

Association between dietary patterns and cardiovascular risk factors in selected population of lower Silesia (PURE Study Poland)

Anna Czekajło¹, Dorota Róžańska¹, Katarzyna Zatońska¹, Andrzej Szuba^{1,2} and Bożena Regulska-Ilow¹

¹Wrocław Medical University, Poland

²4th Military Hospital, Poland

Dietary Pattern analysis is used to describe dietary habits of selected population. In many studies, dietary patterns (DPs) have been associated with the risk factors for cardiovascular disease (CVD). The aim of the study was to assess the association between dietary patterns identified in the population of Lower Silesia and anthropometric and biochemical risk factors for CVD. The study group included 2025 participants of the Prospective Urban Rural Epidemiological (PURE) Study. Dietary intake was evaluated based on the data from the Food Frequency Questionnaire (FFQ). Dietary patterns were derived using principal component analysis (PCA). The relationship between DPs and body mass index, waist circumference, waist-hip ratio, blood pressure, total cholesterol, HDL cholesterol, LDL cholesterol, triglycerides and fasting glucose level was assessed. Three dietary patterns identified in the study explained 35.6% of total variance. The “fruit, vegetables & dairy” DP, characterized by high intake of vegetables, fruits, nuts, seeds, raisins, milk and low-fat dairy, was associated with improved lipid profile and anthropometric measures, lower diastolic blood pressure and lower fasting glucose concentration. “Traditional” and “fat & sugar” DPs were unfavorably associated with most of the risk factors for CVD presented in this study. Dietary patterns identified in this study were differently related to selected anthropometric and biochemical risk factors for CVD. “Fruit, vegetables & dairy” DP was favorably associated with the biochemical and anthropometric CVD risk factors and was characterized by higher nutritional value in comparison with “traditional” and “fat & sugar” DPs.

anna.czekajlo@umed.wroc.pl

Willingness to pay (WTP) and incremental production cost: F.A.T.E.PreSco bread, a functional food to help heart failure prevention, treatment and recovery

Bruna Vinci, Nicola Iacovino, Chiara Salsiri and Milena Vainieri

Institute of Management, Piazza Martiri della Libertà, Pisa, Italia

F.A.T.E.PreSco bread is a functional food which aims to help people who suffer from heart failure to prevent acute episodes. *F.A.T.E.PreSco*, an antique Tuscan wheat genotype known for its properties and its biofortification with zinc and iron, is a new product that has been experimented in Pisa (Tuscany). Experimental study in vivo has demonstrated that α -lipoic acid (ALA), highly concentrated in this wheat, has cardioprotective effects. Considering that bread is an essential element of the Mediterranean diet and that Italy is one of the first European countries for bread consumption (with a daily average of approx. 100 gr/person), it could be more than appropriate mean of prevention for heart failure. The aim of the study is twofold: firstly, to identify stages, viability, production costs and commerciality of this product; secondly, to evaluate the willingness of heart failure patients to buy and pay for this kind of product. Product costs and market data information for different bread types have been revealed through interviews conducted within the entire *F.A.T.E.PreSco* bread production chain. Willingness to Pay (WTP) data have been obtained through a survey on 100 heart failure patients. Preliminary results show that: a) the overall production cost is 64.7% higher than traditional bread, b) 15% of heart failure patients agree to pay up to 2 times the traditional bread price and c) 35% more than 1.5 times. Regarding the Propensity to Purchase, about 50% of these patients agree/strongly agree to buy this kind of bread; this percentage grows up to 91% if recommended by their doctor. According to the results, *F.A.T.E.PreSco* bread shows good features for healthcare market.

bruna.vinci@santannapisa.it