Relationship among Selected Factors, Exercises, and Two-hour Postprandial Blood Glucose Levels in Pregnant Women with Gestational Diabetes Mellitus *

Piyanun Limruangrong, Nittaya Sinsuksai, Ameporn Ratinthorn, Dittakarn Boriboonhirunsarn

Corresponding author:
P. Limruangrong
E-mail: nsplr@mahidol.ac.th

Abstract

Purpose: To explore the relationship between selected factors and exercises, as well as between exercise and two-hour postprandial blood glucose levels in pregnant women with Gestational Diabetes Mellitus (GDM).

Design: A secondary analysis.

Methods: Through convenience sampling, a sample of 90 pregnant women with GDM was recruited from the antenatal units of Siriraj and Rajvithi Hospitals. Data were collected using personal information questionnaire, self-report exercise and blood glucose level record forms. Descriptive statistics and the correlation coefficients were used for data analysis.

Main findings: Factors significantly associated with exercises during pregnancy included hours of daily work outside a living place (p < .05), GDM classification (p < .05), and exercises before pregnancy (p < .05). Exercises before pregnancy was significantly associated with two-hour postprandial blood glucose levels (p < .01), whereas the exercise during pregnancy was not.

Conclusion and recommendations: The findings suggested that nursing interventions designed for decreasing blood glucose level should include promoting pregnant women with GDM doing exercises before and during pregnancy. Nurses should provide information about benefits and strategies to increase pregnant women’ confidence to perform exercises before and during pregnancy, especially women who had risk factors such as family history of diabetes, previous GDM, and aged over 30.

Keywords: blood glucose, exercise, gestational diabetes