

COMMENTARY ARTICLE

Addressing obesity among females: The need for focused strategies in National programmes

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ABSTRACT

Prevalence of obesity is increasing in both developed and developing countries. India is also facing a double burden of malnutrition as already existing malnutrition and increasing prevalence of obesity. Evidence suggests that prevalence of obesity is more in women as compared to men due to consumption of pre-packed energy-dense food, hormonal change during pregnancy and menopause. Obese females are more prone to life style diseases and abdominal obesity increases the risk of metabolic syndrome and is strongly related to polycystic ovarian syndrome (PCOS). Obesity's impact can be seen in the life cycle of women. It not only impacts the physical health of women but on her psychological, social, reproductive and social well-being which hampers her overall health. To address obesity various programmes and interventions have already been formulated by the Government of India. Need is to address the issue of obesity at every stage of women's life cycle and this can be done by adding some interventions in already existing programmes.

Key Words: Obesity, overweight, body weight, waist circumference dietary, dietary intake, over-eating.

Introduction

Obesity and overweight are defined as abnormal or excessive fat accumulation that may impair health.¹ Body mass index (BMI) is measured as weight/height² for classifying overweight and obesity in adults. According to WHO guidelines,

Overweight is BMI ≥ 25

Obesity is BMI ≥ 30 ,¹

Reason for revision

Asian Indians have a higher predisposition to abdominal obesity and accumulation of visceral fat. This has been termed as the "Asian Indian Phenotype."² According to revised consensus guidelines for India

Overweight is 23.0-24.9 Kg/m²

Obesity is ≥ 25 Kg/m².²

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Global and India scenario

The prevalence of obesity is on the rise due to unhealthy lifestyles and changing eating habits. Worldwide about 39% of adults above 18 years of age are overweight (39% men & 40% women), whereas 13% are obese. The problem of obesity nearly tripled worldwide between 1975 & 2016.³ Once considered, the problem of high-income-countries obesity is now on the rise in low- and middle-income countries, particularly in urban settings. The developing nations face the double burden of malnutrition as they deal with communicable and non-communicable diseases.¹ As per the latest national data, the Prevalence of overweight/obesity in men has increased from 18.9% to 22.9% and in women from 20.6% to 24.0%.⁴ A forecast study predicted that by 2040 overweight prevalence will be more than double, and obesity will triple among Indian adults.⁵ The changing trend of obesity and overweight in India is due to various known and unknown factors. Changing trends can be attributed to urbanization and industrialization as it leads to a sedentary lifestyle, less physical activity, and easy availability of pre-packaged high-energy food. Also, Increased T.V. viewing (>3 hrs/day) and decreased sleep duration (< 8.5hrs/ day) also contribute to obesity.^{6,7} Women more prone to obesity

A study estimated pan-Indian prevalence of obesity at 40.3%. It revealed that obesity was higher among women than men and more prevalent in educated than uneducated.⁸ Women are three times more prone to become obese when compared to men.⁹

Causes of obesity in women

This is attributed to the increase in gadget usage in Indian households. Most household work such as cooking and washing has become less labour-intensive due to the easy availability of machines and technology.¹⁰ Due to busy lives, women tend to eat in haste and irregularly, which increases the consumption of high-energy food.^{11,12} Hormonal change during pregnancy and menopause can affect body fat distribution and may cause other metabolic disturbances.¹³

Effects of obesity in women

Obese females are more susceptible to hypertension diabetes, which puts them at high risk of cardiovascular diseases. Abdominal obesity is one of the vital causes of metabolic syndrome and is strongly related to polycystic ovarian syndrome (PCOS).¹⁴

Impact of obesity on women's life cycle:

Obesity has a more significant effect on women's life cycle than male counterparts. Its impact is seen in women's physical, reproductive, psychological, and social well-being.

Obesity in adolescent girls leads to irregular periods, and the risk of ovulatory failure also increases. When females enter their childbearing age, obesity affects their reproductive health as it cause decreased contraceptive efficacy, ovulatory disorders, and increased miscarriage rate. Obesity Increases chances of infertility and polycystic ovarian disease (PCOS).

During Pregnancy, obese women have high chances of twinning, miscarriage, gestational diabetes, pregnancy-induced hypertension, and pre-eclampsia, which put the fetus at risk. After delivery, obese women are at increased risk of postpartum hemorrhage, infection, and venous thrombosis. Elderly obese women are more prone to impaired cognitive function and Alzheimer's disease, which negatively impact the quality of life.¹⁵

The Government of India acknowledges Obesity as a significant problem. Nutrition-related policies mainly address under-nutrition. **Poshan Abhiyan** was launched to holistically improve the nutritional outcome for children, pregnant women, and lactating mothers. But it focuses only on malnutrition anaemia but not over-nutrition.¹⁶

As India is now facing the double burden of malnutrition, new policies and programs are launched for the general. The population needs to have some gender-specific component as males and females have different aetiology and the manifestation of obesity.

Sl. No.	Policies and Programs	Existing strategies for controlling over nutrition	Strategies which should be added for reduction of overweight and obesity among women
1.	National Programme for Prevention and Control of Cancer, Diabetes, Cardio-vascular disease and Stroke (NPCDCS)	With the help of technical support for expert group, FSSAI has drafted few regulations:	Estimated prevalence of PCOS in India is reported varying from 9.13% to 22.5%. PCOS / PCOD is an emerging problem of adolescent girls and a risk factor for several developing medical conditions such as type 2 diabetes mellitus, insulin resistance, high cholesterol, high blood pressure. PCOS/PCOD screening and management should be inculcated in the programme.
		1. Nutrition labelling requirement of pre-packaged processed foods 2. The existing regulation on restricting trans-fat in fats, oils and allied products is being amended to reduce the limit from 5% to 2% by weight.	
2.	Fit India	Booklet “Banega Fit India” was launched - To create awareness amongst the citizens about fitness and its importance in daily life through sports, <i>yoga asanas</i> , walking, cycling, dancing or any other physical activity.	Keeping in mind various ailments related to women, special modules for women need to be formulated.
			Formulation of walking/cycling/ yoga clubs only for females
3.	Eat Right India	Through this program it has covered various aspects of healthy food consumption which include- <ul style="list-style-type: none"> • Food fortification • Food hygiene • Eat right campaign • Jaivik Bharat • Even combating adulteration 	Right portion size: as Indian we always have a tendency to overeat than our own capacity which leads to obesity
			Reduce tax imposition on healthy packaged food. High sugar and salt is cheaper when compared to healthy snacks. Govt. should promote healthy alternatives.
			Usually women do grocery shopping, an IEC video about right nutrient composition and how to read nutrient labels needs to be displayed. So, they can themselves choose healthy options.
			Giving more opportunity to entrepreneurs who are interested in indigenous food and the Govt should promote them.
			We should follow the Japan model, where people have small serving plates and always have small portions.

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S. No.	Policies and Programs	Existing strategies for controlling over nutrition	Strategies which should be added for reduction of overweight and obesity among women
4.	Village Health and Sanitation Day	<p>On this day various activities has already been performed to address obesity</p> <ul style="list-style-type: none"> • Group counselling • Awareness Generation • Nutrition and Health Education also • Height weight of adolescent is also measured 	<p>Establishing a kitchen garden program.</p> <p>Local authorities can have a semi-annual competition regarding the variety of local foods grown organically. This will motivate the residents to maintain the kitchen gardens and will make them aware of various nutritious local foods.</p>
		<p>Screening is available for NCD like Hypertension and diabetes.</p>	<p>Experts can be invited to guide regarding gardening practices at the time of competition Health talk regarding struggles because of obesity and also discuss solutions to prevent obesity.</p> <p>Health education regarding body image. Women should be encouraged to lose weight gain during pregnancy. Middle-aged women should also be counselled about increasing risk of cardiovascular disease with increasing age, and overweight and obesity can increase this risk multifold.</p>

Conclusion

Majority of the National Nutritional Health Programmes are intended towards prevention of malnutrition. Since the energy demand for women keeps changing at various stages of life, it becomes pertinent to include strategies for prevention of obesity in these National Health Programmes.

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