

Special Issue- Role of Exercise in Prevention of Obesity in Children

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Childhood obesity is a condition in which excess body fat negatively related with the child's health or wellbeing. Due to the increasing trend of obesity in children and its adverse health effects it is emerging as a serious public health problem. Recent studies indicated that up to one out of every five children in the United States of America is overweight or obese, and this number is continuing to rise. Obese children are at risk for a number of conditions, including: high cholesterol, high blood pressure, early heart disease, diabetes, bone problems, reproductive abnormalities later in life. In addition, they are also more prone to develop stress, sadness, and low self-esteem.

There are varieties of reasons which lead to obesity in children. The common causes of obesity in children are genetic factors, lack of physical activity, unhealthy eating patterns, and /or combination of these factors. However, rarely medical condition such as a hormonal problem may cause obesity, which can be ruled out by performing physical examination and biochemical tests. Accordingly to World Health Organization (WHO) diet and lack of physical activity and/or both are responsible for rising levels childhood obesity and noncommunicable diseases. Nutrition and activity level play an important role in determining obesity in children. It has been observed that many children spend a lot time being inactive, viz. watching television for 3-4 hours, using computers and video games for number of hours each day. These are the common causes of inactivity among the children.

Assessment of obesity among the children can be performed by simple tools. BMI and waist-hip ratio are the common and easily assessable indicators for determination of obesity among the children. Balance diet and physical activity is the key for maintaining a healthy life style. It is advised to the overweight and obese children to reduce the rate of weight gain while allowing normal growth and development for a healthy life style. The actions to prevent childhood obesity need to be taken in multiple settings and at all levels of government. They also need to incorporate a variety of approaches and involve a wide range of stakeholders. Moreover, childhood obesity prevention efforts need to be tightly

integrated with other efforts to control the major noncommunicable disease risk factors.

To understand prevention of obesity in children population wide evaluation of the dietary intake in relation to physical activity is useful. In a major attempt to emphasize the importance of research and evidence-based practical information in advancing all aspects of the Role of Exercise in Prevention of Obesity in Children, the American Journal of Sports Science and Medicine published a Special Issue in 2014.

This special issue of American Journal of Sports Science and Medicine attempted to enlarge the research spectrum beyond the traditional domains presented previously in order to promote more broadly physical activities and sports. Therefore this special issue promotes research concern in Bharatnatyam Dancing on Body Composition (see manuscripts of Mukherjee et al.), Obesity Indices and Academic Performance (see manuscripts of Mukherjee and Dhara), Physical Activity and Age at Menarche in Females (see manuscripts of Ajita and Jiwanjot).

This special issue was also the opportunity to bridge the gap between traditional exercise and sports training by reporting both longitudinal researches and studies regarding childhood obesity (see manuscripts of Vasquez et al.; Kirn and Starc; Shim et al.), which are very useful for talent detection and training in athletes. In addition, studies also focused on body composition and cardio-respiratory risk factors (see manuscripts of Goswami et al.; Mukherjee and Dhara; Vasquez et al.). Assessments of body composition and fitness have also been reported in many articles (see manuscript of Aouichaoui et al.; Shim et al.). Further, this special issue also highlighted the prevalence of obesity among the population (see manuscripts of Adhikari), and indicate the reason behind obesity in children (see manuscripts of Pradeep Singh Chahar).

Finally, the articles in this special issue of American Journal of Sports Science and Medicine enrich the current knowledge of the students, coaches, researchers, educators, and practitioners seek assistance from the vast amount of technical information.