Awareness of risk factors for ischemic heart disease in adults aged 40–64 years in the Czech Republic – a cross-sectional study

Sylva Bártlová[1,A,C,F] [✉], **Lenka Šedová**[1,A,C,F] , **Věra Stasková**[1,B-C] , **Andrea Hudáčková**[1,B,E] , **Lucie Havierniková**[1,B,E] , **Júlia Tájková Csanády**[1,2,D,F]

[1] *Institute of Nursing, Midwifery and Emergency Care, Faculty of Health and Social Sciences, University of South Bohemia, České Budějovice, Czech Republic*
[2] *Infectious Disease Department, České Budějovice Hospital, Inc., Czech Republic*
A – Research concept and design, B – Collection and/or assembly of data, C – Data analysis and interpretation, D – Writing the article, E – Critical revision of the article, F – Final approval of the article

▌ **Abstract**

Introduction and Objective. Worldwide, Ischemic Heart Disease (IHD) is the most frequent cause of death, particularly in advanced countries. The aim of this study is to describe the level of awareness among the Czech population aged 40–64 years regarding the prevention of IHD risk factors, and their perception of the educational role of nurses.
Materials and Method. A descriptive and cross-sectional research design was used for this study. The sample, selected by a quota choice representative for the Czech Republic, based on regions, gender, and age, comprised 1,391 respondents – 700 (50.3%) men and 691 (49.7%) women.
Results. 66.9% of respondents reported being aware of the risk factors for heart disease. A significant correlation was identified between gender and the knowledge of risk factors of heart diseases (<0.05), risk factors of high cholesterol (0.05), coffee (<0.05), and contraception (<0.001). A significant correlation was identified between gender and the source of one's health information (p< 0.01). In respondents taking part in regular physical examinations, a significant correlation was identified concerning the opinions of obesity (< 0.001), hypertension (< 0.01), heredity < 0.001, immunity disorders < 0.05, high cholesterol levels < 0.01, coffee < 0.05, hormonal contraception < 0.001, smoking < 0.001, stress < 0.001, and diabetes < 0.01 as risk factors of heart disease. No significant differences were found in the health literacy of individual groups classified by socio-demographic features. The population aged 40–64 was homogeneous.
Conclusions. Although awareness of the main risk factors for coronary heart disease is sufficient among people aged 40–64, the key step remains translating knowledge into practical skills. Nurses should be more involved in educating patients about risk factors for IHD.

▌ **Key words**

risk factor, awareness, ischemic heart disease, age group 40–64

INTRODUCTION

Ischemic heart disease (IHD) is a condition in which the heart suffers from insufficient blood supply – ischemia. As a result of ischemia, the heart muscle lacks oxygen and other substances necessary for its function, and waste products accumulate, all of which can damage the heart, leading to long-term chronic diseases. Worldwide, heart diseases are the leading cause of morbidity and mortality and are responsible for higher economic expenses than any other disease. Several population studies have consistently demonstrated a correlation between low health literacy and poor health outcomes [1]. Generally, low health literacy is associated with lower participation in health-promoting activities and discovering the disease, risk behaviour, and impaired treatment of chronic diseases, which results in increased morbidity and premature death [2]. A systematic overview of the correlation between health literacy and socio-demographic variables, health behaviour, and clinical results in IHD patients has found significant correlations between low health literacy and a higher age, the male gender, ethnic groups other than white race, a lower education, a lower income, and a lower level of social support [3].

Ischemic heart disease (IHD) is a pathological process characterized by the accumulation of atherosclerotic plaques in the epicardial arteries, whether obstructive or non-obstructive. This process can be modified by lifestyle changes, pharmacological therapy, and invasive interventions designed to achieve stabilization or regression of the disease. [4]. The risk of IHD increases due to insufficient influence on changing the regimen and pharmacology [5]. The change of regimen is a necessary part of the complex treatment. The treatment should focus on lifestyle changes, minimizing IHD risk factors, pharmacological therapy, and education, all of which aim to promote lifestyle changes [6]. The critical education topics include smoking cessation, reducing passive smoking, balanced, rational nutrition, sufficient exercise, optimal body weight, among others [3, 5]. Nurses play an essential role at all levels of prevention in this area [7].

In the Czech Republic, it is not common for nurses in primary or secondary outpatient care to independently perform lifestyle interventions, unlike in other countries

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Sylva Bártlová, Lenka Šedová, Věra Stasková, Andrea Hudáčková, Lucie Havierniková, Júlia Tájková Csanády. Awareness of risk factors for ischemic heart disease…

where nurses act as independent educators of patients and coordinators of multidisciplinary teams [8, 9]. However, the increase in nursing competencies is currently a worldwide trend, and the Organization of Economic Cooperation ad Development (OECD) recommends that the Czech healthcare system should strengthen the independence and responsibility of nurses, particularly in preventive programmes, or the education of patients with chronic diseases [10]. One of the factors that can influence a patient's ability to establish or maintain a positive health status and behaviour is health literacy, which can be defined as: 'personal characteristics and social resources needed for individuals and communities to access, understand, appraise, and use information and services to make decisions about health. Health literacy includes the capacity to communicate, assert, and enact these decisions'[11]. As many as 60% of patients with cardiovascular diseases have problems with health, which is associated with a lower engagement in healthy lifestyle and behaviour [12], an increased number of hospitalizations, and increased risks of death [13].

Effective education about IHD, explicitly targeting the 40–64-year age group, is crucial for preventing cardiovascular diseases. Improving awareness of risk factors, motivating people to modify their lifestyles, and removing barriers to prevention can enhance overall health and decrease mortality in this population group. In this age group, the occurrence of IHD increases which, in turn, increases the risk of severe complications, such as myocardial infarction or stroke. As mentioned by Zeitouni et al. [14], patients with premature coronary artery disease (CAD) have a high level of concurrent modifiable cardiovascular risk factors, and premature CAD is a fast developing disease with a high number of severe undesirable incidences, with 10-year mortality of 21%. This demands the timely introduction of multimodal and innovative preventive strategies for younger patients as part of primary and secondary prevention.

The aim of this study is to describe the awareness of preventing IHD risk factors among the Czech population aged 40–64 years, and their perception of the educational role of nurses.

MATERIALS AND METHOD

A descriptive and cross-sectional design was used for the study, and a representative sociological survey was carried out. A combination of a non-standard questionnaire addressing stable ischemic heart disease and the standardized Health Literacy Survey Questionnaire (HLSQ-16) was used for data collection. The questionnaire consisted of 80 questions, and was developed by operationalizing goals and hypotheses based on theoretical and empirical analyses of the studied problem. The questionnaire consists of two parts: one containing socio-demographic characteristics, the HLSQ-16 standardized questionnaire, and another relating to preventing IHD risk factors. The Institute for Health Literacy offered the standardized questionnaire, with which its employees cooperated with J. Pelikan, one of the principal investigators participating in an international comparative study [15, 16]. The questionnaire is a concise version of the HLS-EU-Q47, which comprises 47 questions. The second, abbreviated questionnaire was chosen based on a pilot study which determined that it was the most suitable for Czech

respondents [17]. As part of the study, Czech respondents aged 40–64 were asked whether they were aware of the risk factors for heart disease, and asked to indicate which risk factors were most likely to lead to cardiovascular disease. A total of 13 indicators were included in the risk factors. Respondents rated each item separately on a scale: 'yes', 'rather yes', 'hard to say', 'rather no', and 'definitely no'. The selected risk factors were correlated with the gender and age of the respondents, who were recognized as representative.

The field study was conducted using face-to-face interviews. The final form of the questioning sheet was based on the results of a pilot study which was used to test the documents and formulate individual questions, and conducted in a sample of 186 respondents. The pilot study confirmed the content and construct validity of the questionnaire, assessing the formulation and understandability of questions, as well as the coverage of health literacy and IHD risk factors and their relevance. In addition, the construct validity was verified using a test of concurrence of data obtained from the pilot study, which aimed to identify expected correlations among selected variables. Reliability measurements for each battery of questions were made using Cronbach's alpha test. Based on the results, it can be concluded that the internal consistency values for each battery of questions ranged from 0.796 – 0.950, indicating a high level of internal consistency.

The field study was conducted using standardized face-to-face interviews with respondents. The survey was anonymous, contained no controversial ethical questions, and participation was voluntary.

Sample. The sample was selected by a quota choice representative for the Czech citizens' age group of 40–64 years, concerning regions, gender, and age. The selection was made using quota sampling from randomly selected electoral districts. The selected respondents were first contacted by telephone, given a detailed explanation of the survey's relationship with their health, and asked to participate in an interview. This procedure proved to be optimal for reducing non-response. If the respondent agreed, the interviewer visited them at their place of residence at a mutually agreed-upon time and date. The selective sample consisted of 1,391 respondents. The representativeness was derived from the primary sample of the Czech population aged 40–64 years (age composition of the Czech population in 2022, Czech Statistical Agency, Prague 2023). This age group was chosen as a result of the increase in IHD incidence, which increases the risk of severe complications, such as a heart attack or stroke. The sample size corresponds to the 95% confidence level, and the error interval (Margin of error – Confidence interval) was 3% (according to Raosoft). Regarding gender, the sample consisted of 700 (50.3%) men and 691 (49.7%) women, corresponding to the analogous composition of the Czech population aged 40–64 years. From the perspective of relative frequencies in the case of gender, the maximum deviation of the selective sample from the primary sample was 0.1%, indicating that the sample is representative of the population aged 40–64 in the Czech Republic with respect to gender. In regional classification, the division into the regions in force since 2001 was used. The field research was conducted by a professional agency specializing in population surveys, utilizing the SIMAR-ESOMAR methodology, through a network of experienced interviewers who were explicitly trained for this purpose.

Annals of Agricultural and Environmental Medicine

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Sylva Bártlová, Lenka Šedová, Věra Stasková, Andrea Hudáčková, Lucie Havierniková, Júlia Tájková Csanády. Awareness of risk factors for ischemic heart disease…

Within the field survey, 1,508 randomly selected subjects were asked to participate in an interview on the topic of the study, of these, 117 respondents (7.8%) refused to participate. On the other hand, 1,391 respondents (92.2%), agreed to be interviewed. Analysis of the refusals showed that men were less willing than women to participate in the study. Other features, such as education, marital status, occupation, place of residence, and the character of the typical household, which were not studied but explored during the study, are also relevant. Since the data of this group were not representative, the significant correlations can be interpreted only as trends.

Statistical analysis. Statistical data processing was performed using SASD 1.5.8. (Statistical Analysis of Social Data) and SPSS (version 29) software. First-level classification tables and contingency tables of selected second-level classification indicators were processed. The degree of dependence of selected characteristics was determined using the chi-square test, independence test; other test criteria were applied according to the nature of the characteristics. Based on this analysis, the data were interpreted, and relevant tables processed. The data distribution was tested using the Kolmogorov-Smirnov test. Based on the evaluation of the normality of the distribution, the data were tested using non-parametric tests – Mann-Whitney U test and Kruskal-Wallis test – both at a significance level of 95%. In the case of a statistically significant difference detected using the Mann-Whitney U test, the practical significance was tested using Cohen's d (≥ 0.8=strong effect; <0.5–0.8=moderate effect; <0.2–0.5=small effect). In the case of a statistical difference detected using the Kruskal-Wallis test, the n2 coefficient was used to assess practical significance (≥ 0.14 = strong effect; <0.06–0.14 = moderate effect; <0.01–0.06 = small effect).

RESULTS

The research sample consisted of 700 (50.3%) men and 691 (49.7%) women. Further demographic data regarding the composition of the research sample by age and education are shown in Table 1. The respondents aged 40–64 were asked whether they were aware of the risk factors for heart disease, to which 931 (66.9%) responded that they were aware of the risk factors, and were then asked to name which risk factors were highly probable to result in cardiovascular diseases. Knowledge of risk factors influencing the onset and progression of heart and vascular disease, according to gender, was tested using the Mann-Whitney U Test. About differences between men and women in terms of knowledge of risk factors leading to heart and vascular disease, men show higher response values, i.e., men are less aware of risk

Table 1 – Sample composition

Variable	Category	n	%N	Mean±SD
Sex	Man	700	50.3	1,49±0,49
	Female	691	49.7	
Age	40-44	155	11.1	
	45-49	177	12.7	
	50-54	136	9.8	53.22±7.14
	55-59	125	9.0	
	60-64	107	7.7	
Education	Elementary	36	2.6	3.16±1.11
	Vocational	363	26.1	
	Secondary with Maturity	571	41	
	Higher Vocational	139	10	
	University	282	20.3	

Table 2: Correlations between Risk Factors Resulting in Heart Diseases and Sex

Risk factors	Mann-Whitney U Test	Z	Asymp. Sig. (2-tailed)	Cohen's d	material difference
Obesity	230125,000	-2.037	,042	.109	minimal
Alcohol consumption	233667,500	-1.171	,242		
Hypertension	228558,500	-2.263	,024	.121	minimal
Heredity	228774,000	-1.838	.066		
Immunity disorders	231401,500	-1.455	.146		
High cholesterol level	225658,000	-2.380	.017	.128	minimal
Coffee	231856,000	-1.374	.170		
Hormonal contraception	222271,000	-2.700	.007	.145	minimal
Smoking	238850,000	-.442	.659		
Stress	240612,500	-.182	.855		
Diabetes	239513,000	-.327	.744		
Drug addiction	238224,500	-.508	.611		
Sleep apnea	232981,000	-1.224	.221		

factors such as obesity, high blood pressure, high cholesterol, and hormonal contraception than women. However, for all characteristics, this statistically significant difference is at the minimum level of practical significance, according to Cohen's d (Tab. 2). Men also attributed a lower risk of heart and vascular disease to factors such as obesity, high blood pressure, high cholesterol, and hormonal contraception. These differences between men and women were identified as statistically significant, albeit with a minimal level of practical significance. No statistically significant differences were identified between men and women for other risk factors. Respondents cited obesity (yes, somewhat yes) (95.5%), high blood pressure (95.2%), stress (86.4%), high cholesterol (84.8%), smoking (84.6%), alcohol consumption (79%), heredity (69.1%), drug addiction (66.8%), diabetes (65.7%), sleep apnea (45.4%), coffee (40.2%), immune disorders (35.5%), and hormonal contraception (27.9%).

A significant correlation between gender and the awareness of risk factors for heart disease was identified (<0.05). Women reported being aware of the risk factors, whereas men stated that they were unaware of them. Furthermore, a significant correlation was identified between gender and the opinion of high cholesterol levels ($p < 0.05$). Women supposed that a high cholesterol level can cause heart disease, while men answered that it was difficult to decide, or that a high cholesterol level may not cause heart disease. A significant correlation was found between gender and the opinion that coffee is a risk factor for heart disease (<0.05). Men answered significantly more frequently that coffee might not cause heart disease. A significant correlation was identified between gender and opinions about hormonal contraception (<0.001). Women stated that hormonal contraception may cause heart disease, while men answered either that it was difficult to decide or that hormonal contraception did not necessarily cause heart disease.

In the case of the question regarding the source of health information (e.g., disease, treatment, regimen – nutrition, exercise, etc.), a significant correlation was identified between gender and the source of health information ($p = 0.01$). Men reported that they obtained information, while women received information about their health status from the mass media.

Based on testing, it was found that regular visits are relatively crucial for understanding the risk factors associated with heart and vascular disease. Although for most this statistically

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Sylva Bártlová, Lenka Šedová, Věra Stasková, Andrea Hudáčková, Lucie Havierniková, Júlia Tájková Csanády. Awareness of risk factors for ischemic heart disease…

Table 3 Differences in the mean values of selected variables about regular check-ups with a general practitioner

Risk Factors	No (N = 249)		Yes (N = 1142)	
	Mean	Median	Mean	Median
Obezity	1.42	1.00	1.30	1.00
Alcohol consumption	2.08	2.00	1.82	2.00
Hypertension	1.46	1.00	1.32	1.00
Heredity	2.31	2.00	1.97	2.00
Immunity disorders	2.96	3.00	2.81	3.00
High cholesterol levels	1.82	2.00	1.67	1.00
Coffee	3.06	3.00	2.77	3.00
Hormonal contraception	3.27	3.00	3.11	3.00
Smoking	1.90	2.00	1.62	1.00
Stress	1.83	2.00	1.62	1.00
Diabetes	2.23	2.00	2.11	2.00
Drug addiction	2.22	2.00	2.04	2.00
Sleep apnoea	2.48	2.00	2.64	3.00

Tabulka 4 Correlation between the respondents' sex and the motivation of a nurse to change their lifestyle (Mann-Whitney U Test)

	Mann-Whitney U Test	Z	Asymp. Sig. (2-tailed)	Cohen's d	material difference
Motivation to change nutrition	240785,500	-,151	,880		
Motivation to change exercise	241584,000	-,038	,970		
Motivation to quit smoking	224307,500	-2,611	,009	,140	minimal
Motivation to reduce stress	240599,000	-,179	,858		
Motivation to reduce undesirable drug effects	237483,000	-,622	,534		

   a. Grouping Variable: sex_1

Table 5 Correlation between the respondents` age and the motivation of a nurse to change their lifestyle (Differences in the mean values of selected variables with regard to age categories)

Discussion about ..	40-44 years old (N = 302)		45-49 years old (N = 346)		50-54 years old (N = 272)		55-59 years old (N = 251)		60-65 years old (N = 220)	
	Average	Median	Average	Median	Average	Median	Average	Median.	Average	Median
dietary changes	4.04	4.00	3.99	4.00	3.89	4.00	3.88	4.00	3.60	4.00
exercise	4.17	5.00	4.11	4.00	4.03	4.00	4.06	4.00	3.81	4.00
smoken	4.15	5.00	4.15	5.00	4.07	5.00	4.18	5.00	4.02	5.00
stress reduction	3.96	4.00	3.92	4.00	3.87	4.00	4.01	5.00	3.69	4.00
side effects of drugs	3.90	4.00	3.90	4.00	3.83	4.00	4.02	5.00	3.65	4.00

significant difference had only a minimal effect, whereas heredity and smoking had greater factual significance, albeit at a low level. Regular visits to a doctor slightly increased the level of knowledge about obesity, alcohol consumption, high blood pressure, cholesterol levels, coffee, hormonal contraception, smoking, stress, and drug addiction. On the contrary, a lower level of knowledge about the risks of sleep apnea was observed among those who visited their GP less frequently. Only knowledge about diabetes as a risk factor for CHD seems to be resistant to regular visits to the doctor. In respondents regularly visiting their doctors, a significant correlation was identified with their opinions about obesity (<0.001), hypertension (<0.01), heredity (<0.001), immunity disorders (<0.05), high cholesterol level (<0.01), coffee (<0.05), hormonal contraception (<0.001) smoking (<0.001), stress (<0.001) and diabetes (<0.01) as risk factors of heart diseases (Tab. 3).

Respondents were also asked whether nurses motivated them to change their lifestyle because of the risks of cardiovascular disease. A statistically significant difference was found between men and women on the topic of smoking, with women reporting less frequent motivation by nurses to reduce smoking. However, the practical significance of this difference was negligible (Tab. 4).

When testing characteristics by age categories, differences were found in the frequency of conversations with nurses about the need to adjust lifestyle in all areas, except smoking, with a small effect in all cases. Regarding dietary and exercise changes and stress reduction, the frequency of these conversations increased with age. In contrast, in discussions about the side-effects of medication, respondents stated that nurses most often talk to the oldest age group and least often to the 55–59 age group. No statistically significant difference was identified in conversations with nurses about the need to give up smoking (Tab.5).

With regard to nurses motivating respondents to change their lifestyle in association with heart disease, a significant correlation was found between age and motivation to change their nutrition, as suggested by a nurse (p = 0.01). The oldest respondents, aged 59–64 years, answered that they were motivated by nurses to change their nutrition.

A significant correlation was identified between age and nurses'motivation to exercise (p = 0.05), reduce stress (p = 0.05), reduce undesirable effects of drugs (p = 0.01), and change their nutrition (p = 0.05). The oldest respondents reported that nurses motivated them to exercise, reduce stress, minimize the adverse effects of medication, and modify their diet (Tab. 5).

The investigation of health literacy among respondents aged 40–64 did not reveal any significant correlations; this age group did not differ in any of the studied socio-demographic features, being highly homogeneous in terms of health literacy. To investigate this, an exploratory analysis of the summative index of health literacy (HLscore_16) was conducted, and potential differences were examined in relation to gender, age, education, marital status, occupation, place of residence, nature of home life, and reason for visiting a doctor.

Based on the evaluation of the study sample, it can be stated that inadequate health literacy (HL) was identified in 78 respondents (8.5%), problematic in 292 (31.9%), and sufficient in 544 (59.5%).

DISCUSSION

This study examines the knowledge and opinions of the Czech population aged 40–64 years regarding the prevention of IHD risk factors, and the perception of nurses' educational roles. Because of the worldwide position of IHD as the leading cause of death, prevention and education in this area are crucial.

Awareness of risk factors. 66.9% of respondents reported being aware of IHD risk factors. Significant differences were

Annals of Agricultural and Environmental Medicine

Sylva Bártlová, Lenka Šedová, Věra Stasková, Andrea Hudáčková, Lucie Havierniková, Júlia Tájková Csanády. Awareness of risk factors for ischemic heart disease…

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identified in gender (men`s knowledge was lower) and age (younger respondents` knowledge was higher).

Opinions on risk factors. A prerequisite for IHD prevention is awareness of the risk factors that can contribute to its development. A significant correlation was identified between genders in the general population and the awareness of risk factors of heart diseases (<0.05), between genders and the opinions of high cholesterol levels (<0.05). A study by Johannesen et al. [18] reports an interesting finding, indicating that both low and high LDL-C levels are associated with an increased risk of all-cause mortality in individuals among the general population. Similar results were observed for cancer and other causes of mortality, while no association was found for cardiovascular mortality overall. Furthermore, individuals in the general population with LDL-C concentrations of 3.6 mmol/L (140 mg/dL) lived the longest. If further studies confirm this finding, it will have significant clinical and public health implications.

A significant correlation was identified between the experience of the general population and their opinions on coffee as a risk factor for health diseases (p < 0.05), and their views on hormonal contraception as a risk factor for health diseases (p < 0.001). Several studies on contraceptive hormones used in humans and animals suggest that they have anti-atherosclerotic effects; however, less is known about their influence on thrombosis, vasomotor regulation, and arrhythmogenesis, which are mechanisms that also contribute to cardiovascular risk [19]. Most of the respondents identified obesity, smoking, hypertension, and heredity as risk factors. However, incorrect ideas occurred in some factors, such as coffee and hormonal contraception. The current study has shown that despite a relatively satisfactory awareness of IHD risk factors, there are still some gaps in the knowledge of this age group.

Although respondents demonstrated awareness of IHD risk factors, their preventive behaviour did not always align with their knowledge. In the study by Alm-Roijer et al. [20], no correlation was found between awareness of IHD and smoking cessation (p = 0.703), blood pressure decrease (p = 0.098), or glycaemia (p = 0.112). The study by Alm-Roijer et al. [20] also showed that general knowledge of IHD risk factors was not sufficient for patients with an increased glucose level, hypertension, or smokers after a heart attack, to change their behaviour. In these areas, the goals defined in instructions were not achieved.

The current study shows that individuals who regularly participate in preventive medical examinations have better knowledge of IHD risk factors than those who do not attend such examinations. Some respondents aged 40–65 years say that they take part in preventive examinations less frequently, which decreases the chance of a timely diagnosis and treatment of IHD and, as a result, the prevention of complications. In respondents regularly taking part in physical examinations, a significant correlation was identified with the opinions of obesity (<0.001), hypertension (<0.01), heredity <0.001, immunity disorders (<0.05), high cholesterol level (<0.01), coffee consumption (<0.05), hormonal contraception (<0.001), smoking (<0.001), stress (<0.001), and diabetes (<0.01) as risk factors of heart diseases.

Sources of information. The mass media and doctors are the most frequent sources of health information (e.g., information about diseases, treatments, regimens, nutrition, and exercise) for respondents. Women preferred information from the mass media, while men did not obtain information from any of the mentioned sources. Patients often did not know which steps to take or how to improve their health and avoid complications. Healthcare professionals should exercise caution when referring patients to the Internet, ensuring they check the patient's suitability first. In the study by Wallace [21], it is stated that more than 80% of materials on Internet pages relating to 37 over-the-counter medicaments, on average, were written at the level of the 10th class of primary school. According to Zwack et al. [22], it is necessary to have access to evidence-based information and to utilize it effectively. Society is constantly evolving and the methods of providing information must adapt accordingly. However, the primary purpose and intention can remain consistent, focusing on evidence and current content.

Motivation by nurses to change one's lifestyle. Respondents evaluated whether nurses in general practitioners' offices motivated patients to prevent IHD, as, according to the current legislation, this is a crucial nursing competence. The change in nutrition and exercise, stress reduction, and reduction of undesirable drug effects, were evaluated positively. Motivation was the highest in the younger respondents. The question about the motivation for the change of lifestyle in association with heart disease showed a significant correlation relating to age and the change of nutrition (<0.01), exercise (<0.05), stress reduction (<0.05), reduction of undesirable drug effects (<0.01), and evaluation of the nurse`s influence on the change in nutrition (<0.05).

Intervention studies demonstrate that education provided by nurses has a positive impact on the adoption of preventive measures [23]. Although it is not common for Czech nurses in primary or secondary care to perform independent lifestyle interventions, respondents reported that nurses motivated them to change their lifestyles. The age category of 40–64 years may face specific obstacles to IHD prevention, such as lack of time, work burden and stress, care of the family, or deep-rooted stereotypes. This can result in neglecting preventive measures and increasing IHD risks. Therefore, the motivation and support of these and other healthcare professionals can be crucial for overcoming these barriers. Practical education in the IHD area, focusing on individuals aged 40–64 years, can be essential for preventing severe heart diseases. Improving awareness of risk factors, motivation for change, and removing barriers to prevention can lead to improved health and a reduction in the prevalence of IHD in this population group.

Health literacy. The study did not prove significant differences in general health literacy (HL) across the individual groups. A sound understanding of risk factors among Czech citizens was identified, with inadequate health literacy in 8.5% of respondents, problematic health literacy in 31.9%, and sufficient health literacy in 59.5%. In patients with low health literacy, there is often a problem in understanding the disease and the general knowledge of how to manage it to keep the disease under control [24]. Ghisi et al. [25] noted significant heterogeneity across the HL studies of patients with cardiovascular diseases, as the target diseases, intervention methods, and study durations vary.

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Sylva Bártlová, Lenka Šedová, Věra Stasková, Andrea Hudáčková, Lucie Havierniková, Júlia Tájková Csanády. Awareness of risk factors for ischemic heart disease…

CONCLUSIONS

The study demonstrated a satisfactory level of public awareness of IHD risk factors in the 40–64 age group, but the key step remains the transformation of knowledge into practical skills.

No study has yet been conducted in the Czech Republic for the 40–64 age group, even though the incidence of IHD is increasing among them. The motivation of nurses to change their own lifestyle is perceived positively, although their role in motivating patients to change their lifestyle and educating them about IHD prevention, should be strengthened. Nurses in the Czech Republic are not sufficiently involved in education about IHD risk factors. Based on this study, targeted educational activities for people aged 40–64, focusing on specific risk factors and attitudes in this category, are recommended. Various educational methods can be employed, taking into account the preferred sources of information for men and women.

Limitations of the study. The limitations of our study include the disadvantage of using a non-standardized questionnaire since it may distort respondents` opinions. The sample size corresponded with the confidence level (95%), and the margin of error; confidence interval – 3%, according to Raosoft. The exploration of health literacy among respondents aged 40–64 did not reveal any significant correlations; this age group did not differ in any of the studied socio-demographic features, being highly homogeneous in terms of health literacy. Nurses in the Czech Republic are not sufficiently involved in education about risk factors for IHD.

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