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Research Article

Evaluating Eating Disorders among Medical Students in Baghdad, Iraq

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Abstract

Background: Eating disorders represent a psychological problem characterized by abnormal eating behaviors and related emotions and thoughts. ***Aim***: The study aims to assess the prevalence of eating disorders among medical students in Baghdad, Iraq. ***Methods***: A cross-sectional study was conducted in medical departments that include medicine, dentistry, and pharmacy disciplines from January 2021 to March 2021 using an English version of a structured questionnaire. About 552 medical students participated in this study. ***Results***: The study showed that in some individuals with normal Body Mass Index values, 64.47% suffered from eating disorders as diagnosed by EAT-26 while according to SCOFF, 23.5% of normal individuals suffer from eating disorders. Overweight individuals are more likely to have eating disorders than underweight individuals. According to SCOFF, 33.44% of the overweight and 4.18% of underweight individuals scored above the cutoff value. They were likely to have eating disorders. Similarly, in accordance to EAT-26, 19.70% of the overweight individuals and 9.48% of the underweight individuals were likely to have eating disorders. ***Conclusion***: Many Iraqi medical students are predisposed to having eating disorders, with females being more vulnerable than males. To reduce the frequency of eating disorders among Iraqi medical students, a variety of initiatives and strategies are required.

Keywords: Eating disorders, Medical students, SCOFF, Test-26 (EAT-26).

تقييم اضطرابات الأكل بين طلاب الطب في بغداد، العراق

الخلاصة

الخلفية: تمثل اضطرابات الأكل مشكلة نفسية تتميز بسلوكيات الأكل غير الطبيعية والعواطف والأفكار ذات الصلة. **الهدف**: تقييم مدى انتشار اضطرابات الأكل بين طلاب الطب في بغداد، العراق. **الطرائق**: أجريت دراسة مقطعية في الأقسام الطبية التي تشمل تخصصات الطب وطب الأسنان والصيدلة من يناير 2021 إلى مارس 2021 باستخدام نسخة إنجليزية من استبيان منظم. شارك حوالي 552 طالب في هذه الدراسة. **النتائج**: أظهرت الدراسة أنه في بعض الأفراد الذين لديهم قيم مؤشر كتلة الجسم الطبيعية، عانى 64.47٪ من اضطرابات الأكل كما تم تشخيصها بواسطة EAT-26 بينما وفقا لمعيار SCOFF، يعاني 23.5٪ من الأفراد العاديين من اضطرابات الأكل. الأفراد الذين يعانون من زيادة الوزن هم أكثر عرضة للإصابة باضطرابات الأكل من الأفراد الذين يعانون من نقص الوزن. وفقا ل SCOFF ، سجل 33.44٪ من الأشخاص الذين يعانون من زيادة الوزن و 4.18٪ من الأفراد الذين يعانون من نقص الوزن أعلى من القيمة القاطعة ومن المحتمل أن يكون لديهم اضطرابات في الأكل. وبالمثل ، وفقا ل EAT-26 ، كان من المرجح أن يعاني 19.70٪ من الأفراد الذين يعانون من زيادة الوزن و 9.48٪ من الأفراد الذين يعانون من نقص الوزن من اضطرابات الأكل. **الأستنتاج**: العديد من طلاب الطب العراقيين معرضون للإصابة باضطرابات الأكل، حيث تكون الإناث أكثر عرضة من الذكور. للحد من تواتر اضطرابات الأكل بين طلاب الطب العراقيين، هناك حاجة إلى مجموعة متنوعة من المبادرات والاستراتيجيات.

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INTRODUCTION

Eating disorders (EDs) represent a psychological problem characterized by abnormal eating behaviors and related emotions and thoughts. The three main types of eating disorders are anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED) [1]. Usually, people who suffer from eating disorders are highly aware of their diet and body image; they tend to be perfectionists and extremely criticize their bodies [2]. Eating disorders' peak age of onset is 15-25 years, with an average illness duration of six years. The prevalence of eating disorders is increasing in high-income countries, specifically in combination with obesity [3]. According to the National Association of Anorexia Nervosa and Associated Disorders, about 30 million people of different ages and genders suffer from an Eating Disorder in the United States [4]. Other studies show that one in every six or seven young women has an eating disorder. However, this behavior is quite common in societies that pay attention to body image and weight; it can affect individuals of all sex, ages, raceway, and ethnic backgrounds knowledge [5]. The risk factors of EDs are psychological, biological, and sociocultural factors. Each subject has different characters and interactions, and two persons with the same eating disorder may have exceptionally different health outcomes. In this regard, many researchers reported predictable similarities in understanding the health hazards of the growing eating disorder behaviors [6]. Generally, most females with any form of EDs have fertility problems that need medical consultation and are most probably associated with the inability to feed and interact with their children. Eating disorders may be associated with increased risks of suicide and various forms of psychological disorders like depression and anxiety, which may impair their social behaviors [7]. They can be associated with cardiovascular and neurological complications and impaired physical development as common medical comorbidities, specifically with anorexia nervosa which predisposes to a mortality rate of 5% per decade [8]. Several studies have found that medical students are at a significant risk of having EDs. Recently, an international meta-analysis study reported a 10.4% overall prevalence of EDs risks among medical students and pointed to various factors contributing to this high rate of EDs like young age, workload, academic stress, and exposure to diseases [9]. Many studies have reported increasing abnormal attitudes and behaviors concerning eating and body image among young non-Western women and are expected to increase in the next few decades in low- and moderate-income countries [10]. Although an early intervention represents the first step toward full recovery, many EDs cases are undetected and untreated. However, pharmacological intervention, nutritional management, and family-based interventions are considered treatment approaches [11,7]. In Iraq, a cross-sectional survey of 3,916 subjects 18 years and older indicated that 65.7% of the participants were overweight or obese [12]. Meanwhile, there is a lack of special centers for the treatment of EDs, and the available healthcare facilities, dietitians, and psychotherapists were inadequate [13]. The current study aims to evaluate the prevalence of EDs and associated risks among Iraqi medical students in the Baghdad area.

METHODS

Study design

This study was conducted in Iraq, a middle-income country and a representative of developing countries in the Middle East. An electronic cross-sectional survey was conducted at the Iraqi medical universities (medicine, dentistry, and pharmacy) within the Baghdad city area from January 2021 to March 2021. English is the teaching language of the Iraqi medical universities. All the enrolled medical students were eligible to participate in the study and are first-year to six-year medical students in the medicine, dentistry, and pharmacy disciplines. The survey consisted of general questions related to students' demographics and questionnaire forms that screen for eating disorders' risks like the Eating Attitude Test-26 (EAT-26) [14] and SCOFF [15] questionnaires. There were also additional questions regarding recent social or familial stressors, use of medications and mental health services, current year of medical education, living arrangements, personal medical history, and family history of mental and eating disorders. The study protocol was approved by the local ethical committee of the Faculty of Pharmacy, Al-Rafidain University College in accordance with the internationally adopted guidelines and ethics of medical research.

Outcome measurements

An electronic version of the Eating Attitude Test-26 (EAT-26) questionnaire was utilized to screen for eating disorders risk. Section A of this questionnaire consists of 26 questions. Scoring is done on a 6-point scale from always (6) to never (0). The total sum of Eat-26 scores ranges from 0 to 78. Interpretation of scores is standardized as per protocol to identify high-risk individuals. Individuals scoring 20 or above were classified as the high-risk group. Meanwhile, section B covers behavioral weight-control patterns. It includes self-reported binge eating, self-induced vomiting, laxative diet pills or diuretics use, excessive exercising to control weight, along with a drastic weight loss of more than 8 kilograms over the past six months. The EAT-26 is a widely used psychometrical instrument that displays high internal consistency (Cronbach's $\alpha = 0.90$) [14,15]. Moreover, we used the Sick, Control, One, Fat and Food (SCOFF) questionnaire, another reliable and widely used tool, to evaluate eating disorder risks. The name is derived from an acronym of the following questions:

Do you make yourself **S**ick because you feel uncomfortably full?
Do you worry you have lost **C**ontrol over how much you eat?
Have you recently lost more than **O**ne stone (6.5 kg) in 3 months?
Do you believe yourself to be **F**at when others say you are too thin?
Would you say that **F**ood dominates your life?
It comprises five questions for which the scoring of each question is on a 2-point scale. A total score of 2 or more is deemed high-risk. It is an effective tool utilized for screening the suspected eating disorders with good psychometric properties (kappa statistic=0.73-0.82) [16,17].

Data analysis

All analyses were conducted using IBM SPSS software (version 24.0). Descriptive statistics were calculated for the point- prevalence of reported eating disorders. Associations between different general characteristics and outcomes were assessed using Pearson's chi-square test and Fisher's Exact test. All tests were 2-sided, with a type I error rate of 0.050.

RESULTS

Five hundred and fifty-two medical students have participated in this study. The majority of respondents were pharmacy students (58.7%), 85.9% lived at home with their parents, and 6.2% were married. For gender ranking, 75.2% of the responders were female. They were distributed equally among a year of medical education (Table 1). Interestingly, with approximately 11.1% of respondents diagnosed with a mental health disorder and 72.6% feeling continuous stress, only 19.4% were followed by a mental health professional, and 7.6% were taking psychiatric medications (Table 1).

Table 1: Characteristics of the Sample of the medical students enrolled in the study (*n*=552)

Parameter		*n*(%)
Gender	Female	415(75.2)
	Male	137(24.8)
Age	≤ 21	298(54)
	>25	21(3.8)
	22-25	233(42.2)
Type of study	Dentistry	115(20.9)
	Medicine	119(21.6)
	Pharmacy	318(57.6)
Level of medical education	grade 1	41(7.4)
	grade 2	81(14.7)
	grade 3	160(29.0)
	grade 4	130(23.6)
	grade 5	97(17.6)
	grade 6	43(7.8)
Marital status	Married	34(6.2)
	Single	518(93.8)
Living situation	Dorms/Student housing	28(5.1)
	Other	18(3.3)
	Private apartment	32(5.8)
	With parents	474(85.9)
Presence of recent stressors	No	151(27.4)
	Yes	401(72.6)
Currently seeking a mental healthcare	No	445(80.6)
	Yes	107(19.4)
Maintained a psychiatric medication	No	510(92.4)
	Yes	42(7.6)
Personal history of mental health diagnosis	No	491(88.9)
	Yes	61(11.1)
Family history of eating disorder	No	455(82.4)
	Yes	97(17.6)
Family history of other mental health disorders	No	462(83.7)
	Yes	90(16.3)
Personal history of a medical diagnosis	No	464(84.1)
	Yes	88(15.9)

All of the students were identified to be at high risk on both the EAT-26 and SCOFF criteria. They reported being subjected to stressors, with 6.5% and 10.3% receiving mental health diagnoses, respectively. However, only 18.5% and 22.1% of them respectively had a mental health provider, and 6.5% and 22.1% of them were receiving pharmacological treatment (Table 2).

Table 2: Distribution of the sociodemographic characteristics of the participants according to the presence of eating disorders risk according to EAT-26 and SCOFF tests; *n*=552

		EAT-26 *n*=552			SCOFF *n*=552		
		High Risk *n*(%) n=416	Low Risk *n*(%) *n*=136	*p*-value	High Risk *n*(%) *n*=239	Low Risk *n*(%) *n*= 259	*p*-value
Gender	Female	309(74.3)	106(77.9)	0.391	237(80.9)	178(68.7)	0.001
	Male	107(25.7)	30(22.1)		56(19.1)	81(31.3)	
Age	≤ 21	229(55.0)	69(50.7)	0.118	165(56.3)	133(51.4)	0.144
	>25	19(4.6)	2(1.5)		7(2.4)	14(5.4)	
	22-25	168(40.4)	65(47.8)		121(41.3)	112(43.2)	
Type of study	Dentistry	86(20.6)	29(21.3)	0.729	64(21.8)	51(19.7)	0.717
	Medicine	86(20.7)	33(24.3)		61(20.8)	58(22.4)	
	Pharmacy	244(58.7)	74(54.4)		168(57.3)	150(57.9)	
Medical education level	grade 1	33(7.9)	8(5.9)	0.390	21(7.2)	20(7.7)	0.021
	grade 2	62(14.9)	19(14.0)		49(16.7)	32(12.4)	
	grade 3	118(28.4)	42(30.9)		87(29.7)	73(28.2)	
	grade 4	104(25.0)	26(19.1)		62(21.2)	68(26.3)	
	grade 5	66(15.9)	31(22.8)		60(20.5)	37(14.3)	
	grade 6	33(7.9)	10(7.4)		14(4.8)	29(11.2)	
Marital status	Married	22(5.3)	12(8.8)	0.137	22(7.5)	12(4.6)	0.155
	Single	394(94.7)	124(91.2)		271(92.5)	247(95.4)	
Living situation	Dorms/student housing	20(4.8)	8 (5.9)	0.947	14(4.8)	14(5.4)	0.415
	Other	13(3.1)	5 (3.7)		13(4.4)	5(1.9)	
	Private apartment	24(5.8)	8 (5.9)		17(5.8)	15(5.8)	
	With parents	359(86.3)	15(84.6)		249(85.0)	225(86.9)	
Presence of recent stressors	No	121(29.1)	30 (22.1)	0.110	59(20.1)	92(35.5)	0.000
	Yes	295(70.9)	106(77.9)		234(79.9)	167(64.5)	
Currently seeking a mental healthcare	No	339(81.5)	106(77.9)	0.363	223(76.1)	222(85.7)	0.005
	Yes	77(18.5)	30(22.1)		70(23.9)	37(14.3)	
Currently taking a psychiatric medication	No	389(93.5)	106(77.9)	0.083	263(89.8)	247(95.4)	0.017
	Yes	27(6.5)	30(22.1)		30(10.2)	12(4.6)	
Personal history of mental health disorders	No	389(93.5)	122(89.7)	0.746	253(86.3)	238(91.9)	0.036
	Yes	27(6.5)	14(10.3)		40(13.7)	21(8.1)	
Family history of eating disorder	No	369(88.75)	105(77.2)	0.065	230(78.5)	225(86.9)	0.009
	Yes	47(11.3%)	31(22.8%)		63(21.5)	34(13.1)	
Family history of other mental health disorders	No	350(84.1)	113(83.1)	0.825	243(82.9)	219(84.6)	0.582
	Yes	66(15.9)	23(16.9)		50(17.1)	40(15.4)	
Personal history of medical problems	No	349(83.9)	115(84.6)	0.854	227(77.5)	237(91.5)	0.000
	Yes	67(16.1)	21(15.4)		66(22.5)	22(8.5)	

The results showed that females were identified to be at significantly high risk on SCOFF compared with the EAT-26 questionnaire (P = 0.391 and P = 0.001, respectively). Age was only a significant predictor in one of the questionnaires, with those students aged between 22 and 25 years being more likely at high risk of eating disorders on the EAT-26 scale (P=0.006). There was no significant correlation between the level of medical education and the risk of eating disorders. Based on the EAT-26 questionnaire, the presence of stressors was not significantly (P = 0.110) associated with being at high eating disorder risks. However, based on the SCOFF questionnaire the presence of stressors was significantly associated (P = 0.000) with being at increased risk of eating disorders. Participants with no history of mental health disorders were significantly associated with being at

increased risk of eating disorders according to the SCOFF scale (P = 0.000); however, there was no significant association with being at increased risk of eating disorders based on the Eat-26 score (P = 0.854). The current use of psychiatric medications was not significantly associated with eating disorders risk on either scale. Meanwhile, having a family history of mental health illness was not significantly associated with the risk of eating disorders on either scale, except for having a family history of specific eating disorders (Table 2). The latter was only significantly associated with eating disorders risk on the SCOFF scale (P = 0.009). Items of the disordered eating behaviors over the past six months were examined separately (Table 3).

Table 3: Distribution of disordered eating behaviors frequency over the past months across risk groups of participants (n=552)

		EAT-26 *n*= 552			**SCOFF *n*= 552**		
		High Risk *n*(%) *n*= 416	Low Risk *n*(%) n= 136	*p*-value	High Risk *n*(%) *n*= 259	Low Risk *n*(%) *n*= 293	*p*-value
Eating binges episodes	2-3 times a month	35(8.4)	22(16.2)	0.000	36(12.3)	21(8.1)	0.000
	2-6 times a week	17(4.1)	7(5.1)		21(7.2)	3(1.2)	
	Never	213(51.2)	33(24.3)		90(30.7)	156(60.2)	
	Once a day or more	20(4.8)	5(3.7)		16(5.5)	9(3.5)	
	Once a month or less	98(23.6)	42(30.9)		84(28.7)	56(21.6)	
	Once a week	33(7.9)	27(19.9)		46(15.7)	14(5.4)	
Vomiting for weight or shape control	2-3 times a month	11(2.6)	12(8.8)	0.000	23(7.8)	0(0.00)	0.000
	2-6 times a week	5(1.2)	2(1.5)		4(1.4)	3(1.2)	
	Never	370(88.9)	97(71.3)		227(87.64)	240(81.91)	
	Once a day or more	5(1.2)	3(2.2)		4(1.4)	4(1.5)	
	Once a month or less	12(2.9)	17(12.5)		24(8.2)	5(1.9)	
	Once a week	13(3.1)	5(3.7)		11(3.8)	7(2.7)	
Use of laxatives, diet pills, or diuretics for weight or shape control	2-3 times a month	9(2.2)	4(2.9)	0.017	8(2.7)	5(1.9)	0.055
	2-6 times a week	5(1.2)	2(1.5)		6(2.0)	1(0.4)	
	Never	372(89.4)	107(78.7)		242(82.6)	237(80.88)	
	Once a day or more	8(1.9)	3(2.2)		8(2.7)	3(1.2)	
	Once a month or less	14(3.4)	12(8.8)		18(6.1)	8(3.1)	
	Once a week	8(1.9)	8(5.9)		11(3.8)	5(1.9)	
Exercise >60 min/day for weight loss or control	2-3 times a month	31(7.5)	19(14.0)	0.000	32(10.9)	18(6.9)	0.000
	2-6 times a week	40(9.6)	26(19.1)		47(16.0)	19(7.3)	
	Never	202(48.6)	38(27.9)		90(30.7)	150(57.9)	
	Once a day or more	30(7.2)	8(5.9)		24(8.2)	14(5.4)	
	Once a month or less	74(17.8)	33(24.3)		66(22.5)	41(15.8)	
	Once a week	39(9.4)	12(8.8)		34(11.6)	17(6.6)	
Weight loss ≥9 kg	Yes	333(80.0)	93(68.4)	0.005	198(67.6)	228(88.03)	0.000
	No	83(20.0)	43(31.6)		95(32.4)	31(11.96)	

Binge eating episodes were significantly more frequent in the high-risk group with 13.4% of them having 2 to 6 episodes per week as opposed to none in the low-risk group. Similarly, 9% of the high-risk group had at least one self-induced vomiting episode to control weight or shape compared to none in the low-risk group. Exercise longer than 1 hour/day for weight control was prevalent among the high-risk group, with 9.2% performing it at least once a week, 12.0% at 2 to 6 times a week, and about 6.9% at least once daily. Weight loss of more than 9 kg over the past six months was correlated with the eating disorder risks group (P = 0.005 and 0.000, respectively). Concerning the use of laxatives, diet pills, or diuretics to control weight or shape, this behavior was less prevalent than other disordered eating behaviors among the high-risk group: 3 students (13.2%) reported engaging in such behavior once a month or less. However, one student reported such practice at least once daily. Interestingly, the present study showed that 64.47% of the participants with normal BMI values still suffered from eating disorders according to EAT-26 scale (n = 265/411) (Table 4), while according to the SCOFF scale, 23.5% (n = 151/287) (Table 4) of normal participants were suffering from eating disorders. Overweight participants are more likely to have eating disorders compared with underweight participants. According to the SCOFF scale, 33.44% (96/287) of the overweight and 4.18% (12/287) of underweight participants scored above the cutoff value and were characterized to have eating disorders. Similarly, following EAT-26 scale, 19.70% (81/411) of the overweight participants and 9.48% (39/411) of the underweight participants were characterized as having eating disorders.

DISCUSSION

It has been characterized that eating disorders are linked with various biological, psychological, developmental, and sociocultural factors [18-21]. The present study reported 75.3% and 43.2% prevalence of EDs in Iraqi medical students based on EAT-26 and SCOFF scales, respectively.

These outcomes are not in tune with certain international data. In Pakistan, the use of similar self-administered questionnaires reported an incidence of 23% (EAT-26) and 17% (SCOFF) in a sample of medical students in Karachi city [22]. Meanwhile, a Lebanese study reported a prevalence of 17% (EAT-26) and 19% (SCOFF) of EDs in a Lebanese medical school [23]. The present study demonstrated that EDs risk prevalence among Iraqi medical students was higher than that reported in other developing countries. Moreover, it has been noted that the female-to-male ratio in the high-risk group was approximately 3:1 in both questionnaires (Table 2). Meanwhile, the present study revealed that the percentage of females was three times more than males; this result was compatible with those reported in Lebanese and Malaysian students [23,4]. Another study showed that one in every six or seven young Australian women has an eating disorder [5]. The current study does not report significant differences among males and females in the EAT-26 questionnaire; however, there were significant differences among males and females in the SCOFF questionnaire regarding eating disorder risks, compensatory behavior, and objective binge eating (Table 2). Moreover, few respondents were diagnosed with a mental health disorder and showed a family history of mental health disorder. Stress is usually neglected in day-to-day life events when it could play an important role in mental health. It should be controlled at the beginning to prevent its serious consequences. Social support, locus of control, explanatory styles, personality types, and coping strategies can be significant when dealing effectively with stress [24]. Based on local data, a major depressive episode is a common disorder in the Iraqi community. It is associated with considerable disability and inadequate treatment that needs more effort to reduce treatment barriers [25]. In Iraq, most healthcare services are not provided equally by public and private healthcare facilities besides their low quality. Furthermore, analyses of barriers to seeking treatment are needed to provide government officials with enough data to expand the detection and treatment of mental disorders [26]. Medical students seem to adopt the same attitude as physicians. They do not look for professional assistance similar to that provided to their patients. They mostly practiced self-management, such as self-prescribing. This attitude underestimates the prevalence of mental illnesses among medical students. Consequently, many of these cases are rendered untreated [27,28]. The low receipt of care may be due to several factors, including the absence of awareness about the medical nature of depression, stigma linked with the receipt of care, or the inadequate acknowledgment of any need for treatment [29,30]. Additionally, a previous family history of mental illness, especially related to eating disorders, was associated with a higher likelihood of eating disorders. It is in line with previous evidence discussing genetic vulnerability and learned behavior as major risk factors for developing eating disorders [31]. Abnormal eating behaviors to control body weight or shape were more prevalent in the high-risk group. They commonly include binge-eating episodes and extreme exercising. Additionally, one-third of the students in the high-risk group, in both EAT-26 and SCOFF, reported self-induced vomiting over the past six months as a compensatory behavior versus half of the students in the low-risk group. According to SCOFF, about 33.44% of the overweight and 4.18% of underweight individuals scored above the cutoff value; thus, they were likely to have eating disorders. Similarly, in accordance to EAT-26, less than 20% of the overweight individuals and 9.48% of the underweight individuals were likely to have eating disorders. This result was similar to other findings reported in Pakistan [22]. Dietary correction with a combination of anti-depressant and anti-psychotic drugs successfully enhanced the patient's intractable symptoms and improved his negative attitude. Psychotherapy is important in the continuation of management [32,33]. Other studies showed that medications have a limited role, and there is little involvement of the so-called Big Pharma in eating disorders. In general, less than half of patients with anorexia and bulimia nervosa fully recovered [34,7]. The duty of providing healthcare to people with eating disorders is considerably higher than that of caring for a relative with psychiatric diseases such as depression or schizophrenia. Compared with people caring for adults with or without mental disorders, the time required for care provided in severe anorexia nervosa is nearly doubled (24 h per week *vs.* 14 h per week). A high percentage of people with anorexia nervosa have long-term impairments in social functioning and employment, and around one in four has no paid employment [7]. Moreover, in binge eating disorder and bulimia nervosa, about half of patients have substantial role impairment (e.g., work, close relationships) [35-37]. Previous efforts to estimate the size and cost of eating disorders in Europe have severely underestimated the problem due to inadequate data on the most common eating disorders. Moreover, they do not include many items, such as the loss of family productivity and indirect costs of decreased length of life. Recent inclusive estimates suggest that about 20 million people in the European Union (EU) have an eating disorder, which costs about €1 trillion per year. The financial costs of eating disorders are similar, and the burdens of disease costs were higher than those of depression and anxiety [38].

Table 4: EAT-26 and SCOFF results in relation to BMI ratios (*n*=543)

BMI	EAT-26 *n*(%)			SCOFF *n*(%)		
	Low-risk *n*=132	High risk *n*=411	*p*-value	Low risk *n*=256	High risk *n*=287	*p*-value
Underweight	2(1.515)	39(9.48)	0.000	29(11.32)	12(4.18)	0.000
Normal	72(54.54)	265 (64.47)		188(73.43)	151(52.61)	
Overweight	46(34.84)	81(19.70)		29(11.32)	96(33.44)	
Obese	12(9.09)	26(6.32)		10(3.9)	28(9.7)	

Conclusion

This study highlighted the underrated health problem among Iraqi medical students. Many Iraqi medical students are at high risk of developing eating disorders, with females being more prone than males. More studies are needed to identify the causes and evaluate other risk factors such as comorbid substance use, targeting a larger sample size and history of trauma. Furthermore, follow-up studies are also needed to assess caffeine, stimulants, or nicotine use, which may be involved in appetite suppression. Several programs, ideas, and strategies are needed to decrease the prevalence of EDs among medical students as early diagnosis of eating disorders before complications begin.

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Conflicts of interest

The authors declared no conflicts of interest.

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Data sharing statement

The datasets analyzed during the current study will be available from the corresponding author on a reasonable request.

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