

FACTORS ASSOCIATED WITH THE DEVELOPMENT OF TYPE 2 DIABETES MELLITUS (T2DM) IN CHILDHOOD AND ADOLESCENCE: A NARRATIVE REVIEW FOCUSING ON PREVENTIVE PERSPECTIVES.

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RESUMO

Type 2 diabetes mellitus (T2DM) is a chronic metabolic disease of high public health relevance. Traditionally more prevalent in adults, its incidence is progressively increasing in children and adolescents, reflecting contemporary epidemiological and behavioral changes. This scenario amplifies concerns about the early onset of metabolic and cardiovascular complications, reinforcing the need to investigate the factors involved and preventive strategies directed at the pediatric population. This study aims to analyze the main risk factors related to the manifestation of T2DM in childhood and adolescence, highlighting the preventive perspectives that can be adopted. To achieve this analysis, a narrative review was conducted in PubMed, covering the period 2016-2026, considering the World Health Organization's (WHO) Commission on Ending Childhood Obesity (2016) report as an important benchmark for global prevention of childhood T2DM. The following descriptors from the Medical Subject Headings (MeSH) in Health Sciences were used: "Type 2 Diabetes Mellitus", "Prevention", "Risk Factor", "Predictor", "Child", and "Adolescent", combined with Boolean operators AND, OR, and field restriction. Studies involving humans up to 18 years of age, available in English, were selected, and systematic reviews, narratives, and meta-analyses were prioritized. Redundant articles, those outside the specified period, and those without a direct correlation to pediatric type 2 diabetes mellitus and its prevention were excluded. The qualitative analysis, of an exploratory and descriptive nature, was based on a total of 13 articles. From the analysis of the selected studies, it was evident that the development of type 2 diabetes mellitus (DM2) in childhood and adolescence does not result from an isolated factor, but from a complex multifactorial condition, determined by the interaction between biological, genetic, behavioral, and socio-environmental factors. It has been observed that obesity, insulin resistance, and puberty are central elements in the early manifestation of the disease, frequently related to contemporary lifestyle habits such as excessive consumption of ultra-processed foods, inadequate dietary patterns, sedentary lifestyle, and physical inactivity, which favor early metabolic impairment. Furthermore, family predisposition, gestational diabetes, and unfavorable socioeconomic contexts exacerbate this scenario, reinforcing the complex interaction between biological vulnerability, heredity, lifestyle, and environmental determinants. Adolescence, especially in the 10-19 age range, stood out as a period of greatest vulnerability, suggesting a critical influence of pubertal changes associated with metabolic and behavioral factors. Given this panorama, the main preventive strategies identified focused on controlling childhood obesity, promoting healthy eating, encouraging regular physical activity, and the appropriate management of maternal diabetes during pregnancy. Based on the results obtained, pediatric type 2 diabetes is confirmed as a growing global problem that requires intersectoral preventive and interventional public policies aimed at promoting overall childhood health and, in particular, preventing childhood obesity and gestational diabetes, in order to reduce the severity of this comorbidity in the youth population.

Palavras-chave: Type 2 Diabetes Mellitus; Prevention; Child; Risk Factor; Predictor.