

CHAPTER ONE

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1: INTRODUCTION

Obesity can be described as a “New World Syndrome” causing an enormous socioeconomic and public health burden in developed, developing and in poor countries of the world. Overeating energy-dense, nutrient-poor foods and a sedentary lifestyle have led to an epidemic of obesity and type 2 diabetes all over the world (Goran, 2003). It is a global health problem. In the developed world, it is one of the major health issues and results in poor outcomes in the form of higher mortality and morbidity in obesity has been in the past thirty years. The growing problem of obesity is associated with multiple morbidities, including increased risk of diabetes, hypertension, heart disease, sleep apnea and cancer. Diet and exercise focused strategies are not effective in preventing obesity and maintaining weight loss (Ahima, 2011). Apart from physical problems there are issues which affect psychological well-being of an individual. Depression is the most common psychological co-morbidity of obesity. A wide range of treatment options are available but balanced nutrition diet and regular physical activity are considered to be the safest and the easiest option (WHO,2000).

Other options are medication and surgery. Each of these treatment options have some or the other lacunae. Anti-obesity drugs aim to reduce food intake by either reducing appetite or suppressing the desire for food. Many of these have been associated with severe side effects. Bariatric surgery is an effective treatment for long-term weight loss in morbid obesity. In fact, orlistat is the only available long-term treatment for obesity. Several additional gut hormone-based treatments for obesity are under (Derosa & Maffioli, 2012).

Childhood obesity is an issue of serious medical and social concern due to the adoption of a western lifestyle. Consumption of high calorie food, lack of physical activity and increased time on viewing television are major risk factors for childhood obesity. Obese adolescents are more prone to adopt the risk of medical and psychological complications like Insulin resistance, dyslipidemia, type 2 diabetes mellitus, hypertension, polycystic ovarian syndrome and metabolic syndrome in their adulthood. As prevention and treatment of obesity involves lifestyle modification of the entire family (Seth & Sharma, 2013). Excess bodyweight is the most important risk factor contributing to the overall burden of disease worldwide. Yoga has been found to be an effective tool for the management of obesity. Regular Yoga practice was associated with reducing weight gain, most strongly among individuals who were overweight.

In recent times, Yoga training centers, practice centers, private agencies, and individuals for both profit and non-profit sectors has opened Yoga centers and organizing sessions in various

forms and approaches & many people pay fees to use these facilities and practice Yoga. However, educational institutions both public and private are not keeping up with the trend, though it is their prime responsibility of developing the full potentials of children and young people (Telles, Singh, Bhardwaj, Kumar, & Balkrishna, 2013). Today's children require a creative, interactive syllabus, and participatory method in the teaching-learning process. This approach is applicable for learning Yoga too. Thus, if we can communicate with children and young people effectively, they can adopt Yoga as a powerful tool for themselves to manage stress.

Obesity is among the most common and costly chronic disorders worldwide. A lack of effective options for long-term weight reduction is not available. Study includes evidence from basic science, clinical, and epidemiological literature to assess current knowledge regarding mechanisms underlying excess body-fat accumulation. Research suggests that obesity is a disorder of the energy homeostasis system and not arising from the passive accumulation of excess weight. The goal of the study is to clarify obesity pathogenesis to find treatment and awareness of obesity in ways that ultimately diminish its public health and economic consequences (Schwartz et al., 2017).

Another study revealed that, in comparison to normal weight group children with that of obese; it had a significantly lower performance on tests of reading and math's. The study also indicates that children with obesity is linked to poorer cognitive function and includes novel data extending the negative influence of adiposity to measures of intraindividual response variability in cognitive control, even after accounting for intellectual abilities, aerobic fitness, and demographic factors. The influence of fat distribution, specifically visceral adiposity, on select aspects of achievement and cognitive function remains poorly characterized among preadolescent children (Raine et al., 2018).

We believe in the need to focus on research to understand the ways children and young people can enjoy learning Yoga, continue to practice & use it in daily life. Yoga may increase the likelihood of children and young people engaging in civic activities and shaping a better society. Practicing Yoga has the potential to improve physical and mental health of children and young people, who possess the evolving capacity to develop the self and society and Yoga is a means to attain holistic well-being for both. Keeping in mind all above recommendations we have designed 60 minutes Yoga intervention. This study aimed at assessing the effect of Integrated Approach of Yoga Therapy (**IAYT**) on Adolescent Obesity which is largely

unexplored but is a growing epidemic and a preventive measure to adult obesity and its complicated health problems. Management of obesity is possible through good dietary habits and yoga practices. Yoga becomes the destroyer of pain for him who is moderate in diet and recreation, temperate in actions and regulated in sleep and wakefulness.