

Effect of Music Therapy on Mental Disorders

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Abstract

Music therapy is a therapeutic intervention that utilizes the power of music to promote physical, emotional, cognitive, and social well-being. It involves the skilled use of musical elements by trained therapists to achieve therapeutic goals and address the unique needs of individuals. Music therapy has gained recognition for its positive impact on mental health, offering a non-invasive and creative approach to address various psychological challenges.

A survey was conducted involving 38 participants, with an equal distribution between genders. The results revealed a noteworthy awareness and understanding of music therapy among the respondents. An impressive 78% of the participants acknowledged their knowledge about music therapy and its positive effects on mental well-being. This finding highlights a growing awareness of the potential benefits of music therapy as an adjunct to traditional therapeutic approaches. The survey suggests a promising trend in the acceptance and recognition of music therapy as a valuable tool for enhancing mental health, emphasizing the importance of continued research and exploration in this field. Music therapy is a therapeutic intervention that utilizes the power of music to promote physical, emotional, cognitive, and social well-being. It involves the skilled use of musical elements by trained therapists to achieve therapeutic goals and address the unique needs of individuals. Music therapy has gained recognition for its positive impact on mental health, offering a non-invasive and creative approach to address various psychological challenges.

Keywords: Music Therapy, Music genres, Depression, ASMR

Introduction

Psychological disorders or mental illness or mental disorders is a combination of behaviour, or a behavioural pattern, or cognitive activity that causes significant problems in the normal functioning is one's life. That pattern is distressful, dysfunctional, dissociative and dangerous in nature. Its causes problem for the person in the daily functioning or routine. The pattern can be dangerous for the person himself or herself and also for the people around.

Music therapy is one of the techniques used to reduce the symptoms or for the betterment of any mental illness or disorder. Music therapy (MT) has shown some overpowering and positive effects on brain. In general, also music is something which doesn't require any training or knowledge to connect with it, to understand it. Music is natural. It's everywhere around us. By music we always don't need high class instruments or a perfect pitch. Technically if we say it's a group of sound waves which can excite some neurons in our brain. That's the main reason of why music therapy has been found so useful.

It can be conducted in two ways, such as active or receptive. A lot of variety of music can be used for the conduction of the therapy. There are many genres like, jazz, meditative, rock, pop, contemporary, blues,

instrumental, theme, sonata and if we look for the further division we can divide it into basically two broad types, one is classical and second can be western.

To conduct music therapy, it requires intensive training. It's not so popular among clinicians yet. Basically, it helps with pain reduction, helps with better memory, for the development of better reflex action. Practice playing music instruments like guitar, drums, ukulele or any instruments, which requires the movement or synchronizing of both the hands have shown that it helps with the working of the whole of brain. Which is general is not so used.

Literature Review

B. Vellingiri et. al (2019) have done a study in which they talk about how MT and the beats or rhythms used in tracks can be used with patients with ASD (autism spectrum disorder). The individuals with ASD lack in general motor, social and communication skills. Music therapy has shown some major improvements in auditory skills through rhythms. Cues are progressively used. By the help of controlled trials. Results may vary, and may not show the same positive effects with every session.[1]

M. Wehmeier (2018) did a precise analysis on the effects of MT, on emotions and the self. In this study a cross-sectional design was used. It was conducted in a controlled setting, in a clinic. A regression analysis model of MT used. In which it was found that MT showed improvements in cognitive skills and on the individual's personality and has long term positive effects. Music Therapy has multi-level approach which helps with the complexity of the mental disorders. There were 137 subjects in the analysis. [2]

C. Gold (2017) conducted a study on the effectiveness of MT on the cognitive process of the individuals with disorders like dementia. A systematic review off analysis was conducted. In which randomized controlled trails were conducted, for example, non-musical types of interventions. Skills like motor, conceptual, perceptual, literary were assessed. Random trails didn't show any major effects on patients of dementia. Sub-group analysis showed positive effects on the cognitive skills. The subjects aged between 78-86. The research is concluded with that MT can be used along with the treatment. But it needs more research and with larger sample size. [3]

B. Aragona (2017) researched on how MT helps with neurological disorders like aphasia and etc. and its role in rehabilitation. According to this research music therapy can enhance one of the important skills like communication skills in the patients with some neurological disorders. In the rehabilitative centre's also music therapy has been used and has shown positive impacts, specifically subjects who were affected by a stroke. Though the author suggests a further detailed analysis with a greater number of subjects on this same given topic. The music, stimulate the brain areas, the areas which are involved in motor skills, communication skills and etc. [4]

T. Hinterberger (2017) conducted a study on, how can music be used in the healthcare sector. In this study it has been primarily focused on the elderly people. How can music be used in the cases of parkinsonism and dementia; the relation is being examined. How music can be used to control pain. The study is not subjective of the elderly setting, results are prevalent to gerontological nursing. The results showed that music had a strong positive effect with the client. Can be proved as a useful therapeutic intervention. Music is however, something which stimulates feelings, emotions, and the senses, gives our

mind and body the energy and impacts both straight. It can used to reduce certain disabilities caused by dementia, Alzheimer's or Parkinson's disorder. Though there's still a lot to be researched in this field. There's a need of evidence to rectify the use of music therapy. [5]

R. Newton et. al (2015) talks about the impact or effect of MT used when after the consumption of a meal mainly with the subjects with any kind of eating disorder like anorexia nervosa related with mood disorders like anxiety, it talks about the subjects who suffer with anxiety which is triggered by the time of the next meal. At two levels the subjects were assessed. One is the post therapy the second is pre therapy. Subjective units of distress scale were used to collect the data. Eighty-four were the controlled sessions and eighty-nine were where there was some intervention and the result was that music therapy helped in reducing the anxiety in subjects with this eating disorder like anorexia nervosa. Not only psychological discomfort but the physical pain is also experienced before and after the meals. A feeling of guilt is seen among the patient's music therapy had a positive effect on the patients and plays an important role in the managements of this meal related anxiety. [6]

M. Yamada et. al (2014), reviews the music therapy effects when trails randomly controlled. Since there are no systematic reviews on the same. The method used is databased. The study gives note on every target disorder based on ICD (International classification of Diseases) 10th revision and conclude by the recommendation of further studies. The articles selected for the study are of high quality. [7]

A. Duffy (2013) research is mainly focused on how the elderly with dementia disorder are affected or benefited with the use of music therapy for the treatment of the same. And it is Ireland based. Music therapy is usually applied without any specifications. It directly effects positively on human's emotions, personality, cognitive skills, behavioural patterns and etc and specifically decreases the symptoms of dementia in elderly people. Although the effectiveness and usefulness of the music therapy has not been recognised well, maybe because of lack of scientific evidence. An elaborative review of literature has been conducted therefore in this study. Around 13 articles were read, which concluded that music therapy has a positive effective on elderly people with dementia by reducing the symptoms of the same. And it enhanced the behaviour and mood too. In the end the author recommends for further research on the same. [8]

F. Gooding (2010), the author specifically focused on the training of the social skills and the enhancement of the same in children and young people with poor skills. 3 different studies were conducted in different settings to evaluate its effectiveness. One in the school, one in residential area and the third one in the school care setting. There were forty-five subjects in total, aged between seven to seventeen years. They were provided with 5 sessions. The curriculum was chosen according to the age of the subjects. Social skill were the main focus of the study and were incorporated with music related interventions. Modelling and feedback like techniques were used. Before and after the session notes were taken down. In the conclusion MT proved to be useful in all the 3 settings. And helped the subject with social skills and related problems. [9]

T. Madson (2010) discussed about how MT can help up with relaxation and deal with psychological problem caused problem like anxiety or nausea in elderly people who went through some surgery. Mainly

the surgeries dealing with organ transplant. When people go through such surgeries, they often face other psychological problems like depression, anxiety or anxiety attacks or unknown pain and nausea like feeling. Though MT has significantly shown some great results by helping people coming up with such symptoms in a better way. There were fifty-eight number of total patients in which each one of them was provided with personal MT sessions for fifteen to thirty minutes approx. according to the patients' preferences. Self-reports were taken after every session, self-rating was asked to do. In the conclusion it was found that the client liked that therapeutic session, and they would prefer to attend them alongside with their medication and a further future analysis is asked by the author. [10]

P. Solli (2009) conducted a systematic and meta-analyses is done on how the people with mental disorders respond or react to music or music therapy, the relationship between them. Mental disorders lead to serious impacts on the individual and common treatments effects slowly and are less efficient. Depression and other such mood disorder can be treated well y the help of music therapy. Objective behind this study is mainly to examine the benefits of music therapy on serious mental illness. Many theories and models were taken into consideration and were examined accordingly. The conclusion was the subjects with small number of problems required a smaller number of music therapy session as compared to the people with large number of problems or large-scale problems. To achieve strong results longer and more in number of sessions will be required. [11]

Michael J. Silverman (2007) In this following study the relation between the nonverbal communication, music therapy and autism has been assessed. In this article, the author reviewed the nonverbal literature in relation to music therapy and autism. The literature was reviewed with an example of a case study of a woman with autism, who was non- verbal. In the study the behaviour has been analysed in which the communication has been done through music therapy, in the process the rapport information was taken with the help of Music Therapy. [12]

Hogan and Philippe et. al (2006) analysed the impact of MT on people who have gone through cardiac surgery and how it affected their psychological health and physically too. Such surgeries usually lead to anxiety and pain. Music has shown to have a greater impact on reducing the symptoms of post the surgery. The main aim of this study was assessing the impact of music, using different techniques on issues like anxiety, pain, drug consequences post the surgery. An experiment was designed in which there was a total of eighty-six subjects. And the symptoms were evaluated pre and post the MT within a duration of twenty minutes. And the conclusion was that there was significant reduction in the pain and anxiety in the subjects in the controlled settings. Therefore, cardiac surgery patients can benefit by the use of MT. [13]

Anne W. Lipe (2005) discussed about the relation between music, music therapy, spirituality, and mental healthcare. There's a well realised relation between music spirituality and medicine too. But a less known about the evidence, like how all they work together for the overall well-being. A study was conducted for more than 30 years where up to 52 reports were found for the same. Mostly were the case studies and articles based on music, spirituality and the healthcare, which were presented by the professionals, the music therapist. After the review of the available data, findings, conclusions a further study or research was proposed. [14]

The Italian Psychogeriatric Association (AIP) (2002), The following study was conducted by an Italian psychogeriatric association on music, dementia and music therapy. It showed the effect of music on psychological symptoms of disorders like dementia and related issues. In the study the effect of music on psychological and behavioural symptoms of dementia was discovered which were found to be prevalent. It is also observed that the potential and ability also play an important role in the success of the music therapy. The association also proposed a suggested pattern or criteria to select an appropriate approach for the same. They also proposed a list of techniques basically the non-pharmacological ways for the patients of dementia. [15]

Methodology

Objective

The main aim of this research is to identify the effectiveness of music therapy on mental disorders.

Variables

Independent variable: Music therapy

Dependent variable: Mental disorders

Music therapy is one of the types of therapies that can be used to treat or reduce or to help the patient to cope up with any kind of mental illness, by the music. Where music is used in certain different techniques

Sample Space

In this study a total of 38 participants in which 19 were females and 19 were males were taken as a sample. Most of the participants were aged 19 years and above. Participants belonged to a diverse group. The technique used in this study is sampling.

Tool

Tool construction

A questionnaire on music therapy was constructed in the following study. For arranging and gathering the results in a proper manner a constructive technique is used.

Scoring of responses on items

By the following rules the participants were scored for their given response to each item.

Rule 1 Yes - 3

No - 1

Rule 2 Yes - 3

No - 0

Prefer not to say - 1

Rule 3 Yes - 2

No - 1

Prefer not to say - 1

N/A - 0

Rule 4 Mental health influences music taste - 1

Music taste influences mental health - 1

Both - 3

Neither - 0

Music therapy survey

The following survey is conducted to check the awareness about music therapy and its effectiveness on mental disorders.

1. Consent Form: I clarify that I have read the aforementioned instructions and that I'm willing to participate in this study.

Yes

No

2. Have you ever had a mental health condition? (Eg. Depression, Anxiety, etc)

Yes

No

Prefer not to say

3. Has music had an effect on your mood?

Yes

No

4. Have you heard of Music Therapy?

Yes

No

5. Have you ever used Music Therapy?

Yes

No

Prefer not to say

6. If you have used Music Therapy, did you find it helpful?

Yes

No

Prefer not to say

N/A

7. What is your gender?

Female

Male

Other

Prefer not to say

8. What is your age?

13-17

18-24

25-35

35-44

45-54

9. What is your preferred genre of music?

Pop/Chart

Rock/Metal

Indie/Alternative

Rap/Hip Hop

Jazz

Classical

R&B

Other (please specify):

10. “Music therapy is the skilful use of music and musical elements by an accredited music therapist to promote, maintain and restore mental, physical, emotional, and spiritual health.” Would you recommend the use of music therapy to treat mental health issues?

Yes

No

Maybe

11. Do you listen to music to match your mood? (Eg. Sad music when feeling sad/ happy music when happy)

Yes

No

12. In your opinion, do you believe that the state of your mental health influences your music taste or your mental health is influenced by your music taste?

Mental health influences music taste

Music taste influences mental health

Both

Neither

Procedure

Statistical Analysis:

(For females) Mean = $\frac{\text{Sum of terms}}{\text{Number of terms}}$

$$\frac{22+18+15+13+19+18+21+25+25+17+14+15+23+21+24+20+20+21+17}{9} = 40.88$$

Female Mean = 40.88

(For Males) Mean = $\frac{\text{Sum of terms}}{\text{Number of terms}}$

$$\frac{20+17+15+17+14+26+18+21+14+19+20+22+22+15+18+15+16+20}{9} = 36.55$$

Male mean = 36.55

Standard Deviation (female)

The standard Deviation is a measure in which we calculate how the numbers are being distanced.

$$SD = \sqrt{N \sum |x-u|^2}$$

$$SD = \sqrt{368 - 40.88^2}$$

Standard Deviation (Males)

$$SD = \sqrt{329 - 36.55^2}$$

Results and Discussion

Females

1	22
2	18
3	15
4	13
5	19
6	18
7	21
8	25
9	25
10	17
11	14
12	15
13	23
14	21
15	24
16	20
17	20
18	21
19	17

Males

20	20
21	17
22	15
23	17
24	14
25	26
26	18
27	21
28	14
29	19
30	20
31	22
32	22
33	15
34	18
35	15
36	16
37	20
38	23

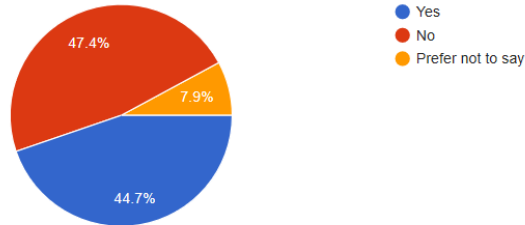
This table represents the scores obtained by 19 female and male participants in a survey. The scores, ranging from 15 to 25, indicate their performance or responses in the survey. Analyzing the data, we can observe a variation in scores, reflecting diversity in the participants' responses.

- 1. Score Distribution:** The scores show a spread across the range, with no extreme values. The majority of participants scored between 15 and 25, suggesting a relatively balanced distribution of responses.
- 2. Central Tendency:** The average score, calculated by summing all scores and dividing by the number of participants, would give an indication of the central tendency. This measure can provide insights into the typical score obtained by the female participants.
- 3. Performance Trends:** Examining trends or patterns in the data can reveal if there are clusters of scores or if there are certain scores that are more prevalent among the participants.
- 4. Outliers:** Outliers, if any, could provide valuable information about exceptional cases or participants with unique perspectives.

Pie Chart Representation of the Responses

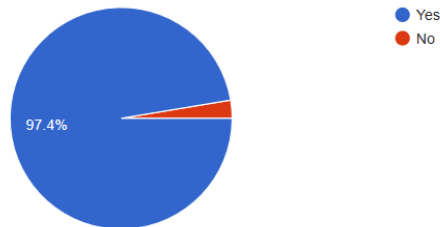
Have you ever had a mental health condition? (Eg. Depression, Anxiety, etc)

38 responses



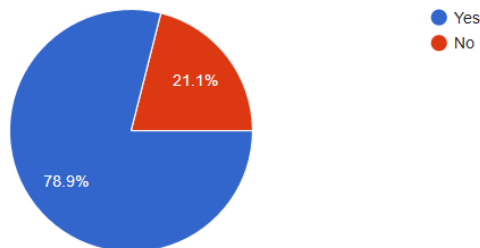
Has music had an effect on your mood?

38 responses



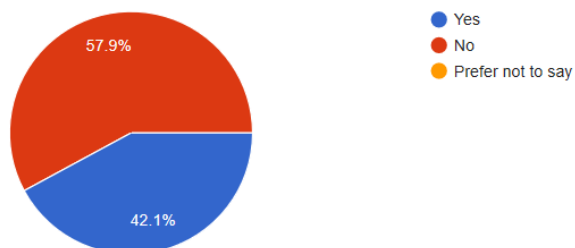
Have you heard of Music Therapy?

38 responses



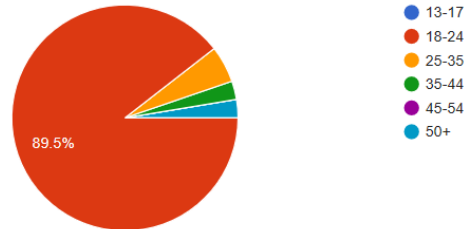
Have you ever used Music Therapy?

38 responses



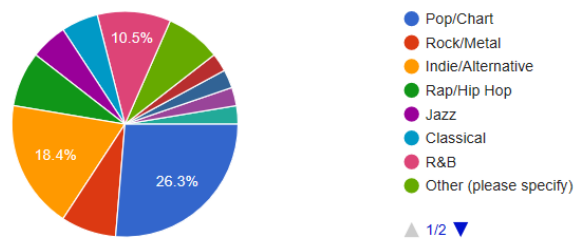
What is your age?

38 responses



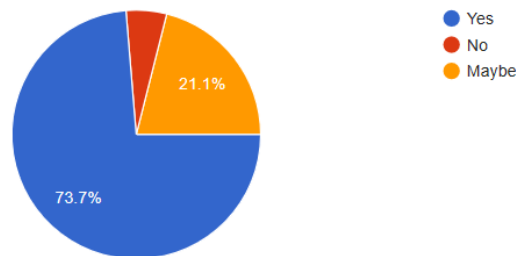
What is your preferred genre of music?

38 responses



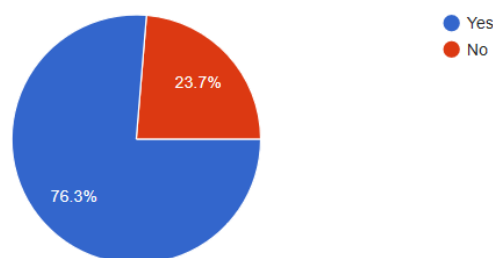
"Music therapy is the skillful use of music and musical elements by an accredited music therapist to promote, maintain, and restore mental, physical, emotional, and spiritual health." Would you recommend the use of music therapy to treat mental health issues?

38 responses



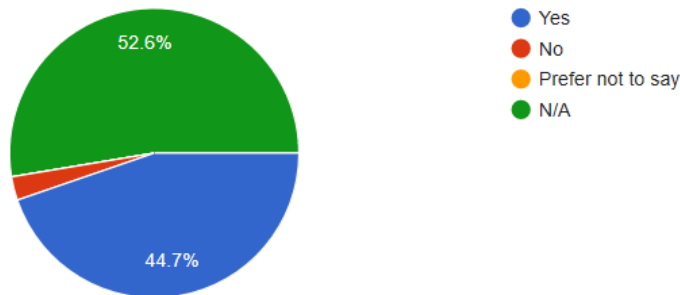
Do you listen to music to match your mood? (Eg. Sad music when feeling sad/ happy music when happy)

38 responses



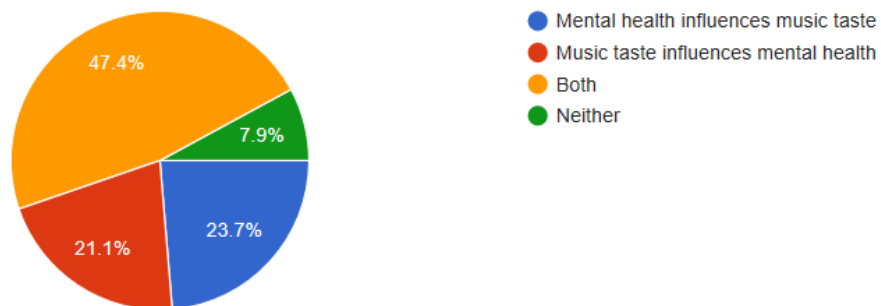
If you have used Music Therapy, did you find it helpful?

38 responses



In your opinion, do you believe that the state of your mental health influences your music taste or your mental health is influenced by your music taste?

38 responses



The study was conducted to identify the impact of music therapy or music on our brain and how effective it can be in context to mental disorders and a small survey was conducted to know the level of awareness among the subjects about mental illness and music therapy to be specific. For example how many of them are aware about music therapy, or would like music therapy to be used along with their treatment. There are total 12 items. Out of 12, 9 items are measurable. In the survey it was found that 78.9% of the total subjects are aware about music therapy. 97.5% of the subjects believe that music has helped them with a better mood state. After the total scoring we can conclude that a large number of people mostly 18 years have heard and know a little about mental illness and music therapy. Most importantly a large number of participants believed that music plays an important role in their life and influence their mood a lot. In the review of literature also, in many researches done by the respective authors it was found that music therapy has shown a significant amount of improvement in reducing the pain and stress in the patients. It should be used along with the treatment for the best results.

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16. No responses yet for this question.
17. Have you ever used Music Therapy? 39 responses