

# IMPROVING FOOD LITERACY AS AN EFFECTIVE METHOD OF HEALTH PROMOTION

Keczeli V<sup>1</sup>, Gubicskóné Kisbenedek A<sup>2</sup>, Makai A<sup>3</sup>, Elmer D<sup>4</sup>, Boncz I<sup>5</sup>, Pakai A<sup>6</sup>, Verzár Z<sup>1</sup>

1. University of Pécs, Doctoral School of Health Sciences, Pécs, Hungary

2. University of Pécs, Institute of Human Nutrition and Dietetics, Pécs, Hungary,

3. University of Pécs, Faculty of Health Sciences, Institute of Physiotherapy and Sport Sciences, Pécs, Hungary,

4. University of Pécs, Faculty of Health Sciences, Pécs, Hungary,

5. University of Pécs, Faculty of Health Sciences, Institute of Health Insurance, Pécs, Hungary,

6. University of Pécs, Faculty of Health Sciences, Institute of Emergency Care, Pedagogy of Health and Nursing Sciences, Pécs, Hungary

## OBJECTIVES

Today's poor dietary and lifestyle habits pose a serious public health problem. Food literacy means not only knowledge about food, but also critical thinking about information and its everyday use in food choices. The aim of study was to assess the level of food literacy and health literacy among university students. In addition, to explore the relationship between health literacy and food literacy and determine whether increasing the level of food literacy could increase motivation to adopt a healthy lifestyle.

## METHODS

The quantitative, online, cross-sectional study was conducted between January 10, 2024, and July 10, 2024. Our target group consisted of active students at the University of Pécs (N=1325). We measured health literacy levels using the Brief Health Literacy Screening Tool (BRIEF) and food literacy levels using the Short Food Literacy Questionnaire (SFLQ). Asked own questions about sociodemographic, purchasing, and nutritional habits, and monitored motivations and barriers using the Motivators and Barriers of Health Behaviors Model.

## RESULTS

58.57% of the students (n=776) have a moderate level of food literacy, which is significantly influenced by gender, income, field of study, and childhood educational attitudes (p=0.003; 0.004; 0.001; 0.001). 11.32% of students (n=150) have an adequate level of health literacy, which is influenced by age, field of study, and work schedule (p=0.005; 0.012; 0.0012). The level of food literacy is significantly related to the level of health literacy (p=0.001), and in addition, students with higher food literacy were significantly more motivated by the fact that healthy lifestyle makes them energetic (p=0.001).

## CONCLUSIONS

The research has confirmed that, in addition to health literacy, increasing food literacy can be an effective tool for health promotion. However, in order to increase food literacy, it is recommended that educational materials be developed that reflect the needs of today's society and the differences between individual groups.

FOOD LITERACY LEVEL CATEGORY	FREQUENCY (N)	RELATIVE FREQUENCY (%)
LOW FOOD LITERACY (0–25 POINTS)	96	7.25%
AVERAGE FOOD LITERACY (26–39 POINTS)	776	58.57%
HIGH LEVEL OF FOOD LITERACY (40–52 POINTS)	453	34.19%

Table 1.  
Food literacy level of the university students (N=1325)

	P<0.001	LEVEL OF FOOD LITERACY					
		LOW (0-25 POINTS)		INTERMEDIATE (26-39 POINTS)		HIGH (40-52 POINTS)	
		N	%	N	%	N	%
LEVEL OF HEALTH LITERACY	INADEQUATE (4-12 POINTS)	58	10.56%	338	61.57%	153	27.87%
	MARGINAL (13-16 POINTS)	30	4.79%	362	57.83%	234	37.38%
	ADEQUATE (17-20 POINTS)	8	5.33%	76	50.67%	66	44.00%

Table 2.  
The relationship between university students' health literacy and food literacy (N=1325)

SOCIODEMO-GRAPHIC FACTORS		LEVEL OF FOOD LITERACY						P-VALUE
		LOW LEVEL OF FOOD LITERACY (7-25 POINTS)		AVERAGE LEVEL OF FOOD LITERACY (26-39 POINTS)		HIGH LEVEL OF FOOD LITERACY (40-52 POINTS)		
		N	%	N	%	N	%	
		GENDER	MALE	33	10.38%	193	60.69%	
FEMALE	63		6.26%	583	57.89%	361	35.85%	
INCOME	WELL BELOW AVERAGE, BELOW AVERAGE INCOME	30	11.95%	148	58.96%	73	29.08%	0.004*
	AVERAGE INCOME	40	7.63%	306	58.4%	178	33.97%	
	WELL ABOVE AVERAGE, ABOVE AVERAGE INCOME	26	4.73%	322	58.55%	202	36.73%	
FIELD OF SCIENCE	MEDICAL AND HEALTH SCIENCES	32	3.82%	443	52.93%	362	43.25%	0.001*
	NON MEDICAL AND HEALTH SCIENCES	64	13.11%	333	68.24%	91	18.65%	

Table 3.  
Correlations between university students' food literacy levels and sociodemographic factors (N=1325)

SOCIODEMO-GRAPHIC FACTORS		LEVEL OF HEALTH LITERACY						P-VALUE
		INADEQUATE (4-12 POINTS)		MARGINAL (13-16 POINTS)		ADEQUATE (17-20 POINTS)		
		N	%	N	%	N	%	
		GENDER	MALE	136	42.77%	137	43.08%	
FEMALE	413		41.01%	489	48.56%	105	10.43%	
AGE	UNDER 25	459	44.74%	461	44.93%	106	10.33%	<0.005*
	25 YEARS OF AGE AND ABOVE	90	30.1%	165	55.18%	44	14.72%	
FIELD OF SCI-ENCE	MEDICAL AND HEALTH SCIENCES	321	38.35%	417	49.82%	99	11.83%	0.012*
	NON MEDICAL AND HEALTH SCIENCES	228	46.72%	209	42.83%	51	10.45%	
SCHEDULE	FULL TIME	470	43.08%	495	45.37%	126	11.55%	0.012*
	PART TIME	79	33.76%	131	55.98%	24	10.26%	

Table 4.  
Correlations between university students' health literacy levels and sociodemographic factors (N=1325)



### Corresponding author:

Prof. Dr. Annamária PAKAI, MSc, RN, PhD,  
University of Pécs, Faculty of Health Sciences, Hungary  
Institute for Emergency Care, Pedagogy of Health and Nursing Sciences  
E-mail: annamaria.pakai@etk.pte.hu

