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Hedonic Hunger, Intuitive Eating, and Physical Activity: A Study on Young Adults

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Abstract

Young adulthood is a critical developmental period characterized by significant physical, psychological, and social changes. During this stage, hedonic hunger refers to food consumption driven by emotional satisfaction, whereas intuitive eating reflects eating behaviors guided by internal hunger and satiety cues. Physical activity is also considered a potential factor influencing individuals' food preferences. Accordingly, this study aimed to examine the relationships between hedonic hunger, intuitive eating, and physical activity levels among young adults. The study was conducted using a relational screening model with a sample of 402 individuals (M = 19.02), aged 18–29, selected through convenience sampling. Data were collected using a personal information form, the Food Power Scale, the Intuitive Eating Scale, and the International Physical Activity Questionnaire-Short Form (IPAQ-SF). Data analysis was performed using SPSS 24.0, employing independent samples t-tests and Pearson correlation analysis. Effect sizes (Cohen's d, η^2) and assumption checks were also considered to enhance interpretability. The findings indicated no significant differences in Food Power Scale total and sub-dimension scores or Intuitive Eating Scale sub-dimension scores based on gender ($p > 0.05$). However, significant relationships were found between participants' BMI and both the total and sub-dimension scores of the Food Power Scale and Intuitive Eating Scale ($p < 0.05$). In contrast, no significant relationships were identified between physical activity levels and these scale scores ($p > 0.05$). In conclusion, BMI is significantly associated with food power perception and intuitive eating behaviors. These findings highlight the importance of providing educational interventions to promote healthy eating behaviors among young adults.

Keywords: Physical activity, Exercise, Youth, Nutrition and adult

Introduction

In contemporary society, the concepts of healthy living and individual well-being are closely linked to dietary habits and levels of physical activity. In the context of modern lifestyles, eating has evolved from being merely a physiological necessity to a complex behavior shaped by emotional and environmental factors. Understanding the psychological processes underlying eating behaviors is therefore crucial for explaining the concept of hedonic hunger. In this regard, hedonic hunger is defined as the desire to consume palatable and pleasurable foods despite the absence of an actual energy deficit (Lowe and Martin, 2007). Such eating behaviors can lead to deviations from healthy dietary goals and, in the long term, contribute to challenges in weight management. In this context, obesity, which has become an increasingly global issue, is often attributed to the imbalance between food intake and energy expenditure caused by the activation of non-homeostatic eating behaviors driven by hedonic hunger (Pivonello et al., 2022). Fundamentally, appetite and food intake are regulated by two interrelated systems: the homeostatic system and the hedonic system (Berg et al., 2018). Homeostatic hunger ensures energy balance by increasing the drive to eat when energy stores are depleted. Conversely, hedonic hunger overrides homeostatic control by amplifying the desire to consume palatable foods even during periods of relative energy abundance (Ulker et al., 2018; Karamizadeh et al., 2024).

The homeostatic regulation of appetite can be conceptualized as a matrix of events and interactions occurring across three levels of the psychobiological system: psychological and behavioral processes, peripheral physiological and metabolic events, and neurotransmitter and metabolic interactions within the brain. The synchronization of these levels has been proposed to play a critical role in maintaining appetite control, with disruptions potentially contributing to conditions such as eating disorders, physical inactivity, and obesity. This system includes the sequence of events and behaviors leading to, occurring during, and following food consumption, collectively referred to as the Satiety Cascade (Blundell, 1991).

Intuitive Eating (IE) is an approach to eating characterized by an awareness of internal bodily cues and their use in guiding decisions related to food and eating (Tribole and Resch; 2012). Unlike hedonic hunger, which emphasizes external factors such as taste and pleasure, intuitive eating focuses on physiological signals such as hunger and satiety, aiming to suppress externally driven urges to eat. Research indicates that intuitive eating is consistently associated with positive outcomes, including improved indices of regulated eating and well-being, and inversely related to psychological distress, disordered eating, and body image disturbances (Linardon et al., 2021; Babbott and Tylka, 2023). This approach encourages individuals to rely on internal cues for food choices, minimize negative thoughts related to eating, and adopt a more balanced lifestyle.

Physical activity, on the other hand, contributes to weight management and the maintenance of a healthy lifestyle by increasing energy expenditure (WHO, 2020). This process is essential for maintaining energy balance and can indirectly assist in managing emotional eating behaviors, such as those associated with hedonic hunger. Conversely, low levels of physical activity may lead to dysregulated appetite and a mismatch between energy intake and expenditure. Higher levels of habitual physical activity enhance energy expenditure while increasing satiety post-consumption, enabling a better alignment between energy intake and expenditure in response to hunger and satiety signals (Beaulieu et al., 2018). Physically active individuals are hypothesized to have better control over emotional eating behaviors, such as hedonic hunger, and to regulate their dietary habits more effectively.

The current obesogenic environment fosters both physical inactivity and excessive food consumption two modifiable risk factors that disrupt energy balance. While physical activity is typically associated with energy expenditure, it also influences energy intake through various appetite regulation mechanisms. In this context, the present study aims to examine the relationship between hedonic hunger and intuitive eating behaviors, with a particular focus on the moderating role of gender. Furthermore, the study seeks to explore how physical activity levels shape the association between hedonic hunger and intuitive eating. By addressing the psychological, environmental, and physiological factors that influence eating behavior, this research intends to contribute a theoretical framework for better understanding the impact of hedonic hunger on the development of healthy lifestyle habits.

Material and Method

Ethics committee permission: Ethics committee approval for the conduct of this study was obtained from Bartın University (Date: 08.01.2025, Number: 2024-SBB-1125)

Participants

The study was conducted using a survey (descriptive) model, and the sample was selected through convenience sampling (Karasar, 2020). To determine the appropriate sample size, a power analysis was conducted using the G*Power 3.1 software. The results of the analysis indicated that a minimum of 80 participants would be sufficient (Lu et al., 2025). Accordingly, the study group consisted of 402 voluntary young adults, aged between 18 and 29 years (Mean age = 19.02), selected through convenience sampling.

Inclusion Criteria: Participants aged between 18 and 29 years, Absence of any medical or psychological conditions that could impede participation in the study, Willingness to participate voluntarily in the research.

Exclusion Criteria: Participants younger than 18 or older than 29 years. Presence of medical or psychological conditions that may hinder participation. Lack of voluntary consent to participate in the study.

Study Design

This study was conducted using a relational survey model within the framework of a quantitative research design. Relational survey models are correlational research approaches aimed at determining the relationships between two or more variables and providing insights into possible cause-and-effect relationships (Büyüköztürk et al., 2021).

Data Collection Tools

The personal information form, prepared by the researchers, includes questions about participants' gender, age, height, weight, and participation in physical activity. The participants do not have any history of sports participation. The body mass index (BMI) values of the participants were calculated and categorized based on the classification criteria updated by the World Health Organization [For adults, body mass index (BMI) values are classified as underweight (<18.50), normal weight (18.50–24.99), overweight (25.00–29.99), and obese (≥30.00)] (WHO, 2020). Prior to data collection, permission to use each scale was obtained from the original developers or adaptation authors.

Power of Food Scale (PFS): The "Power of Food Scale," developed by Cappelleri et al. (2020). and adapted into Turkish by Hayzaran (2018), was used to measure participants'

levels of hedonic hunger. The scale consists of 15 items and three subdimensions: Food Availability, Food Presence, and Food Tasting. It employs a 5-point Likert format. To assess hedonic hunger, the total score obtained (ranging from 1 to 5) is divided by 15 for interpretation (Çetin, 2024). The items numbers of the 3 subdimensions are as follows: 1. **Food Availability** (items 1, 2, 5, 10, 11, and 13), 2. **Food Presence** (items 3, 4, 6 and 7), 3. **Food Tasting** (items 8, 9, 12, 14 and 15). The reliability of the scale was assessed using Cronbach's Alpha, and the coefficient was found to be .85.

Intuitive Eating Scale (IES): The "Intuitive Eating Scale," developed by Tylka and Kroon Van Diest (2013), and adapted into Turkish by Baş et al. (2017), was used to evaluate participants' intuitive eating behaviors. This 5-point Likert scale consists of 23 items divided into four subdimensions: 1. **Unconditional Permission to Eat** (items 1, 3, 4, 9, 16, and 17), 2. **Eating for Physical Rather than Emotional Reasons** (items 2, 5, 10, 11, 12, 13, 14, and 15), 3. **Reliance on Hunger and Satiety Cues** (items 6, 7, 8, 21, 22, and 23), and 4. **Body-Food Choice Congruence** (items 18, 19, and 20). The scale also includes reverse-scored items (items 1, 2, 4, 5, 9, 10, and 11). The reliability of the scale was assessed using Cronbach's Alpha, and the coefficient was found to be .89.

International Physical Activity Questionnaire - Short Form (IPAQ-SF): The International Physical Activity Questionnaire–Short Form (IPAQ-SF) was utilized to assess participants' physical activity levels Craig et al., (2003). Its validity and reliability in the Turkish population have been previously established by Sağlam et al. (2010). The IPAQ-SF captures the frequency and duration of walking, moderate-intensity, and vigorous-intensity activities lasting at least 10 minutes over the preceding seven days, while also assessing sedentary time on weekdays. Total physical activity was quantified in terms of Metabolic Equivalent (MET)-minutes per day or week. Specifically, total weekly MET-minutes were computed by summing the MET-minutes corresponding to each activity intensity, with MET values assigned as follows: walking = 3.3 MET, moderate-intensity activity = 4.0 MET, and vigorous-intensity activity = 8.0 MET. This approach allows for a standardized estimation of overall physical activity levels.

Data were collected using an online form prepared in a web-based environment. The study was conducted following the acquisition of the necessary permissions for the use of the scales. The scale instruments were developed and administered in the Turkish language.

Statistical Analysis

The research data were analyzed using the SPSS 24.0 statistical package program. To determine whether the data followed a normal distribution, skewness and kurtosis values were examined, and it was verified that these values fell between +2 and -2 (George and Mallery, 2003). Based on this assessment, the data were found to be normally distributed. Descriptive statistics, including mean and standard deviation (SD), were calculated. To determine differences between two groups, an independent samples t-test was conducted. Pearson correlation analysis was employed to evaluate the relationships between the mean scores of the scales. Correlation coefficients were interpreted as follows: .00 = no relationship, .01-.29 = low, .30-.70 = moderate, .71-.99 = high, and 1.00 = perfect correlation (Köklü et al., 2007).

Findings

In this section of the study, the relationship between hedonic hunger and the subdimensions of intuitive eating (unconditional permission to eat, eating for physical rather than emotional reasons, reliance on hunger and satiety cues, and body-food choice congruence) was examined based on gender.

Table 1. Physical and Physiological Characteristics of Participants According to Gender Variable

Variables	Gender	x̄±SD
Age (Year)	Male	18.95±1.46
	Female	19.05±1.44
Body Weight (kg)	Male	70.66±10.93
	Female	57.61±10.46
Height (cm)	Male	175,95±6.99
	Female	162.67±6.51
BMI (kg/m^2)	Male	22.80±3.10
	Female	21.70±3.32

Table 1 presents the physical and physiological characteristics of the participants. When the table is examined, it is observed that the male participants have a mean age of 18.95±1.46 years, a mean body weight of 70.66±10.93 kg, a mean height of 175.95±6.99 cm, and a mean BMI of 22.80±3.10 kg/m². In contrast, the female participants have a mean age of 19.05±1.44 years, a mean body weight of 57.61±10.46 kg, a mean height of 162.67±6.51 cm, and a mean BMI of 21.70±3.32 kg/m².

Table 2. T-Test Results for the Total and Subdimension Scores of the Power of Food Scale and Intuitive Eating Subdimensions Based on Gender

Variables	Gender	N	Mean	SS	SD	t	p
Food Availability	Male	174	3.0201	.94676	400	.305	.761
	Female	228	2.9912	.93847			
Food Presence	Male	174	3.3060	.84625	400	-.606	.545
	Female	228	3.3586	.87078			
Food Tasting	Male	174	3.4517	.82158	400	.366	.715
	Female	228	3.4211	.84138			
PFS Total Score	Male	174	3.2402	.77630	400	.098	.922
	Female	228	3.2325	.79466			
Unconditional Permission to Eat	Male	174	3.3190	.72767	400	-.038	.970
	Female	228	3.3216	.68717			
Eating for Physical Rather than Emotional Reasons	Male	174	3.5172	.66489	400	1.120	.263
	Female	228	3.4435	.64545			
Reliance on Hunger and Satiety Cues	Male	174	3.3630	.77363	400	-.192	.848
	Female	228	3.3772	.70348			
Body-Food Choice Congruence	Male	174	3.6992	.91000	400	.799	.425
	Female	228	3.6301	.81957			

Intuitive Eating Total Score	Male	174	3.4490	.59096	400	-.521	.603
	Female	228	3.4188	.56606			

Table 2 displays the results of the t-test conducted to examine differences in scale scores based on the gender variable. When the table is examined, it is observed that, based on the gender variable, no significant differences were determined in the subdimensions of the Power of Food Scale, including Food Availability (t[.305]=.761, p<0.05), Food Presence (t[-.606]=.545, p<0.05), Food Tasting (t[.366]=.715, p<0.05), and the total score of the Power of Food Scale (t[.098]=.922, p<0.05).

Furthermore, continuing the examination of the table, no significant differences were identified in the subdimensions of the Intuitive Eating Scale based on the gender variable, including Unconditional Permission to Eat (t[-.038]=.970, p<0.05), Eating for Physical Rather than Emotional Reasons (t[1.120]=.263, p<0.05), Reliance on Hunger and Satiety Cues (t[-.192]=.848, p<0.05), Body-Food Choice Congruence (t[.799]=.425, p<0.05) and Intuitive Eating Total Score (t[-.521]=.603, p<0.05),

Table 3. Correlation Analysis Between BMI, Total and Subdimensions of the Power of Food Scale, and Subdimensions of Intuitive Eating Among Male Participants

		BMI	**FA**	**FP**	**FT**	**FPS Total**	**UPE**	**EPRTER**	**RHSC**	**BECO**
BMI	r	1								
FA	r	.110	1							
FP	r	.144	.673**	1						
FT	r	.068	.653**	.670**	1					
FPS Total	r	.120	.914**	.856**	.866**	1				
UPE	r	.151*	.503**	.411**	.489**	.537**	1			
EPRTER	r	.122	.351**	.238**	.344**	.362**	.686**	1		
RHSC	r	.057	.633**	.480**	.543**	.640**	.627**	.491**	1	
BFCO	r	.015	-.069	-.020	.038	-.026	.401**	.390**	.237**	1

**Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed); FA: Food Availability; FP: Food Presence; FT: Food Tasting; FPS Total: Food Power Scale; UPE: Unconditional Permission to Eat; EPRTER: Eating for Physical Rather Than Emotional Reasons; RHSC: Reliance on Hunger and Fullness Cues; BFCO: Body Food Choice Overlap*

Table 3 displays the correlations between the mean scores of the scales according to the gender variable. When the table is examined; the relationship between BMI, food power scale total and sub-dimensions and intuitive eating sub-dimensions of male participants is seen. It is understood that there is a positive relationship between

BMI and unconditional food desire sub-dimension (r[.151]), p<0.05); food availability sub-dimension and food availability sub-dimension (r[.673]), p<0.01); food tasting sub-dimension (r[.653]), p<0.01); food power scale total score (r[.914]), p<0.01); unconditional food desire sub-dimension (r[.503]), p<0.01); eating for physical rather than emotional reasons sub-dimension (r[.351]), p<0.01); trust in hunger and fullness cues sub-dimension (r[.633]), p<0.01); but there is no significant relationship with body food choice overlap sub-dimension (r[-.069]), p>0.01). It was understood that there was a positive relationship

between food availability subdimension and food tasting subdimension (r[.670], p<0.01); food potency scale total score (r[.856], p<0.01); unconditional desire to eat subdimension (r[.411], p<0.01); eating physically rather than emotionally subdimension (r[.238], p<0.01); reliance on hunger and fullness cues subdimension (r[.480], p<0.01); but there was no significant relationship with body food choice overlap subdimension (r[-.020], p>0.01). It is understood that there is a positive relationship between food tasting subdimension and food potency scale total score (r[.866], p<0.01); unconditional desire to eat subdimension (r[.489], p<0.01); eating physically rather than emotionally subdimension (r[.344], p<0.01); the trust in hunger and fullness cues subdimension (r[.543], p<0.01), but there is no significant relationship with the body food choice overlap subdimension (r[.038], p>0.01). It is understood that there is a positive relationship between the total score of the Food Power Scale and the unconditional desire to eat subdimension (r[.537]), p<0.01); the eating for physical rather than emotional reasons subdimension (r[.362], p<0.01); the trust in hunger and fullness cues subdimension (r[.640]), p<0.01), but there is no significant relationship with the body food choice overlap subdimension (r[-.026], p>0.01). Also it is seen that there is a positive relationship between the unconditional desire to eat subdimension and the eating for physical rather than emotional reasons subdimension (r[.686], p<0.01); the sub-dimension of trust in hunger and fullness cues (r[.627]), p<0.01) and finally the body food choice overlap sub-dimension (r[.401]), p<0.01). It was understood that there was a positive relationship between the sub-dimension of eating for physical rather than emotional reasons and the sub-dimension of trust in hunger and fullness cues (r[.491]), p<0.01) and the body food choice overlap sub-dimension (r[.390]), p<0.01). Finally, it was found that there was a positive relationship between the sub-dimension of trust in hunger and fullness cues and the body food choice overlap sub-dimension (r[.237]), p<0.01).

Table 4. Correlation Analysis Between BMI, Food Power Scale Total and Sub-dimensions and Intuitive Eating Sub-dimensions of Female Participants

		BMI	FA	FP	FT	FPS Total	UPE	EPRTER	RHSC	BECO
BMI	r	1								
FA	r	.224**	1							
FP	r	.134*	.645**	1						
FT	r	.100	.736**	.696**	1					
FPS Total	r	.180**	.920**	.843**	.904**	1				
UPE	r	.128	.440**	.411**	.387**	.400**	1			
EPRTER	r	.141*	.273**	.191**	.206**	.229**	.667**	1		
RHSC	r	.175**	.590**	.327**	.499**	.550**	.647**	.518**	1	
BFCO	r	-.010	.008	-.041	.059	.013	.505**	.452**	.325**	1

**Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed); FA: Food Availability; FP: Food Presence; FT: Food Tasting; FPS Total: Food Power Scale; UPE: Unconditional Permission to Eat; EPRTER: Eating for Physical Rather Than Emotional Reasons; RHSC: Reliance on Hunger and Fullness Cues; BFCO: Body Food Choice Overlap*

Table 4 presents the correlations between BMI, total and subdimensions of the Power of Food Scale, and subdimensions of Intuitive Eating among female participants. The table shows the relationships between BMI, food potency scale total and subdimensions and intuitive eating subdimensions of the female participants. It was understood that there was a positive relationship between BMI with food availability subdimension (r[.224]), p<0.05);

food availability subdimension (r[.134]), p<0.05); eating physically rather than emotionally subdimension (r[.141]), p<0.05); trust in feelings of hunger and fullness subdimension (r[.175]), p<0.01); food availability subdimension with food availability subdimension (r[.645]), p<0.01); tasting food subdimension (r[.736]), p<0.01); food potency scale total score (r[.920]), p<0.01); unconditional desire to eat subdimension (r[.440]), p<0.01); eating physically rather than emotionally subdimension (r[.273]), p<0.01); the trust in hunger and fullness cues sub-dimension (r[.590], p<0.01), but there was no significant relationship with the body food choice overlap sub-dimension (r[.008], p>0.01). It was understood that there was a positive relationship between the food availability sub-dimension and the food tasting sub-dimension (r[.696]), p<0.01); the food power scale total score (r[.843]), p<0.01); the unconditional desire to eat sub-dimension (r[.411]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.191]), p<0.01); the reliance on hunger and satiety cues sub-dimension (r[.327]), p<0.01), but there was no significant relationship with the body food choice overlap sub-dimension (r[-.041]), p>0.01). It was understood that there was a positive relationship between the food tasting sub-dimension and the food power scale total score (r[.904]), p<0.01); the unconditional desire to eat sub-dimension (r[.387]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.206]), p<0.01); the reliance on hunger and satiety cues sub-dimension (r[.499]), p<0.01), but there was no significant relationship with the body food choice overlap sub-dimension (r[.059]), p>0.01). It is seen that there is a positive relationship between the total score of the Food Power Scale and the unconditional desire to eat sub-dimension (r[.400]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.229]), p<0.01); the reliance on hunger and satiety cues sub-dimension (r[.550]), p<0.01), but there is no significant relationship with the body food choice overlap sub-dimension (r[.013]), p>0.01). It was understood that there was a positive relationship between the unconditional desire to eat subdimension and eating for physical rather than emotional reasons subdimension (r[.667], p<0.01); the trust in hunger and fullness cues subdimension (r[.647], p<0.01) and finally the body food choice overlap subdimension (r[.505], p<0.01). It was determined that there was a positive relationship between the eating for physical rather than emotional reasons subdimension and trust in hunger and fullness cues subdimension (r[.518], p<0.01) and the body food choice overlap subdimension (r[.458], p<0.01). Finally, a positive relationship was found between the trust in hunger and fullness cues subdimension and body food choice overlap subdimension (r[.325], p<0.01).

Table 5: Descriptive Information Based on Participants' Physical Activity Levels

Variable	**N: 402**	**$\bar{X}$ ± Ss**
Physical Activity	$IPAQ_{Low(dk^{-2}/hafta)}$	718.1±547.5
	$IPAQ_{Moderate(dk^{-2}/hafta)}$	511.7±797.6
	$IPAQ_{High(dk^{-2}/hafta)}$	492.3±611.2
	$IPAQ_{Total(dk^{-2}/hafta)}$	1413.2±1122.0

Table 5 provides descriptive statistics of the participants stratified by their physical activity levels. The participants average weekly physical activity duration was determined as 718.1 ± 547.5 minutes for low intensity, 511.7 ± 797.6 minutes for moderate intensity, 492.3 ± 611.2 minutes for high intensity, and 1413.2 ± 1122.0 minutes in total.

Table 6: Physical Activity Levels of Participants According to Gender

Group	Male ($\bar{X}$ ± Ss)	Female ($\bar{X}$ ± Ss)
$IPAQ_{Low(dk^{-2}/hafta)}$	740 ± 560	700 ± 540
$IPAQ_{Moderate(dk^{-2}/hafta)}$	530 ± 820	500 ± 780
$IPAQ_{High(dk^{-2}/hafta)}$	510 ± 630	480 ± 590
$IPAQ_{Total(dk^{-2}/hafta)}$	1450 ± 1150	1390 ± 1100

Table 6 presents the distribution of participants' physical activity levels according to gender. According to the table, the durations of low, moderate, and high intensity physical activity were 740 ± 560, 530 ± 820, and 510 ± 630 minutes for males, respectively, while these values were 700 ± 540, 500 ± 780, and 480 ± 590 minutes for females. The total physical activity duration was measured as 1450 ± 1150 minutes for males and 1390 ± 1100 minutes for females. The average weekly physical activity durations of males were slightly higher than those of females across all intensity levels.

Table 7. Correlation Analysis Between Participants' Physical Activity, Food Power Scale Total and Sub-dimensions, and Intuitive Eating Sub-dimensions

		PAS	FA	FP	FT	FPS Total	UPE	EPRTER	RHSC	BECO
PAS	r	1								
FA	r	-.095	1							
FP	r	-.134	.656**	1						
FT	r	-.018	.700**	.684**	1					
FPS Total	r	-.091	.917**	.847**	.888**	1				
UPE	r	.017	.468**	.288**	.431**	.460**	1			
EPRTER	r	-.004	.308**	.154**	.267**	.286**	.674**	1		
RHSC	r	-.061	.609**	.395**	.517**	.589**	.637**	.504**	1	
BFCO	r	.016	-.027	-.033	.050	-.005	.455**	.424**	.282**	1

**Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed);PAS: Physical Activity Status; FA: Food Availability; FP: Food Presence; FT: Food Tasting; FPS Total: Food Power Scale; UPE: Unconditional Permission to Eat; EPRTER: Eating for Physical Rather Than Emotional Reasons; RHSC: Reliance on Hunger and Fullness Cues; BFCO: Body Food Choice Overlap*

Table 7 presents the findings of the correlation analysis conducted to explore the relationships between participants' physical activity levels, the total and sub-dimension scores of the Power of Food Scale, and the sub-dimensions of Intuitive Eating. When the table is examined; the relationship between the participants' physical activity status, the food strength scale total and sub-dimension scores and the intuitive eating sub-dimension scores is seen. No significant relationship was determined between the physical activity status and the scale total scores and sub-dimension scores ($p>0.05$). It is understood that there is a positive relationship between the sub-dimension of trust in hunger and satiety cues (r[.609]), $p<0.01$),Food presence sub-dimension and food availability sub-dimension (r[.656]), $p<0.01$); food tasting sub-dimension (r[.700]), $p<0.01$); food strength scale total score (r[.917]), $p<0.01$); unconditional desire to eat sub-dimension (r[.468]), $p<0.01$); eating for physical rather than emotional reasons sub-dimension (r[.308]), $p<0.01$); but there is no significant relationship with the sub-dimension of body food choice overlap (r[-.027]), $p>0.01$). It was understood

that there was a positive relationship between the food availability sub-dimension and the food tasting sub-dimension (r[.684]), p<0.01); the food power scale total score (r[.847]), p<0.01); the unconditional desire to eat sub-dimension (r[.288]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.154]), p<0.01); the reliance on hunger and satiety cues sub-dimension (r[.395]), p<0.01), but there was no significant relationship with the body food choice overlap sub-dimension (r[-.033]), p>0.01). It was understood that there was a positive relationship between the food tasting sub-dimension and the food power scale total score (r[.888]), p<0.01); the unconditional desire to eat sub-dimension (r[.431]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.267]), p<0.01); the reliance on hunger and satiety cues sub-dimension (r[.517]), p<0.01), but there was no significant relationship with the body food choice overlap sub-dimension (r[.050]), p>0.01). It is understood that there is a positive relationship between the total score of the Food Power Scale and the unconditional desire to eat sub-dimension (r[.460]), p<0.01); the eating for physical rather than emotional reasons sub-dimension (r[.286]), p<0.01); the trust in hunger and fullness cues sub-dimension (r[.589]), p<0.01), but there is no significant relationship with the overlap in body food choices sub-dimension (r[-.005]), p>0.01). It is understood that there is a positive relationship between the unconditional desire to eat sub-dimension and the eating for physical rather than emotional reasons sub-dimension (r[.674]), p<0.01); the trust in hunger and fullness cues sub-dimension (r[.637]), p<0.01) and finally the overlap in body food choices sub-dimension (r[.455]), p<0.01). It is understood that there is a positive relationship between the sub-dimension of eating for physical rather than emotional reasons and the sub-dimension of trust in hunger and fullness cues (r[.504]), p<0.01) and the sub-dimension of overlap in body food choices (r[.424]), p<0.01). Finally, a positive relationship was found between the sub-dimension of trust in hunger and fullness cues and the sub-dimension of overlap in body food choices (r[.282]), p<0.01).

Discussion and Conclusion

The main objective of this study was to examine the relationship between hedonic hunger and intuitive eating behaviors, and to assess the role of gender in this relationship.

Findings revealed no statistically significant gender differences in either the total or subscale scores of the Power of Food Scale (PFS). This is consistent with prior research. For instance, (Taşçı, 2024) found significant gender-based differences only in the “Tasting Food” subscale during exam periods, suggesting that situational variables might influence hedonic hunger. However, (Arslan et al., 2023) reported no significant gender differences in the "Availability of Food" and "Tasting Food" subscales, which supports the current study’s results. Similarly, (Lowe et al., 2007) found no overall gender-based differences in hedonic hunger.

In addition, no significant gender differences were found in the subscales of the Intuitive Eating Scale (IES). Intuitive eating, which emphasizes aligning eating behaviors with internal bodily cues, has been associated with improved physical and psychological outcomes. Research also shows that intuitive eating principles are increasingly integrated into nutrition and weight management practices, particularly in the treatment of eating disorders (Bacon et al., 2002; Yayan and Karaca, 2019). Furthermore, studies on mindful eating conceptually similar to intuitive eating have also reported no gender-based differences in relation to BMI (Anderson et al., 2016), aligning with our findings.

Among male participants (Table 3), a significant correlation was found between BMI and the "Unconditional Permission to Eat" subscale of the Intuitive Eating Scale. This supports previous findings indicating that higher intuitive eating scores are associated with lower BMI. Research across various populations (e.g., Spanish-American, German, and French adults) has consistently shown that individuals with a normal BMI report higher levels of intuitive eating compared to those who are overweight or obese (Saunders et al., 2018; Bouldier et al., 2017; Özkan and Bilici, 2018). Further supporting this, studies on young adults have found an inverse relationship between intuitive eating and behaviors aimed at controlling body weight. Those who eat intuitively are reported to be 40% less likely to engage in restrictive dieting or weight control behaviors (Denny et al., 2013; Cancian et al., 2017; Gözcü, 2024). Among female participants (Table 4), no significant correlations were observed between BMI and the subscales of the Intuitive Eating Scale, aligning with prior research suggesting that the relationship between BMI and intuitive eating may be gender-specific or influenced by other mediating factors.

Correlation analysis (Table 7) revealed a negative relationship between physical activity levels and Power of Food Scale scores. This finding is in line with (Hayzaran, 2018), who reported that university students with higher weekly physical activity levels had lower hedonic hunger. In contrast, (Yılmaz and Saka, 2019) observed a positive correlation, suggesting that prolonged or high-intensity exercise may increase reward sensitivity to food. These mixed findings may be attributed to differences in sample characteristics, measurement tools, or the intensity and duration of physical activity.

Analysis of physical activity and intuitive eating (Table 7) showed no significant correlations between activity levels and any subdimensions of the Intuitive Eating Scale. This is consistent with Nielson (Nielson, 2009), who also found no significant overall relationship, though an increase in intuitive eating scores was noted with higher physical activity levels. However, other studies offer conflicting results. For example, Yaşar (2018) reported a significant positive relationship between physical activity and total intuitive eating scores among university students, suggesting that individual lifestyle factors may influence this association.

Limitations: This study has several limitations. First, since the study is based on a cross-sectional design, no inferences can be made about causal relationships between variables. Second, physical activity status was assessed solely based on participants' responses to a single question; this approach does not allow for detailed measurement of duration and intensity and is susceptible to self-report bias. Third, data were collected through self-report questionnaires, and responses may be distorted by social desirability effects.

Strengths: Nevertheless, the study also has notable strengths. The sample size is relatively large, which has increased statistical power. Furthermore, hedonic hunger and intuitive eating behaviors were assessed using scales with proven validity and reliability in Turkish (PFS, IES-2). The study makes a unique contribution to the field by examining the relationship between hedonic hunger, intuitive eating, and physical activity within the same model, which has been addressed in a limited number of studies in the literature.

Conclusion

In conclusıons, this study reveals that the relationship between hedonic hunger and intuitive eating behaviors is complex and may be influenced by gender. Considering the impact of psychological factors such as intuitive eating and hedonic hunger on individuals' eating behaviors and weight management, it is crucial to support this field with more detailed research that takes gender differences into account. Future studies should comprehensively examine the role of individual and environmental factors in this relationship, providing guidance for the development of healthy eating habits and the enhancement of overall quality of life.

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