90$. The means were 13.24 for the experimental group and 16.56 for the control group. Finally, the mean scores for total anxiety were 47.36 for the experimental group and 58.40 for the control group. The mean difference for these total scores is $t = -1.64$. 
<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>Significance</th>
</tr>
</thead>
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<tr>
<td><strong>Threatening Speech</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>25</td>
<td>11.40</td>
<td>11.11</td>
<td>t= -.42</td>
</tr>
<tr>
<td>Control</td>
<td>25</td>
<td>12.56</td>
<td>8.34</td>
<td>p= .69</td>
</tr>
</tbody>
</table>

| **Frowning of Face** |    |      |      |              |
| Experimental        | 25 | 13.24| 10.96| t= -.97      |
| Control             | 25 | 16.08| 9.66 | p= .34       |

| **Not Talking**     |    |      |      |              |
| Experimental        | 25 | 13.24| 14.03| t= -.90      |
| Control             | 25 | 16.56| 11.86| p= .37       |

| **Total Anxiety**   |    |      |      |              |
| Experimental        | 25 | 37.88| 24.44| t= -1.22     |
| Control             | 25 | 45.20| 22.14| p= .23       |
The t-test analysis for the post-test scores is presented in Table 2. As Table 2 reveals, the mean scores for the behavioral indicator threatening speech is 5.76 for the experimental group and 9.68 for the control group at the post-test phase on threatening speech was statistically significant. An analysis of differences between pre-test and post-test scores for both the experimental and control group revealed that the experimental group had a mean reduction of 5.64 on threatening speech and the control group had a mean reduction of 2.88. The mean scores for the behavioral indicator frowning face was 4.80 for the experimental group and 13.48 for the control group. The mean difference between the experimental group and the control group at the post-test phase "frowning face" was statistically significant. An analysis of differences between pre-test and post-test scores for both the experimental and control group revealed that the experimental group had a mean reduction of 8.44 on "frowning face" and the control group had a mean reduction of 2.60.

As it concerns the indicator "not talking" the mean scores for the experimental group were 3.56 and were 9.76 for the control group. Additionally, the mean difference between the experimental and control group at the post-test on not talking was statistically significant. Further, an analysis of differences between pre-test and post-test for the both the experimental and control group revealed that the experimental group revealed that the experimental group had a mean reduction of 9.68 on not talking and the control group had a mean reduction of 6.80.

Lastly, table two presented the mean scores were 14.12 for the experimental group for and 32.92 for the control group. The mean difference between
experimental and control group at the post-test phase on total anxiety was statistically significant. When an analysis of differences between pre-test and post-test scores for both the experimental and control group was conducted, the experimental group had a mean reduction of 23.76 on total anxiety and the control group had a mean reduction 12.28. Therefore based on the foregoing information presented in this section, the null hypothesis is rejected.

Table 2: Results of T-Test Analysis for Post-test on Threatening Speech, Frowning of Face, Not Talking, and Total Anxiety

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>X</th>
<th>SD</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threatening Speech</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>25</td>
<td>5.76</td>
<td>5.80</td>
<td>t= -2.23, df= 48, p=.030</td>
</tr>
<tr>
<td>Control</td>
<td>25</td>
<td>9.68</td>
<td>6.59</td>
<td></td>
</tr>
<tr>
<td><strong>Frowning of Face</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>25</td>
<td>4.80</td>
<td>5.22</td>
<td>t= -3.72, df= 48, p=.001</td>
</tr>
<tr>
<td>Control</td>
<td>25</td>
<td>13.48</td>
<td>10.42</td>
<td></td>
</tr>
<tr>
<td><strong>Not Talking</strong></td>
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<td></td>
</tr>
<tr>
<td>Experimental</td>
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<td>3.56</td>
<td>4.74</td>
<td>t= -3.54, df= 48, p=.001</td>
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<tr>
<td>Control</td>
<td>25</td>
<td>9.76</td>
<td>7.36</td>
<td></td>
</tr>
<tr>
<td><strong>Total Anxiety</strong></td>
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<tr>
<td>Experimental</td>
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<td>14.12</td>
<td>11.27</td>
<td>t= -4.72, df= 48, p=.000</td>
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<tr>
<td>Control</td>
<td>25</td>
<td>32.92</td>
<td>16.42</td>
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</table>
CHAPTER 5

Discussions and Implications

Summary and Explanation of Findings

In summary, there are two major findings indicated in the study. To begin with, there was a statistically significant difference between the experimental and control group for all indicators of anxiety at posttest phase. Also reduction in anxiety for the experimental group was greater than that in the control group, which indicates that social skills training was effective in reducing anxiety. This finding is supported in the existing literature and its consistent with the findings of Mueser et. al., Favazza et. al., Wallace, Dobson et. al., and Spencer et. al. Yet, the finding is inconsistent with those of Halford et. al. and Hayes et. al.

The findings confirm the ideas in the theoretical framework. Briefly the theoretical framework hypothesized that each component of social skills training would together reduce anxiety. It was assumed that the basic skills component would reduce anxiety through a program which emphasized self-empowering daily maintenance such as routine medication, hygiene, vocational work etc. The component which emphasized communication using verbal exercises was assumed to reduce anxiety by enabling a client to effectively communicate signs and symptoms of distress such as anxiety, suicidal ideation, depression, visual and auditory hallucinations. Finally it
was hypothesized the relaxation techniques, would reduce anxiety through breathing strategies that could help clients control the physical manifestations of anxiety.

The second finding was that there was a reduction in anxiety for both the experimental and control group at the posttest phase. The mental states of clients in this study upon admission varied according to premorbid states such depression, anxiety, psychosis and drug/alcohol intoxication. Because of their severe condition, the clients were immediately placed on medication for stabilization. Therefore, this finding may suggest mediation play a role in reducing anxiety for the control group was well as the experimental group. The role of medication with social skills training has been examined by Garnet et. al., and was found to be effective in reducing anxiety.

**Limitations of the Study**

The study presented itself with the following limitations. To begin with, the instrument used to measure the aforementioned behavioral indicators did not account for the duration or intensity of each behavior. Secondly, there are two ways in which the studies internal validity may have been compromised; (1) the unaccountable effects of medication, and (2) the control group had higher scores at the pretest during the study, thus it would have taken more effort to reduce their anxiety at the posttest than the experimental group.
Implications for Future Research

Future research for schizophrenia should examine the effects of biological and psychosocial treatment strategies used in tandem. These comprehensive treatment programs for schizophrenia should combine drug and psychosocial treatments. However, behaviorally oriented social skills training and family interventions may be effective when added to neuroleptic drug therapies for outpatients.\(^1\) Therefore a comprehensive approach the clinical treatment of schizophrenia must be developed and examined for its effectiveness.

The treatment of schizophrenia is focused on the amelioration of symptoms, prevention of relapse, and the social/occupational rehabilitation of patients. Therefore pharmacotherapy, psychosocial therapies, and rehabilitation must be integrated within the context of the biopsychosocial and medical model for effective treatment. In addition, understanding the biologic vulnerability to traits such as impulsivity or irritability may also help identify treatment approaches that will reduce troublesome symptoms.

Future research on schizophrenia should examine the effects for both biological and psychosocial treatment strategies used in tandem. This continuation of care after hospitalization can find itself in a variety of treatment settings such as day treatment programs individual private counseling, and home health care. It is above

mentioned settings that "treatment" occurs as opposed to "stabilization" which is evidenced in the rehospitalization of Schizophrenics in the exacerbation of symptoms.

Other innovative treatment ideas, for future research, in the continuation of care for the mentally ill could include examining the effectiveness of routine follow-up programs that provide similar training or the same training as the initial intervention of social skills training. This assertion is supported in the current literature by Mueser et. al. who reported that long-term social skills training in necessary in order to produce significant improvements in community functioning.\(^2\)

CHAPTER 6
Implications for Social Work Practice

There are several implications of this studies findings for social work practice at the micro and macro levels. The critical question is how can social workers apply social skills training in practice? There are three roles of social work that are applicable to social skills training. The initial role of a social work practitioner in the psychosocial approach to treatment is an educator. As an educator, a social work practitioner imparts knowledge and skills that enable a consumer the ability to make decisions and develop problem solving skills. Likewise counselor/therapist is another key role in social skills training. Within social skills training, the counselor/therapist role is manifested by the social workers roles as the facilitation of the group. Finally, a social work practitioner can apply social skills training in practice by assuming the role of advocate. In this role, the social worker should speak out and take informed positions on the clients' behalf. In addition, a social worker must document and inform agency directors why a client is entitled to these services.

On the macro level of social work practice, a practitioner could utilize the findings of this research to change old existing treatments. This would require a professional social worker to advocate for his/her client at the organizational level, that there is no change in policies that exist in his/her workplace. The professional
social worker would have to rely on political savvy to make appeals to organizational administrators and follow-up demands with documented evidence that social skills training works.

Social workers can increase funding at the local and state through the use of the following strategies. To begin with, social workers can use aspects of marketing theory and research to increase funding for client needs. By using qualitative research and marketing strategies, social worker can develop recommendations about client needs and how increased funds could facilitate successful treatment outcomes. On the national level, social workers should collaborate with other external advocacy groups and lobby their causes through grant proposals, oral testimonies, governmental legislation, and membership in national organizations who employ lobbyists that influence legislation. An example of a collaborative effort is exemplified in the Mental Health Parity Act of 1996. This piece of legislation requires parity between medial/surgical and mental health benefits regards to annual caps and lifetime benefits in group health plans. This could benefit social skills training by increasing Mental Health reimbursements by commercial insurance companies.
APPENDIX
**FREQUENCY OF Targeted Behaviors**

Client's Identification number

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**Time Period**
(Hours/Day):

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<tr>
<th>Date</th>
<th>Hours Observed</th>
<th>Behavior A</th>
<th>Behavior B</th>
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<tr>
<td></td>
<td></td>
<td>Threatening Speech</td>
<td>Frowning of Face</td>
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</table>

Anger/ Hostility (behavior A) is operationally defined as the frowning of face and threatening speech.

Isolation (behavior B) is operationally defined as the number of times patient goes to room and not talking.


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