CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary

Yoga is not only about body movements but also breathing, meditation but much more than that. Yoga is helpful in improving the flexibility and strength of the muscles and in volleyball. A player needs to be flexible and have toned muscles that in turn would elevate the performance on court. When the range of movement is increased it naturally boosts the speed. Power is the product of strength and speed. This power can be used while serving in the match if there is strength and speed.

When flexibility is good, it reduces the chances of injury. A more limber body reduces the chances of muscle pull or inflammation of the tendon. Moving with more dexterity enhances the productivity on the court. For example, when a volleyball player practices the Suryanamaskar, it is helpful while serving in the match. The good service requires a healthy arc to gain more speed while serving. By practicing the Suryanamaskar the arc of the upper body would naturally increase the flexibility. Meditation improves the concentration, which is helpful to volleyball players in being more alert and agile while playing on the court.

Yoga is helpful in solving muscle imbalances and asymmetry problems. As in some sports, one side of the body is more dominant than the other which causes muscle imbalances and asymmetry problems and in volleyball players most use one side of the body.

There are some yogic postures that are isometric in nature that helps in strengthening the muscles. Yoga not only focuses on body movements but also breathing. Breathing helps in proper supply of
oxygen to all parts of the body which would help in reducing the lactic acid formation.

Seeing the benefits of yoga many of these benefits would be highly beneficial in taking volleyball to another level. A study can be done to see the effects of yoga on the selected volleyball skills and physical fitness factors of volleyball players. Thus, conducting research work in this direction is justified with the following objectives:

**Objective of the Study**

1. To know the effect of yogic exercises on the flexibility of the lower back and posterior thigh of the volleyball players measured by sit and reach test.
2. To study the effect of yogic exercises on the flexibility of the back i.e. hyperextension of the spine measured by bridge up test.
3. To know the effect of yogic exercises on the agility of volleyball players measured by shuttle run.
4. To study the effect of yogic exercises on the agility of volleyball players measured by SEMO Agility test.
5. To study the effect of yogic exercises on the explosive strength of volleyball players measured by Standing Broad Jump.
6. To study the effect of yogic exercises on the upper body muscle strength and endurance of volleyball players measured by pull ups test.
7. To know the effect of yogic exercises on volleyball service skill test.
8. To know the effect of yogic exercises on volleyball passing skill test.
The hypothesis formulated in the study is as follows:

\[ H_{01} \]: There is no significant effect of yogic exercises on volleyball skills and physical fitness components of the junior volleyball boys.

\[ H_{02} \]: There will be no significant effect of yogic exercises on the flexibility of the back i.e. hyperextension of the spine measured by bridge up test.

\[ H_{03} \]: There will be no significant to study the effect of yogic exercises on the agility of volleyball players measured by shuttle run.

\[ H_{04} \]: There will be no significant to study the effect of yogic exercises on the agility of volleyball players measured by SEMO Agility test.

\[ H_{05} \]: There will be no significant to study the effect of yogic exercises on the explosive strength of volleyball players measured by Standing Broad Jump.

\[ H_{06} \]: There will be no significant to study the effect of yogic exercises on the upper body muscle strength and endurance of volleyball players measured by pull ups test.

\[ H_{07} \]: There will be no significant to know the effect of yogic exercises on volleyball service skill test.

\[ H_{08} \]: There will be no significant to know the effect of yogic exercises on volleyball passing skill test.

For the present study Researcher wants to find out the effect of yogic exercises program on Volleyball skills and Physical fitness. Researcher will be used Experimental method. Two Group Design will be used the present study.

There are two groups, X is experimental Group and C is controlled group.
Group X and Cs Pre Test will be taken prior to Treatment of twelve week yogic practice and volleyball skill practice for measure the status of dependent variable.

After that, a treatment of twelve week of yogic exercises and volleyball skill practice will be imparted to Group-X to record its influence on the dependent variable. After the treatment period is over. Post test will be administered to measure the degree of change on the dependent variable. There are two groups, one is experimental and another is controlled group.

R - O₁ X₁ O₂ X₂ O₃ X₃ O₄ X₄ O₅
R - O₆ C O₇ C O₈ C O₉ C O₁₀
O₁ & O₆ Pre Test Observation
O₂ & O₇ Test after 3 Weeks
O₃ & O₈ Test after 6 Weeks
O₄ & O₉ Test after 9 weeks
0₅ & O₁₀ test after 12 weeks (Post Test)

R-Randomization
X₁, X₂, X₃, & X₄ Treatment Experimental Group
(Treatment of Yoga Exercises)
C-Control Group (No Treatment of Yoga Exercises)

Distribution of twelve weeks training programme.

The sample designed in the study is as follows: In Pimpri Chinchwad area there are 60 junior colleges. Among 60 junior colleges only one college will be selected using purposive sampling method. The number of junior boys from 11th and 12th Std. is 200, from this only 60 days 30 from 11th std. and 30 from 12th std. will be selected by using simple random sampling method.

Considering these points purposive cum random sample system, sampling technique has been employed and the sample size has been
targeted, in this investigation to 60 male students studying in Junior College in Pimpri-Chinchwad Area. The population was the Junior college Boys (11th& 12th) age ranged from 16 to 18 years in Pimpri Chinchwad Area, selected two colleges randomly. Thus total 60 Junior Colleges were listed as sample.

The investigator then collected the name list of boys studying in `11th & 12th junior players from this list 60 boys were pulled from Junior College as subject by purposive cum random sampling technique without considering caste, creed, and colour. As the total 60 subject were selected for the study.

The experimental design in the study is as follows:

The selected subjects were divided equally into two groups. viz. Yoga Practices (Group X) and Control Group (Group C) having 30 subject in each. The subjects of group X specified Yoga practices whereas the Group B was treated as control. Since the subjects of all the groups were junior players. They were directed to continue their daily activities in the Junior College.

Training period was to 12 weeks. After the training was over, all the subject were exposed to post test where all the variables were measured for the subjects of all the group the pre-test data were collected on 7 & 8 December 2012 Whereas the post test data were from 14, 15, & 16 March 2013.

The research variables in the study are as follows: Independent Variable: The independent variable was Yoga. The justification of selecting these variables as follows:- Prayer, Ardha Shalbhasana,Suryanamaskar, Shalbhasana, Shavasana, Ardha Halasana, Sukhasana, Halasana, Brahma mudra, Ushtrasana, Padmasana, Tadasana, Naukasana, Chakrasana, Gomukhasana, Kapalbhati, Paschimottanasana,
Ujjai Pranayama, Parvatasana, Breath meditation, Vakrasana, Om Shantimantra and Bhujangasana.

The dependent variables being selected in this research regarding health related physical fitness factors are as follows:

Agility - Shuttle run, SEMO Agility test, Flexibility - Sit and Rich test Bridge-up test, Strength - Pull-ups test and standing Broad Jump, Volley Ball Skills were the Service and Unhand Pass. Standard tests were use to measure the above variables.

Tools used for data collection for the purpose research were AAHPER Volleyball Skill test 1) Service Test 2) Passing Test

Physical Fitness Test will be used to measure accuracy of the subject and will be measured physical fitness.1) Agility Test 2) Flexibility Test 3) Strength Test

Statistical Tools and Techniques used in the study were descriptive statistics as follows: Mean, Median, Standard Deviation used descriptive statistics and Repeated measure ANOVA used Inferential Statistics.

5.2 Conclusions

• There is improvement in the flexibility of the volleyball players due to regular practice of yogic exercises.

• Regular practice of yogic exercises showed improvement in the agility of the volleyball players.

• The study showed improvement in the strength of the volleyball players due to the regular yogic practices.

• The passing skill showed improvement due the regular yogic practices.

• The service skill of the volleyball players showed improvement due to the regular yogic practices.
5.3 Recommendations Based On Study

- It is recommended to use Yogic Exercise Program for the development of the flexibility of the volleyball players.
- It is recommended to use Yogic Exercise Program for the development of the agility of the volleyball players.
- It is recommended to use Yogic Exercise Program for the development of the muscle strength of the volleyball players.
- It is further recommended to use Yogic Exercise Program for the development of the volleyball specifically passing skill.
- It is further recommended to use Yogic Exercise Program for the development of the volleyball specifically serving skill.
- Practice of Yogic exercises makes the player more agile.

5.4 Recommendation for Further Research

- A similar study can be done on volleyball girls players.
- A similar study can be done to see the effect of yogic exercise on other sports.
- A similar study can be done to see the effect of yogic exercise on other physical fitness components.
- Research can be done to see the effect of yogic exercises on the skills of various other games.