

RELATIONS BETWEEN FOOD INTAKE, WEIGHT STATUS AND CARDIO-METABOLIC DISTURBANCES IN AREA REPRESENTATIVE GROUP



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ABSTRACT

Background and aim. Food intake and increased weight are main determinants of cardio-metabolic disturbances. The aim of the study was to assess the relations between food intake, weight status and cardio-metabolic disturbances. **Methods.** The study group (311 adults) selected from Galati county, Romania, general population was representative for age, gender and residence. We assessed cardiovascular disease(CVD) and risk factors (CVRF), metabolic disorders (MetD), food habits and weight status. **Results.** Body mass index (BMI) and abdominal circumference were significantly higher in persons with hypertension, dyslipidemia, angina pectoris, and chronic coronary heart disease. Abdominal circumference was also significantly higher in persons with cerebrovascular disease($p<0.05$). Diabetes was directly associated with daily number of meals, butter and lard intake, and inversely related to intake/preferences of juices, cookies, sweets and bread. Arterial hypertension was inversely related to intake of cream, juices, cookies ,sweets .Hypercholesterolemia was inversely related to intake of sausages. Angina pectoris, ischaemic heart disease were inversely related to intake of pork/beef. Ischaemic heart disease was inversely related to alcohol consumption. Cerebrovascular disease was directly associated with consume of chicken/turkey ($p<0.05$). **Conclusion.** Weight status and abdominal obesity were directly related with cardio-metabolic disturbances (CVD,CVRF and MetD) in this specific area group. It was noticed a direct relation between healthy eating pattern and the degree of population knowledge regarding presence of the cardio-metabolic disturbances, even if these conditions had high prevalence and awareness of their presence was poor.

BACKGROUND AND AIMS

Cardiometabolic pathology is frequently associated with and caused by obesity, as stated by many clinical studies. The identification of factors leading to obesity would result in better prevention and treatment of cardiovascular diseases and risk factors. **Aim** - the relation between cardiovascular disease (CVD), cardiovascular risk factors (CVRF) and metabolic diseases (MetD) with weight status (body mass index - BMI), abdominal obesity (abdominal circumference), and eating pattern in general population.

MATERIAL AND METHODS

Study group: 311 adult persons - representative group for Galati County(Romania) population as age, gender, residence: age groups(20-29,30-39,40-49,50-59,60-65,>65 years),men 111(35,7%),women 200(64,3%),urban 192(61,7%),rural 119(38,3%)

Weight status parameters: body weight, body height, body mass index (BMI), abdominal circumference

Cardiovascular disease (CVD), cardiovascular risk factors (CVRF) and metabolic diseases (MetD):

Obesity, diabetes, hypertension, dyslipidemia, ischaemic heart disease, angina pectoris, myocardial infarction, cerebrovascular disease = **Cardio-metabolic Risk Factors (CMRF)**

Obesity Screening Form of the Romanian Association for the Study of Obesity:

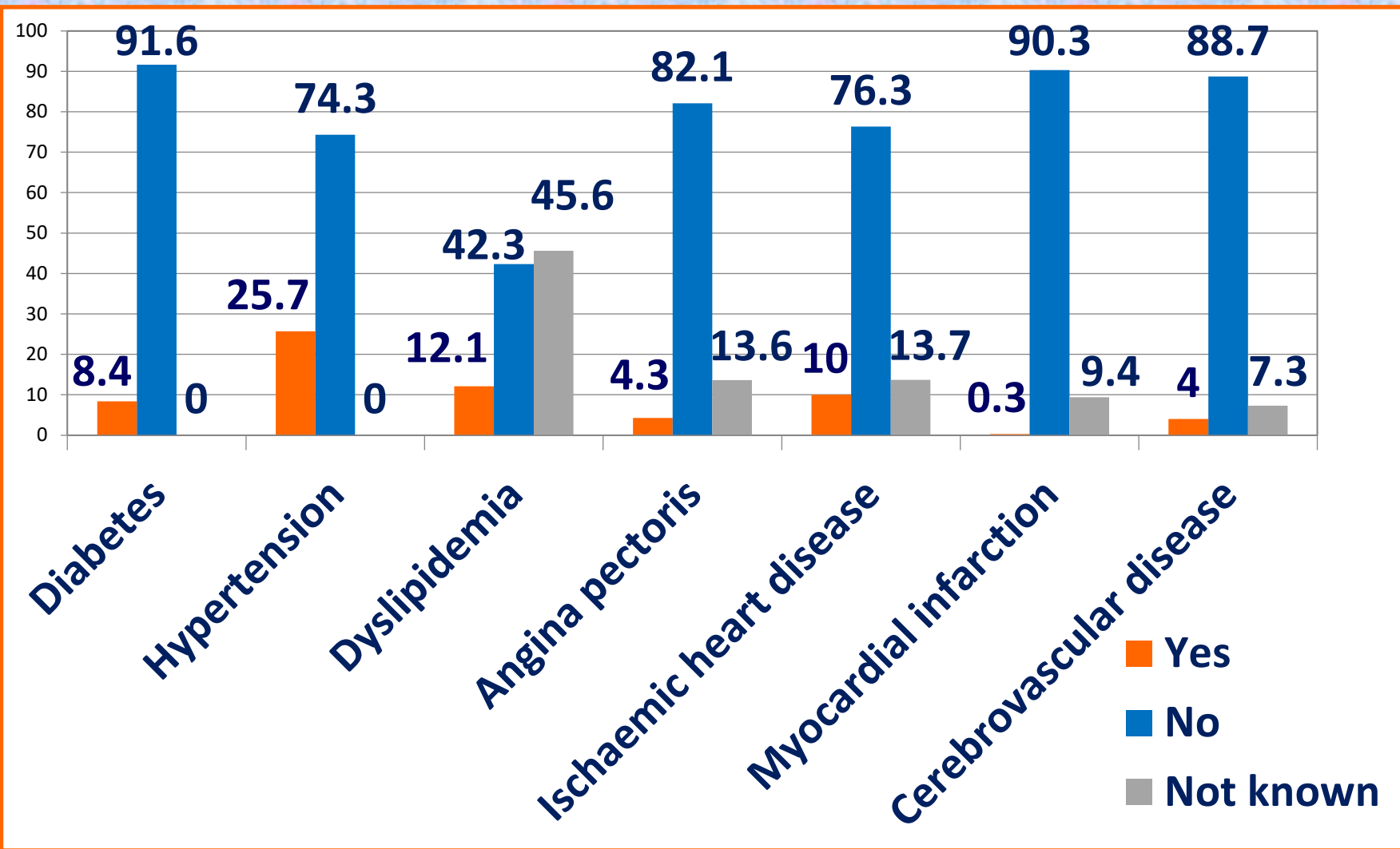
Dietary assessment / Anthropometric parameters / Evaluation of prevalence of CMD and CMRF.

Statistical analysis of data was performed with SPSS program.

Eating parameters (self-reported, Obesity Screening Form of Romanian Association for the Study of Obesity)

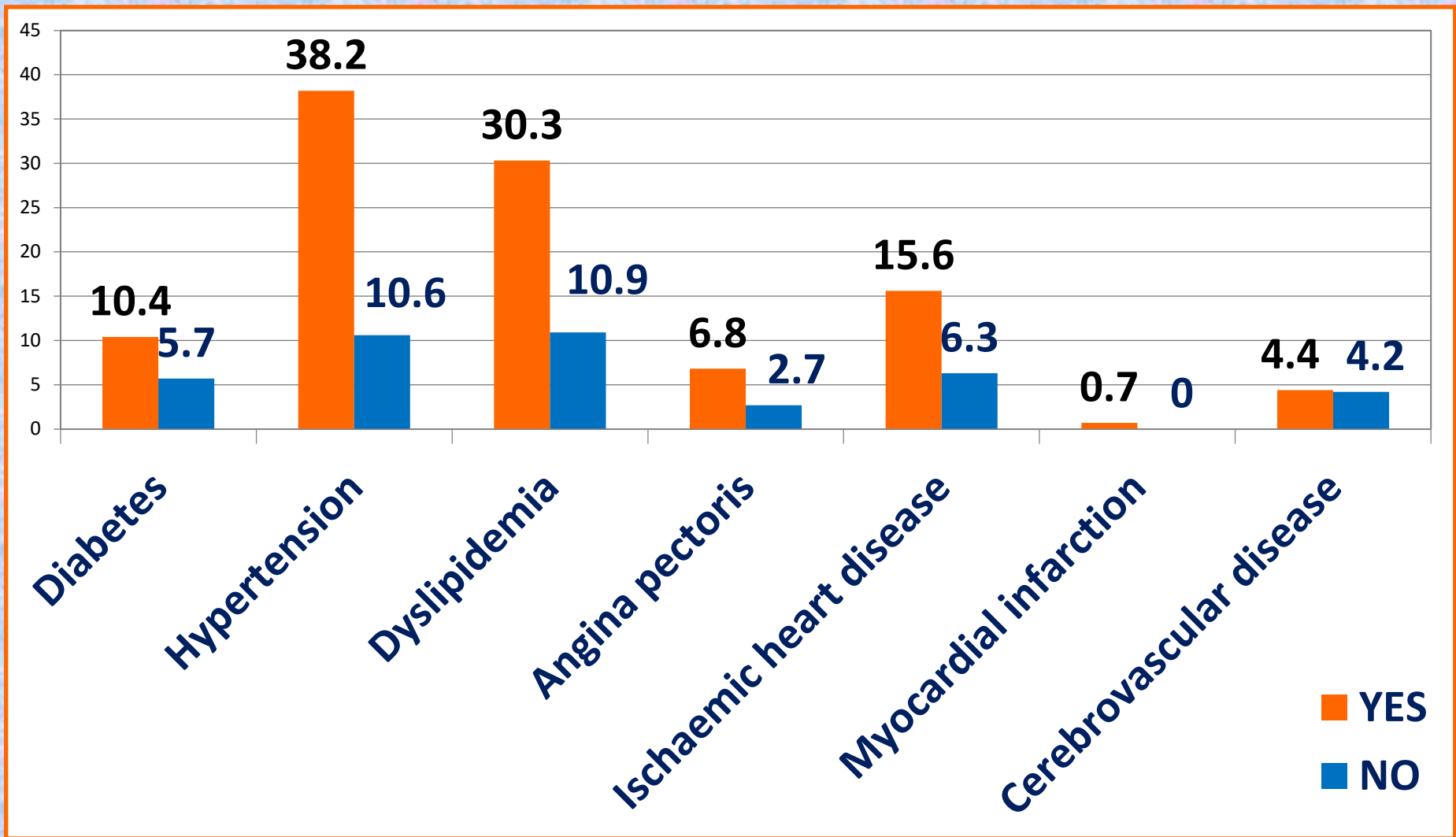
Eating pattern:	Eating preferences:	Fat intake:	Weekly food groups intake:	Alcohol intake:
Breakfast (always/variable/no) Daily no. of meals Daily no. of snacks	(≥ 3 times/week, yes/no) bread, meat, vegetables, cakes, cheese, juices, sweets, fruits, cream, potatoes, cold cuts, others	(yes/no) butter, margarine, lard, vegetable oil, cream, beacon whipped cream	(0-1, 2-3, 4-6 times/week, daily) pasta, potatoes, beans/peas, fruits, other vegetables, cheese, pork/beef, cold cuts, chicken/turkey, fish, fried food	none occasionally weekly daily

RESULTS



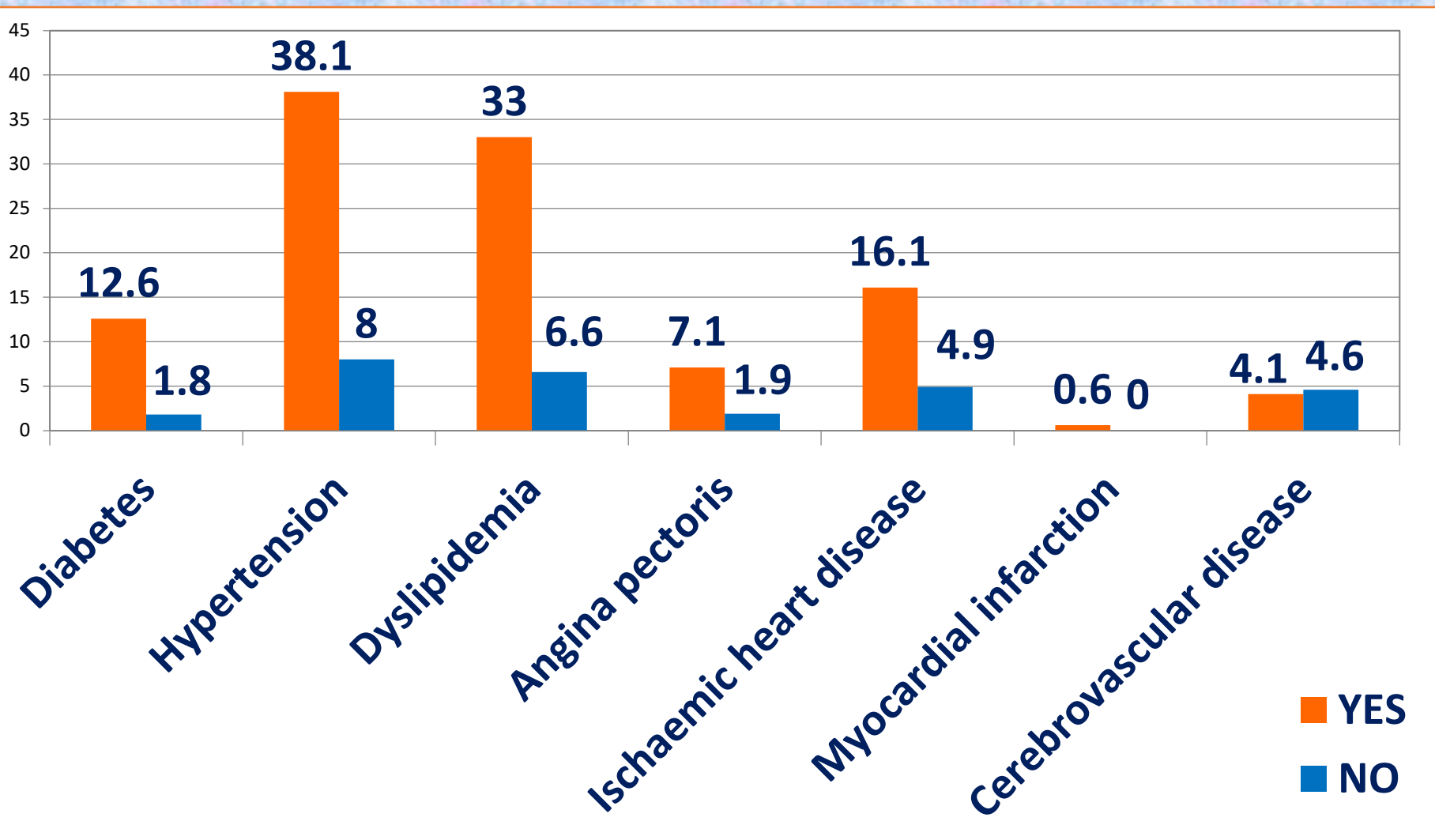
PREVALENCE CVD, CVRF, MetD in study group

An increased percent of subjects did not know IF they have CMRF !



PREVALENCE CVD, CVRF, MetD in overweight persons

BMI was significantly higher ($p<0.05$) in: hypertension, dyslipidemia, angina pectoris, ischaemic heart disease



PREVALENCE CVD, CVRF, MetD in abdominal obesity

Abdominal circumference was significantly higher ($p<0.05$) in: hypertension, dyslipidemia, angina pectoris, ischaemic heart disease, cerebrovascular disease

Direct relation between **CHANGE IN EATING PATTERN** and the **DEGREE OF POPULATION KNOWLEDGE** regarding **PRESENCE OF THE DISEASES, METABOLIC DISTURBANCES** and the **LEVEL OF HEALTH EDUCATION**.
Persons adopted a healthy eating style after the diagnose of the disease .

CONCLUSIONS

Weight status and abdominal obesity were directly related with cardio-metabolic disturbances (CVD,CVRF and MetD) in this specific area group.

It was noticed a direct relation between healthy eating pattern and the degree of population knowledge regarding presence of the cardio-metabolic disturbances, even if these conditions had high prevalence and awareness of their presence was poor.

Diabetes – directly related with no. of meals/day
Diabetes – directly related with intake of butter, lard
Diabetes – inversely related with intake/preference of juices, cookies, sweets and bread
Arterial hypertension - inversely related with intake of cream
Arterial hypertension - inversely related with intake/ preference of juices, cookies, sweets
Hypercholesterolemia - inversely related with intake of sausages
(those who know if they have or not high blood lipids eat less sausages than those who don't know their lipid status)
Angina pectoris, ischemic heart disease – inversely related with intake of pork/beef
Ischemic heart disease - inversely related to alcohol intake
(those who know they have the disease eat the least, those who are not aware about their heart conditions consume the most, and in between are those who know they don't have the disease)
Cerebrovascular disease - directly related with intake of chicken/turkey
(those who know they have the disease eat the most, those who are not aware about their heart conditions consume the least, and in between are those who know they don't have the disease).