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# ACCESSIBILITY AND USE OF NUTRITIONAL INFORMATION BY PREGNANT WOMEN IN SELECTED PRIMARY HEALTH CARE CENTRE IIN IJEBU-ODE LOCAL GOVERNMENT OF OGUN STATE

**Temitope Adeleke OSISANWO (Ph.D.)** [1]
[1]Department of Library and Information Science,
Tai Solarin University of Education, Ijagun, Ijebu-Ode;
**Email:** osisanwota@tasued.edu.ng

**Tope Ayoade IDOWU** [2]
[2]The Polytechnic Library,
Rufus Giwa Polytechnic
**Email:** idowuta@rugipo.edu.ng

**and**

**Chisom Sharon ASOEGWU**
[3]Department of Library and Information Science
Tai Solarin University of Education, Ijagun, Ijebu-Ode

## Abstract

*This study investigated the accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State. A survey research design of correlational type was adopted while a total enumeration sampling method was used to capture 125 pregnant women in selected primary health care centers in Ijebu-Ode Ogun State. The questionnaire was used for data collection and 112(89.6%) copies of questionnaires were returned out of 125 copies administered and found usable for the analysis. Data was analyzed by simple percentages, frequency counts, mean and standard deviation and Pearson correlation was used to test the hypothesis. The findings have shown that the level of accessibility of nutritional information resources by pregnant women understudy was high (= 3.17). The level of use of nutritional information resources by pregnant women understudy was high (= 3.12). The sources of nutritional information by pregnant women are Doctors 111(99.1%), Nurses 108(96.4%) and Internet 106(94.6%). The challenges facing the use of nutritional information by pregnant women understudy are the level of awareness 107(95.5%), level of education 106(94.6%) and time constraints 103(91.0%). There is a negative relationship between accessibility and use of nutritional information by pregnant women understudy (r= -0.212; p= .000). The study, therefore, recommends that primary health centers to create community awareness through public campaigns and educational programs on various information sources to consult for* nutritional and dietary *information and healthy living by pregnant women.*

**Keywords: Nutritional Information, Pregnant Women, Accessibility, Use of Nutritional Information, Primary Healthcare Centre**

## Introduction

Nutrition information is crucial for making informed dietary choices and promoting overall health of an individual by helping one to make healthier food choices, manage weight, and prevent diseases. People with specific dietary requirements, such as those with allergies rely on detailed nutritional information to avoid intake of ingredients that could be detrimental to their health and wellbeing. It can also lead to improved public health outcomes, reducing the prevalence of obesity and other diet-related illnesses.

Nutritional information for pregnant women plays a critical role in guiding pregnant women toward making healthier decisions, choices, ensuring both maternal health and fetal development. Woman's body goes through *lots* of physical and hormonal changes during pregnancy. To fuel the body and that of the growing baby, women need to make great informed decision on food choices from a variety of sources. Eating a healthy, balanced diet will help the women feel good and provide everything the body and the baby need. The food you eat is your baby's main source of nourishment, so it's critical to get all of the nutrients you need.

This can be achieved when balanced and adequate nutrition is in place. Akindeji, Jimoh, Isiaka, Isiwele-Ishola and Ishola (2020) asserted that women with first experience of pregnancy need a whole lot of information to be able to balance both their physical and psychological needs. This implies the importance of the accessibility to nutritional information by pregnant women. A well-informed woman has the capability of preparing and taking highly balanced diets before and after pregnancy to ascertain the safety of the fetus and the newborn health

The provision of appropriate nutritional information for pregnant women helps to mitigate the danger of nutritional deficiencies resulting in enhanced healthy dietary choices (Damton-Hill, et. al., 2021). A woman's poor diet has the potential of risking the life of the unborn child due to the absence/low iron, zinc and folic acid and other supplements (Sunguya et al. 2021). Accessibility to adequate and reliable use of nutritional information helps pregnant women in decision-making at various stages of the pregnancy.

## Statement of the Problem

Pregnancy is a critical period in which proper nutrition is required for the health and well-being of both the mother and the developing fetus. However, there is a dearth of detailed information on the availability, and understandability of nutritional resources in Ijebu-Ode Local Government's primary healthcare clinics. Despite the possible accessibility of nutritional

information, it is unclear if pregnant women actively seek out and use these resources to guide their food choices and lifestyle habits during pregnancy. Inadequate access to accurate and timely nutritional information may lead to suboptimal eating patterns, nutrient deficits, and poor health outcomes among pregnant women and their newborns in the region. Thus, this study explores against this backdrop.

**Research Objectives**

1. ascertain the level of accessibility of nutritional information resources by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State;
2. determine the level of use of nutritional information resources by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State;
3. find out the source of nutritional information by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State;
4. identify the challenges facing the use of nutritional information sources by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State;
5. determine relationship between accessibility and use of nutritional information by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State.

**Research Questions**

1. What is the level of accessibility of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

2. What is the level of use of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

3. What are the sources of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

4. What are the challenges facing the use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

**Research Hypothesis**

**$H0_1$:** There is no significant relationship between accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State.

**Literature Review**

Nutritional information is a tool for promoting a healthier lifestyle and a means to prevent diet-related diseases. A well-informed pregnant woman on the appropriate nutrition she needs to consume during pregnancy tends to give birth to a healthier and sound baby (Uloma &Adedotun, 2018). Feinstein et al. (2016) and Clarke et al. (2018) pointed out the importance of nutritional information for both pregnant women and health practitioners for improved decision making which later translates into ensuring healthy development of fetuses. For this to be achievable, detailed nutritional information must be availed to pregnant women which encompasses issues relating to both healthy and unhealthy nutrition which could help to avoid nutritional-related diseases (Felesia & Daka, 2018). Temple and Fraser (2014) stated that countries in developed nations had given regulations for the adoption of displaying nutritional information on labels of foods and other edibles. This will help individuals to know the different nutrition contained in a product. Thus, the availability of nutritional information by pregnant women is significant to both the mother and their developing fetus as this bridges the knowledge gap between the known and the uncertainty about a nutritious diet before, during, and after pregnancy.

Providing details of nutrients on products/foods is highly important as this helps the public to the aware of the amount of nutrients consumed. This is in accordance with the 2011 Regulation (EU) No 1169/2011 of the European Parliament and Council of the European Union about the supply of food information to consumers, which stipulates that food packaging must include a label that includes the nutritional information that is present in the product. This is a great deal to achieving a healthier lifestyle. Smith and Brown (2022) stated clearly the importance of nutritional labels in influencing product choices in grocery stores. Findings by Mruma and Mkhai (2022) reported that Pregnant women require nutrition education on the safest and healthiest ways to cook meals, what kinds of extra nutrients to include in the diet, and how to prevent food contamination. Miller et al. (2017) opined that accessibility and well-distributed nutritional information tend to improve health outcomes during pregnancy. Apart from the display of nutritional information on product labels, Smith and Brown (2022) pointed out that

printed materials, digital resources and direct consultations with health practitioners also serve as a way of enlightening pregnant women on the diet needed during pregnancies. There are avalanche of nutritional information for pregnant women and it includes but is not limited to the following, well-organized information sessions; readily available brochures and pamphlets; and digital resources that can be accessed through mobile applications (Kumar et al., 2018).

Utilization of nutritional information is paramount to pregnant women, nutritional information provided to pregnant women will be effectively used if the content is detailed enough and easy to understand (Felesia & Daka, 2018). Complicated information material on nutrition will be less used; this is in line with a study carried out by Grunert, Wills and Fernandez-Celemin (2020) on nutrition knowledge, use and understanding of nutrition of food labels among consumers in the UK, the finding reported that the respondents had little difficulty in understanding and using nutritional information provided. Utilizing nutritional information during pregnancy positively impacts maternal and fetal health outcomes. Adequate maternal nutrition is associated with reduced risks of gestational diabetes, hypertension, and preterm birth (Smith & Brown, 2022). Libraries were found to be the least used source of health information, whereas doctors and nurses were found to be the most easily available and used sources (Uloma and Adedotun, 2018). Mruma and Mkhai (2022) study found that to meet the different nutrition information needs of pregnant women they had to consult different sources such as healthcare providers, mass media sources, and their friends. From all these sources listed, nurses were the main sources that were utilized by many pregnant women the most.

Onuoha and Amuda (2018) revealed sources of nutritional information that pregnant women can utilize to access nutrition information which are books, magazines, videos, television, classes, pediatricians, friends, colleagues, traditional healthcare providers, and relatives. Bookari et al. (2017) carried out a study on Nutrition Care in Pregnancy: Pregnant Women's Experiences and Needs in a Maternity Shared-Care Setting and reported that women under study valued nutrition information actively sought it and passively received it from three main sources which are healthcare providers, media and social media networks. These respondents further explained that healthcare providers were the most reliable source of information. Pregnant women typically obtain their health information via written materials (Mumba, 2018). Such as books and journals, leaflets, women's magazines, and newspapers, while the findings of Uloma and Adedotun (2018) negated Mumba by stating that doctors and nurses are the most accessible and used sources of health information by pregnant women as against information

in the libraries. In a similar study on women‘s health information needs and information sources, Nwagu and Ajama (2011) identified family and friends, local herb hawkers, local drug sellers (hawkers) and traditional healers as the most utilized information sources. Most pregnant women conveniently gather information in an informal way which includes information from friends, and oral talks from health workers among others. Grimes (2018) stated that pregnant women preferred internet sources of information to be reliable, time-saving and in physical proximity to other sources of information.

Even though health professionals are considered the best and most sought-after sources of information, Osakinle and Ajayi (2023) highlighted those unprofessional practices, attitudes and behaviors of Health workers as challenges to the use and access of health-related information by pregnant women. Ugwa (2016) opined that women may not receive enough nutrition if they shun particular foods and have false information about their health advantages, which is linked to food taboo. This is particularly true during the most important stages of pregnancy, when enough nutrition is extremely beneficial to both the mother and the fetus. Smith et al. (2022) underscored that two factors serve as challenges to the utilization of nutritional information and they are as follows; socio-economic factors which include limited health literacy, and cultural beliefs often hinder pregnant women's ability to access and understand nutritional guidance; while geographic factors, such as rural residence and limited access to healthcare facilities, further exacerbate inequalities in nutritional access and utilization.

**Methodology**

Survey research design of correlational type was used for this study with the population of 125 pregnant women in four (4) selected primary healthcare centers in Ijebu-Ode Ogun State and a total enumeration sampling method was adopted. The questionnaire was used to capture the information needed from the respondents and 112(89.6%) copies of the 125 distributed questionnaires were collected and found useful for the study. Simple percentage, mean and standard deviation were employed to analyze the data using SPSS while Pearson correlation was used for the hypothesis. Table 1 below shows the population of pregnant women in each of the four selected healthcare centers as well as the return rate of the questionnaire distributed.

**Table 1: Population and Return Rate**

| Government hospital | Questionnaire Distributed | Questionnaire Retrieved | Percentages |
|---|---|---|---|
| Italapo Primary Health Centre, Ijebu-Ode; | 21 | 18 | 14.4 |
| Ita-Osu Primary Health Centre, Ijebu-Ode; | 26 | 24 | 19.2 |
| Iwade-Isale Primary Health Centre, Jogbo Ijebu-Ode; | 35 | 32 | 25.6 |
| Ikanigbo/Ishado/Isoku Primary Health Centre Ijebu-Ode; | 43 | 38 | 30.4 |
| Total | 125 | 112 | 89.6 |

**Results**

**Research question 1:** What is the level of accessibility of nutritional information resources by pregnant women in selected primary health care centres in Ijebu-ode Local Government of Ogun State?

**Table2: Level of accessibility of nutritional information resources**

| n | ıtritional information | H L | L | L | L L | Mean | *Std Dev* |
|---|---|---|---|---|---|---|---|
| | Doctor | 62(46.4%) | 18(16.1%) | 20(17.9%) | 12(10.8%) | 3.46 | 0.83 |
| | Nurses | 74(66.1%) | 12(10.7%) | 20(17.9%) | 6(5.4%) | 3.38 | 0.96 |
| | Health publications | 52(46.4%) | 30(26.8%) | 20(17.9%) | 10(8.9%) | 3.38 | 0.88 |
| | Social media sites | 65(58.0%) | 27(24.1%) | 16(14.3%) | 4(3.6%) | 3.36 | 0.86 |
| | YouTube channels for pregnant women | 45(40.2%) | 19(17.0%) | 34(30.4%) | 14(12.5%) | 3.34 | 1.02 |
| | Other Pregnant Women | 68(60.7%) | 14(12.5%) | 26(23.25) | 4(3.6%) | 3.32 | 0.91 |
| | Television programmes | 55(49.15) | 19(17.0%) | 25(22.3%) | 13(11.6%) | 3.30 | 0.95 |
| | Libraries | 66(58.9%) | 15(13.4%) | 28(25.0%) | 3(2.7%) | 3.29 | 0.93 |
| | Bulletins/Newsletter | 63(56.3%) | 16(14.3%) | 31(27.7%) | 2(1.8%) | 3.24 | 0.92 |
| **0** | Internet | 66(58.9%) | 18(16.1%) | 16(14.3%) | 12(10.7%) | 3.22 | 1.05 |
| **1** | Newspapers/ Magazines | 57(66.1%) | 28(25.0%) | 19(17.0%) | 8(7.1%) | 3.20 | 0.97 |
| **2** | Film/Slide Projection | 54(48.2%) | 25(22.3%) | 32(28.6%) | 1(0.9%) | 3.18 | 0.88 |
| **3** | Pre-Natal health education classes | 56(50.0%) | 11(9.8%) | 32(28.6%) | 13(11.7%) | 3.16 | 1.07 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **4** | Online discussion forum for pregnant women | 5549.1%) | 20(17.9 %) | 35(31.3 %) | 2(1.8%) | 3.1 4 | 0.9 3 |
| **5** | Encyclopedias | 59(52.7% ) | 29(25.9 %) | 18(16.1 %) | 6(5.4%) | 3.1 3 | 0.9 8 |
| **6** | DVD on nutritional information | 48(42.9% ) | 34(30.4 %) | 21(22.3 %) | 5(4.5%) | 3.1 2 | 0.9 1 |
| **7** | Pamphlets and flyers | 46(41.1% ) | 35(31.3 %) | 28(25.0 %) | 3(2.6) | 3.1 0 | 0.8 7 |
| **8** | Radio | 54(48.2% ) | 19(17.0 %) | 29(25.9 %) | 10(8.9%) | 3.0 4 | 1.0 5 |
| **9** | Textbooks | 50(44.6% ) | 21(18.7 %) | 28(25.0 %) | 13(11.6% ) | 2.9 6 | 1.0 8 |
| **0** | Journals | 69(61.6% ) | 11(9.8% ) | 31(27.7 %) | 1(0.9%) | 2.85 | 1.09 |
| **1** | Friends | 44(39.3% ) | 18(16.1 %) | 38(33.9 %) | 12(10.7% ) | 2.8 4 | 1.0 7 |
| **2** | Family Members | 35(31.3% ) | 29(25.9 %) | 40(35.7 %) | 8(7.1%) | 2.8 0 | 0.9 6 |
| | | Average mean | | | | **3.1 7** | **0.9 6** |

**Key: VHL = Very High Level, HL = High Level, LL = Low Level, VLL = Very Low Level Degree ***Decision Rule if mean is 1.00 to 1.99 = Very Low; 2.00 to 2.99 = Low; 3.00 to 3.99 = High; 4.00 to 4.99 = Very High; (%) = Frequency (percentage)**

Table 2 shows that the level of accessibility of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State was high ($\bar{x}$ = 3.17). It was revealed that pregnant women accessed nutritional information resources through Doctors ($\bar{x}$ = 3.46), Nurses ($\bar{x}$ = 3.38), Health publications ($\bar{x}$ = 3.38), Social media sites ($\bar{x}$ = 3.36), YouTube channels for pregnant women ($\bar{x}$ = 3.34), Other Pregnant Women ($\bar{x}$ = 3.32), Television programmes ($\bar{x}$ = 3.30), Libraries ($\bar{x}$ = 3.29), Bulletins/Newsletter ($\bar{x}$ = 3.24), Internet ($\bar{x}$ = 3.22), Newspapers/ Magazines ($\bar{x}$ = 3.20), Film/Slide Projection ($\bar{x}$ = 3.18), Pre-Natal health education classes ($\bar{x}$ = 3.16), Online discussion forum for pregnant women ($\bar{x}$ = 3.14), Encyclopedias ($\bar{x}$ = 3.13), DVD on nutritional information ($\bar{x}$ = 3.12), Pamphlets and flyers ($\bar{x}$ = 3.10), Radio ($\bar{x}$ = 3.04), Textbooks ($\bar{x}$ = 2.96), Journals ($\bar{x}$ = 2.85), Friends ($\bar{x}$ = 2.84), and Family Members ($\bar{x}$ =2.80). It was concluded that the level of accessibility of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State was high.

**Research question 2:** What is the level of use of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

**Table 3: Level of use of nutritional information resources**

| n | ıtritional information | HL | L | L | LL | Mean | *Std Dev* |
|---|---|---|---|---|---|---|---|
| | Doctor | 73(65.2%) | 18(16.1%) | 16(14.3%) | 5(4.5%) | 3.42 | 0.90 |
| | Nurses | 66(58.9%) | 15(13.4%) | 28(25.0%) | 3(2.7%) | 3.29 | 0.93 |
| | Health publications | 65(58.0%) | 19(17.0%) | 23(20.5%) | 5(4.5%) | 3.29 | 0.94 |
| | Social media sites | 72(64.3%) | 11(9.8%) | 19(17.0%) | 10(8.9%) | 3.29 | 1.05 |
| | YouTube channels for pregnant women | 65(58.1%) | 19(17.0%) | 23(20.5%) | 5 (4.55) | 3.28 | 0.94 |
| | Friends | 59(52.7%) | 30(23.2%) | 18(16.1%) | 5(4.5%) | 3.26 | 0.89 |
| | Television programmes | 66(58.9%) | 12(10.7%) | 30(26.8%) | 4(3.6%) | 3.25 | 0.97 |
| | Libraries | 57(50.9%) | 28(25.0%) | 19(17.0%) | 8(7.1%) | 3.25 | 0.94 |
| | Bulletins/Newsletter | 63(56.3%) | 18(16.1%) | 25(22.3%) | 6(5.4%) | 3.22 | 0.97 |
| | Internet | 61(54.5%) | 26(31.3%) | 14(12.5%) | 11(9.8%) | 3.21 | 1.01 |
| **0** | | | | | | | |
| | Newspapers/ | 57(66.1%) | 28(25.0%) | 19(17.0%) | 8(7.1%) | 3.20 | 0.97 |
| **1** | Magazines | | | | | | |
| | Film/Slide | 54(48.2%) | 19(17.0%) | 29(25.9%) | 10(9.0%) | 3.20 | 0.97 |
| **2** | Projection | | | | | | |
| | Pre-Natal health | 56(50.0%) | 11(9.8%) | 32(28.6%) | 13(11.7%) | 3.16 | 1.07 |
| **3** | education classes | | | | | | |
| | Online discussion | 55(49.1%) | 20(17.9%) | 35(31.3%) | 2(1.8%) | 3.14 | .93 |
| **4** | forum for pregnant women | | | | | | |
| | Encyclopedias | 62(55.4%) | 15(13.4%) | 22(19.6%) | 13(11.6%) | 3.13 | 1.10 |
| **5** | | | | | | | |
| | DVD on nutritional | 53(47.3%) | 19(17.0%) | 39(34.8%) | 1(0.9%) | 3.11 | 0.92 |
| **6** | information | | | | | | |
| | Pamphlets and | 46(41.1%) | 35(31.3%) | 28(25.0%) | 3(2.6) | 3.10 | 0.87 |
| **7** | flyers | | | | | | |
| | Radio | 56(50.0%) | 11(9.8%) | 40(35.7%) | 5(4.5%) | 3.05 | 1.02 |
| **8** | | | | | | | |
| | Textbooks | 64(57.1%) | 15(13.4%) | 30(26.8%) | 3(2.7%) | 3.04 | 1.09 |
| **9** | | | | | | | |
| | Journals | | 80(71.4 | 26(23.2 | 6(5.4%) | 2.66 | 0.5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **0** | | %) | %) | | | 8 |
| | Other Pregnant | 76(67.9 | 32(28.6 | 4(3.6%) | 2.64 | 0.5 |
| **1** | Women | %) | %) | | | 5 |
| | Family Members | 63(56.3 | 39(34.8 | 10(8.9%) | 2.47 | 0.6 |
| **2** | | %) | %) | | | 6 |
| | Average mean | | | | **3.12** | **0.9** |
| | | | | | | **2** |

**VHL = Very High Level, HL = High Level, LL = Low Level, VLL = Very Low Level Degree ***Decision Rule if mean is 1.00 to 1.99 = Very Low; 2.00 to 2.99 = Low; 3.00 to 3.99 = High; 4.00 to 4.99 = Very High; (%) = Frequency (percentage)**

Table 3 shows that the level of use of nutritional information resources by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State was high ($\bar{x}$ = 3.12). It was revealed that pregnant women used Doctors ($\bar{x}$ = 3.42) for nutritional information resources, followed by Nurses ($\bar{x}$ = 3.29), Health publications ($\bar{x}$ = 3.29), Social media sites ($\bar{x}$ = 3.29), YouTube channels for pregnant women ($\bar{x}$ = 3.28), Friends ($\bar{x}$ = 3.26), Television programmes ($\bar{x}$ = 3.25), Libraries ($\bar{x}$ = 3.25), Bulletins/Newsletter ($\bar{x}$ = 3.22), Internet ($\bar{x}$ = 3.21), Newspapers/ Magazines ($\bar{x}$ = 3.20), Film/Slide Projection ($\bar{x}$ = 3.20), Pre-Natal health education classes ($\bar{x}$ = 3.16), Online discussion forum for pregnant women ($\bar{x}$ = 3.14), Encyclopedias ($\bar{x}$ = 3.13), DVD on nutritional information ($\bar{x}$ = 3.11), Pamphlets and flyers ($\bar{x}$ = 3.10), Radio ($\bar{x}$ = 3.05), Textbooks ($\bar{x}$ = 3.04), Journals ($\bar{x}$ = 2.66), Other Pregnant Women ($\bar{x}$ = 2.64) and finally, Family Members ($\bar{x}$ = 2.47). It could be concluded that the level of use of nutritional information resources by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State was high.

**Research question 3:** What are the sources of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

**Table 4: Sources of nutritional information by pregnant women**

| ı | ıtritional information | Frequency | Percentage % |
|---|---|---|---|
| | Doctor | 111 | 99.1 |
| | Nurses | )8 | 96.4 |
| | Internet | 106 | 94.6 |
| | Other Pregnant Women | )2 | 91.1 |
| | Pre-Natal health education classes | 98 | 87.5 |
| | Social media sites | 97 | 86.6 |
| | Health publications | 93 | 83.0 |
| | Journals | 87 | 77.7 |
| | YouTube channels for pregnant women | 87 | 77.8 |
| | Radio | 81 | 72.3 |
| | Textbooks | 73 | 65.2 |

| | | | |
|---|---|---|---|
| | Television programmes | 69 | 61.6 |
| | Online discussion forum for pregnant women | 54 | 48.2 |
| | Newspapers/ Magazines | 53 | 47.34 |
| | Bulletins/Newsletter | 43 | 38.4 |
| | Friends | 43 | 38.4 |
| | Libraries | 35 | 31.3 |
| | Family Members | 23 | 20.5 |
| | Film/Slide Projection | 20 | 17.9 |
| | DVD on nutritional information | 16 | 14.3 |
| | Encyclopedias | 14 | 12.5 |
| | Pamphlets and flyers | 12 | 10.7 |

Table 4 shows that the sources of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State are Doctors 111(99.1%), Nurses 108(96.4%), Internet 106(94.6%), Other Pregnant Women 102(91.1%), Pre-Natal health education classes 98(87.5%), Social media sites 97(86.6%), Health publications 93(83.0%), Journals 87(77.7%), YouTube channels for pregnant women 87(77.8%), Radio 81(72.3%), Textbooks 73(65.2%) and finally, Television programmes 69(61.6%). It could be concluded that the sources of nutritional information by pregnant women in selected primary health care center in Ijebu-ode Local Government of Ogun State are Doctors, Nurses and Internet.

**Research question 4:** What are the challenges facing the use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State?

**Table 5: Challenges facing the use of nutritional information by pregnant women**

| S/n | Factors | Frequency | Percentage % |
|---|---|---|---|
| **1** | Level of awareness | 107 | 95.5 |
| **2** | Level of Education | 106 | 94.6 |
| **3** | Time constraints | 103 | 91.0 |
| **4** | Financial constraints | 98 | 87.5 |
| **5** | Erratic power supply | 82 | 73.2 |
| **6** | Network problems | 73 | 65.2 |
| **7** | Distance to the source of information | 65 | 58.0 |
| **8** | Lack of Qualified Health Professional | 60 | 53.6 |
| **9** | Lack of Library or Information Centre | 56 | 50 |

Table 5 shows that the challenges facing the use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State are level of awareness 107(95.5%), level of education 106(94.6%), time constraints 103(91.0%), financial constraints 98(87.5%), erratic power supply 82(73.2%), network

problems 73(65.2%), distance to the source of information 65(58.0%), lack of qualified health professional 60(53.6%), lack of library or information center 56(50%). It could be concluded that the challenges facing the use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State are level of awareness, level of education and time constraints.

**Hypothesis**

There is no significant relationship between accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State.

**Table 6: Accessibility and use of nutritional information by pregnant women**

**Correlations**

| | | $\bar{x}$ | SD | Accessibility | Use |
|---|---|---|---|---|---|
| **Accessibility** | Pearson Correlation | | | 1 | -.212** |
| | Sig. (2-tailed) | 47.16 | 8.64 | | .000 |
| | N | | | 112 | 112 |
| **Use** | Pearson Correlation | | | -.212** | 1 |
| | Sig. (2-tailed) | 38.85 | 11.71 | .000 | |
| | N | | | 112 | 112 |

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6 revealed that the r value is -0.212 which depicts a negative relationship between accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State. The calculated significant probability value of (p-value) 0.000 was subjected to the alpha value of 0.05. Since the significant probability (p-value) of 0.000 is less than the alpha value of 0.05, the null hypothesis is rejected. This implies that there is a negative relationship between accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State.

**Discussion of Findings**

The findings of the study revealed that nurses were the most accessible nutritional information resources followed by journals, other pregnant women, the internet, social media sites, and doctors among others. This is consistent with a study conducted by Uloma and Adedotun (2018), which found that pregnant women prefer to use physicians and nurses as their primary source of health information over library resources. The study by Mumba (2015) negated

Uloma and Adedotun by stating that printed materials are the common sources of health information for pregnant women. Such as books and journals, leaflets, women's magazines, and newspapers, it was further reviewed that nutrition information from family members, friends, YouTube channels, pamphlets and flyers were rarely accessed by pregnant women under stud

The study revealed that doctors were the most utilized nutrition information resources by pregnant women in the healthcare centers understudy followed by social media sites resources, nurses, television programmes, youtube channels, health publications and textbooks. Journals and family members were the sources of dietary knowledge that pregnant women understudied the least. These results were refuted by Mruma, and Mkhai, (2022) who found that pregnant women used family and friends, local herb hawkers, local drug merchants (hawkers), and traditional healers as their primary information sources.

The findings of the study revealed that the most prominent sources of nutritional information for pregnant women in the healthcare centers understudy were doctors, nurses, internet and other pregnant women. Pre-natal health education classes, social media sites and health publications followed. Nutritional information sources such as pamphlets and flyers, encyclopedias, DVDs on nutritional information, and film/slide projection were the least consulted sources of nutritional information sought after by pregnant women understudy. Mruma and Mkhai (2022) supported this finding that pregnant women consult different sources of information for nutrition such as healthcare providers, mass media sources, and their friends. Grimes (2018) contradicted Mruman and Mkhai's findings that revealed that pregnant women preferred internet sources of information to be reliable, time-saving and physical proximity as against other sources of information.

The study also revealed the challenges encountered by pregnant women in the selected healthcare centers understudy and they are as follows, low level of awareness; low level of education; time constraints; and financial constraints. Smith et al. (2022) supported these findings by underscoring that two factors serve as challenges to the utilization of nutritional information and they are as follows; socio-economic factors which include limited health literacy, and cultural beliefs often hinder pregnant women's ability to access and understand nutritional guidance; while geographic factors, such as rural residence and limited access to healthcare facilities, further exacerbate inequalities in nutritional access and utilization.

The findings of the study further revealed that there is a negative relationship between accessibility and use of nutritional information by pregnant women in selected primary health care centers in Ijebu-ode Local Government of Ogun State. Studies by Basmat, (2020); Uloma and Adedotun (2018); Garcia et al., (2021); Mruma & Mkhai, (2022) negated these findings by stating that a well-informed woman has the capability of preparing and taking highly balanced diets before and after pregnancy to ascertain the safety of the fetus and the newborn health. Equally Grunert, Wills and Fernandez-Celemin (2020) concurred that utilizing nutritional information during pregnancy positively impacts maternal and fetal health outcomes.

## Conclusion

The findings from this study have been able to establish that pregnant women in selected primary health care centers in Ijebu-Ode Local Government of Ogun State have access to essential nutritional information at their health care centers. Pregnant women can easily obtain relevant information, which is indicative of well-established channels and resources within the health care centers. The study also highlights that the use of nutritional information resources among pregnant women is high. This suggests that the information provided is actively utilized by the target group to make informed dietary choices and promote better health outcomes during pregnancy. The primary sources of nutritional information for pregnant women in the selected healthcare centers are doctors, nurses, and the Internet. These sources play a significant role in disseminating valuable health information and guidance. Despite the high levels of accessibility and use, notable challenges are impacting the effective utilization of nutritional information. These challenges include varying levels of awareness, differences in educational backgrounds, and time constraints.

## Recommendations

1. Primary health care center management should continue to update and expand their content on nutritional information especially on balanced diets, food choices with emphasis on essential nutrients during pregnancy and healthy living among pregnant women and incorporate into their weekly/ monthly or regular ante natal lectures

2. Regular evaluation of the impact of the nutritional information sources on dietary choices and healthy life style during pregnancy during ante natal sessions.

3. Primary healthcare centers management should ensure that doctors and nurses are well-trained to provide accurate and consistent nutritional information sources.

4. The Primary health care management should also ensure that reliable online resources are provided and made accessible to pregnant women.

5. There is the need for the primary health centers to create community awareness through public campaigns and educational programs on various information sources to consult for nutritional and dietary information and healthy living by pregnant women.

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