INTRODUCTION

Childhood obesity is currently a major health problem in many countries of the world. The increasing problem of childhood obesity and its consequences is a major public health concern. In the past decade, excessive fatness has become the primary health problem among children in developed nations and, to some extent, in other parts of the world **(Ebbeling *et al.*, 2003).** The increasing prevalence of overweight and obesity in childhood poses an ever-increasing problem.

Since childhood, overweight affects both the children's health and their social integration and these children tend to become obese adults **(Reinehr *et al.*, 2010).** The recent rapid increase in childhood overweight and obesity are highly attributed to the modern obesogenic environment. Insufficient physical activity, changes in dietary habits, socio-demographic and environmental factors have been widely associated with higher weight in children and adults **(Marja *et al.*, 2009).**

The measurement of overweight and obesity in children is difficult due to differences in maturation and growth rates. Measures such as **Body Mass Index** (BMI), growth charts and other measures of fat are used to determine if children are overweight or obese **(www.aso.org.uk) .** There has been recent international agreement on the need to use BMI, adjusted for age and sex, to define obesity in children. A child is considered obese if his/her BMI exceeds the cut-off point for his/her age. Recent statistics show that, **16%** of children **6-11** years old are overweight and that an additional **14.3%** are at high risk of becoming overweight ***(*Pierre *et al.*, 2003*)***. Statistics also show that, prevalence of

overweight continues to increase during the school age and adolescent stages ***(*Musaiger, 2004*).*** In a report from the Egyptian National Nutrition Institute, there is increasing prevalence of obesity among children and adolescents reaching 5.8% among males and 9.7% among females **(Abul Magd, 2009).**

In children, obesity has serious and dramatic implications for health such as cardiomyopathy, pancreatitis orthopedic disorders and respiratory disorders **(NIH, 2007; WHO, 2003).** In the short run, obesity has psycho-social effects on children whereby social isolation and low self-esteem of obese children lead to overwhelming feelings of hopelessness, which in turn lead to depression **(Bowman & Russell; 2001).**

Obese children do less well in schools because of stress and anxiety, which interfere with learning and create a vicious cycle in which the over-growing worry increases the declining academic performance **(Joseph *et al*., 1996; Bowman & Russell; 2001).** Excessive weight gain is a precursor to a wide variety of physiological aberrations that ultimately predispose the subject to morbidity and mortality later in life. Studies have shown that, many adult chronic non-communicable diseases have their origin during childhood **(Gill et al., 2000; Pierre *et al*., 2003).**

The aetiology of childhood obesity and subsequent diseases is poorly understood, but is likely to be explained by alterations in the regulation of energy balance between energy expenditure and energy intake. There is evidence suggesting that, reduced energy expenditure may be involved in the aetiology of childhood obesity **(Goran, 1998)**. A study by **Epistein & Nueman (1998)** showed that, more than **65%** of children

6-19 years of age eat a lot of fat and half of young people **12-21 years** do not engage in regular physical activities.

Changes in lifestyles in which children lead sedentary life lead to a low energy expenditure. Socio-economic conditions have significant effects on the levels of physical activity. Frequent use of cars to facilitate movement rather than walking and lack of aerobic exercises contribute to low energy expenditure **(Maletnlema, 2002) .** Similarly, extensive use of electrical/electronic appliances such as television, video games and radios has made children spend much time watching television, and listening to radio programs and playing electronic games and sports which make children more inactive **(Gortmaker *et al*., 1996; Robinson, 2001; Denison *et al.*, 2002)**. Lack of health awareness to both parents and children may also be linked to high prevalence of obesity **(Musaiger, 2004).**

Rational:

This study will be done because obesity among primary school children is a prevalent problem, with a tendency to badly affect the children.

This study will determine the prevalence of overweight and obesity among primary school Children in Kafr saqr district-Sharqia Governorate and it will Identify the socio-demographic and some behavioral factors as dietary habits and physical activity that govern the problem of obesity among primary school children To provide suitable recommendations for prevention and control of overweight and obesity among primary school children.

The most relevant studies were a study conducted to assess the prevalence of overweight and obesity among primary school children in

Damnhour city in El-Beheira governorate revealed that the overall prevalence of overweight among the children of the studied sample was 17.2% and that of obesity was 19.8% with a total of 37%.**(Amany, *et al.*,2004)** and a study conducted to assess the prevalence of overweight and obese children at the governmental schools at El-QALUBIA during the academic year 2010-2011 revealed that the overall prevalence of overweight among the children of the studied sample was 37.4%.moreover; it was for the obese subjects 20.4% **(Hazem, *et al.*, 2011).**