



A study of fitness performance and maximum oxygen consumption (VO₂ max) in the residential and non-residential school children's of Kolhapur District, MS, India

¹ Manjare K.G. ² Sanadi R.A. and ³ Jadhav A.D.

¹ Adarsh Gurukul Vidyalay & Junior College, Peth Vadgaons

² Research scholar, Department of Zoology, Shivaji University, Kolhapur- 416 004

² Assistant Professor, Department of Zoology, Shivaji University, Kolhapur- 416 004

KEYWORDS

Physical Fitness, BMI, VO₂ max, Physiological parameters, Residential school and Non-residential School Children's

Corresponding Author Email

reshmasaniadi09@gmail.com

ABSTRACT

Physical fitness is the most important for survival of the healthy life. It is a general state of health and well-being. Physical fitness is an individual depends on the amount of oxygen which can be transported by the body to working muscles, and the efficiency of muscles to use that oxygen. The acquaintance interaction of modern life style, we are neglecting the natural physical activities and increased the risks among the society for the chronic diseases exclusively from coronary heart diseases. Our aim to find fitness performance in residential and non-residential school children's age group of (15-16yrs) of, Peth Vadgaons village of Kolhapur district. The study was divided into two group Residential (n=50) and non-residential (n=50) school children's. Anthropological measurements like height (cm), weight (kg), BMI (kg/m²) was measured by standard protocol. Physical fitness index and VO₂ max calculated by Harvard Step Test and pulse rate per min was recorded from carotid pulse. Data was analyzed by using Microsoft Excel software. Our study revealed that, PFI and VO₂ max significantly higher in residential children's than non-residential children's. BMI of residential children's and non-residential children's were statistically significant. The present study concluded that residential school children's were more physically fit than the non-residential children's. Regular physical exercise was recommend to non-residential children's

Introduction

Physical fitness is the most important for survival of the healthy life (Khodnapur, *et.al.*, 2012; Das, 2001). It is a general state of health and well-being. Physical fitness is an individual depends on the amount of oxygen which can be transported by the body to working muscles, and the efficiency of muscles to use that oxygen. The acquaintance interaction of modern life style, we are neglecting the natural physical activities and increased the risks among the society for the chronic diseases exclusively from coronary heart diseases. Predominantly cardio respiratory fitness is dependent on physical fitness index. Poor physical fitness

is dependent on physical fitness index. Poor physical fitness showed a potent risk factor and stronger predictor of cardiovascular and causes morbidity and mortality than any other established risk factors (Castillo *et.al.*, 2005; Sengupta and Sahoo, 2011). Several factors like heredity, environment, socioeconomic status, regular exercise, diet and nutrition, and proper rest is important for physical fitness (Khodnapur, *et.al.*, 2012).

Several studies have established that physical fitness and health can assist in the prevention of chronic progressive diseases, accordingly to provide improved health status and quality of life.