Assessment of Nutritional Patterns for Pregnant Women to Control Weight Gain

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Amira Hesham Mohamad Mohamad

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List of Abbreviations

ACOG	:	American Congress of Obstetricians and Gynecologists
ALA	:	Alinolenic acid
ASB	:	Asymptomatic bacteriuria
BCG	:	Bacille Calmette-Guerin
BMI	:	Body mass index
DHA	:	Docosahexaenoic acid
DNA	:	Deoxyribonucleic acid
EPA	:	Eicosapentaenoic acid
FHR	:	Fetal heart rate
hCG	:	Human chorionic gonadotropin
HIV	:	Human Immunodeficiency Virus
HPV	:	Human papillomavirus
ICSI	:	Institute for Clinical Systems Improvement
IOM	:	Institute of Medicine
LAIV	:	Live attenuated influenza vaccine
MMR	:	Measles, mumps, and rubella
NEC	:	Necrotizing enterocolitis
PCOS	:	Polycystic ovarian syndrome
PPV	:	Polysaccharide vaccine
RDAs	:	Recommended dietary allowances
SD	:	Standard deviation
SPSS	:	Statistical package for social science
Td	:	Tetanus-diphtheria
WHO	:	World Health Organization

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Abstract

Assessment of nutritional patterns for pregnant women to control weight gain

By
Amira Hesham Mohamad Mohamad

Nutritional statuts during pregnancy is essential for the growth and development of the fetus and The immediate and future health of a woman and her infant can be affected by the amount of weight gained throughout the course of a pregnancy. **Aim:** to assess nutritional patterns for pregnent women to control weight gain. **Design** : descriptive design study was followed **Setting :** The study was conducted in the two maternal and child health centers in Kafer Eldawar through using apurposive sample technique**. Three tools** of data collection were used named interview questionnaire sheet and assessment sheet for Physiological measurement of pregnant women and review of medical record to obtain data about lab analysis. The main **result** of the study illustrated that pregnant women had average level of knowledge regarding nutrtional patterns. In contract pregnent women reported practices was unsatisfactory so there was statistically significant difference observed between knowledge and practices regarding nutritional patterns.The current study **concluded that** there was anegative correlation between knowledge and reported practices of pregnent women and weight gain rate during pregnancy. Based on this finding, the investigator **recommended that** health care provider should offer preconception counseling to help women achieve normal prepregnancy BMI then continue to work with women during pregnancy to gain weight within the recommended range.

Keywords: Nutrtional patterns , Pregnent women , Control weight gain

Introduction

Good nutrition is vital to good health and essential for normal growth and development, it is also essential to establish and maintain a healthy pregnancy and give birth to a healthy child, good nutritional habits begun before conception and continued during pregnancy, promote adaptation to the maternal and fetal needs, nutrient needs typically increase more during pregnancy than during any other stage in a woman's adult life, additional nutrients are required during gestation for development of the fetus as well as for growth of maternal tissues that support fetal development ***(Norton, 2015)***.

A critical determinant of a positive pregnancy outcome is a healthy well- balanced maternal diet, A well-balanced diet is one that includes foods from all food groups in appropriate amounts, the food and nutrition Board of the Institute of Medicine (IOM), the National Academy of Science, and the US Department of Health and Human Services developed recommended dietary allowances (RDAs) of nutrient intake required to maintain optimal health of pregnant women ***(Walter, 2017)***.

The Recommended Dietary Allowance (RDA) increases for various macronutrients the RDA for carbohydrates is 175 grams/day for pregnant women, as compared to 130 grams/day for non-pregnant women, Protein requirements increase from 0.8 grams/kg/day to 1.1 grams/kg/day during pregnancy, it is also important

for women to get the right amount of various vitamins and minerals during pregnancy to optimize the growth and development of the fetus, Pregnant women should consume 600 µg/day of synthetic folic acid from fortified foods or supplements, 27 mg/day of iron, 15 µg/day of vitamin D, and 1.000 mg/day of calcium to meet the RDA for these nutrients ***(National Research Council, 2011).***

Maternal nutrition plays an important role in pregnancy outcomes, and is associated with decreasing the risk of many maternal and fetal complications, optimal nutritional status before and during pregnancy contributes to high diet quality and positive pregnancy outcomes, Thus obtaining a nutritional history, assessing and monitoring current dietary intake, and determining weight status before and during pregnancy, The Institute of Medicine (IOM) has established weight gain standards for each trimester of pregnancy based on pre pregnancy body mass index (BMI) status, calculated as weight in kilograms divided by height squared in meters (kg/m^2) ***(Falciglia, 2014).***

The amount of weight a woman gains during pregnancy can directly influence pregnancy outcomes and the long-term health of both mother and child, The IOM gestational weight gain guidelines were created to optimize maternal and fetal health outcomes, Weight gains above these guidelines are associated with many adverse health outcomes ***(Coppage, 2014).***

During pregnancy women who exceed weight gain recommendations have an increased risk of gestational diabetes, preeclampsia, failed induction, and cesarean delivery and Infants born to mothers with excessive weight gain are more likely to experience low 5-minute Apgar scores, hypoglycemia, meconium aspiration syndrome, and large for gestational age compared with women who gain within the recommended guidelines After birth, women with excessive gestational weight gain are at increased risk for postpartum weight retention and the development of new or persistent overweight or obesity ***(Whitaker, 2011).***

Community health nurse provide antenatal care which monitors the health and wellbeing of the woman and the progress of her pregnancy, and take a comprehensive assessment of the woman's social, psychological, physical condition, obstetric history and dietary habits, helps to identify any potential risks and enables choices to be offered , this is an important time for community health nurse to give information and discuss issues including keeping well in pregnancy , diet, nutrition and weight control ***(Harris & Nimmo,2013).***

Significance Of the study:

Obesity become one of the most important threats to women health in general, it also become one of the most common medical conditions complicating pregnancy, it has become the most prevalent preventable cause of death worldwide ***(Lucovnik, 2017)***.

Approximately half of pregnant women exceed the recommendations set by the IOM for weight gain during pregnancy, weight gain in excess of the recommendations puts pregnant women at risk for gestational diabetes, hypertension, preeclampsia, and Cesarean delivery and complications during pregnancy and child birth are the main causes of maternal mortality worldwide ***(Miao et al., 2017).***

Complications related to pregnancy and child birth are among the leading causes of maternal mortality for women of reproductive age in developing countries, resulting in the death of about half million women each year and about 99% from maternal mortality in developing countries, in Egypt maternal mortality ratio 33 deaths per 100.000 in 2015 ***(UNFPA, 2015).***

Maternal mortality remains one of the main issues worldwide; over 800 women are dying each day in worldwide result from complications of pregnancy and child birth, according to WHO about 303.000 women died in 2015, the global maternal mortality ratio is 216 deaths per 100.000 live births and for every woman who dies, approximately 20 others suffer from series injuries or disabilities ***(WHO, 2015).***

Aim of the Study

The study aimed to assess the nutritional patterns of pregnant women to control weight gain during pregnancy through:

- Assessing women knowledge toward control weight gain during pregnancy.
- Assessing women practices toward nutrition pattern during pregnancy.
- Assessing women physical health condition by measuring weight and height.

Research question:

1. Is there a relationship between nutritional patterns and weight gain during pregnancy?
2. Is there a relationship between women's knowledge, and their compliance regarding weight gain during pregnancy?
3. Is there a relationship between BMI and health status of pregnant women?