CHAPTER - V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

Generally physical fitness can be achieved by a scientific and systematic use of training means. Training means are various physical exercises and other objects, methods and procedures which are used for improvement, maintenance and recovery of performance capacity and performance readiness any material or immaterial object, method or measure which can be lead to achieve the aims of training can be called a training means. Physical exercises are the principal means of training the other means are used in addition to physical exercises to increase the total effect of physical exercise. This means can be used along with physical exercises or exercises or separately as per requirement. Each training means has its own specific effect on the performance capacity. Typical training programs comprise numerous specific training activities and techniques. all those selecting the proper individual activities is important combining this activities in a complimentary fashion so that the result is a optimal overall training programme is crucial. Based on this, to provide the need based training to the development of physical and physiological fitness of adult men during the resistance training with separate packages of asanas and ayurvedic massage.

Based training programme was instituted in testing the effect of selected physical fitness components and physiological variables. Thus present study was titled as effect of resistance training with separate packages of asanas and ayurvedic massage on selected physical fitness components and physiological variables of men adult males.

To achieve the purpose of the study, sixty male students studying at PES Institute of Technology and Management, Shimoga, Karnataka were selected randomly as subjects. The age of the subjects ranged from 18 to 25 years.
Selected subjects were divided into three groups randomly and named as Group 1 was undergone resistance training with asanas group (RTAG). Group 2 was undergone resistance training with ayurvedic Massage (RTAMG). Group 3 control group. The study was as pre and post test random group design, in which sixty subjects were randomly selected and divided in to three equal groups, each group consisting of twenty subjects. The subjects of each group were measured on criterion variables such as namely upper body muscular strength, lower body muscular strength, muscular strength endurance, flexibility and cardiovascular endurance (physical variables), resting pulse rate, systolic blood pressure, diastolic pressure and VO2 max (Physiological variable).

On completion of measuring pre test subjects of each group were inducted into the respective treatment program apart from a the treatment program for three days a weeks where as the subjects of control group (group 3) did not undergo any training program apart from a regular activities. Thus the subjects of group 1 underwent resistance training with asanas group (RTAG). Group 2 underwent resistance training with ayurvedic massage group (RTAMG). Over the 12 weeks of training program the subjects of each group were tested on critical variable as such in the case of treatment. Thus the collected data were treated by appropriate statistical technique of analysis covariance and Schefee’s post hoc test.

5.2 RESULTS

5.2.1 Muscular strength

The experimental groups shown significant increase in upper body muscular strength in resistance training with ayurvedic massage group (RTAMG) =9.25kg., P=0.05; and resistance training with asanas group (RTAG) =7.95 kg., P=0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas
group (RTAG) was significantly (P=<0.05) better than the control group (CG) in increasing upper body muscular strength as measured by bench press.

The experimental groups shown significant increase in lower body muscular strength in resistance training with ayurvedic massage group (RTAMG) =22.05kg., P=<0.05; and resistance training with asanas group (RTAG) =19.50 kg., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in increasing lower body measure muscular strength as measured by half squat.

5.2.2 Muscular strength endurance

The experimental groups shown significant increase in Muscular strength endurance in resistance training with ayurvedic massage group (RTAMG) =7.05 nos., P=<0.05; and resistance training with asanas group (RTAG) =5.65 nos., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in increasing muscular strength endurance as measured by modified sit ups.

5.2.3 Flexibility

The experimental groups shown similar significant increase in flexibility in resistance training with ayurvedic massage group (RTAMG) and resistance training with asanas group (RTAG) =11.55 cms., P=<0.05; resistance training ayurvedic massage group (RTAMG) and resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in increasing flexibility as measured by sit and reach test.
5.2.4 Cardiovascular endurance

The experimental groups shown significant increase in cardiovascular endurance in resistance training with asanas group (RTAG) = 1.49 min/sec., P=<0.05; and resistance training with ayurvedic massage group (RTAMG) = 1.12 min/sec., P=<0.05; resistance training with asanas group (RTAG) was found significantly (P=<0.05) better than the resistance training with ayurvedic massage group (RTAMG). The resistance training with ayurvedic massage group (RTAMG) was significantly (P=<0.05) better than the control group (CG) in increasing cardiovascular endurance as measured by one and half mile run.

5.2.5 Resting pulse rate

The experimental groups shown significant decrease in resting pulse rate in resistance training with ayurvedic massage group (RTAMG) = 7.65 beats/min., P=<0.05; and resistance training with asanas group (RTAG) = 5.80 beats/min., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in decreasing resting pulse rate as measured by carotid artery.

5.2.6 Blood pressure

Systolic blood pressure

The experimental groups shown significant decrease in systolic blood pressure in resistance training with ayurvedic massage group (RTAMG) = 7.80 Mm/Hg., P=<0.05; and resistance training with asanas group (RTAG) = 4.75 Mm/Hg., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in decreasing systolic blood pressure as measured by sphygmomanometer.
Diastolic blood pressure

The experimental groups shown significant decrease in Diastolic blood pressure in resistance training with ayurvedic massage group (RTAMG) =4.20 Mm/Hg., P=<0.05; and resistance training with asanas group (RTAG) =3.60 Mm/Hg., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in decreasing Diastolic blood pressure as measured by sphygmomanometer.

5.2.7 Maximum oxygen consumption (Vo_{2max})

The experimental groups shown significant increase in Maximum oxygen consumption (Vo_{2max}) in resistance training with ayurvedic massage group (RTAMG) =11.59beats/min., P=<0.05; and resistance training with asanas group(RTAG) =10.22 beats/min., P=<0.05; resistance training ayurvedic massage group (RTAMG) was found significantly (P=<0.05) better than the resistance training with asanas group (RTAG). The resistance training with asanas group (RTAG) was significantly (P=<0.05) better than the control group (CG) in increasing Maximum oxygen consumption (Vo_{2max}) as measured by queens college 3minutes step test.

5.3 CONCLUSIONS

From the result of the study, the following conclusions have been made.

1. Resistance training with asanas and resistance training with ayurvedic massage produced a significant improvement in the development of selected physical fitness components of muscular strength, Muscular strength endurance, flexibility, cardiovascular endurance and physiological variables of resting pulse rate, blood pressure and maximum oxygen consumption of men adults.
2. Resistance training with ayurvedic massage is more effective than resistance training with asanas in increasing selected physical fitness components of muscular strength, Muscular strength endurance, flexibility and physiological variables of maximum oxygen consumption and decreasing resting pulse rate and blood pressure of men adults except cardiovascular endurance in which resistance training with asanas performed better.

3. Resistance training with asanas and resistance training with ayurvedic massage groups are more effective than the control group in increasing selected physical fitness components of muscular strength, muscular strength endurance, flexibility, cardiovascular endurance and physiological variables of maximum oxygen consumption and decreasing resting pulse rate and blood pressure of men adults.

5.4 RECOMMENDATION

Based on the results of the study, the following recommendations have been made.

1. As the resistance training with ayurvedic massage effectively influenced the physical fitness components of muscular strength, muscular strength endurance, flexibility, cardiovascular endurance and physiological variables of resting pulse rate, blood pressure and maximum oxygen consumption of men adults, it is recommended that further researches can be conducted to find out the effect of aerobic training with ayurvedic massage for adult males.

2. The resistance training with ayurvedic massage effectively influenced Physical fitness components and physiological variables of men adults. Hence it is recommended to the coaches and trainers to include ayurvedic massage in their training programme.
3. The present study was conducted for men adults; it is recommended that the same research may be conducted for adult females.

4. As the resistance training with ayurvedic massage effectively influenced the physical fitness components and physiological variables of men adults, it is recommended that further researches can be conducted to find out the effect of aerobic training with ayurvedic massage for female adults.

5. It is recommended that similar researches can be conducted to find out the effect of resistance training with ayurvedic massage for different age groups.