

EFFICACY OF CYCLIC MEDITATION ON REDUCING MUSIC PERFORMANCE ANXIETY ON ROCK MUSICIANS

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Abstract: This preliminary study sought out to assess the efficacy of a yogic approach to serve as a coping strategy for reducing Music Performance Anxiety (MPA) on Rock musicians. This is a very unique study which focuses only on the Rock music population. This study measures the level of MPA on Indian Rock Musicians and checks the efficacy of the yogic approach (Cyclic Meditation) pre and post intervention. It also determines the level of state and trait anxiety level. High score on the assessment tools are considered as high level of MPA, and state anxiety. The result shows that the mean value of Kenny Music Performance Anxiety Inventory (KMPAI) was decreased indicating that with the increase in the sample size and intervention period in future study, it can obtain a significant result that Cyclic Meditation serves as a very effective coping strategy for reducing MPA on rock musicians.

Keywords: Cyclic meditation, Rock musicians, anxiety.

1. INTRODUCTION

Music Performance Anxiety is an interesting area which is studied by many researchers. Understanding and finding coping strategies of MPA is very important for the music educators, musicians and researchers as this often gives an end to a very bright and promising musical career for many musicians. Cognitive Behavioral Technique (CBT) (Brugués, 2011; Nagel, 2010), slow breathing technique (Wells, Outhred, Heathers, Quintana, & Kemp, 2012), yoga (Khalsa, Butzer, Shorter, Reinhardt, & Cope, 2007) and meditation (Chang, 2001) are found to be very effective to reducing MPA on adolescent musicians and professional musicians. A study on orchestra group determines that musicians face a lot of occupational stress and stress related skin disorders. (Onder, Cosar, Oztas, & Candansayar, 2000). Apart from the other types of musicians, a study on rock musicians says that rock musicians have sleep disorder and high level occupational stress (Susan D Raeburn, 1987). This shows that rock musicians are very prone to stress and thereby can be affected by MPA.

The rise of rock music in India is increasing. And there are many bands which are achieving global fame (e.g. Soulmate, Thermal and a quarter, Parikrama, Pentagram, Alogo Naga etc.). However regardless of this prospering status of Indian rock scene, there has been no research done on the rock musicians of India especially on their Music Performance Anxiety. With the early prediction of MPA and finding a solution for coping and curing MPA for the musicians will be very helpful to proper in their musical career. After all, music and musicians serves a very important role for our lives to lead a happy life.

The essence and importance of rock and roll music is beautifully illustrated in the given below lyrics by a famous singer named Dobie Gray in his song "Drift away"-

"Day after day, I am more confused

Yet I look for the light through the pouring rain

You know that it's a game I hate to lose

I am feeling the strain and it ain't a shame

Give me the beat boys, free my soul

I wanna get lost in the rock n roll and drift away....

Beginning to think I am wasting time, I don't understand the things I do

The world outside looks so unkind, I am counting on you, to carry me through

Give me the beat boys, free my soul

I wanna get lost in the rock n roll and drift away....

When my mind is free, no melody can move me

When I am feeling, guitar coming through to sooth me

Thanks for the joy that you have given me

I want you to know that I believe in your song

Rhythm and rhyme and harmony

You will help me along, making me strong

Give me the beat boys, free my soul

I wanna get lost in the rock n roll and drift away....”

This clearly states how music plays an important role in ones well being and how important is to understand the problems like MPA in the musicians.

MPA is a kind of reactive anxiety, where the performer is unable to meet the demands of the situation while performing (Kenny, 2008) and is transition is due to a combination of factors, the most important of which are our inborn nature, the increasing cognitive capacity and self-reflective function that develops through childhood and adolescence, the type of parenting and other interpersonal experiences that we have, our perception and interpretation of the world around us, our technical skill and mastery, and specific performance experiences that may have positive or negative outcomes (Kenny & Osborne, 2006) Thurber (2006) reports another description from Salmon stating that MPA is —the product of interaction between fearful thought, autonomic arousal, and behavioral responses to a perceived threat. In accordance with Salmon’s statement, Lederman (1999) explains that —performance anxiety consists of behavioral, cognitive, and physiologic symptoms and signs that may precede and/or accompany a performance or presentation and that seem out of proportion to the specific situation. Kesselring (2006) suggests that MPA is —a state of arousal and anxiety occurring before or while a person is performing non-anonymously in front of an audience producing a valuable or evaluated task touching on his/her self-esteem. MPA is contradictory to stage fright. Stage fright is a very common phenomenon which happens to everybody in their childhood or initial period of being on stage or before audience. It can be treated easily and it often goes way with time and experience. Kenny says that is MPA is a very constant fear of/in performing music in certain settings which is more in evaluation regardless of the amount of training. MPA may or may not spoil the quality of music but it manifest in cognitive, somatic and behavioral symptoms. Also Demographic analysis has shown that MPA is two to three times more likely in females (Kenny, 2006; Kenny, 2004). This has made a very clear understanding about MPA so far.

2. REVIEW OF PREVIOUS STUDIES

Study done Sat Bir Khalsa on musician, the result showed that the yoga participants improved comparative to control subjects on most measures, with the relative improvement in performance anxiety being the greatest.. The study was assessed on 10 participants in the 2 month summer fellowship program. All participants completed baseline and end-program questionnaires evaluating performance-related musculoskeletal conditions, performance anxiety, mood and flow experience. This study showed the benefits of frequent practices of yoga in reducing MPA in musicians(Khalsa & Cope, 2006). Another study by Khalsa on adolescent musicians in Boston University which was assessed by giving kripalu yoga intervention showed significant result in reducing MPA. The study helped in finding out a non allopathic approach of treating and preventing MPA from musicians from their adolescent period thereby preventing them from early termination from a very promising career (Khalsa et al., 2007). A controlled study to evaluate the benefits of yoga and meditation for musicians by Khalsa on young adult professional musicians showed significant result. The musicians volunteered to

participate in a 2-month program of yoga and meditation were randomized to a yoga lifestyle intervention group ($n = 15$) or to a group practicing yoga and meditation only ($n = 15$) and ($n=15$) as control, no yoga group. Yoga groups showed a trend towards less music performance anxiety and significantly less general anxiety/tension, depression, and anger at end-program relative to controls, but showed no changes in PRMDs, stress, or sleep. Similar results in the two yoga groups, despite psychosocial differences in their interventions, suggest that the yoga and meditation techniques themselves may have mediated the improvements. The result suggests that yoga and meditation techniques can reduce performance anxiety and mood disturbance in young professional musicians (Khalsa, Shorter, Cope, Wyshak, & Sklar, 2009). Another study, a pilot study done by J. Stern and S. Khalsa examined the effectiveness of a 9-week yoga practice on reducing music performance anxiety in undergraduate and graduate music conservatory students, including both vocalists and instrumentalists. The intervention consisted of fourteen 60-minute yoga classes approximately twice a week and a brief daily home practice. Of the 24 students enrolled in the study, 17 attended the post-intervention assessment. Participants who completed the measures at both pre- and post-intervention assessments showed large decreases in music performance anxiety as well as in trait anxiety. Improvements were sustained at 7- to 14-month follow-up. Participants generally provided positive comments about the program and its benefits. This study suggests that yoga is a promising intervention for music performance anxiety in conservatory students (Stern, Khalsa, & Hofmann, 2012)

However apart from so many studies done on musicians regarding the reduction and prevention from MPA, so far no study has been done which specifically focuses only on Rock musicians, a kind of musicians which are subjected to high occupational stress among many other musicians. Backing up with these many significant studies based on yoga as an intervention to reduce MPA on musicians done by Sat Bir Khalsa, this current study has been conducted as a pilot study to assess rock musicians in India in reducing MPA with a yogic approach.

3. DESIGN OF STUDY

The present study was based on randomized control design. The subjects ($n=60$), age range was 18-50 years on both male and female rock musicians residing in Imphal, Manipur were randomly allocated and made to control group ($n=30$) experimental group ($n=30$). MPA was measured on both the groups by using two assessment tools i.e. KMPAI and SAI on day 1 (pre) and again on the performance day, before the concert (post). The experimental group received yoga for 10 days while the control group was not given any yoga and were simply made to do their normal activity for 10 days.

4. ASSESSMENTS

4.1 State Trait Anxiety inventory (STAI)

State Anxiety Inventory (SAI) was used to assess the state anxiety level of the musicians in the initial stage and end stage of both 10 days of control and 10 days of experimental group.

The SAI is a validated 20 item self report assessment device which includes separate measures of state anxiety. The original SAI form was constructed by Charles D. Spielberger, Richard L. Gorsuch, and Robert E. Lushene in 1964. Various reliability and validity tests have been conducted on the SAI and have provided sufficient evidence that the SAI is an appropriate and adequate measure for studying anxiety in research and clinical settings (Sesti, 2000). McIntyre, McIntyre, and Silverio (in press) validated the SAI for Portuguese communities. Several items on the SAI were reversed coded (Items 1, 2, 5, 8, 11, 15, 16, 19, 20). It is recommended for studying anxiety in research and clinical settings.

4.1.1 Reliability

The stability of the SAI scales was assessed on male and female samples of high school and college students for test-retest intervals ranging from one hour to 104 days. The magnitude of the reliability coefficients decreased as a function of interval length. For the Trait-anxiety scale the coefficients ranged from .65 to .86, whereas the range for the State-anxiety scale was .16 to .62. This low level of stability for the State-anxiety scale is expected since responses to the items on this scale are thought to reflect the influence of whatever transient situational factors exist at the time of testing.

4.2 Kenny Music Performance Anxiety Inventory (KMPAI)

The Kenny Music Performance Anxiety Inventory (K-MPAI) (Kenny et al., 2004) was developed to assess the relevance to MPA of the emotion-based theory of anxiety proposed by Barlow (2000). The 26 items for the inventory were either

specially constructed or selected from other scales to address each of Barlow's theoretical components, including evocation of anxious propositions (e.g. uncontrollability, unpredictability, negative effect, situational cues); attentional shift (e.g. task or self-evaluative focus, fear of negative evaluation); physiological arousal and memory bias. Questions are answered on a 7-point Likert scale ranging from "-3: Strongly disagree" to "+3: Strongly agree". The maximum score is 156, with higher scores indicating greater anxiety and psychological distress. The scale was tested using professional choral artists who were members of a national opera company. Scores for the K-MPAI scale were significantly positively correlated with both sub-scales of the State Trait Anxiety Inventory (STAI) (Spielberger, 1983), the standard research measure used to assess state and trait anxiety, and the Cox and Kenardy Music Performance Anxiety (CK-MPA) inventory. Two versions were created, one for solo performance and one for choral performance.

4.2.2 Reliability

The K-MPAI also demonstrated excellent internal reliability (Cronbach's alpha = .94) (Kenny et al. 2004). Regression analyses indicated that the trait scale of the SAI and the solo scale of the CK-MPA were the only independent predictors of KMPAI; these two variables accounted for 85.3% of the variance in K-MPAI scores. This scale therefore shows much promise as both a predictor of MPA and as an outcome measure following treatment for MPA. Further replications of the findings are required before it can be recommended for use in clinical or educational settings.

5. INTERVENTION

5.1 CYCLIC MEDITATION

Cyclic Meditation is a type of meditation in which the mind is made to rest through a combination of stimulation and relaxation technique. It starts with the chanting of the mantra and ends with ending mantra. The whole practice of CM is giving stimulus to the whole body in a proportionate and balance way and at the meantime relaxing the body and mind. It is a cyclic process of stimulating and relaxing the body. CM makes the body at rest however there is wakefulness. CM also increases the Basal Metabolic Rate (BMR).

Each stimulation in this practice helps to bring stagnation to an end, and open constrictions. And the release of stimulation brings relaxation to the entire body. Each relaxation helps settle the hyperactive mind, but can also lead to stagnation or drowsiness. At that point, further stimulation is necessary. In this way, successive phases of stimulation and relaxation one after the other helps release stress at deeper and deeper levels.

The stimulations are provided by various techniques like asanas, pranayama. The basic framework of yoga asanas acts as a skeleton, on which to build the flesh and give the body a precise shape, tailored to the needs of the individual

The concept of Cyclic Meditation was evolved over a number of years from 1976, and developed into a standard procedure by SVYASA University in (1986), Bangalore. The basis for Cyclic Meditation is derived from Gaudapada's Māṇḍūkya Kārikā. Māṇḍūkya Upaniṣat, says that at times it may also be desirable to stimulate the mind. The verse (Māṇḍūkya Kārikā: 3|44) states:

**lye sMbaexyet! icÄ< ivi]Ý< zmyet! pun>,
sk;ay< ivjanIyat! smääÝ< n calyet!.ma{fU· ka> 3.44.**

øaye sambodhayet citta vikipta samayet puna
ñakayam vijniyat samapraptam na calayet (Māṇḍūkya: 3.44)

"In a state of mental inactivity awaken the mind, when agitated, calm it; between these two states realize the possible abilities of the mind. If the mind has reached a state of perfect equilibrium, do not disturb it again".

For most persons, the mental state is usually somewhere between the extremes i.e. inactive or agitated. Hence a combination of 'awakening' and 'calming' practices may help attain a balanced relaxed state more effectively which will help in a state of performance anxiety. In cyclic meditation, eyes are kept closed throughout the practice in order to maintain a higher level of inner awareness and witnessing changes, which occur in the body such as changes in respiratory rate, heart rate, blood flow and contraction and relaxation of body muscles.

The body and mind are interconnected. This means that then the physiological changes like are controlled, the emotions also come under control automatically, and one is in a position to deal with the stressful situations. Practice of CM has helped to decrease down the decrease in oxygen consumption and breathe rate, and an increase in breath volume (Telles,

Reddy & Nagendra, 2000). In another study on CM, there was a significant result showing a decrease in breath rate and in finger plethysmograph, a physiological indicator of anxiety, especially at the Instant Relaxation Technique (IRT) section of the CM. Study done on Stress level by using Occupational Stress Index (OSI) questionnaire with CM as the intervention has shown significant result in decreasing the stress level, breath volume and increase in Oxygen consumption (Vempati & Telles, 2000). Practice of CM has also proved to increase the attention by improving (selective attention, concentration, visual scanning abilities, & repetitive motor response) which are required to perform a task (Patil and Telles, 2006).

With all the earlier researches which had been done, CM has been proved very affective for bringing changes in the physiological and psychological well being. This will help musicians in controlling their performance anxiety (MPA) and thereby increasing their success in their musical career.

6. RESULT

Table 1: Mean and Std. deviation of KMPAI and SAI

VARIABLE	GROUPS	MEAN	STD. DEVIATION
KMPAI_PRE	EXPERIMENTAL	38.77	11.79
	CONTROL	33.37	12.44
KMPI_POST	EXPERIMENTAL	36.60	11.12
	CONTROL	32.57	12.71
SAI_PRE	EXPERIMENTAL	44.73	7.53
	CONTROL	44.07	6.14
SAI_POST	EXPERIMENTAL	44.87	6.09
	CONTROL	42.40	5.65

Table 2: Independent sample 'T' test

Variables	Sig.
KMPAI_PRE	.456
KMPAI_POST	.521
SAI_PRE	.632
SAI_POST	.585

Table 3: Paired sample 'T' test

Groups	Variables	Sig.
EXPERIMENTAL	KMPAI_PRE-KMPAI_POST	.205
	SAI_PRE-SAI_POST	.906
CONTROL	KMPAI_PRE-KMPAI_POST	.619
	SAI_PRE-SAI_POST	.073

There is decrease in Mean value from 38.77 to 36.60 of KMPAI in experimental group compared to control group. Whereas, there is no decrease in mean value of SAI in both the groups. Here decrease in mean value refers to decrease in MPA.

There is no significant p value $>.05$ in experimental group in any test either between group or within group.

7. DISCUSSION

A study done by Sat Bir Khalsa on young adolescent musicians showed significant result in bringing down the MPA. The study was conducted by measuring MPA using the Performance Anxiety Questionnaire (PAQ) and the Music Performance Anxiety Inventory for Adolescents (MPAI-A). PRMDs were measured using the Performance-Related Musculoskeletal Disorders Questionnaire (PRMD-Q). The Yoga participants showed statistically significant reductions in MPA from baseline to the end of the program compared to the control group, as measured by several subscales of the PAQ and MPAI-A; however, the results for PRMDs were inconsistent. The findings suggest that yoga may be a promising way for adolescents to reduce MPA and a effective preventive measure. Many studies have been carried out by Khalsa on Yoga as the intervention to reduce MPA in musicians and all the results are significant. Based on his research and findings we can clearly say that Yoga ameliorates MPA, mood disturbances in musician.

The effect of yoga on reducing MPA indeed showed many significant results in other studies too. Many studies which had been done by many MPA enthusiasts with yoga as an intervention have shown significant results. Studies done by Joanne C. (Joanne C. Chang, Elizabeth Midlarsky, 2003; Kirchner, 2002), Stern Judith (Stern et al., 2012) and Y. Su (Su et al., 2010) showed satisfying and significant results in treating MPA with yoga as intervention. With regards to the research and findings by many researchers, MPA can be cured with the help of Yoga.

Referring the previous studies done, this randomized control study was carried out to check the efficacy of Music Performance Anxiety (MPA) on rock musicians by giving Cyclic Meditation (CM) as the intervention. MPA was measured with the help of KMPAI and SAI before giving 10 days of 10 sessions of CM and after 10 days of receiving CM. The result didn't show a significant result which might be due to a small sample size and short intervention period. However KMPAI mean score decreased from 38.77 to 36.60 in the experimental group which shows that there is change in the MPA level after intervention and SAI mean value was decreased from 44.87 to 44.73 in the yoga group.

8. CONCLUSION

Yoga Intervention may be found to be beneficial in reducing Music Performance Anxiety (MPA) in rock musicians on Indian population. With the increase in the sample size and the intervention period of min. 1 month, there can be a significant result on the study. However an attempt was made to assess MPA on Indian rock musicians and this call for further related researches on the topic. With the criteria being met, the study can surely get a significant result.

9. SCOPE FOR FUTURE RESEARCHES

Further studies can develop a new assessment tool based on MPA on Indian population. The same study can be carried by adding more rock musicians in terms of having a big sample size to get statistically significant result. Also future study can be done by extending the intervention period up to minimum one month to get significant result.

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