

Increasing self-efficacy through patient-centered pre-conception counseling for women with pre-existing diabetes

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Purpose

With a 50% increase in the incidence of pre-existing diabetes mellitus (DM) in pregnant women in less than a decade, DM is now the most common health problem to complicate pregnancy.¹ Pre-existing DM in pregnancy with uncontrolled hyperglycemia presents multiple risks. Maternal hyperglycemia during the critical period of organogenesis is linked to congenital malformations, diabetic embryopathy, and fetal death; past the point of organogenesis, it can lead to fetal hypoglycemia, macrosomia, and preterm birth. Maternal risks include accelerated impaired renal function, progression of retinopathy, and pre-eclampsia. The single best intervention for improving fetal/newborn outcomes is good glycemic control before conception and throughout pregnancy. The American Diabetes Association (ADA) recommends providing pre-conception counseling at routine visits for all women of childbearing age with DM.²

During the development of a program to manage DM during pregnancy in a large endocrinology practice, it became evident that many women with DM lacked education and preparation for pregnancy. No standard process existed to provide pre-conception counseling. Without this information, women may have lower self-efficacy for successful DM self-management pre-pregnancy. The goal of this project was

to increase patient self-efficacy and knowledge about DM self-management through patient-centered pre-conception education.

A multidisciplinary team, including a diabetes educator, psychotherapist/social worker, dietician, nurse practitioner (NP), physician, and registered nurse, collaborated to develop a pre-conception education packet to be used in a standardized educational approach. Topics included pre-conception glycemic goals, contraception, self-management skills, preparation for pregnancy, and pregnancy expectations and risks. A protocol was developed to offer pre-conception counseling and the education packet to all reproductive-aged women with DM presenting to the practice for regular visits. All seven providers agreed to implement the protocol.

Outcome evaluation methods

A one-group pretest-posttest design was used to evaluate pre/post pre-conception education self-efficacy and knowledge. All reproductive-aged women with DM were offered pre-conception counseling at regular visits over a 10-week period. If pre-conception counseling was provided, the patient was invited to complete an anonymous paper survey. Surveys were returned via mail or an office collection box.

The survey included 8 questions on self-efficacy from the Diabetes Empowerment Scale-Short Form³ and 6 questions on knowledge focusing on the 6 content areas of the pre-conception education packet. Participants were asked to rank their knowledge and self-efficacy levels before pre-conception education and then, on the same survey, rank their knowledge and self-efficacy levels after pre-conception education. The survey was a one-time interaction with participants after they received education.

Chart audits were conducted before and after pre-conception education protocol implementation. The audits evaluated for documentation that pre-conception education had been offered and either provided or declined.

Outcomes

In the 40 surveys returned, 85% of participants reported increased knowledge and 90% reported in-

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creased self-efficacy after receiving pre-conception education. Only 25% of 40 charts audited pre-implementation had documentation of pre-conception counseling, whereas 87.5% of 40 post-implementation charts had documentation of counseling.

Implications for women's health

In DM care centered on patient self-management, women need to feel empowered and engaged in their own care. Providing pre-conception education within a DM practice can have a favorable impact on patient self-efficacy and knowledge. Developing standardized education and processes for healthcare practices to educate patient populations can lead to improved provider compliance and better patient outcomes. NPs who provide care for reproductive-aged women with DM have an important role in providing pre-conception counseling that can help them make informed decisions about DM management and pregnancy planning for optimal maternal, fetal, and newborn outcomes.

Limitations

The project was limited by the short duration of the study, by the fact that both the pre-survey and the post-survey were completed after the educational intervention, and by the small number of surveys returned. ●

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Web resource

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