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The Importance of Pregorexia Awareness

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ABSTRACT

Objective: Pregorexia is a condition that describes women who reduce energy intake and increase exercise to control weight gain during pregnancy. Although pregorexia is not formally recognized as a medical diagnosis, the term may be considered as an eating disorder during pregnancy, as behaviors such as the fear of weight gain and the worry about body appearance are observed both in pregorexia and in eating disorders. The abnormal weight gain in pregnant women may cause adverse obstetric and fetal outcomes. Eating disorders during pregnancy can cause serious problems for both mother and infant, such as small for gestational age infants, spontaneous abortion, microcephaly, low birth weight babies, maternal hypertension, and anemia. The aim of this review is to increase awareness of eating disorders during pregnancy, particularly pregorexia.

Keywords: Eating disorders, pregnancy, pregorexia, strict diet.

1. INTRODUCTION

A healthy diet is essential at every stage of life and even more important during pregnancy. During this period, the mother's diet should meet both her own and the growing fetus's energy and nutrient requirements. The growth and development of the fetus in the mother's womb are possible through adequate and balanced feeding of mother during her pregnancy. Pregnant women should consume an adequate and balanced diet to meet their own physiological needs (energy, macronutrients, and micronutrients), to keep the balance in the body, to ensure healthy fetal growth and development of the fetus, and to meet the energy and nutrition knowledge required for lactation (1,2).

During pregnancy, the increase in requirement for energy and macronutrients as well as the growing importance of micronutrients distinguishes dietary recommendations from other adults. During pregnancy, it is necessary to consume the food rich in crucial vitamins and minerals (especially iron, folate, calcium) and to supplement vitamin D. Pregnant women should consume green vegetables, citrus fruits, dairy, meat, fish, legumes, oily seeds, grains and fruit-based on individual needs. Weight should be gained according to the age of the pregnancy and maintained a healthy body weight (3).

Premature, low birth weight, dead or mentally and physically retarded babies may be born in case of inadequate and unbalanced nutrition. Also, maternal health may deteriorate (4-6). Eating disorders are one of the factors that cause of mothers' inadequate and unbalanced nutrition.

This review aims to increase awareness about pregorexia, draw attention to the complications of eating disorders in pregnancy, and to provide information about the prevention, treatment of eating disorders in pregnancy.

2. METHODS

General information about pregnancy and eating disorders is explained in the following headings. The following search builders were performed while reviewing information about pregorexia. "Pregorexia (text word) and pregnancy (text word) and eating disorder (text word)" were searched in the PubMed search engine through the advanced search builder. Only one article was found. As the term "allintitle: pregorexia" was searched in the Google Scholar search engine, five articles were found. The articles in which the full-text language is not in English and whose full text is not accessible were excluded. After the articles were eliminated, three articles were left.

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Pregorexia issue is an up-to-date problem, there is not enough research in the literature about this issue. In this context, one of the aims of this review is to provide a resource to the literature and to increase the awareness of healthcare professionals about pregorexia.

2.1. Risks of Eating Disorders in Pregnancy Period

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), eating disorders are persistent disturbances of eating or eating-related behaviors that result in changing consumption or absorption of food and affecting the significant physical health or psychosocial functioning (7). Complications of eating disorders are electrolyte imbalance, gastrointestinal problems, deterioration in cardiac function, abnormalities of bone density, increased risk of mortality (8-10). Types of eating disorders are anorexia nervosa, pica, binge eating disorder, avoidant/restrictive food intake disorder, bulimia nervosa, rumination disorder. Women are known to have a higher prevalence of eating disorders than men (7). Especially during or after pregnancy, women may feel pressure to maintain or lose weight even if they do not have excessive adverse behaviors before (11). The pregnancy period may be a risky process for eating behavior disorders and a turning point for recovery, onset or relapse of eating disorders (12-14). A study showed that body weight dissatisfaction remained unchanged for women with eating disorders during pregnancy; also, body weight dissatisfaction increased for women without eating disorders in pregnancy (15).

Primary risk factors for eating disorders during pregnancy include age <30 years, previously diagnosed eating disorders, a history of sexual abuse, and a significant life stressor or psychological trauma in the past (16).

In pregnancy period – which is a special and complex period of the women's life – metabolic, biological, and physiological changes, as well as social and psychological changes may occur. Pregorexia is one of the pathophysiological issues seen during pregnancy (17).

2.2. Pregorexia

Pregorexia, described in a journal in 2009, is a very new term related to eating disorders in pregnancy (18). This term has been taking place in a few scientific references and there are limited resources (media tools as internet, magazine, news) for the definition of pregorexia. Pregorexia has been considered as an obsession of staying thin by a pregnant woman. Pregorexia term has not been formally recognized in medical diagnosis, and additionally, according to DSM-V criteria pregorexia is not officially classified as an eating disorder (7). This term was used by the media to describe reduced calorie intake and increased exercise to control weight gain in pregnant women (18).

The media is thought to affect pregorexia tendency with pictures of thin pregnant celebrities (11). A large number of women who wish to have low pregnancy weight today are concerned that their weight will continue after pregnancy (19). Some pregnant women may focus on dieting strictly and exercising excessively rather than growing a healthy baby and accepting the change in their body shapes. Besides, pregorexia is described as women who spend hours at the gym and control their diet excessively to keep a svelte figure during pregnancy (20). Signs associated with pregorexia includes a history of eating disorders, talking about the pregnancy as if it were not real, excessively focusing on calorie counts, eating alone, skipping meals, exercising excessively (18,21). There is no internationally accepted definition for pregorexia and its distinctive features have not been identified yet. However, pregorexia is a typical behavior in some pregnant women. It is associated with taking control of the pregnancy period by doing a fairly low energy diet and heavy exercise. Approximately 5% of women experience pregorexia during and after pregnancy (22).

2.3. Effects of Eating Disorders on Pregnancy and Fetal Outcomes

Maternal history of an eating disorder is a risk for both mother and infant (23). When a pregnant woman experiences severe malnutrition especially during the final three months, she faces an increased risk of stillbirth, low birth weight, or infant death (24). Women with a history of eating disorder or current eating disorder have been shown to have a higher risk of obstetric complications, including small for gestational age infants, spontaneous abortion, low birth weight babies, microcephaly (23). A large clinical sample study has found that different maternal eating disorders are associated with increased risk of caesarian sections, small for gestational age, and low Apgar score at 5 minutes (25). Another study showed that the infants of mothers with a history of eating disorders had lower birth weight and lower head circumference as compared with the infants of the control group (26). A follow-up study showed that the risk of low-birth-weight infants was twice high in women with a history of eating disorder compared with women with no eating disorder. The same study reported that in women with an eating disorder, the risk of preterm delivery and small for gestational age was respectively 70% and 80% higher than the rates in women with no disorder (27). In contrast with these, a Swedish national register study did not found a relationship between the history of anorexia and the adverse birth outcomes (28). Although different results can be found, the risks of eating disorders should not be ignored for mother and baby health. Because eating disorders can cause serious complications, as mentioned above.

Besides these, women with a history of eating disorders are at higher risk of negative obstetric outcomes (29). Maternal anorexia nervosa has been related to anemia on the other side; maternal binge eating disorder has been related to maternal hypertension (30). Not only women with a history of eating disorders but also pregnant women with current eating disorders are affected by the risk of obstetric complications. A study reported that women who showed

symptoms of anorexia/bulimia nervosa during pregnancy had a higher frequency of cesarean delivery and postpartum depression than women with no symptoms (31). In a study conducted in Sweden, the risk of hyperemesis of pregnant women with past or current eating disorders was found higher than in the non-eating disorders group (26).

The eating disorders in pregnancy could be associated with health risks in the mother and her child related to sleep quality, maternal nutrition, birth outcomes, and child feeding (32). During the antenatal and postnatal periods, women with both current and past eating disorders could have higher depressive and anxiety symptoms compared with women without a history of eating disorders (33).

Pregorexia could affect pregnancy outcomes like other eating disorders, so healthcare professionals should be aware of this higher risk and pregorexia (21).

2.4. The Prevention and Treatment of Eating Disorders During Pregnancy: Health Professionals' Missions

Clinical potential complaints in pregnant women with eating disorders may be hyperemesis gravidarum after 20 weeks' gestation, absence of weight gain, signs of depression, or dieting (34). It is suggested that women with low body mass index (BMI), fear of weight gain, menstrual disturbances or amenorrhoea, gastrointestinal problems, psychological problems, physical signs of starvation, or repeated vomiting before pregnancy should be screened for risk of eating disorders during pregnancy (35). Precautions should be taken to protect risky women from eating disorders before pregnancy.

Healthcare professionals should be aware of eating disorders in pregnancy for maternal and child health. Screening tools could be used for early diagnosis of eating disorders in pregnancy. SCOFF (Sick, Control, One, Fat, Food) questionnaire, which has been designed specifically for eating disorders, could be used in the screening of eating disorders in pregnancy (36). Pregnant women should be educated about eating disorders and their effects. Pregnant women should be informed about the importance of optimal weight gain management, nutrition, and lifestyle changes during pregnancy.

Management of eating disorders includes nutritional and psychosocial treatments. A treatment team of eating disorders in pregnancy should be comprised of obstetricians, psychiatrists, internal specialists, psychologists, dietitians, nurses, midwives. A specialist team is needed because pregnant patient having an eating disorder care is difficult. In the treatment of eating disorders in pregnancy healthcare professionals should provide education to women. This education should include information about maintaining good mental health and wellbeing, the effects of healthy nutrition and healthy body weight on mothers and infants, the importance of stopping behaviors such as binge eating, vomiting, using laxatives and excessive exercise. Healthcare professionals should monitor and support pregnant women during pregnancy and the postnatal period (36-38). Healthcare professionals could help pregnant women determine an appropriate weight gain during pregnancy, based on her pre-pregnancy weight and BMI. The dietitian should plan the appropriate diet for the pregnancy and follow up on the pregnancy by doing regular interviews about the importance of healthy nutrition. Adequate energy and nutrient intake should be provided for the health of pregnant women and infants.

Health care providers should calculate woman's BMI at the first prenatal visit and advise related to the benefits of optimal weight gain, exercise, nutrition (39). The amount of weight gained during pregnancy can affect the immediate and future health of a woman and her infant. Evidence supported the association between inadequate weight gain and decreased birth weight (40). Weight gain during pregnancy is so important that it helps the health outcomes to be optimal for the woman and her infant. According to the revised gestational weight gain guidelines of the Institute of Medicine (IOM) published in 2009, a woman of normal weight (BMI: 18.5-24.9 kg/m^2) should gain weight in the 11.3-15.9 kg range during her pregnancy (41).

During pregnancy, the mother's diet provides energy and nutrients to both herself and the fetus' growth and for future lactation (42). The maternal diet must provide adequate energy and nutrients to supply the mother's appropriate requirements. Additionally, the needs of the fetus and enable the mother to establish the storage of nutrients required for fetal growth. The energy expenditure of pregnancy was estimated at around 321 megajoules (MJ) (77 000 kilocalories), based on theoretical calculations and data from longitudinal studies. Mothers with a low BMI before and during pregnancy are at arisen risk of having a low birth weight (LBW, birth weight <2.5 kg) infant. Low birth weight is associated with an increased risk of neonatal mortality and morbidity, as well as raised the risk of diseases in later life (43).

Although eating disorders seen before, during, or after pregnancy are rare, it is crucial because they can affect the mother and the baby negatively if not treated. The treatment of eating disorder in pregnancy should include, (35)

– advice general nutritional before pregnancy
– educate about the nutrition and growth of the fetus
– increase awareness of all healthcare personnel about eating disorders related to mother and baby health
– support breastfeeding
– liaise with the health visitor to monitor infant growth and weight gain closely
– watch for postnatal depression and return or worsening of the eating disorder in the postnatal period

3. CONCLUSION

Pregorexia has not yet been formally defined, and its features are not fully determined. Most health providers are unaware of this term. However, it is a fact that some pregnant women suffer from pregorexia. This eating disorder can significantly affect pregnancy outcomes and causes health risks for both mother and infant. For the prevention of these risks, the characteristics of pregorexia should be determined by the health professionals. Differential diagnosis of pregorexia should be made from other eating disorders seen in pregnancy such as bulimia and anorexia nervosa. Future studies should fill the deficiency of literature about pregorexia. Suggestions and guidelines should be enhanced for the treatment of pregorexia as well as other eating disorders in pregnancy.

Although the definition of pregorexia is controversial, screening for eating disorders for pregnant women may be helpful for healthy pregnancy outcomes. The health care team, including a dietitian, should be aware of the eating disorder in pregnancy and especially pregorexia. It is suggested that a specific screening tool should be promoted to identify eating disorders like pregorexia in pregnancy.

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