Comparison of a Qualitative and Quantitative Descriptive Study: Diabetes Management

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Introduction

Research studies have been completed to identify why some individuals struggle managing diabetes. Two studies utilizing different research methods were examined on why diabetes management is difficult for some individuals. The first study is a qualitative study on barriers of diabetes management among women with the diabetes during pregnancy (Collier et al., 2011). The second study is a descriptive study on barriers that influence compliance of diabetes management (specifically dietary intake) (Bahari, Gillani, & Maisharah, 2011).

The qualitative study on diabetes among pregnant women states that uncontrolled diabetes during pregnancy can cause adverse maternal and infant outcomes. The qualitative study explores the barriers of glycemic control before, during, and after pregnancy. The qualitative study also describes the knowledge, attitudes, and behaviors associated with diabetes management among the participants of the study (Collier et al, 2011).

The qualitative study by Collier et al. (2011) examines diabetics may not adhere to recommended dietary guidelines when managing diabetes. Diabetics adhering to dietary guidelines can greatly increase an individual’s successful management of the disease. Although many dietary guidelines exist to assist with managing diabetes, the correct choices need to be made by the individual. The descriptive study by Bahari et al. (2011) explores barriers influencing dietary compliance and dietary intake patterns of diabetic patients.

Literature Review

The article by Collier et al. reviews literature on Gestational Diabetes Mellitus (GDM) and pre-gestational diabetes. The literature reveals pre-gestational diabetes left unmanaged before or during pregnancy is associated with an increased risk of spontaneous abortion, stillbirth, and an estimated three-fold increased risk for congenital malformations (Becerra,
Cordero, Erickson, & Khoury, 1990). Risks with uncontrolled diabetes for the mother include increased cesarean delivery or birth trauma associated with delivery of a large infant. Risks for the infant include macrosomia and an increased risk of obesity and diabetes later in life (Collier et al., 2011). Approximately 50% of women with GDM will develop type 2 diabetes (American Diabetes Association). This reveals the importance for healthcare providers to understand the barriers of diabetes control during pregnancy and to educate patients accordingly. In a national telephone survey, women with GDM reported barriers to care include lack of insurance, cost of physician visits, and no primary care provider (Collier et al., 2011).

The descriptive study by Bahari et al. reviews literature revealing 60% of individuals with diabetes complied with diabetic dietary guidelines. The review also stated that dietary change and maintenance is difficult for patients with a diet-modifiable disease, as most of these patients do not comply with medications prescribed (Aadah et al., 2006)

**Purpose**

The purpose of the qualitative article is to identify and explore knowledge, attitudes, and barriers to achieving and maintaining glycemic control before, during, and after pregnancy among women with Pre-GDM and GDM.

The descriptive study states a similar purpose to that of Collier et al.’s qualitative study. Bahari et al.’s study is to determine possible barriers influencing compliance towards following the recommended “diabetic diet”. The study also aimed to identify the pattern of diet in diabetic patients (Bahari et al., 2011).

**Setting/Sample**

The qualitative study by Collier et al. was conducted in the Atlanta, Georgia in the United States. The sample consisted of white, black, and Hispanic women who had diabetes during a
pregnancy in the last four years. A total of 89 women from a variety of sources participated in the study. Participants were eligible if they were between the ages of 19 and 44. The participants were not eligible for the study if they worked in the healthcare field. Most of the participants used in the study came from low-income households (Collier et al., 2011).

Bahari’s descriptive study was conducted at the Diabetes Clinic of Pulau Pinang Hospital in Malaysia. The study participants were patients attending the Diabetes Clinic previously mentioned. Patients under 16 years old were excluded from the study. Patients involved in the study had to speak either Malay or English.

**Data Collection/Design**

The study by Collier et al. collected data by focus group interviews conducted by researchers. Ten focus groups were held with women who experienced GDM and an additional six focus groups were held for women with pre-GDM during a pregnancy in the last four years. Focus groups were conducted separately by race/ethnicity (non-Hispanic white, non-Hispanic black, and Hispanic women). During the focus groups interviews, the researcher used a moderator’s guide with questions designed to gain insight into the women’s knowledge of diabetes and pregnancy. Factors that influence diabetes management were explored. The goal of the focus groups was to discover why the women were experiencing poor outcomes with uncontrolled diabetes, and motivation control diabetes before, during, and after pregnancy. The interviews were recorded and transcribed (Collier et al., 2011).

Unlike the qualitative study conducted by Collier et al., no direct discussion occurred between the researchers and the participants about diabetes in the descriptive study. During the descriptive study, 150 questionnaires were distributed to diabetic patients by random sampling. Of the 150 questionnaires dispensed, 127 were returned, creating an 84.6% response rate. The
questionnaire consisted of two parts. Part one contained questions on the demographics of the patient. Part two was the dietary portion of the study, which contained five questions on dietary habit and 12 questions on possible barriers influencing compliance toward dietary intake. The questions in part two were related to belief, knowledge, attitude, and environment (Bahari et al., 2011).

**Data Analysis**

Collier et al.’s qualitative study on diabetes management before, during, or after pregnancy utilized focus groups. Questions were asked to the focus groups to understand the women’s knowledge of diabetes management during pregnancy. The moderator used a questionnaire as a guide to explore the common attitudes or themes within the focus groups. Independent coders analyzed the transcripts for common themes and then re-analyzed the data by combining all of the independent codes and the themes most commonly expressed in the focus groups. The common themes are the study outcomes (Collier et al., 2011).

The descriptive study on diabetes management was a cross sectional study. The data collected by the 127 questionnaires was entered into and analyzed using descriptive statistics in SPSS Version 12.0 and Microsoft Excel (Bahari et al., 2011).

**Results/Discussion**

Collier et al.’s qualitative study identified five main barriers of diabetes management in patients with GDM. The barriers are financial difficulties, trouble maintaining a healthy diet and exercising, communication and information barriers, lack of social support, and barriers related to diabetes care. The women participating in the study were aware of complications with diabetes but generally had trouble identifying the specifics of the complications. Members of the study often reported feeling alone or overwhelmed managing the disease. Most participants were
concerned about the effects GDM had on their babies, but few verbalized concern for their own health. Participants with family support felt more empowered to control the disease and complied with care. Participants were eager to learn more about managing GDM and where to go for education as many had limited time with their primary care provider (Collier et al., 2011).

Bahari et al.’s descriptive study identified barriers to comply with a “diabetic diet”. The barriers included availability of recommended foods and quality of life, social support, and difficulty controlling food intake during social gatherings. The study identified that most of the patients were knowledgeable in diabetes management. The study also revealed a major barrier to management was not knowledge or beliefs, but the attitude of the patient. Family was found to be an asset for controlling diabetes in this study, not a barrier (Bahari et al., 2011).

**Conclusion**

The qualitative study conducted by Collier et al. confirmed that a healthy pregnancy and baby are strong motivating factors to control diabetes. Efforts should be made to educate the patients on their health and on the impact glycemic control has on their pregnancy. Patients should also be educated on resources to help them overcome diabetes management barriers.

The descriptive study by Bahari et al. concludes that belief and knowledge of diabetes and dietary guidelines are not major barriers of managing diabetes. Participants were generally educated on how to manage the disease. Environmental factors such as social gatherings are reported to be major barriers to managing diabetic diets. By identifying the barriers associated with diabetes management, patients can be educated and provided support and resources to manage the disease.
References


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