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## Comparative study of selected pulmonary variables among classical music and yoga practitioners in Jammu City

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### Abstract

The purpose of this research paper is to compare selected pulmonary variables among Classical music Practitioners and Yoga Practitioners. In the present study age of subjects ranging from 35-45 years were selected from different music classes and yoga centres of Jammu city. Those subjects who are practising since last three years in music and yoga centres. Forty (40) males were selected for the present study (20 subjects from music and 20 where from yoga. The data was collected for Exhale capacity,  $vo^2$  max, and respiratory rate. The data for the present study were selected through available sampling method. In this study data were analysed and interpreted with the help of statistical term 't' test. The result for the present study shows that in exhale capacity and respiratory rate music Practitioners are good than Yoga Practitioners. But in  $Vo_2$  max Yoga Practitioners are better.

**Keywords:** pulmonary variables, classical music, yoga practitioners

### Introduction

Music is a source of motivation and inspiration that is much valued within the realms of sport and exercise. Given the ubiquity of music in such environments, its application as a mild but perfectly legal ergogenic aid, has raised considerable interest among researchers over the last four decades (4-5).

Many individuals prefer to involve in dance with music and yoga while getting fit rather than engaging in fitness activities like running, cycling, or stair climbing. The competitive and social aspects of sports make them enjoyable for many and help promote long-lasting compliance (one of the greatest challenges in exercise training). Yoga is able to achieve oneself to be fit spiritually, morally, physically and mentally. It is essential to involve oneself in yogic exercises. Even West and other researchers in the year 2004 concluded that both dance and yoga decreased perceived stress and negative effects.

Yoga improves cardio-respiratory efficiency: Madanmohan *et al* (2008) have reported that yoga training of six weeks duration attenuates the sweating response to step test and produces a marked increase in respiratory pressures and endurance in 40 mm Hg test in both male and female subjects. In another study, they reported that 12 weeks of yoga practice results in significant increase in maximum expiratory pressure, maximum inspiratory pressure, breath holding time after expiration, breath holding time after inspiration, and hand grip strength (Madanmohan, 1992). Joshi *et al* (1992) have also demonstrated that six weeks of pranayam breathing course resulted in improved ventilatory functions in the form of lowered respiratory rate, and increases in the forced vital capacity, forced expiratory volume at the end of 1st second, maximum voluntary ventilation, peak expiratory flow rate, and prolongation of breath holding time. Similar beneficial effects were observed by Makwana *et al* (1988) after 10 weeks of yoga practice. Increase in inspiratory and expiratory pressures suggests that yoga training improves the strength of expiratory and as well as inspiratory muscles. Respiratory muscles are like skeletal muscles. Yogic techniques involve isometric contraction which is known to increase skeletal muscle strength. Breath holding time depends on initial lung volume. Greater lung volume decreases the frequency and amplitude of involuntary contractions of respiratory muscles, thereby lessening the discomfort of breath holding.

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During yoga practice, one consistently and consciously overrides the stimuli to respiratory centers, thus acquiring control over the respiration. This, along with improved cardio-respiratory performance may explain the prolongation of breath holding time in yoga trained subjects.

**Methodology**

In the present study the main purposes of the study is to Compare Selected Pulmonary variables among Classical music Practitioners and Yoga Practitioners. In the present study age of subjects ranging from 35-45 years were selected from different music classes and yoga centres of Jammu city. Those subjects who are practising since last three years in music and yoga centres. Forty (40) males were selected for the present study (20 subjects from music and 20 where from yoga). The data was collected for Exhale capacity, vo2 max, and respiratory rate. The data for the present study were selected through available sampling method. Exhale capacity was taken with the help of peak flow meter, Vo<sup>2</sup> Max was calculated through Queen Collage step test. And respiratory rate is the number of breaths that a patient takes each minute. The rate was taken when the subject was at rest, and it was assessed by counting the number of times the chest rises in one minute. In this study data were analysed and interpreted with the help of statistical term ‘t’ test.

**Statistical analysis and interpretation of data**

In this study data were analysed and interpreted with the help

of statistical term ‘t’ test.

**Level of Significance**

To test the hypothesis, the level of significant was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

**Finding**

The data collected on 40 subjects was analyzed by Applying ‘t’ test to compare Selected Pulmonary variables among Classical music Practitioners and Yoga Practitioner.

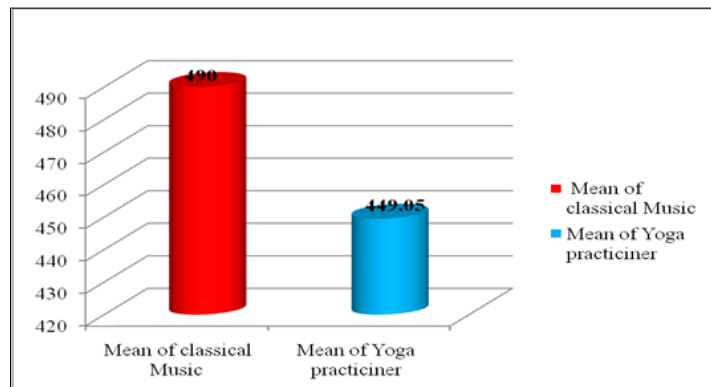
**Table 1: Exhale Capacity**

Group	Mean	S.D	M.D	‘t’ test
Music Practitioner	490	37.07	40.5	0.0061
Yoga practitioner	449.5	50.26		

\*Significant at .05 level

“t”0.05 (38) = 2.0168

It is depicted from the Table 1 that the mean of Music practitioner = 490 and Yoga Practitioner =449.5, It shows that there is a mean difference in Music Practitioner and Yoga practitioner. To see these differences are significant are not at 0.05 level. The researcher calculated ‘t’ test. On the bases of this there is no significant difference between exhale capacity of music and Yoga practitioner.



**Graph 1:** Graphically Representation Mean value of Exhale Capacity of Music and Yoga practitioner

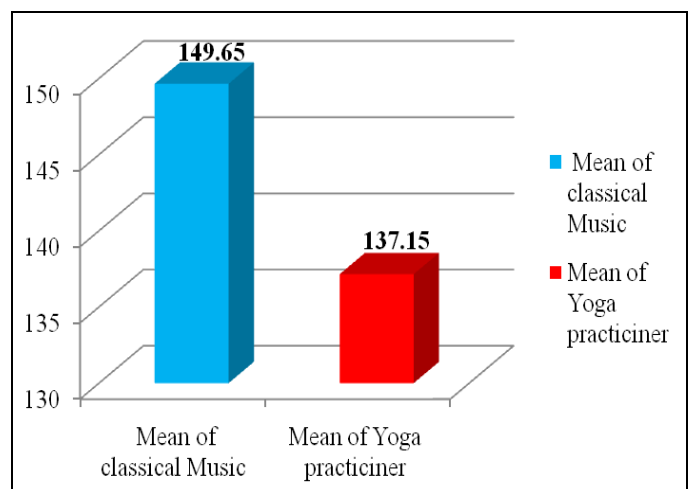
**Table 2: Vo2 Max**

Group	Mean	S.D	M.D	‘t’ test
Music Practitioner	149.65	4.22	12.5	6.59
Yoga Practitioner	137.15	8.38		

\*Significant at .05 level

“t”0.05 (38) = 2.0168

It is depicted from the Table 2 that the mean of Music practitioner =149.65 and Yoga Practitioner =137.15, It shows that there is a mean difference in Music Practitioner and Yoga practitioner. To see these differences are significant are not at 0.05 level. The researcher calculated ‘t’ test. On the bases of this there is significant difference between Vo2 Max of music and Yoga Practitioner. Here it shows that Yoga Practitioner is better than music Practitioner.



**Graph 2:** Graphically Representation Mean value of Vo2 Max of Music and Yoga practitioner.

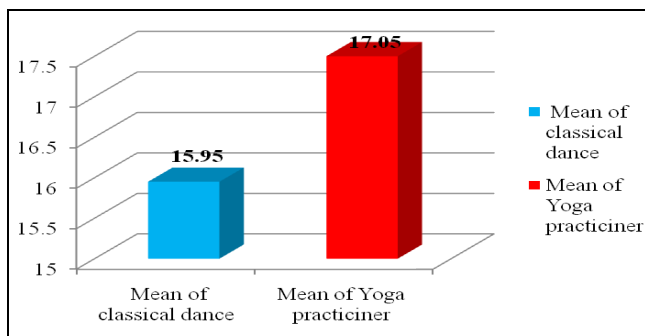
**Table 3:** Respiratory Rate

Group	Mean	S.D	M.D	't' test
Music Practitioner	15.95	1.31	1.55	0.0031
Yoga Practitioner	17.5	1.76		

\*Significant at .05 level

"t">0.05 (38) = 2.0168

It is depicted from the Table 3 that the mean of (Music practitioner =15.95 and Yoga Practitioner =17.5, It shows that there is a mean difference in Music Practitioner and Yoga practitioner. To see these differences are significant are not at 0.05 level. The researcher calculated 't' test. On the bases of this there is no significant difference between Respiratory Rate of music and Yoga Practitioner. Here it shows that music Practitioner is better than yoga Practitioner.



**Graph 3:** Graphically Representation Mean value of Vo2 Max of Music and Yoga practitioner.

### Conclusion

Thus researchers conclude that there is a mean difference in Exhale capacity of Music Practitioner and Yoga practitioner. But this difference is not significant at 0.05 level. In vo<sup>2</sup> max that there is a mean difference in Music Practitioner and Yoga practitioner. But this difference is significant at 0.05 level. In Respiratory rate there is a mean difference in Music Practitioner and Yoga practitioner. But there is no significance difference at 0.05 levels. On the bases of mean music Practitioner are better in exhale capacity and respiratory rate but in Vo<sup>2</sup> max yoga Practitioner are better. The reason may be musician are holding their breath for a long period while performing there (sur).

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