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ORIGINAL ARTICLE

Beyond expectations: understanding eating symptoms and mental health among pregnant women in Italy

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Summary

Objective. During pregnancy, the body undergoes extreme changes that can lead to dissatisfaction and a loss of self-esteem. This vulnerability arises from objective physical changes and societal pressures to conform to beauty norms. This study aimed to investigate the presence of eating symptoms and their association with depression and anxiety in a sample of Italian pregnant women.

Methods. An ad hoc online survey investigated eating symptoms (Eating Disorder Examination Questionnaire, EDE-Q), depressive symptoms (Patient Health Questionnaire-9, PHQ-9), and anxiety symptoms (General Anxiety Disorder-7, GAD-7). Correlations and multistep linear regression analyzed associations between eating symptoms, depression, and anxiety.

Results. Within our sample (N = 711), one in ten subjects reported eating symptoms during pregnancy, with nearly half experiencing symptoms indicative of anxiety and depression. Eating symptoms were found to be associated with anxious-depressive symptoms and with a history of depression.

Conclusions. The conspicuous prevalence of eating symptoms, associated with depression and anxiety, suggests considering the issue of body experience as an indicative marker of perinatal emotional distress. This justifies the need for in-depth exploration within clinical settings, where opportunities for therapeutic interventions can be explored.

Keywords: gestation, maternity, mental illness, eating disorder, mood disorder

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INTRODUCTION

During pregnancy, women undergo significant anatomical and physiological changes to accommodate increasing physical and metabolic demands, necessitating adaptations across various body systems [1]. These changes are accompanied by profound hormonal shifts and interactions with the developing fetus, which induce complex alterations in brain structure [2]. While these adjustments serve adaptive purposes in preparation for the caregiving role, they also elevate vulnerability to mental disorders during the peripartum period [2]. Pregnancy represents a critical phase of higher mental health vulnerability, characterized by a spectrum of symptoms and disorders such as depression, anxiety, and self-harm [3]. Extensive research has focused on mood disorders and psychosis in pregnancy [4,5]. Specifically, numerous studies show that 23% of pregnant women experience anxiety, with the prevalence of anxiety disorders being 15% [6]. Additionally, 13% of pregnant women suffer from mood disorders [7].

In addition to psychological challenges, pregnant women often experience significant increases in body mass index (BMI) and adiposity, which may contribute to feelings of dissatisfaction as they face acceptance of their evolving shape and size within a relatively short period [8,9]. Body dissatisfaction during pregnancy refers to negative

feelings, frustrations, or concerns about physical appearance during the prenatal period [10]. While previous research has suggested that women generally adapt favorably to pregnancy body changes and have less concern about body weight [11], more recent studies indicate increasing dissatisfaction with body weight during pregnancy [12,13]. Causes for this phenomenon include objective changes in body shape, size, and appearance but also the increasing pressure to conform to societal expectations regarding pregnancy and peripartum body appearance, which can lead to disappointment if expectations are not met [14-16]. Recent investigations suggest that approximately one-third of pregnant women experience dissatisfaction with their body image [17].

Body dissatisfaction is recognized as a significant risk factor and contributor to eating disorders (EDs) [18,19]. The prevalence of active EDs during pregnancy varies considerably, ranging from 1.9% to 7.6%, while lifetime prevalence estimates range from 3.3% to 18.6% [20-26,17]. Debates continue regarding variations in EDs during pregnancy, with some studies suggesting that ED symptoms tend to diminish to prioritize fetal well-being [27,28], while others indicate that can lead to a resurgence of ED symptoms [29,27], influenced by cultural and social factors. Postpartum periods often exacerbate the risk of some ED, with increased risks of relapse and symptoms such as binge eating [30,26,31]. Despite the high prevalence of EDs during pregnancy, international research in this area remains limited, primarily focusing on the potential of EDs to predict mood and anxiety symptoms [32-38,17].

In Italy, pregnancy and motherhood are deeply rooted in cultural traditions, emphasizing the importance of these roles within society [39,40]. As a result, pregnant women are often viewed as particularly vulnerable and are culturally advised to prioritize rest and reduce physical activity to ensure the safety and well-being of the fetus [40]. Such advice is often accompanied by a network of social support, where family and community members play a significant role in assisting and caring for pregnant women[39]. This traditional approach, while aimed at safeguarding maternal and fetal health, also shapes the overall experience of pregnancy, influencing behaviors and expectations during this critical period [39,41]. Research on mental health in Italian pregnant women has primarily focused on anxiety, depression, and psychosis [42-46], with limited attention to EDs. The few existing studies involving Italian pregnant women have examined the association between obesity, body dissatisfaction, and eating symptoms [47,48]. Additionally, research in Italy has shown associations between BMI fluctuations during pregnancy and the presence of eating symptoms, highlighting potential health implications associated with excessive weight gain [48,49]. A notable Italian study found that EDs, subthreshold EDs, and body satisfaction improved during mid-pregnancy but returned to baseline levels post-delivery [50].

To our knowledge, no prior studies in Italy have specifically investigated eating symptoms using pregnancy-adapted questionnaires. Our study aims to fill this gap by exploring these aspects for the first time. The main objectives of our research are (1) to assess the presence of eating symptoms in a sample of Italian pregnant women and (2) to examine their associations with symptoms of depression and anxiety.

MATERIALS AND METHODS

Study design and participants

We conducted an *ad hoc* cross-sectional online survey using Google Forms, administered from May 5, 2022, to June 5, 2022. The survey link was distributed through social media platforms such as Facebook, WhatsApp, and Instagram. Participants were required to meet specific inclusion criteria: (a) being pregnant, (b) being of legal age, (c) having proficiency in Italian, (d) being able and willing to provide informed consent, and (e) completing all sections and questions of the survey. The study adhered to the ethical principles outlined in the Declaration of Helsinki.

Procedures and measures

The survey comprised four main sections addressing different domains. The first section focused on sociodemographic information, including age, nationality, educational level, and occupation. Multiple-choice categories were aligned with data from CedAP, an annual report by the Italian Ministry of Health that provides detailed analyses on births, maternal demographics, and infant-related statistics [51]. The second section explored pregnancy-related factors through multiple-choice questions regarding primiparity status, current gestation trimester, and any reported pregnancy risks. The third section centered on weight and nutrition, featuring questions about previous and current BMI, monitoring of excessive weight gain during pregnancy through gynecological follow-up, and histories of diabetes, arterial hypertension, and obesity. The fourth section regarded into mental health, using multiple-choice questions to assess self-reported histories of major depressive disorder (MDD), anxiety disorder (AD), personality disorder (PD), anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED). Additionally, standardized instruments such as the Eating Disorder Examination Questionnaire (EDE-Q) [52], Patient Health Questionnaire-9 (PHQ-9) for depressive symptoms [53], and General Anxiety Disorder-7 (GAD-7) for anxiety symptoms [54] were employed to evaluate eating symptoms, depression, and anxiety, respectively.

The EDE-Q is the self-report questionnaire derived from the EDE, a semistructured interview that is considered the gold standard for the assessment of ED psychopathology (Fairburn and Beglin, 1994; Luce et al., 2008). The EDE-Q 6.0 consists of 28 questions that investigate the frequency of ED core symptoms over the past 28 days. The EDE-Q global score is based on four subscale scores (Restraint, Eating Concern, Weight Concern, and Shape Concern) designed to reflect the main features of ED psychopathology. We used an optimized version of the EDE-Q 6.0 designed for the prepartum period [55,30]. This optimized version of the EDE-Q excludes items 6 (flat stomach), 19 (eating in secret), and 24 (reaction to prescribed weighting), as well as

items 13 to 18, which do not contribute to the scores. A total score cutoff of ≥ 2.8 was used to suspect eating/self-image concerns, as recommended in primary settings [56].

The PHQ-9 is a self-administered tool for assessing the severity of depression [53]. It consists of nine questions based on the nine DSM IV criteria for diagnosing MDD. Each item can be scored from 0 (not at all) to 3 (nearly every day), reflecting the frequency of the symptom. In general settings, the standard cutoff value ≥ 10 is optimal for identifying major depression [57]. The authors of the scale used the following cut points to divide the PHQ-9 scores into categories of increasing severity: 5 (mild), 10 (moderate), 15 (moderately severe), and 20 (severe). The PHQ-9 has also been validated in pregnant populations [58].

The GAD-7 is a self-report questionnaire used to screen the presence and monitor the severity of anxiety symptoms [54]. It consists of seven questions that represent specific anxiety-related symptoms. The respondents rate how often they have experienced each symptom over the past two weeks on a scale from 0 (not at all) to 3 (nearly every day). Scores of 5, 10, and 15 are taken as the cutoff points for mild, moderate, and severe anxiety, respectively. The GAD-7 has been validated for screening purposes among pregnant women [59].

Statistical analysis

Data analysis was performed using Statistical Package for Social Science for MacOS (SPSS) software, Version 24.0 (IBM Corp, Armonk, NY). Categorical variables were summarized as frequencies and percentages (N; %), and continuous variables were reported as the mean and standard deviation (SD). After analyzing the continuous variables for skewness, kurtosis, and normality distribution through the Shapiro-Wilk test, parametric or nonparametric statistical tests were used when appropriate. We employed Kruskal–Wallis and Mann-Whitney U tests to assess differences in mean scores of eating symptoms across distinct categories of primiparity, trimester, and pregnancy risk. We used Kendall's Tau correlations and linear regressions to investigate the relationship between eating symptoms and the mental health domain, controlling for a set of variables. In particular, to address potential confounding factors, we performed Kendall's linear regression analyses while controlling for four sets of variables: sociodemographic (including age, nationality, educational level, and occupation), pregnancy-related (such as parity, trimester, and risk-related pregnancy), weight-nutritional (comprising BMI, expected weight gain, and self-reported history of metabolic syndrome), and psychological factors (self-reported history of MDD, AD and ED). The level of significance was set at $\alpha \leq 0.05$, and all hypotheses were two-tailed.

RESULTS

Sample characteristics

The findings of the descriptive analysis encompassing sociodemographic, pregnancy-related, weight-nutritional, and mental health domains are summarized in Table I. The study

TABLE I. Results of descriptive analysis regarding sociodemographic, pregnancy, weight-nutritional and psychic domains.

Sociodemographic domain			
Variable	**Answer**	**n**	**%**
Age (years old)	≤ 20	6	0.9
	20-29	265	37.3
	30-39	412	57.9
	≥ 40	28	3.9
Average age (years old ± SD)	30.8 ± 4.6		
Nationality	Italian	674	94.9
	Other	36	5.1
Educational level	Inferior middle license	57	8.1
	Superior middle license	316	44.4
	University degree	338	47.5
Occupation	Employed	577	81.2
	Homemaker	56	7.9
	Unemployed	62	8.8
	Student	16	2.3
Pregnancy domain			
Variable	**Answer**	**n**	**%**
Primiparity	Yes	514	72.3
Trimester	First	131	18.4
	Second	314	44.2
	Third	266	37.4
Low-risk pregnancy	Yes	571	80.3
Weight-nutritional domain			
Variable	**Answer**	**n**	**%**
Pregravidic BMI category	Normal weight	433	60.9
	Overweight	152	21.4
	Obesity I	52	7.3
	Obesity II	20	2.8
	Obesity III	9	1.3
	Underweight	45	6.3
Average Preg. BMI (kg/m^2 ± SD)	24.1 ± 5.0		
Weight gain as expected	Yes	345	48.5
	Slightly more	156	21.9
	Significantly more	52	7.3
	Slightly less	108	15.2
	Significantly less	50	7

TABLE I. *Follows.*

History of Metabolic Syndrome	Yes	76	10.7
History of Diabetes	Yes	32	4.5
History of Hypertension	Yes	9	1.3
History of Obesity	Yes	42	5.9
Psychic domain			
Variable	**Answer**	**n**	**%**
History of AD	Yes	154	21.7
History of MDD	Yes	48	6.8
History of AN	Yes	13	1.8
History of BN	Yes	14	2
History of BED	Yes	16	2.3

Legend. AD, anxiety disorder; AN, anorexia nervosa; BED, binge eating disorder; BMI, body mass index; BN, bulimia nervosa; GAD-7, general anxiety disorder-7; MDD, major depressive disorder; Preg., pregnancy; SD, standard deviation.

included a total of 711 pregnant women with an average age of 30.8 years (± SD = 4.6). The vast majority of the sample reported being Italian (n = 674; 94.9%). In relation to educational attainment, a substantial proportion of the participants held a bachelor's degree (n = 338; 47.5%) or possessed a high school diploma (n = 316; 44.4%). Employment status indicated that the majority were employed (n = 577; 81.2%), with smaller percentages reporting being a homemaker (n = 56; 7.9%), unemployed (n = 62; 8.8%), or student (n = 16; 2.3%).

TABLE II. Scores of depressive or anxious symptoms and body dissatisfaction during pregnancy.

Psychic assessment			
Scale	**Clinical relevance**	**N**	**%**
PHQ-9	Nonsignificant depression	234	33
	Mild depression	316	44.4
	Moderate depression	121	17
	Moderate-severe depression	32	4.5
	Severe depression	8	1.1
GAD-7	Nonsignificant anxiety	214	30.1
	Mild anxiety	336	47.3
	Moderate anxiety	104	14.6
	Severe anxiety	57	8
EDE-Q	Total score*	69	9.7
	Restraint*	47	6.6
	Eating concern*	61	8.5
	Weight concern*	92	12.9
	Shape concern*	116	16.3

*Legend. EDE-Q, Eating Disorder Examination Questionnaire; GAD-7, General Anxiety Disorder-7; PHQ-9, Patient Health Questionnaire-9; *, values above the threshold of clinical relevance (= 2.8).*

In the domain of pregnancy-related factors, the majority of women were primiparae (n = 514; 72.3%). The distribution across pregnancy trimesters revealed a higher representation in the second trimester (n = 314; 44.2%), followed by the third trimester (n = 266; 37.4%) and the first trimester (n = 131; 18.4%). The majority of subjects reported having a low-risk pregnancy (n = 571; 80.3%).

Regarding the weight-nutritional domain, the analysis indicated that 60.9% of the sample (n = 433) possessed a normal prepregnancy weight, with an average prepregnancy BMI of 24.1 kg/m^2 (SD ± 5). Weight gain during pregnancy was predominantly reported as expected (n = 345; 48.5%), with smaller proportions indicating weight gain slightly above expectations (n = 156; 21.9%), significantly higher (n = 52; 7.3%), slightly lower (n = 108; 15.2%), and much lower (n = 50; 7%). A minority of the sample reported a medical history comprising diabetes (n = 32; 4.5%), arterial hypertension (n = 9; 1.3%), and obesity (n = 42; 5.9%), collectively characterized as metabolic syndrome (n = 76; 10.7%).

The mental health domain, as outlined in Table I and Table II, revealed that one-fifth of the sample had a history of AD (n = 154; 21.7%), while a smaller proportion reported a history of MDD (n = 48; 6.8%). The data pertaining to diagnoses of ED included BED (n = 16; 2.3%), BN (n = 14; 2%), and AN (n = 13; 1.8%). Based on the PHQ-9 scores, 17% (n = 121) manifested symptoms indicative of moderate depression, 4.5% (n = 32) exhibited moderate-severe depression, and 1.1% (n = 8) indicated severe depression. Based on GAD-7 scores, 47.3% (n = 336) reported mild anxiety symptoms, 14.6% (n = 104) experienced moderate anxiety, and 8% (n = 57) presented severe anxiety symptoms.

Eating symptoms

The EDE-Q scores revealed the presence of general eating symptoms (n = 69; 9.7%), restraint (n = 47; 6.6%), eating concern (n = 61; 8.5%), weight concern (n = 92; 12.9%), and shape concern (n = 116; 16.3%) in approximately a tenth of the sample. Kruskal–Wallis and Mann–Whitney Tests revealed no significant differences in levels of eating symptoms, eating concern, weight concern, and shape concern across different trimesters and pregnancy risk groups. However, the Mann-Whitney test identified a statistically significant difference in the levels of eating symptoms between primiparae and pluriparae (U = 44,706.000; p = 0.016). Specifically, 8.9% (n = 46) of primiparae and 11.7% (n = 23) of pluriparae exhibited relevant levels of general eating symptoms.

Association between eating symptoms, depression, and anxiety

Positive correlations were identified between EDE-Q scores and PHQ-9 scores (r = 0.297; p < 0.01), as well as GAD-7 scores (r = 0.268; p < 0.01). Additionally, statistically significant correlations were observed with a previous history of MDD

TABLE III. Unadjusted Linear Regressions between EDE-Q (independent variable) and Depression and Anxiety (dependent variables).

	β	SE	t	p	F	R^2
PHQ-9	1.528	.128	11.975	.000	143.400	.167
GAD-7	1.379	.144	9.544	.000	91.090	.113
MDD	.022	.008	2.589	.010	6.705	.008
AD	.029	.014	2.061	.040	4.246	.005

Legend. β, Nonstandardized regression coefficient; AD, Anxiety Disorder; F, F-statistic; GAD-7, General Anxiety Disorder-7; MDD, Major Depressive Disorder; p, Significance; PHQ-9, Patient Health Questionnaire-9; R^2, R-squared; SE, Standard error; t, Significance of B coefficient.

TABLE IV. Adjusted Linear Regressions between EDE-Q (independent variable) and Depression and Anxiety (dependent variables).

	β	SE	t	p	F	R^2
PHQ-9*	.102	.009	10.775	.000	13.344	.228
GAD-7*	.074	.009	8.322	.000	10.211	.181
MDD*	.367	.170	2.164	.031	5.936	.100
AD*	.056	.101	.555	.579	5.936	.100

Legend. β, Nonstandardized regression coefficient; AD, Anxiety Disorder; F, F-statistic; GAD-7, General Anxiety Disorder-7; MDD, Major Depressive Disorder; p, Significance; PHQ-9, Patient Health Questionnaire-9; R^2, R-squared; SE, Standard error; t, Significance of B coefficient.
**Adjusted linear regression. Four sets of covariates were used: sociodemographic (including age, nationality, educational level, and occupation), pregnancy-related (such as parity, trimester, and low-risk pregnancy), weight-nutritional (comprising BMI, expected weight gain, and self-reported history of metabolic syndrome), and psychological factors (self-reported history of MDD, AD, ED)*

(r = 0.071; p < 0.05) and a previous history of AD (r = 0.097; p < 0.01). Similarly, positive correlations were ascertained between EDE-Q subscales and PHQ-9 scores, GAD-7 scores, and reported history of MDD or AD.

Unadjusted linear regression analyses conducted on these paired variables (Tab. III) reaffirmed the significant associations between EDE-Q scores and PHQ-9 scores (β = 1.528; SE = 0.128; t = 11.975; p < 0.001; F (1, 709) = 143.400; R2 = 0.167), GAD-7 scores (β = 1.379; SE = 0.144; t = 9.544; p < 0.001; F (1, 709) = 91.090; R2 = 0.113), a reported history of MDD (β = 0.022; SE = 0.008; t = 2.589; p < 0.05; F (1, 709) = 6.705; R2 = 0.008), and a reported history of AD (β = 0.029; SE = 0.014; t = 2.061; p < 0.05; F (1, 709) = 4.246; R2 = 0.005).

Adjusted linear regression analyses (Tab. IV) confirmed the statistically significant association between EDE-Q scores and PHQ-9 scores (β = 0.102; SE = 0.009; t = 10.775; p < 0.001; F (17, 692) = 13.344; R2 = 0.228), GAD-7 scores (β = 0.074; SE = 0.009; t = 8.322; p < 0.001; F (17, 692) = 10.211; R2 = 0.181), and a reported history of MDD (β = 0.367; SE = 0.170; t = 2.164; p < 0.05; F (16, 693) = 5.936; R2 = 0.100). Conversely, the association between EDE-Q scores and the reported history of AD lost statistical significance.

DISCUSSION

Our study enrolled 711 pregnant women, predominantly of Italian nationality and with an average age of 30.8 years. The prevalence of eating symptoms, including general symptoms (9.7%), restraint (6.6%), eating concern (8.5%), weight concern (12.9%), and shape concern (16.3%), varied across the sample. Significant differences in eating symptoms were found between primiparae (8.9%) and pluriparae (11.7%). Additionally, we observed a positive association between measures of eating symptoms and various indicators of mental health. Specifically, higher scores on assessments of eating symptoms correlated with elevated scores on measures of depressive and anxiety symptoms, as well as with a history of MDD and AD. Adjusted analyses further underscored these relationships, revealing significant associations between eating symptoms and both depressive and anxiety symptoms, along with a history of MDD.

Our study showed a slightly lower prevalence of eating symptoms within our population (approximately 10%) compared to previous studies, which have reported eating symptoms in up to one-quarter to one-third of pregnant individuals [20,17]. Conversely, concerns regarding restrictive behaviors and food-related issues were less prevalent, affecting less than 10% of the individuals. Approximately 4.6% of our sample had a documented history of ED, consistent with epidemiological data regarding the lifetime prevalence of EDs in Western countries [60]. Although previous research documented an increase in body dissatisfaction during the course of pregnancy [38], our study showed that the trimester of pregnancy and pregnancy risk may not substantially impact eating symptoms.

Our findings contribute to the existing literature by highlighting the association between depression, anxiety, and eating symptoms during pregnancy. This relationship has been previously noted in research linking eating symptoms to perinatal depression or anxiety [61,35,32,62,38]. Consistent with prior findings, our results underscore a robust connection between eating symptoms and symptoms of anxiety and depression among pregnant women. It is well-documented that individuals with EDs frequently experience psychiatric comorbidities, notably mood and anxiety disorders [63-66]. Perinatal depression often presents with higher anxiety symptoms compared to non-perinatal depression, highlighting the significant role of anxiety in peripartum depression [67,68]. The overlapping symptoms among anxiety, depression, and EDs suggest tortuous interrelationships between these factors [32,35,17].

This interconnectedness is likely influenced by the emotional dynamics inherent in pregnancy and the available support network for women [69,70]. When emotional conflicts are not adequately addressed, they may manifest through concerns about body image, which can obscure underlying psychological issues. Recognizing and addressing these complexities underscores the significance of considering societal and cultural factors that shape maternal experiences during the perinatal period [71,72]. During the peripartum period, there exist strong societal pressures to maintain an idealized body appear-

ance [73,74,15], despite the natural body changes that occur during pregnancy and postpartum. These unrealistic expectations can be exacerbated by exposure to social media and prevailing body image trends, which contribute to negative moods, feelings of guilt, and ultimately body dissatisfaction [75-79].

Clinical implications of our findings emphasize the importance of broadening mental health assessments during pregnancy beyond the typical focus on anxiety, depression, and psychosis [80-83,6]. Our study reveals the significant relevance of eating symptoms alongside these conditions, highlighting the need for thorough evaluation of EDs during pregnancy [22]. Addressing these issues comprehensively is essential not only for maternal well-being but also for the health of the offspring. Research indicates that high maternal stress during pregnancy and preterm delivery can increase the risk of offspring developing eating symptoms [84]. Additionally, maternal nutrition plays a critical role in placental and fetal organ development, pregnancy outcomes, and offspring well-being [85]. To effectively manage these complexities, routine screening for eating symptoms alongside assessments could help in identifying the presence of EDs and assessing the risk of relapse [86,87]. Women identified with EDs should receive specialized care from multidisciplinary ED services during pregnancy and the postnatal period. This comprehensive approach should include guidance on healthy infant feeding practices and weaning strategies [86].

This study has several strengths, including the fact that it is, to our knowledge, the first to apply the optimized version of the EDE-Q 6.0 specifically to an Italian sample of pregnant women, it benefits from a large sample size (N = 711), and it addresses a relatively unexplored topic in Italy. At the same time, we must acknowledge some limitations.. First, our investigation may underestimate the true prevalence of eating symptoms among pregnant women. This is in accordance with prior research, such as Bye et al. (2018) [86], which suggests that some participants may have been hesitant to openly discuss their symptoms during research interviews, possibly due to fear of social stigma. Second, our study is susceptible to selection bias, primarily attributable to the recruitment method employed, which relied on online platforms and social media. This approach may not yield a comprehensive representation of the broader population of pregnant women. Our study predominantly captured responses from Italian participants, typically around 30 years of age, characterized by elevated educational attainment and active employment status. This sample composition introduces a notable degree of bias into our findings. Future research should seek to expand the sample's diversity and inclusiveness by implementing a more targeted approach to data collection, such as administering the questionnaire within specific settings like pregnancy outpatient services, neighborhood social services, or other relevant contexts. Third, we must address the limitations associated with the use of the EDE-Q in our study. While the EDE-Q is a widely used tool for assessing EDs and eating symptoms, it is not formally validated for use during pregnancy. Furthermore, the utilization of an optimized truncated version of the EDE-Q in our research, although potentially indicative of eating symptoms, cannot replace the diagnostic capabilities of the comprehensive 36-item version. Consequently, the findings, while valuable, should be interpreted with caution, particularly in the context of diagnosing EDs during pregnancy. Further research utilizing validated instruments specific to pregnancy may be necessary to provide a more accurate assessment of eating symptoms in this population.

CONCLUSION

In conclusion, this study highlights the significant prevalence of eating symptoms during pregnancy. Our findings reveal a strong connection between eating symptoms and affective symptoms related to anxiety and depression, emphasizing the primary influence of internal emotional experiences on body image perceptions. This association underlines the peculiar nature of psychopathological experiences during pregnancy, calling for increased clinical attention. Consequently, a thorough approach to maternal mental health care during pregnancy and the postpartum period is essential. Further research using a representative sample and validated tools tailored to the specific contexts of pregnancy is necessary to deepen our understanding of eating symptoms in this demographic and to develop more effective clinical interventions.

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Conflict of interest statement

The authors declare no conflict of interest.

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Ethical consideration

Referring to the Italian Legislative Decree no. 211/2003, no ethical approval is required in Italy for observational studies as they are not defined as medical/clinical research. This study complied with the Declaration of Helsinki and with the Italian privacy law, specifically the 'Code on the protection of personal data (Legislative Decree 196/2003), updated with the new legislative decree (Legislative Decree 101/2018)'. The statistical evaluation of collected data was carried out after complete anonymization.

Author contributions

Conceptualization, A.R.A., M.M., S.T.V., S.A., and V.B.; methodology, S.T.V. and S.A.; formal analysis, S.T.V.; investigation, A.A. and S.A.; data curation, S.T.V.; writing—original draft preparation, S.T.V. and A.A.; writing—review and editing, A.R.A. and M.M.; supervision, D.D.R. All the authors have read and approved the final manuscript.

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Data Availability statement

The dataset analyzed during the current study is available from the corresponding author upon request.

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