

COMBATING THE RISING CRISIS OF CHILDHOOD OBESITY

By : Thamarainathaselvi ,17218884

It is not uncommon when parents and grandparents proudly flaunt their chubby children claiming that is the norm of a healthy child. However, it about time we understand that overnutrition is also a form of malnutrition and it is not okay for a child to be obese or overweight.

What is obesity?

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. For adults, obesity is determined by body mass index (BMI) reading and according to World Health Organization (WHO), obese in adults is defined as BMI more than 30. For children under five, obesity is defined as weight-for-height greater than 3 standard deviations above the WHO Child Growth Standards median and for children 5-19 years old greater than 2 standard deviations above the WHO Growth Reference median.

What are the statistics?

In 2019, an estimated 38.2 million children under the age of 5 years were overweight or obese and almost half of them were from Asia. The prevalence of obesity among children and adolescents aged 5-19 has increased more than 4 folds from 4% in 1975 to 18% in 2016. The rise has occurred similarly among both boys and girls.

In Malaysia, according to the National Health and Morbidity survey 2015, there is a prevalence of 11.9% obesity in children below 18 years. According to The Lancet, Malaysia is the most obese nation in South east Asia which is a worrisome statement that we must look

Why is this a problem?

Obesity is indeed a major risk factor to may non communicable diseases. And according to studies, children who are obese are very likely to become obese as adults and losing weight will be a very big challenge for them in future.

Early onset of chronic illness

Chronic illnesses like diabetes mellitus and heart disease which are commonly known as the diseases of the elderly will have an earlier onset and a prolonged course in obese children, and even if the disease might remain undiagnosed until adulthood, the resulting complications are more severe leading to a shorter life and lesser productivity. In a bigger picture, we are talking about our future generation, the future leaders of the nation and the world.

Psychological effect

Apart from chronic illnesses, children with obesity may suffer from depression and anxiety due to their physical appearance and performance limitations. This will lead to low self-esteem and poor quality of life. Not to forget obese children are also prone to be bullied and stigmatised, this in turn will leave them scarred and would affect the social skills development.

Burden of the healthcare system

According to Associate Prof Dr Muhammad Yazid Jalaludin from University Malaya Medical Centre, about 1.65 million Malaysian children are expected to be overweight or obese by 2025, if no intervention done. This number translates to :

- 88,000 of children having impaired glucose tolerance,
- 28,000 will suffer from Type 2 diabetes,
- 191,000 will have high blood pressure and
- 264,000 will suffer from first-stage fatty liver disease.

This numbers implies the future burden on our healthcare system if we fail to address the issue of childhood obesity now.



Figure 1 : Obesity related comorbidities in children and adolescents

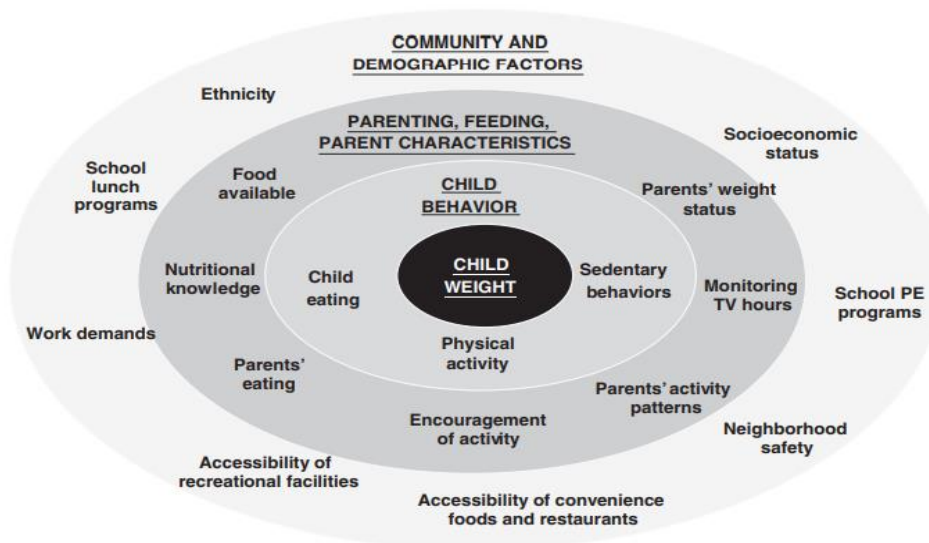


Figure 2 : An ecological model for the etiology of childhood overweight. Adapted from Davison and Birch

What are the causes?

The causes of obesity do not differ much from that of adults:

- **Behavioral factors:** Eating bigger portions of nutrient poor calories rich foods and sedentary lifestyle.
- **Environmental factors:** Obesogenic environment, easy access to junk food, intense marketing of junk food and lesser opportunities for physical activity.
- **Genetic factors:** A child is at increased risk for obesity when one parent is obese.
- **Medications:** Steroid treatment may result in increased weight gain
- **Medical conditions:** Some genetic and hormonal condition such as Prader-Willi, and hypothyroidism can cause obesity.

The key determinants of childhood obesity are however, unhealthy dietary habits and reduced physical activity, and, these determinants are highly influenced by mostly social and environmental factors.

How do we approach this issue?

Based on the ecological model in Figure 2, the prevention strategy mainly involves the upstream and midstream approach.

The upstream approach targets the food environments, physical activity environments and the socioeconomic policies to indirectly influence population behaviours. Midstream approach targets different settings level, where programmes, social marketing, education, and other initiatives to motivate individuals to change diet and physical activity behaviours.

Upstream

Based on a critical review published in 2020 by Christina PL et al shows that interventions with the school teachers' active involvement and school-based policies on healthy food and physical activity along with active parents' involvement were found to be more effective. However, programs that focused only on educational sessions and material for parents, without promoting relevant environment and policy changes, were found to be less effective.

A study by Chan C et al in 2017 to assess the awareness, facilitators and barriers in implementing obesity prevention policies in Malaysian primary schools, show that majority schools are aware of the policy but the implementation lacks training, equipment and commitment from relevant staff in school.

Mok WKH et al (Malaysia 2021), found that all the domains measured in implementing policies related to childhood obesity were of low progress.

What can we do?

Based on the findings from the studies above, we can see that this problem requires a multiprong approach from multiple stakeholders. Malaysia should formulate a national policy to ensure that this crisis is addressed homogenously. Interventions should include the following:

1. Surveillance

Continuous monitoring on nutritional and obesity status of children including adults is essential to create a database for childhood obesity at various regions and state level. The data can be used to initiate community-based research to document burden of obesity and associated risk factor and monitor these trends over time.

2. Health Education

Nutritional and healthy lifestyle education must be incorporated in various form of media and should not only rely on school education. Both parents and children must receive adequate information and practical guide on restricting excess calories food. This effort should also engage the private sector to ensure better outreach.

3. Community involvement

Community based events such as marathon, big walks and healthy food festival can encourage participation and spread the knowledge and awareness to a better extent.

4. Early infancy and perinatal period

Proper nutrition must be advocated to pregnant mothers. Exclusive breastfeeding must be emphasized. Adequate follow-on formula and proper weaning can avoid catch-up obesity.

5. School based intervention

School education must give great importance to physical activity. Sports and physical activity in school are best to influence children to leave their sedentary culture. School canteen food should display nutritional value to encourage and educate children on the importance of healthy food and could help to avoid junk food.

6. Home based intervention

Last but not least, the utmost important intervention and awareness comes from home. Family institution must enforce strict rules to limit screen time and encourage more physical activity. Limiting eating outings and junk food availability at home is also another important home-based intervention.

7. National policy

A national task force for obesity should be formed like in the United States to address this issue. This task force must have inter-ministry involvement and should cover the following points:

- Reasonable taxes and prices of fruits and vegetables
- Proper food quality monitoring
- Restriction on junk food advertisement

- Encourage healthy snack manufacturing
- Ban on junk food as far as practicable

Childhood obesity is a complex condition and requires a multi-sectorial response. This modern-day epidemic cannot be rectified with departments and ministries acting in silo. All members of the society should go hand in hand in initiating strategies to combat this rising crisis of childhood obesity.