

Table S1. List of studies excluded during full-text screening with reasons for exclusion

Study	Year	Reason for exclusion
Hernández-Barrera et al. [65]	2024	The study used a combined 'adiposity' variable (overweight+abdominal obesity) based on both BMI z-score and waist circumference, rather than reporting obesity as a standalone category based on international BMI standards
Ardic et al. [76]	2020	The study reported 'overweight/obesity' as a single combined outcome and did not provide separate data or a specific analysis for 'obesity.'
Manohar et al. [75]	2021	The study used a combined category of 'overweight/obesity' (BMI $\geq$ 85th percentile) as the primary outcome and did not provide separate, standalone data for obesity
Donkor et al. [74]	2017	The risk factor analysis (odds ratios) utilized a merged category of overweight and obesity due to the small number of obese participants, preventing a specific assessment of obesity risk
Contarato et al. [73]	2016	The study used the 85th percentile as a cutoff, which combines overweight and obesity, and did not provide specific data for obesity alone ($\geq$ 95th percentile)
Flores et al. [72]	2013	The study assessed children in kindergarten aged > 5 years and also evaluated 'severe obesity' (BMI $\geq$ 99th percentile) rather than standard obesity (BMI $\geq$ 95th percentile), making the results inconsistent with our predefined outcome measures
Iguacel et al. [71]	2018	he study measured the outcome at age 6 and used a combined 'overweight/obesity' category
Mehta et al. [70]	2012	The study utilized a case-control design
Ehrenthal et al. [69]	2013	The study reported the primary outcome as a continuous variable (mean BMI z-score) and utilized linear regression analysis, preventing the extraction of dichotomous data
Alqaoud et al. [68]	2021	The study utilized a cross-sectional design and reported a combined category of overweight/obesity
Sasaki et al. [66]	2010	The study utilized a cross-sectional design
Tester et al. [67]	2018	The study use of a cross-sectional design, and defined as BMI $> 120\%$ of the 95th percentile)

BMI, body mass index.