

## Summary

**Aim of the study:** Analysis of the association between attitudes of girls and young women towards food, nutrition, health and dietary patterns, with particular focus on dietary sources of carbohydrates.

**Material and methods:** In cross-sectional studies carried out in 2012-2013 among girls and young women aged 13-21, data on attitudes towards food, nutrition, health and frequency of food consumption were collected. The study was carried out in two samples: (I) a nationwide survey of a representative sample of girls and young women (n=1107), (II) a study of a sample of girls and young women from the Olsztyn region (n=231). The attitudes of girls and young women towards food, nutrition and health were assessed using two scales: (i) Health Taste Attitude Scale (HTAS) consisting of 6 subscales, (ii) Health Concern Scale (HCS). Nutrition was evaluated using the food frequency questionnaire (FFQ-6). In the nationwide sample, the consumption frequency of dietary sources of carbohydrates (23 food items of FFQ-6) was evaluated and, in the sample from the region, the frequency of the consumption of various food groups (59 food items of FFQ-6, after excluding alcoholic beverages) was assessed. Attitudes towards food, nutrition and health and dietary patterns were derived using factor analysis by the principal component method. Respondents were grouped within each attitude and dietary pattern using tertile distribution. The association between attitudes towards food, nutrition and health and dietary patterns was analysed, among others, by logistic regression analysis. The odds ratio was adjusted for the following factors: age, socioeconomic status and body mass index (BMI) of girls and young women.

**Results:** Two attitudes towards food, nutrition and health (pro-health and hedonistic) and eight dietary patterns were derived independently in both samples of girls and young women. A stronger pro-health attitude of girls and young women increased the chance of adherence to the following dietary patterns: 'Fruit and vegetables', 'Nuts, grains, legumes and dried fruits', 'Juices', 'Groats' and 'Honey and wholemeal bread' in the representative nationwide sample and the dietary pattern 'Vegetables and stone fruit' in the sample from the region. In respondents from the region, a pro-health attitude also favoured adherence to the middle tertile of the dietary pattern 'Meat and meat products'. An inverse association with a pro-health attitude was found for the dietary patterns: 'Sweets', 'White bread, sugar and potatoes' and 'Sweetened beverages and salty snacks' in the representative nationwide sample of females and the dietary pattern 'Salty snacks, sweets, white bread, potatoes, fats and sweetened beverages' in the sample from the region. A stronger hedonistic attitude of girls and young women

increased the chance of adherence to the dietary patterns 'Sweets' and 'White bread, sugar and potatoes' in the representative nationwide sample of females and the dietary pattern 'Salty snacks, sweets, white bread, potatoes, fats and sweetened beverages' in the sample from the region. In the nationwide sample, a strong hedonistic attitude was negatively associated with adherence to the middle tertile of the dietary pattern 'Honey and wholemeal bread', and a moderate hedonistic attitude was negatively associated with adherence to the upper tertile of the dietary patterns 'Groats' and 'Juices'.

**Conclusions:** In Poland girls and young women have two different attitudes towards food, nutrition and health – pro-health and hedonistic. There is a positive association between a pro-health attitude and healthy dietary patterns. A stronger pro-health attitude favours a more frequent consumption of foods providing starchy carbohydrates and dietary fibre, and less frequent consumption of foods containing added sugars. A stronger hedonistic attitude favours a more frequent consumption of less healthy foods, including sources of readily available carbohydrates. The observed negative association of a hedonistic attitude with certain dietary patterns beneficial for health in Polish girls and young women indicates the need to develop effective actions to improve their dietary behaviours, as well as promoting a pro-healthy attitude. Based on the obtained results, it can be concluded that actions promoting healthy food choices among girls and young women should refer to both components of attitude – cognitive and affective. Actions promoting healthy eating should be focused not only on providing information about the health benefits of food providing starchy carbohydrates and dietary fibre (cognitive component), but also on emphasising the sensory qualities of food beneficial to health (affective component).