Acıbadem Univ. Sağlık Bilim. Derg. 17 (July, August, September) 2026
https://doi.org/10.31067/acusaglik.1916887

ORIGINAL ARTICLE / ARAŞTIRMA YAZISI

Mental Health Nursing/Ruh Sağlığı Hemşireliği

The Relationship Between Adverse Childhood Experiences, During Pregnancy Emotional Eating and Orthorexia

Fadime Bayrı Bingöl[1*], Arzu Aydoğan[2], Emine Pişkin[1], Esma Akar[1], Zümre Yetişen[1]

[1] Marmara University, Health Sciences Faculty, Istanbul, Türkiye

[2] Yüksek İhtisas University, Health Sciences Faculty, Ankara, Türkiye

Fadime BAYRI BİNGÖL
0000-0002-0304-6165

Arzu AYDOĞAN
0000-0001-9924-0589

Emine PİŞKİN
0009-0006-8341-1623

Esma AKAR
0009-0004-2799-9739

Zümre YETİŞEN
0009-0006-7607-3988

Correspondence: Fadime Bayrı Bingöl
Marmara University, Health Sciences Faculty, Istanbul, Türkiye
Phone: +90 216 777 57 00
E-mail: fadimebayri@gmail.com

Received: 27.03.2026
Accepted: 02.07.2026

ABSTRACT

Purpose: Adverse childhood experiences may negatively affect the health of the individual in later life and increase the risk of developing eating disorders. Eating disorders during pregnancy increase health risks for both the mother and the foetus. This study was conducted to examine the effect of adverse childhood experiences on emotional eating and orthorexia during pregnancy.

Methods: The data of the descriptive and correlational study were collected using an online questionnaire distributed via WhatsApp between April and May 2023. The study included 203 pregnant women who applied to a family health center. General Information Form, Adverse Childhood Experiences Scale, ORTO-11 Test and Emotional Eater Questionnaire were used to obtain the data.

Results: The mean age of the women who participated in the study was 28.47±5.00 (19-45), the mean gestational week was 24.61±10.11 (8-42), 68% were university graduates, 41.4% were employed in a job, and 74.4% did not receive dietitian support during pregnancy. While the presence of adverse childhood experiences did not affect the orthorexia scores of the pregnant women ($p>0.05$), it was determined that the emotional eater score increased as the number of adverse childhood experiences increased ($p=0.002$, $r=0.213$). In addition, as the emotional eater score increased, the orthorexia score decreased ($p<0.001$., $r=-0.244$).

Conclusion: All healthcare professionals in contact with pregnant women should assess women holistically, provide basic nutrition education, when necessary, recognize eating disorder symptoms early, and provide guidance when necessary.

Keywords: Adverse Childhood Experiences; Eating Disorders; Emotional Eating; Orthorexia Nervosa; Pregnancy

ÖZET

Amaç: Çocukluk çağı olumsuz yaşantıları bireyin sonraki yaşamında sağlığını olumsuz etkileyebilmekte ve beslenme bozukluklarına yakalanma riskini artırmaktadır. Gebelikte yeme bozukluklarının varlığı hem annenin hem de fetüsün sağlık risklerini artırmaktadır. Bu araştırma, çocukluk çağı olumsuz yaşantılarının, gebelik döneminde duygusal yeme ve ortoreksiya üzerinde etkisini incelemek amacıyla yürütülmüştür.

Yöntem: Tanımlayıcı ve ilişki arayıcı tipte olan çalışmanın verileri, Nisan-Mayıs 2023 tarihleri arasında WhatsApp üzerinden dağıtılan çevrimiçi bir anket kullanılarak toplanmıştır. Çalışmaya aile sağlığı merkezine başvuran, 203 gebe kadın dahil edilmiştir. Verilerin elde edilmesinde Genel Bilgi Formu, Çocukluk Çağı Olumsuz Yaşantılar Ölçeği, ORTO-11 Testi ve Duygusal Yeme Ölçeği kullanılmıştır.

Bulgular: Araştırmaya katılan kadınların yaş ortalamasının 28,47±5,00 (19-45) olduğu, gebelik haftasının ortalamasının 24,61±10,11 (8-42) olduğu, %68'inin üniversite mezunu olduğu, %41,4'ünün düzenli bir işte çalıştığı ve %74,4'ünün gebelik döneminde diyetisyen desteği almadığı belirlenmiştir. Gebelerin çocukluk çağı olumsuz yaşantısının olması ortoreksiya puanlarını etkilemezken ($p>0,05$), çocukluk çağı olumsuz yaşantı sayısı arttıkça duygusal yeme puanının da arttığı belirlendi ($p=0,002$, $r=0,213$). Ayrıca duygusal yeme puanı arttıkça, ortoreksiya puanının azaldığı belirlenmiştir ($p<0.001$, $r=-0.244$).

Sonuç: Gebe kadınlarla temas halinde olan tüm sağlık çalışanları kadınları bütüncül değerlendirmeli, gerekli durumlarda temel beslenme eğitimi vermeli, yeme bozukluğu semptomlarını erken fark etmeli ve gerekli durumlarda yönlendirme yapmalıdır.

Anahtar Kelimeler: Çocukluk Çağı Olumsuz Deneyimleri; Yeme Bozuklukları; Duygusal Yeme; Ortoreksiya Nervoza; Gebelik

Copyright © 2026 the Author(s). Published by Acibadem University. This is an open access article licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND 4.0) International License, which is downloadable, re-usable and distributable in any medium or format in unadapted form and for noncommercial purposes only where credit is given to the creator and publishing journal is cited properly. The work cannot be used commercially without permission from the journal.

Adverse childhood experiences (ACEs) is an extremely complex and multidimensional concept that includes not only abuse and neglect (maltreatment) directly affecting the individual before the age of 18, but also domestic harm (family dysfunction) indirectly experienced in the family. Family dysfunction includes situations such as parental separation/divorce, witnessing violence against the mother, and any family member having a substance addiction, mental illness, or being imprisoned or detained (1).

Studies have reported that women with a history of ACEs are at high risk for adverse birth outcomes (2) and may play an important role in the development of eating disorders (1). Pregnancy and postpartum mental health are considered an important component of health and well-being and include many physical, emotional, and social changes (3). Pregnancy and the postnatal period are periods of increased vulnerability to psychiatric disorders such as anxiety, depression, eating disorders, and psychosis for many women compared to other periods (4). Eating disorders are often associated with body image concerns, low self-esteem, and psychological stress (5). Eating disorders during pregnancy increase health risks for both the mother and the foetus. For example, poor nutrition can lead to low birth weight, premature birth and developmental problems in the foetus (6). Furthermore, women who experience eating disorders during pregnancy are also at risk of developing mental health problems in the postpartum period (7). The prevalence of eating disorders (ED) is highest in women before or during reproductive age (8). In recent years, eating disorders have increased in pregnant women (9), and 7.5% of pregnant women are reported to be affected by eating disorders (10).

Irregular eating behavior and irregular body weight in the mother have negative effects on the course of pregnancy and birth outcomes. Pregnant women with active ED have an increased risk. Disorders and dysfunctions related to feeding and eating behaviors, which are core symptoms of women with ED, may contribute to these adverse pregnancy outcomes seen in women with ED. On the other hand, given that affected women have higher levels of nutritional knowledge, especially regarding food sources (11).

Irregular eating behavior and irregular body weight in the mother have harmful effects on the course of pregnancy and birth outcomes. In pregnant women with eating disorders, the risks of antenatal bleeding, hyperemesis gravidarum, higher miscarriage rates, cesarean deliveries, and postpartum depression increase. In women with eating disorders, fetal outcomes such as lower and higher birth weights, intrauterine growth restriction, smaller head circumference, neurocognitive irregularities immediately after birth, as well as preterm births and perinatal mortality, have also been reported (7,10,11). One of the eating disorders that can be seen frequently during pregnancy is emotional eating behavior. Emotional eating behavior, which increases during pregnancy, is driven by problems in expressing and perceiving emotions. The frequency of emotional eating behavior may increase, especially when many situations such as sadness, anger, disappointment, experiences that challenge the self, depressive mood, loneliness, stress, and anxiety cannot be coped with effectively (12). In addition to emotional eating, Orthorexia Nervosa (ON), which has been discussed more in the literature in recent years, is defined as an 'obsession with healthy eating' (13).

In recent years, there has been a growing awareness in society of the positive effects of healthy eating on health. However, turning these behaviors towards healthy foods into an obsession can lead to negative health and quality-of-life consequences. This condition is called orthorexia nervosa (ON). ON is defined as a pathological obsession with consuming healthy food. Individuals experience excessive anxiety about the quality and purity of the food they consume, striving to adhere to strict dietary rules they have set for themselves. Although initially intended to promote a healthy lifestyle, this condition eventually becomes pathological, restricting the individual's life, leading to social isolation, and even causing nutritional deficiencies (14). Orthorexia nervosa is a serious condition in which the pursuit of healthy eating takes a dark turn, threatening the individual's physical and mental health. Although it is not yet included in official diagnostic systems such as the DSM, its clinical significance and prevalence are increasing. The prevalence of ON symptoms has been reported as 21.4% in pregnant women (13) and 26.6% (15). High ACE scores predicted orthorexia nervosa tendencies; this relationship was distinct from healthy orthorexic behaviors (16). In antenatal care, ACE history, emotional eating symptoms, and regulation difficulties should be systematically assessed because ACE predicts eating behaviors during pregnancy (17).

Material and Methods

Aim of the Research

This study was carried out to determine the relationship of adverse childhood experiences on emotional eating and orthorexia during pregnancy.

Research Questions

1. What is the frequency of orthorexia and emotional eating in pregnant women?
2. What factors are related to emotional eating and orthorexia in pregnant women?
3. Are adverse childhood experiences related to emotional eating during pregnancy?
4. Are adverse childhood experiences related to orthorexia during pregnancy?

Study Population

The study population consisted of 390 pregnant women registered at a family health center in Istanbul. Once the population size was known, the sample calculation formula was used to determine that at least 194 pregnant women needed to be included in the study to achieve a 95% confidence interval. Convenience sampling was used in this study. The study sample consisted of pregnant women who attended the Family Health Center during the data collection period, had no diagnosis of high-risk pregnancy, and voluntarily agreed to participate in the study. Eligible participants were informed about the study and sent a link to the questionnaire. Data were collected from a total of 203 pregnant women who met the inclusion criteria. To prevent duplication, participants were required to verify their email addresses before accessing the survey, and each email address could be used only once. Participants were explicitly instructed to complete the survey only once. While advanced verification techniques such as IP filtering or biometric validation were not employed due to ethical and technical limitations, all responses were manually reviewed. After login, participants first viewed the informed consent form and proceeded to the survey only after providing consent. All questions were mandatory to ensure complete responses. On average, the survey took approximately fifteen minutes to complete. All pregnant women who agreed to participate and who had not been diagnosed with a high-risk pregnancy during the data collection period formed the study sample. Data were collected from 203 pregnant women who met the study criteria and volunteered to participate during the study period.

Data Collection

The data were collected online between April and May 2023 using the Google Forms online survey form prepared by the researchers. Pregnant women who agreed to participate in the survey were included in the study. Pregnant women who participated in the study were included in the study upon accepting the informed consent form online. The data were collected using the Information Form, the Adverse Childhood Experiences Scale, the Emotional Eater Questionnaire, and the Orthorexia Nervosa Scale.

Personal Information Form: The form created by the researchers consists of 20 questions. It comprised questions regarding the participants' socio-demographic characteristics (age, height, weight, educational status, marital status, economic status, etc.), obstetric information (gestational age, number of pregnancies, number of miscarriages or abortions, health problems experienced during pregnancy, etc.) and changes in dietary habits during pregnancy, etc.

Adverse Childhood Experiences Scale (ACEs): Originally developed by Felitti et al. (1997) and adapted into Turkish by Gündüz et al. (2018) (18). This 10-item instrument assesses adverse experiences before age 18. Responses are coded as "yes" or left blank. Scores range from 0–10, with higher scores indicating more ACEs. No cut-off value exists. The Turkish validation study reported Cronbach's $\alpha = 0.74$; in this study, $\alpha = 0.75$. Although there is no universal cutoff point for the Adverse Childhood Experiences, a score of 4 or higher is widely used in the literature, including by the authors who developed the scale, as a cut-off value associated with a significant increase in risk for health and psychosocial outcomes. In this context, scale scores in the analyses were considered under two categories: 0–3 (low exposure) and 4–10 (high exposure).

Emotional Eater Questionnaire-Turkish Version (EEQ-TR): The Emotional Eating Scale was developed by Garaulet et al. (2012), and the study on the scale's validity and reliability in Turkish was conducted by Arslantaş et al. (2020) (19). The scale is a 10-item Likert-type scale. The scale items are answered on a 4-option Likert scale ("0" Never, "1" Sometimes, "2" Usually, and "3" Always). It has three sub-dimensions: inability to prevent the desire to eat, type of food, and feeling of guilt. There are no reverse items in the scale. The lowest score is "0," and the highest score is "30". High scores on the scale indicate a high level of emotional eating behavior. This scale indicates that a score of '0-5' means 'not being an emotional eater', a score between '6-10' indicates being a 'low-level emotional eater', a score between '11-20' indicates being an 'emotional eater', and a score between '21-30' indicates being a 'highly emotional eater'. In the Turkish validity study of the scale, the Cronbach's alpha value was 0.84; in this study, it was 0.86.

Orthorexia Nervosa Scale (ORTO-11): The scale was first developed by Steven Bratman (2000) as a 10-item instrument and was later revised into a 15-item version by Donini et al. (2005). In the Turkish validity study, Arusoğlu et al. (2008) reported that the scale achieved the best level of functionality with 11 items, and the revised version was subsequently named ORTO-11. The ORTO-11 is an 11-item, Likert-type self-assessment scale designed to assess the tendency toward Orthorexia Nervosa. In the scale, individuals are asked to indicate the items describing themselves by marking one of the options "always" (1 point), "often" (2 points), "sometimes" (3 points) and "never" (4 points). In the scale's evaluation, an increase in score indicates a decreased risk of orthorexia nervosa. The cut-off point used to evaluate the ORTO-11 scale in our study was determined using the method described in Arusoglu's Turkish Adaptation Study (20). The individuals participating in the study were divided into quartiles according to their ORTO-11 scores. The cut-off point for the study was set at 24 points in the 25% quartile, and values below this were considered an orthorectic tendency. In the Turkish validity study of the scale, the Cronbach's alpha value was 0.62, and in this study it was 0.72.

Study Limitations: Since the research was conducted at only one Family Health Center, the inability to generalize the results is an important limitation. Another limitation is that the research data is based on the statements of the individuals participating in the research.

Statistical Analysis: Statistical analysis of the data was performed using SPSS. The number and percentage distributions of individual characteristics of the pregnant women participating in the study were calculated, and descriptive statistics (mean, standard deviation) for continuous variables such as age were reported. Descriptive statistics (mean, standard deviation) were calculated for the Adverse Childhood Experiences Scale, Orthorexia Nervosa Scale (ORTO-11), and Emotional Eater Questionnaire scores. Compliance of the Adverse Childhood Experiences Scale, Orthorexia Nervosa (ORTO-11) Scale, and Emotional Eater Questionnaire scores with a normal distribution was tested using the Shapiro-Wilk test. Pearson correlation analysis was used to determine whether the total scores of the Adverse Childhood Experiences Scale, Orthorexia Nervosa Scale (ORTO-11), and Emotional Eater Questionnaire were significantly related, and Student t-tests were used to compare the scale scores with the participants' individual characteristics. IBM SPSS Statistics 21.0 (IBM Corp., Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) program was used. The statistical significance level was set at $p < 0.05$.

Ethical Considerations: Approval was obtained from the Marmara University, Faculty of Health Sciences Ethics Committee to conduct this research (29.12.22/165). In addition, pregnant women who met the inclusion criteria were provided with explanatory information about the purpose of the study, the methodology and the contributions it would provide. The principle of informed consent was explained and the information was kept confidential. In order to fulfill the ethical principle of respect for autonomy, those who wished to participate voluntarily were selected. A suitable room was provided so that participants could complete the questionnaire comfortably. The ethical requirements stated in the Helsinki Declaration have been fulfilled.

Results

The mean age of the pregnant women included in the study was 28.47±5.00 (19-45), and 95.6% (n=194) had a small family structure. When the educational level of the pregnant women was analyzed, 68% (n=135) were university graduates, 58.6% (n=119) did not have a job, 18.2% (n=37) stated that their income did not meet their expenses and they had financial difficulties. It was determined that 65% (n=132) of the pregnant women had their first pregnancy, and the mean gestational week was 24.61±10.11 weeks (8-42). It was found that 15.3% (n=31) of the pregnant women had health problems requiring physician control, 26.1% (n=53) smoked before pregnancy, and 9.9% (n=20) continued to smoke during pregnancy. It was determined that 74.4% (n=151) did not receive dietitian support during pregnancy, 85.2% (n=73) felt obliged to eat healthy during pregnancy, 74.9% (n=152) made changes in their eating behaviors during pregnancy, and 90.1% (n=183) thought that their baby would be affected by the unhealthy foods they ate.

The rate of being exposed to discourses about eating by the individuals around them was 64.5% (n=131), and 56.1% of the pregnant women stated that they did not care about this situation, 11% said they were happy, while the other pregnant women stated that they were uncomfortable. In addition, while 21.2% (n=43) defined their emotional relationship with their partner as moderate, 78.8% (n=160) defined it as good. The mean ORTO-11 scale score for the participants was 27.69±5.14 (11-44); 27.1% (n=55) had a tendency toward orthorexia nervosa; and the mean emotional eater questionnaire score was 10.42±5.73. In addition, according to the emotional eater questionnaire,

19.7% (n=40) of the participants were not emotional eaters, 36% (n=73) were low-level emotional eaters, 39.4% (n=80) were emotional eaters, and 4.9% (n=10) were high emotional eaters. When women's individual characteristics were compared with their scale scores, it was found that those who reported changes in their eating behavior during pregnancy and those who were exposed to comments from others about their eating had higher emotional eating scores. The findings comparing the scale scores with the pregnant women's individual characteristics are presented in Table 1.

Table 1. Comparison of Participants' Characteristics and Mean Total Scores of Orthorexia and Emotional Eater Questionnaire

		% (n)	**Emotional Eater Questionnaire** Mean±Standart Deviation	**Orthorexia Nervosa Scale** Mean±Standart Deviation
Working in a job	Yes	41.4 (84)	10.77±5.94	27.31±4.96
	No	58.6 (119)	10.18±5.58	28.09±5.25
			*t=0.720 p=0.619**	*t=-1.313 p=0.191**
Financial Situation	They have financial problems	18.2 (37)	11.18±5.81	27.89±4.87
	Income covers expenses	65.0 (132)	10.37±5.80	27.69±5.22
	Income more than expenditure	16.7 (34)	9.79±5.42	27.47±5.27
			*F=0.536 p=0.586***	*F=0.59 p=0.943***
Health problem	Yes	15.3 (31)	12.03±5.98	26.09±5.75
	No	84.7 (172)	10.13±5.65	27.98±4.99
			*t=1.700 p=0.091**	*t=-1.890 p=0.060**
Dietitian support during pregnancy	Yes	25.6 (52)	11.21±5.68	27.05±5.82
	No	74.4 (151)	10.15±5.74	27.91±4.89
			*t=1.143 p=0.254**	*t=-1.035 p=0.302**
Description of relationship with partner	Good	78.8 (160)	10.11±5.41	27.51±5.16
	Moderate	21.2 (43)	11.58±6.73	28.37±5.09
			*t=-1.490 p=0.138**	*t=-0.972 p=0.332**
Parity	Primiparous	65.0 (132)	10.61±5.70	28.00±4.22
	Multipar	35 (71)	9.56±6.94	29.13±5.35
			*t=0.631 p=0.531**	*t=-0.902 p=0.371**
Changes in eating behavior during pregnancy	Yes	74.9 (152)	11.21±5.90	26.96±5.24
	No	25.1 (51)	8.07±4.45	29.86±4.17
			t=3.475 ***p=0.001****	*t=-3.577* ***p=0.001****
Women's exposure to discourses from people around them about eating	Yes	64.5 (131)	11.19±5.99	27.67±5.15
	No	35.5 (72)	9.04±4.96	27.73±5.17
			t=2.591 ***p=0.007****	*t=-0.085 p=0.932**
ORTO-11, 27.69±5.14 (11-44)	Tendency to orthorexia nervosa	27.1 (55)		
	Normal	72.9 (148)		
Emotional Eater Questionnaire, 10.42±5.73	Not an emotional eater (0-5 point range)	19.7 (40)		
	Low-level emotional eater (6-10 point range)	36 (73)		
	Emotional eater (11-20 point range)	39.4 (80)		
	High emotional eater (21-30 point range)	4.9 (10)		

**Student T Test, **One Way Anova, p<0.05*

Table 2. Comparison of Emotional Eating and Orthorexia Nervosa Scores to Adverse Childhood Experiences Levels

Scale	Sub-scale	% (n)	**Emotional Eater Questionnaire** Mean±Standart Deviation	**Orthorexia Nervosa Scale** Mean±Standart Deviation
ACE	0	48.3 (98)	9.83±5.31	27.63±5.08
	1-3	31 (63)	9.26±4.34	28.30±4.82
	4 or more ACE	20.7 (42)	13.54±7.32	26.92±5.74
			F=8.633 p=0.001*	F=0.910 p=0.404*

**One Way Anova, p<0.01*

Among the pregnant women included in this study, 48.3% (n=98) had no adverse childhood experience during childhood, 31% (n=63) had 1-3, and 20.7 % (n=42) had 4 or more adverse childhood experiences. In the correlation analysis, the emotional eating questionnaire score increased as the number of negative childhood experiences increased (p=0.002, r=0.213). In the correlation analysis between the total scores of the ORTO-11 scale and the emotional eater questionnaire, a weak negative relationship was observed, with higher emotional eating scores associated with lower orthorexia scores (p<0.001 r=-0.244). Furthermore, in comparisons based on the frequency of adverse childhood experiences, it was found that while emotional eating scores increased among those with an ACE score of 4 or higher, this was not associated with orthorexia (Table 2).

Discussion

This study examined the relationship between adverse childhood experiences (ACE), emotional eating behavior, and orthorexia nervosa tendencies in pregnant women. The main findings of the study indicate that emotional eating is prevalent among pregnant women, that approximately one in four exhibit orthorexic tendencies, and that adverse childhood experiences are associated with emotional eating but do not show a significant association with orthorexia nervosa. Additionally, it was determined that orthorexic tendencies increase as emotional eating scores rise.

The primary objective of this study is to determine the prevalence of orthorexia and emotional eating among pregnant women. The study found that 27.1% of pregnant women exhibited orthorexic tendencies. This finding indicates that orthorexic tendencies are present at a significant level among pregnant women. The literature reports that the prevalence of orthorexia in pregnant women ranges from 21.4% to 26.6% (13,15). The similarity of our study's findings to the literature suggests that sensitivity toward healthy eating during pregnancy may reach an obsessive level in some women. During pregnancy, the mother's desire to protect her baby, external pressure regarding "healthy eating," and the abundance of content on social media promoting ideal pregnancy nutrition may facilitate the development of orthorexic behaviors. In our study, the fact that the vast majority of pregnant women felt a sense of obligation toward healthy eating and were exposed to comments about their diet from others supports this finding.

This study found that orthorexia scores in pregnant women were not associated with ACE and as the number of adverse childhood experiences increased, so did emotional eating scores. Additionally, it was found that emotional eating behavior was higher among pregnant women with an ACE score of four or higher. This may be related to the fact that the majority of women in the sample had a high level of education and, therefore, a high level of awareness. This situation may also be related to a general belief, echoed by many people, that difficulties can be a source of strength and opportunity for post-traumatic growth, encapsulated in the slogan "What doesn't kill you makes you stronger". Nietzsche's famous writings on this subject and songs by contemporary popular musicians such as Kelly Clarkson and Taylor Swift are also widely known by the general public (21). Tedeschi and Calhoun (2004), who first used the term post-traumatic growth, defined post-traumatic changes as positive psychological changes experienced after coping with traumatic events or situations (22). A study has reported that high ACE scores predict orthorexia nervosa tendencies; this relationship is distinct from healthy orthorexic behaviors (16). Women's ACE history, emotional eating symptoms, and emotion regulation difficulties should be systematically assessed during pregnancy. This is because ACE predicts eating

behaviors during pregnancy (17). Traumatic experiences can activate a chronic stress response in individuals, turning eating into a method of relief and coping. The impact of past traumas may become more pronounced during periods of heightened emotional sensitivity, such as pregnancy. Therefore, it is important to assess not only current psychological symptoms but also women's life histories and childhood experiences during prenatal care.

The World Health Organization (2023) reports that approximately 10% of pregnant women worldwide experience at least one mental disorder and that these rates are higher in developing countries (15.6%) (23). Approximately 130,000,000 women give birth worldwide every year. The vast majority of mothers with mental health problems are not diagnosed and treated. This is a serious public health problem with poor biopsychosocial outcomes for both mothers and infants (24). Pregnancy can be a turning point for the onset and recurrence of obsession with healthy eating (9). The study found that approximately half of the participants exhibited emotional eating behavior. This finding indicates that emotional eating is common during pregnancy. The literature suggests that hormonal changes, shifts in body image, and increased levels of stress and anxiety during pregnancy may trigger emotional eating (12). In particular, the psychological vulnerability experienced during pregnancy may lead women to turn to eating behaviors to cope with negative emotions. Since emotional eating is associated with adverse outcomes such as excessive weight gain, gestational diabetes, and postpartum weight control issues, this finding is clinically significant. This study also found that the vast majority of pregnant women feel pressured to eat healthily and are influenced by societal norms. It is believed that in societies where the perception that "a mother must eat well" is particularly strong, pregnant women may feel greater pressure to control their food choices. This situation may lead some women to adopt rigid rules regarding healthy eating and develop orthorexic tendencies.

Pregnancy weight gain is an important indicator for monitoring and assessing the nutritional status of a pregnant woman (25). It was found that three out of every four pregnant women included in this study did not receive dietitian support. In our country's existing health system, not every pregnant woman may need or be able to receive dietitian support throughout her pregnancy. However, every pregnant woman encounters a midwife, nurse, or physician. All healthcare professionals who are in contact with pregnant women (midwives, nurses, physicians, and other healthcare professionals) should evaluate women holistically and provide basic nutrition education when necessary.

The relationships that an individual establishes with important others in her/his life may affect her/his mood. It was found that two out of every three pregnant women included in the study were exposed to discourses about eating by the individuals around them, one out of every three pregnant women was disturbed by this situation, and these women had higher emotional eating scores. It may be a hurtful situation for pregnant women to be commented on their eating behavior by the individuals around them. Sharafi et al. (2016) attributed the social effects of healthy eating behaviors during pregnancy to families and spouses (26).

Among the factors affecting eating behaviors, there are publications reporting that childhood negative experiences are effective (27,28). When assessing health risks during pregnancy, trauma history should be evaluated along with basic follow-up. In fact, ACOG recommends that healthcare professionals also assess emotional well-being, along with physical health, during pregnancy and the postnatal period. While ACOG recommended prenatal screening for depression, domestic violence, and anxiety in pregnant women in 2012, it expanded its recommendations in 2021 and recommended screening for trauma and trauma history and appropriate referral (29). It was found that as the number of adverse childhood experiences of pregnant women included in this study increased, the emotional eating score also increased, and childhood adverse experiences were not associated with orthorexia score. In a study conducted with adolescents, those with four or more ACEs were 5.7 times more likely to be in the high eating disorder risk group than those who did not report any ACEs (30). In addition, in this study, 27.1% of women tended to orthorexia, similar to other studies conducted with pregnant women 26.6% (21), 21.4% (13).

Nutrition education and psychological support are effective strategies for managing eating disorders during pregnancy. Helping expectant mothers develop healthy eating habits and receive emotional support can reduce the negative effects of eating disorders. Furthermore, training healthcare professionals to recognize and intervene in eating disorders during pregnancy is crucial for preventing these conditions.

Conclusion

In conclusion, eating disorders during pregnancy are an important issue that must be considered in terms of maternal and infant health. Timely recognition of these disorders and the application of appropriate treatment methods can improve the health of both the mother and the foetus. Considering the potential intergenerational impact of perinatal mental illness, improvements in perinatal mental health will be an important investment in the health of future generations, as they will contribute to the health of at least two generations. Based on research findings, it is recommended that childhood traumas, emotional eating behaviors, and orthorexic tendencies be assessed together during prenatal care. It is particularly important for midwives, nurses, and dietitians to assess pregnant women using a holistic approach; to identify at-risk groups early on and provide psychological support and nutritional counseling. Additionally, it is recommended that nutrition education programs for pregnant women be designed to support a balanced and sustainable healthy eating approach rather than one based on fear. Healthcare professionals should recognize symptoms early, make the necessary referral, and reassess whether the woman has consulted a specialist for treatment within 2 weeks of referral.

Declarations

Conflict of Interest

This research received no specific grant or financial assistance, and the authors declare no competing interests.

Funding

No funding was required during the conduction of this research.

Authors' Contributions

FBB: Conception, design, processing, literature review, writing, supervision, interpretation; AA: Literature review, writing, supervision, EP: Conception, data collection, literature review; EA: Conception, data collection, literature review; ZY: Conception, data collection, literature review.

References

1. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults - the adverse childhood experiences (ACE) study. Am J Prev Med 1998;14, 245–258. https://doi.org/10.1016/S0749-3797(98)00017-8
2. Testa A & Jackson DB. Maternal Adverse Childhood Experiences, Paternal Involvement, and Infant Health. The Journal of pediatrics 2021;236, 157–163.e1. https://doi.org/10.1016/j.jpeds.2021.04.031
3. Stowe ZN. Perinatal Mental Health: Advances and Opportunities. The American Journal of Psychiatry 2023;180(12):874–877. https://doi.org/10.1176/appi.ajp.20230822
4. Özdamar Ö, Yılmaz O, Beyca H, Muhcu M. Common Psychiatric Disorders in Pregnancy and Postpartum Period. Zeynep Kamil Tıp Bülteni 2014;45(2):71-77. https://izlik.org/JA39ZB26RD
5. Mallaram GK, Sharma P, Kattula D, Singh S, Pavuluru P. Body image perception, eating disorder behavior, self-esteem and quality of life: a cross-sectional study among female medical students. Journal of eating disorders 2023;11(1):225. https://doi.org/10.1186/s40337-023-00945-2
6. Puşuroğlu M, Hocaoglu C. Pregorexia: Eating Disorder in Pregnancy. Psikiyatride Güncel Yaklaşımlar - Current Approaches in Psychiatry. 2023;15:251–256. https://doi.org/10.18863/pgy.1068128
7. Watson HJ, Torgersen L, Zerwas S, Reichborn-Kjennerud T, Knoph C, Stoltenberg C, et al. Eating Disorders, Pregnancy, and the Postpartum Period: Findings from the Norwegian Mother and Child Cohort Study (MoBa). Norsk epidemiologi = Norwegian journal of epidemiology 2014;24(1-2):51–62. https://doi.org/10.5324/nje.v24i1-2.1758
8. Currin L, Schmidt U, Treasure J, Jick H. Time trends in eating disorder incidence. The British journal of psychiatry. The journal of mental science 2005;186,132–135. https://doi.org/10.1192/bjp.186.2.132
9. Dukay-Szabó S, Varga M, Túry F. Az evészavarok és a terhesség összefüggései - irodalmi áttekintés [Eating disorders and pregnancy - a review of literature]. Ideggyogyaszati szemle 2016;69(9-10):299–305. https://doi.org/10.18071/isz.69.0299
10. Easter A, Bye A, Taborelli E, Corfield F, Schmidt U, Treasure J, et al. Recognising the symptoms: how common are eating disorders in pregnancy?. European eating disorders review: The journal of the Eating Disorders Association 2013;21(4):340–344. https://doi.org/10.1002/erv.2229
11. Dörsam AF, Preißl H, Micali N, Lörcher SB, Zipfel S, Giel KE. The Impact of Maternal Eating Disorders on Dietary Intake and Eating Patterns during Pregnancy: A Systematic Review. Nutrients 2019;11(4):840. https://doi.org/10.3390/nu11040840
12. Cotter EW, Kelly NR. Stress-related eating, mindfulness, and obesity. Health psychology: official journal of the Division of Health Psychology, American Psychological Association, 2018;37(6):516–525. https://doi.org/10.1037/hea0000614
13. İpkırmaz İB, Saka M. Gebelerin Sağlıklı Beslenme Takıntısı (Ortoreksiya Nervoza) ve Yeme Tutumlarının Değerlendirilmesi. Başkent Üniversitesi Sağlık Bilimleri Fakültesi Dergisi 2020;5(1):17-30. https://izlik.org/JA28DU75ED
14. Şengül R, Hocaoğlu Ç. What is Orthorexia Nervosa? Diagnostic and Therapeutic Approaches. KSU Medical Journal 2019;14(2) 101-104. https://doi.org/10.17517/ksutfd.441380
15. Taştekin Ouyaba A, Çiçekoğlu Öztürk P. The effect of the information-motivation-behavioral skills (IMB) model variables on orthorexia nervosa behaviors of pregnant women. Eating and weight disorders: EWD 2022;27(1):361–372. https://doi.org/10.1007/s40519-021-01237-x

16. Ansari N, Shakiba Sh, Ebrahimzadeh Mousavi M, Mohammadkhani P, Aminoroaya S, Sabzain Poor N. Role of Emotional Dysregulation and Childhood Trauma in Emotional Eating Behavior. Journal of Practice in Clinical Psychology 2018; 6(1):21-28.
17. Stein SF, Miller AL, Nuttall AK, Bogat GA, Lonstein JS, Muzik M., et al. Emotion regulation difficulties during pregnancy mediate the relationship between childhood maltreatment and emotional, external, and restraint eating. Appetite 2025;211:107984. https://doi.org/10.1016/j.appet.2025.107984
18. Gündüz A, Yaşar AB, Gündoğmuş İ, Savran C, Konuk E. Adverse Childhood Events Turkish Form: validity and reliability study. Anatolian Journal of Psychiatry 2018;19(Special issue.1):68-75. https://doi.org/10.5455/apd.294158
19. Arslantaş H, Dereboy F, Yüksel R, İnalkaç, S. Validity and Reliability of the Turkish Version of the Emotional Eater Questionnaire (EEQ-TR). Türk Psikiyatri Dergisi 2020;31(2):122-30. https://doi.org/10.5080/u23520
20. Arusoğlu G, Kabakçı E, Köksal G, Merdol TK. Ortoreksiya nervoza ve orto-11'in Türkçeye uyarlama çalışması. Türk Psikiyatri Dergisi 2008; 19(3):283-291.
21. Jayawickreme E, Infurna FJ, Alajak K, Blackie LER, Chopik WJ, Chung JM, et al. Post-traumatic growth as positive personality change: Challenges, opportunities, and recommendations. J Pers 2021;89(1):145–165. https://doi.org/10.1111/jopy.12591
22. Tedeschi RG, Calhoun LG. Posttraumatic Growth: Conceptual Foundations and Empirical Evidence. Psychol Inq 2004;15:1–18. https://doi.org/10.1207/s15327965pli1501_01
23. WHO (2023). Maternal mental health. https://www.who.int/teams/mental-health-and-substance-use/promotion-prevention/maternal-mental-health
24. Bayrı Bingöl F. Gebelik ve Postpartum Dönemde Travma Sonrası Stres Bozukluğu. İçinde Bingöl FB, Karaca S., Ed., Anne Ruh Sağlığında Psikososyal Bakım. 2023, Nobel Kitabevi. SS:245-65.
25. Yang S, Peng A, Wei S, Wu J, Zhao J, Zhang Y, et al. Pre-Pregnancy Body Mass Index, Gestational Weight Gain, and Birth Weight: A Cohort Study in China. PloS one 2015;10(6):e0130101. https://doi.org/10.1371/journal.pone.0130101
26. Sharafi SF, Javadi M, Barikani A. Reliability and validity of Short Food Frequency Questionnaire among pregnant females. Biotechnol Heal Sci 2016;3:e34608. https://doi.org/10.17795/bhs-34608.
27. Amiri S, Sabzehparvar M. Childhood maltreatment and the risk of eating disorders: a meta-analysis of observational studies. Misshandlung in der Kindheit und das Risiko von Essstörungen: eine Metaanalyse von Beobachtungsstudien. Neuropsychiatrie. Klinik, Diagnostik, Therapie und Rehabilitation : Organ der Gesellschaft Osterreichischer Nervenarzte und Psychiater 2024; https://doi.org/10.1007/s40211-024-00505-3
28. Rzeszutek M, Kowalkowska J, Dragan M, Schier K, Lis-Turlejska M, Holas P, et al. Adverse childhood experiences and profiles of healthy orthorexia versus orthorexia nervosa: towards an explanatory model of orthorexia as a multidimensional eating style. Eating and weight disorders EWD 2024;29(1), 65. https://doi.org/10.1007/s40519-024-01694-0
29. American College of Obstetricians and Gynecologists' Committee on Health Care for Underserved Women (2021). Reproductive Health Care for Incarcerated Pregnant, Postpartum, and Nonpregnant Individuals: ACOG Committee Opinion, Number 830. Obstetrics and gynecology, 138(1), e24–e34. https://doi.org/10.1097/AOG.0000000000004429
30. Kovács-Tóth B, Oláh B, Kuritárné Szabó I, Túry F. Adverse childhood experiences increase the risk for eating disorders among adolescents. Frontiers in psychology 2022;13,1063693. https://doi.org/10.3389/fpsyg.2022.1063693