**AIMING FOR CHANGE:**
**EXPLORING THE BENEFITS OF MUSIC THERAPY ON**
**PATIENTS DIAGNOSED WITH SCHIZOPHRENIA**
**IN A TURKISH UNIVERSITY HOSPITAL**

Musa Özgür Salur

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Tiivistelmä – Abstract

Although music therapy is an evidence-based and effective therapy method in clinical psychiatric settings all around the world, the literature on music therapy use in Turkish clinical settings is extremely limited. This study aims to show the clinical benefits of music therapy in a Turkish university hospital, to enable further research and promote the recognition of music therapy as a valid clinical method in this country. A study was conducted within a clinical setting with 6 patients currently under standard care due to diagnoses of schizophrenia or schizophrenia-like disorders by the hospital staff. The participants attended 20 music therapy sessions, which met twice a week, with pre-post clinical psychological tests applied around the sessions. The results reveal that group music therapy supports the well-being of out-patients diagnosed with schizophrenia. Significant changes on general functionality, personal and social performance, depression levels, difficulties in emotion regulation concerning emotional awareness and decrease in the level of submissive and helpless ways of coping with stress are reported. Session notes consisting of the therapy crew's observations support the statistical analysis of these benefits. These findings show that music therapy can be beneficial on multiple dimensions for people diagnosed with schizophrenia in a Turkish university hospital; and therefore, more implication opportunities are suggested.

| Asiasanat – Keywords<br>*Music therapy, Schizophrenia, Psychotherapy, Psychiatry, Group therapy* | |
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"My elephant was in his cage in a zoo. They put traps around the cage so he couldn't escape. He felt anxiety, fear, tension, thrill and stress. He was scared, so scared... He longed for his days back in Africa where he walked around freely and had fun with his friends."

Session Notes

# CONTENTS

# 1    INTRODUCTION

Music therapy has been an evidence-based and effective therapy method for many clinical psychiatric populations around the world, including those diagnosed with schizophrenia (Mössler, Chen, Heldal, & Gold, 2013). This thesis includes the results of a music therapy group process with patients diagnosed with schizophrenia. It investigates what types of benefits eclectic music therapy can offer them and claims that eclectic music therapy groups should be offered in psychiatry clinics, daycare units and private practices to out-patients (i.e., those not currently residing in a psychiatry ward) and clients diagnosed with schizophrenia. The term client is used in this thesis for those who are the recipient or potential recipient of therapy, and the term patient is used for the same but in a medical setting.

The availability of music therapy still varies greatly across and even within countries (Mössler et al., 2013). For music therapy to become more established, evidence of its effects is crucial. This thesis contributes to the evidence collection by conducting a research in a country, where on the date that this thesis is written, as far as the researcher's knowledge there hasn't been a music therapy study on patients with schizophrenia conducted by a music therapist or a music therapy trainee (Uçaner Çiftdalöz, 2016).

The group process is conducted in a Turkish university hospital (i.e., İstanbul University Medicine Faculty, Department of Psychiatry, Çapa Hospital). While in many parts of the world, music therapy is well-known in medical and academic institutions, and is even accepted as a treatment technique by private and governmental insurance companies, in Turkey it still has not found recognition as a profession (Mössler et al., 2013). So far in Turkey, although we see evidence about the historical use of music in hospitals, academic research on using music for psychotherapy or for other medical benefits is very limited. There are only a few applications of playing music for patients which are not done by music therapists (Fındıkoğlu, 2015; Kitirci, 2014; Yıldırım & Gürkan, 2007).

This work also aims to examine the changes in the participants with diagnoses of schizophrenia by comparing pre-post psychiatric test score differences to clinical observations

written during the process. The significant results of this research may contribute to the clinical and academic recognition of music therapy in this country. The thesis also includes recommendations for further use of music therapy on people with schizophrenia under similar settings in this country or abroad.

## 2 MUSIC THERAPY

## 2.1 Description of the intervention

From the very beginning of their life, humans produce sounds. Their arrival in the world is announced by a cry, and during the first year of life, pleasure and annoyance are voiced through babbling sounds, vocal melodies and crying. These first vocalizations are closely linked to affect and to the ways of regulating affect. In later stages of life, these vocalizations evolve into speech, a more efficient communication device because of its commonality. On the other hand, they also evolve into singing and other musical activities, which are also used to regulate affect (Carlson et al., 2015), although the meanings are not as apparent as in languages and speech. It is performed in a more concealed way. That said, music doesn't only stay in the borders of music but is also built-in in speech in the way of prosody and the melodic aspect of speaking. It becomes integrated into the person's voice, which is maybe the most important communication device and therefore it becomes integrated into the way that person expresses himself/herself and into the way others recognize him/her; therefore, it plays a crucial role in the existence of that person (De Backer, 2004).

This importance of sound and music in life has made it a therapeutic tool since antiquity, and many cultures still use ancient healing rituals involving sound and music (Gouk, 2000). Clinical use has also been developed in the western health system. Music therapy practices in the sense that we use this term today started gaining recognition, which lead to the establishment of academic and clinical training courses in the 1940s in North and South America. After that, the first European countries followed in the late 1950s (Maranto, as cited in Mössler et al., 2013). Through decades of applications and after dozens of successful clinical trial studies, music therapy became an evidence-based effective therapy method for many clinical populations (Mössler et al., 2013).

There are dozens of definitions for music therapy in the literature (Bruscia, 1998). Music therapy is defined by one of the pioneers of the field, Bruscia (1998) as: "a systematic process of intervention where in the therapist helps the client to promote health, using music experiences and the relationships that develop through them as dynamic forces of change"

(p. 20). According to a definition provided by another pioneer, Wigram (2000) it is "the use of music in clinical, educational and social situations to treat clients or patients with medical, educational, social or psychological needs" (p.29). While the description of music therapy is comprehensive and includes various models, it is distinct from music listening alone: for it to be music therapy, there has to be a therapist. The client-therapist relationship as well as the music experience are essential factors of music therapy (Mössler et al., 2013). There are many people who can express their feelings better in non-verbal ways compared to speaking. Music creates the sonic path through which humans and clients in music therapy sessions can express themselves. This therapeutic method allows clients to develop relationships they may not be able to using words alone (Mössler et al., 2013).

Many music therapy clinicians and theoreticians practiced and researched music therapy to examine the therapeutic benefits and mechanisms, and worked on creating a theoretical background for their approaches. The following section will discuss some of these approaches.

## 2.2    Music therapy approaches

Models recently in use are based on psychoanalytic, humanistic, cognitive behavioral or developmental theory (Wigram, Pedersen, & Bonde, 2002); however, the applications of these theoretical models do not necessarily form distinct categories. Another way of categorizing music therapy approaches would be active versus receptive. Active modality includes activities where clients are invited to involve actively in playing or singing. These activities can range from free improvisation to songwriting or reproducing songs. Receptive techniques are where the clients listen to the music, either played by the therapist live, or from a recording medium. The client or the therapist, according to the intervention technique, may choose the music. Most models combine active and receptive use of music (Mössler et al., 2013). The level of structuring, how much direction and instruction the therapist gives can also vary according to the approach or the client's individual needs. Gold, Solli, Krüger and Lie (2009)'s review concluded that most studies used some structure as well as some flexibility. Focusing more on the musical versus the verbal phase of the session can also be an identifier for the therapist's approach.

## 2.3    Music therapy in mental health

Music therapists working in clinical practice usually have extensive training, and hold sessions with patients either in individual setting or in small groups. These processes often continue over an extended period of time (Wigram, De Backer, 1999).  The therapist uses musical interaction as a means of communication and expression with patients that have serious mental illnesses (e.g., schizophrenia, etc.). The aim of therapy is to develop relationships and to address issues they may not be able to using words alone. For people with severe mental disorders, this may carry significant importance on their interaction with world.

Next to music's ancient and ritualistic therapeutic use (Gouk, 2000), today's modern health system, which emphasizes evidence of positive therapeutic effects of treatment modalities, makes use of several meta-analyses proving music therapy's positive effects in psychiatric situations. There are concrete meta-analyses on music therapy use in autism (Geretsegger, Elefant, Mössler, & Gold, 2014), schizophrenia (Mössler et al., 2013), serious mental disorders (Gold, et al., 2009), depression (Maratos, Gold, Wang, & Crawford, 2008), children and adolescents with psychopathology (Gold, Voracek, & Wigram, 2004), and offenders in correctional settings (Chen, 2014).

## 2.4    Eclectic music therapy

Eclectic music therapy is the approach where the therapist combines or alternates between different models according to the needs of the clients in therapy sessions. Patients in the same group may be at different stages of the same or different disorders. They may also be benefiting from different activities throughout the different phases of the therapeutic process. They may also simply have different personal characteristics, which may affect how effective the process is for that specific person (Stricker & Gold, 2011). Thus, using one single therapy method may be inefficient in many groups. As an example for the eclectic music therapy process, the therapist can first use a humanistic approach to create group cohesion, then behavioral techniques such as musical games for body and cognitive activation and then move onto improvisational techniques for psychodynamic or psychoanalytic work. The eclectic approach to music therapy and psychotherapy assumes that the therapist should provide conditions in which therapeutic change is most likely to occur. This approach holds the

therapist responsible for knowing about and offering the client a range of ideas, practices, tasks, and supplies that can lead to transformation. Using different techniques from different schools enables the modification of the therapeutic attitude so that the process achieves the therapeutic goals faster and more efficiently (Stricker & Gold, 2011).

This approach to treatment assumes that every therapy process is unique and should be adapted and modified to the varying needs of each patient group. In our age of evidence-based medicine this may sound difficult as it challenges the idea that therapists should choose the single best method of therapy after completing an accurate diagnosis of the case (Seikkula, 2011). Nevertheless, I assume that the assessment and evaluation methods of this evidence-based medicine age can be used to measure the therapeutic change, and this can work towards creating a bridge that connects the idea of this eclectic need-oriented approach's usefulness to the current medical system.

## 2.5    Description of the condition: schizophrenia

Schizophrenia is listed as a psychotic disorder under schizophrenia spectrum in the fifth edition of American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and its first diagnostic criteria is:

> Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated). At least one of these must be (1), (2), or (3):
>
> 1. Delusions.
> 2. Hallucinations.
> 3. Disorganized speech (e.g., frequent derailment or incoherence).
> 4. Grossly disorganized or catatonic behavior.
> 5. Negative symptoms (i.e., diminished emotional expression or avolition). (p. 99)

Schizophrenia is a serious mental disorder that may run a life-long course. It has a considerable impact on individuals and their families. Symptoms are usually classified as positive symptoms, which means that something is added, such as hallucinations, delusions or paranoid ideation; and as negative symptoms, which means that something is missing, such as the capability to express oneself emotionally or to build sustaining relationships with others (Mössler et al., 2013). The most common characteristic of schizophrenia is psychosis, which can be seen as a way of dealing with terrifying experiences in one's life, when one does not

have a coping language other than the one of hallucinations and delusions (Seikkula, Aaltonen, & Alakare, 2001). Other "languages" such as music can become an alternative way for these people to use in dealing with these terrifying experiences.

## 2.6    Music therapy in schizophrenia

The characteristics of schizophrenia that are linked to dropping and regaining creativeness, emotional self-expression, social interactions, and motivation are central for music therapy. As to what should be the principal outcomes of music therapy for patients with schizophrenia, there is presently no agreement. Music therapists tend to pronounce 'soft' outcomes such as well-being, self-confidence, the capability to express oneself and to relate to others, as well as a sense of identity. Better overall functioning or general symptom reduction seem to be only indirectly linked to those outcomes. Nevertheless, symptom-related outcomes are very commonly measured in research studies. Because of the significance to people with schizophrenia, overall well-being, decrease in everyday symptoms and negative symptoms, functioning and social functioning are considered as principal outcomes (Mössler et al., 2013).

In general, negative symptoms do not respond well to pharmacological treatment (Buckley & Stahl, 2007). With a behavioral music therapy approach, however, music can be used as a stimulant and a reward to promote body and brain activation, which could help to transform negative symptoms. In this approach, music also performs as a structural frame where the patient can overcome emotional, physical, physiological and psychological problems. Psychoanalytic and psychodynamic interventions such as free improvisation, on the other hand, can work on the relational skills and insight of the patient, which can escalate the patient's skills to adapt to the social environment in the community (Ulrich, Houtmans, & Gold, 2007). Anxiety accompanies negative symptoms and people with schizophrenia suffer severely from this anxiety during the interactions in a group environment. This makes it more difficult for the person to trust the group, to feel as a part of the group and therefore for the group cohesiveness to be established. This also makes it more difficult for the person to open himself/herself to the group. Feelings of closeness to someone in the group, trust in another member, attachment, understanding and the desire to help another member, in other words, the key advantages presented by group therapy, can be harder to come by in the case of

schizophrenic patients. Using an object that feels safe makes interpersonal relations easier, improves engagement to the group, improves coping skills against anxiety towards relationships and improves group's therapeutic benefits in therapy groups with severe psychiatric illnesses (Yalom, 1985). Music is an object that can be used as this safe tool to ease the interaction.

Using music therapy with patients with schizophrenia is a delicate subject. Pedersen (1999) describes how she tries to understand a patient's situation through psychodynamic theory called the cyclic dynamic understanding of psychological problems.

> In this understanding the patient is not only as relating to the therapist from a certain phase in the early childhood. The patient's psychopathology has developed through self-generating destructive circles grounded in the very first path of life and further developed through later and contemporary patterns of experience and actions. This indicates that the work in a psychotherapeutic process – here the music therapy process- does not emphasize so much identification, reliving or re-experience of significant early traumas. The work emphasizes more that the therapist himself/herself participates in the patient's patterns 'here and now' and, together with the patient, works on changing and developing those patterns of experience and actions. (p.28)

Thus one of the biggest challenges for the music therapist working with individuals diagnosed with schizophrenia is to come to a point where the patient can relate to him/her and stay there as long as possible for the patient to benefit from the therapeutic relationship. Because of the severity of the mental illness, the duration of these therapeutic meetings can be shorter than with other psychiatric patients. For the person with schizophrenia, the experience of being listened to through his/her music can be the basic developmental experience that might be lacking in his/her life; therefore even this intervention alone can be beneficial. Occasionally, playing can accompany listening to generate in-depth meetings and openings of isolation in the musical interchange. Sometimes though, the therapist may have to only listen to the patient (not the music), just being present for him/her for a certain amount of time before the patient can gain enough confidence to play any music (Pedersen, 1999).

Music is a vehicle towards the patient, which can almost touch them, without the patient feeling the potential unpleasantness of physical touch. For example, during the first sessions, it may be useful to create such an atmosphere together, where the therapist improvises for the patient and the patient does not feel that he or she should play or give back anything. This setting can be an opportunity for the patient to slowly gain the courage to touch back and get into a therapeutic bond in his own pace without feeling ordered by the therapist. The non-verbal environment of musical improvisation builds a a space where it is possible to relate, to be related to and to share without the anxiety of potential verbal conflicts. If the therapist can create a safe enough space through his or her listening attitude, the patient's non-accessible emotional capacity can wake up in time, and the therapist can identify small signs of patient's characteristic qualities in this musical environment. These signs can include the fundamental body-like components in the music (pulse, rhythm, movement and sound), which are crucial for developing interpersonal relationships in general from the beginning of life. The therapist can also move in, and participate in, both the patient's defense mechanisms and attempts to develop little steps towards increasing the capacity of expression and the relationship. Nonetheless, the most important function of musical interaction is that it allows the patient the experience of being listened to and contained with his/her expression as it is (Pedersen, 1999).

For people with schizophrenia and schizophrenia-like disorders, different music therapy group trials in psychiatric settings have been reported around the world. The Cochrane Collaboration Review (Mössler et al., 2013), highly commended by the medical community as well, is a meta-analysis of eight randomized controlled trial (RCT) studies in this field. These studies all compare music therapy added to standard care to standard care alone. Those eight studies are Ceccato, Caneva and Lamonaca (2006), He, Liu and Ma (2005), Li, Ren, Li and Li (2007), Talwar et al. (2006), Tang, Yao and Zheng (1994), Ulrich et al. (2007), Wen, Cao and Zhou (2005), Yang, Zheng, Yong-Zhen, Zhang and Bio (1998); all of which report significant improvements in the patient's life.

## 2.7    Group therapy

Group therapy is a psychosocial therapy process, where a small number of people (roughly between 5-15) meet regularly to interact in various ways. Sessions can be led by one or more therapists, and co-therapists or assistants can also be present at the process. Group therapy

may provide benefits that individual therapy may not. Groups can act as a support network, and members can observe how others and also themselves approach specific life challenges. Some people lack the opportunity to freely express themselves in their lives, and groups offer the chance to the members to express themselves in a small and safe community. Seeing that there are other people suffering from the same, similar or even completely different problems provides the members with a new perspective. The diversity of a group also offers a new perspective to its members since they are from different social backgrounds, ages and experiences and approach issues differently. Groups are important opportunities to feel accepted, which can be crucial for one's wellbeing, especially if it has been lacking in his/her life experience (APA, 2016).

As one of the main theorists in group therapies, Yalom (1985) states these concepts as the therapeutic factors of group therapies: Instillation of hope, group cohesiveness, interpersonal learning, universality, altruism, imparting information, the corrective recapitulation of the primary family group, development of socializing techniques, imitative behavior, catharsis and existential factors. Group therapy creates space for these relational experiences, something quite difficult to achieve in individual therapies.

Since people diagnosed with schizophrenia tend to isolate themselves and limit their interpersonal behavior, group therapies offer them a chance to work on these limitations. Group therapies simulate a social community, which is lacking in most of patients' lives. In a safe therapy environment created by a therapist, music as a safe object and a safe communicative platform compared to verbal methods, facilitates and reinforces interactional behavior in participants. Through these indirect ways, participants can express their conflicts and define them more clearly in the subsequent verbalization segment (Eren, Şahin, & Saydam, 1996). These reasons make the group setting a valuable setup for people diagnosed with schizophrenia.

# 3    METHOD

## 3.1    Research methods

This thesis aims to answer the following main research question:

"In what areas is eclectic music therapy helpful for out-patients diagnosed with schizophrenia in a Turkish university hospital?"

The evaluation areas that I focus on are the ones that the medical institution where the research is conducted accepts as assessment values for schizophrenia patients. The states of the patients are assessed when they are first diagnosed, then later when needed, and before and after they participate in a therapy, support or activity group or any other specific treatment model. Some of these assessments are of patients' depression levels, anxiety levels, difficulties in emotion regulation, how they react when they feel upset, how well they function personally and socially, how their personal and social relationships are going, how their work or school life are, how much they take care of themselves and their personal hygiene, if their behavior is disturbing or hostile, their functioning in general, their level of empathy, insomnia, retardation, somatic disturbances, their fears, emotional and sexual life, their perception of the causes of things they experience, their sense of self and the ways they cope with stressful situations. There is also an evaluation made by the patients for each group process they take part in, through a self-reported questionnaire after the process, asking in what ways the group process helped the individual, if it did so at all. In this thesis, each of these areas will not be inspected separately; instead changes in the scores of questionnaires that cover these areas will be examined.

In order to see the areas benefiting from eclectic music therapy in out-patients diagnosed with schizophrenia, a music therapy group process has been conducted, consisting of two 60-minute sessions every week for a total of 20 sessions. The reason for this number of sessions is that people with serious mental illnesses need more than 16 sessions to experience greater benefits (i.e., large effect size) from a music therapy process according to Gold and colleagues' (Gold et al., 2009) dose-response relationship meta-analysis study. The frequency

of two sessions per week is also assumed to increase the effect of a music therapy process (Erkkilä et al., 2011).

The music therapy process was held in İstanbul University Medicine Faculty, Department of Psychiatry, Çapa Hospital, which is one of the oldest and largest university hospitals in İstanbul, Turkey that serves patients from all kinds of socioeconomic, cultural and racial backgrounds. The main inclusion criteria for the therapy process in this research was the diagnosis of schizophrenia and schizophrenia-like disorders according to DSM IV-TR, which was the current diagnostic manual used in this hospital at the time of the study. Research authorization was received from the Institutional Review Board of the university hospital, and 10 out-patients diagnosed with schizophrenia or a schizophrenia-like disorders were directed from the Social Psychiatry Service's Arts Psychotherapies and Rehabilitation Program (APRP) as potential participants. One of the patients was also diagnosed with Obsessive Compulsive Disorder according to DSM IV-TR. They were interviewed and the group was formed with 8 participants out of these 10 candidates. Later in the process, one of the participants stopped attending the sessions and one had to leave the process before the middle, so they have been counted as drop-outs; thus bringing the group to 6 participants throughout the process.

The music therapy process was eclectic; it was based on multiple music therapy approaches, mainly psychodynamic, humanistic, cognitive and behavioral. More about this is explained in Therapy Process section. The process was conducted as a closed group; i.e., as a group where no other participant was accepted once it began. All patients were under standard care, which could include medication, Electroconvulsive Therapy (ECT), verbal psycho-educational psychotherapy group and other activity groups offered by the APRP. They had also received other therapies in past. At the time of the selection, the patients were not in an acute state of schizophrenia or experiencing a psychotic episode. The participants ranged from low to high functionality levels. I examined the psychiatric medical history and the anamnesis of each participant as preparation before the group met for the first time.

The therapy process was conducted by myself, a music therapy master's degree student and a music therapy trainee. I had one year of prior experience working with the same population in the same service as the co-leader of the rhythm and music activity group and as the observer

of the dance and movement therapy group. I also previously attended arts psychotherapies training in this program for a year and observed supervisions of the various arts psychotherapy and rehabilitation processes with this population two times a week during this training. I also received psychodynamic based verbal supervision from the coordinator of APRP.

## 3.2    Primary data: Psychiatric outcome measures

In order to evaluate the benefits of the music therapy process, standard pre and post-tests that are applied to psychiatric patients that come to the Social Psychiatry Service of the psychiatry clinic are used as primary data and the psychiatric outcome measures of this research. These tests were filled with the help of the social workers at the service. One aim there was to eliminate therapist bias and also so that my presence as the therapist would not affect the participants during scoring. No other specific musical or non-musical assessment tools were used other than the default ones used by the hospital care, since these tests cover many aspects of the population's characteristics and disturbances. Considering the severity of this population's illness, each new test would also add to the difficulty of the answering procedure, which would make them less reliable. Post-tests are applied in 19th session as a common practice in this program.

The default tests applied are İşlevselliğin Genel Değerlendirmesi Ölçeği (Köroğlu, 2005), which is the Turkish version of the Global Assessment of Functioning Scale (American Psychiatric Association, 2000),  Bireysel ve Sosyal Performans Ölçeği (Aydemir, Üçok, Esen-Danacı, Canpolat, Karadayı, Emiroğlu,  & Sarıöz, 2009), which is the Turkish version of the Personal and Social Performance Scale (Morosini, Magliano, Brambilla, Ugolini, & Pioli, 2000), Stresle Başa Çıkma Tarzları Ölçeği (Şahin & Durak, 1995), which is the Turkish version of the Ways of Coping Scale (Folkman & Lazarus, 1988), Beck Anksiyete Ölçeği (Ulusoy, 1993), which is the Turkish version of Beck Anxiety Inventory  (Beck, Epstein, Brown, & Steer, 1988), Beck Depresyon Envanteri (Hisli, 1988), which is the Turkish version of the Beck Depression Inventory (Beck, Rush, Shaw, & Emery, 1979), İç-Dış Kontrol Odağı Ölçeği (Dağ, 1991), which is the Turkish version of Rotter's Locus of Control Scale (1966), Şizofreni Hastalarında İşlevsel İyileşme Ölçeği (Emiroğlu, Karadayı, Aydemir, & Üçok, 2009), which is the Turkish version of Functional Remission of General Schizophrenia Scale

(Llorca, Lançon, Lancrenon, Bayle, Caci, Rouillon, & Gorwood, 2009), Duygu Düzenleme Güçlüğü Ölçeği (Rugancı & Gençöz, 2010), which is the Turkish version of the Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004), Grup Sağaltıcı Etmenler Listesi (Eren, 1998), which is the Turkish adapted version of Group Therapeutic Factors List (Yalom, 1985).

These tests are briefly described here:

### 3.2.1 Global Assessment of Functioning Scale (GAF) - İşlevselliğin Genel Değerlendirmesi Ölçeği (İGD)

İGD is included in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV-TR) (American Psychiatric Association, 2000) and was translated into Turkish in 2005 by Köroğlu. It aims to measure the social, occupational, and psychological functioning of adult patients, and also how well or adaptively they deal with different problems-in-living. The rating is called the GAF score and is assigned between 0-100 by mental health clinicians, workers and physicians subjectively. A higher score means better functioning. DSM includes some examples to make the decision more accurate.

Some examples are:

"51-60 Moderate symptoms (e.g., flat affect and circumlocutory speech, occasional panic attacks) or moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).

41-50 Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) or any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job, cannot work). (p.34)"

İGD is not included in the recent version of DSM (American Psychiatric Association, 2013), but it still retains its research value because of its ample use in research literature. Bireysel ve Sosyal Performans Ölçeği, which is the Turkish version of the Personal and Social

Performance Scale is a more recent and current scale, measuring the functionality of a person, as well.

### 3.2.2 Personal and Social Performance Scale (PSP) - Bireysel ve Sosyal Performans Ölçeği (BSPÖ)

BSPÖ was translated from PSP and validated in 2009 by Aydemir and his colleagues. It aims to measure personal and social performance of functionality of patients with severe mental disorders such as schizophrenia (Aydemir et al., 2009). The patients' loss of functionality is rated by the mental health clinician or physician in four areas over a 6-point scale. The ratings are added and then subtracted from 100 for PSP score, where a higher score means better personal and social functioning.

Example areas are: "Activities with social benefits such as work and school", "Personal and social relationships"

It is expected that PSP - BSPÖ scores would be similar to the Global Assessment of Functioning Scale (GAF – İGD) score, since they both measure the functionality of the person.

### 3.2.3 Ways of Coping Scale (WOCS) - Stresle Başa Çıkma Tarzları Ölçeği (SBTÖ)

SBTÖ was developed and validated in 1995 by Şahin and Durak as a shortened version of the WOCS, which has been used extensively to measure coping for more than 20 years worldwide (Rexrode, Petersen, & O'Toole, 2008). SBTÖ consists of 30 sentences where the patient is asked to rate himself/herself as one of 4 percentage points of 0%, %30, %70, %100. The scoring of this test shows how much the participant uses each of 5 factors of coping. These factors are: Self-confident, Helpless, Submissive, Optimistic Styles and Seeking of Social Support.

Example sentences for rating are: "If I am distressed, I do not want anyone to know about my problem.", "If I am distressed, I feel trapped" (Şahin & Durak, 1995).

### 3.2.4    Beck Anxiety Inventory (BAI) - Beck Anksiyete Ölçeği (BAÖ)

BAÖ was translated, developed and validated from BAI in 1993 by Ulusoy. It is a 21-question multiple-choice self-report inventory that is used for measuring the severity of an individual's anxiety. The respondent is asked how much each symptom bothered him/her during the past week including the day of the test. The respondent choses between: "not at all, mildly, moderately, severely".

Example symptoms are: "Dizzy or lightheaded", "Fearful of losing control"

### 3.2.5    Beck Depression Inventory (BDI) - Beck Depresyon Envanteri (BDE)

BDE is translated and validated from BDI in 1988 by Hisli. It is a 21 question multiple-choice self-report inventory that is used for measuring the severity of an individual's depression. The participant is asked which statement describes his feelings of the past week best. Then each point assigned to the statements picked by the participator is added up to generate a BECK-D score.

Example statements are:

"(0) I don't feel like crying very often.

(1) Sometimes I feel like crying.

(2) I cry most of the time.

(3) I used to be able to cry but I cannot cry anymore even if I would like to.


(0) I don't think that I look any different than before.

(1) When I look in the mirror, I think I look worse than before.

(2) When I look in the mirror, I think I look older and uglier than before.

(3) I find myself very ugly."

### 3.2.6 Rotter's Locus of Control Scale (RLOCS) - İç-Dış Kontrol Odağı Ölçeği (RİDKOÖ)

RİDKOÖ was translated and validated from RLOCS in 1991 by Dağ. It aims to measure how much the participant assumes s/he has control over everyday situations and how much s/he thinks they are controlled by external forces such as fate, luck, other people, etc. Participants are asked to choose between pairs of internal and external items relating to everyday situations and expected to pick the one that is closer to reality in their opinion. Each sentence has a point value and the numbers are added up, with higher score meaning more external locus of control.

Example questions are:

"a. A good leader expects people to decide for themselves what they should do.

b. A good leader makes it clear to everybody what his or her jobs are.


a. Many times I feel that I have little influence over the things that happen to me.

b. It is impossible for me to believe that chance or luck plays an important role in my life."



### 3.2.7 Functional Remission of General Schizophrenia Scale (FROGS) - Şizofreni Hastalarında İşlevsel İyileşme Ölçeği (ŞİDÖ)

ŞİDÖ was translated and validated from FROGS in 2009 by Emiroğlu and her colleagues. It aims to measure functional remission, a key aim of treatment, which renders a self-directed lifestyle possible for schizophrenia patients, allowing them to readapt to their relationships with their parents, work life, social surroundings and other relational interactions (Emiroğlu et al., 2009). Participants are asked to rate on a 5-point scale how much they have each of the 19 items in their life. Points of each item get added up, and a higher score means a more functional remission in life.

Example items are: "Emotional and sexual relationships", "Family and friends".

### 3.2.8 Difficulties in Emotion Regulation Scale (DERS) - Duygu Düzenleme Güçlüğü Ölçeği (DDGÖ)

DDGÖ was translated and validated in 2010 by Rugancı from DERS. It is a 36-question self-report questionnaire aimed to measure multiple aspects of emotion dysregulation. The measure calculates a total score as well as scores on six dimensions, which are difficulties engaging in goal directed behavior (GOALS), limited access to emotion regulation strategies (STRATEGIES), nonacceptance of emotional responses (NONACCEPTANCE), impulse control difficulties (IMPULSE), lack of emotional clarity (CLARITY), and lack of emotional awareness (AWARENESS). The participator is asked to rate sentences on how often s/he experiences them.

Example sentences are: "When I'm upset, I have difficulty controlling my behavior", "When I'm upset, I believe that I will remain that way for a long time".

Each of these tests was administered by the social workers at the service before the first session of the process as a pre-test. Later, during the 19th session, I left the room and the same tests were administered by the same social workers and with the help of the process assistant as post-tests. The differences between pre-tests and post-tests were analyzed.

### 3.2.9 Group Therapeutic Factors List (GTFL) - Grup Sağaltıcı Etmenler Listesi (GSEL)

GSEL was translated and adapted from GTFL. Yalom (1985) prepared a test for group therapies to find out how the participants benefited from a certain process. The test is applied after the therapy process and participants are asked to put 60 cards in order of how much they agree with the sentence on the card. They answer the question: "What helped you the most in this therapy process?" by putting the cards in order.

Example sentences on these cards are: "Learning that I sometimes confuse people by not saying what I really think", "Revealing embarrassing things about myself and still being accepted by the group" (Yalom, 1985).

GSEL was developed by the İstanbul University Medicine Faculty, Department of Psychiatry, Social Psychiatry Service, after they experienced difficulty with this task for people with

psychotic disorders and schizophrenia. They used the same sentences, but instead of asking the participants to put the cards in order, they asked group participants to score each sentence on a 5-point Likert scale, 5 being "I benefitted a lot", and 1 being "I did not benefit".

These 60 sentences pile in 12 dimensions of therapeutic benefits and are rated separately. These dimensions are: Altruism, Cohesiveness, Universality, Interpersonal Learning – Input, Interpersonal Learning – Output, Guidance, Catharsis, Identification, Family Re-enactment, Self Understanding, Instillation of Hope, Existential Factors.

## 3.3    Secondary data: Session notes

The secondary data of this research comes from my session notes, which I took down daily after each session. Although no qualitative analysis will be included in this research, the session notes are collected in order to reflect non-numeric changes. Memos and quotes from these notes reflect the changes in the participants during the process based on daily incidents, which support the primary data. Turning points, milestones and what caused them can be extracted from and interpreted with the help of the session notes. Both in-session and out-session notes reveal any therapeutic and/or life changes in the participants that are otherwise unclear when only using test results. The therapy assistant and the co-therapist social worker also contributed to this diary with their observation inputs.

## 3.4    Clinical methods

Before the process, the Institutional Review Board of the university hospital was petitioned for research permission. After the authorization was received, the coordinator of Social Psychiatry Service's Arts Psychotherapies and Rehabilitation Program, to where the psychiatry clinic refers the patients who need group psychotherapy, selected 10 patients as candidates for the group with help from the social workers of the program. During the selection process, using their experience in the field of arts psychotherapies and rehabilitation, they took into consideration, which patients would benefit from musical activities. All candidates were chosen among patients that were diagnosed with schizophrenia or a schizophrenia-like disorder by the hospital crew, and they were all out-patients.

I interviewed 10 patients in the presence of the assistant of the therapy process and the social worker for around 10 minutes. This interview was held in order to explain to patients the following music therapy process and the potential benefits. Their expectations were asked and the candidates were informed about the aim and the structure of the group in order to create a cognitive frame. They were also asked about their schedules to decide for a group meeting time that suited the majority. Another reason was to find out about their willingness and motivation for this process. 2 patients stated that they were not very interested; these patients were directed to other arts therapy groups and the music therapy group was established with the remaining 8 patients. After two of the participants stopped attending the sessions, they were listed as drop-outs and the group continued and finished the process with 6 participants.

The music therapy process was eclectic, and involved psychodynamic, humanistic, cognitive and behavioral techniques. Using different techniques from different schools enables the modification of group activities to be in line with the participants' self-declared needs. This helps participants to believe into the idea that the group and the process exists for them, which leads to better group cohesiveness and goal consensus, two of the most important aspects towards the success of the therapy (Norcross, 2011).

The group met twice a week and the process consisted of 20 sessions in total. It was assumed that having two music therapy sessions per week would increase the effect of the process (Erkkilä et al., 2011) and that more than 16 sessions per process would have a strong effect (Gold et al., 2009). Each session consisted of musical activities and verbal sharing parts; some sessions also included discussions about the participants' daily lives to find out about their standard treatment process and to increase group coherence. Session 19 also included the post-tests. Mainly active music therapy was used in this process. Classical music was not used in this process, since according to a meta-analysis of 19 studies on the influence of music on the symptoms of psychosis, classical music did not prove as effective as other types of music in reducing psychotic symptoms. Also, because no differences were found between recorded music compared to live music, both types were used. This review stated that there was no significant difference between the effects of patient-selected music compared to therapist-selected music, so both types were used (Silverman, 2003). Activities were planned within a daily schedule prior to the process. These activities were expected to be used on a daily basis

based on the schedule, but I had the ultimate responsibility of following the dynamics of the group and modifying the plan according to the participants' daily needs and issues.

A social worker from the program joined the sessions as a co-therapist. A therapy-assistant was also present. This group of three met 15 minutes before each session in briefing and I went over the daily schedule, giving examples from the planned activities. The same group had a de-briefing where they shared their reflections, observations, ideas and emotions after each session. They also rated observation scores for the participants for program purposes. After each session, either I or the co-therapist (social worker) called the participants to remind them about the missed session and the next session's date and time. S/he also encouraged the member about the importance of consistency during the process. This is a common practice for Arts Psychotherapies and Rehabilitation Program's sessions. Psychotic patients or the family members they live with may decide for the patient not to attend a session from time to time, sometimes because of the medication's side effects, or because of negative symptoms. Since the program facilitators' experience shows that calling after missed sessions helps attendance, it became a common practice in program.

I took down notes after each session, which included my observations, ideas, feelings, ratings and news from group members' lives and highlights from and the general flow of the session. I requested the assistant's help for this cause. The assistant, the social worker and I attended weekly group supervisions held in the program by the coordinator. Each of the evaluation tests was administered as a pre-test by the social workers of the service before the first session. The collection of tests was repeated during the 19<sup>th</sup> session as a post-test.

## 3.5   Analysis techniques

After collecting the results, to analyze them and to see if there was a significant difference at the group level between the pre-post test results, a paired-samples t-test was applied for each assessment. For test results without a normal distibution of data, Wilcoxon's matched pairs signed rank test was applied as a non-parametric test. Individual pre-post score changes were also graphically presented. For Group Therapeutic Factors List - Grup Sağaltıcı Etmenler Listesi, most beneficial dimensions have been ordered according to the mean of each participant's rating on each dimension. Also each individual's rating on each dimension has

been compared graphically to the group mean. To see the shifts of perception for the reasons underlying events, pre and post-test scores in Rotter's Locus of Control Scale - İç-Dış Kontrol Odağı Ölçeği have been examined at the individual and group level.

All statistical analyses were done with IBM SPSS Statistics Version 20 for Mac.

## 3.6    Limitations of the study

I, as the writer of this thesis was also the therapist in the group therapy process. At the time of writing, I am a music therapy student at the master's level, and allowed to conduct the music therapy group process as my internship also because of the experience I had at this hospital service as an arts therapy student. Since during the process I was aware that the test results from this process were going to be used in my thesis, this may have influenced me during the process.

The patients were not chosen randomly; instead a selection procedure was used. Although this is easy to achieve in this service and it is more beneficial for the patients of this service, this may limit the generalization of the results.

# 4    THE THERAPY PROCESS

## 4.1    The schedule of the music therapy sessions

The therapy process was conducted in June, July, August 2015. They were two sessions per week, always on the same days except the week of the 19th session, when the post-tests were applied, thus making it a 3-session-week. One session was cancelled because  of my health issues and one session day was bypassed because of a national holiday. 20 sessions were conducted in total. Each session was 60 minutes long. After each session, the participants had free time for 15 minutes in the same therapy room when they could also get drinks and sit and chat if they wanted to. Therapy crew was also present at those times. This is a common practice for Arts Psychotherapies and Rehabilitation Program's sessions.

## 4.2    Context and facilities

### 4.2.1    Health center

The therapy process was held at the İstanbul University Medicine Faculty, Department of Psychiatry, Çapa Hospital, which is one of the oldest and largest university hospitals in İstanbul, Turkey. It serves patients from all kinds of socioeconomic, cultural and racial backgrounds. It has a hospitalization ward and a daycare unit. Since it is a university hospital, it highly values scientific research. Although the hospital is located in the center of İstanbul, because İstanbul is an enormous city with around 15 million inhabitants at the time of the study, even the one-way transportation of members can take up to 2-3 hours achieved with 2-3 transfers.

### 4.2.2    Music therapy room

All of the clinical music therapy sessions took place in one small building called "Starfish" (Turkish name: Deniz Yıldızı), which is only used by the Arts Psychotherapies and Rehabilitation Program crew for arts and music therapy / rehabilitation / activity sessions. This little building is reached through the psychiatry building, through a small green yard,

where the entrance door of the building is located. The building also has a window facing this yard, although it needs artificial lightning, as well. The part of the room with no window is used to store art materials.

The musical instruments were placed in the middle of the room on the vinyl-covered floor by the crew before each session. Chairs were placed around the instruments as a circle before the participants arrived, as well. We made an effort to have this exact configuration for each session, something that is typical in a psychodynamic approach; structure and predictability plays an important role on this population (De Backer, 2004). The musical instruments included: 8 small darbookas, 1 cajon, 2 frame drums, shakers, mini shakers, a bongo, 2 tambourines, 2 rainsticks, smaller percussion instruments, a *bağlama* (a traditional Turkish plucked string instrument) and an acoustic guitar. Equipment for music playback was also available in the room.

## 4.3    Session fee

At the end of each session, a symbolic fee of 3 Turkish Liras (approximate equivalent of 1 Euro) is collected from each present participant as a contribution to the program. This is a common practice for Arts Psychotherapies and Rehabilitation Program's sessions.

## 4.4    Demographics

The group started with 8 members and because of the two drop-outs, the test results of 6 members were obtained. Post-tests for the Functional Remission of General Schizophrenia Scale (FROGS – ŞİDÖ) and Rotter's Locus of Control Scale (RLOCS – RİDKOÖ) could not be applied to Client No. 5 in time, so these tests have a sample size of 5.

The group members' ages and gender can be seen in Table 1. The average age of the participants was 42.80 ($SD = 6.80$).

TABLE 1. Age and sex of participants

| Client no. | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Age | 35 | 53 | 45 | 39 | 24 | 42 |
| Sex | F | M | M | M | M | M |

## 4.5 Process

### 4.5.1 Special situations about the process flow

Two sessions in the process had to be skipped. One was because of my medical condition. Since it was an emergency situation, the patients were called the morning of the session day. This was right after the second session and I felt that this was a small interruption to the cohesion process, which was also apparent in the low attendance rate for the two following sessions. For this reason, I spent more time on cohesion building exercises.

The second interruption was because of a national holiday. The members were notified of this beforehand. Still, it took a couple of sessions to get back to the trusting group feeling afterwards, likely because of the severity of the members' anxiety due to their illness.

Two social workers worked in this program. Because of their official summer break, the group had to start with one as the co-therapist, then switch to the other ($7^{th}$ session), and then switch back to the first one ($15^{th}$ session). This also created a subtle uneasiness in the group, although the situation had been explained in the beginning of the process and before and after each change. The social workers were introduced as the co-therapist of the group, although their role in this group therapy process was more to support me, usually staying in the background and rarely asking the members questions during the verbal sharing parts and the welcoming. The social workers and the assistant also helped with logistics and housekeeping

issues such as setting up the room and preparing lyric sheets and as modeling characters in the sessions, where were the first to try out a new activity, being a model for the other members.

In the first session, I talked about group rules (e.g., confidentiality) whenever it felt natural during the conversation. This seemed to work better, compared to reading the rules list, with this population who have attention and focusing problems.

The 19$^{th}$ session was used for post-tests. It is a common practice in this program to apply the post-tests right after the penultimate session. This is done like that because it raises attendance. Many times it is observed that the patients of the program, which include many psychotic patients, fail to show after the last session for taking tests, because it can be a problem commuting for hours in a metropolis like İstanbul. Instead of doing them after the session and leaving the clients with the exhaustion and confusion of many psychological tests, I, with the suggestion of the social worker, decided to integrate them into the session, utilizing them as mind stimulating activities for the therapeutic process afterwards. During the 19$^{th}$ session, I left the room and the post-tests were administered by the same social workers with the help of the process assistant. Later I returned and conducted a session that aimed to conclude the emotions that arose during the tests.

## 4.5.2 The therapist's therapeutic stance

During the whole process, I as the music therapist took on a humanistic - person-centered therapist role, focusing first of all on being mentally and bodily present in the sessions for the group and its members. I aimed to offer a structured, safe and predictable environment, in which the patients felt supported and understood both by the therapy crew, each other and the group as a whole, since this is the environment most conducive to therapeutic changes (Bohart & Watson, 2011; Norcross, 2011; Wampold, 2001). I worked towards cultivating and supporting group cohesiveness, as this seems to have the greatest therapeutic effect of any effect a therapist can elicit in a group setting (Norcross, 2011; Wampold, 2001). Therapy techniques and music therapy activities later come into play to stimulate the mind and body of patients to help in achieving therapeutic improvement and change. This stance resulted in creating the group's own unique character with its own "favorite" activities, which worked best for this specific group. These activities will be described in the following sub-sections:

### 4.5.3   Musical / drum circle games

Musical games and drum circle exercises can be very simple, fun and powerful ways of interaction for people with severe mental illnesses (Silverman, 2005). Some of the group members stated during the interviews and group discussions that improving their attention and ability to focus might be their therapy goal. For any human-centered therapist, their request carries immense weight. Simply hitting an instrument in a circle formation after each other is a simple exercise where attention and focus is needed, therefore used and improved (Silverman, 2005). Although it can be somewhat boring for high functioning group members, this seemed to be the necessary amount of simplicity for the group at the beginning. The highly structured and directive nature of this exercise leaves little room for anxiety, which is important for this population in earlier stages of group activities. During the later sessions, with newer rules, the participants start being given options they can choose from. This gives them the chance to influence the circle flow or not. Also with more complexity, members active and inactive during the game need greater and longer attention, concentration, focusing, awareness of sounds and other members and the group as a whole.

The most common physical and mental state of the group members, as it is very common in schizophrenia, was being isolated. This structured and directive exercise also makes it possible for members to reach out and touch each other musically, while it could be very challenging with this population otherwise, verbally or physically. When Schultz talks about the treatment of people with schizophrenia (as cited in De Backer, 2004), he states that if the goal of the treatment is for the patient to be taken out of the isolation of his/her sphere or stereotypes, offering opportunities to approach to a play would play a key role in the change of this isolation and stereotypes.

### 4.5.4   Welcoming song

I introduced a welcoming song at the second session by performing it for the group. The activities where I perform for client/s are "giving" activities defined under Techniques of Intimacy by Bruscia (1998) and are ideal for the early stages of a therapy process to create intimacy between client/group and the therapist. Pedersen (1999) also mentions performing for a schizophrenia client as something that a therapist gives to the client without expecting anything in return and values this technique.

In the song, every member is addressed by his or her name and welcomed to the group in an order. Even right after the first performance of the song, members looked very happy and offered to sing back the song for me. After this session, the welcoming song became a ritual at the beginning of each session, while everyone is invited to play and sing along. These kinds of rituals and group singing activities work towards the group belonging and coherence.

### 4.5.5   Animal games / improvisation, leading to "emotions"

Expressing emotions and feelings verbally is a common tool that is considered helpful (Kircanski, Lieberman, & Craske, 2012) and that all psychotherapy approaches aim to cultivate. People with schizophrenia with negative symptoms on the other hand have extreme difficulty sharing anything personal, including feelings. I tried and observed in this group that using metaphors such as animals became a great step towards expressing emotions and feelings, both musically and verbally. The metaphors can be anything, such as animals, shapes and cars, whose characteristics / properties / feelings can be discussed in the group. It feels safer to talk about a chosen object rather than a personal emotion. For example, one can pick a lion, a powerful, dominant animal and decide to become that animal in a game, where s/he can play the instrument like a lion and consume the lion characteristics that s/he desires. This can also be considered as a cathartic moment where one can live feelings freely, without anxiety related to revelation. Later, when the person talks about how that animal felt during the improvisation, it is less anxiety inducing for himself/herself compared to talking about his/her own emotions in a group setting. This was also experienced clearly in this research group.

Because of how isolated this population is, the use of animals started with very directive games, such as asking each patient to pick an animal and an instrument, then asking them to decide what characteristic of this animal they want to emphasize while playing the instrument with the chosen animal's characteristics and then asking them to teach other members how to do it to and to play together. So the games did not go into emotions at first. Instead they started with high directiveness and more at a sense-oriented level and evolved into having less directiveness with more focus on emotions towards the end. The whole musical game process was intended to act as a transition towards emotion expression. At some days, the animals

were switched so everyone could experience each other's animal. On other days, each member experienced leading the herd and following others' leadership.

Later in the process, I asked how these animals and their surroundings looked during the improvisation game, which led to how the animal felt and how the other characters in the story felt. At certain points, I helped this examination. Since Turkish culture is one where emotions and feelings are kept unexpressed and even not allowed to be felt, awareness of them is very low, so I made a poster with a list of emotions and feelings as a cheat sheet. The group added more emotions and feelings to the list and it became a tool from which members could pick their animals' current emotional state. This full list of feelings and emotions included trust, anger, stress, ease, distrust, longing, fear, excitement, disgust, abstinence, pride, cheer, happiness, fun, sadness, blank, astonishment, joy, acceptance/accepted, shame, love, envy, guilt, life inclusion, coherence, empathy, tranquility and turmoil.

This activity was also aimed at helping the participants to notice the sides of situations and their own and each other's emotional potential by noticing, labeling and talking about emotions and feelings. Rather than taking a psychodynamic approach to the metaphors and providing interpretations, I only reminded the group that our choices of animals and instruments might reflect our characters or choices about life and that the stories and feelings of our animals might be similar to our own stories and feelings.

One example of how helpful this approach is can be observed in the following example story that one of the clients came up with. He was one of the quietest and shyest clients until the animal games:

> "My elephant was in his cage in a zoo. They put traps around the cage so he couldn't escape. He felt anxiety, fear, tension, thrill and stress. He was scared, so scared... He longed for his days back in Africa where he walked around freely and had fun with his friends."

In the following sessions I observed that clients had started using words from the list to describe their own emotional state in other parts of the sessions such as the greeting part and reflections-after-improvisation part. This led me to move towards working on emotions without the metaphors. Again I started with very directive exercises and asked each

participant to pick any one emotion from the list and play. This was followed by asking participants how they felt after a certain task or the session and brought about a great difference in how much they talked about their emotions, compared to the first session where the reflections were limited to "good". In some sessions, even when there were no instructions about verbal sharing, many participants chose to share their emotional state with and without the help of the list. Like throughout the whole therapy process, during all animal games/improvisation, which later lead to emotions and feeling, my priority was to observe the group "here and now" and move at their pace.

### 4.5.6   Clinical improvisation

Clinical improvisation, in which all group members improvise on their instruments together as a group, existed in all sessions throughout the process. In musical improvisation, because of the use of music as a communication tool, members are able to express their current state without the anxiety of verbal communication. This disclosed style of communication, at least to begin with, seems to work better with this population (De Backer, 2004; Mössler et al., 2013; Pedersen, 1999). I observed that there were some sessions in which some patients reached for the instruments as soon as they set foot in the room, before attempting any other communication. This is usually not the case in other populations, where members might hesitate to play at first in sessions; but in this case, it was a clear indicator of how much these participants of the group needed to play the instruments and express themselves.

Each improvisation was followed by a verbal communication phase where participants are asked about their reflections. The reflections that I asked about evolved during the process. In the first sessions, it began by asking what sounds the participants had heard during the improvisational piece, followed by what imagery the piece reminded them of and how this made them feel. The emotions list created as a poster was also useful for this towards the end of the process. Nevertheless, the verbal sharing part was relatively dry compared to the rich clinical improvisation, where the clients experienced many different types of interactions, even very complex ones.

In the improvisation, the group tended to observe the common rhythm, and all participants created and shared a lot about it at the verbal sharing phase. They were most careful about whether there was rhythmic cohesion or not. The importance psychotic patients place on the

common beat or rhythm in group improvisation is also mentioned by De Backer (2004) and considered as related to the separation issues psychotic patients have. Psychotic patients tend to express their experiences and conflicts in musical improvisation, by 'fragmented' play, or constantly repeating rhythms or small melodic sequences (De Backer, 2004). Many of the improvisation, especially the ones in first sessions were very flat in dynamics. De Backer (2004) talks about this rather flat playing style without dynamic variety as it is mentioned in many sources to describe the musical performance of psychotic patients. Later on, after directive exercises where the group played in different dynamics, this experience transfers to improvisation and dynamic variety is improved.

Characteristics of clinical improvisation with psychotic patients such as ecstasy and joy, inner images of a primitive tribal dance and a changed physical awareness - such as a feeling of intense warmth (De Backer, 2004) were also experienced in our process. Other characteristics such as the frustration of some patients caused by the lack of a common rhythm (symbolizing a symbiotic relationship before separation) were also observed in the group (De Backer, 2004). Because music is an artistic medium, these are personally and socially acceptable experiences in the group and can be therapeutically processed through awareness and acceptance of them.

When one makes music with others and merges into the music, the borders between oneself and others become faint, which is also experienced by every musician in a pleasant way. In a group with psychotic patients, this can be used for therapeutic purposes. De Backer (2004) gives a clinical example of this:

> Barbara, a woman who has just experienced a psychotic phase reports during one of the music therapy sessions that during musical improvisations where a general group rhythm or sound is reached, she regularly has the experience that her musical expression or play fuses with the group sound or rhythm. With it she had on the one hand a pleasant feeling of being completely taken in by the music, but on the other hand she was confronted by a sort of fearful evocation of her psychotic experience in which she loses her own identity. However, to the extent to which she can see this 'psychotic' experience during the music making as an essential component of the music itself, the fear disappears. In the light of this 'artistic' experience she gives her original psychosis another and more exchangeable meaning. (p. 78)

Clinical improvisations got richer and richer over time and the group even started to import material from other activities, such as circular playing in musical games, leadership playing and body percussion phrases.

### 4.5.7 Body percussion

Creating body percussion phrases by using body parts to create sounds and seeing that the group reflects the phrase was the main body percussion method used in this process. Someone seeing that his/her behavior is mirrored, feels accepted and recognized - the most basic method of the recognition of someone's existence by many sources in music therapy, dance and movement therapy and neuroscience (Berrol, 2006; Bruscia, 1998; Burns, 2012). Using one's body for this purpose also activates tactile sensations and creates a link to the here and now. Group members who are observing the one creating the rhythmic phrase are also sharpening their attention and their connection with the here and now, thus reducing rumination. In this group, this exercise was observed to be the one that kept members' attention most successfully, which also meant less or no ruminating. The body activation aspect of this exercise, which mobilizes the body, mind and embodied cognition, is assumed to have made a great contribution to this success.

Also, simply playing body parts together as a group boosts group cohesion and the feeling of oneness, while the loud sounds created together boost individual confidence, acceptance, and mutual support (Bruscia, 1998). Using structured body percussion exercises also opens the door to creativity towards creating new rhythmic phrases without inducing the anxiety that too many instrument choices might.

### 4.5.8 Conversation - dialogue

The group members, once more at ease within the group, enjoyed talking and sharing their experiences about life and difficulties about their common illness. Since the feeling of cohesion seems to be the most therapeutic experience a therapist can create in group therapy (Norcross, 2011; Wampold, 2001), I allowed and encouraged these bits of sharing whenever they happened. I worked towards the generation of a reflective process for the group members. Free communication in the group is also beneficial for increasing social capital and

mutual trust (Aaltonen, Seikkula, & Lehtinen, 2011). One of the distinctive features of the psychotic patient's social environment is that there are often no one to whom the patient can offer his or her social support (Hamilton, Ponzoha, Cutler, & Weigel, 1989). The mutuality of patients' problems and therefore resolutions can develop their ability to give as well as receive in social affairs, and thereby not be experienced only as a patient (Aaltonen et al., 2011). Successful research findings are reported by Aaltonen and Seikkula (Aaltonen et al., 2011; Seikkula et al., 2006) for the psychotherapeutic approaches to psychosis patients, where the dialogue is put in the center of the process and the therapist's main role is to allow and enrich the mutual sharing.

In our case, the benefit of promoting dialogue was observed at the later stages of the process, when members mentioned the value of the group for them, stating how they felt they were being listened to, understood, cared for and accepted in the group.

# 5    RESULTS

A paired-samples t-test was conducted to compare the general functionality of clients, measured by the Global Assessment of Functioning Scale (GAF – İGD) in the pre-therapy-process and post-therapy-process conditions. There was a significant difference in the scores for pre-therapy-process ($M = 46.17$, $SD = 7.47$) and post-therapy-process ($M = 60.50$, $SD = 4.51$) conditions; $t(5) = -3.70$, $p = .014$. In the session notes, it is observed that Client No. 1, who was concerned before the process about coming to the hospital for sessions and who was also accompanied by her father the entire time, started voluntarily working at the same hospital 4 days a week and traveling by herself. Client No. 2, who shared his sadness at the beginning of the process about not being married, began a relationship and started planning for marriage during our meetings. Also, each member of the group was observed to be more active in each therapeutic activity towards the end of the process and better able to focus and ruminate less. Changes at the individual and group level can be seen in Figure 1.
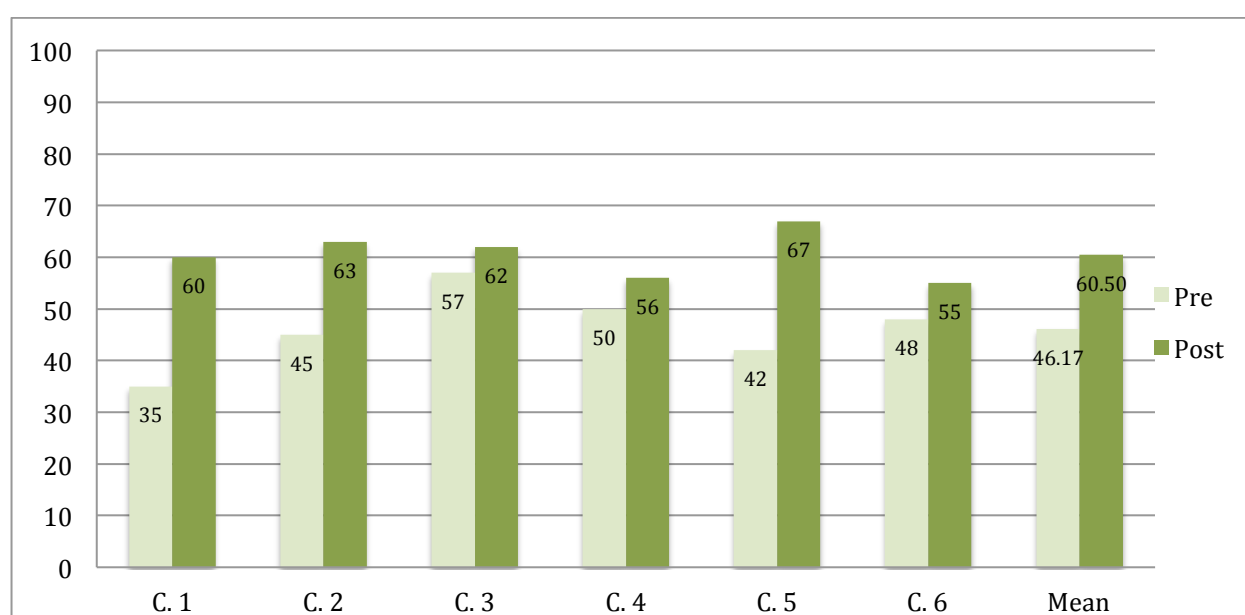


Figure 1. Changes at the individual and group level in Global Assessment of the Functioning Scale (GAF – İGD) general functionality scores

A paired-samples t-test was conducted to compare the personal and social performance of clients, measured by the Personal and Social Performance Scale (PSP – BSPÖ) in the pre-therapy-process and post-therapy-process conditions. There was a significant difference in the scores for the pre-therapy-process ($M = 46.50$, $SD = 9.85$) and post-therapy-process ($M = 69.33$, $SD = 6.38$) conditions; $t(5) = -6.05$, $p = .002$. In the session notes, it is observed that Client No. 1 started coming to the hospital by herself and even started working voluntarily in the hospital for 4 days per week. Client No. 6 stated he doesn't miss bus stops as he used to. Several clients stated they can focus better on the musical games compared to before, and it is observed that they were more active in musical activities and that they ruminate less. At one point, Client No. 4 voiced his observation that the attendance and participation in this therapy group was higher compared to that in other groups. Client No. 6, who is observed to be the most silent and least interacting client in this process, also said that he discussed with his family a decision that they had taken for him. He said that he had objected to this decision and managed to change it, which shows unusually active social performance for him. Also Client No. 2 started planning to get married during our process. Changes at the individual and group level can be seen in Figure 2.
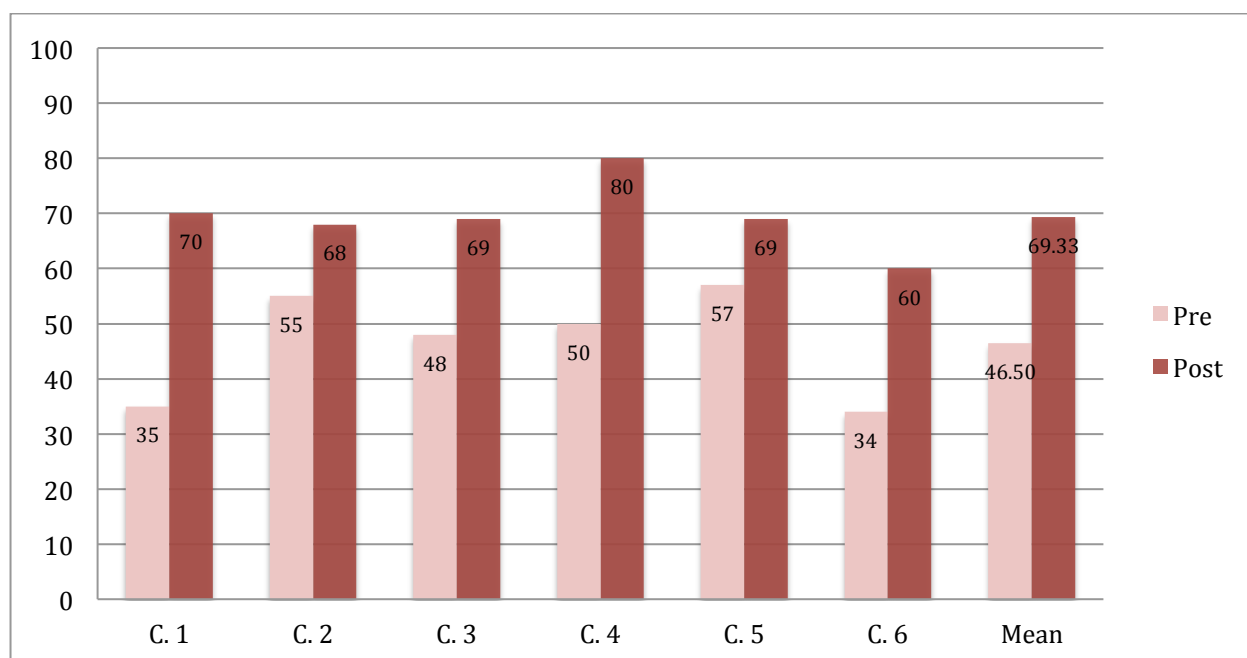


Figure 2. Changes at the individual and group level on the Personal and Social Performance Scale (PSP – BSPÖ) general functionality scores

A paired-samples t-test was conducted to compare the extent of the clients' self-confidence in coping with stress, measured by the first dimension of Ways of Coping Scale (WOCS – SBTÖ) in the pre-therapy-process and post-therapy-process conditions. There was a non-significant difference in the scores for pre-therapy-process ($M = 1.07$, $SD = 0.64$) and post-therapy-process ($M = 1.42$, $SD = 1.01$) conditions; $t(5) = -1.83$, $p = .126$. Although the group mean increased, the increase was not at a significant level. In the session notes, it was observed that Client No. 2 started playing an instrument, "breaking his childhood oath not to". He was also willingly taking solos and playing the lead melody during group performances, which is a sign of being self-confident in music therapy. It was observed that Clients No. 3 and 5, whose scores increased, seldom took the floor at the beginning of the process but were doing it often towards the end. Changes at the individual and group level can be seen in Figure 3.
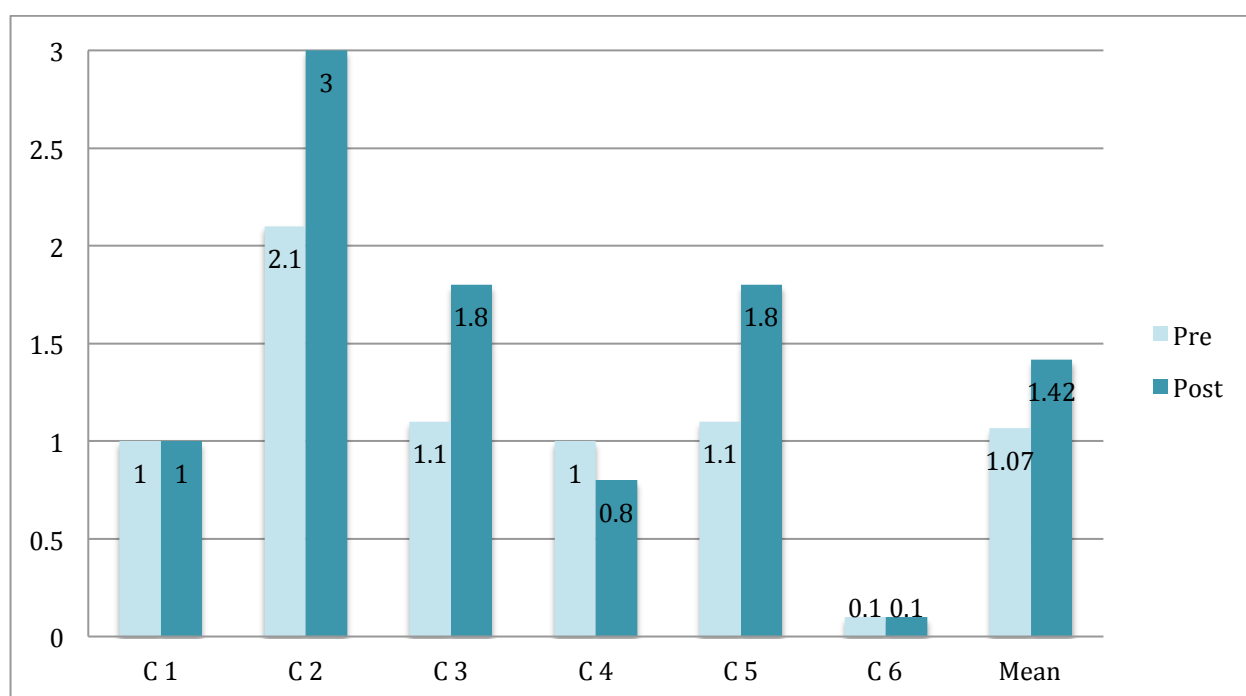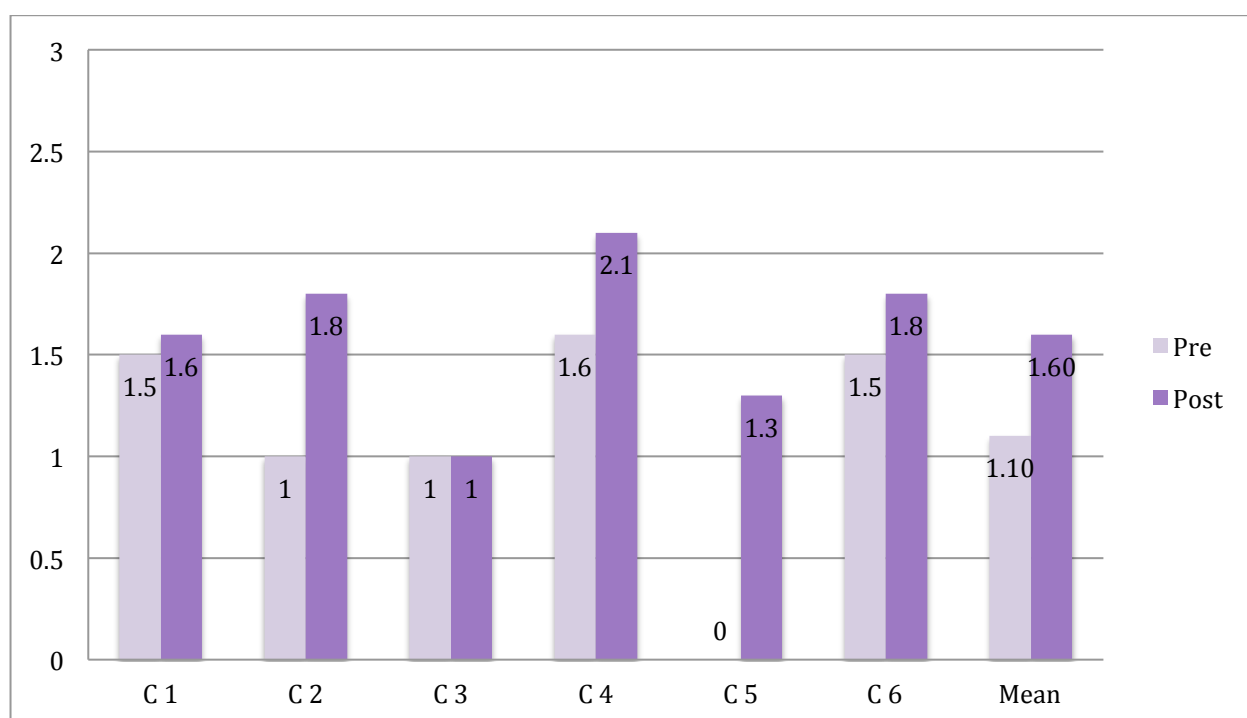


Figure 3. Changes at the individual and group level in self-confident ways of coping dimension of Ways of Coping Scale (WOCS – SBTÖ)

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of clients' helpless ways of coping with stress, measured by the second dimension of the Ways of Coping Scale (WOCS – SBTÖ) in pre-therapy-process and post-therapy-process conditions. The results of that analysis indicated that there was a significant difference in the amount of helpless ways of coping with stress, $z = -2.02$, $p < .05$. Changes at the individual and group level can be seen in Figure 4.
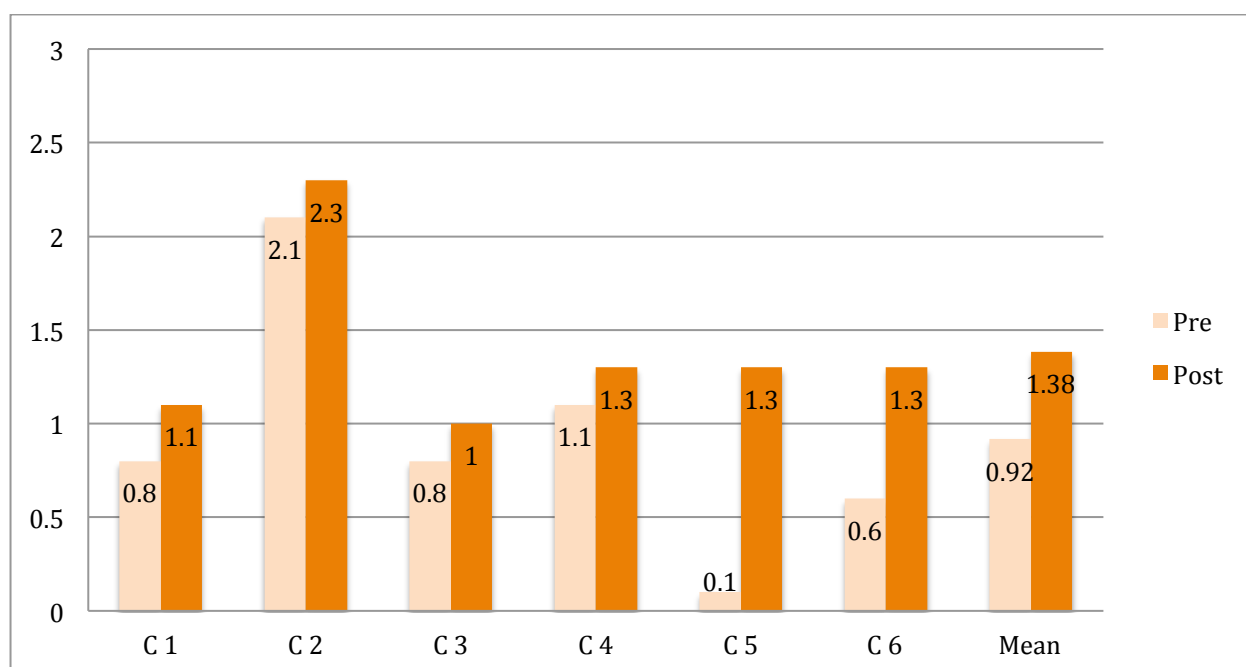


Figure 4. Changes at the individual and group level in helpless ways of coping dimension of Ways of Coping Scale (WOCS – SBTÖ)

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of the clients' submissive ways of coping with stress, measured by the second dimension of the Ways of Coping Scale (WOCS – SBTÖ) in pre-therapy-process and post-therapy-process conditions. Results of that analysis indicated that there was a significant difference in the amount of helpless ways of coping with stress, $z = -2.23$, $p < .05$. Changes at the individual and group level can be seen in Figure 5.
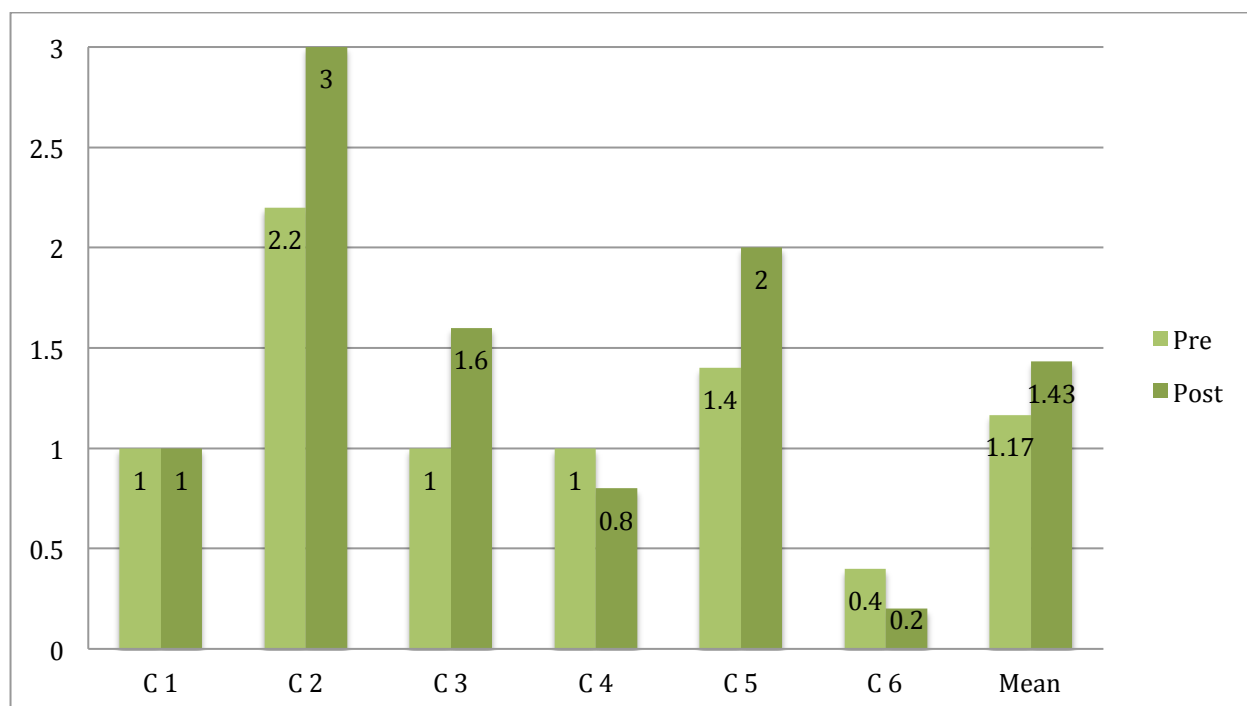


Figure 5. Changes at the individual and group level in submissive ways of coping dimension of Ways of Coping Scale (WOCS – SBTÖ)

A paired-samples t-test was conducted to compare the extent to which clients utilize optimistic ways of coping with stress, measured by the fourth dimension of the Ways of Coping Scale (WOCS – SBTÖ) in pre-therapy-process and post-therapy-process conditions. There was a non-significant difference in the scores for pre-therapy-process ($M = 1.17$, $SD = 0.60$) and post-therapy-process ($M = 1.43$, $SD = 0.99$) conditions; $t(5) = -1.45$, $p = .21$. Although the group mean has increased, the increase is not at a significant level. Changes at the individual and group level can be seen in Figure 6.
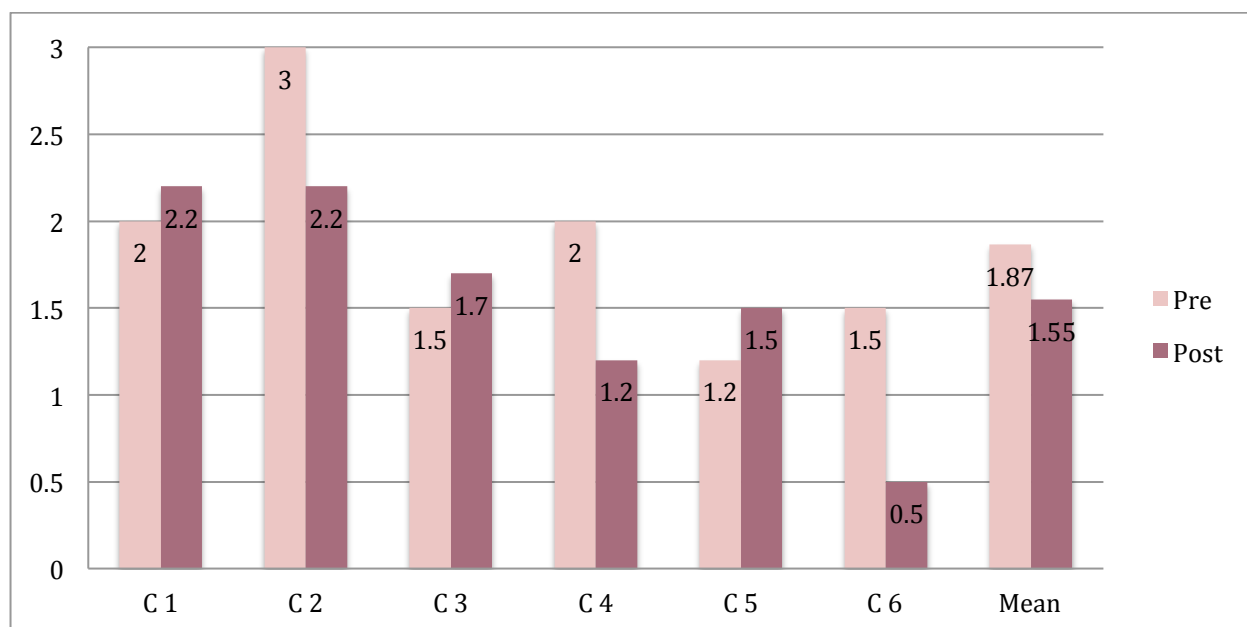


Figure 6. Changes at the individual and group level in optimistic ways of coping dimension of Ways of Coping Scale (WOCS – SBTÖ)

A paired-samples t-test was conducted to compare clients' amount of social-support-seeking ways of coping with stress, measured by the fifth dimension of Ways of Coping Scale (WOCS – SBTÖ) in pre-therapy-process and post-therapy-process conditions. There was a non-significant difference in the scores for pre-therapy-process ($M = 1.87$, $SD = 0.64$) and post-therapy-process ($M = 1.55$, $SD = 0.65$) conditions; $t(5) = 1.28$, $p = .26$. The group mean has decreased; the decrease is not at a significant level. In the session notes, there is no support for this decrease. Changes at the individual and group level can be seen in Figure 7.



Figure 7. Changes at the individual and group level in social-support-seeking ways of coping dimension of Ways of Coping Scale (WOCS – SBTÖ)

A paired-samples t-test was conducted to compare clients' anxiety, measured by Beck Anxiety Inventory (BAI – BAÖ) in pre-therapy-process and post-therapy-process conditions. There was a non-significant difference in the scores for pre-therapy-process ($M = 26.00$, $SD = 14.46$) and post-therapy-process ($M = 29.83$, $SD = 18.19$) conditions; $t(5) = -1.12$, $p = .31$. The group mean has increased; the increase is not at a significant level. In the session notes, there is no support for this increase. It is observed that Client No. 3 stated that he can lately go out without his anxiety problem and that the reasons could be the vacation he took and this therapy process. Changes at the individual and group level can be seen in Figure 8.
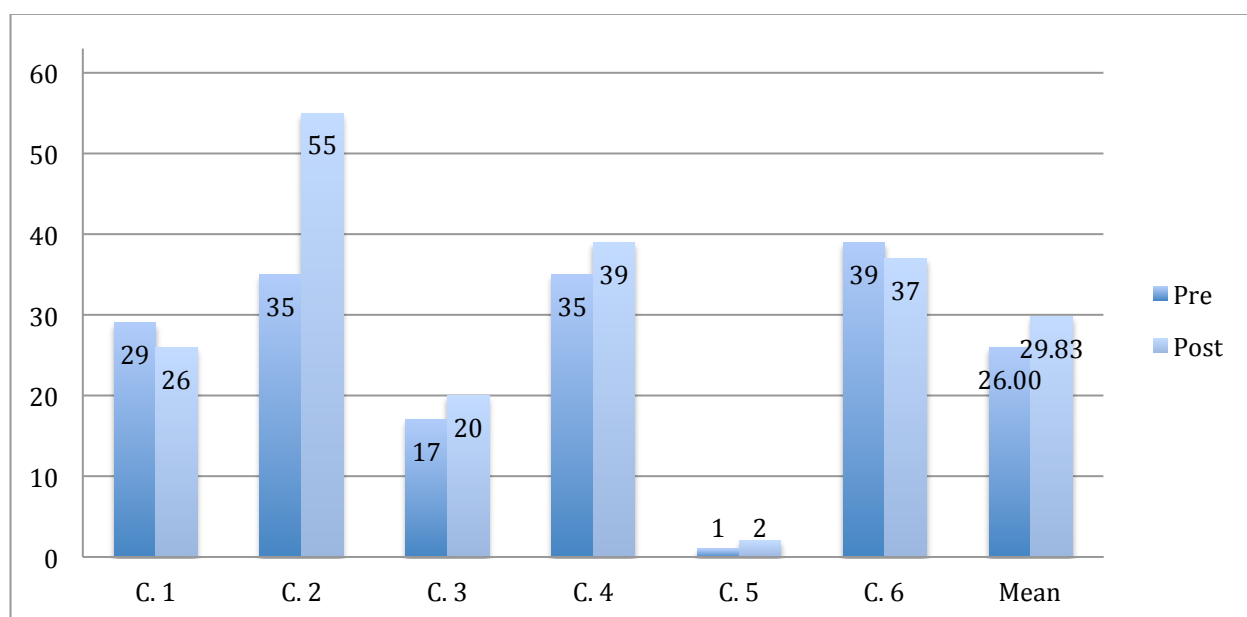


Figure 8. Changes at the individual and group level in anxiety score of Beck Anxiety Inventory (BAI – BAÖ)

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of clients' depression levels, measured by Beck Depression Inventory (BDI – BDE) in pre-therapy-process and post-therapy-process conditions. Results of that analysis indicated that there was a significant difference in the amount of clients' depression levels, $z = -2.21$, $p < .05$. In session notes, it is observed that during group performances, clients chose more instruments and used wider dynamic variety in their performances near the end of the process, which is a relevant music therapy indicator towards less depression levels. It is also observed that Client No. 6 mentioned that he is happy in this group and prefers it to going to vacation with his family. Changes at the individual and group level can be seen in Figure 9.
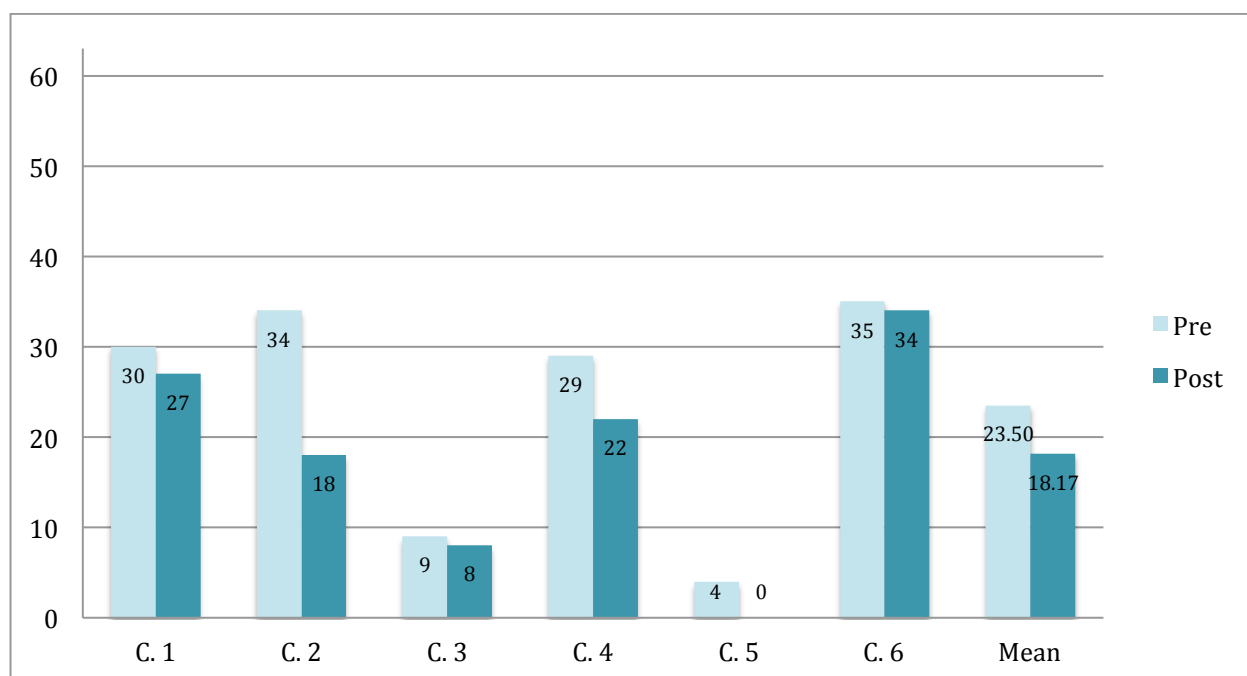
Figure 9. Changes at the individual and group level in depression score of Beck Depression Inventory (BDI – BDE)

A paired-samples t-test was conducted to compare clients' assumptions about how much control they vs. external forces have on everyday situations, measured by Rotter's Locus of Control Scale (RLOCS – RİDKOÖ) in pre-therapy-process and post-therapy-process conditions. Since the data for Client No. 5 was missing, this has done with data from 5 other clients. There was a non-significant difference in the scores for pre-therapy-process ($M = 12.00$, $SD = 4.30$) and post-therapy-process ($M = 10.80$, $SD = 5.26$) conditions; $t(4) = 0.97$, $p = .39$. The group mean has increased, which means more attribution towards external forces for everyday situations; the increase is not at a significant level. In the session notes, there is no support for this change. Changes at the individual and group level can be seen in Figure 10.
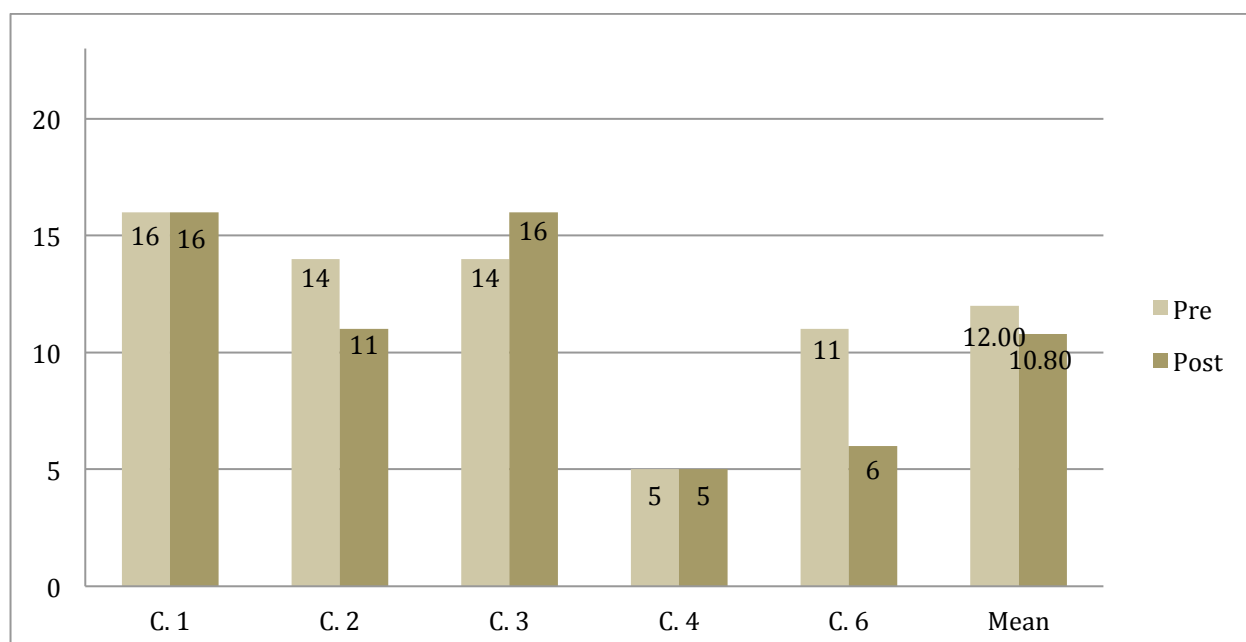


Figure 10. Changes at the individual and group level in assumptions about what control participants vs. external forces have on everyday situations according to Rotter's Locus of Control Scale (RLOCS – RİDKOÖ)

A paired-samples t-test was conducted to compare functional remission, measured by Functional Remission of General Schizophrenia Scale (FROGS – ŞİDÖ) in pre-therapy-process and post-therapy-process conditions. Since the data for Client No. 5 was missing, this has done with data from 5 other clients. There was a non-significant difference in the scores for pre-therapy-process ($M$ = 52.80, $SD$ = 15.42) and post-therapy-process ($M$ = 59.20, $SD$ = 8.29) conditions; $t(4)$ = -1.42, $p$ = .23. Although the group mean has increased; the increase is not at a significant level. In the session notes, this increase is supported by the fact that Client No. 1 started working voluntarily 4 days per week and by that all clients started having more empathy towards other members in therapeutic activities. Also, at one point Client No. 4 stated that lately he started to go out more and that this might be because of the music therapy process. Changes at the individual and group level can be seen in Figure 11.
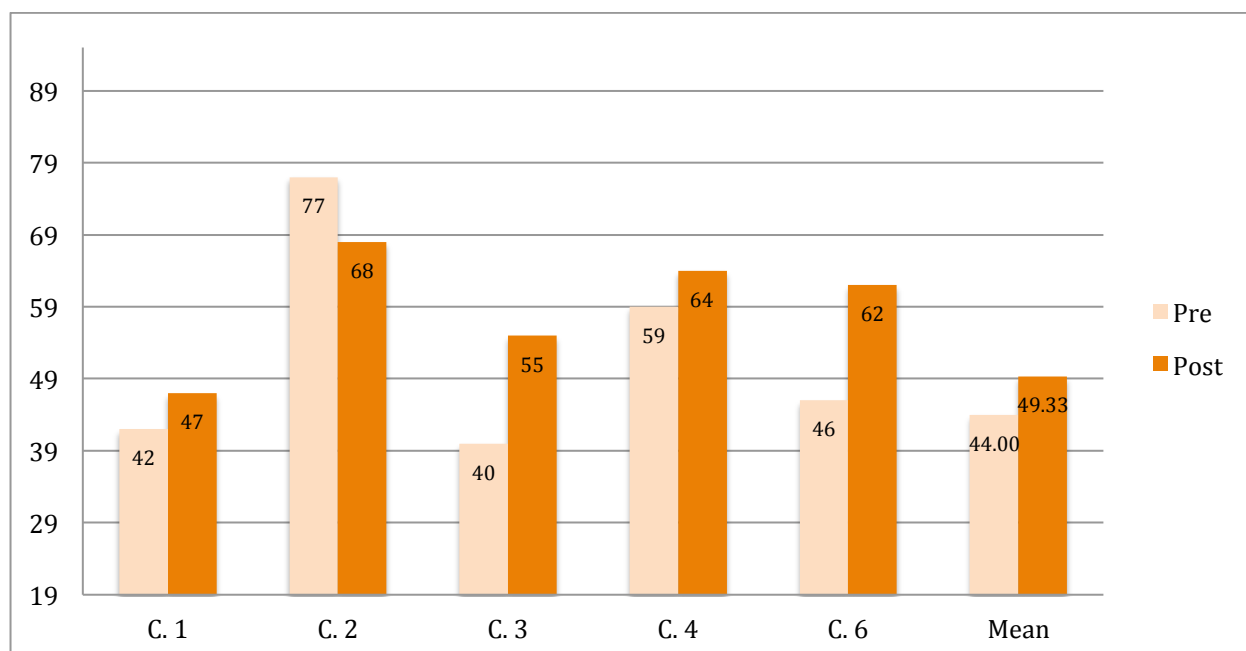


Figure 11. Changes at the individual and group level in functional remission score of Functional Remission of General Schizophrenia Scale (FROGS – ŞİDÖ)

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of clients' difficulties in emotion regulation related to difficulties in goal directed behavior, measured by the first dimension of Difficulties in Emotion Regulation Scale (DERS – DDGÖ) in pre-therapy-process and post-therapy-process conditions.  Results of that analysis indicated that there was a non-significant difference in the amount of clients' difficulties in emotion regulation related to difficulties in goal directed behavior, $z = -0.53$, $p > .05$. Changes at the individual and group level can be seen in Figure 12.
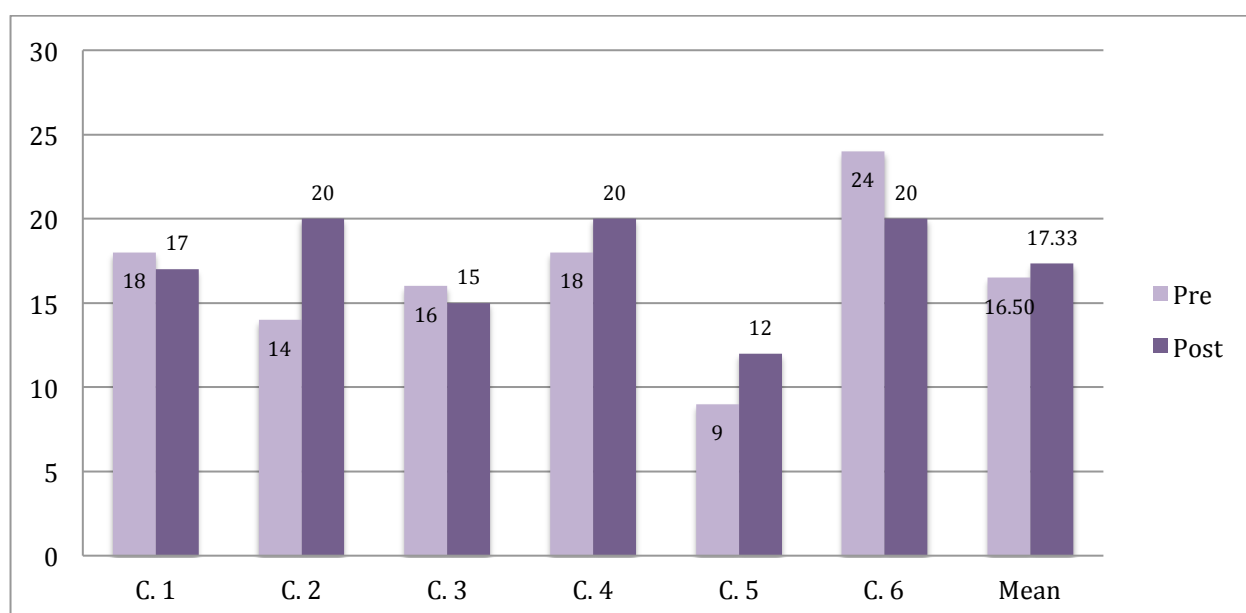


Figure 12. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in goal directed behavior according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of clients' difficulties in emotion regulation related to difficulties in emotion regulation strategies, measured by the second dimension of Difficulties in Emotion Regulation Scale (DERS – DDGÖ) in pre-therapy-process and post-therapy-process conditions.  Results of that analysis indicated that there was no difference in the amount of clients' difficulties in emotion regulation related to strategies in emotion regulation strategies, $z = 0.00$, $p = 1.00$. Changes at the individual and group level can be seen in Figure 13.
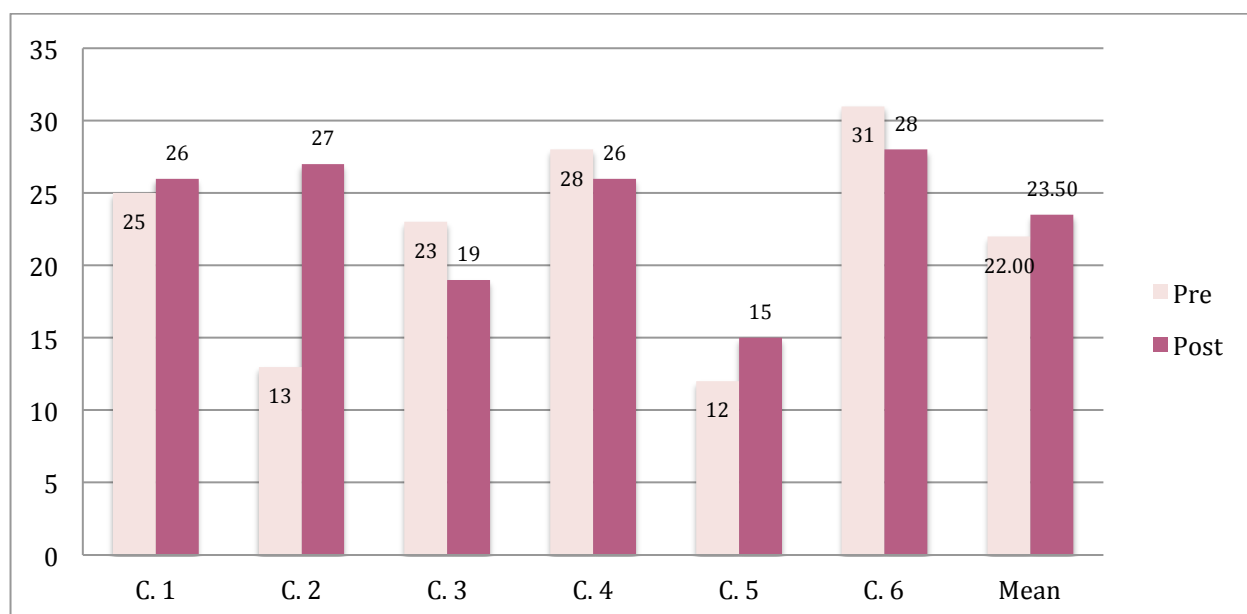


Figure 13. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in emotion regulation strategies according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

Since the data was not normally distributed, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the amount of clients' difficulties in emotion regulation related to difficulties in non-acceptance of emotional responses, measured by the third dimension of Difficulties in Emotion Regulation Scale (DERS – DDGÖ) in pre-therapy-process and post-therapy-process conditions.  Results of that analysis indicated that there was a non-significant difference in the amount of clients' difficulties in emotion regulation related to difficulties in non-acceptance of emotional responses, $z = -0.32$, $p > .05$. Changes at the individual and group level can be seen in Figure 14.
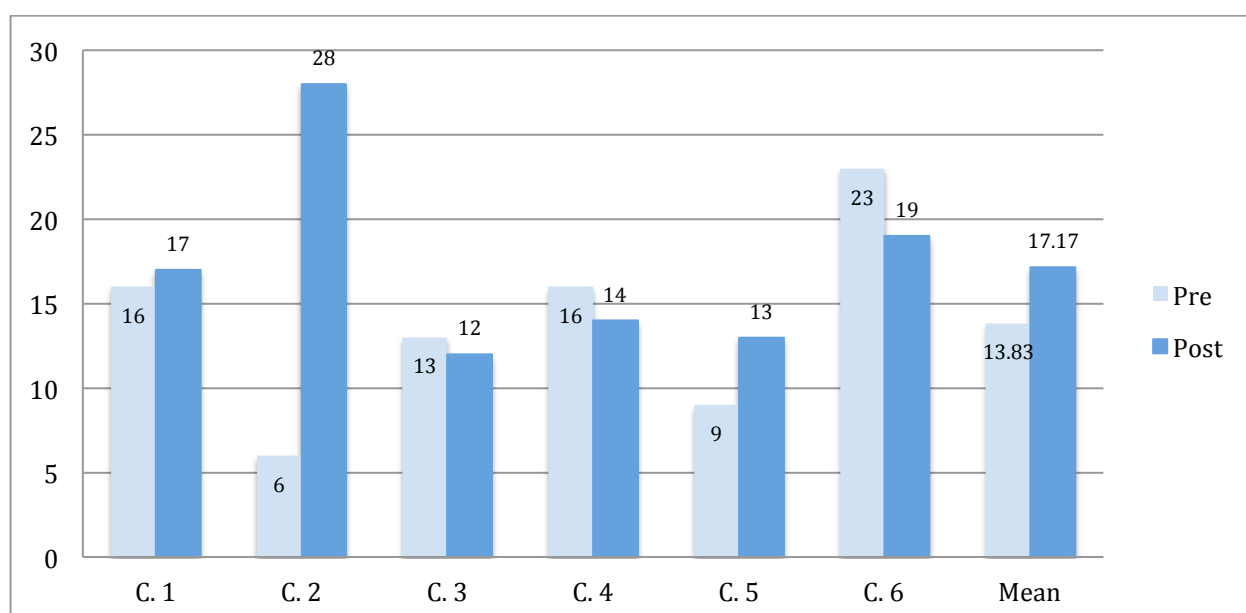


Figure 14. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in non-acceptance of emotional responses according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

A paired-samples t-test was conducted to compare clients' difficulties in emotion regulation, specifically related to difficulties in impulse control, measured by the fourth dimension of Difficulties in Emotion Regulation Scale (DERS – DDGÖ) in pre-therapy-process and post-therapy-process conditions. There was a non-significant difference in the scores for pre-therapy-process ($M = 14.50$, $SD = 4.85$) and post-therapy-process ($M = 15.00$, $SD = 3.90$) conditions; $t(5) = -0.81$, $p = .456$. The group mean has increased; the increase is not at a significant level. In the session notes this increase is not supported. Changes at the individual and group level can be seen in Figure 15.
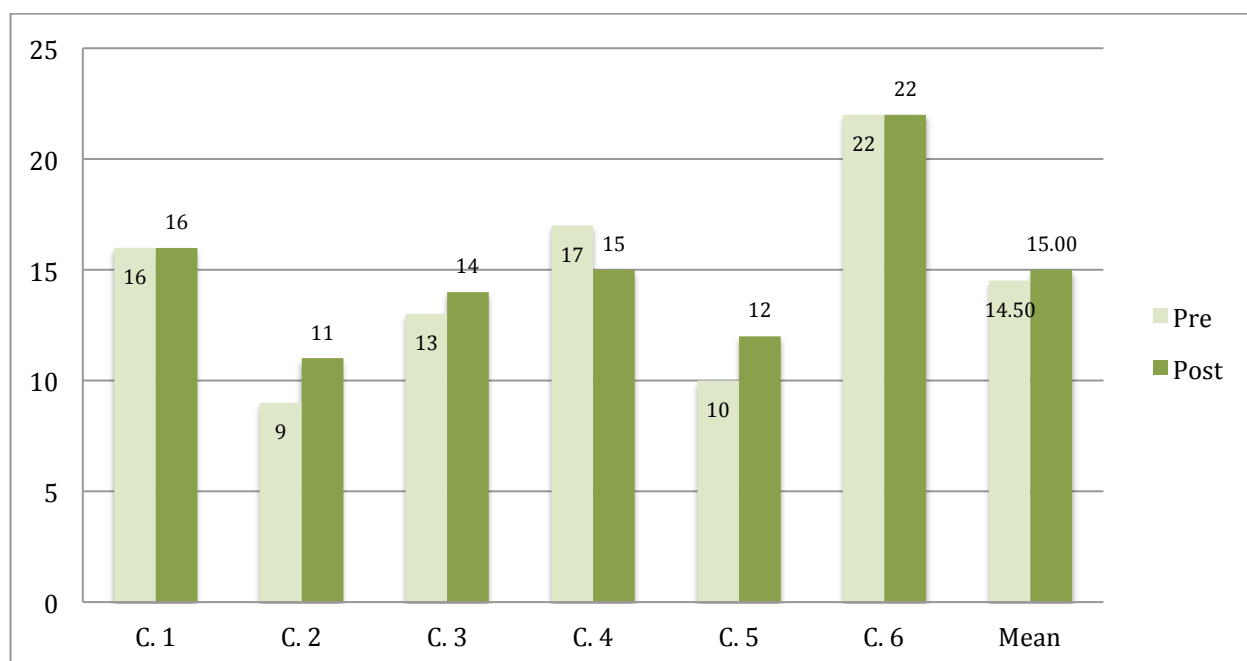


Figure 15. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in impulse control according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

Clients' difficulties in emotion regulation related to emotional clarity are measured by the fifth dimension of Difficulties in Emotion Regulation Scale (DERS – DDGÖ) in pre-therapy-process and post-therapy-process conditions. There were individual changes, but the mean of the group didn't change. Scores for pre-therapy-process had $M = 13.33$, $SD = 3.72$ and post-therapy-process had $M = 13.33$, $SD = 3.20$. Changes at the individual and group level can be seen in Figure 16.
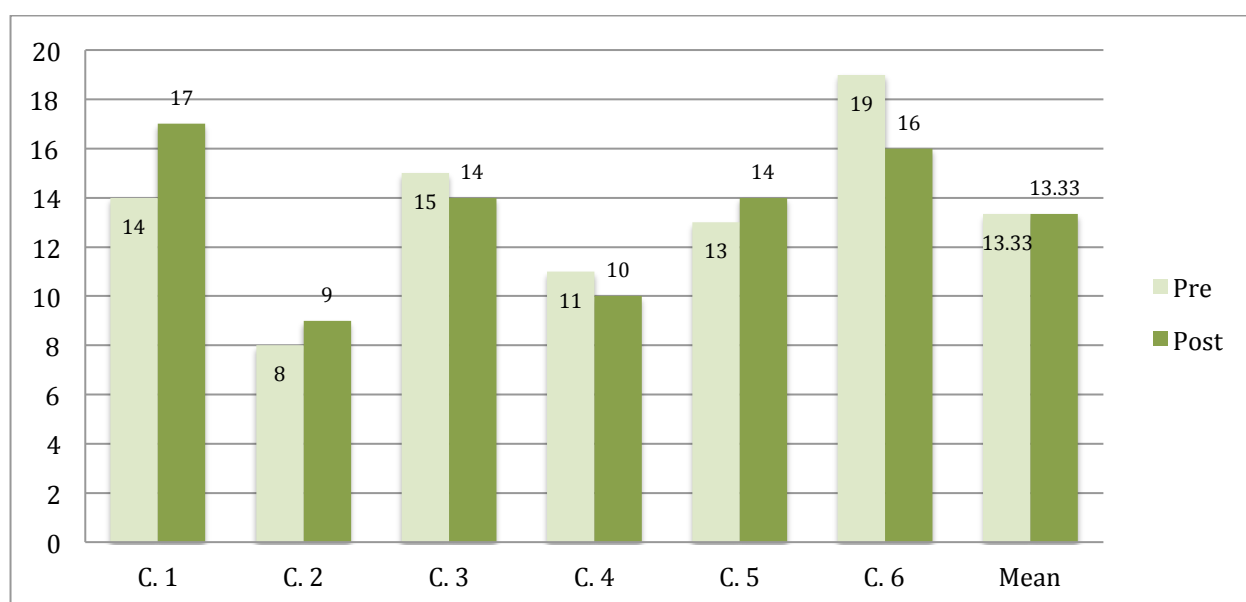


Figure 16. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in emotional clarity according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

A paired-samples t-test was conducted to compare clients' difficulties in emotion regulation, specifically related to difficulties in emotional awareness, measured by the sixth dimension of DERS - DDGÖ in pre-therapy-process and post-therapy-process conditions. There was a significant difference in the scores for pre-therapy-process ($M = 19.83$, $SD = 3.19$) and post-therapy-process ($M = 17.83$, $SD = 2.56$) conditions; $t(5) = 2.74$, $p = .041$. The group mean has decreased at a significant level. In the session notes, it is observed that towards the end of the process all clients start using more emotional descriptive words in both music therapy activities and daily and expressive discussions. Especially unpleasant feelings such as "sadness, anger and panic" were verbalized. Changes at the individual and group level can be seen in Figure 17.
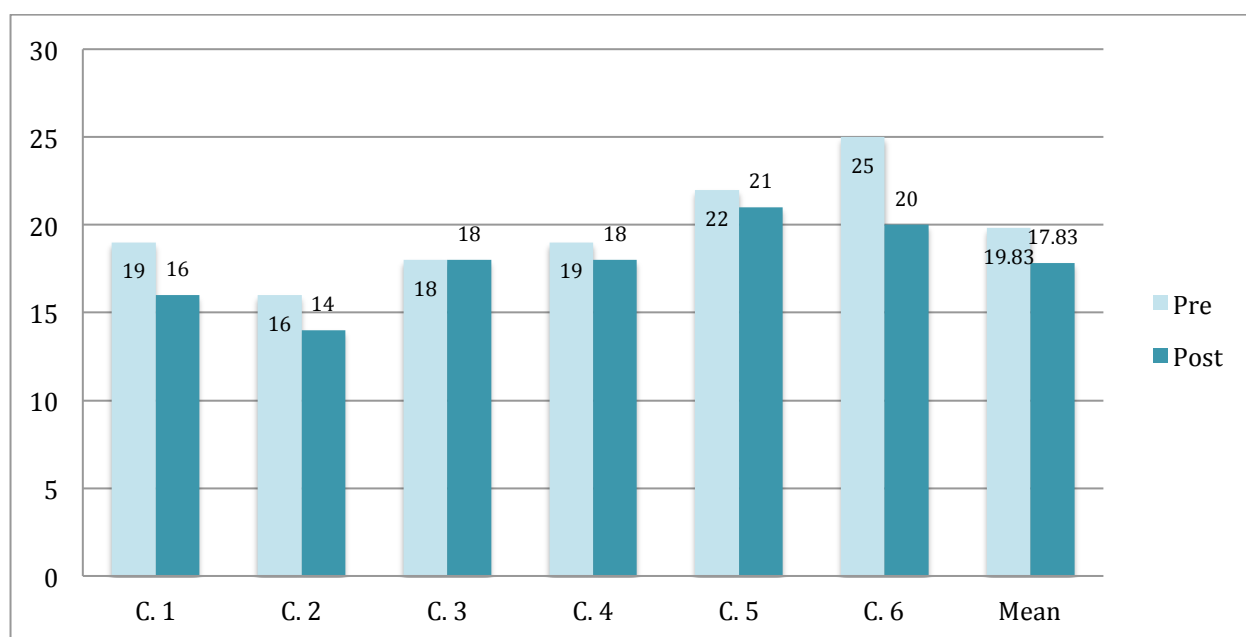


Figure 17. Changes at the individual and group level in difficulty in emotion regulation related to difficulties in emotional awareness according to Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores

When Group Therapeutic Factors List (GTFL – GSEL) is examined for clients' evaluations of the most beneficial aspect of this specific music therapy process, Instillation of Hope takes the highest place ($M$ = 16.60, $SD$ = 2.41), Cohesiveness takes the second place ($M$ = 16.40, $SD$ = 3.29) and Interpersonal Learning – Output takes the third place ($M$ = 15.80, $SD$ = 5.07).

To support the importance of "Instillation of Hope" dimension of the process for the members, in session notes, it is observed that Client No. 2, who was sharing his sadness because he couldn't marry and build his own family, stated that he is seeing someone and planning their marriage with their families towards the end of the process.

Cohesiveness is one of the most mentioned qualities of this group according to session notes. Client No. 6 mentioned that he had friends in this group and he prefers to come to the group instead of going to vacation. At the end of an improvisation, a verbal sharing of "We sounded different than each other, but coherent." was observed. Client No. 1 stated that she wonders how other animals' – which were chosen by other clients – stories were. Two clients asked the group's opinion about adding their feeling word suggestion to the feelings list. Also from this list, it is observed that "being accepted" was one that was picked exceptionally often to express current feeling of a member.

The importance of the "Interpersonal Learning – Output" dimension, which evaluates how much one gained insight or learned about how to behave towards others from interpersonal relationships in the group, is also supported by session notes. Two clients asked the group's opinion about adding their feeling word suggestion to the feelings list. Also this dialogue between me and Client No. 1 took place:

> Client No. 1 played very coherently with the group during the improvisation, not as loudly or as individualistic as she was before. She also mentioned this coherence that she heard, during the verbal sharing after the improvisation.
> …
> T: "How did *you* sound compared to previous sessions' improvisations?"
> C. 1: "I listened to others and it sounded more coherent."
> T: "Oh, sometimes when we listen to others, we can be more coherent..."
> C. 1: "Yeah! Just like in real life..."

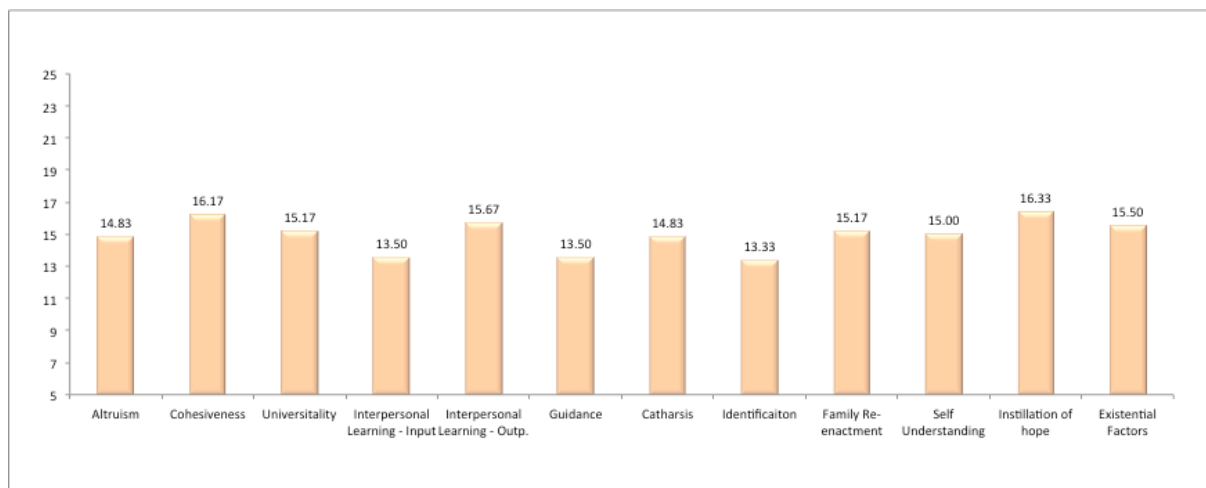Means of the ratings as a group for each dimension can be seen in Figure 18.



Figure 18. Means of the ratings as a group for each dimension of Group Therapeutic Factors List (GTFL – GSEL)

Clients' individual ratings compared to the group mean for each dimension can be seen in Figure 19-24.



Figure 19. Individual ratings of Client No. 1 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)

Figure 20. Individual ratings of Client No. 2 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)



Figure 21. Individual ratings of Client No. 3 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)

Figure 22. Individual ratings of Client No. 4 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)
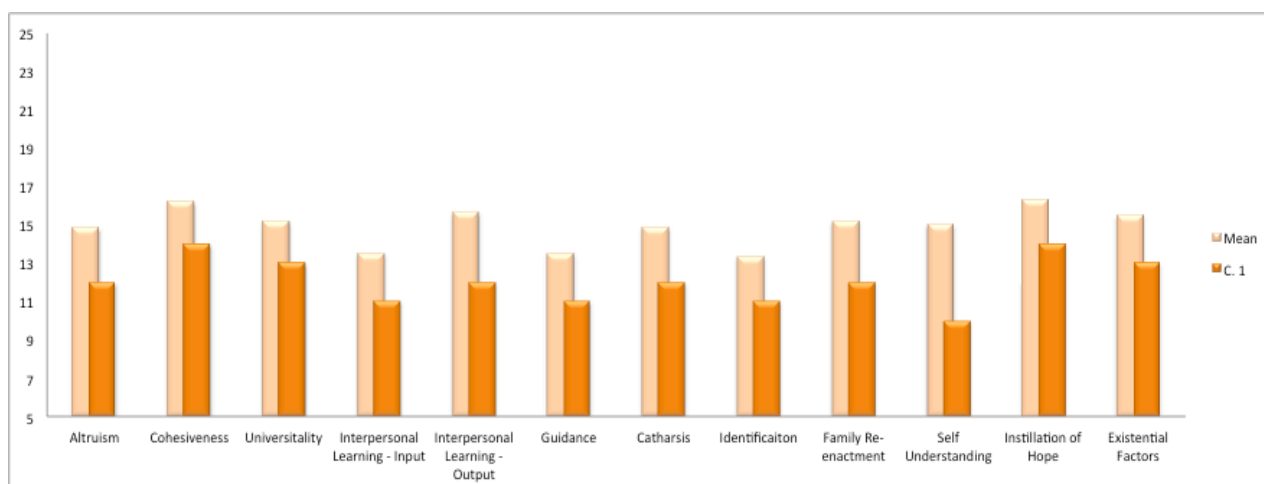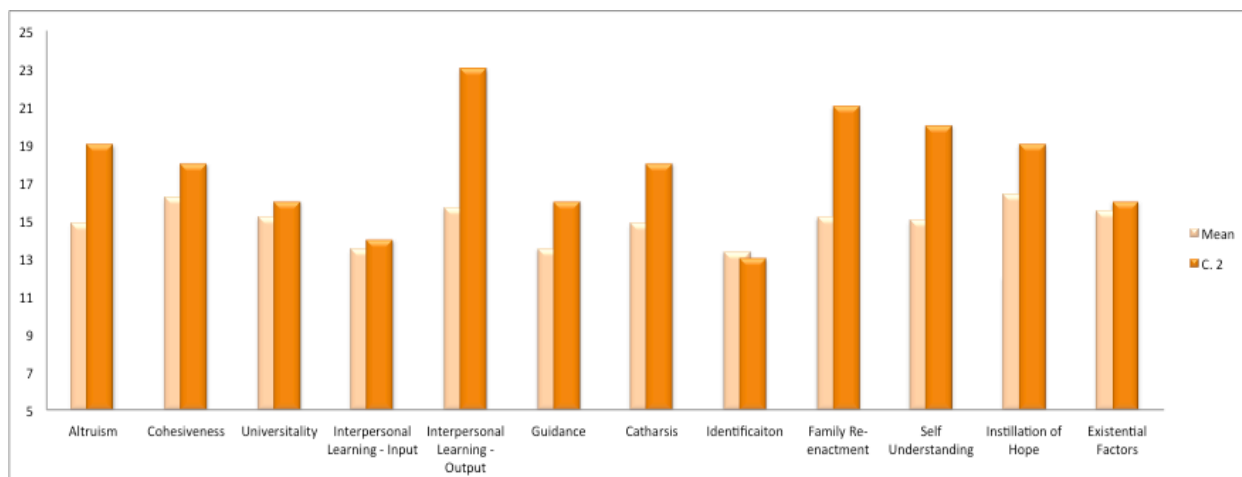


Figure 23. Individual ratings of Client No. 5 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)
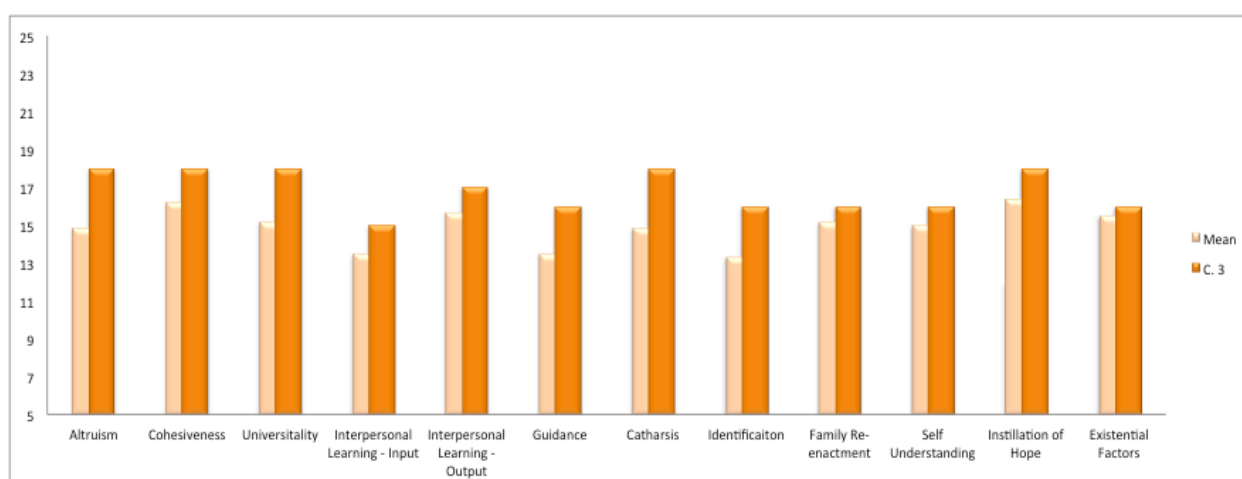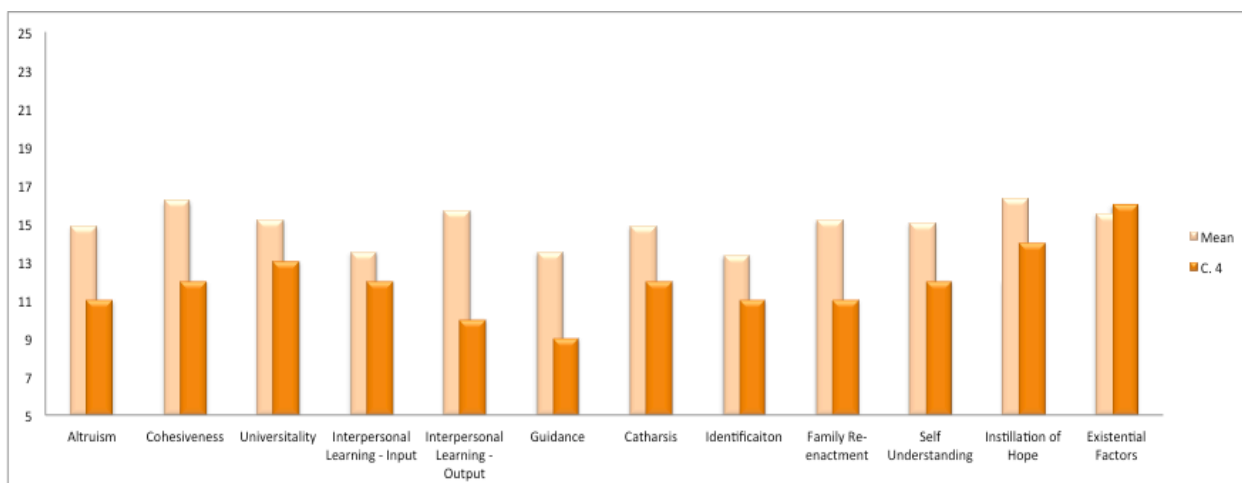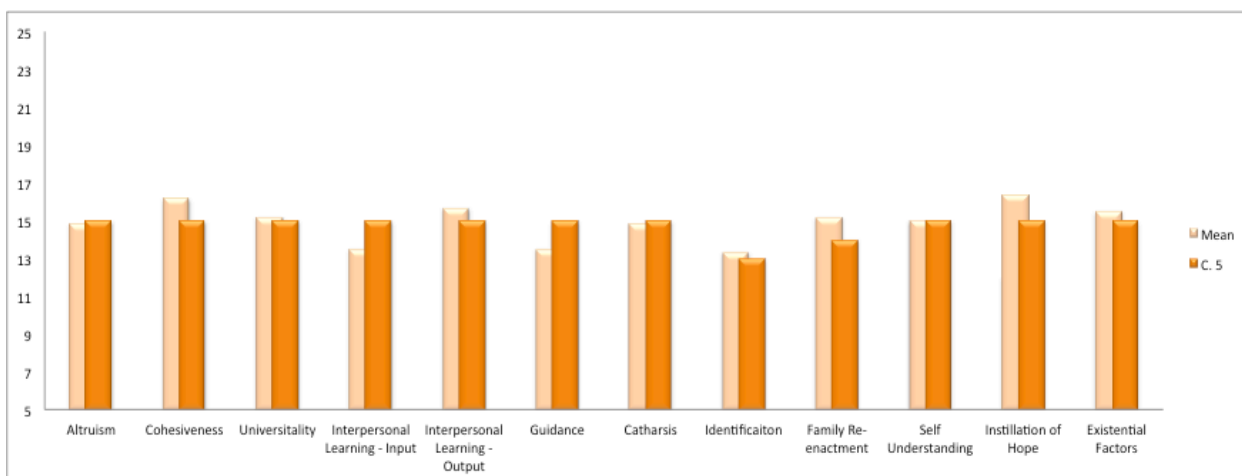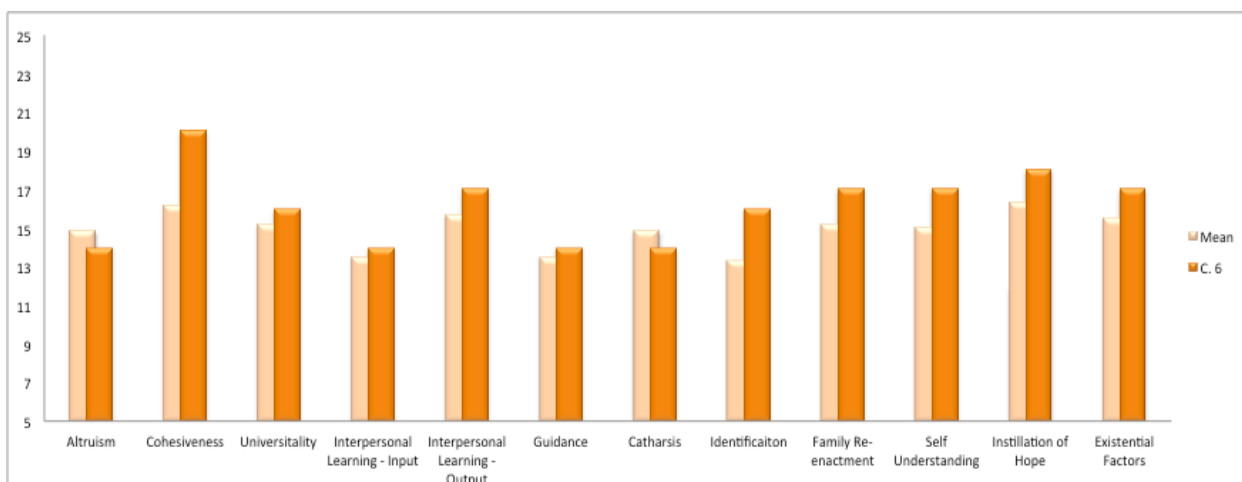


Figure 24. Individual ratings of Client No. 6 next to the group means of each dimension of Group Therapeutic Factors List (GTFL – GSEL)

# 6    CONCLUSION

This research has examined in what areas eclectic music therapy is helpful for out-patients diagnosed with schizophrenia in a Turkish university hospital. A 2.5 months long music therapy process was held with 8 patients (6 by the end), in which the group met twice per week. The scores obtained from pre (before the process) and post (at the 19$^{th}$ session) tests have been analyzed, and the therapy crew's session notes have been examined for similarities. The results show that during the eclectic music therapy process, significant changes have occurred in multiple aspects of members' life.

Global Assessment of Functioning Scale (İşlevselliğin Genel Değerlendirilmesi) –and Personal and Social Performance Scale (Bireysel ve Sosyal Performans Ölçeği) show that general functionality and personal and social performance have risen significantly. Our results suggest that eclectic music therapy did have a positive effect on the personal and social performance of clients. Specifically, our results suggest that when people diagnosed with schizophrenia receive eclectic music therapy, their personal and social performance increase.

The Beck Depression Inventory - Beck Depresyon Envanteri shows that the group's depression level has been reduced significantly. The results indicate that eclectic music therapy did have a negative effect on clients' depression levels. Specifically, our results suggest that when people diagnosed with schizophrenia receive eclectic music therapy, their depression levels decrease.

Ways of Coping Scale - Stresle Başa Çıkma Tarzları Ölçeği shows that members' ways of coping with stress has risen significantly in submissive and helpless styles of coping. The results indicate that eclectic music therapy did have a positive effect on clients' submissive and helpless ways of coping with stress.

Difficulties in Emotion Regulation Scale - Duygusal Düzenleme Güçlüğü Ölçeği shows that members' difficulties in emotion regulation have been reduced significantly through increased emotional awareness. The results suggest that eclectic music therapy did have a negative effect on clients' difficulties in emotion regulation, specifically related to difficulties in

emotional awareness. Specifically, our results suggest that when people diagnosed with schizophrenia receive eclectic music therapy, their difficulties in emotion regulation related to difficulties in emotional awareness decrease.

Beck Anxiety Inventory - Beck Anksiyete Ölçeği, Rotter's Locus of Control Scale  - İç-Dış Kontrol Odağı Ölçeği, Functional Remission of General Schizophrenia Scale - Şizofreni Hastalarında İşlevsel İyileşme Ölçeği show no significant change. The results suggest that eclectic music therapy may or may not have an effect on clients' anxiety level, on clients' assumptions about how much control they vs. external forces have on everyday situations and on clients' functional remission.

Group Therapeutic Factors List - Grup Sağaltıcı Etmenler Listesi shows that this group therapy process has been beneficial for the members primarily by instillation of hope, secondarily by its cohesiveness and tertiary by giving members chance to gain insight or learn about how to behave towards others from interpersonal relationships in the group (Interpersonal Learning – Output dimension).

# 7    DISCUSSION

The 2.5 month long eclectic music therapy process, which was held to evaluate the benefits it provides to out-patients diagnosed with schizophrenia, started with 8 members. After one early drop-out and one other member leaving the city midway through the process, it was completed with 6 members. After analyzing test results and observational session notes, we came to the conclusion that this process was beneficial for the participants on multiple dimensions.

During the process, some specific events may have had positive and negative effects on the procedure. Concerning both internal and external validity, they should be noted. First, there was an interruption because of a national holiday around the middle of the process. Although the members were notified about this beforehand, it took a couple sessions to get back to the trusting and cohesive group atmosphere afterwards, likely because of the severity of members' anxiety due to their condition.

The social worker that attended all the sessions switched twice during the process because of their official summer break (i.e., at the 7th session and back to the first one at the 15th session). Although the situation was explained to the clients in the beginning of the process and before and after each switch, it caused a subtle uneasiness in the group because of the change-averse nature of the population.

The patients were all on standard medical care during the process, so the change might be partly due to standard care. No participant started a new treatment throughout the process.

Because both Global Assesment of Functioning Scale (GAF - İGD) and Personal and Social Performance Scale (PSP - BSPÖ) are tests that are scored by not the participant but an independent scorer (social workers at this case), changes can only be evaluated if the pre and post-tests are scored consentaneously. Therefore, the same team of two social workers rated these tests before and after the process.

In most of the test scores, the data was normally distibuted (i.e., participants didn't have extreme scores). Nonparametric analysis was used to analyze for the ones with non normal distributed data (i.e., the cases where participants had extreme scores).

Participants were chosen by qualified personnel among patients who would supposedly benefit from music therapy and who were willing to take music therapy; they were not randomized.

Because of the general qualities of this university hospital, the participants were from various sociocultural backgrounds.

Looking at all these qualities of the research and the low sample size, it can be reported that this research's results reflects the benefits of the music therapy for this specific group, while generalizibility is limited. The fact that significant effects of music therapy were found even with this small number of patients could be an indication of the potential effects of music therapy for this population.

This specific music therapy process achieved similar results to literature findings. In music therapy research literature, it is reported in meta-analyses that music therapy, when added to standard care, has significant effects on global state, general symptoms, negative symptoms, depression, anxiety, functioning, and musical engagement of people diagnosed with severe mental illnesses (Gold et al., 2009). Our research results are in line with these findings. Functioning and depression levels changed significantly for the better on Global Assesment of Functioning Scale (GAF - İGD), Personal and Social Performance Scale (PSP - BSPÖ) and Beck Depression Inventory (BDI – BDE). The therapy crew also observed that clients experienced big changes in these aspects of their life, such as starting to work, planning a marriage, and being able to resolve issues with family members. Decreasing depression levels are parallel to findings by Lu and colleagues' (2013).

Mössler and colleagues' (2013) meta-analysis on music therapy process with people diagnosed with schizophrenia also suggests that music therapy improves patients' global state and social functioning, which is also what is observed in this research.

In regard to ways of coping with stress, members started using helpless and submissive ways of coping significantly more compared to pre-therapy. Using these coping methods more is related to more depressive personality according to İGD's creator Şahin & Durak (1995). That heir study was done on a different population (i.e., university students) may explain the fact that we have seen significant *decrease* in depression levels in our group, while obtaining an increase in helpless and submissive ways of coping. On the other hand when we look at self-confident and optimistic ways of coping, although it's not significant, we see an increase in these dimensions as well. This suggests that music therapy may have an effect on the overall increase of group's ways of coping in the bigger picture. General increase in group's ways of coping served for better global functioning and less depression levels, which is aligned with the literature (Gold et al., 2009; Mössler et al., 2013)

Significant decrease in emotion regulation difficulties related to lack of emotional awareness is highly possible to be related to the animal games and improvisations leading to working with emotion names. The animal games seemed to work efficiently as a bridge to emotions. The therapy crew also observed the whole groups' greatly increased musical and verbal involvement during these games. Even the quietest members of the group changed their attitude and became very active during these games. This activity was based on everyone experiencing and expressing their emotion and others', which is very likely to improve emotional awareness, as it is observed when Difficulties in Emotion Regulation Scale (DERS – DDGÖ) scores are analyzed. It is worth noting that I had not planned to play these animal games before the process. I observed the group dynamics, needs and inclinations carefully and followed them and this caused the group that was led by me to evolve these games, which resulted in this specific benefit. This is a significant indicator towards the importance of a human-centered therapist stance. In the literature, I could not find studies that use this game to improve emotional awareness; this is a new finding and can be supported by future research.

Functional Remission of General Schizophrenia Scale (FROGS – ŞİDÖ) scores, although non-significant, showed a general increase on functional remission. It is expected that functional remission would be similar to the change on general functionality measured by Global Assesment of Functioning Scale (GAF - İGD) and Personal and Social Performance Scale (PSP - BSPÖ). In our group, all members except one have an increased score for

functional remission. The lack of a significant change may be because of the small sample size, where the single member's score hindered the significant result.

Rotter's Locus of Control Scale (RLOCS – RİDKOÖ) shows a slight, non-significant change on clients' assumptions about how much control they vs. external forces have on everyday situations. This change is towards internal forces, which means that they feel more in control in everyday situations. This may be an effect of music therapy process where members felt control on their instruments and musical choices.

Although not significant, we see a slight increase in anxiety levels according to Beck Anxiety Inventory (BAI – BAÖ). This is not aligned with literature, since music therapy has been seen to decrease the anxiety levels of people diagnosed with schizophrenia (Mössler et al., 2013; Peng, Koo, & Kuo, 2010). This result may have occurred incidentally because of the small sample size, or the hot summer days and insufficient air conditioning may have had an effect on this. De Backer (2004) explains how often psychotic patients experience a sense of intense warmth and heat after musical improvisations. Group members' verbal sharing about the difficulties related to heat in the room was observed by therapy crew in our process several times, as well. The additional summer heat in the session room and outside may have had an effect on anxiety levels.

Group Therapeutic Factors List (GTFL – GSEL) shows that this group therapy process was beneficial for the members primarily through the instillation of hope. In populations with such severe problems, many therapists report that members start to see a brighter future when they see the changes in other members throughout the process (Yalom, 1985). These changes occur many times on the problems that they initially consider unchangeable, but experiencing the possibility of change in the group later results in instillation of hope. This is also assumed in our group. Many members reported positive changes in their lives, which created cumulative hope in the group.

Cohesiveness is the second most beneficial aspect of our group therapy process. There were many instances throughout the process where members shared that they felt accepted and that they have friends among the group. After the members started expressing their feelings using the names of emotions in our games, the group started showing acceptance towards these

expressed feelings and this possibly affected the cohesiveness of the group positively. Members were very punctual about the starting time of the sessions and attendance was very high compared to other group processes. A client also expressed this verbally. We assume that starting and finishing exactly on time and talking about punctuality and its importance had a part in this by creating a solid framework and increasing predictability, which are very important for lowering the anxiety of people with severe mental problems. Members reported having a sense of belonging, which is very rare in the lives of people struggling with schizophrenia. Cohesiveness is assumed to have an effect on higher attendance rate, punctuality and preventing possible loss of hope after drop-outs. In a huge city like İstanbul, most members traveled around 3-5 hours per day for a one-hour session, where they felt they belonged and expressed that it was worth it.

This cohesive group that showed acceptance towards one another's feelings and being, created less anxiety compared to other social situations. This allowed members to first get involved in activities and then gain insight about their behavior towards others. Therefore, Interpersonal Learning – Output dimension became the third most beneficial aspect of the group according to Group Therapeutic Factors List (GTFL – GSEL). These three aspects are similar to Yalom's findings of Interpersonal Learning, Catharsis and Cohesiveness as being the top three beneficial aspects of group therapy (Eren et al., 1996; Yalom, 1985).

For all of the benefits of the process, music played a leading role by making all interactions in the group easier. Most of the participants who rarely talked in the group had the chance to express their feelings and identity through music and experienced coherence, cohesiveness, belonging and acceptance, which are thought to be the key elements of success in therapy (Norcross, 2011; Wampold, 2001). Client No. 1's quote is a very relevant example of this life-sharing through music: "We exchanged holiday greetings in today's improvisation..."

An interesting finding was that a particular client, Client No. 5, had exceptionally low scores in depression and anxiety tests. He had 1 on the pre-test for anxiety and 2 on the post-test and 4 on the pre-test for depression and 0 on the post-test. His other tests were not as different than other participants'. This can be due to cognitive  disfunctioning, meaning that he can not feel or express his situation about anxiety or depression.

The lmitation of this research is that I -the therapist of the process- am the writer of this work as well and the process was also where I collected data for this work. Therefore, about the effects of therapy it is not possible to ignore the potential positive and/or negative effects of this situation. Since this work is part of my studies, I -the therapist of the group- did not hold a therapist degree during the process, the lack of professional experience may also play a role on the therapeutic effects.

After exploring the research data, we believe that our study shows that music therapy can be applied in Turkish university or similar hospital settings by qualified personnel and it can create similar positive changes in the lives of patients diagnosed with schizophrenia and receiving standard care.

## 7.1 Suggestions for applying a similar therapy process with better efficiency

First of all, as this was an eclectic therapy process; the therapeutic and situational specifics mentioned in parts of this work such as the therapist's therapeutic approach, treatment conditions and frequency should be carefully examined to repeat the procedure or to apply similar therapy process.

The group started with 8 members. With a therapy crew of 3 consisting of the therapist, social worker-co-therapist and the assistant, 11 people seems to be too much for this type of process. It is oserved that when some members were absent, more interaction and personal sharing occurred between the attending members in session. That there is more interaction in a smaller group compared to a larger in a music therapy setting is also supported by literature (Gerhardt, Gruschka, & Schneider, 2011). Therefore, it would be wise to take this into account while deciding on the group size.

In our group we started with two female patients. One of them only attended one session. Although the assistant and the social worker were female, being the only female patient may have limited our member's interactions and sharing. Silverman (2003) mentions in his meta-analysis that mixed gender psychotic-groups yield less improvement. Therapists should

consider either finding new methods or activities to compensate for this difference or stick to single gender groups.

De Backer (2004) mentions that psychotic patients often experience intense heat after improvisations. The therapy group observed this same sharing of patients several times in the process. Taking this into account, in therapy processes during warm seasons, the air conditioning of the room should be adjusted, which would result in a considerably more efficient therapy environment.

It was observed in our group that having psychotic patients with different functionality ratings might complicate the therapy process. The therapist will always try to find common ground for all members but it can be very difficult when the functionality varies too much. Simpler activities can be encouraging for low functionality members, but these will often be boring for high functionality ones. When group activities are more complex, it can become too challenging for low functionality members who have cognitive disabilities or high level of anxiety to even stay in the room. It is observed that when a relatively less active participant was absent, group interaction was affected greatly. Therefore, if possible, creating groups with similar functionality level participants can result in a more effective therapy process.

With people with schizophrenia, we suggest activities in which all participants take part at the same time, at least that they have to observe the active one. If members are expected to wait for their turn in any activity for too long (i.e., more than 10 seconds), they can start ruminating and drift away from the activity. This drifting is both discouraging for that person and for the group, breaking the flow of the activity. On the other hand, activities, where each one has to focus on something turn out to be more cohesive.

Metaphors, animals in our process, are observed to change some participants' interactions, sharing and way of being in the group greatly. Even the least speaking members become very open when the emotions and issues are talked around metaphors instead of directly addressing them. In this group, it started with the common fact that most of members had a pet at one point of their life. According to group's needs and tendencies, each group may have their own common themes, therefore potential metaphors. Utilizing these metaphors can be a great chance to reach the potential of clients in psychotic populations.

## 7.2    Suggestions for possible follow-up research

In Turkey, in university hospital settings or other clinical facilities, more music therapy processes with more participants are needed to establish music therapy as a common treatment method for people with severe mental illnesses, both out-patient and in-patient populations. To apply methods that share a common ground with music therapy literature, more therapists should get qualified as world-class music therapists. Research conducted by qualified music therapists can be compared to other examples in the world for relevant findings. Also, music therapy, whether eclectic or following a single therapeutic approach, can be tested in more parts of the world on many populations including people diagnosed with schizophrenia to establish the multicultural validity of the field.

Regarding using metaphors in music therapy, musical activities starting with metaphors leading to emotional awareness can be developed by therapists and tested with psychotic populations or people diagnosed with schizophrenia. An example activity throughout this process is explained in this text.

In this study, the clinical results revealed that group music therapy contributes to the well-being of out-patients diagnosed with schizophrenia. Significant changes in general functionality, personal and social performance, depression levels, difficulties in emotion regulation concerning emotional awareness and amount of submissive and helpless ways of coping with stress are reported. Session notes consisting of the therapy crew's observations support the statistical analysis of these benefits.

Music is a powerful therapeutic tool – also for people with schizophrenia, also in Turkey. The therapeutic use of music is more cost-effective and safer than many other medical methods. Music therapy practice for in-patients and out-patients in hospitals does not require large investments compared to other medical interventions. The results of this study point out some of the reasons to take it and use it in psychiatric clinics, hospitals and health institutions. With more trials and clinical usage, hopefully music therapy will be established as a common treatment method in Turkey as it is in many other countries.

# REFERENCES

Aaltonen, J., Seikkula, J., & Lehtinen, K. (2011). The Comprehensive Open-Dialogue Approach in Western Lapland: I. The incidence of non-affective psychosis and prodromal states. *Psychosis*, *3*(3), 179–191. doi:10.1080/17522439.2011.601750

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR). Text* (Vol. 1). doi:10.1176/appi.books.9780890423349

American Psychiatric Association. (2013). *DSM 5*. American Psychiatric Publishing. doi:10.1176/appi.books.9780890425596.744053

APA. (2016). Psychotherapy: Understanding group therapy. Retrieved May 3, 2016, from http://www.apa.org/helpcenter/group-therapy.aspx

Aydemir, Ö., Üçok, A., Esen-Danaci, A., Canpolat, T., Karadayi, G., Emiroğlu, B., & Sariöz, F. (2009). Bireysel ve sosyal performans ölçeği'nin Türkçe sürümünün geçerlilik ve güvenilirlik çalişmasi. *Klinik Psikofarmakoloji Bulteni*, *19*(2), 93–100.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*(6), 893–897.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression. Cognitive Therapy of Depression.*

Berrol, C. F. (2006). Neuroscience meets dance/movement therapy: Mirror neurons, the therapeutic process and empathy. *Arts in Psychotherapy*, *33*(4), 302–315. doi:10.1016/j.aip.2006.04.001

Bohart, A. C., & Watson, J. C. (2011). Person-Centered Psychotherapy and Related Experiential Approachesitle. In S. B. Messer & A. S. Gurman (Eds.), *Essential Psychotherapies* (3rd ed., p. 516). New York: Guilford Press.

Bruscia, K. E. (1998). *Defining music therapy* (2nd ed.). Gilsum, NH: Barcelona Publishers.

Buckley, P. F., & Stahl, S. M. (2007). Pharmacological treatment of negative symptoms of schizophrenia: Therapeutic opportunity or Cul-de-sac? *Acta Psychiatrica Scandinavica*, *115*(2), 93–100. doi:10.1111/j.1600-0447.2007.00992.x

Burns, C. A. (2012). Embodiment and embedment: integrating dance/movement therapy, body psychotherapy, and ecopsychology. *Body, Movement and Dance in Psychotherapy*, *7*(1), 39–54. doi:10.1080/17432979.2011.618513

Carlson, E., Saarikallio, S., Toiviainen, P., Bogert, B., Kliuchko, M., & Brattico, E. (2015). Maladaptive and adaptive emotion regulation through music: a behavioral and neuroimaging study of males and females. *Frontiers in Human Neuroscience*, *9*(AUGUST). doi:10.3389/fnhum.2015.00466

Ceccato, E., Caneva, P., & Lamonaca, D. (2006). Music Therapy and Cognitive Rehabilitation in Schizophrenic Patients: A Controlled Study. *Nordic Journal of Music Therapy*, *15*(December 2014), 110–120.

Chen, X. J. (2014). *Music Therapy for Improving Mental Problems of Offendes in Correctional Setting: Systematic Review and Meta-analysis*. Aalborg University, Aalborg, Denmark.

Dağ, İ. (1991). Rotter'in İç-Dış Kontrol Odağı Ölçeği (RİDKOÖ)'nin üniversite öğrencileri için güvenirliği ve geçerliği. *Psikoloji Dergisi*, *7*(26), 10–16.

De Backer, J. (2004). *Music and Psychosis: The transition from sensorial play to musical form by psychotic patients in a music therapeutic process*. Aalborg University.

Emiroğlu, B., Karadayı, G., Aydemir, Ö., & Üçok, A. (2009). Şizofreni Hastalarında İşlevsel İyileşme Ölçeğinin Türkçe Versiyonunun Geçerlilik ve Güvenilirlik Çalışması. *Nöropsikiyatri Arşivi*, *46*(1), 15–24.

Eren, N. (1998). *Psikotik ve Borderline Hasta Gruplarında Sanatla Psikoterapi Sürecinin İncelenmesi*. İstanbul Üniversitesi.

Eren, N., Şahin, D., & Saydam, M. B. (1996). Resim ve Müzik Aracılığıyla Etkileşim Üzerinden İşleyen Gruplarda Psikoterapi Sürecinin Değerlendirilmesi. *Nöropsikiyatri Arşivi*, *33*(3), 156–162.

Erkkilä, J., Punkanen, M., Fachner, J., Ala-Ruona, E., Pöntiö, I., Tervaniemi, M., … Gold, C. (2011). Individual music therapy for depression: Randomised controlled trial. *British Journal of Psychiatry*, *199*(2), 132–139. doi:10.1192/bjp.bp.110.085431

Fındıkoğlu, S. (2015). *Şizofrenik hastalarda müzik terapinin ruhsal durum üzerine etkileri*. İstanbul Medipol Üniversitesi.

Folkman, S., & Lazarus, R. S. (1988). *Manual for the Ways of Coping Scale*. Palo Alto, CA: Consulting Psychology Press.

Geretsegger, M., Elefant, C., Mössler, K. A., & Gold, C. (2014). Music therapy for people with autism spectrum disorder. *The Cochrane Database of Systematic Reviews*, Issue 6 Art. No.: CD004381.

Gerhardt, A., Gruschka, K., & Schneider, C. (2011). Songwriting mit älteren Menschen – ein musiktherapeutisches Projekt im Seniorenheim. In T. Wosch (Ed.), *Musik und Alter in Therapie und Pflege* (pp. 165–177). Stuttgart: Kohlhammer.

Gold, C., Solli, H. P., Krüger, V., & Lie, S. A. (2009). Dose-response relationship in music therapy for people with serious mental disorders: Systematic review and meta-analysis. *Clinical Psychology Review*, *29*(3), 193–207. doi:10.1016/j.cpr.2009.01.001

Gold, C., Voracek, M., & Wigram, T. (2004). Effects of music therapy for children and adolescents with psychopathology: A meta-analysis. *Journal of Child Psychology and Psychiatry and Allied Disciplines*.

Gouk, P. (2000). *Music Healing in Cultural Contexts*. Aldershot: Ashgate.

Gratz, K. L., & Roemer, L. (2004). Multidimensional Assessment of Emotion Regulation and Dysregulation: Development, Factor Structure, and Initial Validation of the Difficulties in Emotion Regulation Scale. In *Journal of Psychopathology and Behavioral Assessment* (Vol. 26, pp. 41–54).

Hamilton, N. G., Ponzoha, C. a, Cutler, D. L., & Weigel, R. M. (1989). Social networks and negative versus positive symptoms of schizophrenia. *Schizophrenia Bulletin*, *15*(4), 625–633.

He, F., Liu, R.-K., & Ma, L. (2005). Influence of musical therapy on serum PRL of patients with schizophrenia, type II. *Shangong Archives of Psychiatry*, (2), 78–79.

Hisli, N. (1988). Beck Depresyon Envanteri'nin geçerliği üzerine bir çalışma. *Türk Psikoloji Dergisi*, (6), 118–126.

Kircanski, K., Lieberman, M. D., & Craske, M. G. (2012). Feelings Into Words: Contributions of Language to Exposure Therapy. *Psychological Science*, *23*(10), 1086–1091. doi:10.1177/0956797612443830

Kitirci, B. (2014). *Müziğin Mucizesi "Müzik Terapisi ve Bibliyografik Araştırma."* Anadolu Üniversitesi.

Köroğlu, E. (2005). *DSM - IV - TR / Tanı Ölçütleri Başvuru Kitabı*. Ankara: Hekimler Yayın Birliği,.

Li, Y.-M., Ren, X., Li, C.-P., & Li, Z.-Q. (2007). The correct effect of language guided music therapy on patients with schizophrenia. *International Nurses Journal*, *26*(9), 917–8.

Llorca, P. M., Lançon, C., Lancrenon, S., Bayle, F. J., Caci, H., Rouillon, F., & Gorwood, P. (2009). The "Functional Remission of General Schizophrenia" (FROGS) scale: Development and validation of a new questionnaire. *Schizophrenia Research*, *113*(2-3), 218–225.

Lu, S. F., Lo, C. H. K., Sung, H. C., Hsieh, T. C., Yu, S. C., & Chang, S. C. (2013). Effects of group music intervention on psychiatric symptoms and depression in patient with schizophrenia. *Complementary Therapies in Medicine*, *21*(6), 682–688. doi:10.1016/j.ctim.2013.09.002

Maratos, A., Gold, C., Wang, X., & Crawford, M. (2008). Music therapy for depression. *Cochrane Database Systematic Review*, *23*(1).

Morosini, P. L., Magliano, L., Brambilla, L., Ugolini, S., & Pioli, R. Development, reliability and acceptability of a new version of the DSM-IV Social and Occupational Functioning Assessment Scale (SOFAS) to assess routine social functioning., 101 Acta psychiatrica Scandinavica 323–329 (2000).

Mössler, K., Chen, X., Heldal, O. T., & Gold, C. (2013). Music therapy for people with schizophrenia and schizophrenia-like disorders. *Cochrane Database of Systematic Reviews*, (1).

Norcross, J. C. (2011). *Psychotherapy Relationships That Work: Evidence-Based Responsiveness*. (J. C. Norcross, Ed.) (2nd ed.). Oxford University Press.

Pedersen, I. N. (1999). Music Therapy as Holding and Re-organizing Work with Schizophrenic and Psychotic Patients. In T. Wigram & J. De Backer (Eds.), *Clinical Applications of Music Therapy in Psychiatry*. Kingsley.

Peng, S.-M., Koo, M., & Kuo, J.-C. (2010). Effect of group music activity as an adjunctive therapy on psychotic symptoms in patients with acute schizophrenia. *Archives of Psychiatric Nursing*, *24*(6), 429–434. doi:10.1016/j.apnu.2010.04.001

Rexrode, K. R., Petersen, S., & O'Toole, S. (2008). The Ways of Coping Scale: A Reliability Generalization Study. *Educational and Psychological Measurement*.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, *80*(1), 1–28.

Ruganci, R. N., & Gençöz, T. (2010). Psychometric properties of a Turkish Version of the difficulties in emotion regulation scale. *Journal of Clinical Psychology*, *66*(4), 442–455.

Şahin, N. H., & Durak, A. (1995). Stresle Başa Çıkma Tarzları Ölçeği: Üniversite öğrencileri için uyarlanması. *Psikoloji Dergisi*, *10*(34), 56–73.

Seikkula, J. (2011). Becoming dialogical: Psychotherapy or a way of life? *Australian and New Zealand Journal of Family …*, *32*(3), 179–193. doi:10.1375/anft.32.3.179

Seikkula, J., Aaltonen, J., & Alakare, B. (2001). Open Dialogue in Psychosis Ii : a Comparison of Good and Poor Outcome Cases Predictors of Outcome in Psychosis :, (February), 267–284. doi:10.1080/10720530125965

Seikkula, J., Aaltonen, J., Alakare, B., Haarakangas, K., Keränen, J., & Lehtinen, K. (2006). Five-year experience of first-episode nonaffective psychosis in open-dialogue approach: Treatment principles, follow-up outcomes, and two case studies. *Psychotherapy Research*, *16*(2), 214–228. doi:10.1080/10503300500268490

Silverman, M. J. (2003). The influence of music on the symptoms of psychosis: a meta-analysis. *Journal of Music Therapy*, *40*(1), 27–40. doi:10.1093/jmt/40.1.27

Silverman, M. J. (2005). Using music therapy games with adult psychiatric patients. *The Arts in Psychotherapy*, *32*(2), 121–129. doi:10.1016/j.aip.2005.01.006

Stricker, G., & Gold, J. (2011). Integrative Approaches to Psychotherapy. In S. B. Messer & A. S. Gurman (Eds.), *Essential Psychotherapies* (3rd ed., p. 516). New York: Guilford Press.

Talwar, N., Crawford, M. J., Maratos, A., Nur, U., McDermott, O., & Procter, S. (2006). Music therapy for in-patients with schizophrenia: Exploratory randomised controlled trial. *British Journal of Psychiatry*, *189*(NOV.), 405–409.

Tang, W., Yao, X., & Zheng, Z. (1994). *Rehabilitative effect of music therapy for residual schizophrenia. A one-month randomised controlled trial in Shanghai. The British journal of psychiatry. Supplement*.

Uçaner Çiftdalöz, B. (2016). Personal Communication. İstanbul.

Ulrich, G., Houtmans, T., & Gold, C. (2007). The additional therapeutic effect of group music therapy for schizophrenic patients: A randomized study. *Acta Psychiatrica Scandinavica*, *116*(5), 362–370.

Ulusoy. (1993). *Beck Anksiyete Envanteri: Geçerlik ve güvenirlik çalışması*. Bakırköy Ruh ve Sinir Hastalıkları Hastanesi, İstanbul.

Wampold, B. E. (2001). *The Great Psychotherapy Debate: Models, Methods, and Findings*. *Psychotherapy Research* (Vol. 62). Routledge. Retrieved from http://www.amazon.com/dp/0805832025

Wen, S.-R., Cao, G.-Y., & Zhou, H.-S. (2005). The effect of music therapy on the depressive position of patients with schizophrenia. *Chinese Journal of Clinical Rehabilitation*, *9*(8), 195.

Wigram, T. (2000). Theory of Music Therapy: Lectures to Undergraduate and Post-graduate Students. University of Aalborg.

Wigram, T., & De Backer, J. (Eds.). (1999). *Clinical applications of music therapy in psychiatry*. London: Kingsley.

Wigram, T., Pedersen, N., & Bonde, L. O. (2002). *A comprehensive guide to music therapy: Theory, clinical practice, research and training*. Kingsley.

Yalom, I. D. (1985). *The Theory and Practice of Group Psychotherapy* (3rd Editio.). New York: Basic Books.

Yang, W. Y., Zheng, L., Yong-Zhen, W., Zhang, H. Y., & Bio, M. (1998). Psychosocial rehabilitation effects of music therapy in chronic schizophrenia. *Hong Kong Journal of Psychiatry*, *8*(1), 38–40.

Yıldırım, S., & Gürkan, A. (2007). Müziğin, kemoterapi yan etkilerine ve kaygı düzeyine etkisi. *Anadolu Psikiyatri Dergisi*, *8*(1), 37–45.