



# Childhood Obesity in the United Kingdom: Exploring Literature Around Primary Care Approaches and Public Health Responses

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## Abstract

Childhood obesity remains a major public health concern in the United Kingdom, with nearly 1 in 4 children aged 10–11 classified as obese. This literature review explores the prevalence, risk factors, and current strategies for managing childhood obesity in the United Kingdom, focusing particularly on the role of primary care services. The review synthesises findings from peer-reviewed journals, national reports, and policy documents published between 2015 and 2024. It highlights the challenges faced by healthcare providers in addressing obesity within primary care settings, examines the effectiveness of various intervention strategies, and discusses socio-economic disparities in health outcomes. The review identifies the need for an integrated, multi-sectoral approach that includes early identification, education, family involvement, and community support to combat this complex health issue.

## 1.0 Introduction

Childhood obesity is associated with significant short- and long-term health risks, including type 2 diabetes, hypertension, psychological problems, and increased risk of adult obesity. The UK has implemented multiple initiatives to curb rising rates, yet the problem persists, disproportionately affecting children from lower socio-economic backgrounds. Primary care practitioners are often the first point of contact for early detection and intervention, positioning them as key actors in the obesity care pathway.

Andrew Cole (2006) reported that a lack of clear guidance and coordination among local professionals was undermining the UK government's target to halt childhood obesity. Despite numerous programmes, little progress had been made and resources were often used ineffectively, failing to reach those most at risk.

The sections that follow describe the methodology used to conduct this review of literature, followed by the review itself. This leads to a discussion that encapsulates the role of primary care towards combating childhood obesity, followed by an overview of the effectiveness of the interventions. Government and public health strategies are discussed, along with the various issues related to health inequalities and the associated stigma, before finally concluding in the final section.

## 2.0 Methodology

This review was conducted using a systematic approach, by drawing upon a range of data from sources such as PubMed, NICE Guidelines, NHS Digital, and UK Government health portals, etc. In terms of inclusion criteria, studies and reports published between 2015 and 2024, focusing on the UK context, written in English, and addressing childhood obesity prevention or management were used. Moreover, targeted keywords were used such

as “childhood obesity UK,” “primary care,” “intervention,” “prevalence,” “public health,” “NCMP,” “health inequalities”, etc. Finally, only authentic and peer-reviewed published sources, such as systematic reviews, national surveillance reports (e.g., NCMP), and grey literature (e.g., NHS reports), were used. A total of 48 relevant sources were reviewed, and 22 were selected for inclusion based on relevance and quality.

### 3.0 Literature Review

#### 3.1 Prevalence, Trends and the Risk Factors

While exploring the key factors influencing childhood obesity, several important determinants emerge. Dietary habits play a significant role, with children frequently consuming sugary drinks and processed foods, alongside a notably inadequate intake of fruits and vegetables. This dietary pattern is compounded by a decline in physical activity, partly due to a reduction in physical education and outdoor play opportunities. Socioeconomic inequality further exacerbates the issue; children from lower-income families face higher risks of obesity due to food insecurity, limited access to health education, and fewer recreational resources. Additionally, there is a strong correlation between parental obesity and childhood BMI, driven by both genetic factors and shared behavioural patterns.

One of the major challenges in addressing childhood obesity in the UK is the fragmented and inconsistent policy environment. Musingarimi (2009) describes this as a “policy cacophony,” where overlapping and often uncoordinated strategies implemented by various public health agencies and governments dilute the overall effectiveness of efforts. This disjointed approach leads to confusion among professionals and wasted resources on interventions that may not target the children most at risk.

The complexity of obesity as a condition also contributes to this confusion. There is a wide range of contributing factors, including socioeconomic status, environmental conditions, behavioural patterns, and genetic predispositions, making it difficult to design and implement one-size-fits-all interventions (Musingarimi, 2009). This multifaceted nature of the condition necessitates tailored and context-specific strategies, which are not always achievable under broad national frameworks.

In addition, policymakers often exhibit reluctance to introduce robust interventions for fear of appearing to limit individual freedoms. Public health policies such as sugary drink taxes or regulations on fast food marketing to children are seen as politically sensitive and potentially unpopular, even if evidence supports their efficacy (Musingarimi, 2009). This has led to a preference for softer, voluntary measures that may lack the power to effect meaningful change.

Furthermore, most public health interventions related to obesity do not yield quick, tangible results. Politicians and public health leaders may be discouraged from pursuing long-term strategies that do not provide immediate gains, which can undermine the sustainability of prevention programmes (Musingarimi, 2009).

Governance and structural challenges also play a significant role. Since the introduction of devolution in 1998, health policy in the UK has become the responsibility of the devolved administrations in Scotland, Wales, and Northern Ireland. While this allows for regional tailoring of policy responses, it also creates variations in implementation and priorities across the UK, making national coordination more difficult (Musingarimi, 2009).

Although concordats exist between the UK’s Department of Health and the devolved governments to promote cooperation, these agreements are not legally binding. As a result, health departments in each nation are free to develop their own strategies, which may not always align, leading to inconsistent outcomes and further fragmentation of efforts to tackle childhood obesity (Musingarimi, 2009).

The food environment plays a critical role in shaping children's dietary behaviours and consequently influencing the prevalence of childhood obesity in the UK. According to Dooru (2024), the accessibility and availability of unhealthy food options, such as fast food and sugar-laden snacks, significantly affect children's eating patterns. This is particularly problematic in areas where these outlets are more prevalent than healthier food sources. The study found a strong correlation between the density of fast-food restaurants and higher rates of obesity among children aged 5 to 18, highlighting the importance of the built food environment as a determinant of public health outcomes.

Moreover, affordability continues to act as a major barrier for families trying to maintain a healthy diet. Dooru (2024) points out that healthy, nutrient-rich foods are often priced higher than energy-dense, processed alternatives, making them less accessible to low-income families. This economic imbalance can lead to a reliance on cheaper, unhealthy food choices, further exacerbating health inequalities and contributing to obesity. As a result, lower socioeconomic groups are disproportionately affected, and the disparity in obesity rates continues to widen.

Marketing also emerges as a significant influence on children's food preferences. The study identifies aggressive advertising of high-calorie, low-nutrient foods, especially through digital and television media, as a factor that shapes children's food choices from a young age (Dooru, 2024). Such marketing strategies are often targeted at children directly, exploiting their impressionability and encouraging habitual consumption of unhealthy products. Parents, particularly those interviewed in qualitative parts of the study, expressed concern over their children's exposure to these marketing messages and the difficulty of promoting healthy eating habits in such a context.

Dooru (2024) also notes that structural factors such as education, socioeconomic status, and the role of local government policy are intricately linked to how the food environment affects dietary habits. While the study highlights the food environment as a key driver of obesity, it also emphasises the need for a multi-layered response, one that goes beyond individual behaviour change. Effective interventions, according to the findings, should involve systemic changes such as improved food policy, pricing regulations on unhealthy foods, restrictions on child-focused advertising, and better urban planning to reduce the concentration of fast-food outlets near schools.

A promising example of tackling childhood obesity through a whole systems approach is demonstrated in the city of Brighton and Hove, United Kingdom. According to Salm et al. (2023), the city has managed to buck the national trend of rising childhood obesity, particularly in the 10–11 age group, by implementing a multifaceted strategy that spans municipal, public health, voluntary, and private sector collaborations. Unlike many parts of the UK, Brighton has seen either a stabilisation or a reduction in childhood overweight and obesity rates over the past decade, providing a potential model for other local authorities.

Central to Brighton's success has been the integration of a systems-thinking methodology, which recognises that obesity is influenced by a wide range of interconnected social, economic, and environmental factors. The Brighton & Hove Food Partnership, in collaboration with local authorities and community organisations, played a crucial role in driving this change by targeting improvements in the local food environment, access to healthy food, and education around nutrition (Salm et al., 2023). This coalition of actors helped foster long-term cultural and behavioural changes through policies, campaigns, and community engagement.

While the study does not claim a direct causal relationship between the interventions and the improved obesity rates, it presents a compelling case that coordinated, community-driven strategies can positively influence health outcomes. Salm et al. (2023) stress that the success in Brighton was made possible not only by public health expertise but also by political will and strong civic engagement. These elements worked synergistically to maintain momentum and continuity, even amidst broader national challenges such as public funding cuts and the lingering effects of the COVID-19 pandemic.

Nevertheless, Brighton's experience also reflects ongoing challenges. Despite its achievements, the city continues to grapple with significant health inequalities, particularly in areas of high deprivation. Salm et al. (2023) caution that Brighton's unique socio-political and geographic context may limit the direct transferability of its approach to other regions. However, the study offers valuable insights into how building robust partnerships, fostering local leadership, and prioritising systemic change can contribute meaningfully to childhood obesity prevention at the local level.

Speiser et al. (2004) report on an international consensus meeting held in Israel in 2004, where 65 health professionals from nine countries convened to address the global public health crisis of childhood obesity. The group undertook a comprehensive review of existing evidence on the prevalence, causes, risks, prevention, diagnosis, treatment, and psychological aspects of childhood obesity. Although formal evidence-based guidelines were not established due to resource limitations, the collaborative process resulted in a consensus statement highlighting key issues and recommendations for future research and intervention strategies. This landmark

consensus emphasises the complexity of childhood obesity and the urgent need for coordinated global efforts to develop effective prevention and treatment programs.

Systematic reviews have consistently found that most interventions aimed at preventing childhood obesity, particularly school-based programs, have either been ineffective, of low scientific rigour, or not easily applicable within the UK context (Reilly, 2007). Despite the implementation of numerous local and national initiatives, many lack a strong evidence base, with few undergoing thorough evaluations for their processes or outcomes. Additionally, many existing programs focus broadly on “healthy living” rather than targeting obesity specifically, reducing their potential impact on the rapidly increasing childhood obesity rates seen in the UK (Reilly, 2007).

Among the interventions reviewed, several promising strategies, often referred to as ‘best bets’, have emerged as potential focal points for future prevention efforts (Reilly, 2007). Whitaker (2003) proposes that effective preventive interventions should specifically target modifiable behaviours causally linked to obesity, avoid harm, and provide measurable outcomes to guide families and researchers. Behaviours meeting these criteria include promoting breastfeeding, reducing screen time, encouraging physical activity, and limiting intake of sugary drinks, which contribute to passive calorie consumption (Reilly, 2007). These targets offer practical avenues to curb obesity risk while supporting overall child health and development.

Concerns that obesity prevention might inadvertently cause harm, such as triggering eating disorders, are frequently raised by educators and policymakers (Audit Commission et al., 2006). However, Reilly (2007) argues that these concerns are largely overstated. The existing evidence shows that carefully planned obesity prevention programs tend to improve children’s well-being and have not been harmful. Effective prevention requires overcoming the significant challenge that children’s behaviours are inherently resistant to change, highlighting the need for robust, evidence-based interventions that demonstrate sustained, objective behaviour change (Reilly, 2007).

One notable success in obesity prevention is the Planet Health program in the United States, a well-designed randomised controlled trial targeting multiple behaviours including diet, physical activity, and screen time (Gortmaker et al., 1999). The program successfully reduced obesity incidence and even reversed existing obesity in girls, primarily by reducing TV viewing time. This model represents a promising, cost-effective intervention currently being expanded in the US, and provides valuable insights for designing future UK based school interventions (Reilly, 2007). Additionally, early intervention in nursery-aged children may also be necessary given the early onset of obesity, with some promising nursery-based initiatives already underway (Reilly, 2007).

Childhood obesity in the United Kingdom presents a complex and escalating public health challenge driven by multifaceted factors including environmental, behavioural, and policy influences. The literature highlights the significant role of the food environment marked by easy access to unhealthy foods and aggressive marketing in shaping children’s dietary habits, particularly among vulnerable populations. While numerous interventions have been implemented, many lack robust evidence of effectiveness, and sustainable, high-impact prevention programs remain scarce.

Whole-system approaches, such as the coordinated efforts seen in Brighton and Hove, underscore the importance of multisectoral collaboration between public health agencies, local governments, and community organisations to create supportive environments for healthy behaviours. Targeting modifiable behaviours like reducing screen time, increasing physical activity, and promoting healthier dietary choices from an early age appears promising. Importantly, concerns regarding potential harm from obesity prevention initiatives have not been supported by empirical evidence, suggesting that carefully designed programs can improve health outcomes without adverse effects.

### 3.2 Role of Primary Care

In terms of primary care, practitioners such as general practitioners are integral to early detection, brief interventions, and facilitating referrals to specialist weight management services. Nevertheless, several challenges impede effective action. Many GPs report time constraints, insufficient training, and a lack of confidence in discussing obesity sensitively. Furthermore, BMI monitoring outside of the National Child Measurement Programme (NCMP) is inadequate, and integration between primary care and community-based support remains limited.

### 3.3 Effectiveness of Interventions

Regarding intervention effectiveness, evidence suggests that brief interventions alone yield minimal impact. Conversely, multicomponent approaches, such as combining dietary advice, physical activity promotion, and behavioural support over sustained periods, demonstrate greater promise. The National Institute for Health and Care Excellence (NICE) recommends referral to tiered weight management services; however, engagement levels remain relatively low.

### 3.4 Government and Public Health Strategies

Government and public health strategies aim to address these issues through various initiatives. The UK government's Change4Life campaign promotes healthy eating and activity among children and families. The Sugar Reduction Strategy targets food manufacturers to lower sugar content in products, while providing free school meals has been linked to a reduction in obesity rates among primary school children. Despite these efforts, critics highlight that many policies lack long-term funding and comprehensive evaluation mechanisms. Notably, the Primary PE and Sport Premium has been doubled to bolster physical education and sports activities in primary schools.

### 3.5 Health Inequalities and Stigma

Health inequalities continue to be a pressing concern. Children living in deprived areas are twice as likely to be obese compared to their wealthier peers. Obesity stigma within healthcare settings further hampers engagement, often leading to delayed interventions and low parental participation. Addressing these social determinants of health is essential for reducing disparities and promoting equitable health outcomes.

Summing up, the literature emphasises that although obesity prevention remains a national priority, primary care settings are underutilised due to systemic barriers. There is a clear need for more structured clinical guidelines for healthcare professionals and better integration with schools and community services. Securing consistent funding for local programmes and providing cultural sensitivity training for healthcare workers are also crucial steps toward more effective obesity prevention and management.

### 4.0 Conclusion

Childhood obesity in the UK represents a pressing and multifaceted public health challenge that demands a comprehensive and coordinated response. While primary care services have the potential to play a pivotal role in early identification and prevention, their effectiveness depends on adequate structural support, practitioner training, and integration with broader public health initiatives. Evidence from Phillips et al. (2025) shows that combined dietary and physical activity interventions in early childhood yield modest improvements in BMI-related outcomes. Yet, when delivered at scale, these small individual gains may translate into meaningful public health impact. Importantly, the review underscores the limitations of interventions focused solely on individual behaviour change and highlights the urgent need for a whole-systems approach, one that addresses the broader structural, environmental, and social determinants of health.

The findings also reveal critical gaps in the current evidence base, including limited long-term follow-up data, a lack of cost-effectiveness analysis, and the underrepresentation of vulnerable groups such as children with disabilities. Despite these limitations, the safety of interventions was reaffirmed, with no serious adverse events reported, reinforcing their feasibility in early years settings. Moreover, the broader benefits, ranging from improved physical fitness and motor development to healthier lifelong behaviours, may ultimately be more significant than BMI reduction alone.

The systematic review underscores that childhood obesity in the UK cannot be addressed without tackling the broader food environment. Dooru (2024) convincingly argues for a coordinated public health approach that targets both environmental and social determinants. This reinforces the need for integrated strategies that include government regulation, public awareness campaigns, and community level support to make healthy eating a practical and affordable choice for all families.

To effectively address early childhood obesity, future research must prioritise equity focused, implementation driven approaches that reflect real world complexity. This includes adopting innovative trial designs, supporting long term evaluations, and ensuring interventions are inclusive and adaptable across diverse populations and settings. With childhood obesity rates in the UK projected to rise (Reilly, 2007), reversing this trend will require stronger policy coherence, enhanced public and professional awareness, and sustained investment in prevention strategies. Ultimately, success hinges on integrating individual behaviour change efforts with systemic reforms to the food environment, childcare systems, and socioeconomic conditions, thereby promoting healthier growth trajectories and reducing health inequalities from the earliest stages of life.

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