NUTRITIONAL KNOWLEDGE AND ATTITUDES IN PROMOTING OPTIMAL MATERNAL HEALTH AMONG PREGNANT WOMEN IN YEWA SOUTH LOCAL GOVERNMENT AREA OF OGUN STATE

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Abstract

Nutritional status of a population largely depends on consumption of foods in relation to body's needs and requirements. Pregnant women are documented to require extra nourishment to meet up the demands of developing foetus. Nutrition during pregnancy is inextricably related to nutritional status and it apparently depends on many factors, which influence outcome of pregnancy.The study focused on the nutritional knowledge and attitude of pregnant women in Yewa South Local Government of Ogun State, Nigeria. The study adopted descriptive survey research design, because it describes situation as it exists without manipulation. A Self developed, structured questionnaire was used for data collection. Purposive sampling technique was used for selecting ten clinics from where sample size of 250 pregnant women were randomly selected in Yewa Local Government Area of Ogun State for the study. Four hypotheses were tested using Chi-square statistical analysis at 0.05 level of significance. Results revealed that most of the respondents had fair/little knowledge of nutritional needs during pregnancy, and had negative attitude towards adequate diet during pregnancy respectively. The result also shows that many pregnant women in the study area have inadequate knowledge of proper nutrition during pregnancy, that which could have negative consequences on their health and that of their babies. It was recommended that policies and programmes aimed at improving the overall nutritional status of women of reproductive age, including pregnant women should be implemented through specific interventions and community-based /religious-based nutrition programmes for pregnant women, particularly in rural communities.

Keywords: Knowledge, Attitude, Practice, Nutrition, Pregnant

Introduction

Nutrition refers to the study of how the body uses food for growth, repair, and energy. It encompasses the science of food and its impacts on an organism's health and well-being. The process of nutrition involves the body's ability to receive and utilize the necessary materials for growth and renewal. The nutritional status of pregnant women is crucial because it affects not only their own health but also that of their foetus. World Health Organization (2019) reported that many women in their reproductive age and during pregnancy lack sufficient micro-nutrients in their diets, and they may not be aware of the impact their nutrition has on their pregnancy and infant outcomes. In Nigeria, women are often responsible for producing and preparing food for their families, so their knowledge of nutrition can significantly affect the health and

nutritional status of the entire household. Pregnancy is a period of high nutritional demand for women. It involves carrying a developing embryo or foetus in the body and balanced diet is crucial to ensure that sufficient energy intake is available for the fetus's development without compromising the mother's health (Awodele, 2012). Pregnancy period usually lasts for about nine months and is calculated from the date of the woman's last menstrual period (LMP). The state of pregnancy is typically divided into three trimesters, each lasting for roughly three months. Adequate nutritional intake during pregnancy is crucial for a healthy pregnancy and positive birth outcomes. Maternal nutrition during pregnancy is a critical determinant of child birth weight. Deniran, Leshi, and Sanusi (2014) have attributed a high rate of low birth weight (LBW) in developing countries to inadequate maternal nutrition. The developing foetus relies heavily on the mother for nutrients to promote growth and development while in uterus, as such, the mother experiences high nutrient demands due to the developing foetus. Studies by Mirsanjari, Wan Muda, Ahmad, Othman, and Mosavat (2012) have indicated that an individual's nutritional knowledge affects their food intake quality and selection of healthy foods to purchase. Apart from adequate nutrition, regular physical activity during pregnancy can

also have positive impacts on both maternal and foetal health. It has been found that regular exercise during pregnancy can reduce the risk of gestational diabetes, hypertension, and pre-eclampsia, while also improving maternal and foetal cardiovascular health (Barakat, Pelaez, Montejo, Refoyo, and Coteron, 2014). In addition, a systematic review by Price, Amini, and Kappeler (2021) found that exercise during pregnancy was associated with a reduced risk of preterm birth, low birth weight and small-for-gestational-age infants. Moreover, mental health during pregnancy is equally important as physical health. Depression and anxiety during pregnancy have been associated with negative maternal and foetal outcomes, such as preterm birth, low birth weight, and impaired foetal development (Glover, O'Connor, and O'Donnell, 2010). Therefore, pregnant women should be assessed for mental health conditions, and appropriate interventions should be provided to ensure positive mental health outcomes. Midwives are often the primary point of contact for pregnant women, and they can provide guidance and support on various aspects of pregnancy, including nutrition, exercise, and mental health. A systematic review by Hildingsson, Karlstrom, Rubertsson, and Haines (2017) found that continuity of midwifery care

during pregnancy was associated with positive maternal and foetal outcomes, such as reduced preterm birth, decreased use of analgesia during labour, and increased rates of breastfeeding. Multiple factors such as occupation, culture, and beliefs surrounding food consumption, influence the dietary habits of pregnant women and can impact their nutritional status. Therefore, education on proper food consumption and attitudes toward choice of food during pregnancy is crucial for ensuring adequate nutrition. Pregnant women must have a positive attitude towards the knowledge they acquire to make healthy choices for themselves and their developing fetus. Although some studies have explored pregnant women's knowledge of dietary intake (Kever, Martins, Dathini, Habu, Fatima, and Sambo, 2015), there is a need for further research to address this issue fully. Several studies have highlighted the importance of education and counselling programmes in improving maternal nutrition (Ene-Obong Enugu, Uwaegbute, and Obiajulu, 2018; Vio, Lera, Fuentes, Ortega, and Salinas, 2016) and the need to consider cultural and belief-related factors when designing such programmes (Agyei-Mensah and Owusu, 2016; Laganà, Garzon, Casarin, Franchi, Ghezzi and Cromi 2021).

Poor nutritional knowledge and negative attitudes toward healthy eating during pregnancy can lead to inadequate intake of essential nutrients, compromising both the health of the mother and the developing fetus (Mithra et al., 2016). However, education and counselling programmes can positively influence pregnant women's nutritional knowledge and attitudes towards healthy feeding (Carrasco, Franco, Segovia and Leiva, 2019; Mbuagbaw, Gofin, and Achieng 2015). Furthermore, studies have highlighted the importance of involving partners and family members in nutrition education and interventions for pregnant women (Girard, Olude, and Kyei 2018; Morgan, Abrha, Kizito, and Fassil 2019).

Statement of the Problem

Maternal mortality is a significant global issue, with developing countries experiencing the most profound challenges. Every year, millions of pregnant women worldwide die due to complications associated with pregnancy and childbirth, with malnutrition being one of the perceived causes. The effects of malnutrition during pregnancy can take several forms, such as low birth weight, premature delivery, premature rupture of the membrane, and maternal mortality.

In Yewa South Local Government Area of Ogun State, pregnant women are faced numerous health challenges associated with poor nutrition during

pregnancy. These problems may be influenced by factors such as inadequate knowledge of nutrition, personal habits, physical sensations, personal predisposition to eating or a particular diet, and cultural / religious beliefs.

Therefore, the study investigated the nutritional knowledge and attitude of pregnant women in Yewa South and also identified ways to improve and promote good nutritional practices during pregnancy. By addressing these issues, it is hoped that maternal health outcomes will be improved and the incidence of maternal mortality could be reduced.

Hypotheses

1. Pregnant women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa South Local Government Area of Ogun State.

2. Pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane.

3. Personal habit will not significantly affect the attitude of pregnant women on feeding patterns.

4. Religious belief will not significantly influence nutritional attitude of pregnant women.

Methodology

The descriptive survey research design was used and the population comprised of all pregnant women in Yewa South Local Government Area of Ogun State, Nigeria. Ten clinics that covers the political wards in the area were purposively selected, from where twenty five (25) respondents each were randomly drawn to have two hundred and fifty participants as sample size for the study. A self-developed, structured and validated questionnaire titled "knowledge and attitude Questionnaire" (KAQ) was used. Four modified Likert scale rating of strongly Agree (SA), Agree (A), Disagree (D) and strongly Disagree (SD) was used. The questionnaire was administered by two trained research assistants and their retrieval from the participants was face-face and immediately. The data were analyzed using percentages, and Chi-square analysis for testing the hypotheses at 0.05 level of significance.

Results
Demographic characteristics of Respondents

Age		Religion		Educational level		Occupation	
18-23	(94)	Christianity	(107)	SSCE	(62)	Civil servants	(52)
24-29	(76)	Islam	(103)	ND/NCE	(99)	Self-employed	(68)
30-35	(57)	Traditional	(40)	Degree	(56)	Unemployed	(40)
36 above	(23)			None	(33)	Trader	(90)
	250		**250**		**250**		**250**

The demographic data show that: 94 (47%) of the respondents were aged 18-23 years, 76 (38%) of the respondents were aged 24-29 years, 57 (28.5%) of the respondents were aged 30-35 years, 23 (11.5%) of the respondents were aged 36 above. On basis of religion, 107 (53.5%) of the respondents were Christians, 103 (51.5%) of the respondents were Muslims and 40 (20%) of the respondents were traditional worshipers. Distribution of the respondents by Educational level shows that 62 (31%) of the respondents had SSCE, 99 (49.5%) of the respondents had ND/NCE, 56 (28%) of the respondents were Degree holders, 33 (16.5%) of the

respondents were not having any certificate. Distribution of the respondents by occupation shows that 52 (26%) of the respondents were civil servant, 68 (34%) of the respondents were self employed, 40 (20%) of the respondents were unemployed, 90 (45%) of the respondents were traders.

Hypotheses Testing

Hypothesis 1: Pregnant women will not significantly have knowledge that poor nutrition can result in low birth weight in Yewa South Local Government Area of Ogun State.

Table 1: Chi-Square Analysis on knowledge of poor nutrition and low birth weight.

Responses	Frequency	Expected	Degree of Freedom	Cal. Value (x)	Table Value
Strongly Agreed	92	62.5			
Agreed	104	62.5	3	81.94	7.82
Disagreed	25	62.5			
Strongly Disagreed	29	62.5			
Total	**250**	**250**			

The table 1 above shows the result of the analysis that 92 respondents strongly agreed, 104 respondents agreed, 25 respondents disagreed, and 29 respondents strongly disagreed. The Chi-square calculated value is 81.94 and this is greater than the table value 7.82 with the degree of freedom (df) 3 at 0.05 level of significance. Therefore, the null hypotheses which state that pregnant

women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa south Local Government Area of Ogun state was rejected.

Hypothesis 2: Pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in Yewa South Local Government Area of Ogun State.

Table 2: Chi-Square on knowledge of poor nutrition and premature rupture of membrane.

Responses	Frequency	Expected	Degree of Freedom	Cal. Value (x)	Table Value
Strongly Agreed	84	62.5			
Agreed	106	62.5	3	71.51	7.82
Disagreed	31	62.5			
Strongly Disagreed	29	62.5			
Total	**250**	**250**			

The table 2 above shows the result of the analysis that 84 respondents strongly agreed, 106 respondents agreed, 31 respondents disagreed, 29 respondents strongly disagreed. The calculated Chi-square value is 71.51 and this is greater than the table value 7.82 with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, the null hypotheses which states that pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in YewaSouth Local Government Area of Ogun state was rejected.

Hypothesis 3: Personal habit will not significantly affect attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun State.

Table 3: Chi-Square on personal habit and attitude of pregnant women on feeding patterns.

Responses	Frequency	Expected	Degree of Freedom	Cal. Value (x)	Table Value
Strongly Agreed	91	62.5			
Agreed	95	62.5	3	64.94	7.82
Disagreed	37	62.5			
Strongly Disagreed	27	62.5			
Total	**250**	**250**			

The table 3 above shows the result of the analysis that 91 respondents strongly agreed, 95 respondents agreed, 37 respondents disagreed, 27 respondents strongly disagreed. The calculated value is 64.94 and this is greater than the table value with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, rejection of the null hypotheses which states that personal habit will not significantly affect the attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun state.

Hypothesis Four: Religious belief will not significantly influence nutritional attitude of pregnant women in Yewa South Local Government Area of Ogun State.

Table 4: Chi-Square Analysis on religious belief and nutritional attitude of pregnant women.

Responses	Frequency	Expected	Df	Cal. Value (x)	Table Value
Strongly Agreed	74	62.5			
Agreed	96	62.5	3	71.51	7.82
Disagreed	51	62.5			
Strongly Disagreed	29	62.5			
Total	**250**	**250**			

The table 4 above shows the result of the analysis that 74 respondents strongly agreed, 96 respondents agreed, 51 respondents disagreed, 29 respondents strongly disagreed. The calculated value is 71.51 and this is greater than the table value with the degree of freedom (df) 3 at 0.05 alpha level of significant. Therefore, the null hypothesis which states that Religious practice will not significantly affect the attitude of pregnant women in Yewa South Local Government of Ogun state was rejected.

Discussion of Findings

The first hypothesis which states that pregnant women will not significantly have the knowledge that poor nutrition can result in low birth weight in Yewa south Local Government Area of Ogun agrees with the findings of Ooreoluwa, Olayinka, and Foluke (2018) which studies in Nigeria found that pregnant women with inadequate balanced diets have a higher risk of giving birth to underweight babies. Similarly, a study by Haidar, Dana, Younes, and Elie (2018) in Lebanon found that poor personal habits can negatively

affect the health of both the pregnant mother and the infant. Furthermore, a study by Asresu and Muche (2019) in Ethiopia found that pregnant women had limited knowledge about the importance of good nutrition for maternal and fetal health, and that this lack of knowledge could contribute to adverse pregnancy outcomes such as low birth weight.

The second hypothesis which states that pregnant women will not significantly have the knowledge that poor nutrition can result in premature rupture of membrane in Yewa South Local Government Area of Ogun state was rejected. The findings agrees with Al-Riyami, Al-Shezawi, Al-Ruheili, Al-Dughaishi, and Al-Khabori (2013) in Oman found that maternal nutritional deficiency, certain connective tissue disorders, cervical incompetence, smoking, sexual activity, and genital tract infection predispose to premature rupture of membrane. Another study by Duley (1998) found that nutritional interventions, particularly protein supplementation, reduced the risk of premature rupture of membranes and preterm birth.

Third hypothesis which states that personal habit will not significantly affect the attitude of pregnant women on feeding patterns in Yewa South Local Government Area of Ogun state was rejected. The findings is in contrast with the study conducted by Okeudo, Ezugwu, Onwe, Agu, Ibekwe, Nweke, and Mbamara (2018) which found no significant relationship between personal habits and the attitude of pregnant women towards antenatal care services in Nigeria. However, the study by Ali, Malik, and Ali (2019) found that personal habits such as smoking and alcohol consumption significantly affect the utilization of antenatal care services among pregnant women in Pakistan.

Forth hypothesis which states that Religious practice will not significantly affect the attitude of pregnant women in Yewa South Local Government of Ogun state was rejected. This findings is consistent with the study by Okonofua, Ogu, Agholor, Okike, Abdus-Salam, Gana, and Galadanci (2018), which found that religion is an important factor influencing the utilization of maternal and child health services in Nigeria. Similarly, the study by Berhane, Biadgilign, Berhane, and Memiah (2019) found that religious affiliation and attendance significantly affect the utilization of antenatal care services in Ethiopia.

Conclusion and Recommendations

The finding suggests that many pregnant women in Nigeria have inadequate knowledge of proper nutrition during pregnancy, which could have negative effects on their health and that of their babies. Therefore, there is a need for concerted efforts by health care providers, government, and other stakeholders to improve the nutritional knowledge and attitudes of pregnant women in Nigeria. By so doing, pregnant women can improve maternal and fetal health outcomes, reduce the incidence of malnutrition, and contribute to the overall well-being of the Nigerian population.

Following the findings, the following recommendations are made:

1. Health care providers should provide adequate nutrition education and counselling to women before, during and after childbirth particular during antenatal care visits to improve their nutritional knowledge.

2. The governments should implement policies and programmes aimed at improving the overall nutritional status of women of reproductive age, including pregnant women, through targeted interventions such as food fortification, nutrition education, and community-based nutrition programmes.

3. Health education campaigns on the importance of proper nutrition during pregnancy should be intensified through the use of various media platforms and religious centres to increase awareness and encourage positive attitudes towards nutrition among pregnant women and married people likely to become pregnant.

4. Further research should be conducted to identify probable barriers to adoption of healthful nutritional practices by pregnant women in Nigeria, with a view to develop barrier-specific interventions to address them.

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