

American Academy of Pediatrics, 2023: Guideline for the Evaluation and Treatment of Children and Adolescents With Obesity

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American Academy of Pediatrics (AAP) have released their first comprehensive clinical practice guideline that outlines evidence-based evaluation and treatment of children and adolescents with overweight and obesity. This article reviews the same, along with implication in our setting and the need for updating our guideline, which is almost two decades old.

Keywords: Management, Overweight, Prevalence.

The global epidemic of child and adolescent obesity affects all regions of the world, even in countries where under nutrition is prevalent. 14.4 million children and adolescents are affected by obesity in United States [1]. Obesity prevalence among children and adolescents aged 5-19 year, in India ranged between 3.6 % and 11.7%. By 2025, 17 million Indian children will be obese. Urbanization is a significant factor related to obesity [2]. Other factors include epigenetic, nutritional, familial, psychosocial, parental education and occupation. Obesity and overweight have effects on physical and mental health and these are the risk factors for major chronic illness in adults such as cardiovascular disease, diabetes and premature death.

Recently, the American Academy of Pediatrics (AAP) released their comprehensive guidelines on management of childhood and adolescent obesity [1]. The recommendations in the AAP guidelines are child-centric, not specific to a particular health care set up, and are written to inform pediatricians and other health care practitioners about the standard of care for assessing and managing children with overweight, obesity and their comorbidities. However, these guidelines exclude prevention strategies.

ASSESSMENT, EVALUATION AND PREVENTION

According to Centre for Disease Control and Prevention (CDC) and AAP, the weight status in children in 0 - 2 years of age is screened by using the World Health Organization (WHO) weight for length, age and sex-specific charts. In patients with certain syndromes like trisomy 21, specialized growth charts can be used.

The AAP emphasises on various social determinants of health (SDoHs). These are the environmental factors where

children are born, live, learn, and grow. SDoHs are divided into five areas: financial stability, education access and standard, home and neighborhood environment, social and community context. These guidelines do not include children aged below 2 year. The main screening and diagnostic tool used by them is the body mass index [3,4].

More importance is given to evaluation of overweight and obesity. This includes a complete medical and social history, history of nutrition and physical activity, behavioral health, eating disorders, and the most important being the assessment of patient's readiness to change.

The current guidelines also emphasizes the initial evaluation and diagnostic tests for several common comorbidities such as dyslipidemia, type 2 diabetes mellitus (T2DM), non-alcoholic fatty liver disease (NAFLD), hypertension, obstructive sleep apnea, polycystic ovarian syndrome, depression and slipped capital femoral epiphysis.

TREATMENT

Obesity being a chronic disease, AAP endorses intensive and long-term care treatment plan. Motivational interviewing (MI) has a significant role in the treatment. MI focuses on the patient. It is a form of counselling that identifies and promotes the child/adolescent patient's willingness for change. This is unlike the old strategy in which care provider suggests behavioral changes. MI helps families to identify the behavior that needs to be changed, taking into account parent and adolescent desire [5].

Another focus is on intensive health behavior and lifestyle treatment (IHBLT). However, this has some limitations as it needs access to a multidisciplinary team in partnership with the patient and their families promptly when overweight

or obesity is diagnosed. This method employs health education, behavior counselling and skill building on multiple topics given in a healthcare setting over a period of 3 to 12 months, and with a contact period of ideally more than or equal to 26 hours [6].

Behavior strategies that are given importance by the AAP guidelines include:

Reduction of sugar sweetened beverages (SSB): According to AHA, added sugar of each day should not be more than 25 g or 6 teaspoons, and not more than one 8 ounce serving of SSB per week. AAP recommends no fruit juices for children below 12 years and even during exercise the main source for hydration should be water [7-9].

This is quite similar to Indian Academy of Pediatrics (IAP) Guidelines on the Fast and Junk Foods, Sugar Sweetened Beverages, Fruit Juices, and Energy Drink [10], in child less than 2 year it encourages the intake of local and seasonal fruits in diet, avoidance of fruit juice and SSB. Older children and adolescents should avoid these drinks, too. In case there is an intake of fruit juice, it should not be more than 125 mL/day for children between 2 to 5 years, and 250 mL/day for above 5 years, and preferable given as fresh juices. Water is promoted as the best drink. Children should completely avoid carbonated drinks, tea and coffee [10].

Traffic light diet and 5210: In the 5-2-1-0 strategy, 5 fruits and vegetables a day as per USDA Choose MyPlate recommendations, 2 hours or less of screen time is similar to previous AAP guidelines [11]; 60 min or more of moderate to vigorous physical activity is similar with the physical activity [12,13]. Recommendations for Americans, and 0 SSBs is consistent with guidelines by USDA, AHA and AAP [14].

Food Safety and Standards Authority of India (FSSAI) had proposed a ban on sale of High in fat, salt and sugar (HFSS) foods in school canteens in 2016. Food items were categorized as 'green' for healthy foods, 'red' for HFSS foods that should be banned, and 'yellow' foods should be available less frequently in school canteens [15].

PREVENTION

Prevention strategies are not included in the AAP guidelines; however, WHO recommends [16]:

- At primary health-care set up, in overweight children aged below 5 years, doctors should provide counselling on general nutrition and for physical activity to caregivers.
- Children aged more than 5 years with obesity should be evaluated and an appropriate management plan should be given.

Box I Key Messages

- Social determinants of health that are emphasised in the AAP guideline, also play a role in our milieu.
- Motivational interviewing and involving the family plays a major role in the management.
- Involving schools in educating children and adolescents, along with psychological counselling for triggers of overeating can have a better impact on health and nutrition
- Establishing adolescent health care centres in each district enables timely detection of overweight and co-morbidities, and ultimately reducing disease burden.

IMPLICATIONS FOR PRACTICE

Parents/caregivers play a major role in the management of childhood obesity through various strategies including regular weight monitoring, screen time limit setting, minimizing barriers, strengthening family relations, and maintain positive home environment [17]. Regular screening of child and adolescent with the use of body mass index (BMI) percentile charts in office practice along with proper history of the patient's nutrition, lifestyle, sleep detail, physical activity and mental health helps in early detection of obesity in children.

For children, parents are their role models and they tend to emulate their behavior. Hence, it is important to spread awareness amongst parents to adopt healthy lifestyle. Early modifications in lifestyle have great impact in prevention of chronic diseases of adulthood.

Emphasis on nutrition education in the school should be initiated to promote awareness among the children. Schools should also organize various competitions (poster, essay, etc.) and debates on importance of healthy and balanced diet and adverse effects of the junk foods to spread awareness.

Frequent monitoring of adolescents for overweight and those with BMI >85 percentile for potential comorbidities should be done in adolescent clinic [4]. Psychiatry or behavioral history should be always asked: detail diet history history of junk food, history of screen time, any stressor, boredom – these are causative factor for binge eating, enables early detection and intervention [6].

The key messages are listed in **Box I**. We do not have any guidelines that include the changes in lifestyle brought about by increasing use of smartphones resulting in increase in sedentary behaviour amongst children and adolescents. The psychological impact of social media also needs to be addressed. Also, updates regarding bariatric surgery should be made available for practitioners. With the rise in obesity seen in many regions of the country, it is high time that the Indian Academy of Pediatrics also brings out comprehensive management guidelines for this hidden epidemic.

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