ORIGINAL ARTICLE

Therapeutic factors from group music therapy with body percussion in patients with chronic schizophrenia during COVID-19 pandemic: a pilot study

Hsiang-Yun LAI,[1] Shih-Fen TANG,[2] Yi-Nuo SHIH[3,4,5]

[1]Department of Music, College of Arts, Fu Jen Catholic University, [2]Department of Occupational Therapy, Taoyuan Psychiatric Center, Ministry of Health and Welfare, [3]Department of Occupational Therapy, College of Medicine, Fu Jen Catholic University, [4]Department of Chinese Music, National Taiwan University of Arts, [5]Psychiatric Research Center, Department of Psychiatry, Wan Fang Medical Center, Taipei Medical University

Correspondence: Yi-Nuo Shih, 510 Chung Cheng Road, Hsin-Chuang, New Taipei City 24205, Taiwan. E-mail: 062161@mail.fju.edu.tw

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Abstract

Objective: Since the advent of the COVID-19 pandemic in the end of 2019, the symptoms of panic and stress have been spreading everybody in our society, not to mention those in underprivileged groups. Persons with mental illness and social isolation can delay their recovery and even increase the risk potential of suicide. In this study, we intended to study whether music therapy with body percussion has therapeutic benefits for patients with schizophrenia during the COVID pandemic.

Methods: In this pilot study, we enrolled eight patients with schizophrenia as study participants in a psychiatric hospital located in northern Taiwan. The music therapy with body percussion was used for study participants during the rampant period of COVID-19 pandemic. Group music therapy with body percussion was given once a week for seven weeks. Then, we evaluated the therapeutic benefits of group music therapy with body percussion within seven days after the therapy.

Results: Of a list of 12 items for therapeutic value, our study patients with chronic schizophrenia ranked number 1 for "altruism" and "guidance," number 2 for "interpersonal learning-input" as well as number 3 for "interpersonal output" and "instillation of hope."

Conclusion: The intervention of music therapy with body percussion to patients with chronic schizophrenia during the COVID-19 pandemic showed effective to their physical, mental, and emotional care. We suggest that this pilot study needs to be duplicated in bigger-size groups of patients with schizophrenia to strengthen the study results.

Key words: *altruism, guidance, interpersonal learning-input, mental health*

INTRODUCTION

World Health Organization collects statistical data from all countries and summarized them up to July 5, 2021, the outbreak of COVID-19 pandemic has caused over 183 million persons suffering from coronavirus infection and more than 3.97 million death all over the world. The continuous spreading of the coronavirus pandemic causes much negative impacts such as forcing people to change their life styles, giving economic difficulties, decreasing interactions among people, and so on. To normal persons, facing those situations is already a tough challenge. To the patients with mental illness, the challenge should be greater. Nevertheless, music therapy gives mental stability to function effectively in decreasing patients' restlessness, to regulate their emotions (Wheeler, 2015) and enabling to comfort them with peaceful feelings.

Many mental disorders are listed in *The Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* published by the American Psychiatric Association in 2013. Among all mental disorders, schizophrenia is categorized as those with more serious ones. Based on related studies, first-visit outpatients with schizophrenia are accounted for 9.2%, inpatients with acute hospitalization 58%, and those with chronic schizophrenia have a high percentage of 80% (Chen, 2017). Patients with schizophrenia tend to stay chronically in nursing homes.

Recently, professionals in related area indicated that music can help relax, decrease pressures, promote the feeling of happiness, improve emotions, distract one's focus from painfulness, and increase their quality of life (Wheeler, 2015). In Finland, one course named "music and exercise" is offered in music education. In definition, body percussion is the combina-

tion of music and exercise. Among the elements used in body percussion, rhythm is seen as one of the core factors to stimulate recovery of human body (Ahokas, 2015). Music therapy activities can increase the emotional awareness and communication skills of mental patients, but in the past, music therapy activities in psychiatric wards were more focused on singing or listening to music. Music therapy with body percussion has been recognized successful clinically (Silverman, 2015). By contrast, in Taiwan, many studies on music therapy with body percussion are not often recognized. In the past, activities related to music to music such as music appreciation, music games, etc.

Music therapy has several approaches and theories, we use eclectic approach to satisfy participants' requirements (McFerran, 2013). Davis (1999) mentioned that main goals of music therapy used in correctional mental treatment are to enhance self-confidence, self-expression, guiding individuals to interact with others during group music therapy through organized plans, mental adjustment, sense of reality, inducing emotional changes, interpersonal supporting, helping to learn controlling emotions, etc.

Body percussion is a form of physical music which is a form of music and dance created by clapping, patting, stomping, and making sound. Body music has been existing for hundreds of years. After the long-term development, various forms of body music have been created with the combination of modern music. Traditional forms of body percussion include Indonesian shamanic dance (Kartomi, 2013), Ethiopian folk music, etc. Music and dance created by human body can be done alone or together. Performers usually use vibrations created from patting, scraping, friction, or shaking on human body, and the body can work as the music instrument and make sounds. Besides, human body can also show some unique features including the sounds of breathing as stated in dance style locator of World Arts West (www.worldartswest.org/main/ discipline).

Not only used in art performance, body percussion is also used in education, curing, or certain anthropologic social purpose. Body percussion has different cultural usage, meaning, and functions. The involving of body percussion is not only merely stimulating vision, hearing, and kinesthetic at the same time to let the individual know the unbreakable link between sounds and movements, but also concretely applying these multiple intelligences on coordination, attention, creativity and non-lingual communication, etc. (Romero-Naranjo, 2013)

Therapeutic factors are now widely used in group therapy as the cornerstone in group therapy research (García-Cabeza, 2011). Assessment instruments of this study are 12 therapeutic factors including altruism, group cohesiveness, universality, interpersonal learning-input, interpersonal learning-output, guidance, catharsis, identification, family reenactment, self-understanding, instillation of hope, and existential factors.

In this pilot study, we intended (a) to rank the effect of those above-noted 12 therapeutic factors for patients with chronic schizophrenia, and (b) to analyze physical and mental changes after their receiving group music therapy with body percussion.

METHODS

Study design

In this study, the independent variable was recognized as the intervention of body percussion, the dependent variable was the participants' self-awareness, and the extraneous variables were gender, age, and educational background. The participants of this study were patients with chronic hospitalized who have not participated in music activities within or over the past one month and got 22 points and over in Mini-Mental State Examination (MMSE), as introduced by Folstein in 1975. Before the study was started, the participants were assessed using the music category in Shih-Wu Recreation Questionnaire (SWRQ). We gave body percussion in the activities while receiving the group music therapy. After seven weeks, the therapy results were evaluated through a survey for therapeutic factors from group music therapy.

Subject protection

The study was approved by the institutional review board of the Taoyuan Psychiatric Center (IRB protocol number = B20190605 and date of approval = October 12, 2019) with the stipulation of obtaining informed consents. We collected study data anonymously. We obtained the signed informed consents before the study participants were enrolled in this group music therapy with body percussion. They were also reminded that they could withdraw the participation in the study any time.

Criteria for study participants

In this study, we chose study participants from patients with chronic hospitalized schizophrenia without limitation of age or sex. The criteria for eligible study participants were those who:

- were not aggressive and confirmed patients with schizophrenia by a psychiatrist
- got 22 or more points in Mini-Mental State Examination (MMSE, Folstein, 1975) and were ascertained not cognitively impaired
- did not have communication disorder or diseases related to listening
- were ascertained music lovers determined using Shih-Wu Recreation Questionnaire (SWRQ)
- did not participate in any music therapy related activities within one month before being enrolled in this study.

Procedures

At each section of group musical therapy with body percussion, all study participants received the following five procedures:

• ***Step 1: greetings***

We started the activity with the hello song, to greet every study participant in turn with singing and body percussion.

• ***Step 2: warming up***

Doing eurhythmics with music through simple body percussion to help the participants stretch and relax their limbs and focus on the activity.

• ***Step 3: main activity***

We helped the participants get into the melody by solo, ensemble, and alternating. These activities were designed with the most suitable rhythm styles which the participants could easily do body percussion. With the help from the designed activities, the participants could focus on the moment and felt their relation with themselves and others.

• ***Step 4: singing and sharing***

Songs used in this part were inspiring with positive meanings. In this part, the participants were guided to sing and share through doing body rhythm.

• ***Step 5: Farewell***

Bidding goodbye to the participants with the bye-bye songs and reminded them of the date of next scheduled activity.

Assessment tool for therapeutic factors using the therapeutic factor questionnaire

We used the therapeutic factor questionnaire of the Chinese Association of Group Psychotherapy's therapeutic factors flashcards to assess the study participants. We followed the method for assessment (Chung, 2011; Wu, 2017). The highest possible score is 10 points, and the lowest score is 2 points in the therapeutic factor questionnaire.

RESULTS

Totally, eight study participants completed the study. Those participants (5 male and 3 female) were 29 to 59 years old.

After a seven-time intervention of music therapy activity, we analyzed the therapeutic factors and

Table 1. Therapeutic factors from music therapy with body percussion for patients with schizophrenia during COVID-19 pandemic (*N* = 8)

Therapeutic factor	Average	Rank
Altruism	7.875	1
Guidance	7.875	1
Interpersonal learning-input	7.500	2
Interpersonal learning-output	7.250	3
Instillation of hope	7.250	3
Group cohesiveness	7.125	4
Catharsis	7.125	4
Family reenactment	6.875	5
Existential factors	6.875	5
Universality	6.750	6
Self-understanding	6.5	7
Identification	6.375	8

found that "altruism" and "guidance" were the most effective two therapeutic factors chosen by the study participants. Then, the choices were followed with "interpersonal learning-input," "interpersonal learning-output," and "instillation of hope." On the contrary, the least effective ones were existential factors and universality. Table 1 shows the complete therapeutic factors in this study.

DISCUSSION

People tend to express selectively and pay their attentions to things that they are interested in (translated by Lee, 2017). Furthermore, the increased attention can help stimulate learning skills, increase cognitive function, and strengthen feelings and performance (Tang, 2009). In the primary stage of this study, Shih-Wu Recreation Questionnaire (SWRQ) was first used to choose the study participants who like music. During the music therapy activities, we used different music preferences from each participant into music therapy activities, then guided them to get along with themselves or cooperate with others through the combination of body percussion and popular songs written in foreign languages, Mandarin, and Taiwanese. The chosen songs were mainly the ones participants were familiar with, music in major modes, or songs with positive meanings. Besides chorusing and trolling, the participants were encouraged to discuss and share something. Therefore, they showed mainly five therapeutic factors including altruism, guidance, interpersonal learning-input, interpersonal learning-output, and instillation of hope (Table 1). Among those factors, the performance of altruism and instillation of hope are matched with a previous study related to the intervention of music therapy in mental illness groups (Scott, 2015).

A study related to the treatment to the group with social anxiety disorder showed that basic on the result from all the participants, existential factors, interpersonal learning-output, guidance, and self-understanding are scored higher in average. However, when it comes the situation of patients whose symptoms are improved better, interpersonal learning-output, guidance, universality, and group cohesiveness are the most shown factors (Choi, 2006). Another study done with high-risked teenager groups showed that group cohesiveness, interpersonal learning-output, identification, and guidance are the most valuable factors for most participants (Hauber, 2019).

According to the model of "TIMES," music-related interventions are important for maintaining quality of life (Wu, 2021). From Yalom's perspective, interactions and values between each therapeutic factor are different according to different types or diagnosis, participants, and purposes (Yalom, 1985, 2005). This perspective has been proven in later studies (Choi, 2006; Hauber, 2019).

Bloch (1981) mentioned that group participating experiences have potential healing effects to chronic mental illness. Moreover, instillation of hope as expressed during the group participating experiences is the most important therapeutic factor to the mentally ill (García-Cabeza, 2011). In this study, having hope was also listed as one of the valuable therapeutic factors (Table 1). Moreover, according to multiple intelligence that are mentioned in BAPNE method, therapeutic factors such as altruism, guidance, interpersonal learning-input, and interpersonal learning-output have also shown through the intervention through body percussion in this study (Romero-Naranjo 2013).

Study limitations

The readers are warned not to over-interpret this pilot study result because this study has three limitations:

- Our study had only eight study participants.
- This study was conducted only during the time of COVID-19 pandemic.
- All study participants were only music lovers.

We suggest that this kind of study needs to be duplicated with bigger-size of study participants to strengthen the study findings. Furthermore, we also wonder whether any difference exists if those participants are not wearing any personal protective equipment after the pandemic being over. We also suggest that future studies need to include music lover and those who have never exposed to music.

Summary

Music therapy intervention to patients with chronic schizophrenia during the COVID-19 pandemic was found to be effective to their mental health. Moreover, therapeutic factors brought out through the intervention of body percussion like altruism, guidance, interpersonal learning-input, interpersonal learning-output, and instillation of hope also showed their values to the treatment obviously. For future studies, we suggest that the study needs to include acute hospitalized inpatients or outpatients with schizophrenia. We also suggest that we need to compare the intervention outcomes between participants with schizophrenia between music lovers and non-music lovers.

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