

EXPLORING CULTURAL INFLUENCES ON DIET: A CASE STUDY OF INTERNATIONAL STUDENTS IN HUNGARY

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Abstract

The University of Nyíregyháza's international students' eating habits were investigated, with a particular emphasis on vegetarianism and its connection to lifestyle. A questionnaire survey was administered in January and February of 2025 to 61 participants, or approximately one-fifth of all overseas students. From the results, it is observed that over half of the students (54%) did not adopt any particular diet. When compared, weight-control diets (18%) and fasting intermittently (16%) had the highest frequency of eating behaviors. Another percentage of students regarded themselves as vegetarian (7%) or flexitarian (3%).

Meat-eating continued to dominate, with just over half of the interviewers (48%) reporting that they ate meat several times a day, and just under one-third (31%) reporting that they ate it once a day. Self-notification for dietary choice was associated with health, religion, pressure from relatives and neighbors, and appearance. In the case of meat consumption, taste and the perception of meat as a natural and nutritionally essential food were the most decisive factors. There was no significant relationship in the statistics between the type of diet and the gender or nationality of the interviewers.

Keywords: vegetarianism; weight-control diet; intermittent fasting; international students; University of Nyíregyháza

Introduction

A variety of factors, such as cultural background, personal preferences, and the culinary environment of the host country, influence the dietary choices made by international students (Cahill & Stavrianeas, 2013; Alakaam et al., 2015). While traditional Hungarian food continues to be popular, Garai-Fodor and Popovics (2022) noted that there is an increasing need for more varied and healthful nutritional options. At the same time, many Hungarian food service settings still fail to adequately support vegetarian and religiously oriented diets. International students tend to place more value on the quality of their food choices and consider themselves to be more health-conscious than their Hungarian counterparts, according to Czine et al. (2020). Cultural preferences, especially the items people are accustomed to from their native countries, frequently have a significant influence on their choices. Németh et al. (2019) analyzed the eating behaviors of international students in Hungary from their sustainability perspective. They indicated that students frequently indicated healthier cuisine use in their host countries, less use of meat, and more use of green food. Despite that, they also struggled with accessing fresh and seasonal products, such as fish, green vegetables, and fruit. Environmental concerns, such as water use and global warming, however, did not consciously influence their choice of foods.

Religious and cultural conventions also dictate eating styles. Pork is off-limits in Islamic culture and must be cooked to halal specifications (Nakyinsige et al., 2012). Beef is avoided in Hindu practices due to the holiest status of the cow (Simoons, 2019). Conversely, there are typically fewer dietary restrictions associated with Christianity; however, some followers abstain from

meat at particular times, including Lent (Necula & Mann, 2019). Vegetarianism is common in many parts of India, both as a deeply ingrained cultural practice and for religious reasons (Filippini & Srinivasan, 2019). These variations could make it hard for international students to find staple meats in their host nation that align with their own faith or cultural conventions.

Dietary changes are adopted for various reasons, including health, lifestyle, and taste preferences (Gilbert & Khokhar, 2008; Szakály et al., 2012; Jayasinghe et al., 2025). Most individuals do not adhere to diets and do eat without limitation (Johnson et al., 2012). There is another group that utilizes weight-control diets, which have gained increasing adherents among individuals seeking to manage their body weight or body image (Daly et al., 2022). Such diets entail planned eating, smaller serving sizes, or monitoring of consumed calories (McComb & Mills, 2021). There is also rising popularity for intermittent fasting, when individuals limit eating to particular times of day or skip their meal(s) for specific days (Duregon et al., 2021). This is believed to make most such individuals healthier or more focused (Mattson, 2023). Vegetarian diets, even when deeply rooted in culture, are also adopted in present-day times for ethical motives, such as caring for more peaceful, nature-oriented, and sentient life, or for motives related to always staying green and healthy (Hargreaves et al., 2021; North et al., 2021).

Even while more people are becoming aware of vegetarian and flexitarian diets, they are still not very widespread in Hungary. Csabai et al. (2022) report that 1% of people identify as vegan, 2% as vegetarian, 9% as flexitarian, and 2% as pescatarian. According to follow-up research, those with more education—especially those with academic backgrounds—are more likely to follow such diets (Csabai et al., 2022, 2023). Research on vegetarian philosophy (Csabai et al., 2022) indicates that people who adhere to more stringent meatless diets are more likely to reject the notion that humans are superior to animals, indicating that ideological ideas also seem to have an impact on dietary choices. This indicates that beyond health and environmental considerations, ethical worldviews also play an important role in shaping dietary decisions within Hungarian society.

Materials and methods

This quantitative study set out to investigate the eating patterns of University of Nyíregyháza students enrolled in degree programs taught in English, with a focus on vegetarianism and its relationship to lifestyle decisions. The results are based on a questionnaire survey that was completed by 61 people during January and February of 2025.

The target population consisted of approximately 300 students from bachelor's and master's programs taught in English, meaning the sample represented roughly 20% of this group. Data collection was carried out both online (via Google Forms) and in paper-based format. The questionnaire included 20 items comprising open-ended, semi-open, and closed questions. Coding and statistical analysis were conducted using SPSS and Excel software.

In addition to descriptive statistics, methods suitable for examining associations between categorical variables were applied. In particular, we used Cramer's V coefficient (Makszim, 2023; Makszim, 2022). This measure reflects a stochastic, or probabilistic, relationship between two qualitative or categorical characteristics. To test the independence of the variables, we applied the Chi-square (χ^2) test (Makszim, 2011).

$$\chi^2 = \sum_{i=1}^n \sum_{j=1}^m \frac{(f_{ij} - f_{ij}^*)^2}{f_{ij}^*}$$

Here n denotes the number of categories of one variable, and m the number of categories of the other.

f_{ij} : observed frequency

f_{ij}^* : expected frequency

If the independence test indicates that the two variables are not independent, it is then relevant to examine the strength of their association, for which Cramer's V coefficient is used (Hunyadi–Mundruczó–Vita, 2001).

$$C^2 = \frac{\chi^2}{N \min\{(r-1)(c-1)\}}$$

and

$$C = \sqrt{C^2}$$

All statistical analyses were performed at a 5% significance level.

Results

The questionnaire survey was completed by 61 students enrolled in English-language degree courses at the University of Nyíregyháza, the majority of whom were international students. Of the respondents, 25 were women (41%) and 36 were men (59%). Most participants were between 18 and 25 years of age (Figure 1), which reflects the full-time nature of English-medium courses. The average age was 24 years, with a standard deviation of 5 years, indicating a relatively young and homogeneous population.

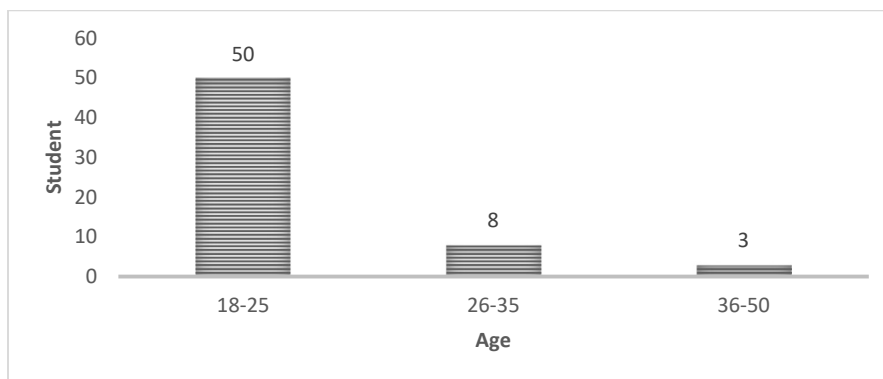


Figure 1. Age structure of respondents enrolled in English-language courses

Monthly income levels showed a much wider variation (Figure 2). The mean income was 182,000 HUF, the median 108,000 HUF, with a standard deviation of 19,000 HUF. The relative standard deviation of 104% and a Youle–Pearson coefficient above 1 ($A_y = 1.17$) both confirm the strongly unequal distribution of income. This suggests that financial background may substantially influence food-related decisions, even though no statistically significant relationship was detected between income and diet type in this sample.

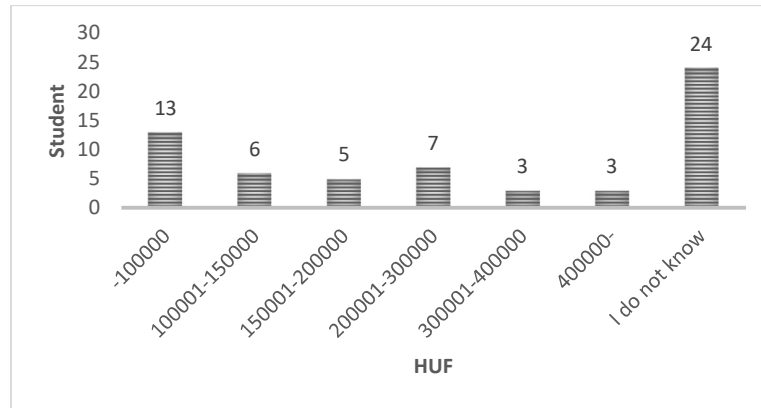


Figure 2. Monthly income distribution of respondents

The diversity of the international student body was also reflected in country of origin (Figure 3). Respondents came from 25 different countries, with the largest groups from Ukraine, Nigeria, Hungary, and China. This cultural heterogeneity provides an important background to interpreting dietary patterns.

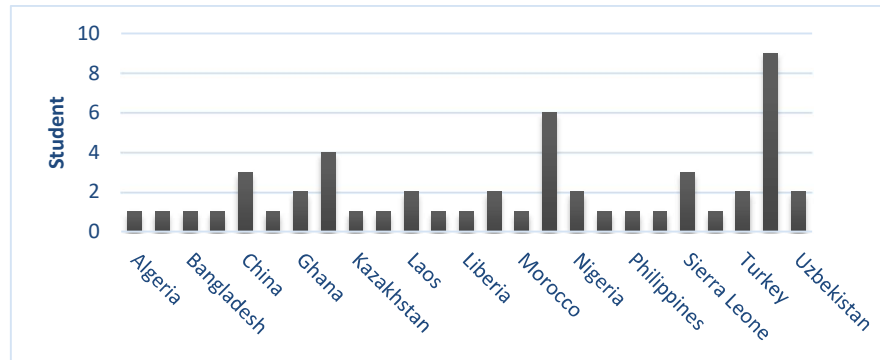


Figure 3. Distribution of students by country of origin

As shown in Figure 4, the majority of students (54%) reported not following any particular diet. Among those who did, the most frequent dietary practices were weight-control diets (18%) and intermittent fasting (16%). A smaller proportion identified as vegetarians (7%) and flexitarians (3%). In addition, several respondents indicated following protein-rich diets, most likely connected to the popularity of bodybuilding and gym-based exercise among young adults. These choices generally reflect lifestyle- and appearance-related motivations. By contrast, a distinct group of students followed health-related diets such as lactose-free, gluten-free, or diabetic diets. In these cases, the motivation was not voluntary but rather a medical necessity, based on food intolerance or chronic illness. This differentiates them fundamentally from diets chosen for weight management, fitness, or ethical considerations.

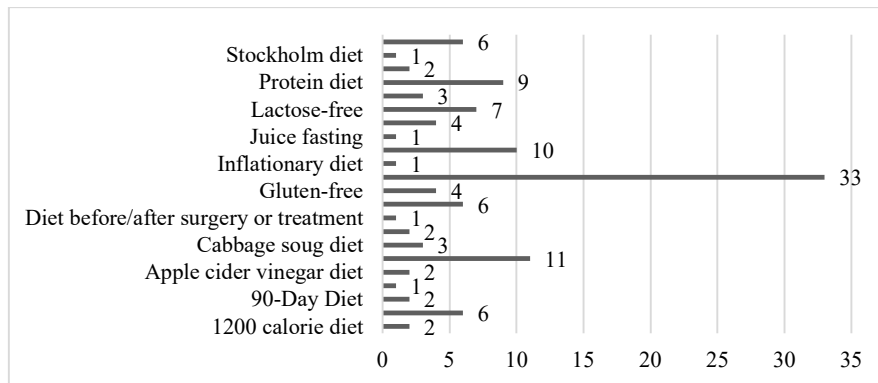


Figure 4. Distribution of respondents by diet type

32% of respondents identified health as the primary motivation for choosing a diet, followed by religion (8%), family/community influence, and appearance. This supports past research showing that dietary choices are typically influenced by a mix of social, cultural, and health factors rather than just one.

Meat consumption patterns confirmed the continuing dominance of animal-based diets among the students. Almost half (48%) reported eating meat several times a day, and one third (31%) once a day. Smaller groups reported avoiding meat on certain days (11%), following a mainly plant-based but occasionally meat-inclusive diet (3%), or avoiding meat altogether while still consuming eggs or fish (3%). Beef, poultry, and fish were the most frequently consumed types of meat, while one third or more also consumed seafood, lamb, and pork. Only two respondents reported eating rabbit (Figure 5).

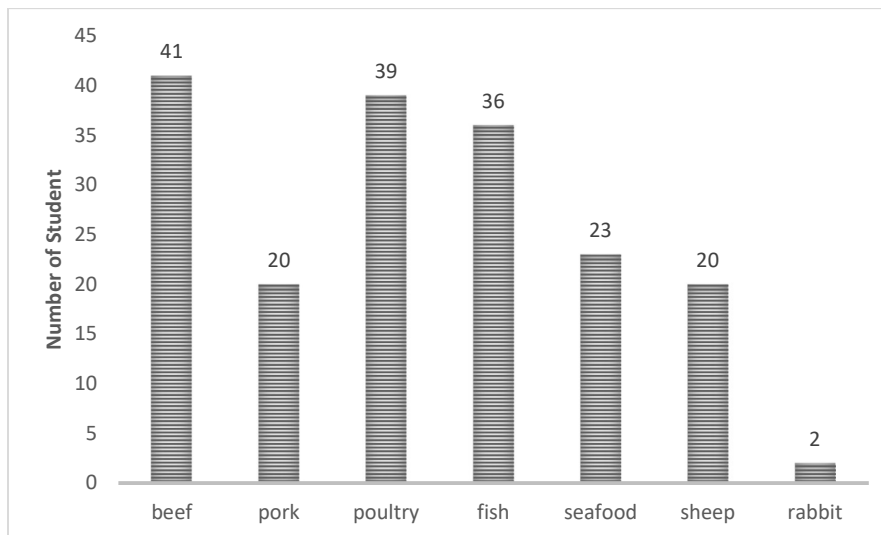


Figure 5. Most frequently consumed types of meat among respondents

The motivations for meat consumption were dominated by taste preferences and by the widespread perception of meat as a natural and necessary food source. Many respondents emphasized the importance of micronutrients, considering them essential for maintaining good health.

Conclusion

Our study provided insight into the dietary habits of students enrolled in English-taught programs at the University of Nyíregyháza, the majority of whom are international students. The results show that most respondents (54%) do not follow a specific diet, while the most frequent dietary practices included weight-control diets (18%) and intermittent fasting (16%). A smaller share identified as vegetarians (7%) or flexitarians (3%). Health, religion, family influence, and appearance were mentioned as reasons for choosing a particular diet, but no significant associations were found between diet choice and either gender or country of origin.

The analysis of meat consumption patterns revealed that meat remains a central element of students' diets. Nearly half of the respondents (48%) consumed meat several times a day, while about one third (31%) ate meat once a day. A smaller group (11%) avoided meat on certain days of the week, 3% followed a mainly plant-based but occasionally meat-eating diet (flexitarian), and only 3% reported not eating meat at all, although they consumed eggs or fish instead. The reasons for meat consumption were largely cultural and personal, with taste and the perception of meat as a natural and necessary food source being the most common explanations. Students also emphasized the importance of micronutrients such as iron, vitamin B12, and zinc, which they considered essential for maintaining health.

Income data showed considerable variability, highlighting the diverse financial circumstances of international students. Although such differences could potentially influence dietary choices, no statistically significant correlation was found between income level and diet type in this study.

The percentage of vegetarian students (7%) in the study is significantly higher than the Hungarian average found in the literature when compared to national statistics (Csabai et al., 2022), indicating that international students are more receptive to different dietary patterns. But the prevalence of daily meat consumption (a total of 79%) suggests that traditional dietary practices are still widely used.

All things considered, the results highlight the diverse range of food-related beliefs and practices among international students. Individual preferences and cultural background appear to have a greater impact on food decisions than do worldwide lifestyle trends. Future research examining the relationships between eating habits, health consciousness, and student lifestyles in global academic environments may find these insights to be a helpful starting point.

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