

Awareness of eating among college students for the health of future generations

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Abstract. *Background and aim:* The purpose of this study is to investigate the eating awareness levels of undergraduate university students. The sample for the study comprised of 400 volunteer students from various faculties at Bursa Uludağ University who were chosen at random. *Methods:* The Eating Awareness Scale-30 (EAS-30), which was adapted to Turkish by Köse et al. (2016) and analyzed for reliability-validity, was used as a data collection tool in the study. The study group's data; normality distribution, T-Test in pairwise comparisons, Anova analysis in three or more comparisons, and Pearson correlation comparison in cause-effect comparisons were all examined at the $p < .05$ and $p < .01$ significant level. *Results:* According to the study's findings, male students exhibit higher Eating Control ($p = .030$), Awareness ($p = .001$), Conscious Eating ($p = .001$), and lower Emotional Eating ($p = .001$). Female students' mean BMI values were found to be lower than male students' ($p = .001$). It was found that male students of the Faculty of Education had the highest Eating Control ($p = .047$) and the lowest mean BMI ($p = .022$) ($r = -0.149$; $p < .016$) were very strongly negatively related. *Conclusions:* All of the students in the research are neither overweight or obese and have a normal BMI. It is advised that kids in late adolescence receive eating awareness instruction, since awareness should be raised for a healthy generation.

Key words: nutritional surveys, eating behavior, awareness, students, adolescence

Introduction

Nutrition academics and practitioners have increasingly adopted the mindfulness paradigm to better understand and positively affect eating behavior. The definition of awareness is nonjudgmental sense acquired via focus (1). Mindfulness is a skill that can be acquired and has been related to a number of positive health outcomes, including reduced anxiety and chronic pain (2). Eating awareness is used in nutrition to define a nonjudgmental awareness of physical and emotional experiences when eating. Eating awareness is linked to an unexpected weight loss. This is most likely due to the fact that it draws one's attention to the amount of food that they consume on a regular basis (12). Mindfulness abilities differ from

meal planning, nutritional recordkeeping, and portion control. According to the literature, one of the most significant variables contributing to the failure of long-term weight management treatments is misinformed food intake (3,4).

When the advantage of mindfulness is known, the "Eating Awareness Scale" was designed to be a quantitative instrument (5). Köse et al. assessed the validity and reliability of this scale after translating it into Turkish (6). The EAS-30 sub-factors are classified into seven major categories. These are Disinhibition; (constraint, quantity and time control), Emotional eating; (emotional hunger, feeling good and eating for satisfaction), Eating control; (adjusting the eating speed, keeping control of the eating function), Focus; (focusing on the taste of the food itself, taking a break

from other activities and thoughts while consuming food), Eating discipline; (planning, preparation, balancing, possession, order, time), Awareness; (physical hunger-satiety awareness, calorie and nutritional value information, healthy nutrition information, habit awareness), Interference; It is defined as the ability to cope with sensory factors such as odor, sight, sound and distractions such as invitations, food variety or advertisements.

In the presented study was to investigate the healthy nutrition knowledge levels and status of undergraduate students at Bursa Uludağ University.

Materials and method

Study settings, time and sample selection

During the 2022-2023 academic year, 400 students from the Bursa Uludağ University Faculty of Agriculture, Faculty of Education, Faculty of Arts and Sciences, Faculty of Engineering, Faculty of Economics and Administrative Units, Health Sciences Faculty, and Sports Sciences Faculty were selected at random for this study. The Bursa Uludağ University Health Sciences Research and Publication Ethics Committee granted clearance (2022-08) for the study.

Data collection

The BMI (kg/m²) of each participant was determined and rated according to WHO standards (17). The research questionnaire consists of two sections. In the first section, participants' demographic information was collected, and in the second, Köse et al's Turkish adaptation of the Eating Awareness Scale (EAS) was administered. The scala consists of 30 items and a 5-point likert scale (1: never, 2: seldom, 3: sometimes, 4: often, 5: always). These are Disinhibition; (constraint, quantity and time control), Emotional eating; (emotional hunger, feeling good and eating for satisfaction), Eating control; (adjusting the eating speed, keeping control of the eating function), Focus; (focusing on the taste of the food itself, taking a break from other activities and thoughts while consuming food), Eating discipline; (planning, preparation,

balancing, possession, order, time), Awareness; (physical hunger-satiety awareness, calorie and nutritional value information, healthy nutrition information, habit awareness), Interference; It is defined as the ability to cope with sensory factors such as odor, sight, sound and distractions such as invitations, food variety or advertisements.

Statistical analysis

Data were analyzed by using the IBM SPSS Statistics version 25.0 software for Windows (IBM Corp, Armonk, NY). The statistical significance level was set at $p < .05$ and $p < .01$. The variables in the research are presented with the means \pm standard deviations. Normality distributions were examined using the Kolmogorov Smirnov test, normally distributed pairings were evaluated using the independent sample t-test, and more than two groups were assessed using the One Way Anova (Post hoc Tukey) test. Pearson correlation analysis was used to investigate the link between EAS-30 scores and BMI (Body Mass Index) data.

Results

The research sample consists of 400 students from the faculties of Agriculture, Education, Fine Arts, Sports Sciences, Arts and Sciences, Engineering, Economics and Administrative Sciences, and Health Sciences at Bursa Uludağ University, with 140 (35%) being female and 260 (65%) being male. The participants' average age was discovered to be 21.37 ± 1.88 years.

According to the faculties, there was a significant difference in the students' average body weight and BMI; respectively ($F: 2.621$; $p = .012$, $F: 2.354$; $p = .023$). Students from the Faculty of Economics and Administrative Sciences ($\bar{x} = 76.28$) had a significantly higher average body weight than students from the Faculty of Education ($\bar{x} = 67.00$) and the Faculty of Sports Sciences ($\bar{x} = 67.96$), respectively ($p = .013$), ($p = .041$). Students in the Faculty of Economics and Administrative Sciences had higher mean BMI values ($\bar{x} = 24.36$) than students in the Faculty of Education ($\bar{x} = 22.39$) and the Faculty of Fine Arts ($\bar{x} = 22.77$), respectively ($p = .022$), ($p = .031$).

When the average BMI values of the students involved in the research were compared by gender, it was discovered that male students had higher BMI values than female students ($t:9.034$, $p=.001$). A comparison of average BMI values by gender within the faculties where the students were educated found a significant difference. As in the general average comparison, it has been determined that male students have a higher BMI average than female students among faculties. Respectively; Agriculture ($t:4.211$; $p=.001$), Fine Arts ($t:3.137$; $p=.003$), Sports Sciences ($t:3.585$; $p=.001$), Engineering ($t:2.079$; $p=.043$), Faculty of Economics and Administrative Sciences ($t:4.346$; $p=.001$), and Health Sciences ($t:2.977$; $p=.001$). There was no statistically significant difference ($p>.05$) in the mean BMI values of students in the Faculty of Arts and Sciences based on gender.

Comparing the EAS-30 (eating awareness scale-30) overall score averages of males and females revealed no statistically significant differences. ($p>.05$). In a comparison of the EAS-30 total score averages by gender in the faculties of the students, it was established that male students in the faculty of education ($\bar{x} = 100.06$) had more eating awareness than female students ($\bar{x} = 93.42$) ($p=.034$). The average EAS-30 scores of students in the faculties of Agriculture, Fine Arts, Sports Sciences, Arts and Sciences, Engineering, Economics and Administrative Sciences, and Health Sciences did not vary significantly by gender ($p>.05$).

One of the EAS-30 subfactors, "Eating Control," had substantially different mean scores among faculties ($F:2.720$; $p=.009$). There is a difference in mean scores on the "Eating Control" scale between students from the Faculty of Agriculture ($\bar{x} = 3.03$) and students from the Faculty of Education ($\bar{x} = 3.57$), with students from the Faculty of Agriculture having a lower mean score ($p=.009$). Other sub-factors' mean values (Disinhibition, Emotional Eating, Focus, Eating Discipline, Awareness, and Interference) did not vary significantly between faculties ($p>.05$).

The comparison of EAS-30 sub-factor mean scores by gender within the faculty revealed significant differences ($p<.05$). Female students exhibited lower "Emotional eating" score averages than male students in the faculties of Agriculture ($t: 3.881$; $p=.001$), Education ($t: 4.683$; $p=.001$), and Fine Arts ($t: 0.224$;

$p=.002$). Among the subfactors, "Eating Control" score averages revealed that male students of the Faculty of Health Sciences had a lower ($t:-2.350$; $p=.023$) mean score than female students. Faculty of Fine Arts male students had a lower ($t:-2.238$; $p=.030$) average "Focus" score than female students ($p=.030$). Female students in the faculties of Agriculture ($t:-2.696$; $p=.010$), Sports Sciences ($t:-2.484$; $p=.017$), Engineering ($t:-2.450$; $p=.018$), and Economics and Administrative Sciences ($t:-3.363$; $p=.002$) had higher average "Awareness" score averages than male students.

It was determined that there was a moderately negative association ($r= -0.106$; $p=.045$) between the average BMI of the students and their EAS total scores. There was a very high negative association between the mean BMI of the students and the EAS subfactors "Disinhibition," "Eating Control," and "Awareness", (respectively; $r= -0.106$; $p=.034$, $r= -0.169$; $p=.001$, $r= 0.153$; $p=.002$). Furthermore, it was revealed that there was a very high negative link between the average BMI of male students and the EAS sub-factors "Disinhibition" and "Eating Control", (respectively; $r = -0.123$; $p.047$, $r = -0.149$; $p.016$).

Discussion and conclusion

The present study aimed to evaluate the eating awareness levels of 400 students from 8 different faculties actively enrolled at Bursa Uludağ University during the 2022–2023 academic year and who volunteered to participate in the study, with an average age of 21.37 ± 1.88 years, 35% of whom were female ($n = 160$) and 65% of whom were male ($n=240$) (Table 1).

A comparison of the anthropometric measurements of pupils by faculty and gender

The body weight (kg) and BMI (kg/m^2) measurements of the 400 students included in the research did not reveal a statistically significant variation across faculties. Faculty of Economics and Administrative Sciences students have the highest average body weight and BMI, while Faculty of Education students have the lowest. (Faculty of Economics and Administrative Sciences: $\bar{x} = 76.28\pm 14.43$ kg,

Table 1. Gender, height and body weight values of students.

| Faculty | n | Height (cm) | Body Weight (kg) |
|--------------------------------------|----------|-------------|------------------|
| Agriculture (n:50) | | | |
| Female | 17 (%34) | 167.35±6.81 | 58.41±6.14 |
| Male | 33 (%66) | 179.96±7.41 | 77.36±10.42 |
| Education (n:50) | | | |
| Female | 21 (%42) | 164.48±6.21 | 55.43±7.78 |
| Male | 29 (%58) | 177.55±7.45 | 75.38±11.70 |
| Fine Arts (n:50) | | | |
| Female | 15 (%30) | 163.00±5.94 | 55.53±5.96 |
| Male | 35 (%70) | 178.91±7.39 | 74.29±11.06 |
| Sports Sciences (n:50) | | | |
| Female | 26 (%52) | 167.31±5.99 | 59.31±8.97 |
| Male | 24 (%48) | 177.63±6.94 | 77.33±11.55 |
| Science and Literature (n:50) | | | |
| Female | 17 (%34) | 167.06±5.52 | 62.29±9.89 |
| Male | 33 (%66) | 181.85±7.66 | 78.24±12.65 |
| Engineering (n:50) | | | |
| Female | 12 (%24) | 169.50±7.44 | 60.75±11.21 |
| Male | 38 (%76) | 177.92±6.01 | 73.87±11.14 |
| FEAS (n:50) | | | |
| Female | 16 (%32) | 168.75±7.36 | 63.31±9.18 |
| Male | 34 (%68) | 179.68±6.06 | 82.38±12.29 |
| Health Sciences (n:50) | | | |
| Female | 16 (%32) | 166.19±7.67 | 61.06±8.94 |
| Male | 34 (%68) | 180.18±6.01 | 78.47±9.08 |

Abbreviations: FEAS: Faculty of Economics and Administrative Sciences.

\bar{x} = 24.36±2.92 g m²; Faculty of Education: \bar{x} = 67.00±14.21 kg, \bar{x} = 22.39±2.89 kg/m²) (Table 2). The World Health Organization classifies BMI values as (<18.50) underweight, (18.50-24.99) normal, (25.00-29.99) somewhat obese, and (≥30.00) obese (8). In the given research, it was discovered that 400 students from 8 faculties had average BMI values within the normal range (18.50-24.99). In a similar study; In the eating awareness survey of 387 students at Başkent University, 70.3% of the students were normal, male students; 21% were slightly overweight, 8.7% were obese female students, 8% were slightly overweight and 1.5% were obese, and male students had a statistically ($p < .05$) higher rate of being in the slightly overweight and obese group than female students (9).

In the current research, when comparing the average BMI (kg/m²) by gender, male students

(n=260) (\bar{x} = 23.93±2.74) had a significantly greater mean BMI (kg/m²) than female students (n=140) (\bar{x} = 21.34±2.71) ($p = .001$). When comparing the mean body weight (kg) of male students (n=260) across faculties, the Faculty of Economics and Administrative Sciences had the greatest (\bar{x} = 82.38±12.29) (kg) body weight, while the Faculty of Engineering had the lowest (\bar{x} = 73.87±11.14) (kg) body weight ($p = .042$). Comparing the mean BMI (kg/m²) of male students (n=260) across faculties, the Faculty of Economics and Administrative Sciences had the highest (\bar{x} = 25.42±2.70) (kg/m²) body mass index, while the faculty of fine arts had the lowest (23.12±2.37) (kg/m²) body mass index ($p = .013$) (Table 3).

When comparing the mean body weight (kg) values of female students across faculties; No significant difference was found between faculties ($p > .05$),

Table 2. Comparison of body weight and BMI values according to faculties.

| Faculty | \bar{x} | SS | Square Mean | F | p |
|-------------------------------|------------------------|-------|-------------|-----------------|--------------|
| Body Weight (kg) | | | | | |
| Agriculture | 70.92 | 12.86 | 468.103 | 2.621 | .012* |
| Education | 67.00 | 14.21 | | | |
| Fine Arts | 68.66 | 13.05 | | | |
| Sports Science | 67.96 | 13.65 | | | |
| Science and Literature | 72.82 | 13.95 | | | |
| Engineering | 70.72 | 12.41 | | | |
| FEAS | 76.28 | 14.43 | | | |
| Health Sciences | 72.90 | 12.13 | | | |
| BMI (kg/m²) | | | | | |
| Agriculture | 22.83 | 2.73 | 20.701 | 2.354 | .023* |
| Education | 22.39 | 2.89 | | | |
| Fine Arts | 22.46 | 2.48 | | | |
| Sports Science | 22.77 | 3.55 | | | |
| Science and Literature | 23.15 | 3.15 | | | |
| Engineering | 22.77 | 3.27 | | | |
| FEAS | 24.36 | 2.92 | | | |
| Health Sciences | 23.47 | 2.52 | | | |
| Post-Hoc (Tukey) | | | MD | S. Error | p |
| Body Weight (kg) | | | | | |
| FEAS | Faculty of Education | | 9.280 | 2.673 | .013* |
| | Sports Science Faculty | | 8.320 | 2.673 | .041* |
| BMI (kg/m²) | | | | | |
| FEAS | Faculty of Education | | 1.971 | 0.593 | .022* |
| | Faculty of Fine Arts | | 1.904 | 0.593 | .031* |

* $p < .05$. Abbreviations: MD: Mean Difference; FEAS: Faculty of Economics and Administrative Sciences. BMI (kg/m²) values: 18.5-24.9 (normal), 25-29.9 (overweight), >30 (obese).

but quantitatively female students from the Faculty of Economics and Administrative Sciences were the highest ($\bar{x} = 63.31 \pm 9.18$), while female students from the Faculty of Education were the lowest average body weight ($\bar{x} = 55.43 \pm 7.71$). Comparing the mean BMI (kg/m²) of female students (n=140) across faculties, no significant differences were identified ($p > .05$). Faculty of science and literature had the highest ($\bar{x} = 22.67 \pm 2.99$) and faculty of education had the lowest ($\bar{x} = 20.46 \pm 2.45$) (kg/m²) body mass index (Table 4). Similar to our research sample, in the study conducted

with Bursa Uludağ University Faculty of Medicine students, the mean BMI is ($\bar{x} = 20.98 \pm 2.87$ kg/m²) in girls and (24.01 ± 3.17 kg/m²) in boys, and it has been reported that the majority of medical faculty students eat regularly and that their body mass index averages are normal (10). The BMI average values of 400 students from eight different faculties included in our study are within the normal range. The Faculty of Economics and Administrative Sciences had the highest BMI average among the faculties, while male students had a higher BMI average than female students.

Table 3. Comparison of BMI mean values by gender within the faculty.

| Groups | n | \bar{x} | SS | <i>t test</i> | | |
|--|-----|-----------|------|---------------|-----|--------------|
| | | | | t | sd | p |
| Total | | | | | | |
| Female | 140 | 21.34 | 2.71 | 9.034 | 398 | .001* |
| Male | 260 | 23.93 | 2.74 | | | |
| Faculty of Agriculture | | | | | | |
| Female | 17 | 20.87 | 2.02 | 4.211 | 48 | .001* |
| Male | 33 | 23.84 | 2.51 | | | |
| Faculty of Education | | | | | | |
| Female | 21 | 20.46 | 2.45 | 4.852 | 48 | .001* |
| Male | 29 | 23.79 | 2.35 | | | |
| Faculty of Fine Arts | | | | | | |
| Female | 15 | 20.91 | 2.06 | 3.137 | 48 | .003* |
| Male | 35 | 23.12 | 2.37 | | | |
| Sports Science Faculty | | | | | | |
| Female | 26 | 21.21 | 3.47 | 3.585 | 48 | .001* |
| Male | 24 | 24.45 | 2.84 | | | |
| Faculty of Science and Literature | | | | | | |
| Female | 17 | 22.26 | 2.99 | 1.452 | 48 | 0.153 |
| Male | 33 | 23.61 | 3.18 | | | |
| Engineering faculty | | | | | | |
| Female | 12 | 21.11 | 3.62 | 2.079 | 48 | .043* |
| Male | 38 | 23.29 | 3.01 | | | |
| FEAS | | | | | | |
| Female | 16 | 22.11 | 2.70 | 4.346 | 48 | .001* |
| Male | 34 | 25.42 | 2.70 | | | |
| Faculty of Health Sciences | | | | | | |
| Female | 16 | 22.03 | 2.19 | 2.977 | 48 | .005* |
| Male | 34 | 24.15 | 2.41 | | | |

* $p < .05$. Abbreviations: FEAS: Faculty of Economics and Administrative Sciences.

Evaluation of the overall EAS scores of students based on faculty and gender

Between faculties, there was no statistically significant variation in the average EAS total score ($p > .05$). Faculty of Education students had the highest Eating Awareness mean score ($\bar{x} = 97.28 \pm 10.99$) while Faculty of Agriculture students had the lowest ($\bar{x} = 91.88 \pm 10.42$) (Table 6). The average EAS total scores of male students do not vary statistically significantly across faculties ($p > .05$). The male students of the Faculty of Education had the highest EAS total score average ($\bar{x} = 100.06 \pm 12.19$) while the students of the

Faculty of Agriculture had the lowest ($\bar{x} = 91.36 \pm 10.96$) (Table 7). According to a prior research, the students of the faculty of sports sciences had greater awareness, eating discipline, and conscious nutrition scores and lower emotional eating and interference ratings than students of other faculties (13).

There is no statistically significant variation across faculties in the mean EAS scores of female students ($p > .05$). The Faculty of Health Sciences has the highest ($\bar{x} = 99.06 \pm 13.21$) and the Faculty of Sports Sciences has the lowest ($\bar{x} = 92.15 \pm 16.71$) average EAS scores among female students (Table 7). According to gender, there was no significant difference between

Table 4. Comparison of EAS-30 total score averages by gender within the faculty.

| Faculty | Gender | n | \bar{x} | SS | <i>t test</i> | | |
|------------------------|--------|-----|-----------|-------|---------------|-----|--------------|
| | | | | | t | sd | p |
| Total | Male | 260 | 94.20 | 13.66 | -0.063 | 398 | 0.950 |
| | Female | 140 | 94.29 | 13.01 | | | |
| Agriculture | Male | 33 | 91.36 | 10.96 | -0.484 | 48 | 0.630 |
| | Female | 17 | 92.88 | 9.51 | | | |
| Education | Male | 29 | 100.06 | 12.19 | 2.187 | 48 | .034* |
| | Female | 21 | 93.42 | 7.83 | | | |
| Fine Arts | Male | 35 | 97.40 | 13.64 | 1.005 | 48 | 0.320 |
| | Female | 15 | 93.26 | 13.64 | | | |
| Sports Science | Male | 24 | 92.92 | 17.30 | 0.159 | 48 | 0.875 |
| | Female | 26 | 92.15 | 16.71 | | | |
| Science and Literature | Male | 33 | 90.57 | 12.43 | -1.124 | 48 | 0.267 |
| | Female | 17 | 95.00 | 14.58 | | | |
| Engineering | Male | 38 | 94.86 | 11.75 | 0.535 | 48 | 0.595 |
| | Female | 12 | 92.58 | 16.17 | | | |
| FEAS | Male | 34 | 93.29 | 14.33 | -0.952 | 48 | 0.346 |
| | Female | 16 | 97.12 | 10.55 | | | |
| Health Sciences | Male | 34 | 96.14 | 16.90 | -1.280 | 48 | 0.207 |
| | Female | 16 | 102.37 | 14.00 | | | |

p<.05. Abbreviations: FEAS: Faculty of Economics and Administrative Sciences.

male and female students' overall mean EAS scores ($p>0.05$). Male students of the Faculty of Education had a significantly ($p=.034$) higher mean score than female students ($\bar{x} = 100.06\pm 12.19$ vs. $\bar{x} = 93.42\pm 7.42$). The mean total score of the other faculties did not vary significantly by gender ($p>.05$) among the students. Although there was no statistically significant difference between faculties in the overall mean score of the EAS, the students of the Faculty of Educational Sciences with the highest quantitatively average EAS score ($\bar{x} = 97.28\pm 10.99$) had the lowest BMI average ($\bar{x} = 22.39\pm 2.89$) among the faculties. ($p=.022$). Although the study's results do not disclose a clear cause and effect link, it can be said that pupils with high eating awareness have a lower BMI average. Between the students' EAS total score average and BMI mean values, a moderate negative connection ($r = -0.106$; $p=.045$) was discovered. Similar to our findings, it was revealed in eating awareness research of 387 students at Başkent University that students in the obesity and obese groups had statistically ($p<.05$) lower eating awareness (9).

Evaluating students' overall EAS sub-factor scores based on faculty and gender

The mean scores for one of the EAS sub-factors, "Eating control," varied substantially across faculties ($p=.09$). Education Faculty students ($\bar{x} = 3.57\pm 0.76$) showed significantly stronger eating control than Agriculture Faculty students ($\bar{x} = 3.03\pm 0.64$) (MD: -0.540 ; $p=.016$). In the EAS sub-factors of "Disinhibition, Emotional Eating, Focusing, Eating Discipline, Conscious Awareness, and Interference," no statistically significant difference was detected across faculties ($p>.05$) (Table 5). Male students from the Agricultural Faculty ($\bar{x} = 2.96\pm 0.72$) scored worse than male students from the Education Faculty ($\bar{x} = 3.59\pm 0.69$). (MD: -0.625 ; $p=.047$) has a "Eating control" mean score. There was no statistically significant difference in the mean scores of the sub-factors "Disinhibition, Emotional Eating, Focusing, Eating Discipline, Awareness, and Interference" of male students in the faculties ($p>.05$). There is a very high negative association between male students' mean

Table 5. Comparison of EAS sub-factor value averages between faculties.

| Faculty | Disinhibition | | Emotional Eating | | Eating Control | | Focusing | | Eating Discipline | | Awareness | | Enterferans | | |
|-------------------------|--------------------|------|--------------------|------|----------------------------|------|--------------------|------|--------------------|----------|--------------------|------|---------------------|------|--------------|
| | \bar{x} | SS | \bar{x} | SS | \bar{x} | SS | \bar{x} | SS | \bar{x} | SS | \bar{x} | SS | \bar{x} | SS | |
| Agriculture | 2.88 | 0.83 | 3.16 | 0.86 | 3.03 | 0.64 | 3.05 | 0.37 | 3.13 | 0.76 | 3.07 | 0.58 | 3.18 | 0.97 | |
| Education | 3.14 | 0.71 | 3.23 | 0.97 | 3.57 | 0.76 | 3.14 | 0.44 | 3.22 | 0.67 | 3.18 | 0.42 | 3.28 | 0.70 | |
| Fine Arts | 3.04 | 0.87 | 3.50 | 1.01 | 3.41 | 0.78 | 3.01 | 0.49 | 3.17 | 0.73 | 3.00 | 0.50 | 3.48 | 1.04 | |
| Sports Science | 2.80 | 0.95 | 2.99 | 1.08 | 3.18 | 0.93 | 3.14 | 0.50 | 3.14 | 0.77 | 3.20 | 0.57 | 3.24 | 1.03 | |
| Science and Literature | 2.91 | 0.78 | 3.00 | 0.88 | 3.11 | 0.84 | 3.16 | 0.39 | 3.17 | 0.68 | 3.00 | 0.57 | 3.25 | 0.93 | |
| Engineering | 3.02 | 0.82 | 3.20 | 1.16 | 3.47 | 0.76 | 3.08 | 0.43 | 3.08 | 0.85 | 3.04 | 0.44 | 3.17 | 0.83 | |
| FEAS | 2.94 | 0.81 | 3.16 | 1.00 | 3.39 | 0.84 | 3.12 | 0.52 | 3.19 | 0.78 | 3.12 | 0.51 | 3.19 | 0.96 | |
| Health Sciences | 3.02 | 0.82 | 3.37 | 1.09 | 3.34 | 0.80 | 3.07 | 0.42 | 3.28 | 0.77 | 2.97 | 0.52 | 3.18 | 0.99 | |
| | F:0.871 p=-.529 | | F:1.429 p=-.192 | | F:2.720 p= .009* | | F:0.692 p=-.679 | | F:0.307 p=-.951 | | F:1.354 p=-.223 | | F: 0.590 p=-.764 | | |
| Post-Hoc (Tukey) | | | | | | | | | | | | | | | |
| Eating Control | | | | | MD | | | | | S. Error | | | | | P |
| | | | | | -0.540 | | | | | 0.160 | | | | | .019* |

*p<.05. Abbreviations: MD: Mean Difference; FEAS: Faculty of Economics and Administrative Sciences.

Table 6. Comparison of E.AS-30 sub-factor mean scores by gender within the faculty.

| | Faculty of Agriculture | | Faculty of Education | | Faculty of Fine Arts | | Sports Science Faculty | | Faculty of Science and Literature | | Engineering Faculty | | FEAS | | Faculty of Health Sciences | |
|--------------------------|------------------------|-----------------|----------------------|------------------|----------------------|------------------|------------------------|------------------|-----------------------------------|------------------|---------------------|------------------|------------------|------------------|----------------------------|------------------|
| | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male |
| n | 17 | 33 | 21 | 29 | 15 | 35 | 26 | 24 | 17 | 33 | 12 | 38 | 16 | 34 | 16 | 34 |
| \bar{x} | 3.18±0.76 | 2.72±0.84 | 2.95±0.69 | 3.28±0.71 | 2.88±0.97 | 3.12±0.82 | 2.70±0.88 | 2.90±1.02 | 3.10±0.83 | 2.81±0.74 | 2.86±1.10 | 3.07±0.71 | 3.15±0.81 | 2.84±0.81 | 3.26±0.75 | 2.91±0.84 |
| ±SS | t:-1.888 p=.065 | t:1.669 p=.102 | t:0.891 p=.377 | t:-0.768 p=.446 | t:-1.240 p=.221 | t:0.778 p=.440 | t:0.778 p=.440 | t:0.778 p=.440 | t:0.778 p=.440 | t:-1.231 p=.224 | t:-1.388 p=.171 | t:-1.388 p=.171 | t:-1.388 p=.171 | t:-1.388 p=.171 | t:-1.388 p=.171 | t:-1.388 p=.171 |
| Disinhibition | | | | | | | | | | | | | | | | |
| Emotional Eating | | | | | | | | | | | | | | | | |
| \bar{x} | 2.57±0.68 | 3.46±0.79 | 2.60±2.82 | 3.69±0.81 | 2.85±1.05 | 3.77±0.87 | 2.80±1.07 | 3.19±1.08 | 2.92±0.79 | 3.04±0.93 | 2.73±1.18 | 3.34±1.13 | 2.82±0.87 | 3.32±1.02 | 3.25±1.02 | 3.43±1.14 |
| ±SS | t:3.881 p=.001* | t:4.683 p=.001* | t:0.224 p=.002* | t:1.252 p=.217 | t:0.425 p=.673 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 | t:1.621 p=.112 |
| Eating Control | | | | | | | | | | | | | | | | |
| \bar{x} | 3.16±0.45 | 2.96±0.72 | 3.54±0.86 | 3.59±0.69 | 3.51±0.93 | 3.37±0.72 | 3.22±1.04 | 3.14±0.82 | 3.30±0.93 | 3.00±0.78 | 3.50±0.78 | 3.46±0.76 | 3.65±0.71 | 3.26±0.88 | 3.71±0.80 | 3.16±0.75 |
| ±SS | t:-0.995 p=.325 | t:0.214 p=.832 | t:-0.593 p=.556 | t:-0.282 p=.799 | t:-1.201 p=.236 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 | t:-0.155 p=.878 |
| Focusing | | | | | | | | | | | | | | | | |
| \bar{x} | 3.12±0.38 | 3.01±0.37 | 3.28±0.48 | 3.04±0.37 | 3.24±0.57 | 2.91±0.42 | 3.25±0.51 | 3.03±0.47 | 3.20±0.48 | 3.14±0.35 | 3.08±0.43 | 3.08±0.44 | 3.30±0.36 | 3.04±0.57 | 3.12±0.43 | 3.04±0.41 |
| ±SS | t:-0.982 p=.331 | t:-1.992 p=.052 | t:-2.238 p=.030* | t:-1.573 p=.122 | t:-0.454 p=.652 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 | t:0.006 p=.995 |
| Eating Discipline | | | | | | | | | | | | | | | | |
| \bar{x} | 3.05±0.53 | 3.16±0.86 | 3.04±0.60 | 3.34±0.71 | 2.96±0.75 | 3.26±0.71 | 3.04±0.71 | 3.23±0.83 | 3.17±0.51 | 3.17±0.76 | 3.04±0.84 | 3.09±0.86 | 3.03±0.61 | 3.26±0.85 | 3.39±0.65 | 3.22±0.82 |
| ±SS | t:0.471 p=.640 | t:1.554 p=.127 | t:1.327 p=.191 | t:0.869 p=.389 | t:-0.012 p=.990 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 | t:0.199 p=.843 |
| Awareness | | | | | | | | | | | | | | | | |
| \bar{x} | 3.36±0.59 | 2.92±0.52 | 3.26±0.44 | 3.11±0.41 | 3.14±0.53 | 2.94±0.48 | 3.39±0.54 | 3.00±0.54 | 3.18±0.57 | 2.90±0.55 | 3.30±0.47 | 2.95±0.40 | 3.45±0.43 | 2.97±0.48 | 3.12±0.55 | 2.90±0.50 |
| ±SS | t:-2.696 p=.010* | t:-1.224 p=.227 | t:-1.280 p=.207 | t:-2.484 p=.017* | t:-1.664 p=.103 | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* | t:-2.450 p=.018* |
| Enterferans | | | | | | | | | | | | | | | | |
| \bar{x} | 3.35±1.11 | 3.09±0.90 | 3.26±0.75 | 3.29±0.68 | 3.36±1.18 | 3.52±0.99 | 3.15±1.05 | 3.33±1.01 | 3.47±0.75 | 3.13±1.00 | 3.25±0.91 | 3.14±0.82 | 3.37±0.95 | 3.10±0.97 | 3.37±0.80 | 3.08±1.06 |
| ±SS | t:-0.896 p=.375 | t:0.152 p=.880 | t:0.496 p=.622 | t:0.611 p=.544 | t:-1.199 p=.237 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 | t:-0.377 p=.708 |

*p<.05. Abbreviations: FEAS: Faculty of Economics and Administrative Sciences.

Table 7. The relationship between the BMI values of the students and the EAS-30 total score and sub-factor score averages.

| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------|---------------------|---|---------|---------|---------|----------|---------|---------|----------|---------|----|
| 1-BMI | Pearson Correlation | 1 | -0.100* | -0.106* | 0.069 | -0.169** | -0.074 | -0.001 | -0.153** | -0.072 | |
| | Sig. (2-tailed) | | .045 | .034 | 0.169 | .001 | 0.139 | 0.989 | .002 | 0.148 | |
| | N | | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | |
| 2-EAS-30 | Pearson Correlation | | 1 | 0.818** | 0.743** | 0.683** | 0.190** | 0.361** | 0.508** | 0.625** | |
| | Sig. (2-tailed) | | | .000 | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | | | 400 | 400 | 400 | 400 | 400 | 400 | 400 | |
| 3-Disinhibition | Pearson Correlation | | | 1 | 0.589** | 0.473** | -0.025 | 0.119* | 0.395** | 0.508** | |
| | Sig. (2-tailed) | | | | .000 | .000 | 0.619 | .017 | .000 | .000 | |
| | N | | | | 400 | 400 | 400 | 400 | 400 | 400 | |
| 4-Emotional Eating | Pearson Correlation | | | | 1 | 0.370** | -0.070 | 0.068 | 0.148** | 0.426** | |
| | Sig. (2-tailed) | | | | | .000 | 0.163 | 0.176 | .003 | .000 | |
| | N | | | | | 400 | 400 | 400 | 400 | 400 | |
| 5-Eating Control | Pearson Correlation | | | | | 1 | 0.156** | 0.098* | 0.274** | 0.374** | |
| | Sig. (2-tailed) | | | | | | .002 | .049 | .000 | .000 | |
| | N | | | | | | 400 | 400 | 400 | 400 | |
| 6-Focusing | Pearson Correlation | | | | | | 1 | 0.079 | 0.044 | -0.055 | |
| | Sig. (2-tailed) | | | | | | | .113 | .380 | .276 | |
| | N | | | | | | | 400 | 400 | 400 | |
| 7-Eating Discipline | Pearson Correlation | | | | | | | 1 | 0.096 | 0.134** | |
| | Sig. (2-tailed) | | | | | | | | .056 | .008 | |
| | N | | | | | | | | 400 | 400 | |
| 8-Awareness | Pearson Correlation | | | | | | | | 1 | 0.279** | |
| | Sig. (2-tailed) | | | | | | | | | .000 | |
| | N | | | | | | | | | 400 | |
| 9-Enterferans | Pearson Correlation | | | | | | | | | 1 | |
| | Sig. (2-tailed) | | | | | | | | | | |
| | N | | | | | | | | | | |
| 10- Male Student BMI | Pearson Correlation | | | -0.123* | -0.062 | -0.149* | -0.010 | 0.015 | -0.019 | -0.015 | 1 |
| | Sig. (2-tailed) | | | .047 | .317 | .016 | .875 | .807 | .756 | .816 | |
| | N | | | 260 | 260 | 260 | 260 | 260 | 260 | 260 | |

*p<.05; **p<.01.

BMI values and the mean scores of the EAS-30 sub-factors “Disinhibition” ($r = -0.123$; $p = .047$) and “Eating Control” ($r = -0.149$; $p = .016$). In comparing the total score average of the EAS sub-factors of female students across faculties, no statistically significant difference in the mean scores of “Disinhibitions”, “Emotional Eating”, “Eating Control”, “Focus”, “Eating Discipline”, “Awareness” and “Interference” sub-factors was found ($p > .05$). According to prior research, disinhibition, emotional eating, and eating attitude scores are greater in female university students than in male students, but mindful nutrition scores are higher in male students than in female students (13, 15, 16). In a survey of high school students, the prevalence of eating disorders was found to be 15.5%, with female students having a greater incidence than male students (17). The Faculty of Educational Sciences students had the greatest “eating control” score average ($p = .016$), while the BMI averages were the lowest ($p = .023$). There was a very high negative connection ($r = -0.169$; $p = .001$) found between “eating control” and BMI averages. In a similar research, it was shown that there was a significant link between the body weight and BMI mean of 318 university students and the EAS sub-factor “Eating Control” ($r = -0.252$, $p = .01$) ($r = -0.208$, $p = .01$). (11). A comparison of students ($N = 400$) from eight different faculties at Bursa Uludağ University revealed that students in the faculties of economics and administrative sciences had the highest average body weight and BMI value, while students in the education faculty had the lowest (Table 5).

The average EAS total score of students in the Faculty of Education was the highest among the faculties, and it was shown to be connected with low BMI values ($r = -0.106$; $p = .045$). It was discovered that the overall score averages of the EAS sub-factors “Eating Control” of the Faculty of Education students were the highest among the faculties, and that there was a very significant negative link with BMI ($r = -0.169$; $p = .001$).

The key finding of our study is that students’ BMI levels are closely correlated with their high food knowledge. As a consequence of prior study, the fact that teenage and developing university students have healthy eating habits is of societal significance due to both their personal health and this group’s function as

a role model (14). This conclusion validates the findings of our investigation. The findings show that the EAS and EAS sub-factor score averages of students in the Faculty of Health Sciences and Sports Sciences are lower than those of students in the Faculty of Education. The fact that the Faculty of Sports Sciences students have the lowest EAS score average has emerged as a thought-provoking outcome, (especially among female students). The fact that students taking nutrition courses and studying in health-related institutions have more information about nutrition is a condition that society accepts and corresponds to the education provided as it should be.

Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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Received: 27 February 2023

Accepted: 25 July 2023

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