**A COMPARATIVE STUDY ON EFFECT OF DIFFERENT VARIATION OF CHAKRA MEDITATION ON THROAT CHAKRA OF ATHLETES**

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**Abstract**

*Chakra* verbally means “Wheels of light”. Our body has 7 major and many minor c*hakras*. (Shiv Samhita, 2012) These 7 *chakras* are situated from base of spine to the top of head. These are psychic centre of the astral body governing a group of functions (The serpent power, 1919). To attain the purpose of the study, 45 students were selected as subjects from Lakshmibai National Institute of Physical Education, Gwalior (Madhya Pradesh). The age of the subjects ranged between 18 to 25 years. For administration feasibility three intact groups were formed, namely group 1, group 2 and group 3 with each group consisting of fifteen students. The treatment (chakra meditation with beej mantra chanting, chakra meditation with chakra colour, and control group) was randomly allotted among groups. The training duration was five days in a week for total eight weeks. The throat chakra was selected for the study. The criterion measure chosen for testing the chakra in this study was Auramed Biopulsar Reflexograph and the energy readings of throat chakra was recorded in percentage before the training programme (pretest), after 4 and 8 weeks of training programme. To compare the effects of different chakra meditation training and training duration on selected chakra 3 (Training Durations) X 3 (Training Variations) between within factorial ANOVA was used as the statistical technique and the level of significance was set at 0.05. Partial Eta Square was also calculated to see the effect size of treatment. The SPSS-20 software was used for analysis. The findings indicated that there was a significant main effect of training durations, groups and interaction effect between training durations and groups on throat chakra..

Key words: chakra meditation, Auramed Biopulsar Reflexograph, effect size, interaction effect.

**INTRODUCTION**

*Chakra* verbally means “Wheels of light”. These *chakras* included the centre of electromagnetic energy that are located throughout the body, they provide a way for energy to enter and exit our body and help to regulate all type of energy flow i.e. physical, mental, emotional and spiritual. Our body has 7 major and many minor c*hakras*. (Shiv Samhita, 2012) These 7 *chakras* are situated from base of spine to the top of head. These are psychic centre of the astral body governing a group of functions (The serpent power, 1919). These chakras have specific colors, beej mantras and deities.

The Throat Chakra is located in the throat area between one’s chin and the top of the sternum. This Chakra is linked to one’s powers of communication. Through this Chakra, one can realize truth and knowledge; honesty, kindness and wisdom and how these elements can be conveyed through thoughtful speech. This chakra is also associated with the function of thyroid gland and throat organs. The colour of the Vishuddhi Chakra is BLUE, the colour of wisdom and spirituality. The Lotus in the Vishuddhi Chakra carries the Bīja Mantra HAM – I am. SO HAM means “That am I”.

Areas where the energy becomes most concentrated are called energy centers or chakras as explained earlier. Wherever energy becomes blocked or cannot flow efficiently for some reason, the normal functioning of different body parts becomes disrupted and if it lasts for a longer time, diseases can emerge. According to David Pond the “Chakras” store and express the divine energy and any blocks and restrictions to the flow of energy create emotional and physical imbalances.

As we all know that everything in this universe have vibrations, so the chakras also vibrate with certain frequency to channelize the energy throughout the body. Asana, Pranayama and Meditation helps in optimizing these energy channels by removing blockages.

 There is a positive impact of mediation on life and increase consciousness through chakra energy (Chaturvedi et.al.2015). Panday et al. (2011) conducted a study to check the effect of yoga sadhana and pranic healing on pranic energy level of female prisoners.and the study has revealed significant results. There are various mudras along with beej mantras of chakras, which are used for chakra meditation to enhance their energy levels (Dr. Indu Arora 2010).

 Therefore, in this study we are measuring chakras energy level which also depicts the consciousness by giving two variations of chakra meditation i.e. beej mantra and chakra colour meditation.

**MATERIALS AND METHODS**

**Subjects:**

For the purpose of this study forty five (45) athletes from Lakshmibai National Institute of Physical Education, Gwalior (M.P), were considered as subjects. The age of the subjects ranged between 18 to 25 years.

**Tools:**

Auramed Biopulsar Reflexograph was used to take the energy readings of throat chakra and was recorded in percentage.

**Procedure:**

The data was collected from the three groups (two experimental and one controlled group) before the training of chakra meditation, after four weeks, and after the 8 weeks training of chakra meditation.

**Administration of Training Programme**

The details of the training programme are as follows:

* Total training program duration was of eight weeks.
* Five days a week training session.
* Training session was of 30-40 minutes/day.
* Beej mantra (HAM) and chakra’s colour (blue) were used as chakra meditation technique.

**Data Analysis:**

In order to see “A Comparative Effect of Different Variations of Chakra Meditation on Throat Chakra of Athletes”, 3X3 mixed (Between-Within) ANOVA was used as the statistical technique and level of significance was set at 0.05. The SPSS-20 software was used for analysis. The results have been depicted in the following table:

**RESULTS AND DISCUSSION**

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| **Table 1****Descriptive Statistics of Throat Chakra of Different Groups and** **Training Durations of Chakra Meditation** |
| **Training Duration**  | **Groups** | **Mean** | **Std. Deviation** | **N** |
| Pre-test | Beej Mantra | 52.87 | 3.11 | 15 |
| Colour Meditation | 53.07 | 3.56 | 15 |
| Control Group | 52.73 | 3.01 | 15 |
| Four Weeks | Beej Mantra | 56.73 | 2.63 | 15 |
| Colour Meditation | 56.53 | 3.20 | 15 |
| Control Group | 52.53 | 3.11 | 15 |
| Eight Weeks | Beej Mantra | 61.73 | 2.99 | 15 |
| Colour Meditation | 60.00 | 2.33 | 15 |
| Control Group | 53.33 | 3.87 | 15 |

Table 1 shows the scores of mean and S.D. of throat chakra of different groups and training durations of chakra meditation. The pre-test mean scores and S.D. of brow chakra for the beej mantra meditation group, chakra colour meditation group and control group were 52.87±3.11; 53.07±3.56; 52.73±3.01 respectively.

After four weeks training duration, the mean scores and S.D. of throat chakra for the beej mantra meditation group, chakra colour meditation group and control group were 56.73±2.63; 56.53±3.20; 52.53±3.11 respectively.

The mean scores and S.D. of throat chakra after eight weeks of meditation training the beej mantra meditation group, chakra colour meditation group and control group were 61.73±2.99; 60.00±2.33; 53.33±3.87 respectively.

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| **Table 31****F-Table for Training Durations (Within-Subject Effect)****and Interaction Effect of Throat Chakra** |
| **Source** | **Type III Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** | **Partial Eta Squared** |
| Time | Huynh-Feldt | 568.24 | 1.77 | 320.60 | 78.84 | .00 | .65 |
| Time \* Training\_Variation | Huynh-Feldt | 264.39 | 3.54 | 74.58 | 18.34 | .00 | .47 |
| Error (Time) | Huynh-Feldt | 302.71 | 74.44 | 4.07 |  |  |  |

\*p-value < 0.05 is significant.

Table 31 shows that there was a significant main effect of training durations on chakra meditation as the p-value was 0.00 which was less than 0.05. It also shows that there was a significant interaction effect between groups and training durations as the p-value was 0.00 which was less than 0.05.

In the mix design there are two independent factors, duration and groups, whose effects needs to be investigated. Here the duration is a within-subjects factor and training groups is a between-subjects factor. In variable of throat chakra, the interaction effect is significant; hence analyzing the main effects becomes meaningless.

 Partial eta square in the above table explains 65% of variance of training durations and 47% of variance was explained by the interaction effect, which shows variance of interaction between training durations and groups. Partial eta square of training duration and interaction indicates very large effect size.

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| **Table 32****F- Table for Groups (Between-Subjects Effects) of Throat Chakra** |
| **Source** | **Type III Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** | **Partial Eta Squared** |
| Training Variation(Groups) | 505.17 | 2.00 | 252.59 | 11.81 | .00 | .36 |
| Error | 898.49 | 42.00 | 21.39 |  |  |  |

\*p-value < 0.05 is significant.

Table 32 shows that there was significant main effect of groups (beej mantra meditation, chakra colour meditation and control group) on throat chakra due to chakra meditation practice as the p-value was 0.00 which was less than 0.05. Partial eta squared in the above table explains 36% of variance of groups, which indicates moderate effect size.

Thus it can be concluded that there was a significant effect of training durations, interaction effect and groups on throat chakra.

Table of within subjects effects (Table 31) indicated that there was a significant effect of interaction between training durations and groups on throat chakra. To know in details about how throat chakra in each of the group through the practice of chakra meditation one way ANOVA with repeated measures was employed separately for each group. Further simple ANOVA‘s were computed separately for each data readings (pretest, after 4 and 8 weeks).

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| **Table 34****F-Table for Training Durations (Within - Subjects) of** **Different Variations of Chakra Meditation** |  |
| **Source** |  | **Type III Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** | **Partial Eta Squared** |
| Groups | Beej Mantra Group | Sphericity Assumed | 448.71 | 2.00 | 224.36 | 79.90 | .00 | .85 |
| Colour Group | Sphericity Assumed | 383.51 | 2.00 | 191.76 | 112.27 | .00 | .89 |
| Control Group | Greenhouse-Geisser | .40 | 1.33 | .30 | .03 | .92 | .00 |
| Error | Beej mantra | Sphericity Assumed | 176.27 | 28.00 | 6.30 |  |  |  |
| Colour Group | Sphericity Assumed | 47.82 | 28.00 | 1.71 |  |  |  |
| Control Group | Greenhouse-Geisser | .40 | 1.33 | .30 | .03 | .92 | .00 |

\*F0.05> 3.34 (2, 28 df) is significant.

Table 34 evidences that there was a significant effect of training durations on beej mantra and colour meditation groups as the calculated F-values were found to be greater than tabulated f value (F=3.34) with df 2, 28 at 0.05 level of significance (p-values < 0.05). However no significant difference was found in control group as the calculated F-value (0.03) was less than tabulated f value (p-value > 0.05). This means training duration had a significant effect on two experimental groups except one.

 To know exactly in which time period (pretest, after 4 weeks and after 8 weeks) of training duration throat chakra has improved significantly, pairwise comparison between data reading after Bonferroni correction for confidence interval were made. The results are shown in table below.

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|  | **Table 35****Pairwise Comparison of Training Duration (Within-Group) of Groups** |
| **Groups** | **(I) time** | **Mean Difference (I-J)** | **Std. Error** | **Sig.** | **95% Confidence Interval for Difference** |
| **Lower Bound** | **Upper Bound** |
| Beej Mantra Group | Pretest | 4 weeks | -3.73\* | .41 | .00 | -4.84 | -2.62 |
| 8 weeks | -7.73\* | .68 | .00 | -9.58 | -5.89 |
| 4 weeks | Pretest | 3.73\* | .41 | .00 | 2.62 | 4.84 |
| 8 weeks | -4.00\* | .70 | .00 | -5.91 | -2.09 |
| Colour Group | Pretest | 4 weeks | -3.13\* | .58 | .00 | -4.72 | -1.54 |
| 8 weeks | -7.13\* | .45 | .00 | -8.34 | -5.92 |
| 4 weeks | Pretest | 3.13\* | .58 | .00 | 1.54 | 4.72 |
| 8 weeks | -4.00\* | .38 | .00 | -5.03 | -2.97 |
| Control Group | Pretest | 4 weeks | -.20 | .59 | 1.00 | -1.80 | 1.40 |
| 8 weeks | -.20 | 1.17 | 1.00 | -3.38 | 2.98 |
| 4 weeks | Pretest | .20 | .59 | 1.00 | -1.40 | 1.80 |
| 8 weeks | 0.00 | .89 | 1.00 | -2.43 | 2.43 |

\*The mean difference is significant at the 0.05 level.

Table 35 shows that in beej mantra meditation group there was a significant difference found between pretest – after 4 weeks, pretest – after 8 weeks and 4 weeks – after 8 weeks as the p-values were less than 0.05. In colour meditation group there was a significant difference found between pretest – after 4 weeks, pretest – after 8 weeks and 4 weeks – after 8 weeks as the p-values were less than 0.05. In control group there was no significant difference was found between pretest – after 4 weeks, pretest – after 8 weeks and 4 weeks – after 8 weeks as the p-values were more than 0.05.

From table 35 it was found that there was an interaction between training duration and groups. To know if there was a difference between training groups in each of the data reading, one way ANOVA was computed separately for all the data readings. The results are shown below:

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| **Table 36****F-Table for Effect of Groups (Between Group) in Each Training Duration** |
| **Time** | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| Pre data | Between Groups | 8.40 | 2.00 | 4.20 | .45 | .64 |
| Within Groups | 390.40 | 42.00 | 9.30 |  |  |
| Total | 398.80 | 44.00 |  |  |  |
| 4 weeks | Between Groups | 147.24 | 2.00 | 73.62 | 8.35 | .00 |
| Within Groups | 370.40 | 42.00 | 8.82 |  |  |
| Total | 517.64 | 44.00 |  |  |  |
| 8 weeks | Between Groups | 613.91 | 2.00 | 306.96 | 29.27 | .00 |
| Within Groups | 440.40 | 42.00 | 10.49 |  |  |
| Total | 1054.31 | 44.00 |  |  |  |

\*The mean difference is significant at the 0.05 level.

The results of One-Way ANOVA indicate that score of throat chakra was not different in pretest of data readings among three groups the p-value was greater than 0.05. There was a significant difference found among three groups after 4 weeks and 8 weeks because p-value was less than 0.05. Since the One-Way ANOVA of throat chakra was found significant among groups at the end of 4 weeks and 8 weeks, Tukey post hoc test was applied to know exactly which group was better. The results are shown in the table below:

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| **Table 37****Pairwise Comparisons of Between Groups (after 4 weeks and 8 weeks)** |
| Dependent Variable | (I) Groups | (J) Groups | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval |
| Lower Bound | Upper Bound |
| Four Week | Beej Mantra | Colour Meditation | -.20 | 1.08 | .98 | -2.83 | 2.43 |
| Control Group | 3.73\* | 1.08 | .00 | 1.10 | 6.37 |
| Colour Meditation | Beej Mantra | .20 | 1.08 | .98 | -2.43 | 2.83 |
| Control Group | 3.93\* | 1.08 | .00 | 1.30 | 6.57 |
| Control Group | Beej Mantra | -3.73\* | 1.08 | .00 | -6.37 | -1.10 |
| Colour Meditation | -3.93\* | 1.08 | .00 | -6.57 | -1.30 |
| Eight Week | Beej Mantra | Colour Meditation | -.20 | 1.18 | .98 | -3.07 | 2.67 |
| Control Group | 7.73\* | 1.18 | .00 | 4.86 | 10.61 |
| Colour Meditation | Beej Mantra | .20 | 1.18 | .98 | -2.67 | 3.07 |
| Control Group | 7.93\* | 1.18 | .00 | 5.06 | 10.81 |
| Control Group | Beej Mantra | -7.73\* | 1.18 | .00 | -10.61 | -4.86 |
| Colour Meditation | -7.93\* | 1.18 | .00 | -10.81 | -5.06 |
| \*. The mean difference is significant at the 0.05 level. |

Table 37 indicates that significant difference was found after 4 weeks and 8 weeks of chakra meditation training between control group – beej mantra group and control group- colour meditation group as the p-values were less than 0.05 (p < 0.017). There was no significant difference found between beej mantra group and colour meditation group as the p-value was greater than 0.017 (p > 0.017).

Graphical representation of throat chakra for all the three experimental groups in all durations of training is shown in figure 10 below:



**Figure: Graphical Representation of Different Groups with Training Duration of Throat Chakra**

On the basis of the finding we conclude that practice of chakra meditation for 4 and 8 weeks is sufficient to bring out significant improvement in throat chakra (main effect of training duration).

In beej mantra meditation group and colour meditation group the pattern of improvement in throat chakra is similar as compared to control group.

**CONCLUSIONS**

The findings indicated that there was a significant main effect of training durations, groups and interaction effect between training durations and groups on throat chakra. The training duration had a significant effect on two experimental groups (beej mantra and colour meditation groups) except one (control group). Interaction effect concluded that the practice of chakra meditation for 4 and 8 weeks helped to improve throat chakra with beej mantra and colour meditation groups. On the basis of descriptive table we conclude that the chakra meditation practice with beej mantra helped to improve maximum energy levels of throat chakra as compared to colour meditation group and control group (Magadhi, V. 2014).

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