

**EFFECT OF SPEED JUMP AND STRENGTH JUMP TRAINING ON
SELECTED PHYSICAL FITNESS VARIABLES AND JUMPING
PERFORMANCE OF FEMALE VOLLEYBALL PLAYERS**

महिला वॉलीबॉल खिलाडीयो पर गति-कूद और शक्ति-कूद प्रशिक्षण का
चयनित शारीरिक-योग्यता चर और कूद प्रदर्शन पर प्रभाव

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By

GAMIT TARUNKUMAR CHIMANBHAI
गामित तरुणकुमार चिमनभाई

Under the supervision of

DR. HEMANT PANDYA

Principal,
Pacific College of Physical Education,
Pacific Academy of Higher Education
& Research University, Udaipur

DR. ASHOK KUMAR SAHA

Associate Professor,
S.P.B. English Medium College of Commerce,
Surat, Gujarat



**FACULTY OF PHYSICAL EDUCATION
PACIFIC ACADEMY OF HIGHER EDUCATION
AND RESEARCH UNIVERSITY, UDAIPUR**

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CHAPTER - V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS



5.1 Summary

Sports training seeks to become a sportsperson physically fit so they can perform better. It is founded on scientific ideas that aim to improve performance and education an increase in physical fitness increases the strength and stability of the muscle-skeletal system as well as general health and biological functions. The goal of sports training also includes the development of motor skills. Sports activities involve motor movement and action, and how well they are executed is a key factor in how successful they are. The development of training methods and tactical efficiency enhancements are essential to the training process.

The game of volleyball is energetic and quick-paced. Strength and speed training is not done to bulk up the muscles of volleyball players, but rather to improve their physical makeup and performance. It must be cultivated in conjunction with other skills including agility, quickness, and endurance. How players perform at the net during a volleyball match is one of the most important aspects. Teams need to be able to dominate play near the net both offensively and defensively if they are to succeed. Due to this, agility and quickness are two of the most sought-after qualities in volleyball players. To improve physical fitness and leaping ability, the researcher attempted to find the speed and strength jump training modalities in this context.

To achieve the purpose of this study, 90 female volleyball players studying in various colleges affiliated to VNSGU, Surat and who participated in inter college, state level, inter university and national level competitions were selected as subjects whose age ranged from 17 to 22 years. Three groups of twenty each were formed by randomly selecting the subjects (n=30). The experimental groups I and II trained in speed-jump and strength-jump training respectively, while group III served as the control group. Speed, cardio-respiratory endurance, explosive power, agility, standing vertical jump, three-step approach vertical jump and right-left direction side step jump were selected as dependent variables among physical fitness and jumping performance. Prior to and immediately after the eight-week training periods, selected dependent variables were assessed across the board in all experimental groups. The '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.

5.2 Conclusions

The following findings are drawn through data analysis:

1. The speed jump training and strength jump training significantly increased the selected physical fitness variables such as speed, cardio-respiratory endurance, explosive power, and agility of the volleyball players.
2. The speed jump training and strength jump training significantly improve the selected jumping performance such as standing vertical jump, three-step approach vertical jump and right-left direction side step jump of the volleyball players.
3. Compared to the strength-jump training group, the speed-jump training group significantly improved cardio-respiratory endurance, agility, and right and left directions side step jump.
4. Compared to the speed-jump training group, the strength-jump training group significantly improved explosive power, standing vertical jump and three step approach vertical jump.
5. The experimental groups namely speed-jump and strength-jump raining group showed equal improvement while improving the performance of speed.
6. There was no significant improvement observed on control groups.

5.3 Recommendations

1. This study demonstrated how speed and strength jump training for enhanced volleyball players' physical fitness and jumping ability. Therefore, it is advised that trainers and physical educators place a high priority on including speed and strength jump exercises in their training regimens.
2. The results would significantly advance the fields of physical education and sports by introducing fresh improvements in training techniques.
3. The results of the study would aid in developing and modifying modifications to the volleyball players' training manuals.

4. The significance of this study would pay a way to new branches of research in the field of volleyball coaching and training.
5. It may be possible to perform a study among athletes from various sports to determine the impact of speed and strength jump training.
6. Similar research can be done by choosing different performance levels, sexes, and age groups.
7. Using a similar research approach, other biochemical, physiological, and physical fitness parameters may be added to a study.
8. Same study may be repeated by employing a larger sample with longer duration of training and keeping nutrition, daily routine as controlled factors.
9. The findings of the current study could serve as a review for future research.