

## Self-care in Patients with Gestational Diabetes: Review Article

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Received: 12 March 2018 / Received in revised form: 28 May 2018, Accepted: 01 June 2018, Published online: 05 September 2018  
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### Abstract

**Objectives:** Gestational diabetes is the most commonly diagnosed pregnancy complication during pregnancy. Gestational diabetes is associated with glucose intolerance that occurs during pregnancy. Understanding self-care educational barriers in diabetic patients, especially pregnant women, can be an effective step in promoting self-care education in these patients. Given the prevalence of diabetes, the present study is to review Self-care in pregnant women. **Materials and Methods:** This study was conducted as a review of the literature in the Persian and English databases of Google Scholars, Pubmed, SCOPUS, SID, Magiran, and with the keyword Diabetes, Self care, Diabetes.Gestation, 1995 Until 2016. In this study, self-care was discussed in pregnant women who had diabetes during pregnancy. **Findings:** Diabetes is prevalent in Iran. Pregnancy in women increases the risk of developing diabetes in women and causes symptoms that require long-term care from the patient and the patient's family, even nurses, which endangers the health of the dying person. Mother and fetus. The findings showed that supporting diabetic mothers by families is crucial to the control of the disease, as well as helping the patient to accept the consequences of their illness. **Discussion and Conclusion:** So far, many studies have been conducted on gestational diabetes indicating that self-care in pregnant women has led to referrals to health centers and screening tests to prevent complications of gestational diabetes during pregnancy.

**Keywords:** Diabetes, Gestational Diabetes, Self-Care.

### Introduction

Diabetes is a major and global problem, which suggests an increase in the number of people infected with the disease to more than 366 million in 2030, which is often the increase in pregnant women (Wild and et al., 2004). Currently, chronic diabetes is a serious threat to developing countries and is considered to be the most common disease among pregnant women. (Grissa and et al., 2007) According to annual statistics, 1-10% of pregnant women develop gestational diabetes (Piri, 2010). Changes in blood glucose levels in pregnant women can lead to type 2 diabetes in the mother and increase their chances of developing a fetus (Sweeney & Brown, 2001). Gestational diabetes is due to the intolerance of carbohydrates in various degrees during pregnancy, since it was first called pregnancy (Suhail and et al., 2010). Diabetes mellitus is rapidly increasing due to population growth, urbanization, industrialization, and the prevalence of obesity and immobility (Arnold and et al., 2005). Among those who have diabetes, pregnant women are one of the groups at risk for diabetes, given the prevalence of 7% of gestational diabetes mellitus and adverse outcomes such as macrosomia, shoulder dystocia, trauma around childbirth, pre-eclampsia, embryonic hypoglycemia in mothers and fetuses (Kim and et al., 2002). Treatment and care for a patient with gestational diabetes and care for it is very important (Gabbe and et al., 1977). Nowadays, diabetes is a common treatment for pregnant women with gestational diabetes whose blood sugar is not controlled by nutrition and physical activity. (Matias and et al., 2013) Diabetes during pregnancy can cause to a long-term complication such as macroscopic changes that impair function and damage to other

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organs of the body (Fraser & Heller, 2007). Gestational diabetes requires daily monitoring of blood glucose, repeated injections, regular attendance for health personnel, and a sports and nutritional program to achieve satisfactory control. The most important action in this illness is self-care, which can be prevented or postponed by acute and chronic complications by timely identification and proper care based on patient education. People with diabetes play a key role in controlling and managing their illness and always have the necessary new information to take care of themselves (Huang and et al., 2009). Self-care includes a set of self-stimulation activities that can decide on the patient's ability to understand the conditions and factors affecting his or her well-being (Takizawa & Hoshi, 2010). However, like any other behavior, self-care is possible if effective structures are known and evaluated (Glanz and et al., 2008). Self-care is a health promoting activity, such as dieting, proper physical activity, identifying signs of increased blood sugar, which leads to improved patient health, participation in care and lower medical costs (Howells, 2002). Effective and up-to-date training to improve clinical outcomes and improve quality of life in the short term will lead to a lasting change in people's attitudes and practices and ultimately change their lifestyle (Funnell and et al., 2009). Different texts have been emphasized on the effect of self-care in diabetic patients (Robert Wood Johnson Foundation, 2006). One of the ways to achieve health in diabetic pregnant women is self-care behaviors (Brown and et al., 2009). Although in self-care and self-management processes of chronic diseases, patients must have the basic knowledge and basic skills needed, but having information and awareness alone is not enough to perform self-care behaviors, but the way of thinking and attitude in patients is an important factor in whether or not to take action (Nicholson and et al., 2011).

## Materials and Method

This study was conducted as a review in the literature on the English and Persian databases of Google Scholars, Pubmed, SCOPUS, SID, Magiran, and with the keyword Diabetes, Salf care, Diabetes. Gestation, from 1995 to 2016. There are many studies about diabetes and its effective factors at this site, but in this study, the study of literature from pregnancy and gestational diabetes databases and the problems of pregnant women discussed about 50 articles in this area 27 sources were used in this paper, and other articles focused more on self-care in diabetic patients than pregnant women.

## Findings

Self-care provides proper treatment facilities and the most desirable control of diabetes. It is worth noting that all scholars express the principles of treating diabetes with diet and insulin. Given the prevalence of diabetes and its long-term treatment and the important and direct role of self-care in controlling the disease, knowledge about diabetes, hardiness and optimism needed for long-term treatment of its disease (Knowler and et al., 2002). Self-care improves the quality of life and helps reduce costs. Also, the number of hospital admissions decreases (Tuomilehto and et al., 2001). Self-care is important in controlling diabetes in pregnant women; proper use and proper dose of oral medications in pregnant women can have adverse effects on the fetus and mother (Jäger, 1999). Therefore, pregnant women should have self-care that includes adequate information about diabetes, its complications of using insulin and medication, and the side effects of misuse of medication, and, on the other hand, self-care skills and behaviors in patients with diabetes have to be evaluated (Haghighyegh and et al., 2010). It is estimated that 50% of pregnant women with diabetes are mistaken in their care (Cullen and et al., 2007). Given that diabetes is a long-term chronic disease, self-care should be given to patients and their families when they go to health centers and in hospitals. We still see cases of gestational diabetes in women (Glanz and et al., 2008). Gestational diabetes is associated with severe complications such as pre-eclampsia, premature rupture, early delivery, cesarean section, and weight loss since birth (Xiong and et al., 2001). Among the risk factors for diabetes, we can mention the age, sex, and history of diabetes in the first-degree relatives, cesarean section and low weight (Matias and et al., 2013). To assess pregnant women at risk for gestational diabetes, there are many indications that these indices are evaluated in pregnant women during the first midwifery visit by measuring fasting blood glucose and having a risk factor for glucose challenge testing, and if Diabetes mellitus is contraindicated before pregnancy. Other women are examined for 24 to 28 weeks' glucose tolerance testing (American Diabetes Association, 2012). The importance of pregnancy and diabetes and the adverse effects on mothers and infants increases with respect to the Third World and low economic resources (Behboudi-Gandevani and et al., 2013).

## Discussion and Conclusion

The studies reviewed in this article suggest that self-care in gestational diabetes is so important. According to studies, gestational diabetes is a chronic disease which affects the person's life for a long time and affects all aspects of life, especially in pregnancy period. Studies have shown that gestational diabetes can have irreparable complications on the fetus and mother. Complications for mothers include preterm delivery, infectious complications, and hypertension. Complications for embryos include intrauterine death, polyposisma, the respiratory distress, and perinatal death. Studies have shown that women with a history of gestational diabetes have a higher risk of developing gestational diabetes. Also, studies indicate that self-care behaviors and the right lifestyle such as physical activity and diet in pregnant women can prevent gestational diabetes during this sensitive period. In a study, 61 percent of women were diagnosed with diabetes during their pregnancy.

Regarding the prevalence of diabetes in pregnant women worldwide, as well as in Iran, as an important health issue, consideration and provision of appropriate therapies is important in the health of the mother and the reduction of complications for mothers and embryos. In addition, each physician should consider the specific circumstances of the patient, including the age, severity, prognosis of the illness, the condition of post-intervention care, the justification of the disease, and the facilities of the health system. In general, the results of this study not only lead to the identification and specification of various factors in the incidence of disease, but also point out that by self-care in various areas, pregnancy-related diabetes can be partially prevented and new strategies can be presented for treatment of gestational diabetes. At the end, it is suggested that the gestational diabetes can be compared with the effects of various factors on the incidence of diabetes. It is also recommended to develop interventional and educational programs to improve the quality of life of these patients.

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