LIFE SATISFACTION OF PATIENTS WITH ISCHEMIC HEART DISEASE

Lenka Šedová, Valérie Tóthová

University of South Bohemia, Faculty of Health and Social Studies, Department of Nursing, České Budějovice, Czech Republic

Abstract

The article familiarises readers with the results of the research grant of the Faculty of Health and Social Studies of the University of South Bohemia at České Budějovice. The goal of this grant was to map the issues of the life style of patients, incl. life satisfaction, who suffer from ischemic heart disease. Patients from the Svaz postižených civilizačními chorobami (Association of persons affected by civilisation diseases) of the Region of South Bohemia were addressed (n = 170). Qualitative-quantitative research strategy was used for the research purpose, with the help of the technique of semi-standardised interview and questionnaire technique. Semi-standardised interviews were implemented in cooperation with the clients of the cardio club at České Budějovice (n = 10). The questionnaire technique was used to map the area of alimentation and alimentation habits, observance of physical activity and the area of smoker habits on a considerably big sample of patients suffering from ICHS (n = 170). The results show that those patients are informed on healthy life style, on observance of regimen measures related to ischemic heart disease and that they observe those measures and are satisfied in life.

Key words: *secondary prevention – ischemic heart disease – life satisfaction*

INTRODUCTION

The issue of prevention of cardiovascular diseases is topical for almost all member countries of the European Union (European cardiovascular disease statistics 2008). The Health 21 programme states that mortality on cardiovascular diseases of persons under 65 years should be reduced at least by 40% on average, with the main stress on countries where current mortality is very high (Světová zdravotnická organizace 2003). According to the current European statistics of cardiovascular diseases (2008), almost one half of deaths are caused by cardiovascular diseases. It is shown that 42% of the EU population die from consequences of cardiovascular diseases.

Exceptions include Spain, Netherlands and France where 1/3 of population die from consequences of cardiovascular diseases. Countries where more than a half of their inhabitants die include Armenia, Bulgaria (62%), countries of former Yugoslavia (Montenegro, Macedonia, Serbia), Romania, Ukraine.

The primary cause of cardiovascular disease is atherosclerosis. It can cause different forms of diseases that can affect vessels and the heart. The most frequently mentioned diseases are angina pectoris, heart attack, hypertension, sudden brain strokes or thromboses (Adámková 2003, Šimon et al. 2001).

The etiopathology of atherosclerosis is not completely known at present, but we do know the risk factors of atherosclerosis

thanks to the results of significant studies originated in 1948. The knowledge of risk factors of atherosclerosis leads to the possibility to change or influence the citizens' life style within prevention (Šimon et al. 2001).

The advantage of the knowledge of the complex of factors acting on the origin of cardiovascular diseases consists in the possibility to influence positively and help the client/patient to change his or her life style with the help of provision of complex information (Šimon et al. 2001, Špinar et al. 2003). Life style has not been exactly defined in a sociological concept. It cannot be fully distinguished from the concepts of life style, life structure or life conditions; some authors relate it to life quality (Dufková et al. 2007). Life style and its factors are integrated in suggestions constituting both primary and secondary prevention.

Secondary prevention is an indispensable part of purposeful treatment of cardiovascular diseases. The principles which are indispensable in secondary prevention of cardiovascular diseases can be divided into regimen measures and measures leading to reduction of risk factors through their treatment. Regimen measures include stopping smoking, changing alimentation habits, reducing body weight, increasing movement activity, influencing psycho-social factors (Šimon et al. 2001).

The basic psycho-social factors include low socio-economic status, lack of social support or social isolation, low life satisfaction, stress at the workplace. Those are the factors that can have negative impact on the origin or progress of cardiovascular disease. These psycho-social determinants were integrated into the "European guidelines on cardiovascular disease prevention in clinical practice (2007)" issued by the European Cardiologic Association (Albus et al. 2005).

Life satisfaction is related to the concept of experience of personal well-being. This concept played a significant role in relation with definition of health (year 1948 – WHO). "Well-being is anchored there as an important characteristic of health, while the physical, mental and social dimensions of that experience of personal well-being are distinguished" (p. 62, Kebza 2005). In spite of heterogeneous interpretation of this concept, we include life satisfaction among psycho-social determinants of cardiovascular diseases (Kebza 2005, Křivohlavý 2001).

Albus (2005) states the strategy for screening and treatment of psycho-social factors, suggesting alliance between nursing staff and the patient. The cornerstone should be a particularly active seeking of psycho-social factors like hostility, depression, low socio-economic status, low level of social support, stress in the home or work environment. All those factors should be taken by nursing staff and recorded in anamnesis.

Scientific recording of psycho-social factors shows negative influence on the progress of cardiovascular diseases. Scientific recording is unambiguously extended by the work of nursing centres (Great Britain) that are pointedly focused on patients with cardiovascular diseases. Those clinics can contribute to the solving of some specific cardiologic factors by providing patients coming from hospitals or from outpatients' departments of general practitioners with suitable nursing interventions. The care should include assessment of general health condition, monitoring of anxiety and depressive symptoms (HADS), monitoring of body weight, smoking, alimentation. For example a randomised study performed in England showed that patients who had taken part in an educational programme led by a nurse improved their life style better than patients from outpatients' departments; it showed further that the patients displayed fewer symptoms of anxiety and depression. Those studies lead to an implication of employment of nurses as the preferred model of care (Ošetřovatelské kliniky pro dospělé s ischemickou chorobou srdeční 2005).

The main interest of governments is to support the active life of patients with different diseases, to prevent social isolation, to support an active life style (to support patients in stopping smoking, in selecting healthy alimentation, to support physical activities, to prevent or reduce the action of psycho-social factors) (Světová zdravotnická organizace 2003).

The current situation in the Czech Republic is, however, not very optimistic. All activities that could help our patients to improve and to acquire a healthy life style faster take place at the level of non-profit

organisation, and patients are not always offered the membership in such centres. Non-profit organisations of that type struggle with financial problems, low levels of cooperation among experts. The situation in Slovakia is different. The Cardio-club is built at the national level there, having centres all over the country. The clients meet there regularly; the club is supported by the government and by a number of professional societies. A magazine is published there too, bringing information to the members in order to increase their knowledge on the disease and the possibilities of influencing the progress of cardiovascular diseases.

The aim of the present study was in mapping the situation in the area of observing the principles of healthy life style of patients suffering from ischemic heart disease. The purpose lies in monitoring the partial factors of life style, which can be influenced by the patient's/client's own behaviour. We focused on the issue of mapping the health condition in relationship to alimentation habits, smoking, physical activity and life satisfaction.

Hypotheses

1. *Patients suffering from ischemic heart disease observe principles of healthy life style.*
2. *Patients suffering from ischemic heart disease are satisfied in life.*

MATERIAL AND METHODS

The aim of the grant project consisted in mapping the situation in the area of observing the principles of healthy life style in patients suffering from ischemic heart disease. A quantitative research strategy under the use of the questionnaire method was used to meet this goal. The questionnaire was distributed to clients of the centres of the Association of persons affected by civilisation diseases in the Region of South Bohemia. A total number of 170 respondents was addressed in this way. A total number of 120 questionnaires was used for research purposes.

The questionnaire consisted of 4 parts. The first part was focused on identification data, health and disease, principles of healthy life style. The second part consisted of questions on assessment of life quality; further, the area of smoking and the area of physical activity were mapped. The third part focused on the respondents' alimentation habits. The fourth part was focused on anthropometric data (height, weight, waistline, hipline), biochemical values (blood sugar level, cholesterol level) and blood pressure.

Descriptive methods (table and graphs) as well as analytical statistics were used for data processing. The selected data were processed with the help of contingency tables, and further it was tested with the help of the chi-quadrate test as to whether there are significant differences in the relevant tables. The statistic analyses were performed with the use of standard statistic methods with the help of SPPS version 15.0 software (statistical package for the social sciences).

The set consisted of 55% (66) women and 45% (54) men. By age, mostly respondents in ages from 70–79 years (66%) were represented; further 23% in ages from 60–69 years, 8% in ages from 50–59 years and 3% in ages from 80–89 years. By education, respondents with secondary education prevailed (56%), followed by 33% trained respondents, 8% respondents with university education and 3% with elementary education. By social status, respondents from the group of widow/widower prevailed (57%). 24% live in marriage, 12% with a mate, 5% of respondents are divorced and 2% single. 49% (59) of respondents suffered heart attack and 45% (54) of respondents suffer from angina pectoris; the category of other respondents (6%) includes clients suffering from hypertension or conditions after stroke (Table 1). In the characteristic of the set, statistics revealed a significant relationship between the disease and education; it was shown that trained persons and men suffered more frequently from conditions after heart attack.

RESULTS

Table 1   Description of respondents

	N	%
Sex		
Male	54	45
Female	66	55
Age		
50–59	10	8
60–69	28	23
70–79	79	66
80–89	3	3
Education		
Elementary	3	3
Trained	40	33
Secondary	67	56
University	10	8
Family status		
Married	29	24
Single	3	3
Mate	14	12
Divorced	6	5
Widow/widower	68	57
Disease		
Condition after heart attack	59	49
AP	54	45
Others	7	6

	Non-smoking	Healthy alimentation	Exercise
■ Yes	105	70	82
■ Sometimes	11	46	27
■ No	4	4	11
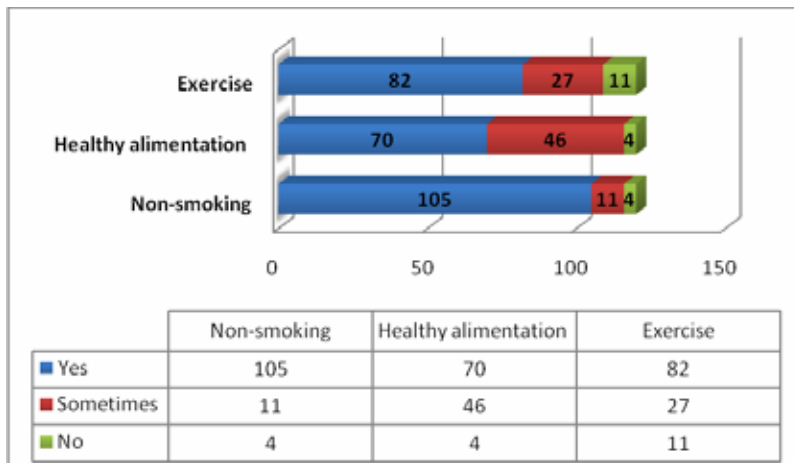
Graph 1   Life style of the respondents

Most respondents gave a positive answer to the question whether they observe a healthy life style. 68% (82) stated they observe physical act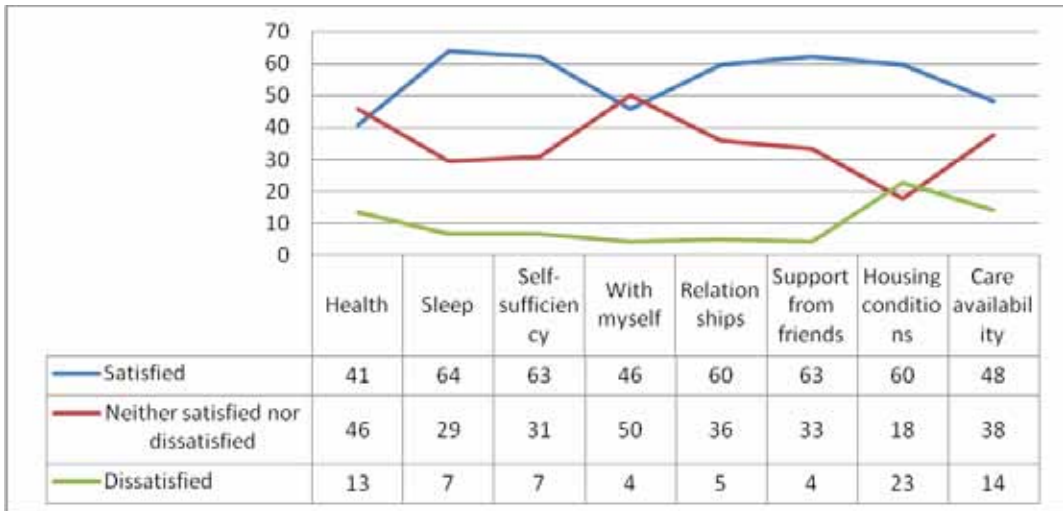ivity, 58% (70) answered to have healthy alimentation and 88% respondents do not smoke. Those life style aspects were further analysed and further questions were related to them.
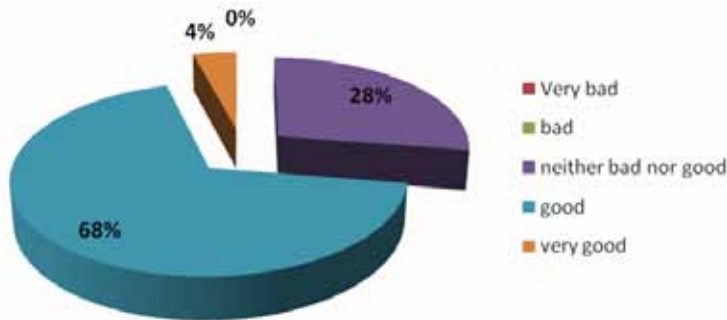
Graph 2   Assessment of life quality of the respondent

Graph 2 shows that 68% of respondents evaluate their life quality as good. 28% of respondents evaluate life quality as neither good nor bad. Only 4% of respondents evaluate their life quality as very good.

	Health	Sleep	Self-sufficiency	With myself	Relationships	Support from friends	Housing conditions	Care availability
Satisfied	41	64	63	46	60	63	60	48
Neither satisfied nor dissatisfied	46	29	31	50	36	33	18	38
Dissatisfied	13	7	7	4	5	4	23	14

Graph 3   Life satisfaction of the respondents

One part of the questionnaire mapped the issue of the respondents' life satisfaction. The analysis of the data of life satisfaction (Graph 2) shows that 46% (55) of respondents assessed their satisfaction with health as neither good nor bad. 64% (77) are satisfied with sleep. 63% (75) of respondents are satisfied with the level of self-sufficiency. The area of relationships mapped the questions of satisfaction with oneself, satisfaction with relationships and

with support from friends. More than 60% of respondents are satisfied with support from friends and with relationships around them. 60% (72) of respondents are satisfied with housing conditions, 58 (48%) of respondents are satisfied with care availability.

DISCUSSION

The hypothesis 1 – Patients suffering from ischemic heart disease observe principles of healthy life style – was confirmed.

The basis of primary and secondary prevention in patients with cardiovascular disease is the observance of principles of a healthy life style. The Czech cardiologic association points out the shift from prevention of ischemic heart disease to prevention of cardiovascular diseases in its recommendations for "Prevention of cardiovascular diseases" from 2005. The cause lies in the similar aetiology of the disease. That is evidenced by a number of intervention studies (Prevence kardiovaskulárních onemocnění v dospělém věku 2009). The recommendations of the European cardiologic society (2007) mention that behavioural factors of cardiovascular diseases include sufficient physical activity, adequate alimentation, non-smoking. The research set consisted of patients associated in non-profit organisations. Most of them are interested in leading an active life, acquiring new information on the possibilities of improving their health condition through behaviour. The results show that most respondents had to modify their life style because of the disease. More than 55% of respondents stated that they had to change their alimentation, reduce smoking and increase their physical activities because of the disease. 75% of respondents state in this connection that change positively influenced their life.

Each of the areas (Alimentation, Physical Activities, Smoking) were ascertained through other items of the questionnaire.

More than 70% of respondents stated to observe a healthy life style in the aspects of non-smoking, healthy alimentation and physical activity (Graph 1). Those areas were analysed further. Further analyses showed that physical activities for 30 minutes are performed only by 8% of respondents 3–4 times a week, 13%

5–7 times and the remaining 79% 1–2 times a week. The anthropometric values (BMI) must also be stated in this connection. 31% of women have a BMI under 25, the remaining 69% have a BMI over 25, from which 48% of women have a BMI in the range of 25–30 and 5% over 30. 8 men out of 54 had a BMI over 30, 23 (43%) a BMI in the range of 25–30 and 23 men had a BMI under 25.

Physical activity must be supported in the individuals of all age groups (WHO, 2008). The data analysis of WHO shows that most people in EU countries are more frequently physically active at a very moderate level (10 minutes walk 7× week). In this connection, governments of the countries are invited to support the physical activities of their citizens (European cardiovascular disease statistics 2008). The goal is to achieve at least 30 minutes of physical activity most days of the week. The physical activity of patients with evidenced cardiovascular disease should be "prescribed" in cooperation with the physician. Physical activity should always precede clinical examination including a load test (Ingomar 2005). Lack of physical activity is considered a self-standing risk factor of cardiovascular diseases even in initial stages like hypertension. A number of studies show the influence of physical activity on the levels of lipids and lipoproteins. Exercise not only positively influences the levels of HDL-cholesterol but also the concentration of triglycerides and cholesterol. It is recommended that physical activity is performed at 60–75% of the maximum pulse rate for the relevant age. A quick walk, jogging, swimming, cycling etc. prevail under the recommended activities (Ingomar 2005, Šimon et al. 2001). The respondents have the advantage to be able to organise in clubs and to take part in reconditioning stays that should support the physical activities of individuals within non-profit organisations. At the same time, most individuals have the possibility to make use of cheaper entrance fees to swimming pools, gyms etc.

The data analysis from the sphere of assessment of smoker habits shows that most of those patients do not smoke. 97% of respondents stated they do not smoke and do not live in a smoker's environment. It is interesting that most respondents (62%) stated that they did not have to change

anything in this area because of the disease; that allows the assumption that they did not smoke even before the disease had started. The situation is different in assessment of the patients who do not go to any institutions where they could meet patients with similar diseases. The statistics of this group of patients show that younger patients smoke more frequently – specifically, they are most frequently women under 60 years of age who have suffered only from hypertension so far. Smoking has a strong influence on the origin and progress of cardiovascular diseases. Some statistics show that smokers affected by cardiovascular disease can be made to give up smoking only for a restricted time and that they return to their habit without suitable support. A big problem is the high incidence of smoking in women at present. The risk of atherosclerosis provoked by smoking is caused by two components of tobacco smoke, nicotine and carbon oxide. The CO participates in the origin of chronic ischemia of tissues and development of atherosclerosis. Programmes to stop smoking constitute one of the priorities of the health policy of states. This issue is considered also in the Recommendations presented by the Czech cardiologic society. A patient who smokes and suffers from cardiovascular disease should be offered suitable help to stop smoking. Each physician should instruct the patient adequately about the unsuitability of this pernicious habit in the treatment of cardiovascular diseases. At present, health insurance companies intervene in the struggle against smoking too, contributing their policyholders to stopping-smoking therapy at specialists'. Advisory centres for stopping smoking work almost in every regional capital under the protection of Health Institutes. The Recommendations for preventions of cardiovascular diseases in adult ages include the 5P strategy based on the partner approach of health care workers and the patient. We acquire more detailed possibilities of treatment from the Recommendations for treatment of tobacco addiction from 2005. The treatment of tobacco addiction is based on 3 types of interventions – short intervention, intensive consulting with a specialist and pharmacological help. The treatment is based on behavioural and pharmacological intervention as short recommendations and consulting, intensive support, application of medicines helping to reduce or to overcome the tobacco addiction (DeFelice and Eugene 2005, Šimon 2001).

The area of alimentation shows that the respondents eat regularly 3× a day, having breakfast, lunch and dinner represented in their menu in 90%. Only 22% of respondents observe snacks. As for the contents of the menu, it can be seen that the respondents try to eat rationally. They prefer healthy vegetable fats and particularly white meat. A problem in the area of alimentation is still the intake of fish. 50% of respondents eat fish only 1x a week. The main principle in the area of alimentation is its balance and regularity (Müllerová 2003).

Those data are compared to the data of patients reliant only to information from physicians and not organised in non-profit organisations like cardio-clubs. The results are surprising because this group of respondents shows higher values of cholesterol, blood pressure, worse alimentation habits in the sense of irregularity, and those respondents state more frequently the experience of stress.

The hypothesis 2 – Patients suffering from ischemic heart disease are satisfied in life – was confirmed.

Kebza (2005) states that life satisfaction is related to the concept of experience of personal well-being. Some authors relate life satisfaction to life quality. Slováček et al. (2004) states that if we speak about life quality, we usually observe which impact the disease has on the psychical or physical condition of the individual. Most questionnaires assessing life quality lean on Maslow's hierarchy of needs. Although there are a number of definitions of life quality, they have one sign in common, i.e. they should include data on the physical, psychic and social condition of the individual. The situation is usually subjectively assessed by the individual. The factors influencing the patient's life quality include: physical condition, functional capability, psychic condition, satisfaction with treatment and social status (Slováček et al. 2004).

Life satisfaction was mapped by one part of the extensive questionnaire. The analysis of the data of life satisfaction (Graph 3) shows that 46% (55) of respondents assessed their satisfaction with health as neither good nor

bad. It must be stated in this connection that 68% assess their life quality as good.

The analysis of the area of physical activities and self-sufficiency shows that 63% of respondents are satisfied with their self-sufficiency. Another question related to this complex shows that more than 75% of respondents answer not to have problems with exercise. Physical activity is an important variable influencing the assessment of oneself and the assessment of life satisfaction (Kebza 2005).

Further assessment shows that 79% of respondents observe physical activity during 30 minutes 1–2 times a week.

At assessing satisfaction with rest we found out that most respondents are satisfied; 64% (77) of respondents are satisfied with their sleep. 55% of respondents go in for their hobbies.

The area of relationships mapped the questions of satisfaction with oneself, satisfaction with relationships and with support from friends. More than 60% of respondents are satisfied with support from friends and with the relationships around them. 60% (72) of respondents are satisfied with their housing conditions, 58 (48%) of respondents are satisfied with care availability (Graph 3). The area of relationships is very important from the point of view of social support playing a significant role in connection with the disease. Social support was one of the first factors identified as a factor moderating the influence of adverse life events on the psychic well-being and health of a human.

Most of the studies published so far state the protective influence of this factor; but there has not been complete congruence neither in the concept of the social support structure nor in the understanding of the substance of its effect so far (Albus 2005, Kebza 2005).

CONCLUSION

The results of the grant project showed that patients suffering from ischemic heart disease are informed about the risk factors of ischemic heart disease and observe those principles in practice. Most of those respondents are satisfied in life. In connection with the level of information and observance of principles, it is necessary to point out that the respondents of this research were patients associated in the Association of persons affected by civilisation diseases, i.e. patients who are interested in their health and healthy life style. It is necessary to go on supporting those organisations and to motivate other patients to become members of those organisations because health care in the primary and secondary sphere may be insufficient because of an increasing number of patients with ischemic heart disease. The initial results comparing this group of patients with the group of patients not visiting any organisation are surprising as well. It can be seen that patients reliant only on the advice of the outpatients' department physician observe the individual aspects of a healthy life style less. Those results can contribute to support the self-help groups of such patients.

REFERENCES

1. Adámková V (2003): Úvod do problematiky epidemiologie a prevence kardiovaskulárních chorob [Introduction to Epidemiology and Prevention of Cardiovascular Diseases]. 1st ed. [s. l.]: Jihočeská univerzita v Českých Budějovicích, Zdravotně sociální fakulta, 42 p. (Czech).

2. Albus C et al. (2005): Psychosoziale Faktoren bei koronarer Herzkrankheit-wissenschafliche Evidenz und Empfelungen für die klinische Praxis. In Das Gesundheitswesen, p. 1–8.

3. DeFelice, Eugene A (2005): Prevention of Cardiovascular Disease: 1. vyd., 154 p.

4. Dufková J, Urban L, Dubský J (2007): Sociologie životního způsobu [Lifestyle Sociology]. 1st ed., Prague: Policejní akademie České republiky v Praze, 125 p. (Czech).

5. European cardiovascular disease statistics 2008 edition. London: British heart foundation, 2008. [online], [citováno 23. 9. 2009]. Dostupný na internetu: http://www.ehnheart.org/content/sectionintro.asp?level0=1457

6. Ingomar WF (2005): Der kardiovaskuläre Risikopatient in der Praxis. 3rd ed. Bremen: UNI-MED, 155 p.

7. Kebza V (2005): Psychosociální determinanty zdraví [Psychosocial Health Determinants]. 1st ed., Prague: Academia, 263 p. (Czech).

8. Křivohlavý J (2001): Psychologie zdraví [Health Psychology]. 2nd ed., Prague: Portál, 279 p. (Czech).

9. Müllerová D (2003): Zdravá výživa a prevence civilizačních nemocí ve schématech [Health Diet and Prevention of Civilization Diseases in Schemes]. 1st ed. , Prague: Triton, 99 p. (Czech).

10. Ošetřovatelské kliniky pro dospělé s ischemickou chorobou srdeční [Nursing Clinics for Adults with Ischemic Disease in Best Practice – Evidence based information sheets for health profesionals]. Joanna Briggs Institute, 9/1, 2005 (Czech).

11. Prevence kardiovaskulárních onemocnění v dospělém věku [Prevention of Cardiovascular Diseases in Adults]. Společné doporučení českých odborných společností [online], [cit. 23/9/2009] [Common recommendation by Czech professional associations]. Available at URL: http://www.kardio cz.cz/resources/upload/data/49_Prevence_kardiovaskul%E1rn%EDch_onemocn%ECn%ED_v_dosp%ECl%E9m_v%ECku.pdf (Czech).

12. Slováček L et al. (2004): Kvalita života nemocných – jeden z důležitých parametrů komplexního hodnocení léčby [Quality of Life in Ill People – One of the Most Important Parameters of Complex Treatment Evaluation]. Vojenské zdravotnické listy, Hradec Králové: Vojenská lékařská akademie J. E. Purkyně, LXXIII/1:6–9 (Czech).

13. Světová zdravotnická organizace [World Health Organization]. Zdraví 21: Dlouhodobý program zlepšování zdravotního stavu obyvatelstva ČR [Health 21:Long-Term Program of Public Health Improvement], 1st ed., Prague: Ministerstvo zdravotnictví České republiky, 2003. 124 p. (Czech).

14. Šimon J et al. (2001): Epidemiologie a prevence ischemické choroby srdeční [Epidemiology and Prevention of Ischemic Disease]. 1st ed., Prague: Grada Publishing, a. s., 264 p. (Czech).

15. Špinar J, Vítovec J et al. (2003): Ischemická choroba srdeční [Ischemic Disease]. 1st ed., Prague: Grada Publishing, a. s., 361 p. (Czech).

🖹 **Contact:**

Lenka Šedová, University of South Bohemia, Faculty of Health and Social Studies, Department of Nursing, České Budějovice, Czech Republic
E-mail: sedova@zsf.jcu.cz