

**Sigma's VIRTUAL 31st International Nursing Research Congress (Wednesday, 22 July - Friday, 24 July)**

## **The Perinatal Biopsychosocial Consequences of Various Levels of Gestational Hyperglycemia**

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### **Purpose:**

Few longitudinal studies have examined the biopsychosocial consequences of gestational hyperglycemia among women and their offspring. This study compared physiological indicators as well as stress, depression, and health status among three groups of women with gestational hyperglycemia.

### **Methods:**

We conducted a repeated-measures study at five time points among 132 women with gestational hyperglycemia. We used medical charts to review both 50-gram glucose challenge test results and 100-gram oral glucose tolerance test results, and used medical devices to measure blood pressure, body weight, and fasting blood sugar. The structured questionnaires, including the Perceived Stress Scale (PSS; 10 items), the Taiwanese Depression Questionnaire (TDQ; 18 items), the Chinese Health Questionnaire (CHQ; 12 items), and a demographic characteristics questionnaire were used to examine women's stress, depression, and health status. We used a repeated-measures two-way analysis of variance to compare biopsychosocial consequences between the three gestational hyperglycemia groups at five time points.

### **Results:**

A total of 30 participants (22.7%) had gestational diabetes mellitus (GDM), 15 (11.4%) had gestational impaired glucose tolerance (G-IGT), and 87 (65.9%) had mild gestational hyperglycemia (MGH). Women with GDM had higher fasting blood glucose and systolic/diastolic blood pressure than women with MGH. Women with GDM had higher diastolic blood pressure compared to women with G-IGT. Significant differences were found between the five time points regarding women's fasting blood glucose, diastolic blood pressure, depression, and health status.

### **Conclusion:**

Health care providers should conduct early screening for predictors of metabolic syndrome in women with any degree of gestational hyperglycemia. Nursing interventions may be offered as early as the perinatal period in order to promote women's health. Future research should determine if early intervention may diminish the risk of gestational hyperglycemia and if long-term adverse outcomes are preventable. Particularly, future research should examine the association between various degrees of gestational hyperglycemia and subsequent maternal and childhood morbidity.

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### **Title:**

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**Keywords:**

biopsychosocial consequences, gestational hyperglycemia and perinatal women

**Abstract Summary:**

Women with any degree of gestational hyperglycemia represent a target population for primary and secondary prevention, and should be screened early for metabolic syndrome risk factors. Nursing interventions may be implemented as early as the perinatal period in order to promote women's health and their offspring's well-being.

**References:**

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