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RESEARCH

# Experiences of Parish Nurses in Providing Diabetes Education and Preconception Counseling to Women With Diabetes

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## ABSTRACT

**Objective:** To explore the role and experiences of the parish nurse in providing diabetes education and preconception counseling to women with diabetes.

**Design:** Mixed-methods concurrent embedded design.

**Setting:** Focus groups of community-based parish nurses accessed from a regional database (Pennsylvania, Florida, Ohio, New York, Arizona, and Minnesota).

**Participants:** Forty-eight parish nurses recruited from the Parish Nurse and Health Ministry Program database in Western Pennsylvania.

**Methods:** The primary method was focus groups using face-to-face, teleconference, and videoconferencing formats. A secondary method used a quantitative descriptive design with three self-report measures (demographic, preconception counseling self-efficacy, and preconception counseling knowledge). Qualitative content analysis techniques were conducted and combined with descriptive analysis.

**Results:** Forty-eight parish nurses participated in 1 of 11 focus groups. Eight qualitative themes emerged: *Awareness, Experience, Formal Training, Usefulness, Willingness, Confidence, "Wise Women,"* and *Preconception Counseling Tool for Patients*. Participants provided recommendations for training and resources to increase their knowledge and skills. Parish nurses' knowledge scores were low (mean = 66%, range = 40%–100%) with only moderate levels of self-efficacy (mean = 99, range = 27–164). Self-efficacy had a significantly positive association with knowledge ($r = .29$, $p = .05$).

**Conclusion:** Quantitative results were consistent with participants' qualitative statements. Parish nurses were unaware of preconception counseling and lacked knowledge and teaching self-efficacy as it related to preconception counseling and diabetes education. Understanding parish nurses' experiences with women with diabetes and identifying their needs to provide education and preconception counseling will help tailor training interventions that could affect maternal and fetal outcomes.

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Diabetes is a public health crisis with escalating costs (American Diabetes Association [ADA], 2013) that requires innovative, inexpensive, community-based solutions. Currently, 11.2% of women in the United States older than 20 years have diabetes (Centers for Disease Control and Prevention [CDC], 2014). This estimate includes those who have been diagnosed with diabetes and an estimate of those who have not yet been diagnosed (CDC, 2014). Diabetes is an important health consideration for childbearing women. When glycemic control is not achieved among women with diabetes and hemoglobin A1c levels are high, congenital malformations can occur (Bell, Glinianaia, Tennant, Bilous, & Rankin, 2012; Corrigan, Brazil, & McAuliffe, 2009). African American women with diabetes have been shown to have higher initial hemoglobin A1c levels during pregnancy than White women (Holcomb, Mostello, & Leguizamon, 2001), which places them at greater risk for maternal and fetal complications. To reduce the

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**Community-oriented providers such as parish nurses are uniquely situated to provide health promotion education in the faith communities they serve.**

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incidence of congenital malformations to a level similar to infants born to women without diabetes, maternal blood sugar levels must be normal at conception and throughout the pregnancy (ADA, 2004, 2011).

Many anomalies occur during the first 6 to 8 weeks of the pregnancy. Thus, it is essential for women with diabetes to receive preconception counseling well before they decide to become pregnant. When planning a pregnancy with preconception counseling, risks of fetal complications (e.g., congenital malformations) can be reduced from 10% to 2% (ADA, 2004, 2011).

In one study, women with diabetes who sought care only after conception were less likely to have graduated from college, be married, or be employed (Janz et al., 1995) They were also more likely to have type 2 diabetes and be from a racial minority group compared with women with diabetes who sought preconception counseling (Janz et al., 1995). Indeed, Hillman and colleagues (2006) reported that, among a sample of 625 women with type 1 diabetes and type 2 diabetes, only 16% ($n = 93$) of women with type 2 diabetes and 22% ($n = 532$) of women with type 1 diabetes had received preconception care. Nearly two thirds of pregnancies among women with diabetes remain unplanned (ADA, 2011) compared with approximately half of all pregnancies in the United States that are unplanned (Finer & Zolna, 2011). Despite strong recommendations for preconception care and counseling (ADA, 2004, 2011), women with diabetes are not receiving preconception counseling (Grady & Geller, 2016).

Because of less-than-desired provision of preconception counseling with traditional preconception care programs among women at greater risk, using outreach to access women in non–health-related sectors should be considered for delivery of needed education in the women's communities. Parish nurses serve members of a faith community or church as well as members of the community at large. The main role of parish nurses is to deliver services that include providing health education and promotion, health counseling, and referrals and acting as health advocates (American Nursing Association & Health Ministries Association, 2012). Parish nurses' training may vary; however, those who have gone through certificate programs are registered nurses who have 5 years of experience and have completed a 40-hour certificate program using the Foundations in Faith Community Nursing Curriculum (American Nursing Association & Health Ministries Association, 2012).

Parish nurses have had positive effects on patient outcomes (e.g., increased physical activity, decreased blood pressure) related to diabetes, obesity, and other chronic disorders (Mendelson, McNeese-Smith, Koniak-Griffin, Nyamathi, & Lu, 2008; White, Drechsel, & Johnson, 2006). To date, there has been only one study in which researchers examined the use of parish nurses with a pregnant population affected by diabetes. Mendelson et al. (2008) conducted a randomized controlled trial using a parish nurse intervention group ($n = 49$) versus care as usual ($n = 51$) and examined the effects on maternal health behaviors, glycemic control, and neonatal outcomes among Mexican American women with gestational diabetes. Parish nurses provided enhanced education and support that incorporated faith principles with the women randomized to the parish nurse intervention. Parish nurses had success with improvements to health-promoting behaviors among the study participants ($p = .016$; Mendelson et al., 2008). This study exemplifies the efficacy of a novel health care intervention in addressing issues for women with diabetes who are already pregnant; however, a gap in knowledge continues to exist. To date there is no published information on the potential efficacy of a parish nurse–based education program to increase the rate of preconception counseling among childbearing-age women with diabetes. However, before such an intervention is developed, it is important to explore the role and experiences of parish nurses in providing diabetes education and preconception counseling to women with diabetes.

Therefore, the purposes of our study were to explore the role and experiences of parish nurses in providing diabetes education and preconception counseling to women with diabetes; to explore parish nurses' understanding of diabetes as it relates to pregnancy and pregnancy outcomes; and to describe parish nurses' knowledge and teaching self-efficacy regarding diabetes and pregnancy and preconception counseling using a mixed-methods design. Given





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