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## The Effects of Music with Cognitive-Behavioral Relaxation on the Focusing, Passivity, and Receptivity of Clients with Paranoid Symptomatology

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THE EFFECTS OF MUSIC WITH COGNITIVE-BEHAVIORAL  
RELAXATION ON THE FOCUSING, PASSIVITY,  
AND RECEPTIVITY OF CLIENTS WITH  
PARANOID SYMPTOMATOLOGY

by

Pearl Abraham

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Pearl Abraham

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Pearl Abraham, M.M.

Western Michigan University, 1995

The purpose of this study was to determine whether music paired with cognitive-behavioral relaxation was effective in enhancing the focusing, passivity, and receptivity of clients with paranoid disorders.

Seventeen clients with a primary or secondary diagnosis of paranoid delusional symptoms consented to participate in this study spanning three conditions: (1) music paired with cognitive-behavioral relaxation, (2) cognitive-behavioral relaxation, and (3) control condition.

All clients were administered the 16 PF-Autia Scale, Form A (Cattell, 1962) at the beginning, midway, and at the end of the study. A two factor split-plot repeated measures analysis of variance was used to analyze raw scores, sten scores, and percentiles obtained from the measure. Effects of treatment and treatment by time effects were insignificant at the .05 level. Some improvement over time was seen regardless of group classification.

Future studies could extend the direction of this study by continuing to increase the subject pool and using a more sensitive assessment tool designed to measure the three cognitive elements of focusing, passivity, and receptivity separately and more directly.

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## CHAPTER I

### INTRODUCTION

Delusional (paranoid) disorders, now renamed delusional disorders, DSM-IV (APA, 1994), have enjoyed a resurgence of interest in their nature, philosophy, theory, and psychopathology in the last few years (Manschreck, 1992). Clearer diagnostic criteria in the DSM-III-R (APA, 1987) and DSM-IV (APA, 1994), as compared to the DSM-III (APA, 1981), have revitalized the research on delusional disorders. Delusional disorders are often a catchphrase for a wide variety of disorders in which paranoia is a primary or secondary symptom. These disorders include delusional (paranoid) disorder, organic delusional disorder, paranoid personality disorder, paranoid schizophrenia, and major depression (Kaplan & Sadock, 1990). In addition, delusions may be a clinical feature of certain psychoactive substance-induced organic mental disorders and some forms of dementia.

It is now commonly accepted that neuroleptic treatments need to be combined with supportive psychotherapy in the treatment of delusional disorders (Manschreck, 1992b). It is assumed that cognitive therapy with this clientele could be effectively mediated through a relaxation therapy process since these clients frequently have intact perceptual processes but faulty inferential ones. With the emphasis that cognitive-behavioral relaxation methods (Smith, 1990)

place on cognitive restructuring and individualized relaxation scripts, cognitive-behavioral relaxation would seem like an appropriate mode of relaxation therapy for these clients. Coupled with appropriately selected music, the effect of music with cognitive-behavioral relaxation on the focusing, passivity, and receptivity of clients with delusional disorders was further investigated.

This study investigated the effect of music paired with cognitive-behavioral relaxation on the focusing, passivity, and receptivity of clients with paranoid symptomatology.

### Operational Definitions

Employing Smith's (1990) definitions of focusing, passivity, and receptivity, these variables were operationally defined as follows:

1. Focusing: The ability to identify, differentiate, maintain attention on, and return attention to simple stimuli for an extended period.
2. Passivity: The ability to stop unnecessary goal-directed and analytic activity.
3. Receptivity: The ability to tolerate and accept experiences that may be uncertain, unfamiliar, or paradoxical.

### Research Objectives

The purposes of this study were:

1. To determine whether music paired with cognitive-behavioral relaxation

was effective in increasing the focusing, passivity, and receptivity of clients with paranoid symptomatology.

2. To determine whether cognitive-behavioral relaxation alone was effective in increasing the focusing, passivity, and receptivity of clients with paranoid symptomatology.

3. To determine whether there was a correlation between music paired with cognitive-behavioral relaxation.

### Null Hypotheses

The following null hypotheses were proposed:

1. There would be no difference in the focusing, passivity, and receptivity of clients in the music paired with cognitive-behavioral relaxation therapy as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

2. There would be no difference in the focusing capacity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

3. There would be no difference in the passivity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

4. There would be no difference in the receptivity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

5. There would be no difference in the focusing capacity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

6. There would be no difference in the passivity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

7. There would be no difference in the receptivity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

### Limitations

Limitations of this study included the binding factor of using the highest recurring music preference category as the music to be used in the study. The music may not have been perceived as uniformly relaxing to every client or even be a chosen category of preference for some clients. Similarly, the relaxation script could not be individualized for each client in each session and cognitive restructuring may have been limited.

Matching the three groups involved in this study, by age, gender,

intellectual functioning, socioeconomic status, diagnostic grouping, and paranoid delusional symptomatology was undertaken, but could not be exact, and hence posited a limiting factor.

The 16 PF-Autia Scale, Form A (Cattell, 1962) seems limited in its capacity to separately itemize the three constructs of focusing, passivity, and receptivity even though it may collectively measure them. Hence, this posits a limiting factor as well.

### Assumptions

This study assumed that subjects had sufficient thought-processing abilities to follow simple instructions. It also assumed that the music chosen by the subjects would be perceived by them as relaxing.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Paranoid Disorders

Paranoia, as a disorder in and of itself, has at best been surrounded by controversy and a quixotic nature. It has evolved as Paranoid Disorder (DSM-III, 1981), Delusional (Paranoid) Disorder (DSM-III-R, 1987) and takes its final form as Delusional Disorder (DSM-IV, 1994). Rather than providing a clear-cut diagnostic nosology, the diagnostic category Delusional Disorder subsumes various differential diagnoses. Paranoid symptomatology can be an umbrella for a wide spectrum of disorders such as delusional (paranoid) disorder, organic delusional disorder, paranoid personality disorder, paranoid schizophrenia, major depression, and bipolar disorders. In addition, there may be a clinical feature of certain psychoactive substance-induced organic mental disorders in which amphetamines, cannabis, cocaine, plencyclidine, or other unspecified psychoactive substances play a role (Kaplan & Sadock, 1990). Delusions are also present among diagnostic criteria in certain psychotic disorders such as schizoaffective disorders, schizophreniform disorders, brief reactive psychosis, induced psychotic disorder, and post-partum psychosis. For the purpose of this thesis, the term paranoid symptoms was used interchangeably with delusional disorders, and clients displaying

paranoid symptomatology, regardless of their pristine diagnostic origin, were considered for study and discussion.

The DSM-IV (APA, 1994) definition of delusions reads in part as follows:

A false personal belief based on incorrect inference about external reality and firmly sustained in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief, is not one ordinarily accepted by other members of the person's culture or subculture (i.e., it is not an article of religious faith). When a false belief involves an extreme value judgement, it is regarded as a delusion only when the judgement is so extreme as to defy credibility. (p. 765)

The definition of the term delusion goes beyond the semantic quibbling and looseness associated in its English language usage today, to reflect several specific elements:

1. The belief is well systematized, held with total conviction and is yet demonstrably false. This, in essence, encompasses its core psychopathology.
2. An incorrect process of inference gives rise to the falsity of belief.
3. The belief is not shared by most people in a given culture.
4. The delusion is maintained in spite of incontrovertible evidence to disprove it (Maher, 1992).

The type of delusion is specified according to its content and predominant delusional theme. The persecutory type forms the classic prototypical form, the delusion of being malevolently treated by someone in some way. The jealous type is the second most common type seen by psychiatrists today and seems to usually afflict males with no prior history of psychiatric illness (Manschreck, 1992b). The

jealous type, holds that one's sexual partner has been unfaithful in some way. The grandiose type carries the delusion of "inflated worth, knowledge, special identity, or relationship to a deity or famous person" (DSM-IV, 1994, p. 301). The erotomanic type believes that a more socially prominent individual is in love with them. The somatic type goes beyond simple hypochondriasis to include delusions of infestation, parasitosis, misshapeness of body, and a foul smell of the body (Munro, 1992). There is also an unspecified type in which the predominant delusion cannot be subtyped.

A narrow band of themes seem to consistently emerge in the majority of cases. Themes centering around disease (as in somatic delusions); nihilism, poverty, sin and guilt (as in mood-congruent affective disorders: depressed syndrome); grandiosity, jealousy and love (as in deClerembault's syndrome); persecution and reference (as in persecutory type); delusions of being poisoned, of being possessed, or of being the descendant of royal or high-ranking family (as in the grandiose type); delusions of having tiny insects under the skin (as in delusional parasitosis); or delusions that significant others have been replaced by identical doubles (as in Capgras' syndrome) seem to consistently present themselves with this clientele (Spitzer, 1992).

The connection between themes and disorders is complex. Evidence is divided as to whether persons with delusional disorders have sub-average intelligence. While there are some who support this notion (Manschreck, 1992b), there are others (Spitzer, 1992) who state that intelligence, on the other hand,



serves the delusional system and that the "more intelligent the patient, the more elaborate his or her delusional system will be" (Spitzer, 1992, p. 258). Maher (1992) and McAllister (1992) hold that the perceptual/cognitive processes in delusional (paranoid) disorders are intact, and the belief-forming process is the same as in normal beliefs. The primary sensory input then is usually not in dispute. However, the inferential processing is faulty and coupled with emotional significance for which there is no certain basis. According to Maher (1992), when unpredictable discrepant events occur, they give rise to "an experienced feeling of significance accompanied by some tension. This tension motivates a search for explanation . . . . The longer the search without explanation, the greater the tension" (p. 262).

Neuroleptic treatments have gained a wide consensus with various delusional subtypes and the delusional category at large. However, neuroleptic treatments need to be supported through therapy, preferably cognitive methods and supportive psychotherapy (Manschreck, 1992b). Cognitive therapy (Beck, 1976; Meichenbaum, 1977) is based on the theory that maladaptive behavior is secondary to ingrained stereotypical thoughts which in turn can lead to cognitive distortions or errors in thinking. The goals of therapy are to "allay anxiety, to initiate discussion of troubling experiences and the consequences of the delusion, and then to gradually develop a collaboration" (Manschreck, 1992b, p. 250).

Thus, supportive psychotherapy and cognitive therapy combine to form a therapeutic approach with the delusional population, that supports recording of

cognitions, empirical reality testing, examining distortions, and generating new ways of viewing one's life.

### Cognitive-Behavioral Relaxation Therapy

Techniques of relaxation have become a highly visible procedure in the clinical arena today. As a non-pharmacological intervention, they are increasingly welcomed for their essential benignness and effectiveness (Blumenthal, 1985). The three widely prevalent techniques in relaxation therapy are comprised of meditation, progressive relaxation, and autogenic training (Lichstein, 1988).

Many procedural variants of the above are in vogue as well. Offshoots of the meditative mode include mantra meditation, breath meditation, transcendental meditation and Benson's (1975) relaxation response. Progressive muscle relaxation has given rise to self-controlled relaxation methods, ocular relaxation, behavioral relaxation training, and more recently, cognitive-behavioral relaxation techniques. Autogenic training has been used alone or in tandem with imagery.

All relaxation theories, with their differing subtleties of emphasis, seem to stem largely from the arousal-reduction model theory. In essence, the stress response triggers a host of physiological changes mediated by the sympathetic nervous system. In contrast, the relaxation response mediated by the parasympathetic nervous system results in an automatic protective reduction in arousal. In Smith's (1990) words, "the surfeit of relaxation theories, in fact, are based on the same idea - relaxation is reduced arousal" (p. 3).

In the application of relaxation to cognitive behavior therapy, Smith (1990) states that three cognitive processes are basic to any type of relaxation: focusing, passivity, and receptivity. Smith (1990) defines focusing in cognitive-behavioral relaxation therapy as "the ability to identify, differentiate, maintain attention on, and return attention to simple stimuli for an extended period," passivity as "the ability to stop unnecessary goal-directed and analytic activity," and receptivity as "the ability to tolerate and accept experiences that may be uncertain, unfamiliar, or paradoxical" (p. 11). In cognitive-behavioral terms, the practitioner of relaxation experiences cycles of decreased and increased arousal, focusing, passivity, and receptivity. This cycle can be described in terms of convergent and divergent processes, the first of Smith's (1990) hypotheses.

Convergent processes set into motion a cycle in which "cognitive and somatic activity are reduced and focusing, passivity, and receptivity are enhanced" (Smith, 1990, p. 17). Divergent processes, on the other hand, "interfere with arousal reduction, focusing, passivity, and receptivity, and provide an opportunity for skill development" (Smith, 1990, p. 18). Potential distractions are warded off in time as increasingly abstract and differentiated structures are articulated clearly and allowed to surface in the cognitive areas, in order to enable the client to recognize these divergent phases and reengage the convergent phase of the relaxation cycle again. The positive experience associated with the convergent restructuring phase may well serve to reinforce and "contribute to appraisals that relaxation behaviors are desirable and worth maintaining" (Smith, 1990, p. 20). In time,

initial convergent structures can be relinquished in favor of fostering more differentiated cognitive structures. In Smith's (1990) words, "when beliefs, values, and commitments outside of the relaxation session are restructured and affirmed in a way consistent with structures supportive of relaxation, relaxation is further generalized to life at large" (p. 24).

The second of Smith's (1990) hypotheses focuses on the role of cognitive restructuring in relaxation:

The central task of relaxation is to relinquish structures and associated nonaffirming behavior incompatible with relaxation, and acquire and affirm structures conducive to continued and deepened relaxation. (Smith, 1990, p. 13)

Several important implications are present. It has long been recognized in general therapeutic practice that various approaches work differently for different clients. This is especially true with the complexity of processes involved in relaxation. Relaxation needs to progress beyond the purely somatic or imaging techniques, to include issues in the cognitive realm and include the client in so far as is possible. Cognitive-behavioral relaxation therapy enables the relaxation exercises to be highly individualized--relaxation scripts are written for each situation--and can be firmly linked to the basic beliefs, values, and commitments of the individual, thus "increasing the salience of relaxation and the likelihood of generalization" (Smith, 1990, p. 24). While progressive relaxation (Lehrer, 1978; Rickard, McCoy, Collier, & Weinberger, 1989), biofeedback (Schneider & Pope, 1987), and imagery (Fried, 1987) techniques have been used with relatively high

degrees of success with the psychiatric clientele, cognitive-behavioral therapy combined with relaxation have been most successfully applied to the treatment of moderate depression in adolescents (Reynolds & Coats, 1986) and adults (Fleming & Thornton, 1980; Fuchs & Rehm, 1977; Shaw, 1977).

It would be of significance to investigate whether cognitive-behavioral relaxation therapy as outlined by Smith (1990) would be efficacious in the treatment of clients with delusional disorders.

### Music and Relaxation Techniques

Music and stress-reduction research has described the general and specific effects of music in reducing anxiety (Clarkson, 1991; Jellison, 1975; Stoudenmire, 1975) and somatic responses to stress, such as, EEG (Wagner, 1975), EMG (Reynolds, 1984; Scartelli, 1982, 1984; Scartelli & Borling, 1986), finger temperature (Kibler & Rider, 1983), galvanic skin response (GSR) measures (Weidenfeller & Zimny, 1962; Zimny & Weidenfeller, 1963), and adrenal corticosteroids, the "stress hormones" (Rider, Floyd, & Kirkpatrick, 1985).

Unkefer (1990) cites four methods of pairing music with different relaxation techniques in treating adults with mental disorders: music with progressive muscle relaxation, music for surface relaxation, music with imagery, and music-centered relaxation. The first two methods are indicated in treating adults with schizophrenia and bipolar disorders only, whereas all four types are indicated in the treatment of adults with generalized anxiety disorders. Clinical features of

anxiety that are assumed to be amenable under the influence of music and relaxation exercises are motor tension, autonomic hyperactivity, vigilance, and scanning.

Music that is paired with progressive muscle relaxation and surface relaxation exercises is first and foremost chosen by the client. When used with surface relaxation, music is used as a "temporary respite from anxiety/stress conditions . . . . the therapist helps the client understand how the elements of music influence mood, behavior, and physical responses" (Unkefer, 1990, p. 168). In the case of music paired with progressive muscle relaxation, the client learns to select appropriate music that "block(s) negative associations . . . . (and) heightens the relaxation response" (Unkefer, 1990, p. 168). Ideally, the kind of music selected would have sufficient dynamic qualities to complement and discriminate between the tension and relaxation responses that are called for in the script. Both these techniques have been indicated in the music therapy intervention of disturbed psychomotor behavior, psychomotor agitation/retardation, distractability, flight of ideas, and disturbed affect/mood that are characteristic symptoms of schizophrenia and bipolar disorders, respectively.

Interestingly enough, music therapy intervention in psychiatric care has produced very little empirical investigation and viable data in the field. Thaut (1989) ascribes this to "diffuse(d) concepts about the therapeutic effect of music stimuli . . . . (and) limitations placed by psychiatric inpatient or outpatient settings on research designs set up to generate quantified data about treatment outcome" (p. 155). While some studies discuss the influence of music upon the galvanic

skin response (GSR) of persons diagnosed with depression and schizophrenia (Weidenfeller & Zimny, 1962), and on persistent auditory hallucinations (Hustig, Tran, Hafner, & Miller, 1990), other studies cite the use of specific techniques in psychiatric settings: songwriting (Ficken, 1976), guitar lessons (Cassity, 1976), vocal and instrumental improvisation (Frisch, 1990; Langdon, Pearson, Stastny, & Thorning, 1989; Priestly, 1987; Wasserman, 1972), handbells (Rubin, 1976), the interpretation of song lyrics (Plach, 1980), and analytically-based techniques (Priestly, 1975; Tyson, 1966).

Only two studies were found describing music and relaxation as used with the psychiatric population. Goldberg, Hoss, and Chesna (1988) described the use of music imagery with a patient with brain damage in psychiatric care where a gradual improvement in condition was noticed by the therapists. Thaut (1989) studied the influence of music group therapy, instrumental group improvisation, and music and relaxation on self-rated changes in relaxation, affect, and thought processes in prisoner-patients with a primary diagnosis of schizophrenia. Results showed a significant improvement in self-perceived changes on all three dimensions after music therapy. It is noteworthy that the music and relaxation scale showed significantly higher change ratings on relaxation, affect, and thought processes, as compared to the other two scales of group therapy and instrumental group improvisation. In the above instance music was paired with progressive relaxation as outlined by Jacobsen (1974), and music was selected by the clients that was described as sedative. Generally, slow pieces from the genres of rock,

jazz, soul, and country music were selected.

Music has been used traditionally as a focus for relaxation and stress-reduction research (Curtis, 1986; Hanser, 1985; Rider, Floyd, & Kirkpatrick, 1985; Scartelli & Borling, 1986; Unkefer, 1990). Music can be posited to facilitate focusing, passivity, and receptivity through its orienting response, and heighten cognitive processes and the relaxation response as indicated by cognitive-behavioral relaxation therapy. When music paired with cognitive-behavioral relaxation therapy is used on persons with delusional disorders, it is hoped that the relaxation response obtained could be generalized to extend to external situations. This would facilitate perceptual processing and begin work on inferential processes without the emotional significance that is commonly attached to delusional disorders.

Further study investigating the nature of music and cognitive-behavioral relaxation therapy on the focusing, passivity, and receptivity of clients with paranoid symptomatology seems warranted.



## CHAPTER III

### METHODOLOGY

#### Subjects and Setting

It was proposed that 30 subjects, 15 male and 15 female, carrying a primary or secondary symptomatology of paranoid delusional symptoms would be selected from a subject pool of potential clients with paranoid symptomatology from the chronic units of a regional psychiatric hospital. Included under this category were persons with paranoid schizophrenia, schizoaffective disorder, psychotic disorder NOS, major depression, organic personality disorder, bipolar disorders, schizophrenia CUT, and substance abuse where paranoia was the primary or secondary feature in the diagnosis. The age range of these clients was between 26-51 years with the mean age around 40.

Selection of clients was aided by psychiatrists' recommendation of clients with paranoid symptomatology, and those who were likely to benefit from the study. The psychiatrists recommended only those competent for participation, as well as those without a prior history of violent behavior. All clients were of low socioeconomic status. The selected clients participated under the auspices of the psychosocial program of the hospital. Clients met twice a week for 3 weeks for a total number of 6 therapy sessions.

Educational programs, problem solving workshops, physical activities, occupational therapy, and music therapy activities were already available for the clients where they were treated in a milieu treatment approach.

### Instruments

The 16 PF - Autia scale developed by Cattell (1962) was administered pre, mid, and post-test. This scale has been recommended by Smith (1990) in its ability to measure the dimensions of focusing, passivity, and receptivity.

A questionnaire on demographic information and music preferences designed by the student investigator was also administered (see Appendix F). A cognitive-behavioral relaxation script in isometric squeeze progressive muscle relaxation, as suggested by Smith (1990), designed to enhance progressive relaxation, was also used (see Appendix I).

A selection of pre-recorded music as indicated by the clients' category of preference was made available to the clients (see Appendix G). A good quality sound system (Realistic Sound Design Stereo Component System 1220) was also used.

### Procedure

A list of 43 clients carrying a primary or secondary diagnosis of paranoid delusional symptoms, as determined by various psychiatrists was made available to the researcher (see Appendix C). The list included 25 male and 18 female

clients, all of whom were of low socioeconomic status. The clients ranged in age from 26 to 51 years with the mean age around 40. The psychiatrists recommended only those considered intellectually competent for participation, as well as those without a prior history of violent behavior.

The researcher attempted to select 30 clients by random sampling but was cautioned by the project site official, which in this case was the resident music therapist, that this may or may not be feasible considering that this would narrow down the possibilities of obtaining informed consent. Therefore, all possible 43 clients were contacted by the project site official and briefed about the nature of the study that would meet twice a week for 3 weeks for a total of 6 sessions. Clients were asked to indicate their willingness to participate by signing on a sign-up sheet. Seventeen clients indicated their willingness to participate in the study.

As this was still under the optimum number of 30 participants, it was decided by the project site official, the psychiatrist, and the researcher to use intact groups that contained 28 of the self-same participants that met twice a week under the prevailing psychosocial program of the hospital. The clients were re-contacted by the project site official and asked to indicate their willingness to participate by signing on a sign-up sheet. Eight more clients added their names to the sign-up sheet bringing the total up to 25 clients.

The clients were then shifted around in their intact group format to obtain three fairly equal-sized groups of nine (music paired with cognitive-behavioral relaxation therapy group), eight (cognitive-behavioral relaxation therapy group),

and eight (control group). The clients were then introduced to the researcher by the project site official, and the researcher briefly explained the purpose of the study and asked clients to indicate their consent to participate by signing the consent form as appropriate (see Appendix E). Twenty-five clients gave their informed consent to participate in the study. Each person was assigned the hospital code number to ensure confidentiality.

All clients were given the 16 PF-Autia Scale, Form A (Cattell, 1962) at this time as a pre-test measure. This was administered individually by the therapist to facilitate manageability and attention to task by clients. However, two clients (one in the cognitive-behavioral relaxation therapy group and one in the control condition) changed their minds after giving informed consent and refused to take the test, adding that they had never given consent. Two other clients, both in the cognitive-behavioral relaxation therapy group, started taking the 16 PF and mid-way through the test refused to continue and complete the test, seemingly exhibiting paranoid-like symptoms.

At their first introductory session, experimental groups 1 and 2 were given a brief introduction on the nature, importance, and benefits of relaxation. Experimental group 1 was given a questionnaire on music preferences followed by a brief exercise on cognitive-behavioral relaxation at its session. The most frequently stated preference, as ranked in the Music Preference Questionnaire, was used with experimental group 1. Five of the 9 clients indicated their top preference for Country and Western music. Among the responses to their favorite

piece of music or song, seven clients did not indicate any particular piece. One client indicated John Lennon's "It Don't Come Easy" and another indicated "Stairway to Heaven" by Led Zeppelin as their favorite piece. A tape of John Denver's Greatest Hits (see Appendix G) was arbitrarily selected by the therapist as representative of Country and Western music category and the tape was re-arranged and collated for use with this group. A cognitive-behavioral relaxation script designed to enhance progressive muscle relaxation (see Appendix I) was administered to both experimental groups 1 and 2.

However, the researcher was contacted after the first introductory session by the hospital authorities and informed that in 9 cases, additional consent forms needed to be obtained in the form of guardian consent. The 9 guardians, some in-state and some out-of-state, were contacted by telephone by the researcher, and asked whether they would give their consent to their wards to participate in the study. The telephone calls were immediately followed up with written letters to the guardians seeking their written consent as well (see Appendix E). The written consents were then mailed back to the researcher to keep on file. Five guardians indicated their approval and permission for their ward to participate in the study while 4 guardians refused permission (i.e., 3 wards in the control group and 1 in the cognitive-behavioral relaxation therapy group). The members of the three groups were now reduced to nine (music paired with cognitive-behavioral relaxation therapy group), four (cognitive-behavioral relaxation therapy group), and four (control group).

Experimental groups 1 and 2 met twice a week, as originally slated, for three weeks in their respective groups to receive the appropriate therapy. There were a total of 6 sessions. Sessions were approximately 30 minutes in length and were held during the morning. The control group received no therapy and therefore did not meet as a group. They did, however, take the 16 PF at the appropriate points in the study, i.e., at the beginning, mid-way, and end of the study.

Two different rooms were used for experimental groups 1 and 2. This was necessitated as the project site official indicated that there was an escape risk hold placed on one patient in experimental group 2 and hence, a room other than the music studio had to be chosen for experimental group 2 for purposes of increased security. At least one staff person was present at all times when experimental groups 1 and 2 were in session. A music system was provided in the music studio where experimental group 1 was in session. Chairs were loosely arranged and floor mats provided in both settings for those who wanted to use them.

As stated earlier, the 16 PF-Autia scale, Form A (Cattell, 1962) was administered at the beginning, halfway, and at the end of the study, to all three groups. At the mid-test administration of the 16 PF, one client in the cognitive-behavioral relaxation therapy group was held back on the unit on escape risk caution, and one client in the music paired with cognitive-behavioral relaxation therapy group refused to take the 16 PF. Both clients, however, rejoined their respective groups for subsequent therapy sessions. At the final administration of the 16 PF, two clients in the music paired with cognitive-behavioral relaxation

therapy group were discharged while one client in the control condition was held back on the unit for behavioral-disorder reasons not connected with the study.

## CHAPTER IV

### ANALYSIS AND RESULTS

A two factor split-plot repeated measures analysis of variance was used to analyze raw scores, sten scores, and percentile ratings obtained from the 16 PF. The design had one within-subjects factor (time) and one between-subjects factor (group). The 16 PF did not analyze focusing, passivity, and receptivity as separate constructs even though it may have done so collectively.

Table 1 shows mean and standard deviations obtained by the group on the 16 PF-Autia scale. Group means increased steadily over the three points of testing indicating the groups' increasing trend towards "inner-directed, imaginative, creative abilities and interests (which) sometimes lead to unrealistic situations accompanied by expressive outbursts" (Cattell, 1962, p. 28).

Table 1

Group Means and Standard Deviations on the 16 PF-Autia Scale

	Pre Test	Mid Test	Post Test
Mean	11.88	13.93	14.50
<u>SD</u>	3.69	2.74	2.24
<u>N</u>	17	15	14



Group effects for raw score ( $F(2,14) = 2.37, p > .05$ ), sten score ( $F(2,14) = 2.19, p > .05$ ), and percentile ( $F(2,14) = 2.13, p > .05$ ) were all non-significant at the .05 level (see Table 2).

Group by time effects for the three dependent variables were non-significant at the .05 level as well (see Table 3). However, some improvement over time was seen regardless of group classification: raw score ( $F(2,4) = 3.83, p < .05$ ), sten score ( $F(2,4) = 7.46, p < .01$ ), percentile ( $F(2,4) = 5.16, p < .05$ ). This could be possibly attributed to increased test-taking abilities over the three testing periods.

Improvement over time was consistent across the three groups. Scores increased from pre to mid test, and levelled off between mid and post tests (see Table 4). Overall there were significant differences from pre to post tests and pre

Table 2  
Group Effects for the Three Dependent Variables

Dependent Variable	Effect	<u>MS</u>	<u>F</u>	<u>df</u>	p value
Raw score	Group	35.16	2.37	2	.1294
	Within group error	14.80		14	
Sten score	Group	10.28	2.13	2	.1553
	Within group error	4.81		14	
Percentile	Group	2484.60	2.19	2	.1489
	Within group error	1135.10		14	

Table 3  
Group by Time Effects for the Three Dependent Variables

Dependent Variable	Effect	<u>MS</u>	<u>F</u>	<u>df</u>	<u>p value</u>
Raw score	Time	18.44	3.83	2	.0366*
	Time X group	0.31	0.07	4	.9917
	Time X within group error	4.81		23	
Sten score	Time	7.03	5.16	2	.0140*
	Time X group	0.22	0.16	4	.9547
	Time X within group error	1.36		23	
Percentile	Time	2001.30	7.46	2	.0032**
	Time X group	30.20	0.11	4	.9768
	Time X within group error	268.10		23	

\*Significant at the .05 level.

\*\*Significant at the .01 level.

to mid tests on raw scores, stens, and percentiles for the group using Tukey's Honestly Significant Difference (HSD). Again, this could be attributed to possibly increased test-taking skills and abilities as no significant time by treatment effects were obtained.

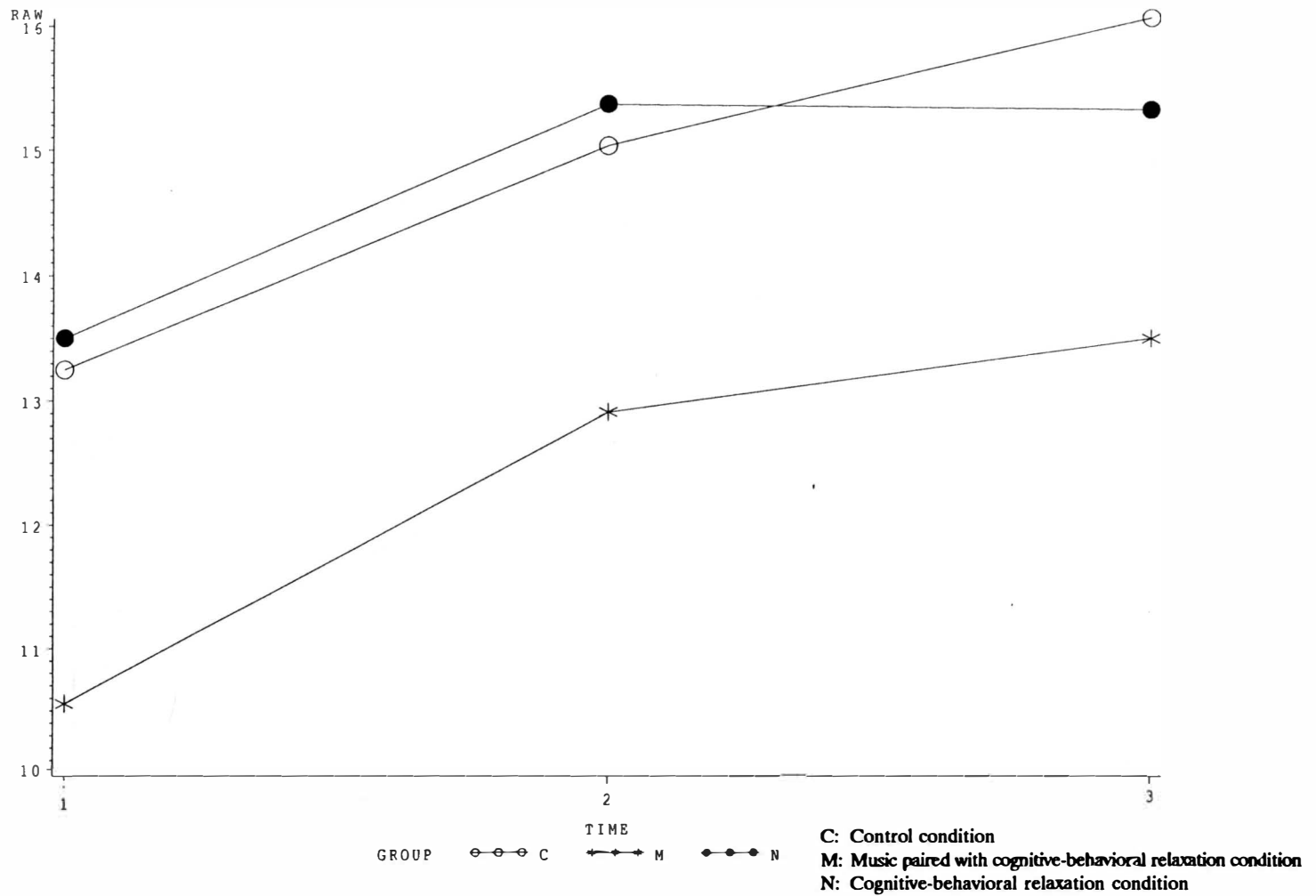
Figure 1 shows raw scores of subjects in the music paired with cognitive-behavioral relaxation condition (M) as compared to subjects in the cognitive-behavioral relaxation (N) and control conditions (C) across the three time periods. Figure 2 shows sten scores of subjects in the music paired with cognitive-behavioral relaxation condition (M) as compared to subjects in the cognitive-

Table 4

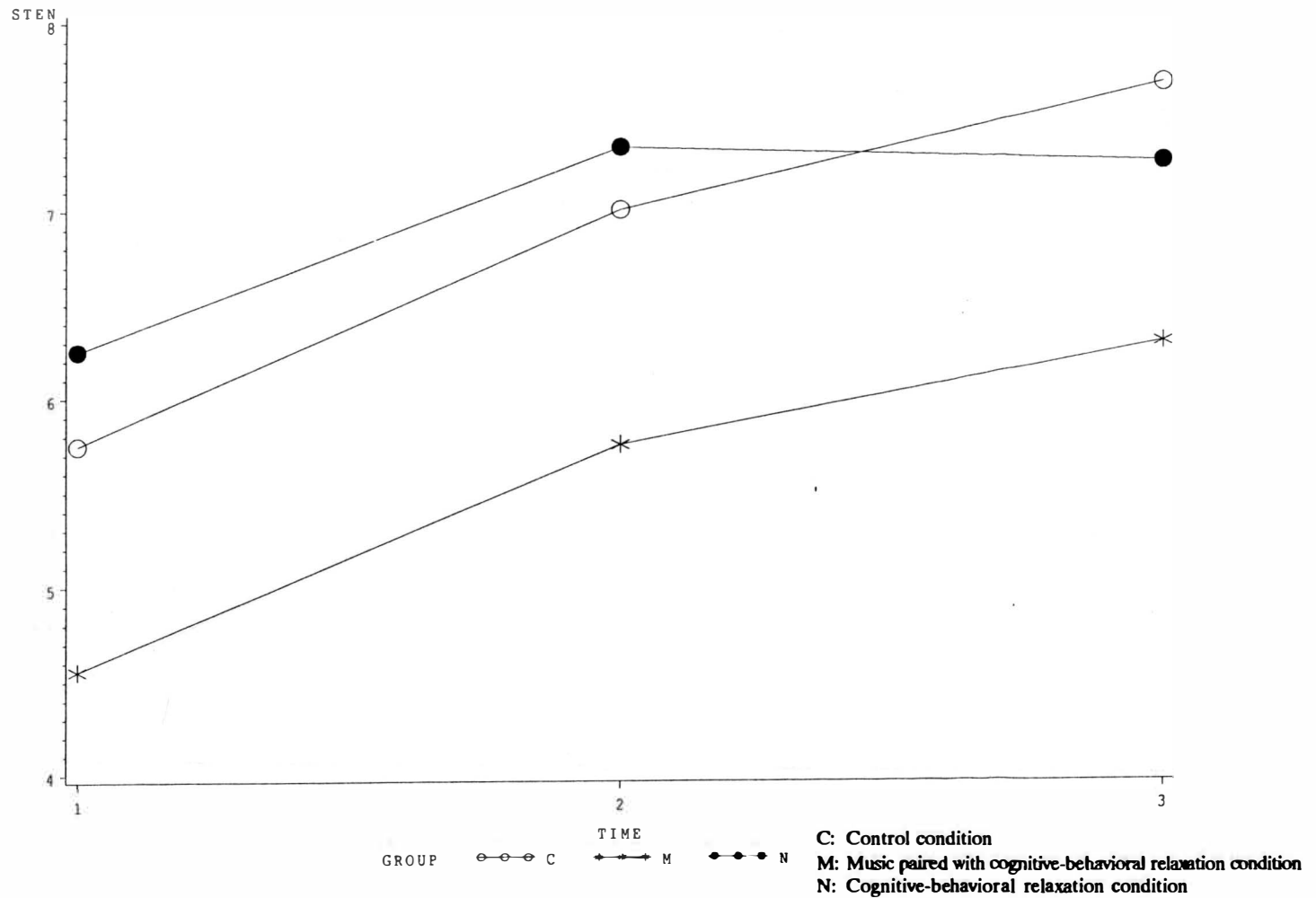
Time Comparisons on the Three Dependent Variables for the Sample

Dependent Variable	Comparison	Pre test mean	Mid test mean	Post test mean	Difference	Significance at .05 level
Raw score		11.8823	13.9333	14.50		
	Pre-mid				-2.0510	s
	Pre-post				-2.6176	s
	Mid-post				-0.5667	n/s
Tukey's HSD = 2.011						
Sten score		5.2352	6.4	6.8571		
	Pre-mid				-1.1647	s
	Pre-post				-1.16218	s
	Mid-post				-0.457	n/s
Tukey's HSD = 1.069						
Percentile		45.4176	66.3933	71.8071		
	Pre-mid				-20.9757	s
	Pre-post				-26.3895	s
	Mid-post				-5.4138	n/s
Tukey's HSD = 15.02						

behavioral relaxation (N) and control conditions (C) across the three time periods. Figure 3 shows percentiles of subjects in the music paired with cognitive-behavioral relaxation condition (M) as compared to subjects in the cognitive-behavioral relaxation (N) and control conditions (C) across the three time periods.



**Figure 1. Raw Scores of Subjects in the Two Experimental Conditions and One Control Condition Across Three Time Periods of Pre, Mid, and Post-Test Categories.**



**Figure 2. Sten Scores of Subjects in the Two Experimental Conditions and One Control Condition Across Three Time Periods of Pre, Mid, and Post-Test Categories.**

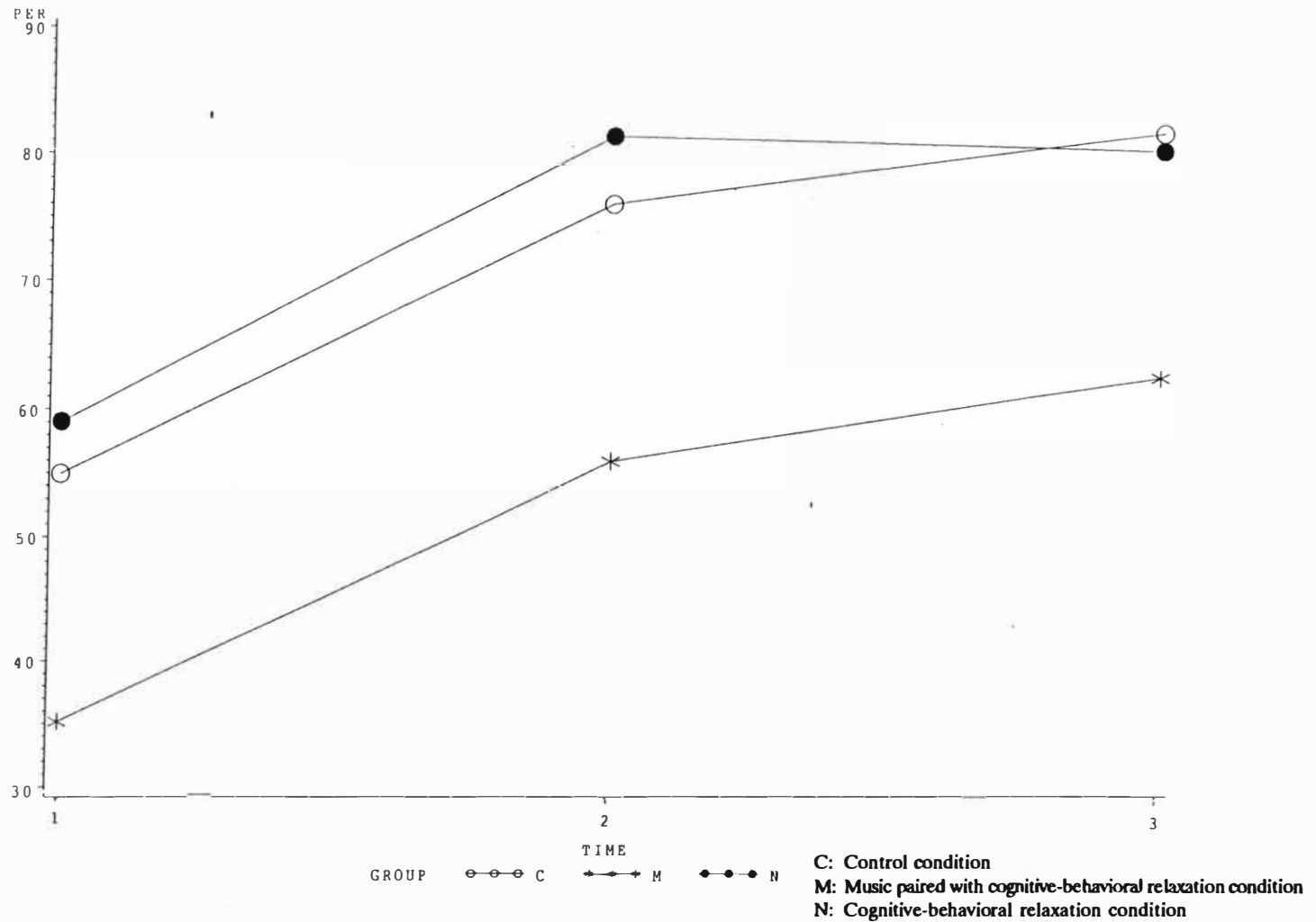


Figure 3. Percentiles of Subjects in the Two Experimental Conditions and One Control Condition Across Three Time Periods of Pre, Mid, and Post-Test Categories.

## CHAPTER V

### DISCUSSION AND CONCLUSIONS

No significant findings were obtained across group, and treatment by time effects on the 16 PF-Autia scale, for clients with paranoid symptomatology in the music paired with cognitive-behavioral relaxation therapy condition, or cognitive-behavioral relaxation therapy condition, or control condition. Some improvement over time was seen regardless of group classification. The 16 PF did not measure focusing, passivity, and receptivity as separate constructs although it may have done so collectively.

All 7 proposed null hypotheses were accepted:

1. There were no differences in the focusing, passivity, and receptivity of clients in the music paired with cognitive-behavioral relaxation therapy as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.
2. There were no differences in the focusing capacity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.
3. There were no differences in the passivity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation

condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

4. There were no difference in the receptivity of clients with paranoid symptomatology under the music paired with cognitive-behavioral relaxation condition as compared to clients in the cognitive-behavioral relaxation condition and clients in the control condition.

5. There were no difference in the focusing capacity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

6. There were no difference in the passivity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

7. There were no difference in the receptivity of clients with paranoid symptomatology under the cognitive-behavioral relaxation condition as compared to clients in the control condition.

A two factor split-plot repeated measures analysis of variance design was used to analyze raw scores, sten scores, and percentiles obtained from the 16 PF. The design had one within-subjects factor (time) and one between-subjects factor (group).

Group effects for all three dependent variables were nonsignificant at the .05 level; group by time effects were also nonsignificant. Some improvement over time was seen regardless of group classification. This could be possibly attributed



to increased familiarity with the test and test-taking competency.

The findings could be partially attributed to the low number of subjects in the study. Though the subject pool initially consisted of 43 subjects with 25 consenting to participate, 2 subjects denied giving consent once the study commenced, 2 subjects exhibited paranoid-like symptoms by starting the study and refusing to complete it, and 4 subjects who completed the pre-test and introductory session had to be dropped on account of guardian consent having been denied. This left a total of 17 subjects who completed the 16 PF pre-test. Within the course of treatment, 2 subjects were discharged, there were 2 more refusals by clients who started and abandoned the test, 1 subject was held back on behavioral reasons, and 1 subject was held back on escape risk caution not attributable to this study. With the exception of the subjects who were discharged, the other subjects rejoined the study once they were permitted by ward staff but did not complete the mid-test or post-test as the case may be.

Granted that the sample size may have been too small to detect an effect, aspects of subject mortality during the course of a study in a unique and restricted population such as this cannot be avoided. In fact, music therapy intervention in psychiatric care has produced very little empirical investigation and viable data in the field. Thaut (1989) in his study stated:

Music therapy in psychiatric settings, although traditionally one of the largest areas of employment for music therapists, has produced very little quantified data about the efficacy and mode of action of music-based treatment techniques. This void may be due to a lack of treatment-specific classifications of psychiatric music therapy interventions, along with diffuse

concepts about the therapeutic effect of music stimuli on mentally disordered behavior processes. *A second reason may be found in the limitations placed by psychiatric inpatient or outpatient settings on research designs set up to generate quantified data about treatment outcome. Clinical considerations often override methodological requirements in research studies* [italics added], for instance, where clients should be randomly assigned to therapy versus no therapy control samples. (p. 155)

This has certainly manifested itself in this situation with structural limitations of low subject/guardian consent rates, and low attendance during the study.

In a personal communication with M. H. Thaut (October 5, 1994), he affirmed that he still holds the above view regarding the problems of undertaking research in psychiatric settings and stated that problems encountered in the present study were only "typical of those encountered in psychiatric settings." He stated that the interests of research in such a study might better be served by using a Latin square design which exposes the whole available sample to the experimental treatment and deliberately counterbalances order effects through order of presentation. It is recommended that this design be used in unique and restricted populations such as psychiatric settings, as a way to circumvent some of the low sample-size problems. Results, however, need to be interpreted with caution and generalizations may not be appropriate.

Country and Western music was the category of music preference ranked as "most relaxing" by most clients in the group. Interestingly enough only 2 clients indicated a favorite song (John Lennon's "It Don't Come Easy" and Led Zeppelin's "Stairway to Heaven") while 7 did not have any particular preference. A tape of John Denver songs (see Appendix G) was selected by the therapist as

representative of the Country and Western category and was used as the background music in the music paired with the cognitive-behavioral relaxation group. However, it was observed that the lyrics present may have served as an alternate means of focusing away from the script. It may be of interest to investigate the use of instrumental music with cognitive-behavioral relaxation therapy in future studies. The music paired with cognitive-behavioral relaxation group, however, shared a greater enthusiasm in general for therapy and would frequently ask the therapist what music they were going to hear today.

Since this is a new study of this kind in this particular area, it is not clear from the existing literature just what the best measures would be. In the nature of such research, certain problems seem to present themselves. Measuring tools that are not specifically designed to measure elements of this particular therapy turn out to be weak and ineffective predictors. Though the 16 PF-Autia scale was cited by Smith (1990) as one of the potential assessment tools of cognitive-behavioral relaxation therapy, and was one of the more established, standardized instruments recommended, it appears that this instrument was not sensitive enough to detect focusing, passivity, and receptivity elements in the therapy as there was no way to measure these constructs separately although it may do so collectively.

In a personal communication (October 6, 1994), J. C. Smith agreed that the 16 PF-Autia scale has not provided a mood measurement but rather a trait measurement. He stated that he and his associates are now in the process of

developing an inventory, the Smith Relaxation Inventory (SRI), specifically designed to target elements of focusing, passivity, and receptivity, in a measure to "circumvent some of the insensitivity and problems yielded by the 16 PF, The Tellegen Absorption Scale, etc." The SRI is based on a 50-item word list that has been factorially analyzed from a 231 word-list administered to 1300 practitioners of relaxation therapy: yoga, meditation, cognitive-behavioral relaxation, progressive muscle relaxation. As stated earlier, the SRI is still in its formative stages of development. Smith felt that the application of the isometric squeeze progressive muscle relaxation script, as used in this study (see Appendix I), was particularly appropriate with psychiatric clients, as the words "tense . . . , let go," have been found to be factor analytically "pure terms that directs one's attention and imposes structure."

Incidentally, Smith and his associates are now undertaking a series of nine studies, two of which involve comparing the effects of cognitive-behavioral relaxation during music performance and practice, and the second involving cognitive-behavioral relaxation therapy in listening to samples of music as compared to reading and other relaxing tasks. These studies will involve the SRI as the assessment tool, so further quantified data on this instrument should be available in the future.

### Future Directions

It would be useful if future studies could extend the direction of this study

by continuing to increase the number of participants in the study. It would also be helpful to reassess the treatment outcome of this study using the SRI as the assessment tool to more directly measure focusing, passivity, and receptivity in cognitive-behavioral relaxation therapy; it would be additionally helpful if alternate forms of these tests could be devised to counteract any tendency of subjects to respond in a consistent manner. In addition, it would be useful to study whether arbitrarily imposed classical instrumental music would be of some value in being paired with cognitive-behavioral relaxation therapy. At present, only the Guided Imagery in Music (GIM) technique mandates the use of classical instrumental music.

It would also be useful if future studies could extend the direction of this study by conducting a series of studies on this subject. This would help in a gradual accumulation of a subject pool and generate data on the various aspects of music paired with cognitive-behavioral relaxation therapy.

Appendix A

Raw Scores, Stens, and Percentiles for the Sample

Table 5

## Raw Scores, Stens, and Percentiles for Sample

S1	Group	Gender	Age	Raw1	Sten1	Mean1	SD1	Pct1	Raw2	Sten2	Mean2	SD2	Pct2	Raw3	Sten3	Mean3	SD3	Pct3
1.	Control	F	46	14	6	12.74	3.29	59.9	17	8	12.74	3.29	89.4	13	6	12.74	3.29	59.9
2.	Control	M	38	15	7	12.15	3.43	77.3	14	7	12.15	3.43	77.3	17	8	12.15	3.43	89.4
3.	Control	M	36	13	6	12.15	3.43	59.9	15	7	12.15	3.43	77.3	18	9	12.15	3.43	96.0
4.	Control	F	33	11	4	12.74	3.29	22.7	14	6	12.74	3.29	59.9	–	–	–	–	–
5.	Non-Music	F	41	12	5	12.74	3.29	40.1	17	8	12.74	3.29	89.4	15	7	12.74	3.29	77.3
6.	Non-Music	M	32	11	5	12.15	3.43	40.1	–	–	–	–	–	15	7	12.15	3.43	77.3
7.	Non-Music	M	32	18	9	12.15	3.43	96.0	14	7	12.15	3.43	77.3	14	7	12.15	3.43	77.3
8.	Non-Music	M	51	13	6	12.15	3.43	59.9	15	7	12.15	3.43	77.3	17	8	12.15	3.43	89.4
9.	Music	F	26	10	4	12.74	3.29	22.7	14	6	12.74	3.29	59.9	13	6	12.74	3.29	59.9
10.	Music	M	33	17	8	12.15	3.43	89.4	15	7	12.15	3.43	77.3	17	8	12.15	3.43	89.4
11.	Music	M	48	10	4	12.15	3.43	22.7	14	7	12.15	3.43	77.3	–	–	–	–	–
12.	Music	M	37	17	8	12.15	3.43	89.4	17	8	12.15	3.43	89.4	16	8	12.15	3.43	89.4
13.	Music	M	34	9	4	12.15	3.43	22.7	10	4	12.15	3.43	22.7	–	–	–	–	–
14.	Music	F	44	10	4	12.74	3.29	22.7	7	2	12.74	3.29	4.0	12	5	12.74	3.29	40.1
15.	Music	M	51	9	4	12.15	3.43	22.7	15	7	12.15	3.43	77.3	13	6	12.15	3.43	59.9
16.	Music	F	44	10	4	12.74	3.29	22.7	11	5	12.74	3.29	22.7	12	6	12.74	3.29	40.1
17.	Music	M	47	3	1	12.15	3.43	1.2	–	–	–	–	–	11	5	12.15	3.43	40.1

## **Appendix B**

**Protocol Clearance From the Human Subjects Institutional  
Review Board and Kalamazoo Regional  
Psychiatric Hospital**



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## WESTERN MICHIGAN UNIVERSITY

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Date: July 29, 1994

To: Pearl Abraham

From: Kevin Hollenbeck, Chair

*for K. Hollenbeck*

Re: HSIRB Project Number 94-07-01

This letter will serve as confirmation that your research project entitled "The effects of music with cognitive-behavioural relaxation on the focusing, passivity, and receptivity of clients with paranoid disorders" has been **approved** under the full category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: July 29, 1995

xc: Scovel, MUS



JOHN ENGLER  
Governor

JAMES K. HAVEMAN, JR., Director

## Kalamazoo Regional Psychiatric Hospital

Box A - Oakland Drive, Kalamazoo, Michigan 49008  
Telephone — 616,365-1200

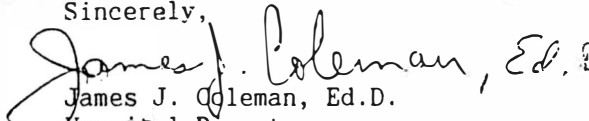
June 28, 1994

Ms. Pearl Abraham  
136 N. Dartmouth  
Kalamazoo, MI 49006

Dear Ms. Abraham:

As Hospital Director I would like to give my approval for your research study at our hospital during the month of August, entitled "The effects of music paired with cognitive-behavioral relaxation on the focussing, passivity and receptivity of clients with paranoid disorders."

Sincerely,

  
James J. Coleman, Ed.D.  
Hospital Director

JJC:ds

cc: Chair, Human Subjects Institutional Review Board



## Appendix C

### List of Potential Clients With Primary or Secondary Paranoid Symptoms



## Appendix D

### Script for Project Site Official on Meeting Prospective Clients

## Script for Project Site Official on Meeting Prospective Clients

"In the coming week or so, there will be a graduate student from WMU who will be coming to KRPH to conduct a research study. The nature of the research will basically involve exploring different methods of relaxation. There will be a total of 6 sessions. You will meet in groups twice a week for 3 weeks and participate along with other members in your group in relaxation exercises. Your participation is completely voluntary and a decision not to participate will not mean a denial of services by the hospital.

If you wish to participate in this study, please sign your name at the bottom of this form."

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**Appendix E**

**Informed Consent Form (Experimental  
and Control Groups)**

Western Michigan University

Department of Music: Music Therapy

Principal Investigator: Mary Scovel

Student Investigator : Pearl Abraham

Subject Informed Consent Form  
(Experimental Group)

I have been invited to participate in a graduate research project that explores various methods of relaxation.

I understand that as part of the study I will have to fill out a questionnaire (the 16 PF) at 3 points during the study. I will also need to attend thirty-minute sessions, 2 times a week, for 3 weeks. At each session I will participate, along with other members in my group, in the relaxation exercise the investigator leads us. Basically, I will be requested to tense and relax various muscle groups of my body.

Some of the risks that may be involved may include over tensing, anxiety, and a fear of a loss of control. I understand that the investigator will try to minimize risks, but if I experience continuous discomfort, I may raise my hand and leave the room quietly. I understand that if an accidental injury occurs, appropriate emergency measures will be taken, but no compensation will be otherwise made available to me, except as stated in this consent form. However, some benefits that may accrue from my participation include, learning new methods of relaxing and reducing stress.

I understand that all names will be kept confidential in this study and will actually be assigned, and referred to, by numerical code only.

I understand that I can withdraw my consent to participate at any time without prejudice or penalty. My participation is voluntary and a decision not to participate will not mean denial of services by the hospital.

If I have any further questions I can contact Pearl Abraham at 387-4679 or Mary Scovel, Thesis Advisor, WMU, at the same number. I may also contact the Chair, Human Subjects Institutional Review Board at 387-8293 or the Vice President for Research at 387-8298 if questions or problems arise during the course of study.

I have read and understood the information above and agree to participate in this study.

---

Participant

---

Date



Western Michigan University

Department of Music: Music Therapy

Principal Investigator: Mary Scovel

Student Investigator : Pearl Abraham

Subject Informed Consent Form  
(Control Group)

I have been invited to participate in a graduate research project that explores various methods of relaxation.

I understand that as part of the study, I will have to fill out a questionnaire (the 16 PF) at 3 points during the study. The study will extend for three weeks. I understand that all names will be kept confidential during the study and will actually be assigned and referred to, by numerical code only. All names will be destroyed after the study is completed.

I understand that I can withdraw my consent to participation at any time without prejudice or penalty. My participation is voluntary and a decision not to participate will not mean a denial of services by the hospital.

If I have any further questions, I can contact Pearl Abraham at 387-4679, or Mary Scovel, Thesis Advisor, WMU, at the same number. I may also contact the Chair, Human Subjects Institutional Review Board at 387-8293 or the Vice President for Research at 387-8298 if questions or problems arise during the course of the study.

I have read and understand the information above and agree to participate in this study.

---

Participant

---

Date

Western Michigan University  
 Department of Music: Music Therapy  
 Principal Investigator: Mary Scovel  
 Student Investigator : Pearl Abraham  
 Subject Informed Consent Form and Guardian Consent Form

I have been invited to participate in a graduate research project that explores various methods of relaxation.

I understand that as part of the study I will have to fill out a questionnaire (the 16 PF) at 3 points during the study. I will also need to attend thirty-minute sessions, 2 times a week, for 3 weeks. At each session I will participate, along with other members in my group, in the relaxation exercise the investigator leads us. Basically, I will be requested to tense and relax various muscle groups of my body.

Some of the risks that may be involved may include over tensing, anxiety, and a fear of a loss of control. I understand that the investigator will try to minimize risks, but if I experience continuous discomfort, I may raise my hand and leave the room quietly. I understand that if an accidental injury occurs, appropriate emergency measures will be taken, but no compensation will be otherwise made available to me, except as stated in this consent form. However, some benefits that may accrue from my participation include, learning new methods of relaxing and reducing stress.

I understand that all names will be kept confidential in this study and will actually be assigned, and referred to, by numerical code only.

I understand that I can withdraw my consent to participate at any time without prejudice or penalty. My participation is voluntary and a decision not to participate will not mean denial of services by the hospital.

If I have any further questions I can contact Pearl Abraham at 387-4679 or Mary Scovel, Thesis Advisor, WMU, at the same number. I may also contact the Chair, Human Subjects Institutional Review Board at 387-8293 or the Vice President for Research at 387-8298 if questions or problems arise during the course of study.

I have read and understood the information above and agree to participate in this study.

\_\_\_\_\_  
 Participant

\_\_\_\_\_  
 Date

Dear \_\_\_\_\_:

\_\_\_\_\_ has consented to participate in the above-mentioned study. I will be conducting this study between August 4 and August 19, 1994, during scheduled PSR times. As you are the guardian of this patient, I would like to seek your written approval for her to be involved in this study. I have already received your verbal consent over the telephone and would like to thank you for the same.

Please sign this form below and return it to me, using the enclosed addressed envelope. This will be kept in the patient's record along with her written consent, for review. Thank you for your consideration.

Guardian Consent Signature: \_\_\_\_\_

Appendix F

Music Preference Questionnaire

## MUSIC PREFERENCE QUESTIONNAIRE

This is a questionnaire designed to assess the kind of music you like and would define as relaxing. It would help immensely if you could fill out this questionnaire as correctly as possible. There are no right or wrong answers, so be sure to write down the answer that describes you most accurately. If you need any help, please do not hesitate to raise your hand. Thank you!

1. Age: \_\_\_\_\_

2. Sex: \_\_\_\_\_

3. Do you enjoy listening to music? Circle Yes No

4. What type of music do you like? Circle as many as apply.

Country and Western

Jazz

Gospel

Rhythm and Blues

Rap

Hard Rock

Easy Listening

Classical

Rock n' Roll

Blues

Other \_\_\_\_\_

5. What type of music do you dislike? Circle all that apply.

Country and Western

Jazz

Gospel

Rhythm and Blues

Rap

Hard Rock

Easy Listening

Classical

Rock n' Roll

Blues

Other \_\_\_\_\_

6. Name your favourite song or piece of music

---

7. Rank the following types of music. Which one do you find to be most relaxing? Place a "1" against that category. Which is the second most relaxing category for you? Place a "2" against it. Which category do you find third-best in relaxing to music? Place a "3" against it. Proceed in this way to rank all the music categories from 1-11. *Remember there are no right or wrong answers, so write down the answer that best describes you!*

Country and Western

Gospel

Rap

Easy Listening

Rock n' Roll

Other \_\_\_\_\_

Jazz

Rhythm and Blues

Hard Rock

Classical

Blues

## Appendix G

### Country and Western Music Preference Category: Listing of Songs

## Listing of Songs

### John Denver's Greatest Hits

1. Follow Me
2. Take Me Home, Country Roads
3. For Baby
4. Leaving on a Jet Plane
5. Rocky Mountain High
6. Goodbye Again
7. The Eagle and the Hawk
8. Sunshine on My Shoulders
9. Starwood in Aspen

**Appendix H**  
**Preliminary Session Instructions**



## PRELIMINARY SESSION INSTRUCTIONS

"Welcome to our first session. Thank you for coming and agreeing to be a part of this study, that will be meeting 2 times a week for 3 weeks.

You are going to explore different ways of relaxation through these sessions. I am sure you will agree that learning to relax is a very important skill. Can you think of instances where this might be important?

*(Give participants a minute or two to respond verbally)*

I think we can all agree that relaxation is important when we feel tense and anxious. *(\*Often, listening to music can help us relax).*

You are going to do an exercise sequence right now where you will need to quietly look for, and release muscle tension. You will do this in various ways, first, by actively squeezing, and then letting go. As you do so, you will need to listen to the words I say and use the mental imagery *(\*and music)* to help you tense and relax. After we've worked with one muscle group, we will move on to another group of muscles.

Before we begin, there is one groundrule to remember: Please do not talk during the exercise. Do not disturb your neighbour's relaxation experience. If you have an emergency and need something, raise your hand and I will assist you.

Are there any questions so far?

We will now begin the exercise."

*(\*Add these words for Music and Cognitive-Behavioural Relaxation Groups only)*

PROCEED WITH THE ATTACHED COGNITIVE-BEHAVIOURAL RELAXATION SCRIPT, USING AN ABBREVIATED VERSION WITH HAND AND UPPER ARM MUSCLE GROUP ONLY.

## Appendix I

### Cognitive-Behavioral Relaxation Script: Isometric-Squeeze Progressive Muscle Relaxation

## COGNITIVE-BEHAVIORAL RELAXATION SCRIPT (adapted from Smith, 1990)

### **An Enhanced Version of Progressive Relaxation**

*Goal:* General stress management and therapy

*Unifying Idea:* Detecting and releasing muscle tension

"Welcome to the session. Thank you for being a part of this study.

In the exercise sequence we are going to do right now, you will need to quietly look for, and release sources of muscle tension. You will do this in several ways, first by actively squeezing and then letting go. As you do so, you will need to listen to the words I say and use the mental imagery (*\*and music*) to help you tense and relax. After we've worked with one muscle group, we will move on to another group of muscles.

Before we begin, there is one groundrule to remember: Please do not talk during the exercise. Do not disturb your neighbours' relaxation experience. If you have an emergency and need to leave, raise your hand and leave the room quietly. Are there any questions, so far?

We will now begin the sequence."

*(\* For Music and Cognitive-Behavioural Relaxation Groups only)*

*For Music and Cognitive-Behavioural Relaxation Groups, music begins now . . .*

Practice taking in deep breaths for a while . . .

Inhale . . . 2 . . . 3 . . . , Exhale . . . 2 . . . 3 . . . , Inhale . . . 2 . . . 3 . . . ,  
Exhale . . . 2 . . . 3 . . .

Take in a deep breath, and tighten up your hand muscles now.

Hold the tension.

Notice how the tension feels.

And *let go*, gently letting out all the air. That's good.

<PAUSE>

Let the tension begin to flow out of your fingers.

<PAUSE>

Study the difference between the feelings of tension and relaxation.

<PAUSE>

As your fingers become more relaxed, think the words "fingers warm and heavy, fingers warm and heavy."

<PAUSE>

Focus on the feelings of relaxation as you sink into relaxation.

<REPEAT TWICE FOR EVERY MAJOR MUSCLE GROUP - ARMS, BACK, SHOULDERS, NECK, FACE, LEGS, AND FEET>

And now we move to exercises that are more gentle . . .

Slowly take in a deep breath.

<PAUSE>

Notice any feelings of tension you may have.

<PAUSE>

And gently let go.

<PAUSE>

Let tightness flow out of you as you exhale.

<PAUSE>

Let the flow of air bring warmth and heaviness to your fingers, hands, arms, and feet as you sink deeper into relaxation. Compare the slight differences between tension and relaxation.

<PAUSE>

It's OK to let yourself have feelings of warmth, tingling, or heaviness.

<PAUSE>

As we continue, our exercises become more and more passive and quiet. Let your breathing continue easily and unforced.

<PAUSE>

Quietly focus on your hands and fingers.

<PAUSE>

Imagine a warm stream of air gently caressing your hands and fingers.

The flow of air blows around your tensions and carries them away.

<PAUSE>

Very slowly and gently, the flow of air starts at your wrist and smooths out any remaining tension all the way to your finger tips. Picture tension as tiny wrinkles that are easily smoothed into relaxation.

<PAUSE 15 SECONDS>

See if you can tell the difference between very slight feelings of tension and relaxation.

<PAUSE 15 SECONDS>

Let yourself sink more and more deeply into a pleasant state of relaxation. Your mind focuses more and more on the calm you have created.

*(To terminate the relaxation session)*

In a few minutes I'm going to count backwards from four to one . . .

On the count of four, I'd like you to move your legs and feet around a little . . .

On the count of three, I'd like you to move your arms and hands . . .

On the count of two, I'd like you to move your head and neck . . .

On the count of one, open your eyes, feeling very comfortable, calm, relaxed, as if you had a brief and very pleasant nap . . .

*(Begin to fade out music now for Music and Cognitive-Behavioural Relaxation Group)*

OK, four . . . move your legs and feet

three . . . arms and hands

two . . . head and neck

one . . . open your eyes

*(End of script and music, as appropriate.)*

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