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FAT KIDS – FUTURE AT RISK AND ITS HOMEOPATHIC MANAGEMENT

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Abstract

Childhood obesity is the major public health problem at both national and international levels. Rapid urbanization and an increase in sedentary lifestyles in the past few decades have led to the rise of silent obesity, especially among children. Obesity has been showing a negative effect on children's growth, both mentally and physically, which gradually shows an effect on their future. Many factors, such as genetic, behavioural, and environmental, cause obesity in children.

Keywords

Homoeopathy, lifestyle disorders, obesity, BMI [body mass index], SD - standard deviation, Calorie imbalance, physical activity.

Introduction

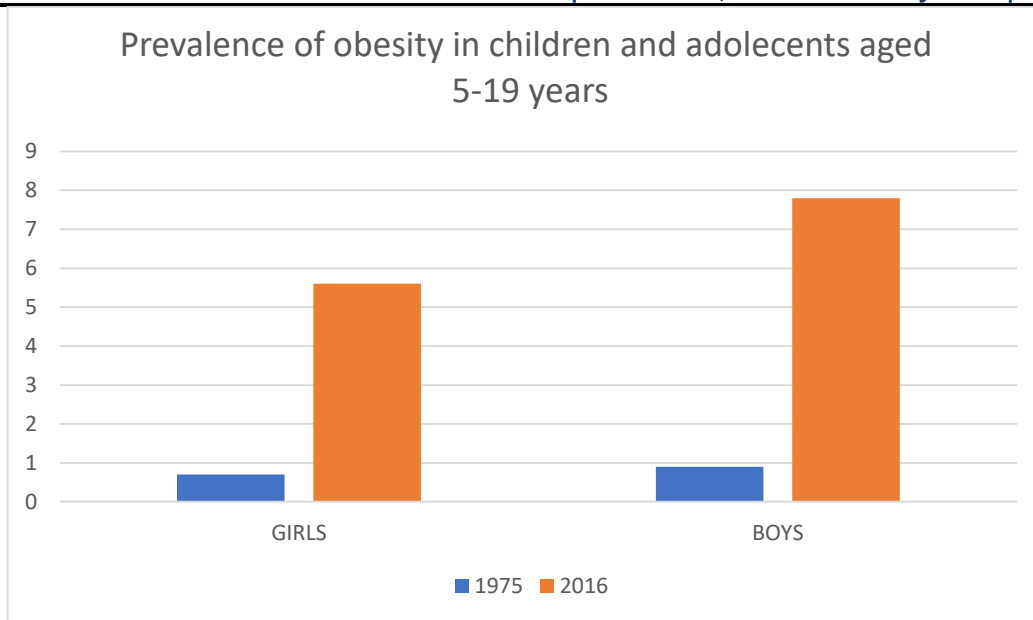
The World Health Organization (WHO) defines obesity as abnormal or excessive fat accumulation that may impair health. The range of weights for individuals if greater than the ideal weight, which is considered healthy for the particular height, is termed as either overweight or obese. Body mass index (BMI), a measure of weight with relation to height, is not only used as an outcome measure to determine obesity but also as a useful anthropometric index for cardiovascular risk.⁸

Epidemiology

In the year 2019, an estimated 38.2 million children under the age of 5 years were overweight. Though overweight was considered as the problem of developed countries, but today it has been increased in low- and middle-income countries. In Africa, the number of overweight children under 5 has increased by nearly 24% since 2000. Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016.

The prevalence of overweight and obesity among children and adolescents aged 5-19 has risen dramatically from just 4% in 1975 to just over 18% in 2016. The rise has occurred similarly among both boys and girls: in 2016 18% of girls and 19% of boys were overweight.⁷

The prevalence of paediatric obesity has increased worldwide over the five decades. From 1975 to 2016, the global age-standardised prevalence of obesity in children and adolescents aged 5–19 years increased from 0.7% to 5.6% for girls and from 0.9% to 7.8% for boys.⁴



Methods to measure Obesity in children

A crude measure of obesity is the body mass index (BMI). Body mass index (BMI), a the measure of weight with relation to height. It is calculated as the ratio of person's weight in kilograms and the square of his height in meters (kg/m²).

For children less than 5 years of age, overweight is weight-for-height greater than 2 standard deviations (SD) and obesity is greater than 3 SD above the WHO Child Growth Standards median. For children aged between 5-19 years, overweight is BMI-for-age greater than 1 SD and obesity is greater than 2 SD above the WHO growth reference media.⁶

For children between 2 and 19 years, BMI is plotted on CDC growth chart to check for the corresponding age and sex related percentile. Childhood obesity is defined as a BMI at or above 95th percentile for children of same age and sex.¹ Classifications of obesity in children depend upon the body composition of the child, as it varies with respect to age and sex of the child. Table¹

BMI Category	BMI Range
Underweight	Less than the 5 th percentile
Healthy Weight	5 th percentile to less than the 85 th percentile
Overweight	85 th percentile to less than the 95 th percentile
Obesity	95 th percentile or greater
Severe Obesity	120% of the 95 th percentile or greater OR 35 kg/m ² or greater

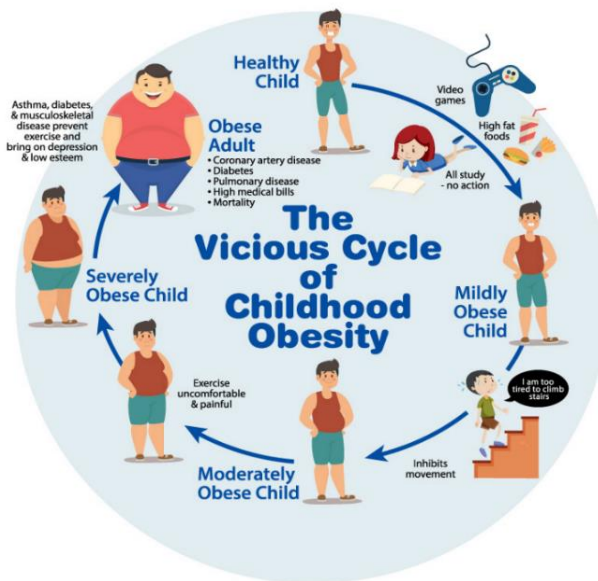
Factors influencing obesity in children

Childhood obesity is due to imbalance between caloric intake by the children and the calories utilized by them for growth, development, metabolism, and physical activities. Factors causing childhood obesity are genetic, behavioural, and environmental. Obesity can also be multifactorial.

Genetic factors - Genetic factors may influence the metabolism, by changing the body fat content and energy intake and energy expenditure. Heritability of obesity from parents also influences the overweight in children.

Behavioural factors – Now a days most of the children lack physical activity as children are spending more time in front of television, playing video games, watching computers. Children snack more in front of television and spend more time sitting without physical activity. Due to lack of exercise there is imbalance between energy gained and energy expenditure.

All these behavioural factors are in a vicious circle with one leading to another. Children are prone to sedentary lifestyle such as watching television, consuming more foods or snacks in large portions, and decreased physical activity, give rise to obesity. The television advertisements of energy-rich and sugar-rich foods influence children to make unhealthy choices. These unhealthy food choices may lead to weight gain and obesity.



Environmental factors - Environmental factors are those that surround the children and influence their food intake and physical activity. At home, parent-child interaction is very important as parents can influence children food choices and motivate them to have a healthy lifestyle and food habits. Children spend most of their time at school, so school can promote healthy food choices and physical activity among them.

Complications

Obesity can have adverse effect on health of children, leading to reduced life expectancy and can be associated with different types of diseases like Metabolic: Insulin resistance, type 2 diabetes, metabolic syndrome; Cardiovascular: hypertension, atherosclerosis; Gastrointestinal: Non-alcoholic fatty liver disease, Gall stones, GERD; Respiratory: obstructive sleep apnoea and cancer in later life.¹⁰

GENERAL MANAGEMENT

Dietary management

The Traffic Light Plan is one method of providing dietary management. The Traffic Light Plan classifies foods as green (low energy density), yellow (moderate energy density), and red (high energy density). These help children in adopting healthier eating patterns. Promoting nutritional diet.²

Physical activity: Goal of 30 minutes/day in addition to any school activity, should target gradually increasing the activity to 60 minutes per day.

Behavioural modification: Primary care-based behavioural interventions such as self-monitoring, nutritional education, improvement of eating habits, increasing physical activity, attitude change.

Homeopathic Drugs

Calcarea carbonica - Calcarea carbonica child has leuco-phlegmatic temperament, blond hair, light complexion, blue eyes, and fair skin. Psoric constitutions; Child is pale, weak, timid, easily tired when walking. Disposed to grow fat and obese in childhood and youth. Children with red face, flabby muscles, who sweat easily and take cold readily. Large heads and abdomens; fontanelles and sutures open; bones soft, develop very slowly.³

Ferrum phosphoricum - Obesity with anaemia, face puffy, with pitting of flesh. Best adapted to young, weakly persons, anaemic and chlorotic, with pseudo-plethora, who flush easily and have cold extremities, suffer from weakness even on speaking or walking though looking strong. Pallor of skin, mucus membranes and face. Dropsical conditions.⁵

Ammonium muriaticum - Especially suited to those who are fat and sluggish and whose bodies are large and fat, but legs too thin. All mucus secretions are increased and retained. Generally suffering from respiratory troubles and associated affections of liver. Obstinate constipation accompanied by much flatus. Hard, crumbling stools require great effort in expulsion; crumble from the verge of anus.³

Antimonium crudum - Tendency to grow fat. For children and young people inclined to grow fat, for the extremes of life. Sensitive to the cold. < After taking cold. Child is fretful, peevish, cannot bear to be touched or looked at, sulky, and does not wish to speak or be spoken to, angry at every little attention. Great sadness, with weeping. Longing for acids and pickles. Gastric and intestinal affections: from bread and pastry; acids, especially vinegar; sour or bad wine; after cold bathing; over-heating; hot weather.³

Graphites - Tendency to obesity in females with delayed menstruation. The patients are stout, of fair complexion and tendency to skin affections and constipation, fat, chilly and costive. Take cold easily. Tendency to obesity and swollen genitals with indurations of tissues. Ravenous hunger. The patient becomes very restless when attempting close mental work and there is marked dread of mental work.⁵

Capsicum - Suits nicely those people who are of lax fibers, weak, diminished vital heat, fat/obese, indolent and have no vital heat or no reactive force. General uncleanliness of body and opposed to physical exertion. Burning pains and general chilliness with marked tendency to suppuration in every inflammatory process are found.¹¹

In Aphorism 4, Dr Hahnemann has mentioned, "He is likewise a preserver of health if he knows the things that derange health and cause disease, and how to remove them from persons in health",⁹ this ensure that the physician should be aware of the factors affecting the health of the individuals and the modern changes in the lifestyles which brings complications to the future generations and should remove them and bring changes in the society health conditions.

Conclusion

The growing issue of childhood obesity can be slowed, gradually. Focusing on these causes may, over time, decrease childhood obesity and lead to a healthier society as a whole. The purpose is to address various factors influencing childhood obesity, health problems due to obesity, prevention, homeopathic management and step towards obesity free childhood.

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