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Original scientific paper

Self-Rated Health Among Students of Health Sciences In Bosnia and Herzegovina

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ABSTRACT: Self-rated health is associated with health behaviour and socio-demographic and socio-economic conditions on the way that health risks and poor socio-economic status determine poor self-rated health. The aim of the study was to determine self-rated health among students, perceive health behaviour risk and association with socio-demographic and socio-economic characteristics of students.
Methods: Study is conducted as a cross-sectional study among students of health sciences in autumn semester 2022. Year. Specially designed questionnaire was constructed based on international guidelines. Anonymously filling out an on line formed questionnaire by voluntary singing on university web site.
Results: More than three quarter of students perceived their health as a good and no one perceived health as a poor. Most students perceived their health as good (83,2%), mainly students with a technical background and those who are living in good socio-economic conditions (89,0%) ($p<0,05$). The most frequent health risks among students are lack of physical activity (44,5%) and less than six hours for sleep and rest (43,8%). More than a third of students perceived fear, nervousness and tension (34,3%), a lack of time for friendship and family (33,6%) and irregular diet (31,4%). Every seventh student perceived overweight and obesity. Students who are living in poor socio-economic conditions perceived more health risks as well as those who don't have medical background and who are employed. More students in urban area perceived mental problems than those in rural areas.
Conclusion: Students are mainly perceived their health as a good and have health risks which will be reduced through health promotion in university educational programmes.

Keywords: perception of health, self-rated health status, risk behaviours, students.

INTRODUCTION

Perception of health is a measure for health status and all its components: mental, physical and social health rated on good, average and poor level of health status (WHO, 1952; Bailis, 2003). Self-perception is a statement about one's observation and definition of oneself health status, health behaviour and capability to functioning in social environment (Robak, 2005). This measure of health has been used extensively in epidemiological studies to determine population's state of health based on self-rated observation and explanation and due to its easy accessibility in population surveys has been used to establish differences in health status and risks for health between populational groups (Gold, 1996). The self-rated health is a reliable and valid measure of health and well-being for adolescent health research (Waters, 2001). The significantly lower scores reported by adolescents are associated with risk health behaviors, stress and illness.

Risk health behaviors such as unhealthy habits are often psychosocial reaction to factors from social environment and social support represent key elements for good health (Marmot, 2001). Study findings explore association between measures of socio-economic status and socio-economic conditions such as experiences of lack of social support with health behavior and self-rated or perceived health status.

Poor self-rated health was most common among persons who lacked social support, or who had poor socio- economic conditions (Kawachi, 1999; Molarius, 2006). Individuals with low values of self-perceived health have problems in functioning in social environment and very often have low socio-economic status measured in income, education and social and health care resources in community (Miilunpalo, 1997).

Studies have also found that sedentary lifestyle as well as overweight or underweight is more often associated with risks for health, such as tension, sleeplessness and other mental problems (Molarius, 2006). Lack of physical activity is associated with poor self- perception of health status as well as poor diet habits (Nowak, 2006; Vingilis, 2002). Overweight and obese people are more likely to report poor self-rated health in comparison to those with normal body mass index (Dubikaytis, 2014). Those common risk factors determine lower level of self- rated health status and increase risk of chronic non-communicable diseases. (Wichowski, 2008).

Health promotion behaviors are necessary for young people because they improve health perception which in turn enable the maintenance of physical, mental, and social well-being (Kim Y, 2018). In school environment there is need to implement educational program which improves skills for healthy choices and health behavior which protect health and reduce risks for diseases.

Students at the Faculty of Health Sciences have the right to educate and create social environment which is sopportive of a healthy lifestyle and offer possibilities to reduce risks for health and promote healthy choices (Tafireyi CGS, Grace JM., 2022).

The aim of the article is to define the self-perceived level of health status and health behavior risks among students of faculty of health sciences and association with socio-demographic and socio-economic conditions in community.

MATERIAL AND METHOD

The study was conducted among students of the Faculty of Health Sciences in the Republic of Srpska, Bosnia and Herzegovina in autumn semester of 2022. year. In the sampling procedure, all students from different study programmes were selected: nurses, physiotherapists, sanitary engineering and laboratory engineering. Information about survey purpose and voluntary participation was given by e-mail and university media. Students who voluntary participated are completed on line form of questionnaire, which is posted at the web site of the Faculty of Health Sciences.

For the purposes of this research a specially designed questionnaire was used to evaluate self-rated of health status and differences between socio- demographic characteristics of participants (gender, age, place of resident and educational background) and socio-economic conditions selected in three categories: good, average and poor according to European Union Survey on Income and Living Conditions (EU-SILCHO) (OECD, 2022).

Self-rated health status is based on perception of own health behaviour and classified as good, average and poor health based on answer: “How do you rate your general state of health?

Educational background that previously had students in former secondary school is classified as general, medical and technical education. Work experience in health institutions shows professional activity of students during study and social support at home defined by living with families and friends or living alone.

Self-perception about health behaviour describe perception of diet and nutritional habits, usually mental health symptoms, daily physical activity, leisure time for friendships and family and less than minimum time for sleep and rest (six hours) as a risk for mental and physical health. Perception about own health risks is measured according to Eurostat recommendations for Health interview survey (Eurostat, 2018), based on questions “How do you asses, do you have some of the following risks factors for health?” Clarifications about statements are listed in text of questions.

The World Health Organization (WHO) defined obesity as those people with the body mass index (BMI) of equal or greater than 30, and overweight as those whose BMI are between 25.0 and 29.9. (WHO; 1995).

For the statistical analysis are used descriptive measures and distribution of frequencies according to level of perceived health status and characteristics of participants. To compare the frequency of the given categories of quantitative characteristics in the analysed groups the Hi square test is implemented. A significance level was established at p= 0.05 for the values included in the critical region of a given distribution. All p values were two sided and p <0.05 was set as statistically significant. The statistical analyses were made with the use of SPSS for Windows, version 21.0, 2012.

RESULTS AND DISCUSSION

Females are represented three times more (75,9%) than males (24,1%) in a sample of 137 students. Most of them perceived own health status as a good (83,2%), and no one perceived health as a poor. Among them, the largest number of students who perceived good health are in age group 23-27 years (87,5%) (Table 1).

Good socio-economic conditions are significant (89,0%) associated with good self-perception of health status and poor social conditions are significant associated with average rated health status (33,3%) (p<0,05). Students who finished technical secondary school perceived their health as a good (92,0%) more significant than students from technical and general secondary schools (p<0,05). Financial support from family determines good self-perceived health as well as living in rural areas (Table 1).

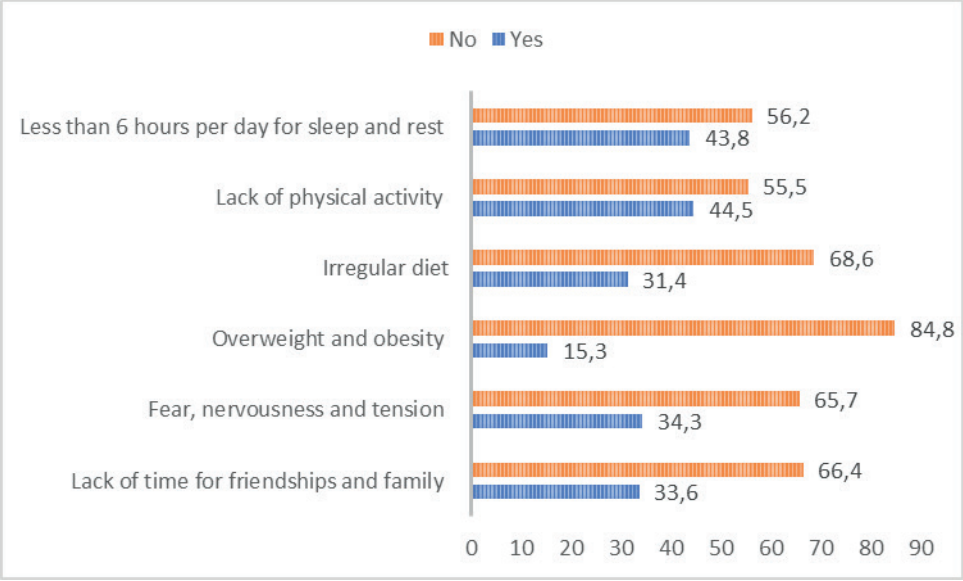
Table 1. Sociodemographic and socioeconomic differences in self-rated health status among students in Banja Luka

Sociodemographic characteristics of participants	Variable types	Students in sample		Self-rated of health status			
				Good		Average	
		Number	%	Number	%	Number	%
All	Total	137	100	114	83,2	23	16,8
Gender	Male	33	24,1	29	87,9	4	12,1
	Female	104	75,9	85	81,7	19	18,3
Age group	18-22	68	49,6	56	82,4	12	17,6
	23-27	40	29,2	35	87,5	5	12,5
	28+	29	21,2	23	79,3	6	20,7
Place of living	Urban	121	88,3	99	81,8	22	18,2
	Rural	16	11,7	15	93,8	1	6,3
Socio economic status	Good	91	66,4	81	89,0*	10	11,0
	Average	43	31,4	31	72,1	12	27,9
	Poor	3	2,2	2	66,7	1	33,3*
Educational background	General	19	13,9	11	57,9	8	42,1
	Medical	93	67,9	80	86,0	13	14,0
	Technical	25	18,2	23	92,0*	2	8,0
Living with family and friends	Yes	113	82,5	94	83,2	19	16,8
	No	24	17,5	20	83,3	4	16,7
Financial support during study	Family	54	39,4	46	85,2	8	14,8
	Employed	83	60,6	68	81,9	15	18,1
Working experience in health institution	Yes	88	64,2	72	81,8	16	18,2
	No	49	35,8	42	85,7	7	14,3

*- χ^2 (p<0,05)

Self-perceived health behavioral risks among students are lack of physical activity which have 44,5% of students, and 43,8% have less than 6 hours per day for sleep and rest (Graph 1).

More than third of them perceived irregular diet and fear, nervousness and tension and insufficient time for friendships and family. Every seventh student perceived own body mass index overweight or obesity (Graph 1).



Graph 1. Percent of self- perceived health risks among students

Self-perception of risk factors are determined by students and their opinion about own behavior which reflects on health. More males (18,2%) than females (14,4%) perceived that they are overweight or obese, most of them in age group 23-27 years (22,5%) (Table 2). Students who finished secondary medical school perceived this risk (17,2%), also, those who are living in urban area (15,7%) and in average socio-economic status (23,3%).

Irregular diet as a risk factor perceived more females (34,6%) than males (21,2%), and all students live in average socio-economic status ($p<0,05$), students with medical background perceived this risk in most cases (36,6%), as well as those who have experience working in health institutions (37,5%) ($p<0,05$) (Table 2).

Lack of physical activity perceived more females (49,0%) ($p<0,05$), who are living in average socio-economic conditions (48,8%), rural areas (50,0%) and with technical background in secondary school (52,0%) (Table 2).

Lack of time for friendships and family have more males (36,4%), and young adults older than 28 years (48,3%) (Table 2). Students who are employed (47,0%) perceived their socio-economic conditions as an average (51,2%) and have experience of working in health institutions (42,0%). They don't have enough time for friendships and family ($p<0,05$).

Less than six hours per day for sleep and rest have more females (45,2%), those who are living in urban areas (45,5%), in poor socio-economic conditions, and statistically significant more students who have finished general secondary school (57,9%), and who are employed (53,0%).

Sense of fear, nervousness and tension perceived more by females (37,5%) than males (24,2%), those who are living in urban areas (37,2%) ($p<0,05$), in poor socio-economic conditions (66,7%), with general background in secondary school (57,9%) and who don't have experience working in health institutions (44,9%) ($p<0,05$) (Table 2).

Table 2. Sociodemographic and socioeconomic differences in self-perception of health risks among students in Banja Luka

Sociodemographic characteristics	Variable types	Lack of time for friendships and family (%)	Fear, nervousness and tension (%)	Overweight and obesity (%)	Irregular diet (%)	Lack of physical activity (%)	Less than 6 hours per day for sleep and rest (%)
Gender	Male	36,4	24,2	18,2	21,2	30,3	39,4
	Female	32,7	37,5	14,4	34,6	49,0*	45,2
Age group	18-22	29,4	36,8	10,3	29,4	38,2	42,6
	23-27	30,0	27,5	22,5	30,0	47,5	50,0
	28+	48,3	37,9	17,2	37,9	55,2	37,9
Place of living	Urban	34,7	37,2*	15,7	33,9	43,8	45,5
	Rural	25,0	12,5	12,5	12,5	50,0	31,3
Socio economic status	Good	25,3	38,5	11,0	26,9	42,9	40,7
	Average	51,2*	23,3	23,3	100*	48,8	46,5
	Poor	33,3	66,7	33,3	32,6	33,3	100
Educational background	General	21,2	57,9	15,8	21,1	47,7	57,9*
	Medical	37,6	29,0	17,2	36,6	41,9	47,3
	Technical	28,0	36,0	8,0	20,0	52,0	20,0
Living with family and friends	Yes	35,4	33,6	16,8	33,6	45,1	46,0
	No	25,0	37,5	18,3	20,8	41,7	33,3
Financial support during study	Family	13,0	42,6	16,7	27,8	44,4	29,6
	Employed	47,0*	28,9	14,5	33,7	44,6	53,0*
Working experience in health institution	Yes	42,0*	28,4	13,6	37,5*	44,3	47,7
	No	18,4	44,9*	18,4	20,4	44,9	36,7

*- χ^2 ($p<0,05$)

Our findings suggest that self-rated health is not only a spontaneous assessment of one's health status and related practices than many socio-demopraphic and socio-economic factors are significant associated with own perception s'of health.

Self evaluation of health state is more often good, or moderate among young adults. No one perceived their health as a poor which correlates with other authors (Schwarcwald, 2005, Erginoz, 2004). In our study males percieved their health as a good (87,9%) more often than females (81,7%) but in Brazil study females perceived their health (48,2%) more often then males (46,9%) (Schwarcwald, 2005).

Moreover, the effects of several factors from social environment reflect on respondents' self-rated health, varied according to whether respondents perceived their health risks in own behaviour. Effects of risk factors and health behavior are mediated by more specific health problems and their functional consequences (Manderbacka, 1999). According to survey data higher level of education, higher income, being male and have social support were found to be associated with high level of self-perception of health status (Piko, 2000, 2007). According to our study, results are very similar, those who live in better social conditions, with family and friends support, being male and with medical secondary background perceived their health as a good.

However, educational backgroung impacts on health behaviors and self-rated health. Students who previously had secondary medical school perceived their health in most cases as a good (86,0%). Also, socio-economic status determine health as a good in most cases (89,0%) of a good perceived socio-economic status which is similar in Turkish study (Erginoz, 2004). Most of students have lack of physicial activity (44,5%), as well as less than six hours per day for sleep and rest (43,8%) which perceived more females than males, students who are living in average socio-economic status and students who are employed. Our

study results are very similar study in Mexico (Nayheli, Villegas, Deygadillo, 2022). Lack of physicial activity is often associated with perception of overweight and obesity by students and other mental problems like anxiety (Kirkcaldy, 2002). Overweight and obesity among each seventh young respondents were found to have an health risks in our study, while in study in Iran perceived the same health problems one of five students (Mann, 2016). This may reflect the effects of health problems not captured by our indicators of ill health, but may also indicate that risk factors and risky behaviours are considered to have an effect on one's perceived health even in the absence of health consequences. Results of our study reflect that more than third of students have irregular diet and perceived health risks through fear, nervousness and tension and inadequate time for freindships and family which is very similar in other studies (Luppino, 2010; Hudd, 2000; Nayheli, Villegas, Deygadillo, 2022).

It is known that demographic factors like age, residence type, education and school background have great role in determining health behaviors (Larouche, 1998). Most of heatlh risks perceived by students in our study are dominated among young adults older than 28 years, living in urban areas, and average and poorer perceived socio-economic status. Females perceived health risks in mental problems, insufficient sleep and rest, lack of physical activity and irregular diet more than males while males pereived inadequate time for friendships and family and being overweight and obese more than women.

CONCLUSIONS

Students who finished technical secondary school and live in good socio-economic conditions (89,0%) significant perceived their health as a good ($p<0,05$). Two quarter of students have lack of physical activity and less than six hours of sleep and rest a day. More than third of students have fear, inadequate and irregular diet. Females significantly perceived risk of lack of physical activity (49,0%) than males (30,3%) ($p<0,05$). Males perceived more than females lack of time for friendship and family (36,4%) and students who live in average socio-economic conditions (51,2%) and employed (47,0%) ($p<0,05$). Fear, nervousness and tension have students who live in urban area (37,3%) more than in rural ($p<0,05$). Irregular diet perceived more students who have experience working in health institution (37,5%) and those who live in average socio-economic conditions ($p<0,05$).

According to this study, a big number of health sciences students are not adopting health promoting lifestyle behaviors on daily basis and their life-style behaviors are at risk. Therefore, researchers would like to recommend that university could facilitate student learning about health and link this living a healthy lifestyle.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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