P-9: Eating competence associates with lower prevalence of obesity and better insulin sensitivity in Finnish adults with increased risk of type 2 diabetes – The StopDia Study

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Introduction

Healthy diet is a key component in prevention of type 2 diabetes (T2D), however, following it is demanding for many individuals (1). Eating competence is a concept that emphasizes positive and flexible attitude towards food and eating and it aims to health promotion (2,3). The aim of the current study was to investigate whether eating competence, that assess eating attitudes and behavior, associates with the lifestyle and metabolic risk factors for T2D and prevalence of T2D in individuals screened online for T2D risk.

Material and Methods

All study participants had increased risk for T2D (≥ 12 points in the Finnish Diabetes Risk Score [FINDRISC] (4) or history of gestational diabetes, impaired glucose tolerance, or impaired fasting glucose), which was identified via an online risk screening and recruitment site (www.StopDia.fi) without face-to-face contact. Altogether 3271 Finnish adults aged 18–74 years participated in the baseline examinations of the Stop Diabetes (StopDia) study. The participants answered the web-based StopDia Digital Questionnaire (n = 3147), including the Satter Eating Competence Inventory 2.0™ (ecSI 2.0) (3) and a food intake questionnaire (5). Anthropometric and laboratory measurements were performed, and blood samples were taken in primary health care centers as part of their routine actions.

Results

Overall 37% of the participants were classified as being eating competent (≥ 32 points in ecSI 2.0). Eating competent individuals had more regular meal frequency and better quality of diet (all P values < 0.05). Additionally, being eating competent was associated with a lower prevalence of obesity (P <0.001), less abdominal obesity (P < 0.001), less hypertriglyceridemia (P = 0.009) and less T2D (P = 0.029) adjusted for age, gender and sociodemographic factors. Eating competent participants had also lower insulin resistance based on Matsuda insulin sensitivity index (P = 0.002). Furthermore, score for contextual skills, a subcomponent of eating competence, associated most strongly with metabolic factors.

Discussion

Eating competence associates with the lower prevalence of T2D and obesity and less insulin resistance in adults with increased risk for T2D based on an online risk screening. Although cross-sectional, the analysis suggests that enhancing eating competence, especially contextual skills, which mean for instance meal planning and scheduling eating, might be a promising strategy in lifestyle interventions targeted at people with high T2D risk. Future study will focus if the lifestyle intervention delivered through the digital "BitHabit" application and the face-to-face group coaching in which the model of eating competence was also applied, affects the risk of type 2 diabetes.

References

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