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RESEARCH ARTICLE

INVESTIGATION OF EMOTIONAL EATING, UNCONTROLLED EATING AND MINDFUL EATING BEHAVIORS IN FEMALE NURSING STUDENTS: A CROSS-SECTIONAL STUDY

Gülsüm Zekiye Tuncer[1], Zekiye Çetinkaya Duman[2]

[1] Dokuz Eylul University, Faculty of Nursing, Department of Psychiatric Nursing, Izmir, Turkey
[2] Dokuz Eylul University, Faculty of Nursing, Department of Psychiatric Nursing, Izmir, Turkey

ORCID: G.Z.T. 0000-0001-8969-7139; Z.Ç.D. 0000-0002-7447-874X

Corresponding author: Gülsüm Zekiye Tuncer, **E-mail:** gulsumdamlarkaya@gmail.com
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ABSTRACT

Purpose: In this study, it was aimed to investigate female nursing students' emotional eating, uncontrolled eating and mindful eating behaviors, perceived stress levels and the relationship between these variables.
Material and Methods: The sample of the study consisted of 106 3rd and 4th grade female nursing students aged 20-28 years studying in a nursing faculty in the 2020-2021 academic year. Data were collected using Three-Factor Eating Questionnaire (TFEQ), Mindful Eating Questionnaire (MEQ), and Perceived Stress Scale (PSS).
Results: While the mean score the participants who did not eat regularly obtained from the uncontrolled eating subscale was significantly higher, the mean scores the participants who were on a diet obtained from the MEQ, and cognitive restriction, emotional eating subscales and their mean BMI values were significantly higher ($p<.05$). It was determined that while the change in the participants' BMI could explain their emotional eating behaviors ($B = 1.35$, $p <.05$), the change in their mindful eating could explain both their emotional eating and uncontrolled eating ($p <.05$).
Conclusion: In this study, it was determined that during the online education period, the participants suffered eating behaviors-related problems, that they did not develop mindful eating behaviors, and that there was a relationship between their eating behavior-related problems.

Keywords: Emotional eating, female nursing students, mindful eating, uncontrolled eating,perceived stress

INTRODUCTION

Eating behavior is an important requirement for individuals to maintain their survival. This requirement is a complex process in which not only physiological factors but also psychological factors play an important role (1). In general, eating behavior problems are defined as binge eating, undereating and compensatory behaviors (2). Emotional eating triggered by emotional stimulation constitutes an important dimension of binge eating behavior and may urge an individual to overeat (1). Emotional eating is an eating problem that refers to the tendency to overeat, which occurs in response to stress and negative emotions (3). Emotional eaters use their eating behavior as a coping method to get rid of negative emotions or stress, which as a result, turns into a problematic behavior (1,4). Another binge eating behavior is uncontrolled eating. Uncontrolled

eating is defined as a tendency to lose control over food consumption when a person feels hungry, and he or she is exposed to an external stimulus (5). In several studies, eating problems have been reported to increase weight gain, and to cause problems such as low self-esteem, lack of emotion management and eating disorders (3). In addition, eating problems can be a potential factor of obesity (6). One of the appropriate eating behaviors that prevent these problems from occurring is an individual's developing mindful eating behavior (7). Mindful eating is defined as an eating behavior through which a person internalizes the symptoms of physical hunger and satiety and becomes aware of his or her feelings and thoughts by focusing on the food to be consumed at that moment without judging the environmental factors and food choices (8,9). In the literature, it is reported that individuals with a high level of mindful eating behavior have emotional eating behaviors less and experience less stress (10).

Among the groups suffering from eating problems frequently are children, adolescents, women, and obese individuals (11-13). Eating problems are common not only in obese people, but, in particular, also in normal weight young women (14). Therefore, it is very important for young women to maintain appropriate eating behaviors to protect their health (15). The review of the literature has revealed that nursing students who are in one of these risk groups including young women suffer from eating problems (16). In several studies, it has been determined that students' eating habits worsen as their stress level increases (17-20). Students' emotional and uncontrolled eating behaviors are also affected by their perception of stress. In addition, in studies, presence of a relationship between these students' emotional eating behaviors and their perceived stress levels is reported (14,21). Therefore, high levels of perceived stress adversely affect students' eating behaviors (22,23). Especially female nursing students are exposed to stress at high levels during their education, a transition period of their lives (21). Nursing students may face academic, clinical and psychosocial stressors from the first moments of their education life (20). Especially during the online education period, life changes such as fear of illness, health anxiety, social isolation, online education, and disruption of nursing education processes are also among the factors leading to stress (23,24).

Female nursing students' being in the educational process and in a transition period due to the Covid-19 Pandemic causes them to perceive stress at a higher level, which may cause female nursing students to have eating behaviors-related problems (23-25). In the literature, the relationship between nursing students' emotional eating, uncontrolled eating and mindful eating behaviors, and their perceived stress levels has not been fully illuminated and the number of studies investigating this issue from the aspect of women is very few. In addition, determining the emotional eating and uncontrolled eating behaviors of students in a stressful period such as the Covid-19 Pandemic and the variables that affect this eating behavior will contribute to the content of the interventions that can affect the impaired eating behaviors (25,26). Therefore, this study was conducted to investigate female nursing students' emotional eating, uncontrolled eating and mindful eating behaviors, perceived stress levels during the online education period and the relationship between these variables.

Study questions are listed below:

- What are the emotional eating, uncontrolled eating and mindful eating behaviors of female nursing students like?
- What are the variables that affect female nursing students' emotional eating, uncontrolled eating and mindful eating behaviors and perceived stress?
- Is there a relationship between emotional eating, uncontrolled eating and mindful eating behaviors and perceived stress levels of female nursing students?
- What are the predictive variables for female nursing students' emotional eating, uncontrolled eating and mindful eating behaviors?

MATERIAL AND METHODS

Research Design: This descriptive and cross-sectional study was conducted with 3rd and 4th year female nursing students studying at a Faculty of Nursing between May 2020 and December 2020. In the spring semester, it is aimed to give one-third of the education online and the rest in clinics.

Participants and Sample: The study population included 334 3rd and 4th grade female nursing students studying in the Faculty of Nursing in the 2020-2021 Education and Training year. In this study, 3rd and 4th grade students were purposively selected. In the education program of the faculty where the study was conducted, there is a Nutrition

course in the 2nd semester of the 2nd grade. In order to ensure that students have similar knowledge about eating and nutrition, it was planned that students who had taken the basic nutrition course would constitute the sample. The inclusion criteria of this study were, "3rd and 4th year female students of the nursing faculty", 18-28 years of age" and "taking the Nutrition course in the second year". The students were in the age group of 20-28 years. Of these 334 nursing students, 106 who volunteered to participate in the study comprised the sample of the study. In the Post-hoc Power Analysis performed after the volunteer students included in the sample, the effect size and the power of the study were determined as 0.3 and 94% respectively.

Instruments: The Personal Data Form, Three-Factor Eating Questionnaire (TFEQ), Mindful Eating Scale (MEQ), and Perceived Stress Scale (PSS) were used as data collection tools.

1. Personal Data Form: The Personal Data Form was developed by the researchers based on the pertinent literature (14) in order to obtain information about the sociodemographic, and health- and diet-related characteristics of the participants. The form includes items questioning variables such as the participating nurses' age, body mass index (BMI), eating regularly, doing physical activities regularly and previous dieting status, and the number of meals they have.

2. Three Factor Eating Questionnaire (TFEQ): The Three-Factor Eating Questionnaire (TFEQ) was first developed by Stunkard and Messick in 1985 to measure the behavioral and cognitive components of eating. In 2016, Karakuş et al. studied the psychometric properties of the 21-item TFEQ adapted it into Turkish (5). The items of the TFEQ are rated on a 4-point Likert-type scale feature. The TFEQ measures eating behavior with three sub-dimensions: cognitive restriction (CR), uncontrolled eating (UE) and emotional eating (EE). In Karakuş et al.'s study, the Cronbach's α coefficient values of the subscales were as follows: .80 for the cognitive restriction (CR), .87 for the emotional eating (EE), and.78 for the uncontrolled eating (UE) (5). In this study, the Cronbach's α coefficient values of the subscales were as follows: .89 for the CR, .93 for the EE, and .86 for the UE.

3. Mindful Eating Questionnaire (MEQ): The Mindful Eating Questionnaire (MEQ) was first developed by Framson et al. in 2009 to measure mindful eating. In 2016, Köse et al. studied the psychometric properties of the MEQ adapted it into Turkish (8). The MEQ includes 7 sub-dimensions and 30 items whose responses are rated on a 5-point Likert type scale. Of the 30 items, 20 are reverse scored. The arithmetic mean of the scores obtained from the overall MEQ and its subscales is used for the assessment. The scale also gives a total mindful eating score. The Cronbach's α coefficient value of the scale was .78 in Köse et al.'s study (8) and .67 in the present study.

4. Perceived Stress Scale (PSS): Perceived Stress Scale (PSS-14) was developed by Cohen, Kamarck and Mermelstein (1983) to measure how stressful an individual perceives situations in his or her life. The validity and reliability study of the Turkish version of the PSS was conducted by Eskin et al. (27). The scale consists of 14 items whose responses are rated on a 5-point Likert-type scale. Of the 14 items, seven are reverse scored. While 10 of the items are in the Perceived Helplessness subscale (PSS-10), 4 of the items are in the Perceived Self-Efficacy subscale (PSS-4). The higher the score the person obtains from the scale is, the higher his or her perception of stress is. The Cronbach's α coefficient value of the scale was .84 in Eskin et al.'s study (27) and .88 in the present study.

Procedure: The data collection tools were transferred to the Google Survey forms and the data was collected by sending the forms to the participants' e-mail addresses with ".edu" domain. The forms were sent to the students through their e-mail addresses twice with announcements and three times with reminders. Of the participants, 107 filled in the data collection tool on the dates when the data of the study were collected, and of the forms, 106 which were completely filled out were evaluated. The average time for the participants to answer the tools administered in the study was 9.56 minutes.

Analysis: The mean scores obtained from the TFEQ and MEQ and their subscales were the dependent variables of the study whereas the participants' characteristics were the independent variables of the study. The SPSS 22.0 was used to analyze the data. The descriptive findings were calculated over the number, percentage and mean. Before calculating the data of the study, the Shapiro Wilk test was applied; data showed normal distribution. To perform the analysis of the scores obtained from the Emotional Eating, Uncontrolled Eating, and Mindful Eating subscales, the multiple regression analysis

Table 1. Sociodemographic Characteristics of Female Nursing Students (n=106)

		n	%	X̄ ± SD	Min-Max
Age				21.45 ± 1.36	20 - 28
BMI				21.75 ± 3.51	15.57 - 38.75
The number of meals they have daily				2.86 ± .82	2 - 6
Doing physical activities	**No**	27	25.5		
	Yes	**79**	**74.5**		
Eating regularly	**No**	**74**	**69.8**		
	Yes	32	30.2		
Dieting	**No**	45	42.5		
	Yes	**61**	**57.5**		
Total		106	100		

Table 2. The Mean Scores the Female Nursing Students Obtained from the TFEQ, MEQ and PSS (n=106)

Variables	Sub-dimensions	X̄ ± SD	Min-Max
TFEQ*	Cognitive restriction	48.58 ± 23.57	0-100
	Emotional eating	39.57 ± 28.50	0-100
	Uncontrolled eating	41.12 ± 19.64	0-92
MEQ**	Total score	2.86 ± .33	2.13-3.70
PSS***	Total score	47.06 ± 3.67	37-55
	PSS-4	12.85 ± 1.29	9-15
	PSS-10	33.15 ± 2.94	26-39

*TFEQ = Three-Factor Eating Questionnaire ** MEQ = Mindful Eating Questionnaire *** PSS =Perceived Stress Scale

was used. Pearson Correlation analysis was used to examine the relationship between the variables such as BMI and age, and the mean scores obtained from the TFEQ and its sub-dimensions, from the MEQ and its sub-dimensions and from the PSS and its sub-dimensions. Independent-group t-test analyzes were used to calculate the differences between variables the TFEQ and its sub-dimensions, the MEQ and its sub-dimensions, and the PSS and its sub-dimensions.

Ethical considerations: In order to conduct the study, an institutional permission was obtained from the Faculty of Nursing of a university (decision number: 153, date: May 27, 2020) and the ethics committee approval was obtained from the relevant university's Non-interventional Clinical Research Ethics Committee (date: August 04, 2020, decision number: 2020 / 17-33, 5552-GOA). To administer the TFEQ, MEQ and PSS, permission was obtained from the authors who performed the validity and reliability studies of the scales. In addition, from the participants, informed consent indicating that they volunteered to participate in the study was obtained.

RESULTS

In Table 1, mean values related to the female nursing students' age and BMI, and the number of meals they have daily are given. The analysis of the sociodemographic characteristics of the participants indicated that their mean age and BMI value were 21.45 and 21.75 respectively, that the average number of meals they had daily was 2.86, that 74.5% of them did physical activities, that 69.8% of them did not eat regularly and skipped meals and that 57.5% went on a diet at least once. In Table 2, the mean scores the participants obtained from the TFEQ, MEQ and PSS are given. The mean scores the participants obtained from the cognitive restriction, emotional eating and uncontrolled eating sub-dimensions of the TFEQ were 48.58 ± 23.57, 39.57 ± 28.50 and 41.12 ± 19.64 respectively. The mean score the participants obtained from the MEQ was 2.86 ± .33. The mean scores the participants obtained from the overall PSS, and its PSS-4 and PSS-10 sub-dimensions were 47.06 ± 3.67, 12.85 ± 1.29 and 33.15 ± 2.94 respectively.

In Table 3, the comparison of the mean TFEQ, MEQ, PSS scores with BMI values in terms of the female nursing students' regular eating behavior and physical activity levels are given. The mean score obtained from the uncontrolled eating behavior subscale by the participants who did not eat regularly was significantly higher than was that obtained by the participants who ate regularly ($t = -4.172$, $p < .05$). The mean scores obtained from the mindful eating, cognitive restriction and emotional eating

Table 3. Comparison of TFEQ, MEQ, PSS Scores with BMI in Terms of the Female Nursing Students' Regular Eating Behavior and Physical Activity Levels (n=106)

			MEQ Total		TFEQ cognitive restriction		TFEQ emotional eating		TFEQ uncontrolled eating		PSS		BMI	
			t	p	t	p	t	p	t	p	t	p	t	p
Doing physical activities	**No**	27	-.082	.93	-1.432	.15	.160	.87	.008	.99	-.168	.86	.735	.46
	Yes	**79**												
Eating regularly	**No**	**74**	-1.888	.06	-.191	.84	-1.792	.07	**-4.172***	**.00**	-1.042	.30	.329	.74
	Yes	32												
Dieting	**No**	**61**	**-3.878***	**.00**	**-6.025***	**.00**	**-3.001***	**.00**	-1.213	.22	.055	.95	**-5.338***	**.00**
	Yes	45												

*p < 0.05 **Independent-group t-test analyzes

Table 4. Distribution of the Relationship between the Mean Scores obtained from the TFEQ, MEQ and PSS by the Female Nursing Students (n=106)

		MEQ Total	TFEQ cognitive restriction	TFEQ emotional eating	TFEQ uncontrolled eating	PSS
MEQ Total	r**	1				
	p					
TFEQ cognitive restriction	r	.352*	1			
	p	.000				
TFEQ emotional eating	r	.642*	.250*	1		
	p	.000	.010			
TFEQ uncontrolled eating	r	.583*	.220*	.713*	1	
	p	.000	.024	.000		
PSS	r	.126	.154	.003	.075	1
	p	.199	.116	.975	.446	
BMI	r	.300*	.227*	.353*	.307*	.088
	p	.002	.020	.000	.001	.369

* p < 0.05 **Pearson correlation analyzes

subscales by the participants who dieted and their BMI values were significantly higher than were those of the participants who did not diet (t = -3.878, p <.05; t = -6.025, p <.05; t = -3.001, p <.05; t = -5.338, p <.05).

As is seen in Table 4, there was a low, positive, significant correlation between the mean score for the overall MEQ and that for the cognitive restriction subscale of the TFEQ (r = .35, p <.001), a moderate, positive, significant correlation between the mean score for the overall MEQ and that for the emotional eating subscale of the TFEQ (r = .64, p <.001), a moderate, positive, significant correlation between the mean score for the overall MEQ and that for the uncontrolled eating of the TFEQ (r = .58, p <.001), and a low, positive, significant correlation between the mean score for the overall MEQ and BMI (r = .30, p <.05).

In Table 5, how independent variables explained the female nursing students' emotional eating, uncontrolled eating and mindful eating behaviors was investigated through the multiple regression analysis. It was found that the change in the participants' mindful eating behaviors and BMI values could explain emotional eating behavior (B = 1.35, p <.05; B = 47.75, p <.05), that change in their mindful eating behaviors could explain their uncontrolled eating behaviors (B = 29.43, p <.05), and that the change in their cognitive restriction, emotional eating and uncontrolled eating behaviors could explain their mindful eating behaviors (p <.05).

DISCUSSION

In the present study, female nursing students' eating behaviors and their perceived stress levels, and the relationship between them were examined. The mean value of BMI of the participating students, whose mean age was 21.75, years was 21.45 and the mean number of the meals they had daily was 2.86. In addition, the majority of the participants did physical activities, more than half of them did not eat regularly and skipped meals and more than half of them went on a diet at least once in lifetime (Table 1). In Costarelli and Patsai's study, the mean BMI values of female nursing students in the age group of 18-25 years was 21.38 (28). Similarly, in Salma et al.'s study, the mean BMI values of 67% of female nursing students aged between 22 and 24 years was normal

(19). In a study conducted during the Covid-19 Pandemic, the number of meals nursing students had daily was insufficient (21). In Constant et al.'s study, 68% of the female university students did physical activities moderately (29). In another study, 72% of the female nursing students did not eat regularly (19). In a study conducted during the Covid-19 Pandemic, regular dietary habits of young adults worsened (30). The results of the present study and those of the studies in the literature demonstrate that female nursing students' diet and regular eating behaviors were impaired during the online education period.

In the present study, the scores the participants obtained from the sub-dimensions of the TFEQ suggest that they had eating behavior-related problems (Table 2). In a similar study, the mean scores the young adult students obtained from the cognitive restriction, emotional eating and uncontrolled eating subscales of the TFEQ were 39.3, 37.3 and 40.9 respectively (31). In the present study, the mean score the participants obtained from the mindful eating questionnaire was low. In a study conducted in Australia, the mean score the participating students obtained from the overall MEQ was 2.92 (7). In the present study, the mean score the participants obtained from the Perceived Stress Scale (PSS) was quite high. In another study, 63% of the participating nursing students' perceived stress levels were high (32). In Kalkan Uğurlu et al.'s study conducted with female nursing students during the Covid-19 Pandemic, the participating students' stress levels were high (24). These results suggest that female nursing students perceive high levels of stress and that their eating behaviors are impaired especially during stressful periods such as the Covid-19 Pandemic and the learning process.

In the present study, of the participants, those who did not eat regularly obtained significantly higher mean scores from the uncontrolled eating subscale than did those who ate regularly. In addition, of the participants, those who were on a diet obtained significantly higher mean scores from the emotional eating subscale than did those who did not diet (Table 3). Our search for studies in which the correlation between uncontrolled eating behavior and regular eating habits during the COVID-19 Pandemic was investigated revealed a gap in the literature. However, in a study conducted during the COVID-19 Pandemic, the correlation between the dietary compliance behaviors and uncontrolled eating scores of young individuals was investigated. In that study, the participants' intra-pandemic uncontrolled eating and emotional eating subscale scores were higher than were their pre-pandemic scores, and their intra-pandemic dietary compliance behaviors were worse than their pre-pandemic dietary compliance behaviors (30). In another study, college students with high sweet craving obtained high scores from the uncontrolled eating and emotional eating subscales (31). These results indicate that there may be an association between the disruption in eating patterns and uncontrolled eating behavior in young individuals.

In the present study, the mean cognitive restriction subscale scores and BMI values of the participants who were on a diet were significantly higher than were those of the participants who were not on a diet. In a similar study, BMI levels of female nursing students who were not on a diet were normal (19). These results indicate that an increase in female nursing students' BMI values causes them to display restricted eating and dieting behaviors more.

In the present study, a positive and significant relationship was determined between the participants' total MEQ scores and their BMI values and the mean scores they obtained from the Cognitive Restriction, Emotional Eating and Uncontrolled Eating subscales of the TFEQ (Table 4). In another study, no significant relationship was determined between university students' TFEQ scores and their BMI levels and mindful eating behaviors, thought to stem from the fact that the sample included both male and female students (33). In the study, no relationship was found between perceived stress level and eating behaviors. It is thought that this may be due to the difference in coping strategies with perceived stress. It is thought that the difference in coping strategies may affect the emergence of eating behaviors. In the present study, the change in BMI values and mindful eating behaviors of the participating female nursing students could predict their emotional eating behaviors (Table 5). Our search for studies in which variables that predict the emotional eating behavior of nursing students were studied revealed a gap in the literature. However, in a study conducted with obese women, a decrease in the mindful eating behavior explained their emotional eating behavior (13). In the present study, it was concluded that a decrease in the mindful eating behavior increased the BMI level, which can predict emotional eating behavior. In the present study, the change in the participants' mindful eating behaviors predicted their uncontrolled eating

Table 5. Results of the Multiple Regression Analysis of the Variables that Predict Emotional Eating, Uncontrolled Eating and Mindful Eating Behaviors of the Female Nursing Students (n = 106)

		t	p	B (%95 Confidence Interval)**	ANOVA(F)	Model(p)	R^2
TFEQ Emotional Eating	**Age**	.06	.51	1.03(-2.13-4.20)	17.512	.00*	.44
	BMI	2.13*	.03	1.35(.09-2.61)			
	The number of meals	1.78	.07	4.71 (.53-9.95)			
	MEQ total	7.00*	.00	47.75 (34.23-61.27)			
	PSS total	-1.11	.26	-.64 (1.80-.50)			
TFEQ Uncontrolled Eating	**Age**	1.10	.27	1.30(-1.04-3.66)	12.410	.00*	.352
	BMI	1.45	.15	.68(-.25-1.61)			
	The number of meals	1.63	.10	3.20 (-.69-7.09)			
	MEQ total	5.82*	.00	29.43(19.40-39.45)			
	PSS total	-.09	.92	-.04(-.89-.81)			
Mindful Eating	**Age**	.15	.87	.003(-.01-.01)	13.425	.00*	.453
	BMI	.39	.69	.003(-.03-.04)			
	The number of meals	.83	.40	.02 (-.03-.08)			
	PSS total	1.06	.29	.007(-.00-.02)			
	TFEQ Cognitive Restriction	2.27*	.02	.003(.000-.005)			
	Emotional Eating	3.82*	.00	.005(.002-.005)			
	Uncontrolled Eating	2.04*	.04	.004(.002-.007)			

*p < .05 **The multiple regression analyzes

behaviors. Similarly, in a study, the change in the mindful eating behaviors and BMI levels of university students explained their uncontrolled eating behaviors (34). In the present study, the change in the participants' cognitive restriction, emotional eating and uncontrolled eating behaviors explained their mindful eating behaviors. In the literature, there is a gap related to studies in which variables predicting nursing students' mindful eating behaviors were investigated. Unlike the present study, in a study conducted with university students, their cognitive restriction, emotional eating and uncontrolled eating behaviors did not predict their mindful eating behaviors (13). However, in another study, emotional eating and cognitive restriction behaviors of obese women predicted their mindful eating behaviors (33). These results indicate that the results of studies conducted to find out whether the increase in women's mindful eating behaviors would explain their emotional eating behaviors varied from one study to another. In addition, in the literature, the number of studies in which whether the change in female nursing students' mindful eating behaviors would predict their emotional eating behaviors was investigated is few.

Limitations: One of the limitations of the present study is that it was conducted only with female nursing students studying at a nursing faculty of a university. Therefore, the results obtained from this study are applicable only to the female nursing students surveyed during the Covid-19 Pandemic and they cannot be generalized to all female nursing students. Another limitation of the present study is that the data were collected by e-mails. Therefore, some of the students may not have received or accessed the e-mail sent to them. Another limitation of this study is that the faculty where the study was conducted had a nutrition course in the fall semester of the 2nd grade, which caused the sample of the study to consist of only 3rd and 4th grade students. This situation caused that the eating behaviors of all nursing students could not be measured.

CONCLUSION

In the present study, it was determined that the female nursing students suffered eating behaviors-

related problems during the online education period, that they displayed poor mindful eating behaviors, and that there was a relationship between their eating behavior-related problems and unconscious eating behaviors. The increase in the time spent by the participants at home due to the Covid-19 pandemic caused them to have eating behavior-related problems, which reveals the importance of interventions aimed at establishing correct eating behaviors in the 3rd and 4th grade female nursing students who are the candidates of the nursing profession. Because it is uncertain when the pandemic process will end, it is recommended to implement online interventions aimed at improving female nursing students' mindful eating behaviors and encouraging them to establish correct eating behaviors when they stay at home. In the present study, although no relationship was determined between the perceived stress level and eating behaviors, it was observed that the participants perceived high levels of stress during the online education process. Therefore, it is recommended to conduct online intervention studies aimed at enabling students to cope with stressors. It is also recommended that descriptive qualitative studies in which the stressors of female nursing students and the effects of these stressors on eating behaviors are investigated should be conducted. It is recommended to conduct a study in which eating behaviors, perceived stress and coping patterns are examined together.

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Ethical approval: In order to conduct the study, an institutional permission was obtained from the Faculty of Nursing of a university (decision number: 153, date: May 27, 2020) and the ethics committee approval was obtained from the relevant university's Non-interventional Clinical Research Ethics Committee (date: August 04, 2020, decision number: 2020 / 17-33, 5552-GOA). The document is attached.
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