

CHAPTER - I

INTRODUCTION

1.1 COASTAL AREA

“The coastal zone is an interface between the land and sea, which comprised of a continuum of coastal land, intertidal area, aquatic systems including the network of rivers and estuaries, islands, transitional and intertidal areas, salt marshes, wetlands, and beaches” (**Cicin-Sain and Knecht, 1998**).

The world has about 620000 kilometers of coastline. According to United Nations currently, forty percentages (40%) of the population exists within Hundred (100) Kilometers of the coast. It is a natural ecosystem such as freshwater and aquatic species. Coastal areas are constantly varying as active contact concerning the sea and the land. The waves, winds hit the coast day today and the water level also increasing day-by-day.

1.2 CHENNAI COASTAL AREA

Chennai's coastal length covers 19 kilometers. It is India's longest and the world's second-longest beach, Marina beach is located south-eastern coast of India along the Bay of Bengal. Chennai is the Capital of Tamil Nadu which is located in the south of India. For this research work selected location from Tiruvottiyur to Mylapore

coastal area. Most of their occupation depends on the sea and seafood. Kasimedu fishing harbour is one of the significant fishing grounds in the Royapuram, it is found north of Chennai port which is the second-largest container port of India. This harbour can accommodate around 2300 fishing boats.

1.3 VULNERABILITY

Vulnerability is defined as “the characteristics of a person or group and their situation that influences their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard” (**Wisner Ben et.al 2004**). In addition, man-made hazards also influence the vulnerability of the place, people and environment. Poverty also plays a major role in vulnerability to people. Day by day the risk factor increases. Earthquakes, Floods, hurricanes and tsunami destroy physical things such as houses, things in many cases lots of life also lost.

1.3.1 PHYSICAL VULNERABILITY

In this research context, Physical Vulnerability is considered as a lack of physical activity or exercise. A person has a risk of injury prone or reduced Endurance, Strength, Speed and reduced movement or dexterity.

1.3.2 SOCIAL VULNERABILITY

Social Vulnerability alludes to the likely adverse consequences on communities brought about by outer weights on human wellbeing. Such anxieties incorporate regular or human-caused fiascos, Infection flare-ups, Poverty, Unemployment, Family Income, Educational Status, Disability, Single Parent (divided family), Housing, Vehicles and Physical neglects (Food, Clothes, shelter), Educational neglect (Parent not giving Education for Child), Emotional neglect (Humiliating, Intimating & Isolating), Medical neglect (Health care and Dental Care).

1.4 CHILDREN

Children are generally energetic and playful with their friends and family. The current modern world and their busy schedule of parents and their family and current circumstances they are not much active these days and lack of play or exercises spoil their physical growth of children and also mental growth and well-being.

1.5 PHYSICAL EDUCATION

“Physical Education is a process through which an individual obtains optimal, physical, mental and social skills and fitness through physical activity” (**Lumpkin, 1990**). “Physical Education can be defined as a meaningful and worthwhile experience obtained through participation in physical activities that are physically wholesome mentally stimulating, satisfying and socially sound ”(**Gabriel Moreno,**

2011). The main objective of physical exercise is to be the fitness of an individual to do the regular activity without any fatigue. The process can be content in physical education to improve physical fitness that is to be visualized.

1.6 BENEFITS OF PHYSICAL EXERCISE

Reduce the risk of Heart Disease

Physical exercises can counter key risk aspects such as cardiovascular disease, obesity, inactivity and high blood pressure.

Improved Physical Fitness

A good program improves children's cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition.

Sturdier Bones

An efficient physical workout expands bone thickness to shape a sturdy skeleton.

Weight Parameter

A good program can help children regulate their weight by burning calories, toning their physique and improving their overall body composition and controlling their weight.

Health Advancement

Suitable physical activity averts the onset of certain diseases and delays the debilitating effects of the aging process.

Improvement of Judgment

Quality physical education inspires ethical development. Children have the prospect to take responsibility for leadership, cooperate with other children and accept responsibility for their own behaviour.

Self-Discipline

A respectable physical education teacher demonstrates children to follow rules and recognized procedures and to be responsible for their own health-related physical fitness.

Stress Reduction

Physical movement is a channel for discharging tension and anxiety.

Self-Confidence and Self Esteem

It instils strong wisdom of self-respect in children. They can become more confident, emotionally stable, assertive, self-controlled and independent.

Setting Goals

Physical education provides children the time and encouragement they need to set and strive for personal, achievable goals.

1.7 HATHA YOGA

“Yoga is an alternative form of physical activity which may assist in achieving recommended levels of physical activity for some individuals. Yoga is increasing in popularity” (Chandler, 2001). “The term Hatha (the act of physical stances) is comprised of two components. “Sanskrit, “HA” meaning “sun”, the positive vibration in the human body, and “THA” meaning “moon”, the negative vibration in the human body. It is one of the various paths of yoga, which emphasizes overall fitness through pranayamas (breath-control exercises), asanas (yoga postures), and chanda (meditation). Hatha yoga is professed to silent the mind and focus concentration; however, of all the yoga traditions, the importance of physical fitness is emphasized most in hatha yoga” (<https://www.rishikulyogshala.org/the-10-health-benefits-of-hatha-yoga/>).

“Hatha yoga uses physical alignment and breathing control to achieve equilibrium between the active body and its universe. The subsequent agreement shows itself as physical strength, physiological wellbeing and passionate prosperity” (<https://www.rishikulyogshala.org/the-10-health-benefits-of-hatha-yoga/>).

1.7.1 Benefits Of Hatha Yoga

Hatha yoga, with its diverse practices, is designed to bring in health, joy and harmony of the body, mind and soul. Positioning the body to a variety of postures does astonishment for the organs, muscles, mind and spirits.

Health Heart

The devoted act of hatha yoga stances is effective in controlling the disease of hypertension- one of the significant reasons for heart issues and coronary failures. The hatha yoga further develops the bloodstream to the heart and diminishes the shot at angina episodes in individuals bringing about a sound heart.

Builds Core Strength

The center is the midriff of the body comprising of the transverse abdominis, erector spine, obliques and lower lates. To stay away from the injury, to perform well in sports and to manifest a robust body-it is essential that your core is strong and flexible.

Lubricate the Joints

Hatha yoga effectively works on the multiple joints of the body helping them get their full range of motion. In an inactive way of life, the joints are not worked to their full limit. Subsequently, they will generally solidify up. Significantly further develop your mobility in joints with hath yoga.

Balance and Posture

The developed stance advantages of hatha yoga are profoundly charming. Hatha yoga presents work with balance and a feeling of proprioception. The hatha yoga rehearses stretch the spine making you look taller and certain.

More Bone Density

Hatha yoga framework incorporates a few weight-bearing yoga stances like Tree pose, Warrior Pose, Triangle Pose, and so on, that assistance in turning around bone misfortune by building bone-thickness. Healthy bones are critical for individuals of all ages to limit the danger of creating delicate bones-therapeutically known as osteoporosis and osteopenia. The advantages of Hatha yoga practice consistently incorporate structure bone mass in the spine and femur.

Stress Reliever

A characteristic method for warding off the pressure is to appear on a yoga mat and to perform specific hatha yoga poses. Hatha yoga asana guides people to mental harmony and positive energy. Practice for acquiring the psychological wellness advantages of hatha yoga.

Upgrade Nature of Pranayama

Pranayama is necessary to the hatha yoga technique. The diverse breathing techniques improve the quality of life force-prana and nourish the body and mind thereby increasing your lifespan.

Clear and Sparkly Skin

Shat-kriya performs deeply purifies the body inside-out. Furthermore, the stances fill in as detoxifying specialists at certain levels taking out the poisons and acquiring inward gleam, lustrous skin, and a peach shine.

Overall Well-being

Regular practice of hatha yoga enhances multiple aspects of physical, mental and spiritual being respecting the practitioners with an efficiently working sound body, mind and soul.

1.8 HEALTH-RELATED PHYSICAL FITNESS

“Health-related fitness relates to those components of fitness which make up our health status: cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition” **(Ray Baker, 2003)**.

“Health-related fitness is defined as a state characterized by an ability to perform and sustain daily activities and demonstration of traits or capacities that are

associated with low risk or premature development of diseases and conditions related to movement” (Joseph & Francis, 1998).

1.9 STATEMENT OF THE PROBLEM

The motive of this study was to evaluate the situation with physical and social weakness of coastal area children and to measure the impact of experimentation of physical education programme with and without hatha yoga practices on selected health-related fitness and psychological variables.

1.10 HYPOTHESES

1. It was hypothesized that coastal area children could be successfully selected at random and their physical and social vulnerability status could be assessed.
2. It was hypothesized that there would be a significant improvement on selected health-related fitness variables among coastal area children due to physical education programme with hatha yoga practices (PEPWHYP).
3. It was hypothesized that there would be a significant improvement on selected health-related fitness variables among coastal area children due to physical education programme without hatha yoga practices (PEPWOHYP).
4. It was hypothesized that there would be a significant improvement on selected psychosocial variables among coastal area children due to physical education programme with hatha yoga practices (PEPWHYP).

5. It was hypothesized that there would be a significant improvement on selected psychosocial variables among coastal area children due to physical education programme without hatha yoga practices (PEPWOHYP).
6. It was hypothesized that experiment of physical education programme with hatha yoga practices (PEPWHYP) would produce better significant improvement than physical education programme without hatha yoga practices (PEPWHOYP) on the selected health-related fitness and psychosocial variables among coastal area children.

1.11 DELIMITATION

The following delimitations were taken into consideration during this study.

1. The presented study was restricted only to children from the Chennai District Coastal area.
2. The presented study was only restricted to boys.
3. The age of the subjects selected for the study was between 10 to 14 years.
4. The duration of the experimental period was restricted to 12 weeks.
5. The number of groups for the study was delimited to three (3) groups with Twenty-Five (25) subjects in each group.

6. The following variables were selected for this study.

➤ **Independent variables**

1. Physical Education Programme With Hatha Yoga Practices

(PEPWHYP)

2. Physical Education Programme Without Hatha Yoga Practices

(PEPWOHYP)

➤ **Dependent Variables**

Health-Related Physical Fitness Variables

1. Cardiovascular Endurance

2. Muscular Strength

3. Muscular Endurance

4. Flexibility

Psychosocial Variables

1. Quality of Life

2. Self-Esteem

3. Depression

1.12 LIMITATION

The following uncontrollable factors associated with the study were considered as limitations of the research study.

1. Certain factors like daily routine, diet and climate conditions would not consider for this study.
2. The subject's body type would not be taken into consideration.
3. The homogeneous characters of the subjects, hereditary, would not be considered.

1.13 OBJECTIVES OF THE STUDY

1. To measure the physical and social vulnerability status of coastal area children.
2. To measure the health-related fitness variables among coastal area children.
3. To measure the psychosocial variables among coastal area children.
4. To identify suitable training to improve the selected health-related fitness and psychosocial variables among coastal area children.

1.14 SIGNIFICANCE OF THE STUDY

1. This study would help the children to identify their physical and social vulnerability status levels.
2. The results of the study would help the children understand the physical education programme

3. This study would help the coastal area children to improve their social status through physical education programme with and without hatha yoga practices.
4. The results of the study would give a clear picture of physical education programme for coastal area children.

1.15 DEFINITION OF TERMS

1.15.1 Cardiovascular Endurance

“Cardiovascular endurance is the ability of the heart, lungs and blood vessels to deliver sufficient nutrients, oxygen and blood to working skeletal muscles, during-moderate to high intensity activities over prolonged periods of time” (**Cheryl, 2002**).

1.15.2 Muscular Strength

“Muscular strength is defined as the ability of a muscle group to develop maximum contractile force against a resistance in a single contraction” (**Vivian, 2010**).

1.15.3 Muscular Endurance

“Muscular endurance is the ability of a muscle group to exert submaximal force for extended periods” (**Vivian, 2010**).

1.15.4 Flexibility

“Flexibility is the ability of a limb to move freely around a joint through a full range of motion” (**Patricia, Anita & Pierre, 2007**).

1.15.5 Psychosocial

“Social factors include general factors at the level of human society concerned with social structure and social processes that impinge on the individual. Psychological factors include individual-level processes and meanings that influence mental states. Sometimes, these words are combined as psychosocial. This is shorthand term for the combination of psychological and social, but it also implies that the effect of social processes is sometimes mediated through psychological understanding” (Stansfeld & Rasul, 2007).

1.15.6 Quality of Life

“World Health Organization (WHO) defined QOL as an individual perception of their position in life in the context of culture and value systems in which they live and in relation to expectations, standards, and concerns. It is a broad ranging affected in a complex way by the person’s physical health, psychological state, level of independence, goals, social relationships and their relationship to salient features of their environment (WHOQOL Group, 1993).

1.15.7 Self-Esteem

“How worthy or valuable a person considers him or herself in self-esteem. Conceptually, this is very close to other terms, such as self-image, which is how one imagines oneself or supposes one to be, and self-concept, which means all the elements that make up a person’s view of him or herself and which includes self-image. The cognate term idealized self is a characterization of what one would like to be or become. Self-presentation - ‘presentation of the self’ - is behaviour designed to influence the impressions of the self” formed by others. The various concepts are intertwined” (Ellis Cashmore, 2004).

1.15.8 Depression

“Depression is a mood typified by a sense of insufficiency, dejection, sadness, hopelessness, fatigue or acute lack of motivation. It may arise in response to a specific incident or set of circumstances, or it may be a part of a complex or syndrome of related symptoms. Gloria Balague and James Reardon’s case study of an athlete whose mother had died illustrates how depression can affect rapidly. Reason for depression is varied and change with changing contexts. Eating disorders are often a manifestation of some forms of depression and reflect dissatisfaction with body image” (Ellis Cashmore, 2004).