Nutritional Status of Pregnant Women Attending Antenatal Clinic in Aluu Community, Rivers State

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Background: Maternal nutritional status is a key factor that affects the successful completion of pregnancy and chronic malnutrition is associated poor pregnancy outcome. Nutritional status is an individual's current body status in relation to their State of nourishment, in terms of consumption and utilization of nutrients.[1] Poor or excessive weight gain has been found to adversely affect mother and child.[2] This study was conducted to determine the nutritional status (Gestational Weight Gain {GWG} and serum haemoglobin, Hb/PCV) of pregnant women attending antenatal clinic in Aluu community, Rivers State.

Methods: A descriptive, cross sectional study conducted among 252 pregnant women in Aluu community, Rivers State from May to July 2020 using the multi-stage sampling technique.

A structured, interviewer-administered questionnaire was adapted from a standardised questionnaire and designed using Open Data Kit (ODK) software on a platform called Kobo Toolbox.[5]

Inclusion criteria: All pregnant women who attended antenatal care in the selected facilities during the period of the study

Exclusion criteria: All pregnant women who were too ill to communicate or participate in the study or had chronic medical conditions which affect nutrition/nutritional status such as cancer or diabetes

Nutritional status was measured using anthropometric and biochemical methods. Findings were summarized using frequencies and proportions. Inferential statistics done included chi-square test and fisher's exact test. The level of significance was set at *p<0.05.* . Data was analysed with Statistical Package for Social Sciences (SPSS) version 21.

Results: The mean age of study respondents was 30.20±5.43 years and majority (201, 81%) were in their third trimester. Most women had 0-3 previous pregnancies (190, 76%), no more than 2 living children (181, 74.9%) and a total of four or more antenatal visits at the time of this study (163, 65.2%). The mean serum Hb was 10.66± 2.50g/dl while the mean weight gain was 3.17±2.56kg. A large number of participants (127, 97.7%) had inadequate gestational weight gain and anemia (189, 75%). Factors significantly associated with nutritional status in this study were the age of respondents, religion, family setting, ethnicity, educational status and socioeconomic status.

Variables	Frequency N=127	Percentage (%)
WEIGHT GAIN (Relative to pre-booking BMI/Gestational age)		
ADEQUATE	39	30.7
INADEQUATE	88	69.3
AVERAGE WEIGHT GAIN (Irrespective of gestational age)		
LESS THAN 10KG	127	97.7
10KG AND ABOVE	3	2.3

Serum Haemoglobin (g/dl)	Frequency N=252	Percentage (%)
=11	63	25.0
<11	189	75.0

Discussion: The nutritional status of study respondents was poor in the index study. This finding is similar to that from another study among similar study population.[6] Household wealth status was also established as a factor associated with nutritional status in this study. The age of respondents, religion, family setting, ethnicity, educational status were all associated with their nutritional status. These findings agree with studies conducted among similar population[7,8].

Limitation: A true cause and effect relationship cannot be established

Conclusion: These findings suggest the need for more attention on the nutritional status of rural pregnant women. It also brings to fore the need for nutritional strategies that could improve nutritional status in pregnancy
Keywords: Nutritional status, pregnancy, antenatal care, Rivers state

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