

## PREFACE

The purpose of the study was to find out the effect of speed jump and strength jump training on selected physical fitness variables and jumping performance of female volleyball players. To achieve the purpose of the study 90 female volleyball players from various colleges affiliated to VNSGU, Surat and who participated in inter college, state level, inter university and national level competitions were randomly selected and subjects whose age ranged from 17 to 22 years. Physical fitness variables such as; speed, cardio respiratory endurance, explosive power and agility and jumping performance such as; standing vertical jump, three step approach vertical jump, right direction side step jump and left direction side step jump were selected as a depended variables. All the ninety subjects were divided in to three groups with thirty (30) subjects each as two experimental and control group. The experimental group - I (N=30) underwent strength-jump training, experimental group - II (N=30) underwent speed-jump training and control group (N=30) did not undergo any practices. The data were collected before and after the training period of 8 weeks and the data collected were statistically analysed with 't' test and analysis of covariance (ANCOVA) were used to assess the acquired data to find differences. The LSD test was used as a post-hoc test to ascertain the differences between the paired post-test means whenever the adjusted 'F'-ratio for post-test mean was found to be significant. For all situations, the level of significance was set at 0.05 level of confidence. The result of the study shows that there was significant improvement for strength-jump training and speed-jump training of female college volleyball players on selected criterion variables. Moreover, the result of the study also shows that the strength-jump training group significantly improved explosive power, standing vertical jump and three step approach vertical jump and speed-jump training group significantly improved cardio-respiratory endurance, agility, and right and left directions side step jump. There was no significant improvement observed on control groups.

**Key Words:** Strength jump, Speed Jump, physical fitness, jumping performance.