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# Sociodemographic Determinants of Information Sources Availability and Use Among Pregnant Women in Ilisan-Remo, Ogun State, Nigeria

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**ABSTRACT**

This study examined the influence of sociodemographic variables on information sources availability and use among pregnant women. A questionnaire was used to collect data for the study. In all, 141 copies of questionnaire were distributed in three selected hospitals. Ninety-six usable copies of the questionnaire were obtained from pregnant women and then analyzed to obtain results for this study. Findings suggest that sociodemographic variables jointly accounted for 56 percent of the total variance in the prediction of availability of information sources among pregnant women. The results also indicated that sociodemographic variables jointly accounted for 43.3 percent of the total variance in the prediction of use of information among pregnant women. Age and occupational status played a significant role in availability and use of information sources among pregnant women. Pregnant women were also found to rely mainly on the radio, television and antenatal clinic for pregnancy-related information. The study recommends that health care professionals should provide more evidence-based information and partner with medical and public librarians to ensure that pregnant women have access to useful information resources.

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**KEYWORDS**
Information sources; information use; Nigeria; pregnant women; sociodemographic variables

## Introduction

Presently, one of the substantial burdens in developing countries is maternal mortality. The World Health Organization (1) has estimated that approximately 830 women die from preventable causes related to pregnancy and childbirth per day, with about 99 percent of these deaths occurring in developing countries. Health reports indicate that in developing countries the maternal mortality ratio in 2015 was 239 per 100,000 live births versus 12 per 100,000 live births in developed countries (1). A major challenge to African governments has been the high ratio of maternal mortality in Africa (2). The reduction of the global maternal mortality ratio to less than 70 per 100,000 live births by 2030 is one of the key

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priorities of the World Health Organization (1). Access to quality information concerning pregnancy and childbirth is crucial to the achievement of this laudable goal.

Pregnancy–related information is an important resource for survival of every expectant woman. Pregnant women need to search and acquire information necessary for healthy living to ensure the safe delivery of their babies (3). Aina posits that information on safe motherhood is needed for safe delivery and healthy mother and child (4). She also noted that lack of adequate information and ignorance are key factors impeding safe motherhood in Nigeria. Providing pregnant women with relevant information covering what they need to know during pregnancy and childbirth, including preparation and complication readiness, is crucial because no one can predict which pregnant woman will experience life-threatening obstetric complications that may lead to maternal mortality.

## *Statement of the problem*

Information is an indispensible resource to every human being. All pregnant women irrespective of their geographic, social, racial and religious differences need information. This is because pregnancy, especially in developing countries, is a high-risk venture. Pregnancy is hazardous because it is associated with hypertensive diseases, anemia, severe forms of malaria, toxemia, hemorrhage and so on, which are common among pregnant women in developing countries. Despite the risks associated with pregnancy and delivery, many pregnant women in Nigeria go through pregnancy uninformed. In many developing countries, geographic, economic, sociocultural factors hinder pregnant women from accessing and using information sources. These include the high cost of information resources, poor perception of health care professionals, language barriers, low levels of education, distance to health facilities as well as the husband's influence over health care decisions. Despite efforts to reduce maternal mortality, it appears that many pregnant women are still losing their lives and their precious children due to the inability to get vital information needed for safe motherhood. In many communities in Ilishan–Remo, Ogun State, stories of needless deaths among pregnant women abound due to ignorance, fear and superstitious beliefs. Many studies have investigated information availability and use by diverse populations. However, a literature search revealed a dearth of studies on sociodemographic determinants of information sources availability and use among pregnant women in Nigeria. To fill this gap, this study explores the influence of sociodemographic variable on information sources availability and its use among pregnant women in Ilishan–Remo, Ogun State.

## Research questions

The study has the following research questions:

**RQ1:** What are the information needs of pregnant women in Ilishan–Remo, Ogun State?

**RQ2:** What information sources are available to pregnant women in Ilishan–Remo, Ogun State?

**RQ3:** What is the frequency of use of information sources by pregnant women in Ilishan–Remo, Ogun State?

**RQ4:** What challenges do pregnant women encounter while seeking pregnancy-related information?

## Hypotheses of the study

**$H_{01}$:** There is no significant relationship between information needs and use of information sources among pregnant women in Ilisan, Ogun state.

**$H_{02}$:** There is no significant relationship between information sources availability and use among pregnant women in Ilisan, Ogun state.

**$H_{03}$:** There is no significant relative contribution of sociodemographic variables on availability of pregnancy information sources among pregnant women.

**$H_{04}$:** There is no significant relative contribution of sociodemographic variables on the use of information sources among pregnant women.

**$H_{05}$:** Information needs of younger and older pregnant women are not significantly different.

**$H_{06}$:** There is no significant difference between younger and older pregnant women in frequency of use of information sources.

## Review of related literature

Information is the purveyor of knowledge and knowledge empowers. It equips an individual with the power to choose and to act in an informed manner (2). Access to health information is strategic to the achievement of reproductive health (5). Information exchange during pregnancy is a tool that facilitates women's decision-making processes regarding prenatal and postnatal care as well as the care of their newborn infants, so that they can better manage their pregnancy (6). In fact, to a large extent, the quality of life of women depends on the quality of information at their disposal and the purpose for which it is used (7).

Women experiencing pregnancy at any time have a variety of health information needs. There is increased evidence that women need to know more about pregnancy (8,9). Pregnant women are concerned about delivering their babies without birth defects or complications. Information regarding complications and

the level of delivery pain are part of their information needs. A number of studies have reported that women need information on fetal development, nutrition in pregnancy, medications in pregnancy, complications in pregnancy, prenatal tests calendar and antenatal care (10–14). In India, the reports of the Ministry of Health and Family Welfare maintained that antenatal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counseling on preventive care, diet during pregnancy, delivery care, postnatal care and related issues (15).

Singh, Newburn, Smith and Wiggins (8) reported that the demand for information among first-time mothers is increasing and 70 percent of first time mothers' report that they want to know *a great deal* about pregnancy and birth. In addition, 100 percent of all first-time mothers had some unmet information needs. They seek information on immunizations, fistulae and safe deliveries.

Pregnant women obtain information from both formal and informal channels. Information needed by pregnant women can, therefore, be derived from a variety of sources, including books, journals, the Internet, friends, relatives, persons at the workplace or professional advisors (3). Some get their information from their mothers, mothers-in-law or women in the community who have been pregnant. In Nigeria, Nwagwu and Ajama identified family and friends, local herb hawkers, local drug sellers (hawkers) and traditional healers as the most utilized information sources among women (16). A similar study by Onuoha and Amuda reported that doctors and nurses were the most available and utilized sources of health information by pregnant women (3). However, an Italian study by De Santis, De Luca, Quattrocchi, Visconti, Cesari, Mappa, Nobili, Spagnuolo and Caruso found that 72 percent of the women consulted a Web source in the first trimester of pregnancy (17). Another study, from Sweden, found that the majority of pregnant participants had used the Internet on one or more occasions to access information on pregnancy, childbirth or the expected baby (12).

The study conducted by Gollop indicates that women used sources that they perceived as easily accessible as opposed to those that were perceived to be difficult to access (18). Additionally, women have been shown to be more likely to use services when they are within walking distance, around three kilometers from their homes (19). Gazali, Muktar and Gana) identified low self-esteem and sociodemographic factors as some of the problems women encounter when seeking information (20). Carlsson affirmed that sociodemographic characteristics such as age, level of education and gender have been shown to positively influence information-seeking (21). Anasi and Adediji also reported that level of study, marital status, gender and age made significant relative contribution to the prediction of undergraduates' access to and use of reproductive health information sources (22). In Kazakhstan, Buckley, Barret and Adkins found that among young women, ethnicity, age, level of education and urban residence predicted access to family planning information channels (23).

## Methodology

The study adopted a survey research design. The population of the study comprised pregnant women who registered for antenatal care during the period of the study at Babcock University Teaching Hospital (120), Ilishan Community Health Centre (55) and Christ Apostolic Maternity Centre (24) between March and April, 2016. The three health care facilities are located in Ilishan Remo, a satellite town in the Ikenne Local Government Area of Ogun State. The selected hospitals were limited to two primary health care centers (one public and one private), and a University teaching hospital. These hospitals were selected because they are representative of health care facilities available in the town. Proportional random sampling technique was used to draw samples from each hospital. A 70-percent sample size, out of a population of 200, was considered adequate according to Krejcie and Morgan, who posited that for a population of 200, one could use a sample size of 131 (25). In all, one hundred and forty-one (141) copies of the questionnaire were administered, and only ninety-six (96) questionnaires were retrieved, representing a 68 percent response rate. The questionnaire was self-completed by the women during antenatal visits to the three health facilities. Data collected were analyzed using descriptive and inferential statistics such as frequency counts, percentages, mean, standard deviation Pearson Product Moment correlation coefficient, multiple regression analysis and *t*-test.

## Results

The three hospitals and the corresponding number of respondents collected from each hospital are presented in Table 1. The results of the demographic characteristics of the respondents are presented in Table 2.

Findings from Table 2 show that 58.3 percent of the respondents were between ages 20–34, and 41.7 percent were between ages 35–49. Marital status showed that all respondents (100.0 percent) were married. Results also show that a majority (61.5 percent) had two children, 15.6 percent had three, and 11.5 percent had four children and above. Educational status of respondents shows that the majority (30.2 percent) had a bachelor's degree, yet 20.8 percent had a doctorate degree. Occupational distribution of the

**Table 1.** Selected Hospitals and the Corresponding Number of Respondents.

| Hospital | Total Number of Registered Pregnant Women (March-April) | Sample Size |
|---|---|---|
| Babcock University Teaching Hospital | 120 | 84 |
| Christ Apostolic Maternity Center | 25 | 18 |
| Ilishan Community Health Center | 55 | 39 |
| Total | 200 | 141 |

**Table 2.** Demographic Characteristics of the Respondents $N = 96$.

| Variables | Categories | Frequency | Percentage |
|---|---|---|---|
| Age | 20–34 | 56 | 58.3 |
| | 35–49 | 40 | 41.7 |
| Marital status | Married | 96 | 100.0 |
| Number of previous children | One | 11 | 11.5 |
| | Two | 59 | 61.5 |
| | Three | 15 | 15.6 |
| | Four and above | 11 | 11.5 |
| Educational status | Primary School Certificate | 8 | 8.3 |
| | NCE | 11 | 11.5 |
| | Trade Certificate | 17 | 17.7 |
| | Bachelor's Degree | 29 | 30.2 |
| | Master's Degree | 11 | 11.5 |
| | Doctoral Degree | 20 | 20.8 |
| Occupational Status | Small business owners | 32 | 33.3 |
| | Daily wage earner | 8 | 8.3 |
| | Housewife | 15 | 15.6 |
| | Civil Servant | 41 | 42.7 |
| Religion | Christianity | 88 | 91.7 |
| | Muslims | 8 | 8.3 |

Source: Field Survey (2016).

respondent indicated majority were 42.7 percent were civil servant, 33.3 percent were small business owners, while 15.6% were housewives. The majority (91.7 percent) of the respondents were Christians and 8.3 percent were Muslims.

### *Research question one*

What are the information needs of pregnant women in Ilishan–Remo, Ogun State?

The result of the information needs of women are presented in Table 3 The results revealed that all (100.0 percent) of the respondents needed information on nutrition, personal care, baby care, safe delivery, immunization, emotional support, environmental cleanliness and so on, while 88.5 percent of the respondents needed information on disease prevention and control.

### *Research question two*

What information sources are available to pregnant women in Ilishan–Remo, Ogun State?

Details of information sources available to pregnant women are presented in Table 4. The mean scores in Table 4 indicate that all respondents stated that radio is the most available source of information. Radio had the highest mean score ($\bar{X} = 3.00$), followed closely by the television, with mean score ($\bar{X} = 2.79$).

**Table 3.** Information Needs of Pregnant Women.

| Information Needs of Pregnant Women | Greatly Needed | Occasionally Needed | Not At All |
|---|---|---|---|
| Information for nutritional/dietary | 96(100.0%) | - | - |
| Information for emotional support | 96(100.0%) | - | - |
| Information on safe delivery | 96(100.0%) | - | - |
| Information on personal care and hygiene | 96(100.0%) | - | - |
| Information on baby care | 96(100.0%) | - | - |
| Information on environmental cleanliness | 96(100.0%) | - | - |
| Information about immunization | 96(100.0%) | | |
| Information for disease prevention and control | 85(88.5%) | 11(11.5%) | - |
| Information on where to purchase vital materials and clothing for delivery | 75(78.1%) | - | 21(21.9) |
| Information on choice of hospital to deliver | 75(78.1%) | 11(11.5%) | 10(10.4%) |
| Information on the danger signs before delivery | 75(78.1%) | - | 21(21.9%) |

Source: Field Survey (2016).

**Table 4.** Sources of Information Available to Pregnant Women.

| Sources | Highly Available | Available | Not Available | Mean | *SD* |
|---|---|---|---|---|---|
| **Interpersonal Sources** | | | | | |
| Mother-in-law | 18(18.8%) | 25(26.0%) | 53(55.2%) | 1.64 | .783 |
| Mother | 18(18.8%) | 37(38.5%) | 41(42.7%) | 1.76 | .750 |
| Married siblings | 10(10.4%) | 46(47.9%) | 40(41.7%) | 1.69 | .654 |
| Friends | 8(8.3%) | 47(49.0%) | 41(42.7%) | 1.66 | .630 |
| Other Pregnant women | - | 74(77.1%) | 22(22.9%) | 1.77 | .423 |
| Healthcare professionals(doctors, nurses, pharmacists, etc.) | 36(37.5%) | 60(62.5%) | - | 2.37 | .487 |
| Coworkers | 42(43.8%) | 46(47.9%) | 8(8.3%) | 2.35 | .632 |
| Antenatal clinic | 69(71.9%) | 27(28.1%) | - | 2.72 | .452 |
| **Print Sources** | | | | | |
| Bulletins/newsletter | 42(43.8%) | 10(10.4%) | 44(45.8%) | 1.98 | .951 |
| Newsletter | 21(21.9%) | 21(21.9%) | 54(56.3%) | 1.66 | .819 |
| Books | - | 49(51.0%) | 47(49.0%) | 1.51 | .503 |
| Newspapers or magazines | - | 59(61.5%) | 37(38.5%) | 1.61 | .489 |
| Pamphlets | - | 70(72.9%) | 26(27.1%) | 1.73 | .447 |
| **Electronic source** | | | | | |
| Video/slide projection | 44(45.8%) | 41(42.7%) | 11(11.5%) | 2.34 | .678 |
| Internet | 67(69.8%) | 21(21.9%) | 8(8.3%) | 2.61 | .639 |
| Radio | 96(100.0%) | - | - | 3.00 | .000 |
| Television | 86(89.6%) | - | 10(10.4%) | 2.79 | .614 |

Source: Field Survey (2016).

Overall, electronic resources were sources of information most available to the respondents.

### *Research question three*

What is the frequency of use of information sources by pregnant women in Ilishan–Remo, Ogun State?

The result of frequency of use of information sources by pregnant women is presented in Table 5. The finding shows that majority (81.3 percent) of the

**Table 5.** Frequency of Use of Information Sources by Pregnant Women.

| Options | Frequency | Percent |
|---|---|---|
| Once a week | 11 | 11.5 |
| Once a month | 78 | 81.3 |
| Rarely | 7 | 7.3 |
| Total | 96 | 100.0 |

**Table 6.** Challenges Faced by Pregnant Women While Seeking Information.

| Challenges | Very Critical Challenge | | Not Critical Challenge | |
|---|---|---|---|---|
| | F | % | F | % |
| I feel shy asking for information | 26 | 27.1 | 70 | 72.9 |
| I am scared of asking for information | 26 | 27.1 | 70 | 72.9 |
| Lack of time to seek relevant information | - | - | 96 | 100 |
| Negative attitude of health care personnel | - | - | 96 | 100 |
| Language barrier | 15 | 15.6 | 81 | 84.4 |
| Inaccessibility of pregnancy information | - | - | 96 | 100 |
| Lack of information Centre | - | - | 96 | 100 |
| High cost of information resources | 34 | 25.4 | 62 | 64.6 |

respondents use information sources once a month for pregnancy information, while 7.3 percent of the respondents rarely use pregnancy related information.

### *Research question four*

What challenges do pregnant women encounter while seeking pregnancy-related information?

The results of the challenges pregnant women encounter while seeking pregnancy-related information are presented in Table 6. The findings in Table 6 show that all the respondents (96; 100 percent) indicated that lack of time to seek relevant information, attitude of health care personnel, lack of information centers and inaccessibility of pregnancy information were not critical factors hindering them from seeking pregnancy information. Only 34 (25.4 percent) of the respondents indicated that high cost of information resources was a major challenge pregnant women face while seeking information.

## Testing of hypotheses

**Hypothesis 1:** There is no significant relationship between information needs and frequency of use of information sources among pregnant women in the Ilisan, Ogun state. Significant at $p < 0.05$.

Table 7 shows that the Pearson Correlation Coefficient ($r$) indicating the relationship between information needs and use of information sources is –.054; $p > 0.05$. Because the $p$ value is greater than the 0.05

**Table 7.** Correlation Between Information Needs and Use of Information Sources Among Pregnant Women.

| Variable | N | df | $\bar{X}$ | SD | r | P | Remark |
|---|---|---|---|---|---|---|---|
| Information needs of pregnant women | 96 | 95 | 46.2604 | 3.12290 | 0.-054 | 0.600 | Not |
| Use of information sources | 96 | 95 | 2.96 | 0.433 | | | Significant |

Significant at $p < 0.05$.

level of significance, the null hypothesis was, therefore, not rejected. This means that there is no significant relationship between information needs and use of information sources among pregnant women.

**Hypothesis 2:** There is no significant relationship between information source availability and frequency of use of information among pregnant women in Ilisan, Ogun state.

The result of the relationship between availability of information sources and frequency of use of information of pregnant women is presented in Table 8.

Table 8 shows that the Pearson Correlation Coefficient ($r$) indicating the relationship between availability of information sources and use of information is 0.583; $p < 0.05$. Because the $p$ value is less than the 0.05 level of significance, the null hypothesis was, therefore, rejected. This means that there is a significant relationship between availability of information sources and use of information.

**Hypothesis 3:** There is no significant relative contribution of sociodemographic variables on availability of pregnancy information sources among pregnant women.

The result in Table 9 shows the joint contribution of the independent variables (Age, educational status, occupational status, number of children and religion) to predict availability of information sources among pregnant women. With a multiple correlation ($R = 0.763$, $R$ square = .583 and an adjusted $R^2$ of 0.560; $F$ (5.90) ratio equals 25.152; $p < 0.05$) it implies that sociodemographic variables jointly accounted for 56 percent of the total variance in the prediction of availability of information sources among pregnant women. The joint contribution to the prediction being significant at the 0.05 level of significance, the null hypothesis was, therefore, rejected. This means that there is a

**Table 8.** Correlation Between Availability of Pregnancy-Related Information Sources and Use by Pregnant Women.

| Variable | N | df | $\bar{X}$ | SD | r | P | Remark |
|---|---|---|---|---|---|---|---|
| Availability of pregnancy-related information sources | 96 | 95 | 71.0104 | 3.45952 | 0.583 | 0.000 | Significant |
| Use of pregnancy-related information sources | 96 | 95 | 2.96 | 0.433 | | | |

Significant at $p < 0.05$.

**Table 9.** Regression Summary and Estimates of the Joint and Relative Contributions of Sociodemographic Variables to Availability of Information Sources Among Pregnant Women.

R = .763
R square = .583
Adjusted R square = .560
Std. Error of Estimate = 2.29557

| Source of Variation | Sum of Squares | *df* | Mean Square | *F*-Ratio | Significance of *P* |
|---|---|---|---|---|---|
| Regression | 662.721 | 5 | 132.554 | | |
| Residual | 474.269 | 90 | 5.270 | | |
| Total | 1136.990 | 95 | | | |

significant relative contribution of sociodemographic variables on availability of information sources among pregnant women.

### *Predictors: (constant), religion, age, occupational status, number of children, educational status*

### *Dependent variable: availability of information sources*

The parameter estimates of the relative contribution of the five sociodemographic variables to predict the availability of information sources among pregnant women shows that there is a significant relative contribution of age ($\beta = -.247$; $t = -2.533$; $p < 0.05$), occupational status ($\beta = .538$; $t = 4.112$; $p < 0.05$); yet, on the other hand, there is no significant contribution of number of children, educational status and religion on availability of information sources among pregnant women (Table 10).

### *Predictors: (constant), religion, age, occupational status, number of children, educational status*

### *Dependent variable: use of information*

**Hypothesis 4:** There is no significant relative contribution of sociodemographic variables on the use of information among pregnant women.

**Table 10.** Regression Estimates of the Relative Contributions of Sociodemographic Variables to the Prediction of Availability of Information Sources Among Pregnant Women.

Coefficients[a]

| | Unstandardized Coefficients | | Standardized Coefficients | | | |
|---|---|---|---|---|---|---|
| Model | B | Std. Error | Beta | *t* | Signifcance | Decision |
| (Constant) | 69.158 | 4.077 | | 16.962 | .000 | |
| Age | −1.725 | .681 | −.247 | −2.533 | .013 | S |
| Number of children | .195 | .415 | .046 | .469 | .640 | NS |
| Educational status | .268 | .310 | .147 | .863 | .390 | NS |
| Occupational Status | 1.405 | .342 | .538 | 4.112 | .000 | S |
| Religion | −.158 | 1.933 | −.013 | −.082 | .935 | NS |

[a]Dependent Variable: Availability of Information sources.

The results in Table 11 show the joint contribution of the independent variables (Age, educational status, occupational status, number of children and religion) to predict use of information sources among pregnant women. With a multiple correlation ($R$ = 0.680, $R$ square = .463 and adjusted $R^2$ of 0.433; $F$ (5.90) ratio equals 15.517; $p < 0.05$), it implies that sociodemographic variables jointly accounted for 43.3 percent of the total variance in the prediction of use of information among pregnant women. The joint contribution to the prediction being significant at the 0.05 level of significance, the null hypothesis was, therefore, rejected. This means that there is a significant relative contribution of sociodemographic variables on use of information sources among pregnant women.

The parameter estimates of the relative contribution of the five sociodemographic variables to predict the use of information sources among pregnant women shows that there is a significant relative contribution of age (β = –.795; $t$ = –7.185; $p < 0.05$) and number of children (β = .554; $t$ = 5.000; $p < 0.05$); yet, on the other hand, there is no significant contribution of educational status, occupational status and religion on use of information sources among pregnant women (Table 12). The regression results in Table 12 indicate that age played a more important role than did educational status, occupational status and religion on use of information sources among pregnant women.

### *Dependent variable: use of information sources*

**Hypothesis 5:** Information needs of younger and older pregnant women are not significantly different.

The findings are presented in Table 13. Table 13 indicates that there is a statistically significant difference between younger and older pregnant women in their information needs. It could be observed that the mean score ($\bar{X}$ = 45.2143 and $\bar{X}$ = 47.7250) for younger and older respondents, respectively, show that the respondents' information needs are different. The $t$-test value (t = –4.966, $df$ = 57.234 and $p > .05$) also showed that there is a

**Table 11.** Regression Summary and Estimates of the Joint and Relative Contributions of Sociodemographic Variables to Use of Information Among pregnant Women.

R = .680
R square = .463
Adjusted R square = .433
Std. Error of Estimate = .326

| Source of variation | Sum of Squares | df | Mean Square | *F*-Ratio | Significance of *P* |
|---|---|---|---|---|---|
| Regression | 8.256 | 5 | 1.651 | 15.517 | .000 |
| Residual | 9.577 | 90 | .106 | | |
| Total | 17.833 | 95 | | | |

**Table 12.** Regression Estimates of the Relative Contributions of Sociodemographic Variables to the Prediction of Use of Information Among Pregnant Women.

| | Unstandardized Coefficients | | Standardized Coefficients | | | |
|---|---|---|---|---|---|---|
| Model | B | Standard Error | Beta | *t* | Significance | Decision |
| (Constant) | 3.277 | .579 | | 5.657 | .000 | |
| Age | −.695 | .097 | −.795 | −7.185 | .000 | Significant |
| Number of children | .295 | .059 | .554 | 5.000 | .000 | Significant |
| Educational status | −.013 | .044 | −.057 | −.294 | .769 | Not Significant |
| Occupational status | −.030 | .049 | −.090 | −.608 | .545 | Not Significant |
| Religion | .519 | .275 | .333 | 1.889 | .062 | Not Significant |

Dependent variable: Use of information sources.

**Table 13.** *t*-test Statistics Showing Age Difference in Information Needs of Pregnant Women.

| Age | *N* | Mean | *F* | Significance | *t* | *df* | Significance (2-tailed) | Mean Difference | *P* |
|---|---|---|---|---|---|---|---|---|---|
| 20–34 Younger women | 56 | 45.2143 | 221.777 | 0.000 | −4.966 | 57.234 | 0.000 | −2.51071 | <.05 |
| 35–49 Older women | 40 | 47.7250 | | | | | | | |

statistically significant difference in information needs by age. The hypothesis is thus rejected.

**Hypothesis 6:** There is no significant difference between younger and older pregnant women in frequency of use of information.

The findings are presented in Table 14. Table 14 indicates that there is a statistically significant difference between younger and older pregnant women in frequency of use of information sources. It could be observed that the mean score ($\bar{X}$ = 3.13 and $\bar{X}$ = 2.73) for younger and older respondents, respectively, showing that the respondents frequency of use of information sources is different. The *t*-test value ($t$ = 4.747, $df$ = 67.952 and $p > .05$) also showed that there is a statistically significant difference in frequency of use of information sources by age. The hypothesis is thus rejected.

**Table 14.** *T*-test Statistics Showing Age Difference in Use of Information Sources Among Pregnant Women.

| Age | *N* | Mean | *F* | Significance | *T* | *df* | Signifcance (2-tailed) | Mean Difference | *P* |
|---|---|---|---|---|---|---|---|---|---|
| 20–34 Younger women | 56 | 3.13 | 14.044 | 0.000 | 4.747 | 67.952 | 0.000 | 0.400 | <.05 |
| 35–49 Older women | 40 | 2.73 | | | | | | | |

## Discussion of findings

The demographic information of the respondents as presented in Table 1 revealed that majority (30.2 percent) had a bachelor's degree. The reason for the high educational status of respondents may be a result of the fact that many of the respondents, especially those who attend antenatal clinic at Babcock University Teaching Hospital, were staff of the University. The presence of Babcock University, no doubt, will also influence the educational status of the community as most staff of the university reside within the community.

The results revealed that respondents need information on nutrition, personal care, baby care, safe delivery, immunization, emotional support, environmental cleanliness and so on. This finding is in agreement with the result of previous studies (3,10–12), which reported that pregnant women are intensely interested in information on nutrition, environmental cleanliness, immunization, disease control and personal-care during pregnancy.

The findings indicate that electronic resources were the most available source of information to the respondents. This finding, however, disagrees with results of earlier studies that indicated that health care providers were the most available sources of information to pregnant women (3,24,25).

As regards use of information sources, the finding shows that a majority (81.3 percent) of the respondents use information sources once a month for pregnancy information. This result supports the findings of earlier studies (13,26) which reported that pregnant women search for pregnancy-related information from the Internet once a month. This is expected as they are likely to consult information sources before meeting with health professionals (10,27) and after their consultations (28).

The results on Table 6 shows that the high cost of information resources was a major challenge faced by pregnant women while seeking information. It seems the current economic recession in Nigeria may have influenced this finding. Currently, the cost of books and other information resources are extremely exorbitant. This finding is at variance with the result of the study conducted by Onuoha and Amuda, which identified lack of library or information centers as the highest challenge to information seeking among pregnant women (3).

The findings revealed a significant relationship between availability of information sources and use of information. This implies readily available pregnancy-related information sources will result in increased use. This result confirms earlier findings by Adegun, Oyewumi and Oladapo that availability of library services and resources would result in increased use (29). Surprisingly, results of this study show that statistically there is no relationship between information need and use of information sources. Use of information sources refers to the extent to which pregnant women make use of the information resources to meet their information needs. The authors had expected that the gap in knowledge (information need) would have provoked use of information

sources in order to fill the gap. The findings suggest that the respondents' information need is latent (passive) and not an apparent (active) need. According to Musoke, the apparent need for information makes people go to the source to seek information actively (30).

Sociodemographic variables such as age, educational status and occupation may be relevant to availability and use of information sources. The results indicate that there is significant relative contribution of age ($\beta = -.247$; $t = -2.533$; $p < 0.05$), occupational status ($\beta = .538$; $t = 4.112$; $p < 0.05$) on availability of information sources among pregnant women (Table 10). In this study, the majority of the respondents were civil servants; this makes access to a number of formal and informal sources of information possible. According to Leckie et al., professionals use a variety of information sources—formal and informal; internal or external; oral or written; and personal (31). Surprisingly, educational status had no significant influence on availability of pregnancy-related information. The regression results in Table 12 indicate that age played a more important role than did educational status, occupational status and religion on use of information sources among pregnant women. These findings confirmed the result of the study by Akporido, which revealed that age plays great role in information use (32).

There is a statistically significant difference in information needs by age. According to Leckie and colleagues, information need is not constant and can be influenced by a number of variables such as age, experience, education and geographic location (31,33). The findings show that there is statistically significant difference in frequency of use of information sources by age. These results corroborate Afolabi's assertion that information-seeking behavior of people varies according to their age, gender, occupation, location, educational exposure, enlightenment, religion and culture (34). It is also in agreement with Raban and Brynin, who stated that information and communication technologies (ICTs) use is dependent on age and that adoption of new technologies declines with age (35). They also concluded that older adults tend to lack key cognitive resources, reducing their willingness to utilize information technologies.

## Conclusion and recommendations

The study was indicative of the influence of sociodemographic variables of pregnant women in Ilisan-Remo, Ogun State on the availability and use of information sources. Age and occupational status played a significant role in availability and use of information sources among pregnant women. Pregnant women were also found to rely mainly on the radio, television and antenatal clinic for pregnancy-related information. Print resources such as books, newspapers and magazines were rarely available to them. The high cost of information resources was acknowledged as a major challenge facing pregnant women in Ilisan–Remo, Ogun State.

Health care professionals in Ogun State should be aware of the information needs of pregnant women and provide more evidence-based information to them at the time they require it. They are also in a position to guide pregnant women on where and how to get useful information resources other than electronic resources. Health care professionals should partner with medical and public librarians in Ogun State to ensure that pregnant women have access to free or less expensive sources of information. They should also encourage pregnant women to attend antenatal health education classes regularly in order to get vital information that enhances safe delivery. Additionally, it is important that pregnant women are advised to seek professional information and advice from qualified medical personnel. Relevant government agencies and non-governmental organization should produce and distribute pregnancy-related information resources free of charge to pregnant women as part of the effort to reduce maternal mortality rate.

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