

Therapeutic Efficacy of Music in Management of Neurosis

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Abstract

In the present study, it was envisaged to evaluate the efficacy of music therapy on managing the problem of neurosis. 50 male adolescents in the age group of 13 to 18 were selected by random sampling from Dev Sanskriti University, Haridwar. Best of possible efforts were made to include the subjects having similar socioeconomic status and educational background. These samples were provided with music therapy one hour daily for one month in the evening on 6.00 pm to 7.00 pm. No control group was contemplated. Every subject served as its own control. ‘Neurosis Measurement Scale’ developed by Uniyal and Bishta (1989) was used as a major tool for evaluating the neurosis level of the respondents before and after music therapy. The paired sample ‘t’ test was used for statistical evaluation of the effect of intervention. A significant reduction ($p \leq 0.01$) in the level of neurosis was observed in the subjects after practice of music. From the results obtained, it may be inferred that music therapy has resulted in the reduction of the severity of neurosis by modulating probably the thought generating process in the brain which finally results in quality improvement in mental health states.

Key Words: Music, Music Therapy & Neurosis

Introduction

In the modern era, people are facing crisis of mental health because of increased boredom due to mechanization of work, greater suppression and repression of desires and urges, lack of frustration tolerance, identity crisis, feeling of alienation and insecurity. These all are leading to mental disorders. There is a wide range of mental disorders in children and adolescents, particularly emotional, cognitive, and behavior problems (Remschmidt & Schmidt, 1994), with an overall prevalence of 8% to 26% (Verhulst & Koot, 1992; Weisz & Weiss, 1993). Such mental disorders, in general, may be

classified in two groups – Psychoneuroses and Psychoses. Psychoneuroses is basically an emotional disturbance by exaggerated use of avoidance behavior and defense mechanisms against anxiety and Psychoses is severe personality disorder involving loss of contact with reality and usually characterized by delusion & hallucination (Coleman, 1976). The classification of Psychoneuroses generally includes six main types of disturbances as anxiety reaction, dissociative reaction, conversion reaction, phobic reaction, obsessive compulsive reaction and depressive reaction. Psychoneuroses involves inappropriate attitude, desire for excessive love and affection, repressed hostility, inferiority complex, dissatisfaction, dominating tendency, maladjustment etc. The symptoms of neuroses may consist of inadequacy and low stress tolerance, anxiety and fearfulness, tension, irritability, ego centrality, disturbed interpersonal relationships, persistent non integrative behavior, and lack of insight, rigidity, dissatisfaction and unhappiness. Biological, Psychological, Social and Cultural factors may be responsible for causing psychoneuroses.

When considering psychotherapeutic treatments for psychoneuroses, there are at least 230 different approaches, only a few of which have been empirically tested for their efficacy and effectiveness (Bergin & Garfield, 1994; Weisz & Weiss, 1993). One strategy used for coping with psychoneuroses is music. Music is pure magic. It is a wonderful gift to humanity. It moves, soothes and stimulates us. It makes us feel happy or sad, inspired or uplifted. It affects our mood in all kinds of infinite ways. Music therapy has been shown to be an efficacious and valid treatment for persons who have psychosocial, affective, cognitive and communicative disorders (Maratas, 2008). Music is a form of sensory stimulation that provokes feelings of security and confidence. Music therapy is a systematic process of intervention wherein the therapist helps the client to achieve health, using musical experiences and the relationships that develop through them as dynamic forces of change (Bassman, 1998).

According to WFMT (1996) Music therapy is the use of music and/or musical elements (sound, rhythm, melody and harmony) to facilitate and promote communication, relationships, learning, expression and organizational capacities in a client or person and other relevant therapeutic objectives are physical, emotional, mental, social and cognitive improvement. Music therapy aims to develop potentials and/or restore functions of the individual so that he or she can achieve intra and inter-personal integration and consequently, a better quality of life through prevention, rehabilitation or treatment.

The techniques which are used to treat mental disorders have inability to cure the root cause, so these are providing a temporary relief. But, music has been shown a profound effect on body and psyche. Music therapy addresses multifarious needs of an individual – physical, emotional, psychological, spiritual, cognitive and social (Smith et. al., 2001). A unique therapy that is

powerful yet non-threatening without any harmful effects. Music therapy does not use any specific kinds of music. It can utilize a wide range of vocal music from classical, folk, devotional, rock to instrumental that includes flute, violin, drums and so on.

Many studies have been done on the beneficial physiological changes promoted to music on mood, blood pressure, pulse rate, respiration, cardiac output, muscle tension, pain and relaxation (Campbell, 1991; Sairam, 2003). It encourages the expression of emotion and feeling, releasing tension and stress to aid healing. Its melody offers instant relief from physiological and psychological disorders. Eminent poet Homer has stated that the remedy for mental agony lies either in an open cry and weeping or in the melody of music. Some ragas are traditionally believed to have certain therapeutic effects: listening to specific kinds of music at specific time of the day is believed to have curative effect on some ailments. To cure insomnia, one listens to bits and pieces of Nilambari Raga; likewise Sriraga, when sung or listened after a heavy lunch is said to aid in digestion and assimilation; while Saama raga is to restore mental peace; those who suffering from depression, are often recommended with a dose of lit in Bilahare to overcome their melancholy.

Music therapy re-establishes the lost mental equilibrium by stimulating the cognitive function. Music reduces all kinds of emotional suffering like stress, anxiety, grief and fear often associated with the adolescents. It removes the feeling of isolation and loneliness that is common both to the adolescents and mentally ill. Music gives a sense of bonding, encourages relationships. It helps the adolescents to overcome the sense of insecurity as it boosts one's self esteem and improves the quality of life. Recent literature strongly supports the use of music therapy in the treatment of those with mental disorders.

Pakhare & Shere (1992) conducted an experiment in the Regional Mental Hospital, Ratnagiri. Aim of this study was to establish the positive effects of using music therapy as a new occupational therapy activity. Results showed that the average duration of hospital stay declined from the year when there was no music session to when such sessions were held regularly. Moreover, it was also observed that (1) Mute patients gradually started participating in the chorus singing after 4-5 sessions (2) Anxious patient reported significant reduction in their anxiety level following a session of bhajans (3) Anxious and restless patients gradually developed good relaxation and improved concentration & their attention span improved.

Ramamurthi (2002) pointed out that it has long been recognized that music has beneficial effects on living beings inducing in them a state of peace and tranquility and often emotional ecstasy. Music pleasant to ears influences the central nervous system and the brain and induces a beneficial state of equilibrium inducing a like tranquility in organs and systems. When we listen

pleasing and soothing music, the sub conscious mind gets relax, thus leading to a tranquil and coordinated function of the brain and the nervous system. Music increases the ALPHA brain waves, which indicates increasing tranquility of the brain.

Sairam (2003). A news item appearing on 16th July, 2001 states that to meet increasing suicides on railway tracks, the authorities intend playing classical music in metro railway stations to reduce tension among waiting passengers. Pandit Shashank Katti (2002) views that music produce balance and integrity in mind and body. When music therapy is applied for 25 to 30 minutes three times a day for a month, secretions of neuro hormones are increased which is useful to cure disorders.

Therefore, this study chose neurosis of adolescents as the target of intervention of music therapy. The objective of the Study was to assess the effects of music therapy on neurosis and also to investigate the possible scientific mechanism of action of such therapy.

Methodology

Sample – The study was conducted at Dev Sanskriti University, Haridwar. The sample consists of 50 male adolescents (age range 13 to 18 years). All subjects were students of school and college either of senior secondary or graduation level. Random sampling method had been used for selecting the subjects. These samples were provided with music therapy daily for one month in the evening on 6.00 pm to 7.00 pm without any break. No control group was contemplated.

Research Design – A single group pre – and post – research design was used. Every subject served as its own control.

Tools – ‘Neurosis Measurement Scale’ developed by Uniyal and Bishta (1989) was used as a tool for evaluating the neurosis level of the respondents first at the onset of the study and after one month of music therapy. The questionnaire consists of 70 items. Each item was to be answered in ‘always’, ‘often’, ‘sometimes’, ‘rarely’ and ‘never’ format. This questionnaire measures six indices of neurosis such as *anxiety reaction, dissociative reaction, conversion reaction, phobic reaction, obsessive-compulsive reaction and depressive reaction*. Coefficient of reliability for this scale was found to be 0.89 by test-retest method and the validity coefficient was found by criterion validity method.

Statistical Analysis – Paired sample t-test was applied to analyze the data and to get statistical differences in the neurosis level at pre – and post – stage of the experiment.

Results

Table 1: Neurosis Scores at Pre – and Post – Stages of the Experiment

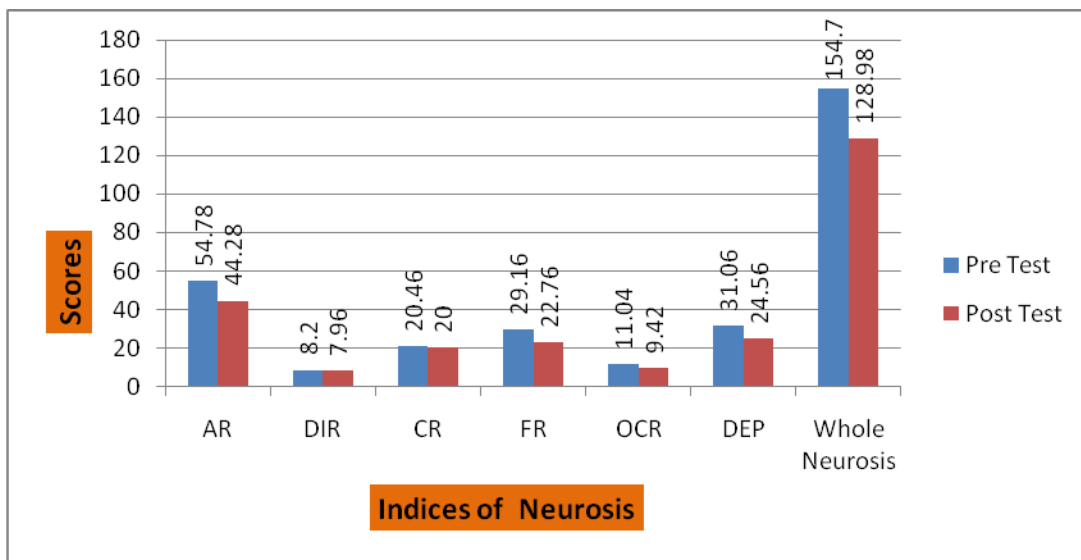
Dimensions	Tests	Mean ± SD	Correlation	S _{ED}	t – value
Anxiety Reaction (AR)	Pre Test	54.78 ± 10.161	0.197	1.7	6.175*
	Post Test	44.28 ± 8.734			
Dissociative Reaction (DIR)	Pre Test	8.2 ± 2	0.139	0.44	0.545 [#]
	Post Test	7.96 ± 2.68			
Conversion Reaction (CR)	Pre Test	20.46± 4.803	0.054	0.945	0.487 [#]
	Post Test	20 ± 4.907			
Phobic Reaction (FR)	Pre Test	29.16 ± 7.446	0.268	1.853	3.453*
	Post Test	22.76 ± 8.971			
Obsessive – Compulsive Reaction (OCR)	Pre Test	11.04 ± 3.568	0.33	0.507	3.195*
	Post Test	9.42 ± 2.428			
Depressive Reaction (DEP)	Pre Test	31.06 ± 5.527	0.198	1.166	5.575*
	Post Test	24.56 ± 5.12			
Whole Neurosis	Pre Test	154.7 ± 17.173	0.22	3.761	6.839*
	Post Test	128.98 ± 16.871			

df = 49

= Not Significant and * = Significant at 0.01 Level

Fig. 1: Showing the level of scores of various indices of Neurosis at Pre – and Post – stage of the experiments

Table 1 and figure 1 provide descriptive information about neurosis level of adolescents during pre and post tests. The total sample size of adolescents was fifty. After the music therapy, significant difference was obtained between the pre and post test, with the score of the anxiety reaction, fear reaction, obsessive compulsive reaction and depressive reaction.



However, no significant differences in the dissociative reaction and conversion reaction scores were observed. When pooled the scores of all the six dimensions of neurosis, we got a significant effect of music on overall neurosis. The mean pre-test – post-test scores of overall neurosis were 154.07 ± 17.173 and 128.98 ± 16.871 respectively. The t-value (6.839) is significant at 0.01 level of confidence, which indicates that music therapy is effective in ameliorating the neurotic mood among adolescents.

Discussion

According to Sairam (2003) “It is well known that advancing age brings physical, psychological, social and emotional changes along with limitation of physical activities, memory impairment and slow decline of intellectual activities.” The theory behind why music affects us so keenly is that we all started life in the womb listening to the soothing sounds of our mother’s heartbeat. These first sounds taught us how to relax. Now, as children or adults, we connect with the rhythm or beats of music in similar fashion. Music therapy is based on the associative and cognitive powers of the mind. It is one of the expressive therapies which are late interpreted as a complementary of integrative medicine. The system holds promise in treating the patients in a faster as well as in effective way, when combined with other interventions such as meditation, surgery or rest. Scientific explanation of the effect of music therapy involves physical effects- listing of ragas produces a network of sound vibration in brain. The brain is collection of nerve cells which unlike other cells of the body inner-connect with wire like processes called axons which transmit electrical signals. The sum total of the activity of these myriad circuits decides brain functions which in turn affects the mind in biological terms. These brain centers govern somatic functions such as blood pressure, hormone release, etc. It is possible that music as controlled energy modifies

these circuits to bring about the salutary effect on the psyche. Thus, music significantly improves affective or mood disorders, anxiety related disorders.

Wigram (2002) explained that depending of the type and style of sound music can either sharpen mental acuity or assist in relaxation. Better productivity is an outcome of an improved ability to concentrate. The ability of music to influence human emotion is well known. A variety of musical moods may be used to create feeling of calmness, tension, excitement or romance. Lullabies have long been popular for soothing babies to sleep. Music can also used to express emotion nonverbally, which can be a very valuable therapeutic tool in some settings.

There is a number of significant research studies reflecting the utility of music therapy Pravrajika Varadaprana (2002) stated that music has successfully been used in therapy to help the physically ill, the mentally ill and severely retarded children. Autistic children who would not respond to anything else would get up and dance to music. Cooke et al. (2005) found that music reduced anxiety. Hernandez (2005) investigated that music therapy reduced anxiety level and improved sleep quality. Lee et al. (2005) observed that patient on mechanical ventilation that listened to a single 30 minute session of music showed greater relaxation manifested by a decrease in physiological indices and increase in comfortable resting behavior. It was concluded that music had positive effects on the physiological and biochemical measures. Hsu, & Lai (2004) found that music resulted in significantly lower depression score, as depression decreased weekly, indication a cumulative dose effect. Jones and Field (1999) stated that frontal EEG asymmetry was significantly attenuated during and after therapy of massage and music sessions. Lai and Good (2005) found that music resulted in better components of sleep quality: better perceived sleep quality, longer sleep duration, greater sleep efficiency, shorter sleep latency, less sleep disturbance and less daytime dysfunction. All these research findings prove the therapeutical utility of music in treating the symptoms associated with psychoneuroses.

Thus it is clear that music therapy is all around us and it is very powerful to manage the problem of neurosis. It is used by people of all ages to help to cope with what life tosses their way. It is an outlet for emotions too regardless of what they may be. It doesn't claim to cure or prolong life in the medical sense instead it develops potential and restore functions to improve interpersonal or interpersonal integration and consequently secure for a patient better quality of life. The therapeutical usefulness of music had been proved by the study where the significant difference between the means was found due to music therapy thus proving the acceptance of the hypothesis. So, music is really a god gifted, versatile medicine which is useful for human beings, plants as well as animals. If we interpret it rightly, we conclude by the words of Hazrat Inayat Khan (1996), what causes pain and suffering? It is lack of

life. What is life? It is love. And what the world wants, is God. And God lives in music. So if we want God then we will have to go towards music.

Conclusion

The results of the study indicate the positive impact of music on behavioral modification. The result clearly shows that with the music therapy adolescent's neurosis level could decrease significantly. It is interesting that the subjects are not only feeling positive change in their own health status, but also this change brings about a new perspective in their outlook towards life.

All the subjects responded to music therapy session in a satisfactory way. All of them reported that they could experience total relaxation and peace during therapeutic sessions. Music stimulated their moods and made them very happy and cheerful. Regarding the usage of *flute and tabla* were very soothing. Flute sound at different pitch created positive vibrations in their body with a feeling of cleansing and purification. In this research, the music therapy training is given in group. In group therapy session, composition with human values and messages pertaining to freedom from ego, developing positive relationships, to accept life situations as they come with positive attitude and improve emotional well being.

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