

# ANALYSIS ON THE EFFECTS OF DIFFERENT INTENSITIES OF BOLLYFIT DANCE TRAINING TOTAL CHOLESTEROL AMONG MIDDLE AGED WOMEN.

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## ABSTRACT

**Objectives:** The purpose of the study the Effects of medium intensity Bollyfit dance training and followed by Detraining, on the selected physiological factor which normally considered as risk factor in the Coronary Heart Disease, in healthy middle aged women in the age of 30 to 35 years. **Methodology:** Fifteen subjects were assigned to each of the four groups of experimentation by selecting the individuals on random basis and who volunteered. The groups were 40% maximum, 50% maximum group, 60% maximum group and 70% maximum group. The training regimen consisted of clearly laid protocols of exercises for four different groups. Pre-training Total Cholesterol and post training values were measure and ANACOVA statistical technique was used to analyze the results. **Results:** Three intensities of bollyfit dance training brought more significant decrease in Total Cholesterol except 40% intensity. **Key words:** Bollyfit dance, Total Cholesterol, Intensity.

**INTRODUCTION:** The quality life of an individual is measured not by the length of life alone but mainly on how an individual is possessed with better vigor and health to save him and the society best. This health related physical fitness, which is considered as a key component in an individual's life, is develop and protected though participation in various physical activities. This physical, activity may be by means of direct involvement in various kinds of activities, or else though leading active life style. Active life style is the essential requirement for an individual to preserve the well desired health and wellness. Though there is no consensus on the concept of active lifestyle, physical educationists all over the world are trying to find out carious means and methods to protect the health of individuals though active life style elements. Higher level of circulating lipids in blood than normal levels may be considered as Hyperlipidemia and epidemiological studies indicate a general trend towards a greater incidence of Atherosclerosis and incidence of Cardio Vascular Disease among people with Hyperlipidemia. The percentage of LDL is most significant factor that the total cholesterol level as a risk factor in the development of CHD, because this substance involves in the development of the atherosclerotic plaque in the blood vessels. The kind and type of exercise are not alone influence the kinds of biological adaptations in the human body. The load dynamics like density and intensity of exercise may target for different kinds of biological adaptations in the human body. One needs to do aerobic exercise at least thirty minutes three times a week. Increasingly more energy is derived from fats at exercise intensities of 65% of maximum oxygen consumption during prolonged activity<sup>5</sup>.

## MATERIALS AND METHODS:

**Methodology** Fifteen subjects were assigned in each of the four groups. The groups were 40% intensity maximum, 50% maximum group, 60% maximum group and 70% maximum group. The women subjects were selected from the Kurnool district area on random basis, out of the volunteers. The age of the subjects was between thirty and thirty five the subjects were never had any exercise conditioning program previously. Pre experimentation measurements were recorded for resting Total cholesterol levels before commencement of the experimentation and orientation period. The four training groups then followed the respective protocols of exercise specially designed for them, one month basic foundation followed by five months of the protocol exercises. The post experimentation readings were taken after the six months of experimentation period.

**Training Protocols of Bollyfit Dance:** This training protocol starts with simple before warm up stretching's and continuous with a fitness program that fuses India's Bollywood film choreography with classical and energizing folk styles of dance for there respective intensities of the maximum heart rate. The 40% maximum heart rate group , 50% maximum heart rate group , 60% maximum heart rate group and 70% maximum heart rate groups were practiced weekly thrice and they limited to practice bollyfit dance (classical and Bhangra dance styles) for one hour per day under the supervision of bollyfit expert. Each step of the workout is designed with a purpose—the synthesis of fitness, dance and presence. The last 5 minutes include a cool down/stretch followed by meditation.

**Statistical Analysis:** Analysis of Co-variance technique was used to study the effect of the experimental variables on the selected physiological variables. Scheffe's post-hoc tests also applied to find out the source of significant difference among the groups and to test the hypotheses, to arrive at conclusions. The level of significance used in the statistical analysis was 0.05.

## ANALYSIS ON DATA AND DISCUSSION ON RESULTS

**Analysis on the Total Cholesterol:** Table I depicts analysis of covariance for the Total Cholesterol of the subjects on the experimental variable selected. The table indicates that there is significant effect through the selected experimental variable i.e. bollyfit dance training of different intensities for the selected experimental period. The obtained F value i.e. 43.69 is much higher than the table F value i.e. 2.66 and hence the selected experimental variables caused the significant change in the selected total cholesterol levels of the subjects.

**Table I**

## ADJUSTMENT ON PRETEST

|         |          |
|---------|----------|
| SSTY.X  | 2205.583 |
| SSWGY.X | 651.8729 |
| SSBGY.X | 1553.71  |

| SOURCE | DF | SS       | MS       | F        | CR.F |
|--------|----|----------|----------|----------|------|
| TOTAL  | 59 | 2205.583 |          |          |      |
| BG     | 3  | 1553.71  | 517.9032 | 43.69668 | 2.66 |
| WG     | 55 | 651.8729 | 11.85223 |          |      |

Table II contains the mean values of the selected criterion variable i.e. Total Cholesterol of the subject. The table brings out the following observations. The 70% intensity bollyfit dance training group showed better reduction in total cholesterol levels when compared to the other three groups viz 60% intensity bollyfit dance training group, 50% intensity bollyfit dance training group and 40% intensity bollyfit dance training group. The 70% intensity bollyfit dance training group's post training Total cholesterol mean is 193.33, the 60% intensity bollyfit dance training group post training Total Cholesterol mean is 198.755 and the 50% intensity bollyfit dance training group's post training Total Cholesterol mean is 201.184. When compared the mean values of the three groups it is clear that the 70% intensity bollyfit dance training group showed significant reduction in Total Cholesterol when compared to the other two groups.

**Table- II**

**Pre training, Post training and Adjusted post training means for Total Cholesterol:**

| GROUPS | N  | MX       | MY       | MY.X     |
|--------|----|----------|----------|----------|
| 40%    | 15 | 224.0667 | 222.8667 | 207.5298 |
| 50%    | 15 | 188.2667 | 182.1333 | 201.1844 |
| 60%    | 15 | 202.7333 | 193.6    | 198.755  |
| 70%    | 15 | 217.3333 | 202.2    | 193.3309 |
|        |    | 208.1    | 200.2    | 200.2    |

The 60% intensity bollyfit dance training group also showed significant reduction in the Total Cholesterol levels when compared to the 50% intensity bollyfit dance training group. This simple analysis on the post training adjusted mean values shows that there is significant reduction in the Total cholesterol levels of the subjects due to the selected activity at the different intensity.

Though there is variance in the mean values of the Total Cholesterol because of the four different intensities, to find out the real difference and the cause of significant difference the Scheffe's post hoc individual comparison test was conducted.

**Table – III****INDIVIDUAL COMPARISONS FOR TOTAL CHOLESTEROL**

| GROUPS & VALUES         | 70% intensity<br>193.33 | 60% intensity<br>198.75 | 50% intensity<br>201.18 |
|-------------------------|-------------------------|-------------------------|-------------------------|
| 60% intensity<br>198.75 | -5.42<br>sig            |                         |                         |
| 50% intensity<br>201.18 | -7.85<br>sig            | -2.43<br>n.sig          |                         |
| 40% intensity<br>207.53 | -14.2<br>sig            | -8.78<br>sig            | -6.35<br>sig            |

The Scheffe's post hoc individual comparison test for the individual groups is presented in table III. The individual comparisons through the Scheffe's post hoc test elicited that the 70% intensity bollyfit dance training group has brought out significant reduction in the Total Cholesterol of the subjects when compared to the other three experimental protocols of exercise. 60% intensity bollyfit dance training group and 50% intensity bollyfit dance training group post training adjusted averages are different in values, the Scheffe's post hoc comparison test indicated that the difference between the groups is insignificant and hence the training effect of the 60% intensity

bollyfit dance training group and 50% intensity bollyfit dance training group is identical. But, all the three exercise protocol groups of the experimentation showed significant reductions in the total cholesterol levels as per the Scheffe's post hoc individual comparison test when compared to the 40% intensity bollyfit dance training group.

## CONCLUSIONS

1. All the three different durations selected for the bollyfit dance training capsule of different intensities viz. 70% intensity bollyfit dance training group, 60% intensity bollyfit dance training group, 50% intensity bollyfit dance training group and 40% intensity bollyfit dance training group. The 70% maximal heart rate intensity bollyfit dance training group caused for the significant decrease in the total cholesterol of the subjects.
2. All the three different intensities selected for the experimentation caused significant change in the total cholesterol levels of the subjects, but there is no significant difference between the 60% and 50% exercise capsules of the experimentation.

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