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Dietary habits and mental health among students at the University of Sarajevo

SUMMARY

Proper nutrition plays an important role in shaping our thinking and behaviour, and influences how food intake affects our emotions. The aim of the work was to assess the dietary habits and mental health of students. The study is a quantitative, cross-sectional research with observational-analytical methods. Students were selected using the convenience sampling method. Out of the total number of participants who participated in the study N=805. More frequent consumption of cakes/biscuits, fresh fruits, salad/raw vegetables, lemonade/soft drinks, meat/sausages and fish/seafood positively correlates with positive mental health. The development of the participants' sense of coherence directly positively correlates with more frequent consumption of fresh fruit, lemonade/soft drinks and meat/sausages. Participants who consume fresh fruit, salad/raw vegetable, and lemonade/soft drinks less frequently perceive higher levels of stress. Frequent consumption of lemonade/soft drinks is negatively associated with anxiety, and along with meat/sausages, with depressive symptoms. Mental health correlates with the food categories cakes/biscuits, fresh fruit, salad/raw vegetable, lemonade/soft drinks, meat/sausages, fish/seafood, and fast/canned food.

Keywords: mental health, dietary habits, proper nutrition, positive mental health.

INTRODUCTION

Proper nutrition plays an important role in shaping our thinking and behaviour, as well as in influencing how food intake affects cognition, memory capacity, and

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emotions. Interactions between various nutrients and neurotransmitters can elicit different emotional responses (Hori et al., 2019).

Research findings indicate that inadequate nutrition is associated with an increased risk of mental health problems, such as stress, anxiety, and depression. Conversely, a balanced diet characterized by adequate intake of fruits, vegetables, and whole grains is linked to better mental health outcomes, including lower levels of stress, anxiety, and depression, as well as increased life expectancy (Jonsson et al., 2024).

The period of university study has a significant impact on an individual's life, requiring greater responsibility regarding food choices and healthy lifestyle habits (Kovačević et al., 2021). The higher prevalence of mental health problems among university students is associated with unhealthy lifestyles, including poor diet, excessive alcohol consumption, and smoking (Whatnall et al., 2019).

Results from national surveys show that the majority of the global population does not adhere to nutritional recommendations in their daily lives. Swan and colleagues (2015) proposed Antonovsky's salutogenic framework as an approach to studying and promoting adequate nutrition (Swan et al., 2015).

International studies indicate that the university period may contribute to weight gain, obesity, and the adoption of unhealthy lifestyle behaviours among students, which are associated with an increased risk of developing chronic non-communicable diseases later in life. For this reason, the university period is recognized as an important phase for health promotion and disease prevention among the student population (Richter & Dixon, 2022).

The aim of the study was to assess the dietary habits and mental health status of students.

RESEARCH METHODS

The study represents a quantitative, cross-sectional study using an observational-analytical approach. Participants were selected using a convenience sampling technique. The study included 805 participants from the University of Sarajevo. Prior to participation, participants were informed about the purpose and structure of the research by the researcher. After providing voluntary written informed consent, participants completed the survey questionnaires. The data collection was conducted between November 2021 and May 2022.

Inclusion criteria for participants:

- Students aged 19 to 25 years;

- Full-time and self-financing full-time students of the first cycle of studies at the University of Sarajevo, enrolled in four-year study programs (240 ECTS credits);
- Students who voluntarily agreed to participate in the study and provided written informed consent;
- Students who submitted fully completed questionnaires; and
- Students who were not undergoing examinations during the data collection period.

The following instruments were used in the study:

1. A general questionnaire, which collected data on socio-demographic characteristics and lifestyle habits of participants.
2. The Mental Health Continuum-Short Form (MHC-SF), which assesses positive mental health. Scores range from 0 (low mental health) to 5 (high mental health). Individuals are classified as having high mental health if they report experiencing at least one indicator of hedonic well-being “every day” or “almost every day,” and at least six of eleven indicators of positive functioning within the past three months. Individuals who report “never” or “once or twice” on at least one hedonic well-being item and on at least six positive functioning items are classified as experiencing “languishing” or low mental health. The Croatian version of the scale demonstrated high internal consistency (Cronbach’s $\alpha=0.92$). The validated Croatian version of the instrument was used with the author’s permission (Ajduković et al., 2019).
3. The Sense of Coherence Scale (SOC-13 – The Orientation to Life Questionnaire), developed by Antonovsky, measures an individual’s sense of coherence. Responses are rated on a Likert scale ranging from 1 (lowest) to 7 (highest). Total scores range from 13 to 91, with higher scores indicating a stronger sense of coherence. The internal consistency reliability (Cronbach’s α) ranges from 0.74 to 0.91 (Antonovsky, 1993). The validated Croatian version of the instrument was used with author permission (Kardum et al., 2005).
4. The Perceived Stress Scale (PSS-10), which measures the degree to which individuals perceive their lives as unpredictable, uncontrollable, and overwhelming – core components of perceived stress. The scale consists of 10 items rated on a Likert scale from 0 (never) to 4 (very often) (Hudek-Knežević, Kardum, & Lesić, 1999). Total scores range from 0 to 40, with 0 – 13 indicating low stress, 14 – 26 moderate stress, and 27 – 40 high stress (Biswas et al., 2019). The Croatian version demonstrated good internal consistency (Cronbach’s $\alpha=0.88$). The validated Croatian version was used with the author’s permission.

5. The Zung Self-Rating Anxiety Scale (ZSAS), which measures anxiety symptoms, with total scores ranging from 20 to 80. Higher scores indicate more pronounced anxiety symptoms. A score below 36 indicates the absence of clinically relevant anxiety symptoms, while a score of 36 or higher indicates a high level of anxiety symptoms. The internal consistency reliability (Cronbach's α) for the scale is 0.88 (Setyowati, Chung & Yusuf, 2019; Tomić, 2019b; Tomić, Hasanbegović-Anić & Tuće, 2019a; Zung, 1971).

6. The Zung Self-Rating Depression Scale (ZSDS), which assesses the severity of cognitive, emotional, physiological, and behavioural symptoms of depression. The total score is calculated by summing responses to 20 items, dividing by 80, and multiplying by 100. Scores range from 25 to 100, with higher scores indicating more severe depressive symptoms. Scores of 25 – 49 indicate no depression, 50 – 59 mild depression, 60 – 69 moderate depression, and 70 or above severe depression. The internal consistency reliability (Cronbach's α) is 0.84 (Ajduković, Ručević & Majdnić, 2013; Tomić, 2019b; Tomić & Hasanbegović-Anić & Tuće, 2019a; Zung, 1965).

7. The Food Frequency Questionnaire (FFQ), which was designed to measure the usual consumption of twelve food groups (sweets, cakes/biscuits, snacks, fast food/canned food, fresh fruit, raw salad/vegetables, cooked vegetables, soft drinks/lemonade, meat/sausages, fish/seafood, milk/dairy products, and cereals/grain products) was used to assess dietary habits. No specific guidelines exist for sweets, cakes/biscuits, snacks, fast food/canned food, and soft drinks; therefore, recommended consumption was defined as “1 – 4 times per month” or “never.” For other food groups, World Health Organization recommendations were applied. Accordingly, for fruit and vegetables, adequate intake was defined as “daily” or “several times per day.” For meat and processed meat products, the recommended intake was “less than once per day,” and for fish/seafood “several times per week.” Milk/dairy products and cereals/grain products were not included in the dietary adherence index. Dairy consumption is considered healthy in the absence of lactose intolerance, while cereal consumption data were considered too heterogeneous for classification as healthy or unhealthy intake. The Egyptian version of the questionnaire, translated into Bosnian, was used with the author's permission (El Ansari & Berg-Beckhoff, 2015a).

Ethical approval

The study received ethical approval at the 10th session of the Ethics Committee of the Faculty of Health Studies, University of Sarajevo. The research was conducted following the acquisition of written authorization from the Dean of the Faculty of Health Studies, University of Sarajevo.

Statistical data analysis

After conducting research and collecting data based on standardized questionnaires, a database was created in Microsoft Excel, part of the Microsoft Office 365 package. The results of descriptive statistical analysis are presented with the following parameters: Categorical variables are represented by frequency in percentages. Comparison of the frequency and distribution of participants within and between groups was tested with the Chi square test. Scalar data were tested for the purpose of examining data distribution, and for data that corresponded to the parametric data distribution, the mean value and standard deviation (mean±SD) were used. In such circumstances, a t-test was used to examine the differences between the two groups. The distribution of the development scale of the sense of coherence was created in accordance with the interquartile range, from 25 to 75 percentile. Spearman's correlation factor was used to analyse the relations between the examined variables, given that they belonged to ordinal scales. The correlation coefficient factors were graduated to the following limits: 0.0 to ± 0.10 connection without practical significance, ± 0.10 to ± 0.19 very weak connection; ±0.20 to ±0.35 weak connection; ±0.351 to ±0.59 medium strong connection; ±0.60 to ±0.79 strong connection and ±0.80 to 1.0 very strong connection. The results are presented textually, tabularly or graphically, and statistical significance is set with a p value of less than 0.05 ($p < 0.05$).

RESULTS

Table 1. Participants' demographic data

Variables		Total	Male gender	Female gender	χ^2	p	t
Number of participants		805	235	570			
		100%	29.19%	70.81%			
Age		21.56 (1.22)	21.74 (1.30)	21.48 (1.18)		0.008	-2..638
Place of residence	Lives alone	101	26	75	13.044	0.011	
		12.55%	11.1%	13.2%			
	Lives with partner	29	6	23			
		3.6%	2.6%	4.0%			
	Lives with parents	422	123	299			
		52.42%	52.3%	52.5%			
Lives with roommate	126	28	98				
	15.65%	11.9%	17.2%				
Student dormitory	127	52	75				
	15.78%	22.1%	13.2%				

Amount of monthly pocket money	Always sufficient	312	94	218	3.537	0.316	
		38.8%	40.0%	38.2%			
	Mostly sufficient	373	101	272			
		46.3%	43.0%	47.70%			
	Sometimes insufficient	92	28	64			
11.4%		11.9%	11.2%				
Always insufficient	28	12	16				
	3.5%	5.1%	2.8%				
Faculty	FZS	325					
		40.37%					
	PMF	233					
		28.94%					
	ALU	44					
		5.47%					
	FIN	87					
		10.81%					
	FASTO	56					
		6.96%					
	FKKS	60					
		7.45%					

Note. χ^2 = chi-square; p = p-value; $p < 0.05$; t = Student's t-test. FZS – Faculty of Health Studies, PMF – Faculty of Science and Mathematics; ALU – Academy of Fine Arts, FIN – Faculty of Islamic Sciences, FASTO – Faculty of Sports and Physical Education, FKKS – Faculty of Criminalistics, Criminology and Security Studies

Out of the total number of participants who participated in the study $n=805$, the majority of the sample were female participants $N=570$ (70.81%). The average age of the students was $M=21.56 \pm 1.22$ years, while male students were older than female students ($t=-2.638$; $p=0.008$).

By analysing the place of residence of students during their studies we concluded that the majority of students lived with their parents $N=422$ (52.42%). Using the chi-square test, a statistically significant difference was found in relation to the gender of the participants ($\chi^2=13.044$; $p=0.011$). Male participants were significantly more likely to live in a student dormitory $N=52$ (22.13%), while female participants were more likely to live with a roommate $N=98$ (17.19%).

Students of the Faculty of Health Studies were the largest part of the research sample ($N=325$ (40.37%) (Table 1).

Table 2. Average scores achieved by students on the listed scales

	Mean	SD	Min	Max	Perc 25	Perc 75
MHC	3.43	0.90	0.71	5.00	2.86	4.07
SOC	53.30	11.78	22.00	87.00	45.00	61.00
PSS	20.20	6.48	2.00	39.00	16.00	25.00
ZSAS	39.13	8.88	20.00	74.00	33.00	44.00
ZSDS	52.98	9.97	25.00	97.00	46.25	60.00

Mean=arithmetic mean; SD=standard deviation; Min=minimal value;

Max= Maximal value; Perc 25=percentile; Perc 75= percentile.

MHC- positive mental health; SOC- sense of coherence; PSS- perceived stress scale; ZSAS- Zung Self-Anxiety Scale; ZSDS- Zung Self- Depression Scale.

Table 3. The influence of food categories in relation to the scales studied

		MHC	SOC	PSS	ZSAS	ZSDS
Sweets	r	0.015	-0.065	0.057	0.023	0.024
	p	0.661	0.065	0.106	0.511	0.497
Cake/cookies	r	0.103	0.002	-0.008	-0.033	-0.062
	p	0.004	0.962	0.811	0.343	0.08
Snacks	r	0.009	-0.093	0.072	0.047	0.007
	p	0.795	0.008	0.041	0.183	0.84
Fast food/Canned food	r	-0.015	-0.105	0.067	0.047	-0.015
	p	0.681	0.003	0.057	0.186	0.661
Fresh fruit	r	0.157	0.141	-0.134	-0.029	-0.032
	p	<0.001	<0.001	<0.001	0.407	0.36
Salad/Raw vegetables	r	0.125	0.077	-0.112	-0.001	-0.033
	p	<0.001	0.028	0.002	0.967	0.349
Boiled vegetables	r	0.075	0.029	-0.057	0.057	0.016
	p	0.033	0.404	0.108	0.108	0.649
Lemonade/Soft drinks	r	0.144	0.142	-0.181	-0.129	-0.102
	p	<0.001	<0.001	<0.001	<0.001	0.004
Meat/Sausages	r	0.126	0.108	-0.086	-0.083	-0.111
	p	<0.001	0.002	0.015	0.018	0.002
Fish/Sea food	r	0.108	0.048	-0.066	0.006	-0.05
	p	0.005	0.174	0.062	0.856	0.159
Milk/Dairy products	r	0.008	0.006	-0.012	-0.004	-0.003
	p	0.824	0.861	0.742	0.906	0.934
Cereals/ Cereal products	r	0.02	0.047	-0.021	-0.012	-0.041
	p	0.579	0.185	0.551	0.734	0.246

Note. r= Spearman's correlation coefficient p= p-value. MHC- positive mental health; SOC- sense of coherence; PSS- perceived stress; ZSAS- Zung Self-Anxiety Scale; ZSDS- Zung Self- Depression Scale.

The following has been determined by analysing the relation between food categories and scales studied.

The correlation between the frequency of cake/cookies consumption and the scale of positive mental health is statistically significant. The relation was evaluated positively, and classified as a weak relationship ($r=0.103$; $p=0.004$). Participants with better positive mental health consumed cakes/cookies more often.

The correlation between consumption of fast food/canned food and the development of a sense of coherence is statistically significant. The relation was assessed as a weak relation, with a negative sign, with more frequent consumption of fast food/canned food being represented in participants with a poorly developed sense of coherence ($r=-0.105$; $p=0.003$).

Fresh fruit consumption was positively correlated with positive mental health and a developed sense of coherence, with both associations being weak in magnitude (positive mental health $r=0.157$; $p<0.001$; developed sense of coherence $r=0.141$; $p<0.001$), while consumption of fresh fruit was negatively correlated participants with perceived stress ($r=-0.134$; $p<0.001$).

Consumption of salad/raw vegetables was positively correlated with positive mental health, although the association was weak ($r=0.125$; $p<0.001$). Increased values of the perceived stress negatively correlated with salad/raw vegetables consumption ($r=-0.1112$; $p=0.002$).

Lemonade/soft drink consumption was weakly and positively correlated with positive mental health (positive mental health $r=0.144$; $p<0.001$) and sense of coherence ($r=0.142$; $p<0.001$), which suggests that participants with a more developed sense of coherence and positive mental health consume lemonade/soft drinks more frequently.

Lemonade/soft drink consumption was negatively correlated with perceived stress scales ($r=-0.181$; $p<0.001$), self-assessed anxiety symptoms ($r=-0.129$; $p<0.001$), and self-assessed depression symptoms ($r=-0.102$; $p=0.004$). Participants who consumed lemonade/soft drinks less frequently reported higher levels of stress, anxiety, and depressive symptoms on the aforementioned scales.

Meat/sausage consumption was positively correlated with the positive mental health scale ($r=0.126$, $p<0.001$) and the sense of coherence scale ($r=0.108$; $p<0.001$), indicating that increased meat/sausage consumption leads to increased values on the positive mental health scale and the sense of coherence scale.

The meat/sausage food category negatively correlated with the self-assessment scale of depression symptoms ($r=-0.111$; $p=0.002$).

Consumption of fish/seafood had a direct relation with the scale of positive mental health, whereby an increase in positive mental health also increased the frequency of consumption of fish/seafood ($r=0.108$; $p=0.005$) (Table 3)

DISCUSSION

Given that adolescents during the period of higher education belong to a vulnerable population group, bioethics places emphasis on the physical, psychological, and social characteristics of this population through regional action plans that advocate for high-quality education, the strengthening of healthcare and counseling services, the promotion of healthy lifestyles among preadolescents, and the empowerment of young people to actively participate and serve as agents of change within their communities (Romero et al., 2020).

From a bioethical perspective, mental health is structured around three fundamental characteristics of public health: an emphasis on prevention, the practice of protecting the entire population for the benefit of specific groups, and efforts to limit the further spread of harmful behavioral patterns and influences. Each of these characteristics has corresponding parallels in the field of mental and behavioral disorders (Radden, 2016).

Among basic human needs, such as freedom, education, health, work, housing, clothing, recreation, and love, nutrition occupies a particularly important place as it represents an essential condition for the survival of all living beings. The nutritional status of a population is considered an important indicator of quality of life and can provide insight into the level of development and progress of a country. Due to the significant importance of nutrition for both the individual and society as a whole, issues related to nutrition and dietary practices are present in various areas of social activity, which explains the wide application of bioethical principles in this field (Araujo Yaselli, 2001).

Dietary habits are influenced by a variety of factors, including life stage, environmental conditions, food accessibility, and socioeconomic status. Each of these factors may, in turn, affect an individual's mental health (Budler Cilar, 2022).

Adequate nutrition is a fundamental prerequisite for maintaining good health. It plays a crucial role in ensuring proper growth and development, optimal physiological functioning, reproductive health, physical performance, resistance to infections and diseases, recovery from injuries, and overall psychological well-being and life satisfaction (Leda & Grazziano, 2018).

A study conducted among students at the University of Otago, New Zealand, investigated the effects of a 14-day fruit and vegetable consumption intervention on mental health. The findings demonstrated that participants who consumed fresh fruits and vegetables experienced a significant improvement in positive mental health, particularly in terms of flourishing, compared with those in the control group (Conner, 2017).

In contrast, Landefeld (2021) did not find a statistically significant association between flourishing and dietary factors such as healthy eating practices, fruit and vegetable consumption, or meat intake (Landefeld, 2021).

A cross-sectional study among university students in China reported that individuals who paid greater attention to their dietary habits exhibited a stronger sense of coherence (Chu et al., 2016).

Similarly, Peker and colleagues (2012), in a study conducted at Istanbul University, Turkey, found that students with a stronger sense of coherence consumed significantly fewer carbohydrates between meals ($p=0.009$) than those with a weaker sense of coherence (Peker, Bermek & Uysal, 2012).

Furthermore, Buy-Binkowska and Januszewicz (2010) examined the relationship between sense of coherence and health-related behaviors among university students in Poland. Their findings indicated that a stronger sense of coherence was associated with healthier lifestyle practices, including more favorable dietary habits (Buy-Binkowska & Januszewicz, 2010).

Aguinaldo and colleagues (2021), in a study conducted at the University of Manila in the Philippines, reported that participants who considered nutrition to be an important aspect of their lives achieved a higher mean total score on the Sense of Coherence (SOC) scale than those who did not regard nutrition as important. However, this difference did not reach statistical significance ($F=0.487$, $p=0.486$) (Aguinaldo et al., 2021).

Similarly, Vélez-Toral and colleagues (2021), in a study involving 788 students at the University of Huelva, Spain, found that the consumption of foods with high nutritional value was positively and significantly associated with a stronger sense of coherence among participants (Vélez-Toral et al., 2021).

Wainwright and colleagues (2007) reported that individuals with a stronger sense of coherence consumed significantly greater amounts of fruits and vegetables compared with those exhibiting a weaker sense of coherence (Wainwright et al., 2007).

Furthermore, Leeds and colleagues (2020) highlighted that the findings from observational, longitudinal, and cross-sectional studies consistently suggest a positive

association between fruit and vegetable consumption and improved mental health outcomes (Leeds, Keith & Woloshynowych, 2020).

The findings of Mikolajczyk and colleagues (2009) further demonstrated that less frequent consumption of fruits and vegetables among university students was associated with higher levels of perceived stress ($p < 0.01$), which is consistent with the results of the present study (Mikolajczyk, El Ansari & Maxwell, 2009).

Likewise, Whatnall and colleagues (2019), in a cross-sectional study examining lifestyle behaviors and health risk factors among Australian university students, found that participants who consumed higher amounts of fruits, vegetables, and breakfast foods, while consuming fewer soft drinks, sports drinks, and takeaway meals, reported significantly lower levels of perceived stress (Whatnall et al., 2019).

A similar relationship was observed among students at Assiut University, where more frequent fruit and vegetable consumption was associated with lower perceived stress scores (El Ansari & Berg-Beckhoff, 2015a).

Moreover, fresh fruit and vegetable intake was found to be negatively associated with perceived stress among students at the University of Turku, Finland (El Ansari, Suominen & Berg-Beckhoff, 2015b).

Conversely, a study conducted in the United Kingdom demonstrated gender-specific associations between dietary habits and perceived stress. Among female students, the consumption of fresh fruit, salads/raw vegetables, cooked vegetables, and cereals/cereal products was negatively associated with perceived stress. Among male students, only the consumption of salads and raw vegetables showed a significant negative association with perceived stress levels (El Ansari, Adetunji & Oskrochi, 2014).

In contrast to the aforementioned findings, a study conducted at the University of Dubai, United Arab Emirates, reported a positive association between perceived stress and the consumption of salads/raw vegetables ($p = 0.045$) and cooked vegetables ($p = 0.038$). The same study also identified a negative association between perceived stress and the consumption of cakes/cookies ($p = 0.039$) as well as meat products and processed meat ($p = 0.011$) (Mohamad et al., 2022).

Numerous studies have reported a positive relationship between perceived stress and the consumption of foods with low nutritional value, including sweets, cookies, snacks, fast food, canned foods, lemonade, and soft drinks (El Ansari, Adetunji & Oskrochi, 2014; El Ansari, Suominen, & Berg-Beckhoff, 2015b; Mikolajczyk, El Ansari, & Maxwell, 2009). However, some studies have produced contrasting findings. For example, research conducted among university students in Palestine found that more frequent consumption of sweets, cookies, snacks, and fast food was associated with lower levels of perceived stress among male students ($p = 0.003$),

while more frequent consumption of fruits and vegetables was associated with fewer symptoms of depression ($p < 0.001$) (Yassin, Sarsour & Alharazin, 2016).

Similarly, Cheng and Mohd Kamil (2020) found no statistically significant association between stress levels and dietary habits among university students (Cheng & Mohd Kamil, 2020).

The findings of the present study indicated that lower consumption of lemonade and soft drinks was associated with increased symptoms of anxiety ($r = -0.129$, $p < 0.001$).

Investigating the relationship between fast-food consumption and mental health, El Barazi and Tikamdas (2023) reported that students who consumed foods of lower nutritional quality exhibited significantly higher levels of anxiety symptoms (El Barazi & Tikamdas, 2023).

Al Ammar and colleagues (2020) emphasized that deficiencies in key nutrients, including B-complex vitamins, vitamins D and C, zinc, omega-3 fatty acids, and antioxidants, may substantially affect mood and, over time, contribute to the development of depressive symptoms. These nutrients play an essential role in regulating neurotransmitter systems involved in mood regulation and are commonly found in fruits, vegetables, and dairy products (Al Ammar, Albeesh & Khattab, 2020).

In a cross-sectional study examining dietary habits, health behaviors, and depressive symptoms among university students in Korea, Seo and Je (2018) concluded that depressive symptoms were positively associated with female gender, elevated stress levels, and irregular eating patterns (Seo & Je, 2018).

A study conducted among students at the University of Dubai reported a statistically significant association between more frequent consumption of soft drinks and more pronounced symptoms of depression ($p = 0.012$), a finding that contrasts with the results of the present study (Mohamad et al., 2022). Likewise, research from the United Kingdom identified a positive association between the consumption of cakes and biscuits and depressive symptoms among male students ($p = 0.007$) (El Ansari, Adetunji & Oskrochi, 2014).

Several studies investigating the relationship between dietary habits and mental health among university students have demonstrated a negative association between depressive symptoms and the consumption of fresh fruits, raw vegetables, and cooked vegetables (El Ansari & Adetunji, 2014; Mohamad et al., 2022).

Furthermore, a negative association between fruit and vegetable consumption, meat consumption, and depressive symptoms was observed among female students ($p = 0.01$) (Mikolajczyk, El Ansari & Maxwell, 2009).

CONCLUSION

The findings of this study indicate that mental health is associated with the consumption of specific food categories. More frequent consumption of cakes and biscuits, fresh fruit, salads and raw vegetables, lemonade and soft drinks, meat and sausages, as well as fish and seafood, was positively associated with positive mental health outcomes.

A stronger sense of coherence was positively associated with more frequent consumption of fresh fruit, lemonade and soft drinks, and meat and sausage products, whereas a negative association was observed with the consumption of fast food and canned food products.

Students who reported less frequent consumption of fresh fruit, salads and raw vegetables, and lemonade and soft drinks perceived significantly higher levels of stress.

Furthermore, more frequent consumption of lemonade and soft drinks was associated with lower levels of anxiety and depressive symptoms among the participants.

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Prehrambene navike i mentalno zdravlje studenata Sveučilišta u Sarajevu

SAŽETAK

Pravilna prehrana ima važnu ulogu u oblikovanju našega mišljenja i ponašanja te utječe na to kako se unos hrane odražava na naše emocije. Cilj je ovoga rada utvrditi prehrambene navike i mentalno zdravlje studenata. Radi se o kvantitativnome transverzalnom istraživanju s primjenom opservacijsko-analičkih metoda. Studenti su odabrani metodom prigodnoga uzorkovanja. U istraživanju je ukupno sudjelovalo 805 ispitanika. Učestalija konzumacija kolača/keksa, svježega voća, salate / sirovoga povrća, limunade / gaziranih pića, mesa/kobasica i ribe / morskih plodova pozitivno korelira s dobrim mentalnim zdravljem. Razvoj osjećaja koherencije u sudionika izravno pozitivno korelira s učestalijom konzumacijom svježega voća, limunade / gaziranih pića i mesa/kobasica. Ispitanici koji rjeđe konzumiraju svježe voće, salatu / sirovo povrće i limunadu / gazirana pića izražavaju više razine stresa. Učestala konzumacija limunade / gaziranih pića negativno je povezana s anksioznošću i, zajedno s konzumacijom mesa/kobasica, simptomima depresije. Mentalno zdravlje korelira sa sljedećim kategorijama hrane: kolači/keksi, svježe voće, salata / sirovo povrće, limunada / gazirana pića, meso/kobasice, riba / morski plodovi i brza/konzervirana hrana.

Ključne riječi: mentalno zdravlje, prehrambene navike, pravilna prehrana, pozitivno mentalno zdravlje.