

## Original Paper

# Exploring "Preventive Treatment" Strategies for Childhood and Adolescent Obesity Based on Traditional Chinese Medicine's Concept of Preventing Disease Before It Occurs

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### Abstract

*The concept of "preventive treatment" in Traditional Chinese Medicine (TCM) is a profound summary of the preventive aspects of TCM, holding significant implications for both disease prevention and treatment. This paper applies the principles of "preventive treatment" to address obesity issues among children and adolescents, exploring specific prevention and intervention strategies from three perspectives: preventing disease before it occurs, preventing progression in existing conditions, and preventing recurrence after recovery.*

### Keywords

*Obesity, Children, Adolescents, Preventive Treatment, Prevention Strategies*

## 1. Introduction

As the living standards of residents improve, the prevalence of obesity in China is on the rise, with a particularly rapid increase observed among children and adolescents. Relevant surveys indicate that from 1995 to 2014, the overweight and obesity rate among Chinese children and adolescents rose from 5.2% to 20.5% (Dong, Jan, Ma, et al., 2019). The "Report on Nutrition and Chronic Disease Status of Chinese Residents (2020)" reveals that the overweight and obesity rates for populations under six years old and those aged six to seventeen have reached 10.4% and 19.0%, respectively. In order to actively prevent and control obesity while promoting a healthy China, Zhang Li, Deputy Director of the Scientific Fitness and Health Promotion Research Center at the General Administration of Sport of China, emphasizes that maintaining a healthy body weight hinges upon the principle of "preventing

disease before it occurs" (National Health Commission, 2018). This theory aligns with an important concept in traditional Chinese medicine regarding preventive healthcare which advocates for prioritizing prevention over treatment; this approach resonates well with modern medical strategies emphasizing prevention as paramount. This article explores strategies for preventing and managing childhood and adolescent obesity based on the principles underlying disease prevention before its onset.

The concept of preventive treatment in Traditional Chinese Medicine (TCM) is deeply rooted in the philosophy of maintaining balance and harmony within the body to prevent illness. This approach is particularly relevant when addressing the growing concern of childhood and adolescent obesity. By applying TCM principles, we can develop strategies that focus on early intervention and lifestyle modifications to promote a healthier weight in young individuals. One such strategy involves the integration of dietary recommendations that are in line with TCM's understanding of food as medicine. Foods are categorized according to their energetic properties, such as temperature, taste, and effect on the body's systems. By tailoring diets to the individual's constitution and the season, we can help regulate the body's internal environment and prevent the accumulation of excess weight. Another preventive strategy is the incorporation of physical exercises that are gentle yet effective, such as Tai Chi and Qigong. These practices not only enhance physical fitness but also promote mental well-being and emotional balance, which are crucial for maintaining a healthy lifestyle. Regular practice can help improve metabolism and reduce stress, both of which are factors that contribute to weight management.

## **2. Overview of Traditional Chinese Medicine's "Preventive Treatment" Theory**

The concept of "preventive treatment" first appeared in the "Suwen: Treatise on the Regulation of Qi and Spirit," stating, "Thus, the sage does not treat existing diseases but rather addresses those that have yet to manifest; he does not rectify chaos that has already arisen but instead prevents it from occurring." This emphasizes the importance of disease prevention and proactive measures. With the development of traditional Chinese medicine, generations of physicians have accumulated extensive experience in prevention and treatment through long-term medical practice, leading to a unique theoretical system for preventive treatment. The "Jinkui Yaolue" states: "If one can cultivate caution and prevent malevolent winds from disturbing their meridians... then there will be no decline in physical condition, and illness shall find no entry into their pores," indicating that proper lifestyle management can enhance physical constitution and resist pathogenic factors, which is crucial for preventing disease onset. The "Qianjin Yaofang" asserts: "Those who are adept at nurturing life will naturally address illnesses," highlighting that health preservation is fundamentally about preventive treatment. In the Qing Dynasty, physician Ye Tianshi emphasized maintaining a state free from external pathogens during his discussions on managing febrile diseases. He advocated for harmonious supplementation as a means to prevent recurrence after recovery. Modern practitioners continue to uphold ancestral wisdom regarding

preventive treatment, achieving new breakthroughs in research related to pre-disease conditions. Consequently, the theory has gradually become more comprehensive with several key aspects: Firstly, prevention before disease refers to taking care of one's health when physiological functions are normal by engaging in fitness activities and avoiding harmful influences to mitigate potential issues before they arise. Secondly, intervening at early signs indicates that when an illness is still nascent—before any obvious symptoms appear—proactive measures should be taken to address it at its inception. Thirdly, preventing progression once ill involves recognizing existing ailments and implementing timely preventative treatments based on the trajectory of disease development so as to avert further deterioration. Fourthly, post-recovery prevention pertains to consolidating treatments during the initial stages following recovery when pathogenic factors may still linger while vital energy remains weak or unbalanced; this helps avoid relapse. The theory of preventive treatment encompasses all phases from health maintenance through disease prevention up until rehabilitation post-illness (Sun, 2009). It serves as an active guiding principle within clinical diagnosis and therapy.

### **3. The Traditional Chinese Medicine Etiology of Obesity in Children and Adolescents**

#### *3.1 Congenital Endowment*

Traditional Chinese Medicine posits that human constitution is characterized by distinctions in yin and yang, as well as rigidity and flexibility, all influenced by congenital endowment. In the "Lingshu: Yin-Yang Twenty-Five Types," individuals are categorized into five major types: wood, fire, earth, metal, and water. It emphasizes that those with an earth constitution exhibit traits such as a round face, large head, broad shoulders and back, along with a prominent abdomen; while individuals of the water type have characteristics like a large head with pronounced jawline, narrow shoulders, and also a prominent abdomen. This highlights that both earth-type and water-type individuals are more susceptible to obesity. Furthermore, "Yixue Shizai Yi" states that "the inherent abundance is due to congenital factors," indicating a close relationship between obesity and genetic predisposition. Modern medical research corroborates this connection between obesity and hereditary factors—suggesting interactions among single-gene mutations, gene polymorphisms, genetic expression alongside intrauterine environment influences such as nutrition levels during pregnancy or childhood physical activity can lead to the onset and progression of childhood obesity (Wang & Liang, 2014; Wang, He, Yang, et al., 2014).

#### *3.2 Dietary Irregularities*

In TCM philosophy, improper dietary habits disrupt the ascending-descending functions of the spleen-stomach system leading to dysfunctions in transformation and transportation processes over time which accumulate dampness resulting in phlegm obstruction within meridians causing excess fat accumulation. As noted in "Suwen: Discussion on Deficiency-Excess," it states: "Obese people tend towards rich foods." Additionally mentioned in "Suwen: Discussion on Rare Diseases": "One must frequently consume sweet delicacies for excessive weight gain." Children and adolescents require

substantial amounts of refined nutrients for their normal growth; however they often lack self-regulation regarding food intake leading them prone to overeating behaviors—especially when consuming greasy or overly sweet foods—which results in excessive caloric intake contributing to obesity.

### *3.3 Lack of Physical Activity*

According to TCM principles if one neglects physical labor then qi-blood circulation becomes obstructed leading to stagnation within bodily systems where organ functions become inhibited causing imbalances in fluid distribution resulting ultimately in dampness-phlegm stasis which over time manifests as obesity-related conditions. As stated within "Wangzhen Zunjing: Observational Methods for Living," it mentions: "Wealthy individuals often possess soft bodies with plump skin due to residing excessively indoors without balanced living patterns; thus easily accumulating fat." Moreover "Huangdi Neijing" asserts that maintaining moderation through diet alongside regular daily routines prevents undue exertion allowing one's spirit-body harmony thereby extending life expectancy naturally illustrates how crucial dietary restraint coupled with consistent lifestyle practices are for health maintenance purposes especially amidst modern society's accelerated pace wherein increased stress necessitates greater emphasis on wellness strategies aimed at preventing lifestyle diseases.

### *3.4 Emotional Disturbances*

TCM holds that each organ houses its corresponding spirit; therefore extreme emotional fluctuations can lead directly toward disarray within organ function manifesting disease symptoms accordingly. TCM places significant importance upon emotional regulation asserting stable emotions promote smooth qi-blood flow reducing instances of stagnation-induced ailments. Excessive academic pressure placed upon children or prolonged parental criticism may foster feelings of inferiority stemming from being overweight potentially culminating into depressive moods. A state marked by depression harms liver function impeding proper qi movement whereby not only does this hinder vital fluids but simultaneously creates adverse effects upon spleen functionality disrupting its ability effectively process nourishment consequently generating internal dampness-phlegm transforming into fatty deposits eventually resulting again yielding further incidences related specifically towards developing cases associated primarily around issues concerning overall bodyweight management. Additionally since spleen correlates closely with thought processes excessive rumination weakens splenic energy impairing nutrient absorption hence perpetuating stagnant phlegm accumulation internally fostering additional pathways conducive toward eventual weight gain scenarios.

## **4. Preventive Strategies for Childhood and Adolescent Obesity**

### *4.1 Prevention Before Disease Occurs*

When children's and adolescents' body weight is within a normal range or when there are risk factors for obesity, proactive measures should be taken to prevent the onset of the condition. Specific preventive strategies include: First, dietary regulation and balanced nutrition. A reasonable dietary

structure is crucial for the growth, development, and health of children and adolescents. A scientifically sound diet should adhere to moderation, regular meal times, a balance between animal and plant foods without excessive preference for any particular type of food while avoiding overeating or undereating. Breakfast should consist of at least three categories from grains, tubers, meats, eggs, dairy products, legumes, fruits, and vegetables; lunch and dinner must ensure nutritional balance with appropriate portion sizes. Additionally, attention should be paid to digestive health tailored to individual needs across different seasons while emphasizing harmony among flavors in accordance with seasonal variations—this reflects the fundamental principles of dietary wellness in preventive healthcare (Liu & Zhang, 2016). Second, engaging in appropriate physical activity is essential not only for promoting energy expenditure but also for enhancing physical fitness among children and adolescents. In daily life situations can vary; thus individuals may choose suitable forms of exercise based on their circumstances along with an appropriate intensity level. Thirdly, conducting health education sessions regularly aimed at children/adolescents as well as their parents regarding the dangers associated with obesity alongside prevention strategies will deepen understanding about its risks thereby fostering awareness towards preventative care practices. Lastly maintaining psychological well-being is vital; as stated in "Suwen: On Ancient Natural Vitality," "Tranquility leads to true vitality; if one guards their spirit internally how could illness arise?" This highlights that cultivating an optimistic outlook contributes significantly toward disease prevention efforts by schools/parents focusing on nurturing positive character traits along with strong ideals/beliefs while instilling self-discipline initiative perseverance amongst youth creating an environment conducive to joyful growth & learning experiences.

#### *4.2 Early Intervention after Diagnosis*

Early intervention after diagnosis refers specifically to “treating existing conditions promptly while preventing further complications.” Childhood obesity increases susceptibility towards diabetes cardiovascular diseases respiratory disorders reproductive dysfunctions etc., necessitating timely interventions once diagnosed (Guo, Wang, & Zhang, 2020). Therefore it’s imperative that diagnosed obese children/adolescents receive prompt treatment aimed at halting or delaying progression into more severe illnesses currently available treatments encompass not just aforementioned methods like dietary adjustments moderate exercise educational outreach mental support but also pharmacological/surgical options where necessary Traditional Chinese Medicine (TCM) offers effective solutions through differential diagnosis catering individualized therapies based upon distinct etiologies observed among patients Li Junling (2012) categorized 67 cases into three types: phlegm-dampness accumulation spleen deficiency damp obstruction stomach heat stagnation leading corresponding prescriptions achieving overall efficacy rate reaching 92% TCM encompasses diverse approaches including herbal remedies topical applications dietary therapy qigong massage acupuncture acupoint embedding showcasing notable effectiveness simplicity safety low recurrence rates moving forward combating childhood adolescent obesity integrating physiological characteristics recognizing underlying nature grasping

patterns developing accessible non-toxic side-effect free integrative methodologies combining Western medicine ensuring control over weight gain minimizing potential adverse impacts stemming from excess body mass.

#### *4.3 Post-Recovery Maintenance*

Patients recovering from obesity face risks related to rebound weight gain due primarily due poor eating habits insufficient physical activity stress fatigue etc., hence during stable periods maintaining long-term adherence towards scientific rational diets consistent exercises healthy lifestyle choices remains critical (Xing & Yang, 2004). Regular monitoring body composition allows timely adjustments made concerning both workout/dietary plans additionally utilizing TCM aids restoring metabolic functions reinforcing therapeutic outcomes ultimately striving achieve sustainable stable management preventing rebounds effectively.

To this end, it is imperative that healthcare providers offer comprehensive support systems that encompass nutritional counseling, exercise prescription, and stress management techniques. These systems should be tailored to the individual's needs and progress, ensuring that the patient is not only losing weight but also learning the skills necessary to maintain a healthy lifestyle post-recovery. Furthermore, leveraging traditional Chinese medicine (TCM) can provide additional benefits by addressing underlying imbalances that may contribute to weight gain and metabolic issues. By integrating these approaches, patients can be empowered to achieve and sustain a healthier weight, thereby reducing the likelihood of relapse and improving overall well-being.

### **5. Conclusion**

Obesity not only jeopardizes the normal physical development of children and adolescents but also adversely affects their psychological well-being and intellectual growth. Furthermore, it increases the risk of chronic diseases such as hypertension and fatty liver in adulthood. The theory of "preventing disease before it occurs" is a crucial component of traditional Chinese medicine (TCM) philosophy. Its emphasis on proactive prevention and its rich array of health-preserving methods provide significant insights for addressing obesity in children and adolescents. By integrating the concept of "preventive treatment" throughout the entire process of obesity management, early comprehensive interventions can be implemented to effectively reduce the incidence rate of obesity among children and adolescents.

In conclusion, the adoption of TCM preventive strategies in the fight against childhood and adolescent obesity can lead to a more holistic approach to health. This approach not only focuses on the physical aspects of weight management but also addresses the emotional and mental health of young individuals. By fostering a culture of health awareness and encouraging lifestyle changes that include balanced nutrition and regular physical activity, we can create a sustainable model for preventing and managing obesity from an early age. This proactive stance not only benefits the individual but also contributes to the overall well-being of society by reducing the burden of obesity-related diseases.

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