International Journal of Quantitative and Qualitative Research Methods 13 (1), 1-11, 2025
Print ISSN 2056-3620 (Print)
Online ISSN 2056-3639(Online)
Website: https://www.eajournals.org/
Publication of the European Centre for Research Training and Development -UK

Factors Affecting Healthy Eating in Pregnancy among Women attending Antenatal Care in Ado-Ekiti, Ekiti State

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doi: https://doi.org/10.37745/ijqqrm.13/vol13n1111 Published June 01, 2025

Citation: Gentry OA, Adelani AA, Borode SB, Olofin-Samuel MA and Oyeyemi TA (2025) Factors Affecting Healthy Eating in Pregnancy among Women attending Antenatal Care in Ado-Ekiti, Ekiti State, *International Journal of Quantitative and Qualitative Research Methods*, 13 (1), 1-11

Abstract: *This study investigated the factors affecting healthy eating during pregnancy among women attending antenatal care (ANC) at selected Basic Health Centres in Ado-Ekiti, Ekiti State. The specific objectives were to determine the level of knowledge pregnant women possess regarding dietary practices, assess the factors influencing healthy eating during pregnancy, and evaluate their awareness of appropriate nutritional habits. A descriptive research design was employed, with a purposive sampling technique used to select 133 pregnant women who met the inclusion criteria. Data were collected using a self-structured questionnaire, validated by professionals, and analysed using SPSS version 25 with descriptive statistics. Findings revealed that none of the participants exhibited poor knowledge of healthy eating during pregnancy. A majority (58.6%) had an average level of knowledge, while 41.4% demonstrated good knowledge. The respondents largely rejected common nutritional myths, such as beliefs that eating eggs leads to theft by the unborn child or that consuming soil provides energy. Cultural beliefs and perceptions of cost were moderate barriers to healthy eating. Additionally, the women demonstrated*

substantial awareness of healthy dietary practices, such as the importance of consuming fruits and vegetables, avoiding carbonated drinks, and exercising during pregnancy. The study concludes that while knowledge of healthy eating was generally positive, cultural misconceptions and economic considerations still influence dietary behaviours. Continuous education during ANC visits is recommended to improve nutritional practices among pregnant women.

Keywords: healthy eating, pregnancy, women, antenatal care, basic health centres

INTRODUCTION

Pregnancy is an important period of a woman's life when the nutritional needs are increased for the growth and development of the expecting mother and her unborn baby. In this vital period, to ensure appropriate nutrition for the mothers, knowledge on maternal nutrition is very much important. Eating well during pregnancy means do more than simply increasing how much the mother eats (Fallah et al., 2018). The mother must also consider what type of food and the quality of food she eats. The ability of a pregnant mother to provide nutrients and oxygen for her baby is a critical factor for fetal wellbeing and its survival. Failure in supplying the adequate amount of nutrients needed to meet fetal demand can lead to fetal malnutrition (Abioye et al., 2024). The fetus responds and adapts to under nutrition but by doing so it permanently alters the structure and function of the body. Maternal over nutrition also has long lasting and detrimental effects on the health of the offspring (Gbenga-Epebinu et al. 2023). Good healthy eating is the sum of all the processes involved in how organisms obtain nutrients, metabolizes and use them to support all life processes. Nutritional science is the investigation of how an organism is nourished and it incorporates the study of how nutrient affects personal health, population health (Cox & Anderson, 2014).

Poor nutrition during pregnancy contributes to low weight gain of the mother, which predisposes them to the delivery of infants too small for gestational age leading to neonatal mortality and morbidity, failure to grow well, slow cognitive development and chronic diseases later in adulthood (Lutter, 2020). Pregnant women should be given adequate and nutritious food throughout pregnancy to provide the energy and nutrients needed to gain full weight during pregnancy, fetal growth, and breast milk production. This will allow for normal physical and mental growth and development of the child by reducing the risk of developing chronic diseases, such as diabetes, cardiovascular disease, obesity, and high blood pressure during puberty (Irge et al., 2015). Poor diet during pregnancy may have irreversible consequences which can result in inadequate maternal nutrition and negative pregnancy outcomes for mother and child (Paskulin, 2017).

A good and adequate healthy diet in pregnancy supports optimal maternal weight gain, protects against maternal anemia, reduces the risk of preterm delivery, and improves birthweight (Ota, et al., 2015). More so, healthy eating during pregnancy is important to meet the increased energy and nutrient requirements of the mother and fetus. Nutrient intake and weight gain during pregnancy are the two most important modifiable factors influencing maternal and fetal outcomes (Rosen, 2018). According to Ojofeitimi, et al. (2018), it was opined that to maintain a healthy pregnancy, approximately 300 extra calories are needed each day. These calories should come from a balanced diet of protein, fruits, vegetables and whole grains. Sweets and fats should be kept to a minimum. A healthy, well-balanced diet can also help to reduce some pregnancy symptoms, such as nausea and constipation.

According to WHO (2019), each year, more than half a million women die from causes related to pregnancy and childbirth and nearly 4 million newborns die within 28 days of birth. Many of the 200 million women who become pregnant each year, most of them in developing countries, suffer from ongoing nutritional deficiencies repeated infections and the long term cumulative consequences of under nutrition during their own childhood years (Akute et al., 2024). Many women suffer from a combination of chronic energy deficiency, poor weight gain in pregnancy, Anemia, and other micro nutrient deficiencies such as Folic acid, iron, calcium,vitamin A,C and D deficiencies, as well as infections like Human Immunodeficiency Virus (HIV) and malaria. Poor nutrition diminishes a woman's productivity, causing repercussions for herself, her family, her community, and the broader society. Maternal malnutrition is influenced not only by lack of adequate nutrition but also influenced by factors like socio demographic factors, nutritional knowledge of mothers during pregnancies. It is on this ground that this research work investigated the factors affecting healthy eating in pregnancy among women attending Antenatal care in selected basic health centres in Ado-Ekiti, Ekiti State. The specific objectives of the study were to determine the knowledge of pregnant women on dietary practices, assess the factors affecting healthy eating during pregnancy among women attending antenatal care (ANC), and evaluate their knowledge about healthy eating in pregnancy.

METHODOLOGY

A descriptive research design was employed for this study to investigate the factors influencing healthy eating in pregnancy among women attending antenatal care (ANC) at selected Basic Health Centres in Ado-Ekiti, Ekiti State. The target population comprised pregnant women attending ANC at the centre during the study period. To determine the appropriate sample size, the Taro Yamane formula was used, yielding a sample size of 133 participants. A purposive sampling technique was adopted to select respondents based on their availability and willingness to participate, ensuring that only pregnant women who met the inclusion criteria were involved in the study. Data were collected using a self-structured questionnaire designed by the researchers to capture relevant information on socio-demographic characteristics, knowledge of healthy eating, and factors influencing dietary practices during pregnancy.

The questionnaire was subjected to face and content validation by a senior midwife and an expert in test and measurement, who reviewed the instrument for clarity, relevance, and appropriateness before it was administered. Ethical considerations were observed by obtaining informed consent from all participants, and confidentiality was maintained throughout the study. Data collected were coded and analysed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics such as frequencies and percentages were employed to present the findings.

RESULTS

Table 1: Knowledge on dietary practices N= 133

S/N	ITEMS	Correct (%)	Incorrect (%)	Mean	S.D.
1.	Is it necessary/important to take iron supplements and folic acid during pregnancy?	83 (62.4)	50 (37.6)	0.62	0.49
2.	Eating of Adequate diets helps pregnant mother and her unborn child.	85 (63.9)	48 (36.1)	0.64	0.48
3.	Eating of unwashed and under cooked foods can harm babies.	93 (69.9)	40 (30.1)	0.69	0.46
4.	Adequate water intake is not safe during pregnancy	84 (63.2)	49 (36.8)	0.63	0.48
5.	Fruits and vegetables are good and safe during pregnancy.	86 (64.7)	47 (35.3)	0.65	0.48
6.	Do you follow advice of health care providers on healthy eating?	92 (69.2)	41 (30.8)	0.69	0.46
7.	It's good to maintain healthy weight in pregnancy	95 (71.4)	38 (28.6)	0.71	0.45
8.	Drinking of Alcohol during pregnancy can cause premature birth	92 (69.2)	41 (30.8)	0.69	0.46

The data presented knowledge on dietary practices, based on a sample of 133 respondents. Firstly, concerning the necessity of taking iron supplements and folic acid during pregnancy, 62.4% of respondents correctly affirmed its importance. The mean score for this item is 0.62, with a standard deviation of 0.49, suggesting a moderate level of consensus among participants. In the context of understanding that consuming adequate diets is beneficial for both the pregnant mother and her unborn child, 63.9% of respondents demonstrated correct knowledge. The mean score of 0.64, along with a standard deviation of 0.48, indicates a reasonable level of agreement among participants. Moreover, the majority of respondents (69.9%) recognized the potential harm of consuming unwashed and undercooked foods during pregnancy. This understanding is reflected in a mean score of 0.69 and a standard deviation of 0.46, pointing to a relatively consistent acknowledgment of this dietary risk. In terms of the perception that adequate water intake is unsafe during pregnancy, 63.2% of respondents correctly disagreed. The mean score of 0.63 and standard deviation of 0.48 suggest a moderate consensus on this aspect of pregnancy dietary knowledge. A significant proportion of respondents (64.7%) correctly affirmed that fruits and vegetables are good and

safe during pregnancy. The mean score of 0.65, coupled with a standard deviation of 0.48, indicates a general agreement on the positive role of these food items during pregnancy. Additionally, a substantial 69.2% of respondents reported following the advice of healthcare providers on healthy eating during pregnancy. The mean score of 0.69, with a standard deviation of 0.46, suggests a consistent adherence to healthcare guidance among the surveyed individuals.

Furthermore, the majority (71.4%) recognized the importance of maintaining a healthy weight during pregnancy. The mean score of 0.71 and a standard deviation of 0.45 indicate a relatively high level of consensus on this aspect of pregnancy health. Finally, regarding the awareness that drinking alcohol during pregnancy can cause premature birth, 69.2% of respondents answered correctly. The mean score of 0.69 and standard deviation of 0.46 suggest a reasonable level of agreement on the potential risks associated with alcohol consumption during pregnancy. The data indicates a generally positive level of knowledge among respondents regarding key dietary practices during pregnancy, with consistent understanding across various aspects. The mean scores and standard deviations provide additional context on the degree of consensus and variability in knowledge levels within the surveyed group

To summarize the level of knowledge on dietary practices amongst pregnant women, the below classification was used as stated in table 2.

Table 2: Summary of level of knowledge on dietary practices

Level	Frequency	Percent
Poor (0 – 3)	0	0.0
Average (4 -5)	78	58.6
Good (6 – 8)	55	41.4
Total	133	100.0

Table 2 categorizes participants into three distinct levels based on their respective scores, providing valuable insights into the overall proficiency of the surveyed individuals. Firstly, it is notable that none of the respondents fell into the "Poor" category, which encompasses scores ranging from 0 to 3. This suggests a positive trend, indicating that no participant demonstrated a lack of knowledge on the subject of dietary practices during pregnancy. The majority of respondents, accounting for 58.6%, were classified within the "Average" level, signifying that a significant portion of the participants scored between 4 and 5 on the assessment. This suggests a moderate level of understanding among a substantial portion of the surveyed group. Conversely, a considerable 41.4% of respondents exhibited a "Good" level of knowledge, having scored between 6 and 8 on the assessment. This finding suggests a higher proficiency and a more advanced understanding of dietary practices during pregnancy among this subset of participants. The absence of participants in the "Poor" category and the substantial representation in the "Good" category collectively indicate a generally positive level of knowledge within the surveyed group regarding dietary practices during pregnancy.

Table 3: Factors affecting healthy eating in pregnancy among women attending ANC N= 133

S/N	ITEMS	SA (%)	A (%)	D (%)	SD (%)	Mean	SD
1.	Eating of cold foods can make delivery prolong and difficult	7 (5.3)	15 (11.3)	74 (55.6)	37 (27.8)	1.94	0.78
2.	Babies will steal when eggs are consumed during pregnancy	3 (2.3)	6 (4.5)	75 (56.4)	49 (36.8)	1.72	0.66
3.	Eating soil gives energy and provides nutrient to unborn babies	9 (6.8)	0 (0)	67 (50.4)	57 (42.9)	1.71	0.79
4.	Most culture forbids eating of proteinous foods during pregnancy	24 (18.0)	28 (21.1)	48 (36.1)	33 (24.8)	2.32	1.04
5.	Healthy eating is expensive.	10 (7.5)	27 (20.3)	59 (44.4)	37 (27.8)	2.08	0.88
6.	Snails are harmful during pregnancy as it causes babies to drool saliva.	0 (0)	34 (25.6)	82 (61.7)	17 (12.8)	2.13	0.61
7.	Information are best gotten from religious leaders about nutrition.	7 (5.3)	34 (25.6)	66 (49.6)	26 (19.5)	2.17	0.79

The data is presented in terms of percentage distribution across levels of agreement (Strongly Agree - SA, Agree - A, Disagree - D, Strongly Disagree - SD), alongside mean scores and standard deviations. Participants generally rejected the idea that eating cold foods could prolong and complicate delivery, with 55.6% disagreeing and a mean score of 1.94, indicating a moderate level of disagreement. Similarly, there was widespread disagreement (56.4%) with the belief that consuming eggs during pregnancy leads to babies "stealing," reflected in a mean score of 1.72. A significant majority of respondents rejected the notion that eating soil provides energy and nutrients to unborn babies, with 50.4% disagreeing and a mean score of 1.71. However, a noteworthy proportion of participants (36.1%) agreed that certain cultures forbid the consumption of proteinous foods during pregnancy, resulting in a higher mean score of 2.32. While there was some agreement (27.8%) that healthy eating is expensive, the majority disagreed, yielding a mean score of 2.08. Participants predominantly disagreed with the idea that snails are harmful during pregnancy and can cause babies to drool saliva, as reflected in a mean score of 2.13. Regarding the belief that information about nutrition is best obtained from religious leaders, while some participants agreed (25.6%), a larger proportion (49.6%) disagreed, resulting in a mean score of 2.17.

In summary, the table highlights diverse beliefs among women attending ANC regarding factors influencing healthy eating during pregnancy. While there is a general rejection of certain myths and misconceptions, variations in agreement levels across different items are apparent, as indicated by mean

scores and standard deviations. These findings underscore the importance of addressing and correcting misconceptions during antenatal care to promote accurate knowledge about healthy dietary practices during pregnancy.

Table 4 Knowledge on healthy eating in pregnancy N= 133

S/N	ITEMS	Correct (%)	Incorrect (%)	Mean	S.D.
1.	Regular ANC visit helps pregnant mothers know what to eat and what not to eat.	96 (72.2)	37 (27.8)	0.72	0.44
2.	It is not compulsory to eat fruits and vegetables during pregnancy.	99 (74.4)	34 (25.6)	0.74	0.44
3.	Caffeinated and carbonated drinks are safe in pregnancy.	104 (78.2)	29 (21.8)	0.78	0.41
4.	It is good to take heavy meals to prevent frequent hunger.	99 (74.4)	34 (25.6)	0.74	0.44
5.	Snacks can be taken in between meals.	95 (71.4)	38 (28.6)	0.71	0.45
6.	Pregnant mothers don't need to exercise.	101 (75.9)	32 (24.1)	0.76	0.43
7.	Exercise makes delivery short and easier.	96 (72.2)	37 (27.8)	0.72	0.45

The table on knowledge on healthy eating in pregnancy presents insights into the knowledge levels of 133 respondents regarding healthy eating during pregnancy. Firstly, a substantial majority of respondents, 72.2%, correctly acknowledged that regular antenatal care (ANC) visits help pregnant mothers understand what to eat and what not to eat. The mean score of 0.72 indicates a high level of consensus on the importance of ANC in guiding dietary choices during pregnancy. Similarly, a significant proportion of participants, 74.4%, correctly disagreed with the statement that it is not compulsory to eat fruits and vegetables during pregnancy, emphasizing a shared understanding of the importance of including these food items in the diet. The mean score of 0.74 reflects a strong consensus on this aspect.

Regarding caffeinated and carbonated drinks, 78.2% of respondents correctly identified them as not entirely safe during pregnancy. The higher mean score of 0.78 suggests a clear agreement on the potential risks associated with these beverages during pregnancy. Moreover, a majority of participants, 74.4%, correctly disagreed with the notion that taking heavy meals is necessary to prevent frequent hunger during pregnancy, highlighting a shared understanding of healthy eating practices. The mean score of 0.74 indicates a consistent perspective on this aspect. In terms of snack consumption between meals, 71.4% of respondents correctly acknowledged that snacks can be taken during pregnancy. The mean score of 0.71 indicates a

notable consensus on this dietary practice. Additionally, a significant proportion, 75.9%, correctly disagreed with the statement that pregnant mothers do not need to exercise. The mean score of 0.76 suggests a strong consensus on the importance of exercise during pregnancy. Finally, 72.2% of respondents correctly recognized that exercise can contribute to shorter and easier deliveries. The mean score of 0.72 indicates a shared understanding of the positive impact of exercise on the delivery process.

Overall, the findings from the table indicate a positive and consistent level of knowledge among respondents regarding various aspects of healthy eating and lifestyle practices during pregnancy. The majority of participants demonstrated accurate awareness of key factors, contributing to a comprehensive understanding of maintaining a healthy diet and lifestyle during this critical period.

To summarize the level of knowledge about healthy eating in pregnancy, the below classification was used as stated in table 5

Table 5: Summary of level of knowledge about healthy eating in pregnancy

Level	Frequency	Percent
Poor (0 – 3)	16	12.0
Average (4 -5)	58	43.6
Good (6 – 7)	59	44.4
Total	133	100.0

This summary categorizes participants into three distinct levels based on their respective scores, providing insights into the overall proficiency of the surveyed individuals. Firstly, approximately 12.0% of respondents fall into the "Poor" category, indicating a lower level of knowledge about healthy eating during pregnancy. Individuals in this group scored within the range of 0 to 3 on the knowledge assessment. A larger portion of the respondents, constituting 43.6%, demonstrated an "Average" level of knowledge. This suggests that a significant number of participants scored between 4 and 5 on the assessment, reflecting a moderate level of understanding regarding healthy eating practices during pregnancy. Furthermore, a substantial 44.4% of respondents exhibited a "Good" level of knowledge. Individuals in this category scored between 6 and 7 on the assessment, indicating a higher proficiency in understanding healthy eating during pregnancy. This breakdown provides a comprehensive view of the distribution of knowledge levels among the surveyed individuals, revealing a generally positive trend with a notable proportion demonstrating good knowledge about healthy eating during pregnancy.

DISCUSSION OF FINDINGS

The findings of the study revealed significant insights into pregnant women's knowledge of dietary practices and the factors influencing healthy eating during pregnancy. Notably, no respondents fell into the "Poor" knowledge category (score 0–3), a trend supported by existing literature suggesting that antenatal care and routine health education play vital roles in enhancing maternal nutrition awareness (Abioye et al.,

2024; Ugwa, 2016). The majority of respondents (58.6%) were categorized as having "Average" knowledge, indicating a moderate understanding likely influenced by socio-cultural factors and general health promotion efforts (Brien & Davies, 2017). While the absence of poor knowledge reflects some success in disseminating basic dietary information, the predominance of average-level understanding underscores the need for enhanced, targeted health education during antenatal visits to bridge knowledge gaps and promote optimal nutrition.

The study also explored beliefs surrounding dietary behaviour and found that many respondents rejected common myths, such as the belief that cold food complicates delivery or that eating eggs causes adverse outcomes (Balogun et al., 2016). These findings align with calls in the literature for dispelling harmful cultural myths to improve maternal outcomes (Hogan et al., 2013). However, the belief held by 36.1% of respondents that some cultures forbid the intake of proteinous foods highlights the continued influence of cultural norms on maternal diets (Higgins, 2014). Such beliefs necessitate culturally sensitive interventions to foster behaviour change without dismissing cultural identities, as supported by Kavle et al. (2017). This finding reinforces the idea that cultural norms must be considered when designing maternal nutrition education programs.

Further, many respondents disagreed with the idea that healthy eating is expensive or that snails and other foods commonly seen as taboo are harmful. They also rejected the notion of seeking nutritional advice from religious leaders, suggesting a shift toward more evidence-based sources of health information (Lee et al., 2017). These perspectives underscore the growing role of ANC services and formal health messaging in shaping dietary choices. However, the persistence of some myths indicates a need for ongoing, focused messaging that addresses both factual inaccuracies and cultural concerns.

The categorization of knowledge levels provides a clearer picture of the current state of maternal nutrition awareness. Approximately 12% of respondents demonstrated poor knowledge, revealing a small yet important group requiring targeted intervention (Gebremariam & Tiruneh, 2020; Balogun et al., 2016). A significant proportion, 43.6% exhibited average knowledge, while 44.4% scored in the "Good" category, indicating that a sizable portion of the sample is well-informed (Yargawa & Leonardi-Bee, 2015). This distribution suggests that while current health promotion strategies have achieved moderate success, there remains considerable room for improvement.

Overall, these findings highlight a dual implication: on one hand, they reflect the impact of existing education initiatives, particularly those delivered through ANC; on the other, they point to the need for more nuanced and culturally sensitive education strategies to bridge remaining knowledge gaps. Tailored interventions especially those embedded within antenatal care frameworks and community outreach are necessary to reinforce accurate dietary knowledge and eliminate persistent misconceptions.

CONCLUSION

In conclusion, the findings indicate a generally encouraging level of knowledge among pregnant women regarding dietary practices and healthy eating during pregnancy. A significant proportion of the respondents demonstrated either average or good understanding, with a noticeable absence of extremely poor knowledge on dietary practices. Despite the presence of some cultural misconceptions and misinformation, particularly around certain foods and beliefs, the majority of participants showed a commendable ability to identify and reject such myths. The awareness of the importance of regular antenatal visits, the inclusion of fruits and

vegetables in the diet, the role of exercise, and the risks associated with certain foods and beverages highlights a sound foundation of nutritional knowledge. Overall, the results suggest that while there is room for improvement, particularly among those with lower levels of understanding, the surveyed group possesses a solid baseline of knowledge that can be further enhanced through targeted education and reinforcement during antenatal care.

Recommendations

1) Health facilities should integrate structured and consistent nutrition education sessions into routine antenatal visits. These sessions should go beyond general advice and include detailed information on balanced diets, food safety, and nutritional needs specific to each trimester of pregnancy. This will help reinforce existing knowledge and address gaps identified among women with average or low understanding of dietary practices.

2) Since cultural myths and misconceptions persist around certain foods, community health workers and local health educators should be trained to sensitively identify and correct these beliefs. Engaging community leaders, traditional birth attendants, and influential family members in educational campaigns can help to dispel dietary myths and foster acceptance of scientifically sound nutritional advice.

3) Culturally relevant and easy-to-understand materials, such as illustrated pamphlets, posters, and audio-visual content in local languages, should be developed and shared widely. These materials can serve as valuable reinforcement tools both during antenatal visits and at the community level, particularly for women with lower literacy levels or limited access to formal education.

4) Healthcare providers should establish support groups or forums within communities where pregnant women can share experiences, discuss dietary practices, and receive guidance from trained facilitators can encourage positive behaviour change. These groups could also serve as platforms for regular nutritional counselling and motivation, helping to sustain healthy practices throughout pregnancy and beyond.

REFERENCES

Abioye, A.A., Owopetu, C.A., Adamu-Adedipe, F.O., Odesanya, L.O., & Olofin-Samuel, M.A. (2024). Anemia prevention among pregnant women. *International journal of nursing midwife and health related cases.* 10(12), 1-11.https://doi.org/10.37745/ijnmh.15/vol10n2111

Akute, Y.I., Elusoji, C.I., Munge M., Olawale, Y.A., & Olofin-Samuel, M.A. (2024). Collaboration Processes between skilled and traditional birth attendants on maternal and newborn care in Ekiti State. *Journal of Liaoning technical university (natural science edition)*18(4), 189-204 https://www.lgjdxcn.asia/public_article.php?article=284

Balogun, O. O., Balogun, A. O., Adeyemo, A. A., & Busari, O. E. (2016). Knowledge and practice of ante-natal care among pregnant women at a tertiary health institution in Southwestern Nigeria. *Annals of Ibadan Postgraduate Medicine*, 14(2), 84–92.

Brien G, & Davies M:(2017). *Nutrition knowledge and body mass index*. *Health Educ Res* 22: 571-575.

Cox, N & Anderson, S. (2014). Food Choice. In: Michael, J, Barrie, M & Lenore, A. (Eds) Public Health Nutrition: 146166. Black well publishing company Oxford, United Kingdom.

Fallah, F., Pourabbas, A., Delpisheh, A., Veisani, Y., Shadnoush, M., & Rezaeian, M. (2018). Prevalence and associated factors of low birth weight: a narrative review. *Iranian Journal of Public Health,* 47(11), 1665–1674.

Gbenga-Epebinu, M.A., Emordi, N.A., Olofinbiyi, R.O., Ogidan, O.C., Ayedun, T.O., and Aina, M.A. (2023). Determinants of Malaria Infection Among Under-Five Children in State Specialist Hospital, Ikere-Ekiti, Ekiti State, Nigeria, *British Journal of Multidisciplinary and Advanced Studies* 4 (6),1-17

Gebremariam, H., & Tiruneh, S. (2020). Trends and determinants of antenatal care service use in Ethiopia between 2000 and 2016. *International Journal of Women's Health,* 12, 773–783.

Higgins, P. C. (2014). Culture, religion, and maternal health in Africa: a narrative review of health sector efforts to reconcile African traditions with modern biomedical health care. *Journal of Contraception,* 5, 21–33.

Hogan, L., Ingul, C. B., Forbes, D., & Watts, M. (2013). The role of cultural beliefs in accessing antenatal care in the Torres Strait Region of Australia. *Rural and Remote Health,* 13(2), 2312.

Irge, E., S. Timur, H. Zincir, H. Oltuluoğlu, & Dursun, S. (2015). Evaluation of nutrition during pregnancy. *Sted, journal* 14: 157–60.

Kavle, J. A., Landry, M., Fleming, K., & Lazorick, S. (2017). Understanding cultural influences on infant feeding practices of Bangladeshi immigrants in the United States. *Ethnicity & Health,* 22(3), 232–247.

Lee, S. E., Talegawkar, S. A., Merialdi, M., & Caulfield, L. E.(2017). Dietary Guidelines Advisory Committee. (2017). Dietary intakes of women during pregnancy in low- and middle-income countries. *Public Health Nutrition*, 20(17), 2981–2993.

Lutter, C. K. (2020). Breastfeeding Promotion.Short and long term effects of breastfeeding on child health,478, 355.

Ojofeitimi, E.O., Ogunjuyigbe, P.O., Sanusi, R.A., Orji, E.O., Akinola, A., & Liasu, S.A. (2018). Poor dietary intake of energy and retinol among pregnant women: Implication for pregnancy outcome in South-West Nigeria. *Pakistan Journal of Nutrition,* 7(3), 480484.

Ota E, Hori H, Mori R, Farrar D. (2015). Antenatal dietary education and supplementation to increase energy and protein intake (Review). *Cochrane Database Syst Rev.* CD000032(6).

Paskulin, T.A., Drehmer, M., Olinto, M.T., Hoffmann, J.F., Pinheiro, P., Schmidt, M.I., et al. (2017). Association between dietary patterns and mental disorders in pregnant women in Southern Brazil. *Assoc Bras Psiquiatr.2*08–15.

Rosen, J.G., Clermont, A., Kodish, S.R., Rebecca, F., & Isanaka, S. (2018).Determinants of dietary practices during pregnancy: a longitudinal qualitative study in Niger. *Matern Child Nutr* 2018;14(e12629):1–10.

Ugwa, E. (2016). Nutritional practices and taboos among pregnant women attending antenatal care at general hospital in Kano, Northwest Nigeria. *Annals of Medical and Health Sciences Research*, 6(2), 109114.

Ververs, M. T., Antierens, A., Sackl, A., Staderini, N., & Captier, V. (2009). Which anthropometric indicators identify a pregnant woman as acutely malnourished and predict adverse birth outcomes in the humanitarian context? *PLoS Currents,* 1, RRN1047.

World Health Organization (2019). Healthy eating during pregnancy and breastfeeding. Retrieved June 25, 2020 from http://www.euro.who.int/__data/assets/pdf_file/0020/120296/E73182.pdf.

Yargawa, J., & Leonardi-Bee, J. (2015). Male involvement and maternal health outcomes: systematic review and meta-analysis. *Journal of Epidemiology and Community Health,* 69(6), 604–612.