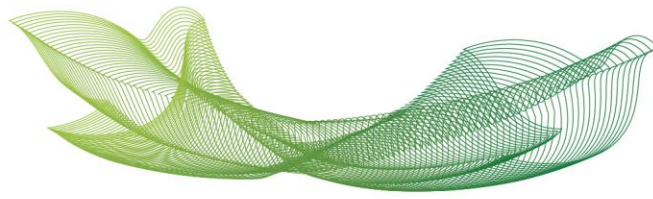




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Título	Childhood Obesity and Firmicutes/Bacteroidetes Ratio in the Gut Microbiota: A Systematic Review
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Resumo	<p>Background: The aim of the present study was to undertake a systematic review exploring the relationship between childhood obesity and fecal microorganisms, to answer the following question: “Are Firmicutes and Bacteroidetes a significant risk indicator/factor for obesity in children?” The main search terms were “child” and “obesity” together with “gut microbiota” (PubMed: 2005–2017). The minimal requirements for inclusion were the evaluation of gut microbiota composition and BMI in children between 0 and 13 years of age.</p> <p>Methods: Assessed articles were carefully classified according to a predetermined criterion, and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) were considered. Seven articles were critically appraised and used as a basis for conclusions.</p> <p>Results: Three studies showed a positive association between <i>Bacteroides fragilis</i> and obesity. In addition, a high value of evidence indicated that a decrease in the Bacteroidetes phylum and in <i>Bacteroides/Prevotella</i> groups was related to high BMI. For the Firmicutes phylum, one high-quality study highlighted that it was positively correlated with weight gain. With regard to Firmicutes species, <i>Clostridium leptum</i>, <i>Eubacterium hallii</i>, and <i>Lactobacillus</i> spp. indicated adipose tissue storage, while <i>Clostridium difficile</i> and the <i>Staphylococcus</i> genus were correlated with low BMI. Despite the fact that</p>



	<p>only one study did not perform real-time polymerase chain reaction to quantify the microorganisms, its results corroborated those of the studies that did.</p> <p>Conclusions: Changes in Firmicutes and Bacteroidetes phyla/species levels might in fact be significant indicators/factors for childhood obesity. However, given the small number of articles appraising these entire phyla and the heterogeneity among the species assessed, further well-designed studies are required to improve the knowledge.</p>
Fomento	