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Egyptian youth and eating disorders: a cross-sectional study on prevalence and contributing factors

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Abstract

Background Eating disorders (EDs) are complex mental health conditions with significant implications for the physical and psychological well-being of youth. This study aimed to determine the prevalence of eating disorders among a sample of Egyptian youth and explore the association between anxiety, social support, and sociodemographic characteristics with eating disorder behaviors.

Results The findings revealed a significant prevalence of eating disorders among the youth participants, with 13.3% meeting the diagnostic criteria. Bulimia Nervosa was the most commonly diagnosed eating disorder, affecting 8.4% of the participants, followed by 1.4% experiencing Binge Eating Disorder. No cases of Anorexia Nervosa were reported. There were no statistically significant sex differences in the prevalence of different types of eating disorders. Higher body mass index (BMI) values and greater anxiety levels were associated with an increased likelihood of having an eating disorder.

Conclusions This study highlights a significant prevalence of eating disorders among Egyptian youth, with Bulimia Nervosa being the most common type. These findings emphasize the need for targeted interventions and support systems to address the mental health challenges faced by Egyptian youth and promote healthy relationships with food and body image.

Keywords Eating disorders, Youth, Prevalence, Anxiety, Social support, Sociodemographic characteristics

Background

Eating disorders (EDs), including anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED), are serious mental illnesses characterized by severe and persistent disturbances in eating behaviors and are associated with distressing thoughts and emotions [1]. Globally, the estimated lifetime prevalence of AN was found to be 4% among women and 0.3% among men [2], while BN had a lifetime prevalence of 3% among women and 1% among men [3]. Whereas BED is estimated to affect 1.5% of women and 0.3% of men [4].

The United Nations acknowledges that "youth" refers to individuals aged 15 to 24 and is a significant demographic, constituting approximately 1.2 billion individuals or 16% of the world's population [5]. While adulthood is often seen as a positive and exciting time for many individuals [6], it is also a stage of life where mental illness is prevalent [3]. The ongoing physical, psychological,

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and social development during this period may contribute to the emergence and persistence of various mental illnesses, including eating disorders [7]. Typically, eating disorders manifest during the transition to adulthood, and adult-onset eating disorders are often a continuation, relapse, or more severe form of previous struggles with food, exercise, and body image [8].

Insufficient attention to the treatment needs of young adults often leads to various negative outcomes [9]. EDs are associated with significant physical, psychological, and social implications, resulting in severe health consequences and reduced quality of life [10]. The psychological implications include anxiety [11]. The connection between anxiety and eating disorders is well-established, as numerous studies consistently demonstrate that individuals with EDs have a significantly higher risk of developing Generalized Anxiety Disorders (GAD), specific phobias, social phobia, obsessive–compulsive disorder, and post-traumatic stress disorder [12]. It is estimated that around 65% of individuals with eating disorders meet the criteria for at least one anxiety disorder [13]. Anxiety is considered a predisposing risk factor for eating disorders, suggesting that eating disorders may be complex manifestations of underlying anxiety vulnerability [14–16]. The association between anxiety and eating disorders is also influenced by the level of perceived or experienced social support. Social support plays a crucial role in the lives of adults with social anxiety [17]. Previous research has examined the impact of social support on individuals diagnosed with eating disorders, revealing that it acts as a protective factor that mitigates risk factors such as body dissatisfaction [18]. Patients with AN and BN generally have smaller social networks and receive less emotional and practical support compared to individuals without EDs [19].

While limited research exists on the prevalence of eating disorders in Egypt, the available evidence suggests that these disorders are a concern among Egyptian youth. Therefore, this study aims to determine the prevalence of eating disorders among a sample of Egyptian youth and to explore the association between anxiety, social support, sociodemographic characteristics, and eating disorder behavior among them.

Methods

An analytical cross-sectional study was conducted from February 2023 to July 2023 on Egyptian youth aged [15, 23] years who accepted to participate in the study.

The sample size was calculated using the Epi-info software statistical package [9]. The criteria used for sample size calculation were as follows: 95% confidence limit, 80% power of the study, a marginal error (d) of 5%, and 22% prevalence of disordered eating behaviors [8]. The total sample size was 264 youth. We recruited 1752 youth as there was a wide response by the university students. According to the Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS) 2023, the youth between 14 to 17 years who are included in secondary schools are 1.698.598 students [20]. The youth between 18 and 24 years included in the University education or post-graduate stage is estimated to be about 3.495.065 students. [21] Multi-stage random sampling method was used. In first stage, we chose two Egyptian governorates by simple random sample. In second stage, we chose two secondary schools (one urban and one rural) from each previously chosen governorate and the corresponding governmental university in each of them. In the third stage, by simple random sample, we chose the students from each secondary school until their sample proportion was enrolled. Regarding the university, we enrolled two faculties by simple random sample too. Then, we enrolled students from all faculty grades by stratified and then simple random sampling technique till its proportion was completed. A strong response was present in all enrollment fields but much stronger in the university sectors.

An anonymous self-administered questionnaire was designed. The questionnaire was developed in English and then translated into Arabic according to WHO standards. To ensure validity, six professors specialized in community medicine, psychiatry, and internal medicine reviewed it.

The questionnaire included four domains: the first domain was about sociodemographic and general characteristics of the studied youth, including age, sex, educational level, residency, height, weight, and body mass index (BMI). The second domain assesses eating behavior using a 22-item Eating Disorder Diagnostic Scale (EDDS), which demonstrated content validity and criterion validity [22]. The scale consists of Likert-scaled and yes/no items. The first four items assess the attitudinal symptoms of AN and BN in the past 3 months, measured on a seven-point scale, ranging from 0 (not at all) to 6 (extremely). The next four items measure the frequency of uncontrollable consumption of a large amount of food, focusing on the number of days per week over the past 6 months (BED) and the number of times per week over the past 3 months (BN). The subsequent four items assess the frequency of behaviours used to compensate for binge eating over the past three months. The EDDS consists of a diagnostic scale and a symptom composite scale. The diagnostic scale can diagnose AN, BN, and BED through computerized scoring statements [23]. The symptom composite score (EDDSSYM) indicates participants' overall level of eating pathology. The scale has demonstrated good internal reliability in the current

study (Cronbach's Alpha, $\alpha = 0.69$). The third domain, about Generalized Anxiety Disorder Scale-7 (GAD-7), was used to measure the level of anxiety. The GAD-7 contains seven items that can be answered on a scale from "0" (= never) to "3" (= almost every day). GAD-7 total score ranges from 0 to 21 (0–4: minimal anxiety), (5–9: mild anxiety), (10–14: moderate anxiety), and (15–21: severe anxiety) [24]. The GAD-7 demonstrated good internal consistency and validity [25]. The scale has demonstrated good internal reliability in the current study (Cronbach's Alpha, $\alpha = 0.90$).

The fourth domain of the questionnaire assesses social support. A seven-item ENRICHD Social Support Instrument (ESSI) was used to assess four defining attributes of social support: emotional, instrumental, informational, and appraisal. For each of the first six questions, responses comprise a five-point Likert scale ranging from 'None of the time' (scored 1) to 'All the time' (scored 5). The seventh item is a binary variable for marital status, whereby a score of 4 is applied for married and a score of 2 is applied for unmarried. As such, the ESSI score ranges from 8 to 34, with higher scores denoting greater self-perceived social support [26]. The ESSI has demonstrated acceptable internal consistency and has been shown to correlate positively with other social support instruments and negatively with measures of anxiety [27]. The current study's scale has demonstrated good internal reliability (Cronbach's Alpha, $\alpha = 0.89$).

A pilot study was carried out on 27 of the youth who were studied to test the study tools. The necessary modifications were made before data collection.

The data were analyzed using the Statistical Package for the Social Sciences" SPSS 22.0 software (IBM Microsoft). Quantitative data normality was tested using Kolmogorov's test. Qualitative variables were prescribed using numbers and percent, and the Chi-square test was used for analysis or Fisher's exact test (if more than 20% of the expected cell value is less than 5). Numerical variables were expressed as means and standard deviations, and the Mann–Whitney *U* test was used to compare groups. Point-biserial correlations were used to compare the relationship between anxiety Scores and eating disorders' different types. Simple logistic regression and hierarchical regression analysis were done to assess the effect of various study factors on the study's outcomes. *P* value (< 0.05) was adopted as the level of significance.

Results

Table 1 presents the socio-demographic and anthropometric characteristics of the study participants. The participants had a mean age of 20.11 ± 1.67 years. Regarding sex, 32.8% of the participants were male, while the majority, 67.2%, were female. The majority of participants, 81.1%, had a university education, followed by 9.8% with higher education, and 9.1% with a secondary education. The majority of participants, 82.2%, resided in urban areas, while 17.8% lived in rural areas.

On examining anthropometric characteristics, the overall mean BMI was 24.69 ± 5.18 kg/m^2. It was also found that 4.7% of the participants were underweight, 55.7% had a normal weight, 28.5% were overweight, and 11.1% were classified as obese based on their BMI.

Table 1 Socio-demographic and anthropometric characteristics of the study participants

Socio demographic variables		(*n* = 1752)	%
Age (years): Mean ± SD		20.11 ± 1.67	
Sex	Male	574	32.8
	Female	1178	67.2
Educational level	Secondary	160	9.1
	University	1420	81.1
	Higher	172	9.8
Residency	Rural	312	17.8
	Urban	1440	82.2
Weight(kg): Mean ± SD		69.11 ± 15.24	
Height(cm): Mean ± SD		167.26 ± 9.93	
BMI (kg/m^2)	Total average	24.69 ± 5.18	
	Underweight (< 18.5 kg/m^2)	82	4.7
	Normal weight (18.5–< 25 kg/m^2)	976	55.7
	Overweight (25–< 30 kg/m^2)	499	28.5
	Obese (> 30 kg/m^2)	195	11.1

SD Standard deviation, *BMI* Body Mass Index

Table 2 illustrates the prevalence and types of eating disorders among the study participants. The majority of participants (86.7%) did not have an eating disorder. None of the participants were diagnosed with Anorexia Nervosa. Bulimia Nervosa was found in 8.4% of participants, with 9.8% of males and 7.7% of females having this diagnosis. Binge Eating Disorder was present in 1.4% of participants, with 0.7% of males and 1.7% of females diagnosed. Subthreshold Anorexia Nervosa was found in 0.8% of participants, with 0.5% of males and 0.9% of females diagnosed. Subthreshold Bulimia Nervosa was diagnosed in 2.7% of participants, with 1.9% of males and 3.1% of females. Overall, 13.3% of participants had an eating disorder. There were no statistically significant differences in the prevalence of eating disorders between males and females ($p > 0.05$).

Figure 1 illustrates the eating disorder symptom composite (EDDSSYM) scores of different diagnostic groups. The EDDSSYM scores for bulimia nervosa, Binge Eating Disorder, and subthreshold bulimia nervosa range from 8 to 16, which is higher than the EDDSSYM scores for subthreshold anorexia nervosa, which range from 0.5 to 5.

Table 3 shows a comparison of anxiety disorder symptoms between participants with eating disorders and those without eating disorders. Participants with eating disorders had higher mean scores on all items compared to those without eating disorders. In addition, participants with eating disorders had a higher prevalence of moderate and severe anxiety compared to those without eating disorders. Specifically, 52.4% of participants with eating disorders had severe anxiety, while only 24.3% of participants without eating disorders fell into the severe

Table 2 Prevalence and types of eating disorders among the study participants

Eating Disorder Diagnostic Scale (EDDS) Diagnosis	Total ($n=1752$)	Males ($n=574$)	Females ($n=1178$)	*P* value
No diagnosis	1519 (86.7%)	500 (87.1%)	1019 (86.5%)	0.726
Anorexia nervosa	0 (0.0%)	0 (0.0%)	0 (0.0%)	–
Bulimia nervosa	147 (8.4%)	56 (9.8%)	91 (7.7%)	0.150
Binge eating disorder	24 (1.4%)	4 (0.7%)	20 (1.7%)	0.091
Subthreshold anorexia nervosa	14 (0.8%)	3 (0.5%)	11 (0.9%)	0.568
Subthreshold bulimia nervosa	48 (2.7%)	11 (1.9%)	37 (3.1%)	0.141
Subthreshold binge eating disorder	0 (0.0%)	0 (0.0%)	0 (0.0%)	–
Diagnosed with any eating disorders	233 (13.3%)	74 (12.9%)	159 (13.5%)	

Values are presented as numbers (%)

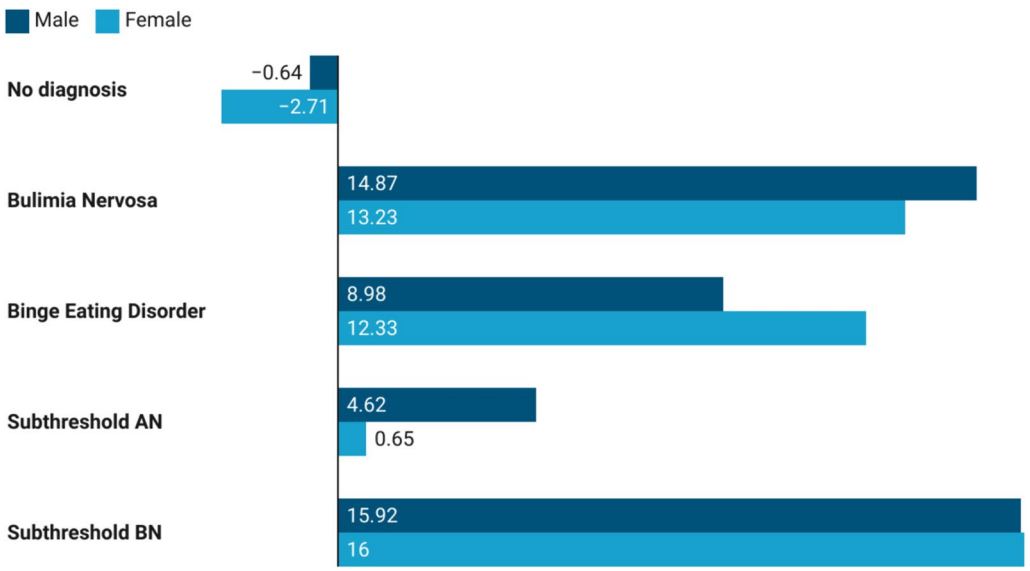

Fig. 1 Comparison of continuous eating disorder symptom composite (EDDSSYM) scores of different diagnostic groups. *AN* anorexia nervosa, *BN* bulimia nervosa

Table 3 Comparison of anxiety disorder to eating disorders diagnosis among the study participants

Generalized Anxiety Disorder Scale-7 (GAD-7) scale items		Total ($n=1752$)	With eating disorders ($n=233$)	Without eating disorders ($n=1519$)	*P* value
Feeling nervous, anxious, or on edge		1.55 ± 1.06	2.12 ± 0.94	1.46 ± 1.05	< 0.0001*
Not being able to stop or control worrying		1.50 ± 1.06	2.07 ± 0.95	1.42 ± 1.05	< 0.0001*
Worrying too much about different things		1.72 ± 1.06	2.19 ± 0.91	1.65 ± 1.06	< 0.0001*
Trouble relaxing		1.52 ± 1.04	2.02 ± 0.97	1.45 ± 1.03	< 0.0001*
Being so restless that it is hard to sit still		1.29 ± 1.08	1.84 ± 1.02	1.20 ± 1.06	< 0.0001*
Becoming easily annoyed or irritable		1.58 ± 1.07	2.06 ± 0.97	1.51 ± 1.07	< 0.0001*
Feeling afraid as if something awful might happen		1.46 ± 1.08	2.01 ± 1.06	1.37 ± 1.06	< 0.0001*
Total score	Minimal anxiety	289 (16.50%)	8 (3.40%)	281 (18.50%)	< 0.0001*
	Mild anxiety	506 (28.90%)	39 (16.70%)	467 (30.70%)	
	Moderate anxiety	466 (26.60%)	64 (27.50%)	402 (26.50%)	
	Severe anxiety	491 (28.00%)	122 (52.4%)	369 (24.30%)	
	Mean ± SD	10.65 ± 5.97	14.33 ± 5.28	10.09 ± 5.87	< 0.0001*

*Significant values are presented as number (%) and mean ± standard deviation

Table 4 Comparison of social support level to eating disorders diagnosis among the study participants

ENRICHD Social Support Instrument (ESSI) scale items	Total ($n=1752$)	With eating disorders ($n=233$)	Without eating disorders ($n=1519$)	*P* value
Total score Mean ± SD	19.11 ± 7.07	19.39 ± 6.91	19.07 ± 7.09	0.344

SD standard deviation

anxiety category. These differences were statistically significant ($p < 0.05$).

Table 4 presents a comparison of social support levels between participants with eating disorders and those without eating disorders. In this study, there were no significant differences between participants with eating disorders and those without eating disorders across the total score of ESSI ($p > 0.05$).

Table 5 presents univariate regression analysis between eating disorders diagnosis and several predictors among the study participants. The findings indicate that participants with eating disorders had higher BMI values and higher total anxiety scores compared to those without eating disorders. However, age, sex, educational level, residency, and total social support score were not significantly associated with eating disorders.

Table 5 Univariate regression analysis between eating disorders diagnosis and the study predictors among the study participants

Study variables		With eating disorders ($n=233$)	Without eating disorders ($n=1519$)	Odds ratio (95% C.I)	*P* value
Age (years)		20.10 ± 1.89	20.12 ± 1.63	0.99 (0.91–1.08)	0.884
Sex	Male	74 (31.80%)	500 (32.90%)	–	
	Female	159 (68.20%)	1019 (67.10%)	1.05 (0.78–1.41)	0.726
Educational level	Secondary	32 (13.7%)	128 (8.4%)	1.54 (0.86–2.75)	0.143
	University	177 (76.0%)	1243 (81.8%)	0.87 (0.55–1.39)	0.579
	Higher	24 (10.3%)	148 (9.7%)	–	–
Residency	Rural	49 (21.00%)	263 (17.30%)	1.27 (0.90–1.79)	0.168
	Urban	184 (79.00%)	1256 (82.70%)	–	–
Body Mass Index (BMI) (kg/m^2)		26.41 ± 5.61	24.42 ± 5.05	1.06 (1.03–1.08)	< 0.0001*
Total anxiety score		14.33 ± 5.28	10.09 ± 5.87	1.13 (1.10–1.16)	< 0.0001*
Total social support score		19.39 ± 6.91	19.07 ± 7.09	1.01 (0.98–1.02)	0.509

*Significant values are presented as number (%) and mean ± standard deviation, *C.I* confidence interval

Table 6 demonstrates the bivariate correlations between anxiety scores and different types of eating disorders among the study participants. There were significant weak positive correlations between anxiety scores and the different types of eating disorders.

Table 7 presents three different hierarchical regression models (to examine the variables predicting eating disorders). Male sex was associated with lower levels of eating disorders in all three models. Age, educational level, and residency did not show significant associations with eating disorders across all three models. On the other hand, high body mass index values were consistently and strongly associated with increased risk or severity of eating disorders. In addition, the total social support score showed a significant positive association with eating disorders in Model 2. However, this relationship became non-significant in Model 3. Regarding anxiety, higher levels of anxiety were associated with increased risk or severity of eating disorders only in Model 3.

Table 6 Bivariate correlations between anxiety score and eating disorder types among the study participants

Anxiety score	Bulimia nervosa (*n* = 147)	Binge eating disorder (*n* = 24)	Subthreshold anorexia nervosa (*n* = 14)	Subthreshold bulimia nervosa (*n* = 48)
Rpb**	0.156	0.082	0.061	0.145
P value	< 0.0001*	0.001*	0.011*	< 0.0001*

*Significant. **point biserial correlation

Discussion

Eating disorders encompass a range of emotional, physical, and behavioral alterations that are considered an emerging youth problem [28]. In the present study, the prevalence of eating disorders in a sample of Egyptian youth was explored, and sociodemographic and psychological conditions associated with ED were assessed. The findings of the study revealed a significant prevalence of eating disorders among the youth participants, with 13.3% meeting the diagnostic criteria. The most commonly diagnosed eating disorder was Bulimia Nervosa, which affected 8.4% of the participants, followed by 1.4% experiencing Binge Eating Disorder. Interestingly, no cases of Anorexia Nervosa were reported.

For ED as a general, a longitudinal study by Stice and colleagues followed a group of 496 adolescent girls for 8 years and found that 13.2% of them had experienced a DSM-5 ED by the age of 20 [29]. Hudson and colleagues conducted a study among a community sample of young adults and reported an overall prevalence rate of 13.2% for eating disorders, with lower rates for AN compared to BN and BED [30]. Similar findings have been reported in other Egyptian studies, such as the study by Sabry and colleagues, which found that 9.3% of Egyptian adolescents had a tendency for eating disorders according to the Eating Attitude Test [28]. Furthermore, similar observations have been made in studies conducted in both Arab and Western countries, including Sepulveda and colleagues and Roberta and colleagues [31, 32]. However, it is worth noting that a study conducted in Jordan reported a higher occurrence of ED among adolescent school girls, with a prevalence of 33.4% using

Table 7 Summary of hierarchical regression analysis for variables predicting eating disorders

Independent variables Model	Model 1			Model 2			Model 3		
	Standardized Coefficients	SE	Sig.	Standardized Coefficients	SE	Sig.	Standardized Coefficients	SE	Sig.
	Beta			Beta			Beta		
Sex (male)	− 0.079	0.467	< 0.0001*	− 0.083	0.468	< 0.0001*	− 0.149	0.439	< 0.0001*
Age	− 0.031	0.153	0.233	− 0.030	0.153	0.246	− 0.012	0.141	0.609
Educational level	− 0.046	0.884	0.075	− 0.046	0.883	0.071	− 0.050	0.815	0.034*
Residency	− 0.025	0.575	0.261	− 0.023	0.574	0.297	− 0.011	0.530	0.578
BMI** (kg/m2)	0.377	0.042	< 0.0001*	0.378	0.042	< 0.0001*	0.381	0.039	< 0.0001*
Total social support score				0.053	0.031	0.016*	0.020	0.029	0.325
Total anxiety score							0.363	0.035	< 0.0001*
R	0.393			0.397			0.532		
R Square	0.155			0.157			0.283		
F test	63.807			54.290			98.328		
P value	< 0.0001*			< 0.0001*			< 0.0001*		

*Significant. ***BMI* Body Mass Index

DSM-IV-TR diagnostic criteria [33]. On the other hand, some studies have reported lower prevalence rates of eating disorders in adolescence, such as the study by Swanson and colleagues, where ED was prevalent in 3% of their adolescent samples [8]. Overall, these findings highlight the varying prevalence rates of eating disorders among different populations and underscore the importance of considering factors such as sample sociocultural characteristics and diagnostic criteria when interpreting the results of studies on eating disorders.

Examining ED subtypes revealed that Bulimia Nervosa was the most common ED, affecting 8.4% of the studied youth. By our results, the study's findings by Sabry and colleagues (6.1%) [28]. The absence of any reported cases of Anorexia Nervosa is consistent with the findings of other studies, which have also observed lower prevalence rates for this particular eating disorder [34, 35]. The prevalence of AN has shown wide variations across different studies. Its prevalence varies from 0 to 1.7% in previous American and European studies conducted by Preti and colleagues and Smink and colleagues [34, 36]. A higher prevalence (3.2%) was recorded by Sabry and colleagues in 2020 [28]. The absence of reported cases of AN in our study, although unexpected, can be attributed to several cultural factors. In the Western context, a thin body ideal is often promoted and portrayed as achievable through dieting and exercising. However, traditional Arab notions of beauty differ, with a curvy body ideal associated with fertility and wealth [37, 38]. As a result, the lower prevalence of Anorexia Nervosa in our study's participants may be influenced by these cultural differences and the prevailing preference for larger body size or a more accepting attitude towards different body shapes in Egyptian society. It is also possible that participants with Anorexia Nervosa symptoms were reluctant to disclose their condition due to the associated stigma or fear of judgment [39].

BED has been studied in various populations, and some variation in its prevalence is reported across different studies. In Western countries, studies have reported prevalence rates of BED ranging from 1% to 3% among the general population [30] Regarding subgroups, such as adolescents, the prevalence of BED tends to be higher. For example, the study by Swanson and colleagues reported a prevalence rate of 3% for eating disorders, including BED, among adolescent samples [8]. This indicates that BED may be more prevalent among adolescents compared to the general population. Our results could be explained by the predominance of normal weight among the studied sample as it is evident that BED mainly affects obese than normal-weight adults [40].

Disaggregating data by sex revealed statistically insignificant sex differences in the prevalence of different types of eating disorders. Some studies have reported a higher prevalence of eating disorders among females compared to males. This gender difference has been observed in various populations and across different types of ED. For example, a study by Mustelin and colleagues conducted among Finnish adolescents found that eating disorders were more prevalent in females than males [41] Similarly, studies conducted in other countries have also reported higher rates of eating disorders among females [28, 42, 43]. On the other hand, there is evidence to suggest that the gender gap in the prevalence of eating disorders may be narrowing, especially among young adults, which can explain our results. Allen and colleagues conducted a study among a large sample of young adults and found that the gender differences in the prevalence of eating disorders were not as pronounced as in previous decades [44]. This suggests that the prevalence of eating disorders among males may be increasing or becoming more recognized. It is important to note that cultural and contextual factors may influence the observed gender differences in the prevalence of eating disorders. Societal pressures, body image ideals, and cultural norms related to appearance and weight can vary across different populations and may contribute to the differing rates of eating disorders among males and females.

Regarding factors that may contribute to the development of EDs, the study identified that higher BMI values and greater anxiety levels were associated with an increased likelihood of having an eating disorder. However, other factors such as age, sex, educational level, residency, and social support were not significantly associated with eating disorders.

Several studies have indicated that adolescent obesity/overweight and weight fluctuations may increase the risk of developing eating disorders in adulthood [45]. This is consistent with the notion that obesity is a relevant risk factor and one of the causes of eating disorders [40]. Our findings align with previous literature, emphasizing the role of weight-related factors in the development and manifestation of eating disorders. Stice and colleagues also support these findings, demonstrating that overweight is a significant predictive factor for the occurrence of eating disorders among adolescents [29]. This underscores the shared risk and protective factors between overweight and disordered eating.

Furthermore, the significantly higher anxiety scores observed among participants with eating disorders compared to those without eating disorders are in line with the well-established comorbidity between eating disorders and anxiety disorders. Previous research consistently demonstrates a strong association between anxiety

and eating disorders, with anxiety often preceding and exacerbating disordered eating behaviors [40, 46].

The lack of significant association between sociodemographic factors and social support with eating disorders contrasts with some previous studies [40] Makri and colleagues 2022 reported lower levels of social support among individuals with eating disorders [47]. However, it is important to consider that various factors, including cultural and contextual variations, can influence social characteristics, which may contribute to the discrepancies observed in different studies.

While the study had several strengths, such as a large sample size enabled by an online survey methodology, certain limitations must be noted. As a cross-sectional investigation, it could only provide a snapshot in time rather than explore causal relationships longitudinally. Data collection also relied solely on self-reported measures, susceptible to biases, such as inaccurate recall and socially desirable responses. In addition, the voluntary nature of participation may have skewed the sample in unknown ways. As inferring the directionality of effects was impossible and responses could not be independently verified or corroborated, conclusions are constrained. Utilizing complementary research designs and data sources could help address some of these limitations in future work.

Conclusion

This study provides valuable insights into the prevalence of eating disorders among Egyptian youth. With an overall prevalence of 13.3%, it is evident that eating disorders are a pressing issue among youth. The prevalence of Bulimia Nervosa (8.4%) and binge eating disorders (1.4%) highlights the need for targeted interventions and support systems to address these specific disorders. This study emphasizes the importance of early detection and intervention, particularly for individuals with higher body mass index and anxiety, who are at a greater risk of developing eating disorders. The findings call for developing comprehensive prevention programs that promote body positivity, mental health awareness, and healthy eating habits among the Egyptian youth. By implementing such interventions, we can work towards reducing the prevalence of eating disorders and improving the overall well-being of Egyptian youth.

Clinical implication

The clinical implications of this study are significant. The findings reveal a high prevalence of eating disorders, particularly Bulimia Nervosa, among Egyptian youth. This calls for increased awareness among healthcare professionals to detect and intervene early in eating disorder cases. Targeted interventions specifically designed for Egyptian youth, taking into account cultural factors and societal ideals, are crucial. A multidimensional treatment approach that addresses the behavioral, psychological, and co-occurring conditions such as anxiety is recommended. The study also highlights the importance of developing support systems and resources, including specialized treatment facilities and mental health services, to aid recovery. Health promotion and education initiatives focusing on fostering healthy relationships with food and body image are necessary to prevent and reduce eating disorders among Egyptian youth. By implementing these strategies, healthcare professionals and stakeholders can effectively address the mental health challenges faced by Egyptian youth and promote their overall well-being.

Abbreviations

AN	Anorexia nervosa
BED	Binge eating disorder
BMI	Body mass index
BN	Bulimia nervosa
CAPMAS	Central Agency for Public Mobilization and Statistics
CDC	Centre of Disease Prevention and Control
DSM	Diagnostic and statistical manual of mental disorders
EDDS	Eating Disorder Diagnostic Scale
EDDSSYM	Eating Disorder Symptom Composite Scores
EDs	Eating disorders
ESSI	ENRICHD Social Support Instrument
GAD-7	Generalized Anxiety Disorder Scale-7
ICD-11	International Classification of Diseases-11
WHO	World Health Organization

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Author contributions

All authors contributed to data analysis, drafting, or revising the article, gave final approval of the version to be published, agreed to the submitted journal, and agreed to be accountable for all aspects of the work.

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Data availability

All data are available upon request from the first author.

Declarations

Ethical approval and consent to participate

Approval was obtained from the Committee of the Damietta Faculty of Medicine IRB, Al Azhar University (DFM-IRB 0001267-23-08-009). The study was executed by the ethical standards laid down in the 1964 Declaration of Helsinki and its later modifications. Informed consent was obtained from all the subjects involved in the study. The purpose of the research was stated at the beginning of the questionnaire and participants were able to accept or reject to participate. Participants were assured that all data would be used only for research purposes. Participants' answers were anonymous and confidential.

Consent for publication

Not Applicable.

Competing interests

The authors declare no conflicts of interest.

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