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Systematic Review: Physiotherapy Interventions, an Emerging Approach for Childhood Obesity and Risk of Diabetes

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Abstract

Background/Introduction: Obesity is one of the leading noncommunicable diseases prevalent worldwide. 17 million children are prone to be obese in India by 2025. Childhood obesity etiology is multifactorial, including unhealthy food habits, sedentary lifestyle and environmental factors. Childhood obesity is linked to serious health issues like metabolic disorders, diabetes, musculoskeletal disorders and mental health disorders. Childhood obesity and diabetes management and prevention strategies are crucial to reducing the incidence of chronic disease, improving overall public health, and ensuring a healthier future generation.

Objective: The objective of this systematic review is to inform healthcare organizations, policymakers, and pediatric health professionals about the potential benefits of integrating Physiotherapy interventions into comprehensive diabetes management programs for children. This review aims to contribute to the development of evidence-based

strategies aimed at promoting the health and well-being of obese children with diabetes, ultimately improving their quality of life and long-term health outcomes.

Methodology: Relevant studies published from 2018 to 2023 were sought in key databases Google scholar, PubMed and PEDRO by using keywords.15 peer reviewed articles which focused on obese children, measurable outcomes and physiotherapy interventions were included. Based on PRISMA guidelines studies were analyzed.

Result: The systematic review identified significant benefits of physiotherapy interventions like in improving metabolic control, physical fitness, and quality of life among children with diabetes and obesity. Findings suggests the role of physiotherapy as a crucial component offering promising outcomes for enhancing health and well-being in this population.

Conclusion: The reviewed studies consistently demonstrated that physiotherapy interventions, encompassing exercise programs like aerobic exercise and resistance exercise, lifestyle modifications, and educational components, play a crucial role in improving outcomes for both diabetes and pediatric obesity. Exercise interventions help in reducing adiposity, increasing lean body mass, and improving cardiovascular fitness, all of which contribute to weight management and metabolic health.

Keywords: Childhood Obesity; Diabetes Risk; Exercise; Lifestyle Modification; Physiotherapy Intervention