Overweight and Obesity Associates With Diet Quality in Mothers of Newborn Babies

Ella Koivuniemi¹ and Kirsi Laitinen²

¹Institute of Biomedicine, Research Centre for Integrative Physiology and Pharmacology, University of Turku and ²Institute of Biomedicine, Research Centre for Integrative Physiology and Pharmacology, University of Turku & Turku University Hospital

Objectives: The aim of this study was to investigate whether diet quality differs in women with normal weight (nw) and overweight or obesity (ow/ob) one month after delivery.

Methods: Data was collected with online questionnaires from early pregnancy until one month postpartum from a representative sample of women across Finland. Postpartum data (mean of 6.8 ± 1.9 weeks after delivery) was used in this study. Diet quality was measured with validated index of diet quality (IDQ, total score 0-15, scores ≥ 10 indicate good diet quality). In addition, IDQ components were evaluated by comparing to Finnish dietary recommendations. Ow/ob status was determined based on pre-pregnancy body mass index (BMI, $>25 \text{ kg/m}^2$) calculated from self-reported weight and height.

Results: Of the women, 96% (331/346) were breastfeeding and 32% had ow/ob. Good diet quality was observed in 49% of the women. The IDQ scores were lower in ow/ob women compared to nw

women (8.9 \pm 2.3 and 9.6 \pm 2.1 respectively, p = 0.006). Considering the IDQ components, the proportion of ow/ob women consuming vegetables, fruit and berries \geq 5 servings/day was lower than that of nw women (28% and 40% respectively, p = 0.041). Moreover, ow/ob women were less likely to consume fruit and berries (41% and 62% respectively, P < 0.001) and whole grain products daily compared to nw women (63% and 76% respectively, p = 0.015). No differences in the consumption of vegetables daily, fish \geq 2 servings/week and vegetable-oil based spread on bread as well as having a regular meal pattern (skipping \leq 2 main meals/week) were seen between nw and ow/ob women.

Conclusions: Only half of the women had good diet quality in this population of mainly breastfeeding women. The diet quality score of ow/ob women was lower and they consumed health-promoting foods less likely compared to nw women. Health-promoting diet of breastfeeding women is of vast importance considering impacts on breast milk composition as well as prevention of chronic lifestyle-related conditions including type 2 diabetes.

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