**Supplementary material**


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**Material and methods**

**Data search**

A comprehensive literature search was performed in the Web of Science database (“all databases” search). The combinations of the following terms were used: “childhood obesity” or “infant obesity” or “offspring obesity” or “obese children” or “obese child” and “mother’s obesity” or “obese mother” or “gestational weight gain” or “gestational diabetes mellitus” or “dyslipidemia” or “hypercholesterolemia” or “hypertriglyceridemia” or “breastfeeding” or “hypertension”. The initial screening of title, abstract, and keywords was performed using the filters “obesity”, “infant”, “child”, “children”, “gestational weight gain”, “gestational diabetes mellitus”, “dyslipidemia”, “hypercholesterolemia”, “hypertriglyceridemia”, “breastfeeding”, and “hypertension” subsequently, and by using the search terms for direct or indirect evidence of non-genetic based mother-to-child obesity transmission involving EGWG, GDM, maternal dyslipidemia, maternal hypercholesterolemia, maternal hypertriglyceridemia, breastfeeding, and maternal hypertension. The reference lists of searched articles were screened for additional relevant publications. Articles were systematically and thoroughly examined to identify both direct and indirect evidence to meet the aims of the review. Papers from 2014 onwards that investigated the causative association (apart from direct genetic inheritance) between maternal and infantile excess body mass, including EGWG, GDM, maternal
dyslipidemia, maternal hypercholesterolemia, maternal hypertriglyceridemia, breastfeeding, and maternal hypertension, were included. Papers published before 2014 were included exceptionally, only if contained crucial information enabling to interpret included publications.

Only articles that were considered human only studies were included. Both observational and interventional studies were included. Review articles were included only if they contained crucial data explaining important issues not available elsewhere. Studies with data duplication, without a method description, not in English, or published before 2014, were excluded. Case reports were excluded.

From the Web of Science database (“all databases” search), 14177 titles were found. After the titles were read, 13849 abstracts were excluded. The remaining 328 articles were then screened, and 267 articles were excluded, leaving 61 relevant articles. After screening the reference lists of these 61 included articles, 6 further papers were included. After the selection process, a total of 67 articles were included in the review.