

Effect of Music Therapy on Stress and Anxiety of University Students

Rishav Bharadwaj

Research Scholar, Music department, Himachal Pradesh University, Shimla, India

Email - howcanusaythat@gmail.com

Abstract: *The objective of the current research was to examine the effect of music therapy on stress and anxiety of University students. Total 100 students participated in the current study from two Government Universities of Himachal Pradesh. Beck Anxiety Inventory and Perceived Stress Scale have been used to collect the data for anxiety and stress, respectively. Eight music therapy sessions were given to the experimental group during the period of two months while control group was given no intervention. The results of the study indicates that males and females differ on anxiety ($t = 4.86, p < .01$) indicating females on the significantly higher side. Results also suggest that music therapy is effective in reducing the stress ($t = 3.68, p < .05$) and anxiety ($t = 4.29, p < .01$) levels of university students. The current research also recommends that music therapy may be effective in dealing with other psychological issues of students including depression and post traumatic stress disorder.*

Key Words: *music therapy, stress, anxiety, university students.*

1. INTRODUCTION:

Stress is an essential and integral part of our lives and we feel stress now and then. Most of the times we try find ways to manage stress. It has also been observed that mostly stress affects us negatively and also hinders the performance. There has also been a negative effect of stress on physical and mental health. Lazarus and Folkman, (1985) opined that stress is the result of a person's appraisal processes: the assessment of whether the personal resources are sufficient to meet the needs the demands of the environment. These demands or stressors can be in the form of death of a loved one, divorce, marriage, loss of a job major personal illness or injury, change in living conditions, break up of relationships, financial problems, pregnancy, raising children, study problems etc. Hanser (1985) emphasised that stress is widely accepted as affecting human behaviour. He further suggests that optimum level of stress is good for all and it also results in positive outcomes.

However, the over stress may lead to so many physical problems such as hypertension, ulcers, skin disorders, headaches, and other life-threatening diseases. Also stress leads to mental issues such as conflict, frustration and depression. Stress can come in the form of anything and everyone sees the situations differently and copes with it differently. It is important to avoid stress and avoiding of stress is not that easy but adopting certain strategies can help to reduce or cope up with stress like excising, meditation, balancing work and play, down time for self care, self talk.

The stress response is the body's way of protecting us, when working appropriately it helps us stay alert, energetic and focused. Stress gives us extra strength to defend ourselves and saves our life. Stress also helps us to rise above all difficulties in the form of stressors and helps us meet challenges. But beyond a certain point, stress stops being helpful and it starts causing a lot of damage to our health in both physical and mental aspects. Stress may be positive which may also be called as eustress, it gives us the opportunity for our personal growth and satisfaction. Negative stress or distress is caused when we are in debilitating tension and strain that may be caused by financial worries, death of a loved one or a divorce. In a sense, necessary part of our daily lives that makes us completing our work and it is necessary for our survival also because if we do not get stressed we will not do any work. There are also two basis of stress on the basis of degree and duration. Acute stress is for a short time, it flares quickly. Chronic stress is the stress which one is facing for a long duration due to any kind of stressor.

2. ANXIETY:

Sarason (1980) opined that anxiety is a learned response to a threatening stimulus that is learned or inherited. Benjamin (1987) suggested that anxiety can intervene to learning, testing and attention. It can interfere in student's ability to the expression of new learning. Similarly, May (1977) has also mentioned that anxiety is a maladjusted behaviour. Anxiety can create problems in learning and those students who are more anxious can find it difficult to fulfil academic responsibilities and easily distracted to irrelevant aspects that are available and also show problem in focus and concentration on important features.

Anxiety influences our entire being. It influences how we feel, how we carry on and has genuine physical side effects. It feels somewhat like dread yet while we comprehend what we are unnerved of, we regularly don't recognize what we are on edge about. General anxiety is unclear and unsettling - serious anxiety can be to a great degree crippling. Anxiety is frequently activated by worry in our lives. A few of us are more helpless against tension than others, however even the individuals who get to be restless effortlessly can figure out how to oversee it well. We can likewise make ourselves on edge with negative self-talk - a propensity for continually letting ourselves know the most noticeably awful will happen. We as a whole get to be on edge occasionally. It turns into an issue when it meddles with life without genuine risk, or goes on too long after the peril has past. Staying away from circumstances that make you on edge may help you feel better in the short term.

Stress and anxiety are quite much observable in student life. Mostly student confront to anxiety while performing their academic activities. Different students also deal with anxiety differently. Learning disability also cause anxiety in students and their anxiety level is comparatively high than general education students (Nelson & Harwood, 2011).

Many students suffer from anxiety when facing difficult academic tasks. Students with learning disabilities often face more anxiety than general education students Different students respond differently to anxiety. It has also been observed that Test Anxiety occurs in 33% of students. Lim (2007) gives the example of attribution theory and suggests that it is very important for students to feel control over the outcome of an academic task. Students who have more control over their academic tasks and who also feel incharge of their academic outcomes get more motivation to complete their tasks successfully.

3. EFFECT OF MUSIC THERAPY ON STRESS AND ANXIETY:

There are considerable evidences that music has soothing power and qualities. Music is also related to emotions and is expected to affect stress management in a greater way. The effect of music on human mind and body was even suggested by famous Greek thinker, Aristotle. Sigmund Freud also proposed the effects of music on psychological wellbeing of humans. Listening to music can have immense effect on our thinking, feelings and behaviour. The effect is not limited to only to mind but also on bodily process too. There have been proofs that slow classical music can help us in relaxing and feeling calm. Further, such type of music is very beneficial to different physiological functioning as slowing pulse rate, lowering blood pressure, and decreasing the levels of stress hormones. Music therapy is also a medicine for changing the mood, self esteem and lowering aggression. Moreover, researches have also suggested that (Polychronopoulou & Divaris, 2005) when people are involved in fun and music activities their important bodily functions such as heart rate, respiration rate and blood pressure goes down.

Mornhinweg (1992) conducted a research to see the effects of music therapy on perceived stress levels. The results of Paired t tests were statistically significant with two of the three musical styles. Clair (2002) did a research to see the effects of caregiver-implemented music applications on care givers and receivers. In this experiment eight couples participated individually and a music therapist trained implemented a music application of choice. The results suggested that changes in engagement frequency over a series of five sessions were highly statistically significant. The researcher concluded that music therapy has a clear effect on increasing the mutual cooperation in caregiving and care receiving couples with dementia. Yang et al. (2012) conducted a research on 24 enrolled patients to the experimental or the control group. Patients in the experimental group received music therapy. The Beck Anxiety Inventory and measured skin temperature and brain waves were used to determine anxiety level before, during, and after music therapy. The results of the study suggested that Experimental group participants had lower scores on the BAI than control participants, after the music therapy. Guven (2015) also conducted a study to confirm the anxiety of potential music teachers and found that Female students were more anxious in comparison to males.

Hence, there are vast effects of music therapy and these effects can help different groups of people. It has also been found that a number of researches have been done to see the effects of music therapy on mentally ill patients and in corporate, however not much researches have been done to see its application on University students. To fill this research gap, the current study has been proposed to see the 'Effect of Music Therapy on Stress and Anxiety of University Students'.

4. METHODOLOGY:

Sample

Total sample of the study was 100 (50 Males and 50 Females) students aging from 18 to 28 years. Sample was selected from two Government Universities of Himachal Pradesh by using convenient sampling technique. The sample of 100

students was further divided into two groups as experimental and control group with 50 participants (25 Males and 25 Females) in each group.

Research Tools

Beck Anxiety Inventory (BAI, 1988): This scale is a self-report measure of anxiety. The total score is calculated by finding the sum of the 21 items. Score of 0 – 21 = low anxiety Score of 22 – 35 = moderate anxiety Score of 36 and above = potentially concerning levels of anxiety. The test – retest reliability of the tool is .75 and the BAI was moderately correlated with the revised Hamilton Anxiety Rating Scale (.51), and mildly correlated with the Hamilton Depression Rating Scale (.25).

Perceived Stress Scale (PSS): This scale is developed by Sheldon Cohen (1983). This scale is mostly used by as a psychological instrument for measuring the perception of stress of the individual. The questions in the scale ask about their feeling, thoughts which they experience the last month, so the respondents are told to fill the scale the way they felt in certain way.

Procedure

First of all, the two tools i.e. Beck Anxiety Inventory and Perceived Stress Scale (PSS) were given to 100 participants for pre testing. All the instructions were given clearly and it took around 40 minutes to participants to fill both the tools. Then, total 100 participants were divided into two groups and eight Music Therapy sessions (four sessions per month) were given to the experimental group whereas no intervention was given to the control group. After the last session Beck Anxiety Inventory and Perceived Stress Scale (PSS) were again given to the participants and after entering the raw scores the results were analysed through SPSS.

Statistical Analysis

Descriptive statistics and paired samples t test have been used to analyse the results of the current study.

5. RESULTS AND DISCUSSION:

Table 1.1 presents the group wise distribution of the sample and provides the information that in both experimental and control group there are equal participants i.e. 50 participants in each group. Further, it is also visible that in both the groups the number of male and female participants is also equal. The mean age of the sample ranges from 21.8 years to 23.6 years.

Table 1. Group wise distribution of the sample			Mean Age
Control group (N = 50)	Males	25	23.2 Years
	Females	25	22.4 Years
Experimental group (N = 50)	Males	25	21.8 Years
	Females	25	23.6 Years

Table 2 presents the details for means scores, t ratios and p value for both the genders on stress and anxiety. It is evident that in the case of stress there are significant differences between the two genders ($t = 1.82$, $p > .05$). However, on anxiety both the groups differ significantly ($t = 4.86$, $p < .01$) indicating that females are significantly higher on anxiety in comparison to their male counterparts. These results are supported by the findings of Guven (2015) also who found that Female students were more anxious in comparison to males.

Table 2: Means, and t ratios and p value for both the genders on stress and anxiety measures				
N = 100	Gender	Mean	t value	p value
Stress	Males	20.72	1.82	.32 (NS)
	Females	21.46		
Anxiety	Males	20.03	4.86	.01**
	Females	24.97		
NS: Not Significant, **Significant at .01 level				

Here, Table 3 reflects the results of Means, and t ratios and p value for experimental and control group for both stress and anxiety measures. In both the control groups of stress and anxiety the t values ranges between 1.03 to 1.41, both are far below the critical value of t at .05 level indicating no significant different in pre and post test groups.

Table 3: Means, and t ratios and p value for experimental and control group for stress and anxiety measures					
N = 100		Gender	Mean	t value	p value
Stress	Experimental group	Pre test	24.33	3.68	.05*
		Post test	22.41		
	Control group	Pre test	22.32	1.41	.24 (NS)
		Post test	23.16		
Anxiety	Experimental group	Pre test	23.68	4.29	.01**
		Post test	20.49		
	Control group	Pre test	22.07	1.03	.67 (NS)
		Post test	21.98		
NS: Not significant, *Significant at .05 level, **Significant at .01 level					

However, in the experimental group of stress the results indicate an effect of music therapy and suggest a clear and significant difference in pre and post music therapy session groups ($t = 3.68$, $p < .05$). Similarly, in the experimental group of anxiety, the music therapy is proven to be effective even at .01 levels with a t value of 4.29. These results are in line with the findings of Yang et al. (2012) who suggested that Experimental group participants had lower scores on the BAI than control participants, after the music therapy.

6. CONCLUSION:

In a nutshell, it can be stated that there is a significant gender difference in anxiety suggesting females as high on anxiety. However, on the stress variable this gender difference is invisible. The current study also proves the effectiveness of music therapy in reducing the stress and anxiety level of university students. This research provides an insight that music can help intervening with mental health issues not only in psychiatric patients but also with general population especially students.

LIMITATIONS, SUGGESTIONS AND RECOMMENDATIONS:

As the study is done with a small sample of 100 students, the size shows a limitation and future researchers can do a study with a large sample. The same study can also be replicated to see the effectiveness of music therapy in school students or may be on special children suffering with different neurodevelopment disorders. Future researchers can also add few new variables such as depression and post traumatic stress disorder.

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