

# Motivations underlying healthy dietary adoption intentions: Evidence from university students in the Czech Republic

MARK RATILLA<sup>1,2\*</sup> , DENISA KAROLYOVA<sup>1</sup>, ISMAT HAIDER<sup>1</sup> and ZUZANA DOHNALOVÁ<sup>1</sup>

<sup>1</sup> Faculty of Management and Economics, Tomas Bata University in Zlin, Mostní 5139, 760 01 Zlín, Czech Republic

<sup>2</sup> College of Management and Economics, Visayas State University, Baybay City, Leyte, 6521-A, Philippines

Received: October 27, 2022 • Revised manuscript received: February 13, 2023 • Accepted: February 22, 2023

Published online: March 14, 2023

© 2023 The Author(s)



## ABSTRACT

Encouraging people to adopt a healthy diet is believed to reduce the prevalence of obesity. However, a deeper understanding of consumers' psychology regarding healthy dieting is required for this intervention to be effective. To date, knowledge remains limited on the motivations preceding healthy dietary adoption among adult consumers in the Czech Republic, which is undoubtedly facing a high prevalence of obesity among other EU member states. Most importantly, few studies have modeled the food choice motives as primary antecedents of healthy dietary adoption intentions. Therefore, the current study proposes and tests a research model that explains the motivational factors for adopting healthy diets. Data were collected through an online survey involving 161 university students and analyzed using partial least squares structural equation modeling (PLS-SEM) procedures. The results reveal that food choice motives explain healthy dietary adoption intentions satisfactorily. Notably, the natural content and weight control motives positively and significantly affect healthy dietary adoption intentions. The study offers relevant contributions to the science of consumer motivation regarding healthy dieting and practical means to health promotion.

## KEYWORDS

consumer behavior, Czech Republic, food choice motives, healthy diet, obesity

## JEL

I12, I18, P36

\* Corresponding author. E-mail: ratilla@utb.cz

## 1. INTRODUCTION

Obesity remains a major public health problem in Europe (Janssen et al. 2020; Marques et al. 2018), spawning cardiovascular disease, osteoarthritis, mental illness and life-threatening diseases like type 2 diabetes and cancer (Dixon 2010). Among EU member states, the Czech Republic recorded the highest adult obesity rate at 19% in 2019, and it is forecast to reach 35% by 2030 (MZČR 2019; OECD – European Observatory on Health Systems and Policies 2021). Landovská (2021) substantiates the severity of obesity in the country as its estimated social costs amounted to 1.5 billion euros in 2018 alone. The incidence of the COVID-19 pandemic further stressed the importance of responding to the obesity problem as it is linked to higher morbidity and mortality (Popkin et al. 2020).

Counteracting the obesity epidemic becomes even more challenging with the economic growth and increasing urbanization in many areas across the globe. People increasingly adopt sedentary lifestyles and transition diets favoring high-calorie and processed food (Hruby – Hu 2015). External cues in the food service domain are likewise becoming more salient to consumers. The increased availability, accessibility, and palatability of calorie-dense food engender psychological signals that hamper consumers' ability to regulate food intake (Bilman et al. 2017). In addition, away-from-home consumption has increased, and frequent visits to fast food restaurants have led to poor diet quality and increased obesity risk among adult consumers (Larson et al. 2011).

In the Czech Republic, more than 50% of adult consumers (i.e. those older than 20 years) are overweight and obese (World Health Organization 2013). They fall behind the recommended daily intake of fruit and vegetables and exceed the recommended intake of high-sugar or sweetened beverages (OECD – European Observatory on Health Systems and Policies 2021). Lean et al. (2006) suggest that obesity cases can be mitigated by encouraging people to consume healthy food and perform adequate physical activity. Enforcing health-promoting policies in communities, schools, and worksites could also strengthen individual-level initiatives toward obesity prevention (Johnson et al. 2006). However, for health-promoting interventions to be effective, there is a need to delve deeper into consumers' psychology regarding healthy lifestyle adoption. Previous studies argue that healthy lifestyle adoption precisely related to the choice or intake of healthy food is driven by various motivations (Marty et al. 2021; Steptoe et al. 1995; Sun 2008). Steptoe et al. (1995), through their food choice questionnaire (FCQ), conceived nine motives influencing food choice: health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, and ethical concern.

Nevertheless, knowledge remains limited regarding Czech consumers' motivations to adopt healthy diets following the COVID-19 pandemic. Consumer behavior studies on healthy diet adoption still largely represent western developed countries (Wang – Scrimgeour 2021). Moreover, the literature pays little regard to modeling the food choice motives as antecedents of healthy dietary behaviors (Ahmad et al. 2020; Dowd – Burke 2013; Sun 2008). Some applications of the food choice concept include consumers' consumption of organic food (Honkanen et al. 2006), traditional food (Pieniak et al. 2009), genetically modified food (Chen 2011), ethnic food (Ahmad et al. 2020), and sustainable food (Verain et al. 2021). Scholars argue that more validation studies are required to better understand the influence of food choice motives on consumer behavior outcomes regarding food consumption (Ahmad et al. 2020; Sun 2008). Furthermore, Verain et al. (2022) emphasize the need to conduct context-specific studies as the motives' relative importance on food choice exhibits high contextual variability. Socio-



demographic differences (such as pertaining to age, income, education, family background, etc.; [Konttinen et al. 2021](#); [Vorage et al. 2020](#)) and cultural differences ([Honkanen – Frewer 2009](#)) variously affect motives on food choice.

Therefore, to address the previously mentioned research gaps, this work anchors on the concept of food choice motives ([Step toe et al. 1995](#)) and examines their influence on behavioral intentions among university students in the Czech Republic to adopt a healthy diet following the COVID-19 pandemic. To date, no studies have explicitly looked into Czech university students' motives for adopting healthy diets. University students constitute a significant part of the adult population in the Czech Republic, experiencing high overweight and obesity cases ([OECD – European Observatory on Health Systems and Policies 2021](#)). Prior studies have reported that university students are exposed to unhealthy lifestyles, hence the prevalence of overweight and obesity cases ([Peltzer et al. 2014](#); [Telleria-Aramburu – Arroyo-Izaga 2022](#)). Meanwhile, higher education institutions are important avenues for promoting healthy eating behaviors ([Sepúlveda et al. 2007](#)); hence, investigating university students' healthy diet adoption behavior is imperative in designing effective health-promoting interventions.

By employing the food choice questionnaire (FCQ), this study measures nine core food choice motives and examines what motives influence healthy diet adoption intentions. Theoretically, the study uncovers the mechanisms of food choice motives impacting healthy diet adoption intentions from a new contextual perspective on university students in the Czech Republic. Practically, the study provides insights into what actions to pursue to induce relevant motivations that effectively steer individuals toward a healthier lifestyle and consequently halt the ballooning incidence of obesity in the country.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

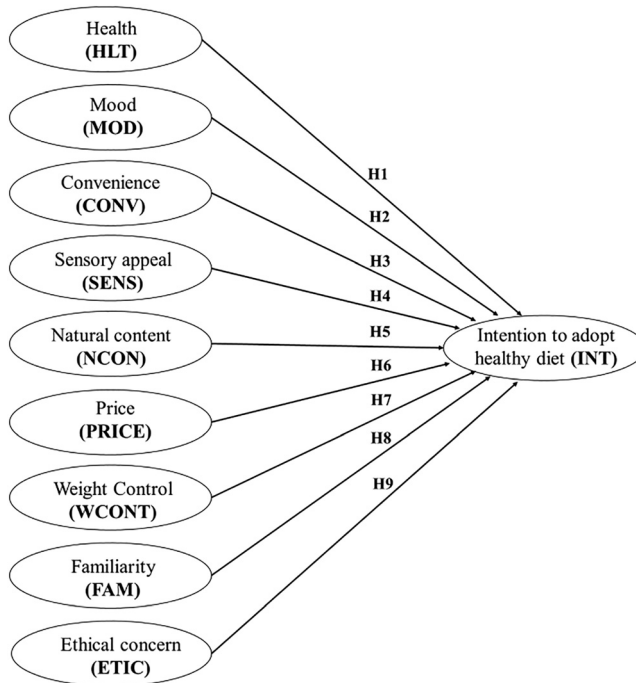
### 2.1. The concept of food choice motives

The pioneering work by [Step toe et al. \(1995\)](#) has developed a multidimensional measure of motivational factors influencing people's dietary choices, commonly known as the food choice questionnaire (FCQ). They elucidated a conceptual understanding of nine health and non-health motives steering food selection. These include health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, and ethical concern. Since then, several scholars have tested the robustness of the FCQ and explored relevant motives underlying people's food consumption. Consumer psychology maintains that motivation is essential for performing a behavior ([de Ridder 2012](#)). Hence, the concept of food choice motives has been linked to other theories (e.g., the theory of planned behavior), developing alternative frameworks that better explain diverse contexts related to food consumption ([Ahmad et al. 2020](#); [Dowd – Burke 2013](#); [Sun 2008](#)). In this study, food choice motives were modeled as direct antecedents of intentions among Czech university students to adopt a healthy diet ([Fig. 1](#)).

### 2.2. Hypotheses development

**2.2.1. Health and healthy diet adoption intentions.** Health motives relate to people's concerns about improving or maintaining overall health, and they shape decisions toward consuming health-promoting food ([Glanz et al. 1998](#); [Step toe et al. 1995](#)). [Sun \(2008\)](#) stresses





**Fig. 1.** The research model.

Source: authors

that an individual manifesting concern over developing diet-related diseases activates health motivations which subsequently drive healthy eating behavior. Previous studies reported similar findings indicating the importance of health motives in decisions related to the consumption of sustainably sourced food (Dowd – Burke 2013), traditional food (Almli et al. 2011; Pieniak et al. 2009), and functional food (Žeželj et al. 2012), and practicing a healthy diet in general (Michaelidou et al. 2012; Pearcey – Zhan 2018; Piggford et al. 2008). However, it is argued that health concerns among young adults are still less; thus, health-driven food consumption can be dismissed (Ahmad et al. 2020; Honkanen – Frewer 2009). With these opposing findings in the literature, the current study postulates the following:

H1 Health motives positively influence intentions to adopt a healthy diet

**2.2.2. Mood and healthy diet adoption intentions.** People’s mood influences the type of food they consume (Leigh Gibson 2006). Extant evidence suggests that a stressful or negative emotional state induces unhealthy food consumption behavior, denoted as “emotional eating” (Evers et al. 2010; Sproesser et al. 2013; Taut et al. 2012). Meanwhile, AlAmmar et al. (2020) expounded that the mood and food intake have a corresponsive relationship. Mood influences food choice, and food intake affects mood modulation. Adequate consumption of health-promoting food (e.g., vegetables, fruit, protein, and nuts), water, and low-caffeine beverages promote a positive mood (AlAmmar et al. 2020). Arab et al. (2019) also reported that vegetable-based, glycemic load-based,



ketogenic, and paleo diets could promote better mood states. Although the intake of unhealthy food affects positive mood modulation as well, it is less influential than consuming healthy food (AlAmmar et al. 2020; Wagner et al. 2014). As the literature emphasizes the corresponsive effect between mood and food, the study addresses the role of mood as an antecedent of healthy diet adoption. Therefore, the study postulates the following:

H2 The mood motive positively influences intentions to adopt a healthy diet

**2.2.3. Convenience and healthy diet adoption intentions.** The convenience motive relates to the time, effort, and skills required to prepare and consume certain food (Piggford et al. 2008; Steptoe et al. 1995). The extant literature shows the negative link between convenience and healthy dietary behavior (Glanz et al. 1998; Michaelidou et al. 2012; Verstraeten et al. 2014). It is perceived that healthy food is challenging to access and takes longer time and effort to prepare. Hence, time-constrained individuals (e.g., students and employees) often favor away-from-home consumption, such as in fast food restaurants (Monsivais et al. 2014; Piggford et al. 2008). During the COVID-19 pandemic, convenience has also been found to be influential in people's consumption of convenience food as working parents, with their added responsibilities at home, strive to be productive while working remotely (Shen et al. 2020). Hence, the study posits that:

H3 The convenience motive negatively influences intentions to adopt a healthy diet

**2.2.4. Sensory appeal and healthy diet adoption intentions.** Sensory appeal influences consumers' decisions about what and when to eat and drink (Pearcey – Zhan 2018). Unsurprisingly, consumers favor pleasant and tasty food (Papies et al. 2021). The more attractive a dish is in terms of appearance, taste, and aroma, the more inclined a consumer is to consider the dish superior and to eventually select it. Past studies have largely considered the impact of sensory appeal on dietary choices among consumers with diverse demographics, except for people with food neophobia (Allès et al. 2017; Pearcey – Zhan 2018). Given these, the following pertinent hypothesis is formulated:

H4 The sensory appeal motive positively influences intentions to adopt a healthy diet

**2.2.5. Natural content and healthy diet adoption intentions.** Nowadays, several food products are being processed and added with several additives to enrich and lengthen their shelf life. Román et al. (2017) argue that food naturalness remains a significant factor in food choice, especially among consumers who are deeply concerned about health. These consumers often desire natural, fresh, and less processed food. On the contrary, a few studies, such as by Schlup and Brunner (2018) and Jaeger et al. (2021), dismiss the relevance of the natural content motive in food neophobic consumers' food intake decisions. This study posits the following:

H5 The natural content motive positively influences intentions to adopt a healthy diet

**2.2.6. Price and healthy diet adoption intentions.** Price is a major factor influencing food selection and consumption decisions (Choe – Kim 2019). Food consumption decisions are closely associated with consumers' budget; hence, food price becomes a vital factor in deciding



the quantity and quality of the food purchased. High-quality food products, sometimes healthy ones, generally have higher market prices. One way or another, this potentially dissuades consumers from purchasing healthy food products (Daly et al. 2021; Van Doorn – Verhoef 2015). Meanwhile, another study revealed that customers are willing to pay higher prices for healthy food, thereby challenging the idea of the price motive being influential in healthy food choices (de-Magistris – Gracia 2016). With these findings, this study postulates the following:

H6 The price motive negatively influences intentions to adopt a healthy diet

**2.2.7. Weight control and healthy diet adoption intentions.** Consumers who are deeply concerned about their weight tend to follow healthy diets (Glanz et al. 1998; Vainio et al. 2016). People tend to suppress eating behavior to lose weight (de Ridder 2012), attain a good physique, achieve sound health, and recover from illnesses (Burnette et al. 2020). However, more recent evidence from the work by Pearcey and Zhan (2018) indicates the influence of weight control factors on students' choice of healthy food for reasons related to their hectic lifestyle, availability, accessibility, and the price of healthy food in schools. Meanwhile, Vorage et al. (2020) argue that the weight control motivation only influences consumers' attraction to functional food (i.e., with added health benefits) but not actual consumption. Despite these opposing views, this work posits the following:

H7 The weight control motive positively influences intentions to adopt a healthy diet

**2.2.8. Familiarity and healthy diet adoption intentions.** The familiarity motive refers to consumers' proximate cognizance of food products, and consuming these familiar foods engenders more satisfying feelings over having novel alternatives (Steptoe et al. 1995). Knaapila et al. (2015) reveal that the aversion to consuming novel foods is associated with a decreased consumption of vegetables and contributes to a decline in the quality of dietary choices. However, Pearcey and Zhan (2018) assert that the effect of food familiarity may differ depending on demographic groups. The authors observe that younger generations are more open and curious about new foods, thus dismissing the effect of food familiarity. With these findings, the following is postulated:

H8 The familiarity motive negatively influences intentions to adopt a healthy diet

**2.2.9. Ethical concerns and healthy diet adoption intentions.** Western diets have been associated with sustainability issues relating to high environmental load, animal-welfare issues, and social justice (Jaeger et al. 2021; van de Kamp et al. 2018). Some evidence shows that consumers nowadays have developed greater sustainability and ethical concerns about the food they purchase, as evidenced by the availability of ethical food products in the market (De Canio – Martinelli 2021). Sun (2008) claims that the ethical concern in parallel with health consciousness is one of the most important motives contributing to healthy eating, especially among women (Piggford et al. 2008). However, the review by Jaeger et al. (2021) argues that ethical concern as a food choice motive is the least relevant among other motives conceptualized by Steptoe et al. (1995). With the contrasting findings in the literature, this work hypothesizes the following:

H9 The ethical concern motive positively influences intentions to adopt a healthy diet



### 3. METHODOLOGY

#### 3.1. Questionnaire design

The survey questionnaire was formulated online using Google Forms. It consisted of two major sections: i) assessment of the motives and intentions to adopt a healthy diet, and ii) demographic characteristics of the respondents. The food choice questionnaire (FCQ) developed by [Step toe et al. \(1995\)](#) was adapted to measure constructs of food choice motives. A four-point scale (1 = not at all important; 4 = very important) was utilized to assess the importance of motives' measurement items. The study also adapted the question items from [Ahmad et al. \(2020\)](#) to measure behavioral intentions, gauged using a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). The survey questionnaire was translated into the Czech language and underwent a back-translation procedure to ensure the translation quality of the measurement items. Two professors fluent in Czech and English were closely involved in this procedure. Moreover, before its final distribution, the survey questionnaire was pre-tested on ten Czech undergraduate students to check for its comprehensibility and identify errors and other issues.

#### 3.2. Sampling and data collection procedure

The study recruited a convenience sample from a pool of university undergraduate students attending economics and management courses. Its use in the study remains apt as the sample still captures young adult consumers (18–26 years old). This population is facing a high prevalence of obesity, has a higher chance of developing diet-related diseases, and is more likely to gain weight than other age groups ([Berger 2018](#); [Munt et al. 2017](#); [Poobalan – Aucott 2016](#)).

The online survey link was sent to 250 students, but only 180 completed the survey. After data screening, only 161 responses were found to be valid, which is still sufficient for studies employing structural equation modeling analysis. [Hair Jr et al. \(2017: 24\)](#) argue that the minimum sample size should be “10 times the largest number of structural paths directed at a particular construct in the structural model”, so a sample of more than 90 was required in the current study. Concurrently, power sample analysis was performed using G\*Power (version 3.1.9.7), and it revealed a minimum sample size of 114, at  $f^2$  (medium effect) = 0.15, power = 0.80, and  $\alpha = 0.05$ . Therefore, the study's sample size was justified and could be used for further analysis. [Table 1](#) presents the demographic characteristics of the respondents.

Furthermore, it should be noted that the sample characteristics may not be sufficient to represent the population of interest in the study (i.e., the young adult population) and may limit the generalizability of the findings. However, using the study sample may still be relevant in investigations in a theory-testing stage ([Ashraf – Merunka 2017](#)), similar to the nature of the current study.

#### 3.3. Data analysis

Partial least squares structural equation modeling (PLS-SEM) was employed to assess the variable relationships specified in this study's research model. PLS-SEM has demonstrated robust explorative and predictive capacity for structural models with low sample sizes and non-normal data ([Hair Jr et al. 2017](#)). Therefore, given the sample size, data characteristics, and nature of the current study, PLS-SEM is the most suitable for data analysis. The procedure explicitly followed the guidelines of [Hair Jr et al. \(2017\)](#), developed for measurement and structural model assessment.



**Table 1.** Demographic characteristics of the respondents ( $n = 161$ )

Variable	Frequency ( $n = 161$ )	Percentage
<b>Gender</b>		
Male	57	35.4
Female	104	64.6
<b>Age (in years)</b>		
18–25	118	73.29%
26–35	27	16.77%
36–45	16	9.94%
<b>Employment Status</b>		
Unemployed	75	46.6
Self-employed	22	13.7
Employed	64	39.8
<b>Income Level</b>		
up to CZK 20,000	32	19.9
CZK 20,000–CZK 40,000	60	37.3
40 0001 CZK and more	69	42.9
<b>Marital Status</b>		
Single	98	60.9
Married, registered partnership	23	14.3
Living with partner, not married	40	24.8

Source: authors' field survey, June–December 2021.

## 4. RESULTS

### 4.1. Common method bias assessment

Podsakoff et al. (2003) stress the urgent need to pay attention to method biases in behavioral studies, especially when predictor and criterion variables are derived from the same source, sample, and other context-specific influences surrounding the measures used in the research. The authors assert that method biases give rise to measurement errors, affecting the validity of inference regarding parameter relationships. Harman's single-factor test was performed to diagnose this issue in the study. The result shows that the first factor extracted has only a 17.29% cumulative variance, lower than the normal 50% threshold value (Leong et al. 2021). This suggests that common method bias is not a serious concern in the current study. Meanwhile, procedural remedies such as anonymizing responses and assuring the clarity of question items were carried out to keep common method bias at a minimum (Kock et al. 2021).





## 4.2. Measurement model assessment

Reliability and validity tests were carried out to assess the measurement model. Measurement items that were not loading sufficiently ( $<0.7$ ) were initially discarded before subsequent analysis (Hair Jr et al. 2017). Reliability indicators such as Cronbach's alpha (CA) and composite reliability scores were examined (Table 2). The results show that constructs exhibit sufficient reliability as Cronbach's alpha (CA) values are above 0.7 (Hair Jr et al. 2017; Taber 2018; van Griethuijsen et al. 2015). The composite reliability (CR) scores of the constructs also seem satisfactory, exceeding the acceptable value of 0.7 (Hair Jr et al. 2017). Moreover, convergent validity was ascertained as the average variance extracted (AVE) values for the constructs exceeded 0.5 (Hair Jr et al. 2017).

Similarly, the measurement model exhibits sufficient discriminant validity, satisfying the conditions of the Fornell–Larcker criterion and heterotrait-monotrait ratio correlations (HTMT) criterion. As shown in Table 3, the square root AVE (in bold) is greater than the values of inter-construct correlations (Fornell – Larcker 1981). Meanwhile, HTMT values (in italics) are less than 0.80–0.90 (Hair Jr et al. 2017), dismissing potential discriminant validity issues. Given that all reliability and validity requisites were satisfied, the structural model assessment followed.

## 4.3. Structural model assessment and hypotheses testing

In the assessment of the structural model, the coefficient of determination ( $R^2$ ) and the predictive relevance ( $Q^2$ ) scores were evaluated (Table 4). The  $R^2$  for healthy diet adoption intentions was 0.232, suggesting that food choice motives (i.e., health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, and ethical concern) describe 23.2% of the variance intention. Meanwhile, the model demonstrated sufficient predictive relevance as Stone–Geisser's  $Q^2$  scores and  $Q^2_{\text{Predict}}$  scores were greater than 0 (Ahmad et al. 2020; Allah Pitchay et al. 2021; Hair Jr et al. 2017).

A non-parametric bootstrapping procedure with 5,000 subsamples was performed to test the hypotheses in the study. The results reveal that at a 5% significance level, only the motives relating to natural content (NCON;  $\beta = 0.229$ ,  $t = 2.691$ ,  $P > 0.01$ ) and weight control (WCONT;  $\beta = 0.217$ ,  $t = 2.840$ ,  $P > 0.01$ ) have a positive and significant influence on intention (INT) to adopt a healthy diet. Hence, H5 and H7 are accepted. Moreover, there was no sufficient evidence to confirm the relationship between the motives of health (HLT), mood (MOD), convenience (CONV), sensory appeal (SENS), price (PRICE), familiarity (FAM), and ethical concern (ETIC) in shaping healthy diet adoption intentions (INT). Therefore, H1, H2, H3, H4, H6, H8, and H9 are not supported.

## 5. DISCUSSION

The study adopts the concept of nine food choice motivations by Steptoe et al. (1995) to explain intentions to adopt a healthy diet (i.e., eating healthy food) among adult consumers in the Czech Republic. The results reveal that natural content has a positive and significant influence on adoption intentions toward a healthy diet. This corroborates previous claims suggesting that concerns about foods' natural content induce the selection of relatively healthy food (Chen 2007;



**Table 2.** A summary of the results of the construct reliability and validity assessments

Construct	English Translation	Loadings	CA	CR	AVE
<b>Intention to adopt a healthy diet (INT)</b>			0.556	0.9032	0.7019
INT1	I intend to consume healthy foods regularly.	0.850			
INT2	I expect to eat healthy foods in future.	0.872			
INT3	I am willing to consume healthy foods if they are available.	d			
INT4	I plan to eat healthy foods in future.	0.914			
<b>Food Choice Motives</b>					
<i>Please indicate the importance of the following statements toward adopting a healthy diet or eating healthy food.</i>					
<b>Health (HLT)</b>			0.839	0.883	0.603
HLT1	Contains a lot of vitamins and minerals	d			
HLT2	Is nutritious	0.787			
HLT3	Is high in protein	d			
HLT4	Is good for my skin, teeth, hair, nails, etc.	0.702			
HLT5	Is high in fibre and roughage	0.729			
HLT6	Keeps me healthy	0.846			
<b>Mood (MOD)</b>			0.795	0.866	0.686
MOD1	Helps me cope with stress	d			
MOD2	Makes me feel good	d			
MOD3	Cheers me up	0.884			
MOD4	Keeps me awake/alert	d			
MOD5	Helps me relax	0.881			
MOD6	Helps me to cope with life	0.707			
<b>Convenience (CONV)</b>			0.702	0.868	0.767
CONV1	Is easy to prepare	d			
CONV2	Can be cooked very simply	d			
CONV3	Takes no time to prepare	d			
CONV4	Can be bought in shops close to where I live or work	0.836			
CONV5	Is easily available in shops and supermarkets	0.913			

(continued)



Table 2. Continued

Construct	English Translation	Loadings	CA	CR	AVE
<b>Sensory Appeal (SENS)</b>			0.702	0.823	0.610
SENS1	Smells nice	0.780			
SENS2	Looks nice	d			
SENS3	Has a pleasant texture	0.700			
SENS4	Tastes good	0.856			
<b>Natural Content (NCON)</b>			0.870	0.919	0.791
NCON1	Contains no additives	0.879			
NCON2	Contains natural ingredients	0.895			
NCON3	Contains no artificial ingredients	0.894			
<b>Price (PRICE)</b>			1.000	1.000	1.000
PRICE1	Is not expensive	1			
PRICE2	Is cheap	d			
PRICE3	Is good value for money	d			
<b>Weight Control (WCONT)</b>			0.876	0.918	0.790
WCONT1	Is low in calories	0.896			
WCONT2	Helps me control my weight	0.912			
WCONT3	Is low in fat	0.857			
<b>Familiarity (FAM)</b>			0.472	0.787	0.650
FAM1	Is what I usually eat	d			
FAM2	Is familiar	0.874			
FAM3	Is similar to the food I ate when I was a child	0.733			
<b>Ethical concern (ETIC)</b>			0.598	0.822	0.700
ETIC1	Comes from countries I approve of politically	0.737			
ETIC2	Has the country of origin clearly marked	d			
ETIC3	Is packaged in an environmentally friendly way	0.925			

Note: d - dropped because factor loading below 0.7; CA - Cronbach's alpha; CR - composite reliability; AVE - average variance extracted.

Source: authors' processing from SMART-PLS 3 Version.

Phan – Chambers 2016). Its relevance may be attributed to consumers' perception that healthy food intake allows them to benefit from natural contents and associated health-promoting benefits (Korzen et al. 2011; Saher 2006). Moreover, as access to information is now significantly



**Table 3.** Results of the discriminant validity assessment using the Fornell–Larcker criterion and HTMT ratios

	CONV	ETIC	FAM	HLT	INT	MOD	NCON	PRICE	SENS	WCONT
CONV	<b>0.876</b>	0.203	0.249	0.098	0.151	0.093	0.121	0.407	0.327	0.144
ETIC	0.143	<b>0.837</b>	0.071	0.521	0.274	0.361	0.553	0.202	0.212	0.412
FAM	0.138	0.026	<b>0.806</b>	0.185	0.158	0.231	0.227	0.113	0.220	0.189
HLT	0.065	0.382	0.091	<b>0.777</b>	0.362	0.270	0.511	0.146	0.208	0.394
INT	0.121	0.212	−0.103	0.327	<b>0.896</b>	0.136	0.402	0.074	0.135	0.338
MOD	0.006	0.255	0.148	0.205	0.135	<b>0.828</b>	0.185	0.068	0.329	0.205
NCON	0.044	0.420	−0.088	0.447	0.359	0.163	<b>0.889</b>	0.145	0.114	0.253
PRICE	0.341	0.173	0.078	0.142	0.071	0.050	0.136	<b>1.000</b>	0.162	0.209
SENS	0.223	0.081	0.137	0.141	0.118	0.242	0.082	0.151	<b>0.781</b>	0.147
WCONT	0.115	0.287	0.050	0.343	0.326	0.188	0.240	0.192	0.113	<b>0.889</b>

Note: square root of AVE (diagonal in bold), HTMT ratios (in italics).

Source: authors' processing from SMART-PLS 3 Version.

improved, consumers have become more conscious about the food they choose to eat, especially regarding food nutrition and safety (Gagic et al. 2014).

Meanwhile, weight control's positive and significant effect on healthy dietary adoption intentions confirms claims from previous studies (Glanz et al. 1998; Pearcey – Zhan 2018; Vainio et al. 2016). Evidence shows that individuals who desire to lose weight demonstrate high self-monitoring behaviors (Nothwehr – Peterson 2005). They are also likely to consume more fruits, vegetables, and low-fat food (Lowry et al. 2000), and adhere to weight loss diets (Cruwys et al. 2020; Forestell 2018). Consumers may have also placed high importance on weight management and desired to improve diet quality, especially as physical activity was significantly reduced during the COVID-19 pandemic (Ingram et al. 2020; Marty et al. 2021). As most physical classes were discontinued at the height of the pandemic, students at home could better adhere to healthy dietary patterns and weight loss endeavors.

Surprisingly, health motives did not significantly influence healthy dietary adoption intentions. This finding contends several studies asserting that health reasons drive healthy food intake (Glanz et al. 1998; Pearcey – Zhan 2018; Piggford et al. 2008; Sun 2008; Wardle et al. 2004; Žeželj et al. 2012). Prior studies highlight that younger individuals take health-related concerns lightly (Ahmad et al. 2020; Honkanen – Frewer 2009). Hence, following this contention, the study sample may have perceived that they were still healthy. Thus, proneness to obesity and other diseases could be dismissed, and there was no need for them to adhere to a strictly healthy diet at once.

Furthermore, the postulated relationships of mood, sensory appeal, convenience, price, familiarity, and ethical concern motives toward healthy dietary adoption intentions were not found to be significant in the study. As for mood, although prior evidence shows that the intake of healthy foods is a good mood booster (Arab et al. 2019), its effects may only be felt in the long



**Table 4.** A summary of the results of the structural model assessment

Direct Effects	$\beta$	t-value	P-value	Interval Estimate		Remark	
				2.5%	97.5%		
HLT → INT	0.156*	1.923	0.055	−0.01	0.31	H1+	Not Supported
MOD → INT	0.039	0.491	0.623	−0.22	0.16	H2+	Not Supported
CONV → INT	0.104	1.359	0.174	−0.08	0.24	H3−	Not Supported
SENS → INT	0.048	0.472	0.637	−0.21	0.20	H4+	Not Supported
NCON → INT	0.229***	2.691	0.007	−0.07	0.40	H5+	<b>Supported</b>
PRICE → INT	−0.057	0.707	0.479	−0.21	0.11	H6−	Not Supported
WCONT → INT	0.217***	2.840	0.005	0.07	0.37	H7+	<b>Supported</b>
FAM → INT	−0.131	1.388	0.165	−0.26	0.16	H8−	Not Supported
ETIC → INT	−0.023	0.310	0.757	−0.17	0.12	H9+	Not Supported
<b>Assessment</b>		<b>INT</b>					
$R^2$		0.232					
Adjusted $R^2$		0.187					
Stone–Geisser's $Q^2$		0.150					
$Q^2$ -Predict		0.106					

Notes: \*\*\* significant at 0.01; \*\* significant at 0.05; \* significant at 0.10.

Source: authors' processing from SMART-PLS 3 Version.

term (AlAmmar et al. 2020). The study's sample may have perceived this similarly; thus, their efforts to alter mood favored short-term solutions such as consuming sugary and fatty foods (Macht 2008). Meanwhile, the sensory appeal of healthy food (i.e., fruit and vegetables) is not commonly the top priority and thus may not always correspond to consumption (Appleton et al. 2019; Arce et al. 2021). Agovi et al. (2022) argue that some vegetables exhibit negative sensory properties (e.g., bitterness), which are detrimental to their acceptability among consumers.

Prior studies report a negative relationship between convenience and healthy dietary behavior (Michaelidou et al. 2012; Piggford et al. 2008; Verstraeten et al. 2014). As fast-paced lifestyles have become today's norm, more people are consuming fast and convenient food (Jacob et al. 2020; Liu – Chen 2021; Popkin et al. 2012). However, the result of the current study suggests differently. Convenience is not perceived as a negating factor to eating healthy food. For contextual reasons, the study sample may have found healthy food accessible and available in the country. Additionally, circumstances induced by the pandemic potentially gave consumers time to prepare healthy meals. Furthermore, high food prices may be perceived as detrimental to healthy food consumption decisions, but the study's results reveal that they are of lesser importance to healthy dieting intentions. The sample may still be willing to pay premium prices for healthy food (de-Magistris – Gracia 2016), as the expected benefits outweigh the cost.



Meal options associated with healthy diets may not be as familiar as other alternatives highly promoted in today's increasingly obesogenic food environment. Despite this, the study dismisses their negative effect on consumers' desire to adopt a healthy diet plausibly due to their openness to consume novel food (Pearcey – Zhan 2018). Young adults are more open to new experiences and consume high servings of vegetables (Conner et al. 2017; Rodrigues et al. 2019). Finally, ethical concerns surrounding healthy food (e.g., fruit/vegetables) may have been unclear to our sample, thereby dismissing their effect on intentions to adopt a healthy diet. The stringent regulations and the upholding of high standards of food product safety and quality within European member states may have imbued trust among EU consumers and correspondingly reduced ethical concerns.

## 6. CONCLUSION

### 6.1. Theoretical contribution

The study offers the literature insights on the food choice motives (Steptoe et al. 1995) influencing healthy dietary adoption intentions. From a new contextual perspective considering Czech university students, the results reveal that food choice motives can explain healthy dietary adoption intentions. Notably, only the natural content and weight control motives demonstrated a positive and significant influence on healthy dietary adoption intentions. Health status perception, preference for mood-boosting solutions, sensory acceptability, access to or availability of healthy food, willingness to pay premium prices for healthy food, openness to consume healthy food, vague understanding of food-related ethical concerns, and the COVID-19 pandemic may have induced influences around the lesser importance of other food choice motivations. Although more validation studies are required to support the claims robustly, the current study offers initial evidence that the importance of food motives in explaining food selection and consumption-related behavior varies contextually. Finally, the study provides a relevant and timely understanding of Czech university students' psychology and behavior regarding healthy eating, which to date remains limited.

### 6.2. Practical contribution

The study offers important inputs for crafting health-promoting strategies and interventions to curb the immense obesity figures in the Czech Republic. Based on the study results and the confirmation by further studies, it is crucial to highlight food products' natural content and corresponding health benefits. Goal-activation pursuits for weight loss (e.g., goal priming) can also be followed to encourage people to eat healthy. Most importantly, the government can support these initiatives by developing policies that require or incentivize food businesses' marketing and promote healthy food products. Furthermore, healthcare and educational institutions can further strengthen health education campaigns so that it reinforces peoples' motivation to adopt a healthy diet and overall healthy lifestyle.

### 6.3. Limitations and future research directions

This study is not without limitations. First, caution is advised in generalizing the results due to the characteristics of the study sample, composed mainly of university students in the Czech



Republic. Although obesity is prevalent in this demographic group, health knowledge and perceptions may vary in other generational cohorts (e.g., Gen X and Boomers), potentially engendering biases on perceptions, motivations, and healthy dietary adoption intentions. Future studies can examine intergroup differences in the impact mechanisms of food choice motives on healthy diet adoption. Moreover, future studies should validate the research model and utilize a more representative sample of the targeted population. Other variables such as age, gender, body mass index, income, education, the size of human settlements, country, and culture should also be scrutinized. Second, the study's use of the term "healthy" diet/food may have had different connotations for our respondents (e.g., intake of low-calorie food, intake of vegetables/fruits, minimal intake of sugary food, etc.). Future studies can resolve this issue by explicitly defining what is healthy and what is not. Lastly, the study has only captured behavioral intentions and not actual behavior. Although behavioral intention and actual behavior are closely related, consumer behavior scholars argue that gauging actual behavior is more appropriate. Therefore, future studies can assess actual healthy adoption among consumers and its antecedents, especially following the COVID-19 pandemic.

## DECLARATION OF INTERESTS

The authors declare that they have no known competing financial interests or personal relationships that could have influenced the work reported in this paper.

## ACKNOWLEDGMENT

The authors are grateful to the project OP RDE Junior Grants of Tomas Bata University in Zlín, Reg. No. CZ.02.2.69/0.0/0.0/19\_073/0016941 for financial support to carry out this research.

## REFERENCES

- Agovi, H. – Pierguidi, L. – Dinnella, C. – Viggiano, M. P. – Monteleone, E. – Spinelli, S. (2022): Attentional Bias for Vegetables is Negatively Associated with Acceptability and is Related to Sensory Properties. *Food Quality and Preference* 96(5): 104429.
- Ahmad, M. S. – Jamil, A. – Latif, K. F. – Ramayah, T. – Ai Leen, J. Y. – Memon, M. – Ullah, R. (2020): Using Food Choice Motives to Model Pakistani Ethnic Food Purchase Intention Among Tourists. *British Food Journal* 122(6): 1731–1753.
- AlAmmar, W. A. – Albeesh, F. H. – Khattab, R. Y. (2020): Food and Mood: The Corresponsive Effect. *Current Nutrition Reports* 9(3): 296–308.
- Allah Pitchay, A. – Ganesan, Y. – Zulkifli, N. S. – Khaliq, A. (2021): Determinants of Customers' Intention to Use Online Food Delivery Application through Smartphone in Malaysia. *British Food Journal* 124(3): 732–753.
- Allès, B. – Péneau, S. – Kesse-Guyot, E. – Baudry, J. – Hercberg, S. – Méjean, C. (2017): Food Choice Motives Including Sustainability during Purchasing are Associated with a Healthy Dietary Pattern in French Adults. *Nutrition Journal* 16(1): 1–13.



- Almli, V. L. – Verbeke, W. – Vanhonacker, F. – Næs, T. – Hersleth, M. (2011): General Image and Attribute Perceptions of Traditional Food in Six European Countries. *Food Quality and Preference* 22(1): 129–138.
- Appleton, K. M. – Dinnella, C. – Spinelli, S. – Morizet, D. – Saulais, L. – Hemingway, A. – Monteleone, E. – Depezay, L. – Perez-Cueto, F. J. A. – Hartwell, H. (2019): Liking and Consumption of Vegetables with More Appealing and Less Appealing Sensory Properties: Associations with Attitudes, Food Neophobia and Food Choice Motivations in European Adolescents. *Food Quality and Preference* 75(1): 179–186.
- Arab, A. – Mehrabani, S. – Moradi, S. – Amani, R. (2019): The Association between Diet and Mood: A Systematic Review of Current Literature. *Psychiatry Research* 271(1): 428–437.
- Arce, S. – Gugole Ottaviano, F. – Sosa, M. (2021): Sensory Acceptability, Consumption Frequency, and Factors Associated with Consumption of Fruits and Vegetables Among Low and Medium Income Consumers in Argentina. *Journal of Sensory Studies* 36(2): e12632.
- Ashraf, R. – Merunka, D. (2017): The Use and Misuse of Student Samples: An Empirical Investigation of European Marketing Research. *Journal of Consumer Behaviour* 16(4): 295–308.
- Berger, N. A. (2018): Young Adult Cancer: Influence of the Obesity Pandemic. *Obesity* 26(4): 641–650.
- Bilman, E. – van Kleef, E. – van Trijp, H. (2017): External Cues Challenging the Internal Appetite Control System – Overview and Practical Implications. *Critical Reviews in Food Science and Nutrition* 57(13): 2825–2834.
- Burnette, C. B. – Davies, A. E. – Boutté, R. L. – Mazzeo, S. E. (2020): What are You Losing it for? Weight Suppression Motivations in Undergraduates. *Eating and Weight Disorders* 25(2): 497–508.
- Chen, M. F. (2007): Consumer Attitudes and Purchase Intentions in Relation to Organic Foods in Taiwan: Moderating Effects of Food-Related Personality Traits. *Food Quality and Preference* 18(7): 1008–1021.
- Chen, M. F. (2011): The Gender Gap in Food Choice Motives as Determinants of Consumers' Attitudes toward GM Foods in Taiwan. *British Food Journal* 113(6): 697–709.
- Choe, J. Y. – Kim, S. (2019): Development and Validation of a Multidimensional Tourist's Local Food Consumption Value (TLFCV) Scale. *International Journal of Hospitality Management* 77(1): 245–259.
- Conner, T. S. – Thompson, L. M. – Knight, R. L. – Flett, J. A. M. – Richardson, A. C. – Brookie, K. L. (2017): The Role of Personality Traits in Young Adult Fruit and Vegetable Consumption. *Frontiers in Psychology* 8(1): 119.
- Cruwys, T. – Norwood, R. – Chachay, V. S. – Ntontis, E. – Sheffield, J. (2020): “An Important Part of Who I Am”: The Predictors of Dietary Adherence Among Weight-Loss, Vegetarian, Vegan, Paleo, and Gluten-free Dietary Groups. *Nutrients* 12(4): 970.
- Daly, A. N. – O'Sullivan, E. J. – Kearney, J. M. (2021): Considerations for Health and Food Choice in Adolescents. *Proceedings of the Nutrition Society* 81(1): 75–86.
- de-Magistris, T. – Gracia, A. (2016): Consumers' Willingness to Pay for Light, Organic and PDO Cheese: An Experimental Auction Approach. *British Food Journal* 118(3): 560–571.
- De Canio, F. – Martinelli, E. (2021): EU Quality Label vs Organic Food Products: A Multigroup Structural Equation Modeling to Assess Consumers' Intention to Buy in Light of Sustainable Motives. *Food Research International* 139(4): 109846.
- de Ridder, D. (2012): Themed Issue: Plans, Norms, Motivation, and Cheating a Little – the Curious Case of Healthy Eating. *Psychology and Health* 27(Suppl. 2): 1–6.
- Dixon, J. B. (2010): The Effect of Obesity on Health Outcomes. *Molecular and Cellular Endocrinology* 316(2): 104–108.
- Dowd, K. – Burke, K. J. (2013): The Influence of Ethical Values and Food Choice Motivations on Intentions to Purchase Sustainably Sourced Foods. *Appetite* 69(1): 137–144.





- Evers, C. – Marijn Stok, F. – de Ridder, D. T. D. (2010): Feeding Your Feelings: Emotion Regulation Strategies and Emotional Eating. *Personality & Social Psychology Bulletin*, 36(6): 792–804.
- Forestell, C. A. (2018): Flexitarian Diet and Weight Control: Healthy or Risky Eating Behavior? *Frontiers in Nutrition* 5(1):1–6.
- Fornell, C. – Larcker, D. F. (1981): Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research* 18(1): 39.
- Gagic, S. – Jovicic, A. – Tesanovic, D. – Kalenjuk, B. (2014): Motives for Food Choice Among Serbian Consumers. *Ekonomika Poljoprivrede* 61(1): 41–51.
- Glanz, K. – Basil, M. – Maibach, E. – Goldberg, J. – Snyder, D. (1998): Why Americans Eat what They Do: Taste, Nutrition, Cost, Convenience, and Weight Control Concerns as Influences on Food Consumption. *Journal of the American Dietetic Association* 98(10): 1118–1126.
- Hair Jr. J. – Hult, G. T. – Ringle, C. – Sarstedt, M. (2017): *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed.) London: Sage Publications.
- Honkanen, P. – Frewer, L. (2009): Russian Consumers' Motives for Food Choice. *Appetite* 52(2): 363–371.
- Honkanen, P. – Verplanken, B. – Olsen, S. O. (2006): Ethical Values and Motives Driving Organic Food Choice. *Journal of Consumer Behaviour* 5(1): 420–430.
- Hruby, A. – Hu, F. B. (2015): The Epidemiology of Obesity: A Big Picture. *Pharmacoeconomics* 33(7): 673–689.
- Ingram, J. – Maciejewski, G. – Hand, C. J. (2020): Changes in Diet, Sleep, and Physical Activity are Associated with Differences in Negative Mood during COVID-19 Lockdown. *Frontiers in Psychology* 11(1): 588604.
- Jacob, L. – Stubbs, B. – Firth, J. – Smith, L. – Haro, J. M. – Koyanagi, A. (2020): Fast Food Consumption and Suicide Attempts Among Adolescents Aged 12–15 Years from 32 Countries. *Journal of Affective Disorders* 266(1): 63–70.
- Jaeger, S. R. – Roigard, C. M. – Hunter, D. C. – Worch, T. (2021): Importance of Food Choice Motives Vary with Degree of Food Neophobia. *Appetite* 159(1), 105056.
- Janssen, F. – Bardoutsos, A. – Vidra, N. (2020): Obesity Prevalence in the Long-Term Future in 18 European Countries and in the USA. *Obesity Facts* 13(5): 514–527.
- Johnson, D. B. – Gerstein, D. E. – Evans, A. E. – Woodward-Lopez, G. (2006): Preventing Obesity: A Life Cycle Perspective. *Journal of the American Dietetic Association* 106(1): 97–102.
- Knaapila, A. J. – Sandell, M. A. – Vaarno, J. – Hoppu, U. – Puolimatka, T. – Kaljonen, A. – Lagström, H. (2015): Food Neophobia Associates with Lower Dietary Quality and Higher BMI in Finnish Adults. *Public Health Nutrition* 18(12): 2161–2171.
- Kock, F. – Berbekova, A. – Assaf, A. G. (2021): Understanding and Managing the Threat of Common Method Bias: Detection, Prevention and Control. *Tourism Management* 86(1): 104330.
- Konttinen, H. – Halmesvaara, O. – Fogelholm, M. – Saarijärvi, H. – Nevalainen, J. – Erkkola, M. (2021): Sociodemographic Differences in Motives for Food Selection: Results from the LoCard Cross-Sectional Survey. *International Journal of Behavioral Nutrition and Physical Activity* 18(1): 71.
- Korzen, S. – Sandøe, P. – Lassen, J. (2011): Pure Meat – Public Perceptions of Risk Reduction Strategies in Meat Production. *Food Policy* 36(2): 158–165.
- Landovská, P. (2021): Social Costs of Obesity in the Czech Republic (IES Working Papers 33/2021). <https://ies.fsv.cuni.cz/default/file/download/id/34035>, accessed: 07/12/2022.
- Larson, N. – Neumark-Sztainer, D. – Laska, M. N. – Story, M. (2011): Young Adults and Eating Away from Home: Associations with Dietary Intake Patterns and Weight Status Differ by Choice of Restaurant. *Journal of the American Dietetic Association* 111(11): 1696–1703.
- Lean, M. – Lara, J. – Hill, J. O. (2006): Strategies for Preventing Obesity. *BMJ* 333(1): 959–962.



- Leigh Gibson, E. (2006): Emotional Influences on Food Choice: Sensory, Physiological and Psychological Pathways. *Physiology and Behavior* 89(1): 53–61.
- Leong, C. M. – Tan, K. L. – Puah, C. H. – Chong, S. M. (2021): Predicting Mobile Network Operators Users M-Payment Intention. *European Business Review* 33(1): 104–126.
- Liu, C. – Chen, J. (2021): Consuming Takeaway Food: Convenience, Waste and Chinese Young People's Urban Lifestyle. *Journal of Consumer Culture* 21(4): 848–866.
- Lowry, R. – Galuska, D. A. – Fulton, J. E. – Wechsler, H. – Kann, L. – Collins, J. L. (2000): Physical Activity, Food Choice, and Weight Management Goals and Practices Among U.S. College Students. *American Journal of Preventive Medicine* 18(1): 18–27.
- Macht, M. (2008): How Emotions Affect Eating: A Five-Way Model. *Appetite* 50(1): 1–11.
- Marques, A. – Peralta, M. – Naia, A. – Loureiro, N. – De Matos, M. G. (2018): Prevalence of Adult Overweight and Obesity in 20 European Countries, 2014. *European Journal of Public Health* 28(2): 295–300.
- Marty, L. – de Lauzon-Guillain, B. – Labesse, M. – Nicklaus, S. (2021): Food Choice Motives and the Nutritional Quality of Diet during the COVID-19 Lockdown in France. *Appetite* 157(1): 105005.
- Michaelidou, N. – Christodoulides, G. – Torova, K. (2012): Determinants of Healthy Eating: A Cross-National Study on Motives and Barriers. *International Journal of Consumer Studies* 36(1): 17–22.
- Monsivais, P. – Aggarwal, A. – Drewnowski, A. (2014): Time Spent on Home Food Preparation and Indicators of Healthy Eating. *American Journal of Preventive Medicine* 47(6): 796–802.
- Munt, A. E. – Partridge, S. R. – Allman-Farinelli, M. (2017): The Barriers and Enablers of Healthy Eating Among Young Adults: A Missing Piece of the Obesity Puzzle: A Scoping Review. *Obesity Reviews* 18(1): 1–17.
- MZČR. (2019): Strategický rámec rozvoje péče o zdraví v České republice do roku 2030, Zdraví 2030 [Strategic Framework for Health Care Development in the Czech Republic by 2030]. <https://zdravi2030.mzcr.cz/zdravi-2030-analyticka-studie-stav-obyvatelstva.pdf>, accessed: 06/12/2022.
- Nothwehr, F. – Peterson, N. A. (2005): Healthy Eating and Exercise: Strategies for Weight Management in the Rural Midwest. *Health Education and Behavior* 32(2): 253–263.
- OECD – European Observatory on Health Systems and Policies. (2021): *Czechia: Country Health Profile 2021, State of Health in the EU*. [https://ec.europa.eu/health/document/download/428a9396-3434-4dd5-adb7-a4a9abca33da\\_en](https://ec.europa.eu/health/document/download/428a9396-3434-4dd5-adb7-a4a9abca33da_en), accessed: 06/12/2022.
- Papies, E. K. – Claassen, M. A. – Rusz, D. – Best, M. (2021): Flavors of Desire: Cognitive Representations of Appetitive Stimuli and Their Motivational Implications. *Journal of Experimental Psychology: General* 151(8): 1919–1941.
- Pearcey, S. M. – Zhan, G. Q. (2018): A Comparative Study of American and Chinese College Students' Motives for Food Choice. *Appetite* 123(1): 325–333.
- Peltzer, K. – Pengpid, S. – Alafia Samuels, T. – Özcan, N. K. – Mantilla, C. – Rahamefy, O. H. – Wong, M. L. – Gasparishvili, A. (2014): Prevalence of Overweight/obesity and its Associated Factors Among University Students from 22 Countries. *International Journal of Environmental Research and Public Health* 11(7): 7425–7441.
- Phan, U. T. X. – Chambers, E. (2016): Motivations for Choosing Various Food Groups Based on Individual Foods. *Appetite* 105(1): 204–211.
- Pieniak, Z. – Verbeke, W. – Vanhonacker, F. – Guerrero, L. – Hersleth, M. (2009): Association between Traditional Food Consumption and Motives for Food Choice in Six European Countries. *Appetite* 53(1): 101–108.



- Piggford, T. – Raciti, M. – Harker, D. – Harker, M. (2008): Young Adults' Food Motives: An Australian Social Marketing Perspective. *Young Consumers* 9(1): 17–28.
- Podsakoff, P. M. – MacKenzie, S. B. – Lee, J. Y. – Podsakoff, N. P. (2003): Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology* 88(5): 879–903.
- Poobalan, A. – Aucott, L. (2016): Obesity Among Young Adults in Developing Countries: A Systematic Overview. *Current Obesity Reports* 5(1): 2–13.
- Popkin, B. M. – Adair, L. S. – Ng, S. W. (2012): Global Nutrition Transition and the Pandemic of Obesity in Developing Countries. *Nutrition Reviews* 70(1): 3–21.
- Popkin, B. M. – Du, S. – Green, W. D. – Beck, M. A. – Algaith, T. – Herbst, C. H. – Alsukait, R. F. – Alluhidan, M. – Alazemi, N. – Shekar, M. (2020): Individuals with Obesity and COVID-19: A Global Perspective on the Epidemiology and Biological Relationships. *Obesity Reviews* 21(11): 1–17.
- Rodrigues, V. M. – Fernandes, A. C. – Bernardo, G. L. – Hartwell, H. – Martinelli, S. S. – Uggioni, P. L. – Cavalli, S. B. – Pacheco, R. (2019): Vegetable Consumption and Factors Associated with Increased Intake Among College Students: A Scoping Review of the Last 10 Years. *Nutrients* 11(7): 1634.
- Román, S. – Sánchez-Siles, L. M. – Siegrist, M. (2017): The Importance of Food Naturalness for Consumers: Results of a Systematic Review. *Trends in Food Science and Technology* 67(1): 44–57.
- Saher, M. (2006). *Everyday Beliefs about Food and Health*. Doctoral dissertation. University of Helsinki. <https://helda.helsinki.fi/handle/10138/19745>, accessed 06/12/2022.
- Schlup, Y. – Thomas, B. (2018): Prospects for Insects as Food in Switzerland: A Tobit Regression. *Food Quality and Preference* 64(1): 37–46.
- Sepúlveda, A. R. – Carrobes, J. A. – Gandarillas, A. – Poveda, J. – Pastor, V. (2007): Prevention Program for Disturbed Eating and Body Dissatisfaction in a Spanish University Population: A Pilot Study. *Body Image* 4(3): 317–328.
- Shen, W. – Long, L. M. – Shih, C. H. – Ludy, M. J. (2020): A Humanities-Based Explanation for the Effects of Emotional Eating and Perceived Stress on Food Choice Motives during the COVID-19 Pandemic. *Nutrients* 12(9): 1–18.
- Sproesser, G. – Schupp, H. T. – Renner, B. (2013): The Bright Side of Stress-Induced Eating: Eating More when Stressed but Less when Pleased. *Psychological Science* 25(1): 58–65.
- Stephens, A. – Pollard, T. M. – Wardle, J. (1995): Development of a Measure of the Motives Underlying the Selection of Food: The Food Choice Questionnaire. *Appetite* 25(1): 267–284.
- Sun, Y. H. C. (2008): Health Concern, Food Choice Motives, and Attitudes toward Healthy Eating: The Mediating Role of Food Choice Motives. *Appetite* 51(1): 42–49.
- Taber, K. S. (2018): The Use of Cronbach's Alpha when Developing and Reporting Research Instruments in Science Education. *Research in Science Education* 48(6): 1273–1296.
- Taut, D. – Renner, B. – Baban, A. (2012): Reappraise the Situation but Express Your Emotions: Impact of Emotion Regulation Strategies on Ad Libitum Food Intake. *Frontiers in Psychology* 3(1): 59.
- Telleria-Aramburu, N. – Arroyo-Izaga, M. (2022): Risk Factors of Overweight/obesity-Related Lifestyles in University Students: Results from the EHU12/24 Study. *British Journal of Nutrition* 127(6): 914–926.
- Vainio, A. – Niva, M. – Jallinoja, P. – Latvala, T. (2016): From Beef to Beans: Eating Motives and the Replacement of Animal Proteins with Plant Proteins among Finnish Consumers. *Appetite* 106(1): 92–100.
- van de Kamp, M. E. – Seves, S. M. – Temme, E. H. M. (2018): Reducing GHG Emissions while Improving Diet Quality: Exploring the Potential of Reduced Meat, Cheese and Alcoholic and Soft Drinks Consumption at Specific Moments during the Day. *BMC Public Health* 18(1): 1–13.



- Van Doorn, J. – Verhoef, P. C. (2015): Drivers of and Barriers to Organic Purchase Behavior. *Journal of Retailing* 91(3): 436–450.
- van Griethuisen, R. A. L. F. – van Eijck, M. W. – Haste, H. – den Brok, P. J. – Skinner, N. C. – Mansour, N. – Gencer, A. S. – Boujaoude, S. (2015): Global Patterns in Students' Views of Science and Interest in Science. *Research in Science Education* 45(4): 581–603.
- Verain, M. C. D. – van den Puttelaar, J. – Zandstra, E. H. – Lion, R. – de Vogel-van den Bosch, J. – Hoonhout, H. C. M. – Onwezen, M. C. (2022): Variability of Food Choice Motives: Two Dutch Studies Showing Variation across Meal Moment, Location and Social Context. *Food Quality and Preference* 98(1): 104505.
- Verain, M. C. D. – Snoek, H. M. – Onwezen, M. C. – Reinders, M. J. – Bouwman, E. P. (2021): Sustainable Food Choice Motives: The Development and Cross-Country Validation of the Sustainable Food Choice Questionnaire (SUS-FCQ). *Food Quality and Preference*, 93(1): 104267.
- Verstraeten, R. – Van Royen, K. – Ochoa-Avilés, A. – Penafiel, D. – Holdsworth, M. – Donoso, S. – Maes, L. – Kolsteren, P. (2014): A Conceptual Framework for Healthy Eating Behavior in Ecuadorian Adolescents: A Qualitative Study. *PLoS One* 9(1): e87183.
- Vorage, L. – Wiseman, N. – Graca, J. – Harris, N. (2020): The Association of Demographic Characteristics and Food Choice Motives with the Consumption of Functional Foods in Emerging Adults. *Nutrients* 12(9): 2582.
- Wagner, H. S. – Ahlstrom, B. – Redden, J. P. – Vickers, Z. – Mann, T. (2014): The Myth of Comfort Food. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association* 33(12): 1552–1557.
- Wang, O. – Scrimgeour, F. (2021): Willingness to Adopt a More Plant-Based Diet in China and New Zealand: Applying the Theories of Planned Behaviour, Meat Attachment and Food Choice Motives. *Food Quality and Preference* 93(1): 104294.
- Wardle, J. – Haase, A. M. – Steptoe, A. – Nillapun, M. – Jonwtiwes, K. – Bellisle, F. (2004): Gender Differences in Food Choice: The Contribution of Health Beliefs and Dieting. *Annals of Behavioral Medicine* 27(2): 107–116.
- World Health Organization. (2013): *Nutrition, Physical Activity and Obesity: Czech Republic*. [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0005/243293/Czech-Republic-WHO-Country-Profile.pdf](https://www.euro.who.int/__data/assets/pdf_file/0005/243293/Czech-Republic-WHO-Country-Profile.pdf), accessed: 11/08/2021.
- Žeželj, I. – Milošević, J. – Stojanović, Ž. – Ognjanov, G. (2012): The Motivational and Informational Basis of Attitudes toward Foods with Health Claims. *Appetite* 59(3): 960–967.

---

**Open Access.** This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium for non-commercial purposes, provided the original author and source are credited, a link to the CC License is provided, and changes – if any – are indicated.

