SUMMARY

In modern competitive world, people are always affected by physical, physiological and psychological disorders. In youth, there is clear evidence of the above mentioned problems because of their less involvement in physical exercise and sports. Mind and body are complexly inter-related. A sound mind grows only with the sound body and the growth of one is complementary to that of the other. Youth are brought up with unrest and frustration which leads to aggressive behavior.

Physical activity is essential for the development of personality of a child which would depend upon the opportunities provided for wholesome development of the mental, physical, social and spiritual aspect. Hence a well organized and properly administered physical education programme for school children is very essential.

Dands Baithaks are two different exercises used in core wrestling vyayam in olden days. Dands are jackknifing pushups and Baithaks are comparable to western style deep knee bends. It is complete body workout for a warrior practiced to maintain their fitness.

Yoga is the foremost system in the world to recognize the connection and the interaction between the body and the mind. Regular practice of asana even for thirty minutes a day will keep an individual quite fit and makes him hale and healthy and brings a harmonious development of the whole body.
Shoulder and Abdominal muscular strength and endurance, and hip flexibility are the most important variables of physical fitness concerned. Without these strength and flexibility one cannot prolong the work for a long duration. If the strength and flexibility decrease it will cause defects in posture and leads to back pain and injuries. Hence, one should develop the strength, endurance and flexibility.

Aerobic capacity and anaerobic power of energy system plays a key role in improving the various functions of the organs. The cardio-respiratory systems are well equipped to perform work for long duration without fatigue. It is mainly due to the aerobic and anaerobic power.

Breath is the key to the mystery of life. Human life time is measured from the first to last breath. Breathing techniques or exercise is very important for each and every individual, because breath in exercises helps to change energy need within the body for health and well being.

This study was conducted to find out the effects of Isolated and combined training of Dands Baithaks and Yogasanas on specific physical and physiological variables among school boys in Puducherry region. To achieve the purpose of the study, eighty school boys were selected at random and their age ranged from 13 to 16 years. They were divided into three experimental groups and one control group.

The training was given three days in a week for twelve weeks for experimental groups. Dands Baithaks group and Yogasanas group were given training on Monday, Wednesday and Friday, and combined group (Dands Baithaks and Yogasanas) was trained on Tuesday, Thursday and

159
Saturdays, whereas the control group did not participated in any specific training program other than their regular routine work.

The Physical variables selected for the purpose this study were shoulder muscular strength and endurance, abdominal muscular strength and endurance and flexibility which were measured by pull-ups, (in numbers), bent knee sit-ups (in numbers per minute) and Sit and reach test (in centimeters) respectively.

Similarly, the selected Physiological variables were Aerobic capacity, anaerobic power, breath holding time ,and resting respiratory rate which were measured by Cooper’s twelve minutes run and walk,(distance in meters ) Margaria Kalamen Power test (Kgm/ second),breath holding time (in seconds) and resting respiratory rate (per minute) respectively.

Data were taken at the beginning (Pre-test) and end (Post- test) of the experimental period of twelve weeks. The Paired ‘t’ test was applied between the Pre test and post-test means of each group to find out their effectiveness of the three respective training programmes namely Dands Baithaks, Yogasanas and combined training with the Control group in all test items.

Analysis of Variance and co-variance was applied for all the experimental variables, to find out the comparative effects of the different training programme through ‘F’ ratio. Scheffe’S post hoc test was applied as an extension of Analysis of covariance to find the significant differences between the paired adjusted final means of the four groups in their respective variables.
CONCLUSIONS

Based on the result of the study the following conclusions were drawn:

1. Shoulder Muscular Strength and Endurance was significantly improved by the Dands Baithaks group, Yogasana group and combined group, when compared with control group.

2. Shoulder Muscular Strength and Endurance was significantly improved by the Dands Baithaks group than Yogasana group and combined group.

3. There was no significant improvement in Shoulder Muscular Strength and Endurance between combined group and Yogasana group.

4. Abdominal Muscular Strength and Endurance was significantly improved by the Dands Baithaks group, Yogasana group and combined group, when compared with control group.

5. There was no significant improvement in Abdominal Strength and Endurance between combined group and Yogasanas group, Dands Baithaks group and Yogasanas group, and Dands Baithaks group and combined group.

6. Flexibility was significantly improved by the Dands Baithaks group, Yogasanas group and combined group, when comparing with control group.

7. Flexibility was significantly improved in Yogasanas group than Dands Baithaks group and combined group.

8. There was no significant improvement in Flexibility between Dands Baithaks group and combined group.

9. Aerobic Capacity was significantly improved by the Dands Baithaks group, Yogasana group and combined group, when comparing with control group.
10. There was no significant improvement in Aerobic Capacity between combined group and Yogasanas group, Dands Baithaks group and Yogasanas group, and Dands Baithaks group and combined group.
11. Anaerobic Power was significantly improved by the Dands Baithaks group than control group.
12. There was no significant improvement in Anaerobic Power between Yogasana group and Control group, Combined group and Control group, Combined group and Yogasanas group, Dands Baithaks group and Yogasanas group, and Dands Baithaks group and combined group.
13. Breath Holding Time was significantly improved by the Yogasana group and combined group, when comparing with control group.
14. Breath Holding Time was significantly improved by the Combined group than Dands Baithaks group and Yogasanas group.
15. There was no significant improvement in Breath Holding Time between Dands Baithaks group and Control group, and Dands Baithak group and Yogasanas group.
16. Resting Respiratory Rate was significantly improved by the Dands Baithaks group, Yogasanas group and combined group, when comparing with control group.
17. There was no significant improvement in Resting Respiratory Rate between combined group and Yogasanas group, Dands Baithaks group and Yogasanas group, and Dands Baithaks group and combined group.
**RECOMMENDATIONS**

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

1. All educational institutions should give more emphasis on indigenous exercises programme such as Dands Baithaks and Yogasanas in school educational curriculum so that students, parents and teachers may develop positive attitude towards physical education programme. Further, school students may be motivated to improve their basic physical fitness and mental health.

2. It is more ideal to start indigenous exercise centers at different places.

3. Dands Baithaks and Yogasana competition should be conducted periodically to motivate the school students.

4. Special remedial measures in Dands Baithaks and Yogasanas practices may be designed for the welfare of mentally retarded.

5. Similar study may be undertaken at various levels of education like college and University.

6. Such studies may be conducted on players of different sports and games

7. Comparative study may be conducted on different categories of subjects for sex, different age group and athletes and non athletes.

8. Similar study may be conducted by using other physical, physiological and psychological variables.

9. The study may be conducted in middle school level to develop Strength, Endurance and Flexibility.
10. This type of exercise may be given to the wrestlers, weight lifters because this exercise will improve the arm, shoulder girdle strength, hip, abdominal muscular strength and endurance.

11. Dands Baithaks and Yogasana practices may be given for posture maintenance.

12. The Dands Baithaks exercise may recommend practice for the best physique performance.

13. This type of training programme can be recommended for throwers namely Shot putters, Hammer throwers, Javelin throwers, Pole vaulters and Discus throwers.