

CHAPTER-V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

"Obesity is caused by the imbalance between the numbers of calories intake and burnt. Nothing is wrong about eating pizza and burger, but it is essential to burn as many calories.

According to World Health Organization around 22 million children worldwide are obese. It is no longer confined to developed countries. Developing countries like India, China, and Brazil too are showing an alarming rise in child obesity.

Developed countries like the United States have an alarming rate of obesity. 25% of children and teenagers are overweight or obese. The same is with the adult population there. Approx 62% of the adult population is overweight and 26% is obese. This percentage is expected to increase to 75% overweight and a whopping 41% obese adult population by 2015 in the United States. In the analyses carried out for World Health Report 2002, approximately 58% of diabetes and 21% of ischaemic heart disease and 8-42% of certain cancers globally were attributable to a BMI above 21 kg/m². There is a steady rise in obese children in India. This disturbing trend is found in cities, especially metros among children aged 5 to 10 years.

Two factors are responsible for the rise in child obesity. The changing food consumption pattern of the child is the main culprit. It is further compounded by the inactive lifestyle of the child. In most developing countries the children live in areas which do not have any open space for physical sports. Schooling takes up the major part of their day.

During free time, the children prefer to watch TV, or play computer games rather than play in garden or open spaces. Hence lots of physical activities are curtailed by technology. There are a very limited studies conducted on obese and physical fitness psychological Variables and biomechanical gait variables. The present study is a new attempt in the physical education and sports

The purpose of the study was to analyze the body mass index status and to determine the effect of fitness programme intervention on selected health related fitness, psychological and biomechanical gait variables among obese school boys.

For the purpose of the study, twenty matriculation schools in Chennai educational district which were situated at the core heart of the city were chosen at random. Two thousand male students were chosen at random from these schools for Body Mass Index status analysis. They were at the age group of thirteen to seventeen years.

The Body Mass Index status was analyzed for the selected subjects on the basis of BMI for age guidelines given by World Health Organization (WHO) for the children 5-19 years in percentiles.

After the Body Mass Index status analysis, sixty obese category subjects (BMI equal to and above 95th percentile) were selected at random. The subjects were selected only after getting the written consent regarding the participation in the research from their parents.

A physical activity readiness questionnaire was administered on the subjects and they were involved in the study only after they were declared fit to undergo the fitness programme by a physician.

Then they were tested (pre-test) on the selected health related fitness such as cardiorespiratory endurance, body composition, flexibility, muscular strength and muscular endurance and the psychological variables such as self esteem and assertiveness and biomechanical gait variables such as gait velocity, cadence, step length, stride length, gait cycle time, single support time, double support time, stance time and swing time. The selected sixty obese category subjects were assigned in two groups at random such as experimental group and control group, each consisting of thirty subjects. The experimental group underwent the fitness programme for a period of 13 weeks and the control group did not undergo any such experimental treatment. After the fitness programme intervention, post test was conducted on the subjects of the experimental and group to collect the data of the all selected variables. The collected data were analyzed through one way Analysis of Covariance (ANCOVA) and the level of significance was fixed at 0.05.

5.2 CONCLUSIONS

Within the limitations of the study, the following conclusions were drawn:

1. It was concluded that the school boys were successfully selected at random and their body mass index status was analyzed.
2. The selected health related fitness variables such as cardiorespiratory endurance, body composition, flexibility, muscular strength and muscular endurance were improved significantly due to the intervention of fitness programme among obese school boys.
3. The selected psychological variables such as self esteem and assertiveness were improved significantly due to the intervention of fitness programme among obese school boys.

4. The selected biomechanical gait variables such as gait velocity, cadence, step length, stride length, gait cycle time, single support time, double support time, stance time and swing time were improved significantly due to the intervention of fitness programme among obese school boys.

5.3 RECOMMENDATIONS

A. RECOMMENDATIONS TO THE GOVERNMENT

1. It is recommended that the awareness about obesity should be created in schools and colleges through awareness programme.
2. It is recommended that the Government should insist on all schools to provide play ground facilities and compulsory physical education programme.
3. It is recommended to the Government that physical education should be made compulsory subject and the students should be assessed of their physical fitness periodically and be given marks for their fitness.
4. It is recommended that physical education teachers should be appointed in all schools according to the student teacher ratio.

B. RECOMMENDATIONS TO THE SOCIETY

1. It is recommended that the parents of school children should be made aware of the healthy life style so as to help their children to follow the same.
2. The parents should play a vital role in forming the healthy life style in their children and cultivate good exercise habits which are sustained throughout their lives.

3. The schools must give an opportunity to their students to play.
4. The Physical Education Teachers should play a vital role in bringing a healthy life practice among the students with the help of the school management and parents.
5. As a citizen of India, all must swear that we would transform India, a healthy country in the world.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

1. It was suggested that a similar study may be conducted with larger samples, which would support the findings of this study.
2. It was suggested that a similar study may be conducted on elder population.
3. A study on effect of fitness training on the kinetic gait parameters of obese adolescents may be conducted.
4. A study on effect of fitness training on the hypertrophy and hyperplasty parameters of obese adolescents may be conducted.
5. A similar study may be conducted to find the effect of fitness programme and academic performance among obese adolescents.
6. A study may be conducted to construct health related physical fitness norms for the Indian children.