

Prevention of Obesity: Nurse's Role

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ABSTRACT

Obesity is a global problem, independent of age. The numbers of obese individuals are now reaching epidemic proportions around the world. This is contributing to the risk of inherent co morbidity. The Pathophysiology of obesity, although widely debated, is still unclear with suggestions that multiple genetic mutations may have a key role in the development, but as yet no one genetic mutation is felt to be entirely responsible. Biochemical manifestations such as diabetes may play a role. The first goal of management of the obese patient will involve dietary and behavioral modification and a programme of physical exercise. In primary care settings, nurses are suitably placed to assess and manage obese patients (National Institute for Clinical Excellence (NICE), 2001a). The nursing profession needs to rise to the challenge and prepare nurses for a specialist role in obesity management.

Introduction

Obesity is a complex disorder involving an excessive amount of body fat. Obesity isn't just a cosmetic concern. It increases your risk of diseases and health problems, such as heart disease, diabetes and high blood pressure.

Obesity is diagnosed when your body mass index (BMI) is 30 or higher. Your body mass index is

calculated by dividing your weight in kilograms (kg) by your height in meters (m) squared. The American Medical Association recognized obesity as a disease only in June of 2013.

The World Health Organization (WHO, 2001) defines obesity as:

“It is a complex condition, one with serious social



Fig. 1 Shows obese person

and psychological manifestations that affects virtually any age and socioeconomic groups and threatens to

overtake developed and developing countries”.

Formula: $BMI (kg/m^2) = \frac{\text{weight (kg)}}{\text{height} \times \text{height (m)}}$

BMI	Weight status
Below 18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30.0-34.9	Obese (Class I)
35.0-39.9	Obese (Class II)
40.0 and higher	Extreme obesity (Class III)

Although there are genetic, behavioral and hormonal influences on body weight, obesity occurs when calories consumption is higher than burn through exercise and normal daily activities¹.

Obesity usually results from following causes and contributing factors:

- **Genetics.** Your genes may affect the amount of body fat you store.
- **Family lifestyle.** Obesity tends to run in families. If one or both of parents are obese, risk of being obese is increased. That's not just because of genetics. Family members tend to share similar eating and activity habits.
- **Inactivity.** If you're not very active, you don't burn as many calories. With a sedentary lifestyle, you can easily take in more calories every day than you burn through exercise and routine daily activities.
- **Unhealthy diet.** A diet that's high in calories, lacking in fruits and vegetables, full of fast food, and laden with high-calorie beverages and oversized portions contributes to weight gain.
- **Certain medications.** Some medications can lead to weight gain such as some antidepressants, anti-seizure medications, diabetes medications, antipsychotic medications, steroids and beta blockers.
- **Social and economic issues.** Research has linked social and economic factors to obesity. **Age.** Obesity can occur at any age, even in young children. Due to ageing, hormonal changes and a less active lifestyle increase risk of obesity.
- **Pregnancy.** During pregnancy, a woman's weight necessarily increases. Some women find this weight difficult to lose after the baby is born. This weight gain may contribute to the development of obesity in women.
- **Quitting smoking.** Quitting smoking is often associated with weight gain.
- **Lack of sleep.** Not getting enough sleep or getting too much sleep can cause changes in hormones that increase your appetite. You may also crave foods high in calories and carbohydrates, which can contribute to weight gain².

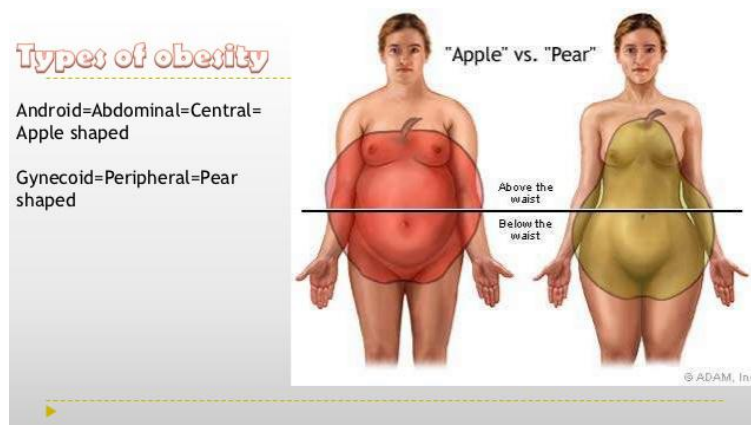


Fig. 2. Shows classification of Obesity

Potentially serious health problems of obesity are:

- High triglycerides and low high-density lipoprotein (HDL) cholesterol
- Type 2 diabetes
- High blood pressure
- Metabolic syndrome — a combination of high blood sugar, high blood pressure, high triglycerides and low HDL cholesterol
- Heart disease
- Stroke
- Cancer, including cancer of the uterus, cervix,

endometrial, ovaries, breast, colon, rectum, esophagus, liver, gallbladder, pancreas, kidney and prostate

- Breathing disorders, including sleep apnea, a potentially serious sleep disorder in which breathing repeatedly stops and starts
- Gallbladder disease
- Gynecological problems, such as infertility and irregular periods
- Erectile dysfunction and sexual health issues
- Nonalcoholic fatty liver disease, a condition in which fat builds up in the liver and can cause inflammation or scarring
- Osteoarthritis³.

Statistics of obesity in India:

According to a study published in the noted journal Lancet, India is just behind US and China in this global hazard list of top 10 countries with highest number of obese people.

The study - titled 'Global, regional, and national prevalence of overweight and obesity in children and adults during 1980-2013: A systematic analysis for the Global Burden of Disease Study 2013' - used data collected by international bodies and organizations in various countries like India over three decades. The US topped the list with 13 per cent of the obese people worldwide in 2013, while China and India together accounted for 15 per cent of the world's obese population, with 46 million and 30 million obese people, respectively. According to the study, number of overweight and obese people globally increased from 857 million in 1980 to 2.1 billion in 2013. This is one-third of the world's population.

Facts about overweight and obesity

WHO global estimates follow.

- In 2014, more than 1.9 billion adults aged 18 years and older were overweight. Of these over 600 million adults were obese.
- Overall, about 13% of the world's adult population (11% of men and 15% of women) was obese in 2014.
- In 2014, 39% of adults aged 18 years and over (38% of men and 40% of women) were overweight.
- The worldwide prevalence of obesity more than doubled between 1980 and 2014.

In 2014, an estimated 41 million children under the age of 5 years were overweight or obese. Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. In Africa, the number of children who are overweight or obese has nearly doubled

from 5.4 million in 1990 to 10.6 million in 2014. Nearly half of the children under 5 who were overweight or obese in 2014 lived in Asia.

Overweight and obesity are linked to more deaths worldwide than underweight. Globally there are more people who are obese than underweight – this occurs in every region except parts of sub-Saharan Africa and Asia⁵.

Nurses role in prevention of obesity:

- To teach regarding healthy life style such as Regular exercise, yoga, meditation, food consumption.
- To teach the community peoples regarding balanced diet practice.
- To teach coping strategy to reduce day today stress
- To teach regarding avoid of junk foods, fast foods.
- To teach regarding aerobics exercises.
- To teach regarding physical activity at least 30min per day.
- To teach regarding drug dosage and its consequences intimation
- To teach regarding hydro therapy: sufficient intake of water.
- To teach regarding proper sleeping practices such at least 6-7hours sleep required for adult per day.
- To teach regarding games: benefits of regular playing.

Conclusion

Nurses play an important role in prevention of obesity by individual teaching and community education through awareness programme. Obesity is a global disease which is independent of age and has major implications for healthcare costs. One of the reasons for the cost is the development of secondary conditions such as hypertension, type 2 diabetes, cardiovascular disease, cancer, depression, and arthritis and sickness absence from employment. Treatment options include dietary and behavioral modification, and a programme of physical activity and pharmacological management to reduce weight.

One of the challenges of a prevention strategy is individualized education programmes that offer the necessary health education on lifestyle, nutrition and eating habits which targets single parents and individuals from low socioeconomic groups.

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