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Eating Disorders And Affecting Factors Among The Students Of The Faculty Of Health Sciences: A Foundation University Example

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Abstract

Aim

Eating disorders (EDs) are particularly common among teenagers, including college students. The aim of this study is to determine the prevalence of eating disorders among students of a foundation university in Istanbul. The risk of eating disorders will be evaluated and interpreted according to socio-economic, clinical, related factors such as anxiety and depression.

Materials and Methods

A descriptive and analytical cross-sectional study was carried out at the Faculty of Health Sciences of a foundation university in Istanbul in the 2021-2022 academic year. It was studied with a randomly selected sample of 358 students. To screen for eating disorders, anxious and depressive eating disorders, the SCOFF-F questionnaire (Patient, Control, Solitaire, Fat, Food; Turkish version) was an approved tool to screen for eating disorders. HAD scale (Hospital anxiety and depression) was used.

Results

The SCOFF questionnaire found that 90 out of 358 students (ie 25%) had an eating disorder. Age, education level, use of weight control tools, anxiety and depression are factors that are significantly associated with the risk of developing an eating disorder in students.

Conclusion

The results of our study are consistent with the data in the literature regarding the frequency of eating disorders in the student population and more specifically in health students. Further studies of a more diverse population may also be considered to have a more global vision of the eating disorder.

Keywords: Eating disorders, faculty of health sciences students, prevalence, risk factors

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Introduction

Eating Disorders (ED) refers to distress of psychological origin characterized by abnormal eating habits. It is associated with insufficient or excess nutrient intake that harms an individual's physical and emotional health.

In the literature, bulimia and anorexia nervosa like eating disorders are considered to be common (1). Today, subclinical eating disorders occur more and more in children and adolescents and have an extremely important effect on psychosocial development (2). Eating disorders are particularly common among young adults, including college students (3).

The absence of differential diagnosis symptoms and diagnostic criteria in the early stages of the disease often leads to late diagnosis. However, some screening scales provide convenience in terms of early diagnosis. For example, such an example scale is the SCOFF-F scale (REZZY), which is a test to help screen and diagnose eating disorders in university students (4).

Eating behavior is affected by many biological, psychological, family, socio-cultural and various multidimensional factors. EDs are of multifactorial origin and can be attributed to an association of biological, social, and psychological vulnerability factors (5).

The students of the faculty of health sciences may have eating disorders due to school stress and eating disorders due to excessive course load. Young adulthood also increases the risk of developing an eating disorder in terms of relationships, self-concept and future goals of this stage of life. The fact that these risks become permanent problems may cause negative consequences for the general performance of health students (6).

This research on the burden of eating disorders in the student population was conducted at a foundation university in Istanbul with the highest student capacity. The research

aims to determine the prevalence of possible ED among the students of the aforementioned foundation university "Faculty of Health Sciences" and, accordingly, to evaluate the risk of ED. The dependent variable is the REZZY-SCOFF scale, and the independent variables are socio-economic status, clinical features, anxiety and depression.

Material and Methods

Study type: This is a descriptive and analytical cross-sectional study conducted in the Faculty of Health Sciences of a foundation university in Istanbul in the academic year 2021-2022.

Target audience: “Faculty of Health Sciences” students from first grade to fourth grade.

Sampling: This cross-sectional study was conducted with 1206 students. Simple random sampling was used. The survey was randomized, ensuring that all members of the base population were part of the required sample size among 2,408 students. It is based on volunteerism.

Application of the questionnaire and data collection: The students who agreed to participate in the questionnaire sent the questionnaires in a sealed and closed box in an envelope. The scales were filled in the classrooms, reading rooms and lecture halls of the Faculty of Health Sciences.

Inclusion criteria for the study: Accepting to participate in the study, being a "Faculty of Health Sciences" student at a foundation university.

Exclusion criteria: Students who refused to complete the questionnaire or were absent when the questionnaires were distributed.

Measurement tools: REZZY-SCOFF scale, HAD (Hospital Anxiety and Depression) scale

Socio-demographic and economic data: These data include age, gender, socio-economic level, clinical characteristics and education level.

SCOFF scale: The SCOFF-F (Sick, Control, One stone, Fat, Food; French version) questionnaire is an approved tool for screening eating disorders. It consists of binary questions (Yes/No); An affirmative answer to one or more questions indicates the

likelihood of an eating disorder. SCOFF has been validated in various populations and in different languages. It is considered a simple and effective screening tool for people with ED, especially used in student communities (4).

HAD: The HAD (Hospital Anxiety and Depression) scale is a tool used to screen for anxiety and depression. It consists of 14 items rated from 0 to 3. It relates to the Anxiety (total A) and the Depressive dimension (total D), thus allowing two points to be achieved (maximum score for each score = 21) (7).

Ethical Consent: The definition of eating disorders and the purpose of the study were explained for each student who participated in the survey. Verbal consent was considered sufficient to start the study. Before the ethical value data were collected, permission was obtained from the Social Sciences Ethics Committee of Beykent University (29072019/14). Confidentiality was guaranteed by obtaining verbal consent from the students.

Statistical evaluation: Data entry and coding were done with Excel program. Statistical analysis was performed using the statistical analysis software SPSS: Statistical Package for Social Sciences (SPSS) for Windows, version 13.0 (SPSS, Inc, Chicago). Descriptive analysis consists of calculating absolute and relative frequencies for qualitative variables and positioning and distribution parameters (mean, standard deviation) for quantitative variables. The correlation study and the difference between the groups with and without ED were made with the student test. The significance threshold was set at 5%. Therefore, correlation results were considered significant if $p < 0.05$.

Results

Socio-demographic characteristics: It was carried out with a total of 1206 students distributed. Randomized sampling method was used on a voluntary basis. A response rate of 92% was achieved. 6% of the students who did not accept to participate in the research stated that they did not like to fill out the scales, and 2% stated that they did not believe in the studies conducted with the scales. The average age of the students was 23.8 (SD: 1.4), and the extremes ranged from 18 to 27. Compared to the male gender (40.13%), the female gender (59.86%) is more dominant. The gender ratio

(F/M) is 1.49. The distribution of students according to classes, socio-economic levels and marital status are given in Table 1.

3% of the students in the sample had a psychiatric history, and 34% reported that they used cigarettes and 12% regularly used alcohol. According to body mass index (BMI), 15% of the students in our study were underweight, 16% were obese, and 22% were overweight. 47% of the remaining students were found to have normal weight standards. 31% of the students used weight control methods, dietitian and physician support. The prevalence of ED-related behaviors and practices among students was 37.2% (39.1% for girls, 24.2% for boys).

Weight control behavior was found in 21.5% of the students. With this; 32% of the students achieved weight control by dieting, 7% by being hungry and 3% by using appetite suppressants. 1.7% stated that they lost weight by vomiting. In addition, laxative and medical drug use was found to be 12%. The results are given in Table 2.

Significant differences were found between men and women in terms of weight control behavior ($p<0.001$). These differences are in favor of women.

A significant difference was found between both genders (35% female and 28% male; P=0.000). The image of sporty men in advertisements has emerged as an important factor in increasing the prevalence of eating disorders in men.

When the socio-economic level is low, only intermittent fasting and using appetite suppressants reduce the BMI value. Dietitian control, physician control, sports dietitian, and intermittent fasting (P=0.000) were found to be statistically significant. The results are given in Table 3.

Weight control behavior was significantly higher (P=0.001) among subjects with higher scores (35%) and those with ED compared to subjects with lower scores (22%). Appetite suppressants (P=0.001) were associated with these practices in the univariate analysis. In the multivariate analysis considering confounding factors, only dietitian control was effective (OR 3.52, P =0.029).

Anxiety-depression: According to the HAD scale (Hospital anxiety and depression), 37% of the population studied showed suspected anxiety symptoms and 5% showed definite anxiety. While 13% of the students have suspicious depression symptoms, 2%

show a certain depressive symptomatology. The SCOFF survey results are detailed in Table 4.

Evaluation of anorexia risk according to related factors: Age, education level, use of weight control tools, anxiety and depression are factors that significantly affect the risk of having an eating disorder (F; 5.92; P=0.000).

Results

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Table 1. Socio-demographic characteristics of the participants

Socio-demographic characteristics	Number	%
Gender		
Women	722	59,86
Men	484	40,13
SINIF		
1. Class	342	28,35
2. Class	264	21,89
3. Class	320	26,52
4. Class	280	23,24
SOCIO-ECONOMIC LEVEL		
Low	208	12,24
Average	637	52,82
High	361	29,94
MARITAL STATUS		
Married	5	0,42
Single	1201	99,58

Table 2. Clinical, Addictive substance, BMI, Weight control methods characteristics of study participants on factors associated with eating disorder risk among Faculty of Health Sciences students in the 2021-2022 academic year. (N = 1206).

Clinical Features	%
Psychiatric History	3
Addictive Substance	
Smoking	34
Alchool Intake	12
BMI	
Thin,	15
Obese	16
Over Weight	22
Normal	47
Weight Control Methods	
Sport	15
Dietician	22
Sport and dietician	34
Laxatives, Medications	12
Weight Loss Under Physician Control	6
Intermittent Fasting	9
Doesn't Use Any Methods	11

Table 3. Weight control behavior by gender, socio-economic status and BMI

Gender						SOCIO-ECONOMIC LEVEL				BMI			
			Laxatives	Sports	Dietician								
						Women	12(3.2)	11(2.4)	2.3(0.5)	3.7(1.2)	1.5(0.2)	4.5(0.5)	Dietician
						Men	23(3.4)	19(3.6)	5.1(2.7)	5.7(2.2)	3.4(1.4)	9.8(2.4)	
						Total	23(3.6)	23(1.9)	6.8(3.1)	6.9(1.8)	5.9(2.2)	12.1(4.9)	
						p	0.000	0.000	0.000	0.000	0.000	0.000	
						Low	22(3.2)	31(2.4)	5.3(0.5)	4.7(1.2)	2.5(0.2)	6.5(0.5)	
						Average	9(3.4)	1(0.6)	3.1(2.7)	4.1(2.2)	2.4(1.4)	8.8(2.4)	
						High	6(3.6)	14(1.9)	3.8(3.1)	5.7(1.8)	9.4(2.2)	34.8(4.9)	
						p	0.043	0.023	0.000	0.022	0.000	0.000	
						Low	82(2.2)	11(2.4)	2.3(0.2)	3.7(1.2)	1.5(0.1)	4.5(0.8)	
						Normal	23(0.4)	19(3.6)	5.1(2.2)	5.7(2.2)	3.4(1.1)	9.8(2.4)	
						Overwei	23(3.6)	23(1.6)	6.8(3.1)	6.9(1.2)	5.9(2.2)	12.1(4.3)	
						obese	12(3.1)	11(2.4)	2.3(0.5)	3.7(1.2)	1.5(0.2)	4.5(0.5)	
						p	0.000	0.000	0.012	0.000	0.000	0.031	

Table 4. Prevalence of probable eating disorders among students of the Faculty of Health Sciences: SCOFF survey results

SCOFF				UNIVARIATE ANALYSIS ANOVA				MULTIVARIATE ANALYSIS MANOVA			
	Negative(%)	Pozitive(%)		P	OR	95 % CI Lower value	Upper Value	P	OR	95 % CI Low	High
With Phvsicia	Laxatives	Sport and	Dietician	Sport							
5	8	12	25	22							
4	7	10	20	35	*0.003	*0.004	*0.001	*0.001	3.87	2.719	4.631	*0.001	1.8	1.803	4.631
					1.52	3.52	4.58	*0.001	2.5	2.012	5.218
					2.073	0.926	1.438	2.52	*0.001	1.241	12.561	*0.001	1.5	1.241	12.561
					15.891	23.710	5.218	12.561	*0.004	2.504	23.710	*0.004	8.5	2.504	23.710
					*0.003	*0.004	*0.001	*0.001	2.52	0.841	4.631	*0.001	2.5	1.438	5.218
					1.52	3.52	4.58	*0.001	3.87	2.719	12.561	*0.001	3.5	1.023	15.891
					2.073	0.926	1.438	2.52	*0.001	1.241	12.561	*0.004	8.5	2.504	23.710
					15.891	23.710	5.218	12.561	*0.004	2.504	23.710	*0.003	3.5	1.023	15.891