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Socio-Cultural Determinants of Women's Health Information Opportunities in Nsukka, Southeast Nigeria

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Abstract

The study explores the socio-cultural contexts of health information seeking among women in Nsukka, Southeast Nigeria. Studies have shown that an understanding of the contexts of health information seeking is fundamental to appreciating the disparities in women's capacities to adopt healthy behavior. We argue that the disparities make information opportunity more a risk factor than just a factor of information access. The study therefore attempts to ascertain the relative opportunities open to women to seek health information in view of several health constraints experienced by women as underprivileged individuals in the Nigerian context. Using descriptive and correlation analysis, we examined data from 591 reproductive-age women from four primary healthcare hospitals in Nsukka. Results show that more than half of the women reported low information-seeking opportunities. Respondents aged 26–35 reported higher information-seeking opportunities than their counterparts aged 14–25 and 36–45. Household factors scored higher (r=.981) than all other opportunity dimensions raised in the study. Finance ranked first as the factor negatively affecting information-seeking opportunities. We conclude that the influence of economic status, household opportunities and the number of children in a household highlight the link between the need for population controls, family health support initiatives, and women's health.

Key words

health, information, opportunities, women, Nsukka

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Introduction

Over time, studies have indicated wide disparities in the level of access and use of health information by various individuals and groups (Abel & Frohlich, 2012; Gagnè, Ghenadenik, Abel & Frohlich, 2018; Osamor & Grady, 2018; Wang, Viswanath, Lam, Wang, & Chan, 2013). Several studies also indicate that women have a greater tendency than men to seek health information (Gollop, 1997; Nangsangna & Vroom, 2019; Wang et al., 2013). However, due to demographic, personal, and cultural factors in many developing countries, the likelihood that a woman will eventually obtain the health information she needs seems to be inversely related to the desire for such information (Bustreo, 2015; Ononokpono & Odimegwu, 2014; Osamor & Grady, 2018). For instance, child rearing, age, access to media and hospitals, income, and spousal attitudes may affect the possibility of access to health information. There is a growing link between women's susceptibility to health risk factors and women's opportunities to seek health information in Nigeria (Bustreo, 2015; Ononokpono & Odimegwu, 2014).

The World Health Organization (WHO, 2019) observes that living circumstances and environments are more decisive in determining the health of individuals and communities than actual information access and use. The present study thus focuses on the socio-cultural determinants of health information opportunities among women. Studies on health information seeking have explored terms such as information autonomy and decision-making autonomy as factors of health behavior (Bourdieu, 1986; Gagnè et al., 2018; Ononokpono & Odimegwu, 2014; Sorensen et al., 2012; Wang et al., 2013).

However, we posit that while information autonomy can be viewed as an absolute state, information opportunity is a broader term that explains the reasons for, or steps to, information autonomy. Information opportunity can also be explored as a non-drug measure, which can contribute significantly in reducing maternal morbidity and mortality rates in Nigeria. This is in view of nationwide problems of the inadequacy of health facilities, their irregular use, shortage of (qualified) medical personnel, sickness complications, and inaccurate diagnosis (Ononokpono & Odimegwu, 2014). Unfortunately, the country has experienced alarming rates of preventable maternal morbidity (illnesses) and mortality as can be seen from Tables 1 and 2. The maternal mortality ratio (MMR) for Nigeria is 814 per 100,000 live births, one of the highest in the world (Ntoimo et al., 2018). As used in the study, the term "health information opportunity" refers to the relative extent to which women have the chance to access health information, how they ini-

tiate/create the chance to obtain health information, how they are allowed the chance to access information, and how they use information about health. This is in the context of women's position in the family as low-income subordinates in the African context, where many factors determine the decisions and opportunities open to women (African Population and Health Research Center, 2017). In the study, we classified the socio-cultural factors affecting women's health information opportunities into demographic, cultural, personal/individual, facility-related, and social factors. Social factors were further subdivided into interpersonal, media, and household factors. The subdivisions were construed as social agents, which are more open to the control of individuals than facility-related and cultural factors, which are respectively less easy to control and more normative.

Information opportunities obtain at the basic level of health information seeking, where questions should be asked about the likelihood that a person will have access to information (Gagnè et al., 2018). This is the crux of the United Nations Sustainable Development Goal 5, which seeks to entrench gender equality as a way to improve on women's opportunities to take responsibility for their health and other issues (Bankole et al., 2015). Studies show that information autonomy, freedom to seek information, and financial freedom are important factors in healthcare use among women (Fikree & Pasha, 2004; Ononokpono & Odimegwu, 2014; Osamor & Grady, 2018; Singh, Singh, Singh, & Pathak, 2014).

Table 1
Causes of Maternal Deaths in Nigeria

Heavy bleeding	23%
Infection/sepsis	17%
Unsafe abortion	11%
Toxemia/eclampsia	11%
Obstructed labor	11%
Malaria	11%
Anemia	11%
Other causes	5%

Other causes of maternal deaths are given in Table 2 below, which also summarizes maternal death incidences/prevalence (generally) relative to types of sickness. The data were sourced from different studies (Adeloye, Basquill, Aderemi, Thompson, & Obi, 2015; Adinma, Umeononihu, & Umeh, 2017; Akarolo-Anthony,

Willett, Spiegelman, & Adebamowo, 2014; Bankole et al., 2015; Dahiru, Aliyu, & Shehu, 2016; Morounke et al., 2017; Obinna, 2017; Ogundipe, 2017; Premium Times, 2019; WHO, 2016; WHO, 2017).

Table 2
Sickness to Death-Prevalence Rate

Type of Sickness	Death Rate	Prevalence
Cancers	Cervical: 1 woman per hour, Breast cancer: 40 women daily	Cervix - 34.5% per 100,000 women; Breast - 54.3% per 100,000 women
High Blood Pressure	125,000 annual deaths	25.2% of the 20.8 million cases
Diabetes	2% of all maternal deaths	4.3%
Arthritis	6.9 deaths per 100,000 cases	More than 50 million adults at 12.3% prevalence

Note. Most of the data on maternal mortality and morbidity rates are from 2008 to 2013, which was the last span of the National Demographic and Health Survey published in Nigeria. The 2018 version was yet to be released at this writing. However, data comes from studies carried out at different times between 2008 and 2017.

From Health Information-seeking Behavior to Health Information-seeking Opportunities

Health information-seeking behavior (HISB) describes the different behavioral dispositions of individuals toward seeking and identifying information related to healthcare, health risks, and health-protective behaviors (Jacobs, Amuta, & Jeon, 2017; Lambert & Loiselle, 2007). Surveys and in-depth interviews are often adopted in HISB studies to ask respondents to self-report their general information-seeking habits, sources for, contents of, and constraints on information seeking, and the health information preferences of patients with different conditions (e.g., cardiovascular, infectious) (Marton & Wei, 2012). Many such studies have made useful findings on the importance of health information as well as factors influencing health information-seeking behavior (Jacobs et al., 2017; Lambert & Loiselle, 2007; Li & Hu, 2012; Marton & Wei, 2012). However, these studies did not consider health information seeking as a function of health information opportunities.

Generally, HISB is subject to unequally-distributed health-promoting opportunities and resources (Gagnè et al., 2018; Wang et al., 2013). Research shows that

social factors are important predictors of health disparities, some of which are linked to health information (Bourdieu, 1986; Gagnè et al., 2018; Viswanath, 2006; Viswanath et al., 2012; Wang et al., 2013). Citing other authors (Marmot, 2005; Viswanath, 2006) Wang et al. (2013, p. 3) define inequalities in health communication as "the difference in accessing, seeking, processing and acting on information by different groups in a society."

For instance, most studies on disease prevalence among Nigerian women indicate disparities in information awareness, knowledge of health risk factors and health status, and susceptibility to chronic illnesses and deaths (Adeloye et al., 2015; Balogun, Odukoya, Oyediran, & Ujomu, 2012; Bello, 2013; Bustreo, 2015; Obinna, 2017; Ogundipe, 2017; Uchendu, 2008). Researchers further observe that women experience higher morbidity and mortality rates than men because too many of them (women) do not get the opportunity to be educated, provide self-support, or obtain the health services they need (Bustreo, 2015; Ntoimo et al., 2018; Obinna, 2017). Although the numerous women's groups throughout Igboland, such as *Umuada*, usually engage in social work designed to alleviate the sufferings of less privileged, sick, and aged women, their efforts are still limited by the opportunities they have as women (Amaechi & Muoh, 2018).

Even health literacy, which is a core determinant of health behavior, is itself determined by contextual and societal forces which limit or boost health information opportunities (Gagnè et al., 2018; Sorensen et al., 2012;). A study by Gagnè et al. (2018, p. 1) shows that unhealthy behavior among young adults such as smoking, sedentary lifestyle, unhealthy eating, alcohol abuse, and sexual promiscuity are unequally distributed, "with higher rates evidenced among the socioeconomically disadvantaged." The WHO (2019) notes that rather than blaming individuals for having poor health or praising them for good health, researchers should instead focus on contexts that determine health status. Consequently, studying the contextual determinants of health information seeking is fundamental to understanding the disparities in people's capacities to adopt healthy behavior (Gagnè et al., 2018; Sorensen et al., 2012).

Specifically, the factors or contexts include (Gagnè et al., 2018, p. 391) "social (resources accessible through social networks based on principles of recognition and reciprocity), economic (financial and material resources) and cultural (i.e., knowledge, skills and preferences accumulated through socialization in the family and school environments) capitals for avoiding health-deterring behavior." As argued by Abel (2007, as cited in Gagnè et al., 2018, p. 391):

> Inequalities in health literacy could be understood as the result of unequal chances to acquire socially-valued knowledge (values, norms and preferences related to health information) through friends, peers, education and media. This knowledge provides individuals with different capacities to use health information directly and indirectly through the application of other forms of capital (e.g., buying and reading books, access to support groups), and ultimately contributes to the reproduction of social inequalities in health.

The present study categorizes the socio-cultural factors as follows: Demographic factors (age, education, marital status, the number of children in a household, socio-economic status), cultural factors (customs, cultural values, lifestyle), individual/personal factors (women's individual efforts and initiatives, knowledge of health risk factors), facility-related factors (use of healthcare services, access of hospitals, availability of time, and availability of experts) and social factors, subdivided into (1) household factors (influences of spouses and family members), (2) media factors (women's exposure to information sources and influences of the media), and (3) non-familial interpersonal factors (influence of friends, religious teachers, faith doctors, herbal healers, and professional healthcare providers). Significant opportunities to seek and to use quality information may reduce exposure and susceptibility to morbidities and comorbidities in women, who do not just care for themselves health wise, but also for their girl children (Bello, 2013). This study focuses on a micro unit of Nigeria's health and demographic system —Nsukka—which is among the localities not covered in the national demographic and health surveys.

Theoretical Perspectives

Many theories of health information seeking focus mainly on behavioral intention, perceived benefits of health actions, demographic influences, individuals' cognitive and psychological attributes, and behavioral control (Lalazaryan & Farashbandi, 2014; Lambert & Loiselle, 2007). As a result, studies on HISB use mainly expectancy value theories (e.g., planned behavior and health belief models), which, based on socio-demographic factors, relate user expectations with information use (Baran & Davis, 2012; Lalazaryan & Farashbandi, 2014). Many studies using the theories associate the disparities in health information seeking with demographic variables (Barakat & Kasemi, 2020; Carlucci, D'Ambrosio, &

Balsamo, 2020; Corcoran, 2007; Lambert & Loiselle, 2007). The present study examines women's health information-seeking opportunities in the light of demographic factors and hypothesizes as follows:

H1: Demographic factors are significantly associated with health information-seeking opportunities.

Furthermore, in line with the observations of the WHO (2019), the present study explains other contexts that impel lifestyle, which are often beyond the control of individuals. Information seeking is a behavioral component, which can be studied and which often implies existing behavior. Importantly, however, information opportunities can exist at ground zero, making it not only a component of HISB, but also a health risk factor (Bustreo, 2015; Osamor & Grady, 2018). Therefore, any attempt to address health issues related to information should not only consider individuals' cognitive and psychological attributes and sources of information, but also the opportunities people have or the contexts within which people seek information (Gagnè et al., 2018; Nangsangna & Vroom, 2019; Sorensen et al., 2012; Viswanath et al., 2012; Wang et al., 2013).

Accordingly, Moorman and Matulich's (1993) model of consumers' preventive health behaviors views health information seeking as a preventive behavior conditioned by many "health ability factors," one of which is "health locus control." The latter refers to whether a person believes that they can internally control their own health or whether it is determined by external factors (Campbell, 2009; Shieh, Broome, & Stump, 2010). Nomura, Ohno, and Ishikawa (2007) report that external factors (such as religious beliefs and trust in health professionals) are more likely to cause passivity in health information seeking. Shieh et al. (2010) found that pregnant women were more likely to believe that the wellbeing of their fetus depended more on external factors than on their self-efficacy—i.e., confidence in their ability to control what happens to their unborn babies. They also found that pregnant women with low health literacy were more likely to show greater trust in powerful others (e.g., health professionals) and this negatively affected the level to which they were willing to seek more information for the health of their fetus. The present study therefore hypothesizes that:

H2: Cultural factors significantly predict information-seeking opportunities.
H3: Social factors are significantly associated with health information seeking.

H4: Personal and facility-related factors are associated with information-seeking opportunities.

Similarly, the knowledge gaps hypothesis attempts to explain the process of knowledge distribution in society and the influences of the media on the process. The theory links socio-economic factors and media access with knowledge disparities, implying that as the media transmit information to society, those at the higher socio-economic level (who have more media access) tend to get information faster than those at the lower socio-economic level, leading to a wider knowledge gap (Tichenor, Donohue, & Olien, 1970). Studies indicate that people with higher educational and economic levels have higher communication skills, more information access/contact, more stored information and higher information and media literacy (Tichenor et al., 1970).

The knowledge gap theory therefore has an information opportunity perspective. As a result, health information-seeking behavior will primarily be determined by the opportunities open to people to seek information. We argue that such opportunities start from knowledge that (absence of) health information is in itself a risk factor. The present study therefore attempts to ascertain the extent to which women in Nsukka, Southeast Nigeria, have the chance to access health information as well as the factors influencing the health information opportunities of women in the area. The study also addresses the following hypothesis:

H5: Health condition is significantly associated with sources of health information

Study Context

As of 2018, women constituted 51.8% (713, 286) of the total population of 1,377,001 in Nsukka Local Government Area, a political and cultural zone in Enugu State, Southeast Nigeria (Ezema, 2016; Ugwu, 2018). According to Ugwu (2018, p. 85):

> Nsukka Local Government Area is in Enugu North senatorial zone of Enugu state in the Southeast part of Nigeria. It is made up of eleven rural communities-Nsukka Town which is the headquarters, Obukpa, Obimo, Alor Uno, Ibagwa-Ani, Okpuje, Okutu/Anuka, Lejja, Eha-Alumona, Ede-Oballa and Opi. Nsukka is bounded by Kogi State in the North [Figs.

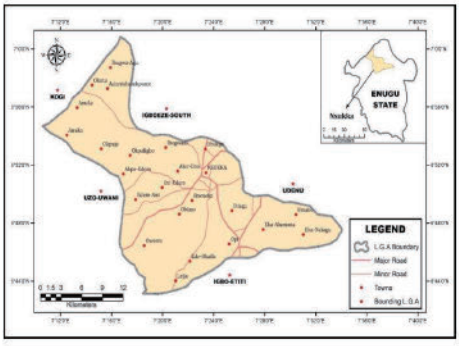

Figure 1. Map of Nsukka. Adapted from the Department of Geography, University of Nigeria, Nsukka as first uploaded by Raymond Taziwa (2018).

Figure 2. Nsukka Environs from 2019 Google Maps at https://nsukkaigbonation.com/map

1 & 2]. The headquarters is a University town. This educational institution has impacted positively on the communities and beyond especially on the younger generation. The main occupation is farming and petty trading. Nsukka women are very industrious and hardworking as they are confronted by challenges of family responsibilities and survival.

Nsukka is mainly populated by the Igbo ethnic group, one of the three major ethnic groups in Nigeria, the others being Hausa and Yoruba. Though slightly less developed than many state capitals in Nigeria, Nsukka is one of the fastest-growing urban areas in Southeast Nigeria, with women experiencing continually increasing stress levels, nutrition problems, and exposure to health risk factors (Ugwu, 2018). Researchers have therefore underscored the need to examine women's health information access in Nsukka (Ezema, 2016; Taziwa, 2018; Ugwu, 2018). As host of the University of Nigeria, the nation's premier university and one of the largest institutions in West Africa, Nsukka, as an urban center, still has many agrarian suburbs and lacks basic amenities, including good local roads, well-equipped health facilities, a regular power supply, and modern libraries (Ugwu, 2018). Nsukka is home to two radio stations, the university's *Lion FM* and a Federal Radio Corporation of Nigeria-owned *Voice FM*. There are three government-owned hospitals and seven private hospitals. There is also a cluster of small private clinics and maternity units, while each of the surrounding rural areas has at least one government-owned health center (Ukonu, Anorue, & Uji, 2016).

Ezema (2016) found that the main reproductive health information needs of

women in Nsukka were related to infertility, use of contraception, abortion, prevention of sexually transmitted diseases, antenatal care, and postnatal care. The study recommended improved information access through new technologies, rural libraries, and literacy campaigns. While these may boost health information access, they may not automatically address some of the factors that affect its use. The present study attempts to ascertain the opportunity factors that impinge on efforts to boost women's access to health information in Nsukka.

Methods

The study adopted a survey method, which was conducted in four main primary hospitals used by the residents of Nsukka, namely, (1) General Hospital, Nsukka, (2) Bishop Shanahan Hospital, Nsukka, (3) University of Nigeria Medical Center, Nsukka, and (4) Health Center, Nsukka. Approvals were secured from the hospitals' ethics committees and, in some cases, the Chief Medical Director. The four hospitals are the biggest primary healthcare centers used by Nsukka as a socio-cultural area. The hospitals, within their capacities and limitations, are attested to as the best equipped within Nsukka (personal interview).

The first of these hospitals is a state government-owned hospital, where government-sponsored health screening for women often takes place. The second is a private hospital owned by the Catholic mission in Nsukka and largely attended by locals around the area, especially those in remote areas, for whom it serves as a referral hospital. The third hospital is owned by the University of Nigeria, Nsukka and attends to the university community. The fourth is a state-owned hospital, specializing in maternal care and also offers free medical services for women.

Women visiting hospitals were selected because data for the study would best be offered by those in the frame of either illness or maternity care. This helped to obviate the problem of recall bias that may arise when questions relating to communications with the doctor are asked women who did not consult a doctor. Respondents were all the reproductive-age women met at the out-patient departments of the hospitals and those who had been admitted. Altogether, a total of 591 women were contacted in the four hospitals, distributed as shown in Table 3. Approximately 53% and 21% of the women were on antenatal and immunization visits respectively. The rest were in-patients.

Table 3
Respondent Distribution by Hospital

S/N	Hospital	Respondents	%
1	General Hospital	145	24.5
2	Bishop Shanahan Hospital	147	24.9
3	University of Nigeria Medical Center	142	24
4	Health Center	157	26.6
5	**Total**	**591**	**100**

The research team visited each of the selected hospitals from 8 am to 4 pm, Monday to Friday, for a two-week period in May 2019. The questionnaire served as the instrument for data collection. Three research experts validated the questionnaire; its reliability was verified using a test re-test approach and a coefficiency value of 0.78 was realized.

In order to measure information-seeking opportunities, the respondents were simply asked to indicate whether the opportunities they have in seeking health information were "high" or "low." Factors considered in the study to have influence on information-seeking opportunities were demographic factors, cultural factors, interpersonal (non-familial) factors, and opportunity-level factors (household factors, media factors, personal factors, and environmental factors). While demographic variables were measured with nominal scales, others were measured using ordinal scales calibrated as follows: very large extent－5; large extent－4; moderate extent－3; low extent－2; not at all－1.

Statements relating to cultural factors were posed as: "It is our culture to consult traditional sources of treatment at the time of an illness"; "It is customary in my community to seek the origins of an illness through traditional sources." Personal or individual factors as a variable were tested with statements such as: "I make a personal effort to acquire health information"; "I have consulted a specialist doctor"; "I am knowledgeable about my health condition." Statements such as the following were used to test facility-related factors: "I have access to hospitals." Respondents were also asked to rank facility-related factors (use of healthcare services, access of hospitals, availability of time and availability of experts) according to how they were seen as important to accessing health information. Social factors (e.g., interpersonal factors) were addressed with statements such as: "My doctor asked me questions relating to my lifestyle"; "my religious teacher helps in deciding my health information choices"; "I usually inquire about healthcare information sources from friends." Statements relating to household factors were posed as: "My

spouse is a significant factor in what I know about my health"; "access to healthcare information in my home is dependent on the resources provided by my spouse"; "I cannot spend my own money to seek health information without my spouse's approval." Media factors were tested with statements asking respondents to list the main sources of information on different medical conditions.

Correlation analysis was used to examine the association between information-seeking opportunities and the social-cultural variables such as demographic factors, cultural factors, interpersonal factors, facility-related factors, and social factors. Means and standard deviation were used to rank the negative influencers of information-seeking opportunities. The demographic factors were age (15–25, 26–35, 36–45), occupation (civil service, business, no occupation), number of children (1–4, above 4), educational level (no formal education, primary, secondary, tertiary) and marital status (married, never married, widowed, divorced). Data analysis was carried out using SPSS version 23.

Results

A total of 573 copies of the questionnaire were considered fit for analysis out of a total of 591 copies administered to the respondents. There was a 97% validity rate. This high response rate may be attributed to the fact that the instrument was administered and retrieved immediately due to the temporary nature of the women's stay in the hospitals. The mean age of the respondents was 41 years (range 36–45). Most of the respondents were married. This could be attributed to their age because in Africa, as may be the case elsewhere, most people in their 20s are married. The respondents were mostly people of low educational status, ranging from no formal educational level to primary level, and the majority were petty traders, typical of the Igbo people of the area who are mostly traders. Most of the samples reported having between 1–4 children. The majority (69.2%) of respondents reported that they did not have the freedom in their homes to take full responsibility for their healthcare. However, 72.1% indicated that they made an effort to seek information about their health. A little more than half (53.7%) indicated that their spouses were significant factors in the actions they (the women) took about their healthcare, and another 48.3% said that they would have more opportunity to access health information if their spouses provided the funds.

Approximately 22% indicated that they depended on resources (such as the internet and pay television access) provided by their spouses to access information generally, not only health information. However, 92% said their spouses did not

have any negative effect on their health awareness and care. The majority (61%) of the respondents reported that they belonged to low-income households. Analysis of the relationships between the respondents' demographic attributes and information-seeking opportunities is presented in the table below:

Table 4
Relationship between Demographics and Information-seeking Opportunities

	Item	*R*	*p*.value	Decision
1	Age	.701*	0.001	Sig
2	Educational level	.987*	0.001	Sig
3	Marital status	.723*	0.001	Sig
4	Occupation	.879*	0.001	Sig
5	No. of children	.671*	0.001	Sig

The essence of the table above was to ascertain the association between demographics like age, educational level, marital status, and number of children and the information-seeking opportunities of the respondents studied. The results show that all the demographics are significantly associated with information-seeking opportunities. Therefore, the first assumption was supported and the researchers conclude that demographics are significantly associated with information-seeking opportunities. In particular, women aged 26–35 reported higher information-seeking opportunities while their counterparts aged 14–25 years reported lower health information-seeking opportunities. Also, respondents with tertiary education reported higher information-seeking opportunities than their counterparts with no formal education. Seventy-three percent (73.2%) of the higher education women were found at the University of Nigeria Medical Center. Also, civil servants reported higher information-seeking opportunities than other occupational categories. Married women and those with four (4) children or fewer reported higher information-seeking opportunities.

Table 5
Cultural Determinants and Information-seeking Behavior

	Item	*R*	*p*.value	Decision
1	Customs	.901*	0.001	Sig
2	Lifestyle	.785*	0.001	Sig
3	Cultural values	.628*	0.001	Sig
4	Income	.809*	0.001	Sig
5	Education	.809*	0.001	Sig

In Table 5 above, the researchers sought to ascertain the relationship between cultural factors and information-seeking opportunities. The results show that they were significantly associated. Therefore, the second assumption was supported. Civil servants were more likely to have information opportunities than either business people or people with no occupation. Income was also associated with information opportunities, where more than half of the respondents reported not having financial autonomy, which significantly affected their chances and initiative to seek information on health. Financial autonomy was also less likely to affect women with tertiary-level education.

Table 6
Relationship between Social Factors and Health Information Seeking

	Item	*R*	*p*.value	Decision
1	Interpersonal factors	.801*	0.001	Sig
2	Household factors	.981*	0.001	Sig
3	Media factors	.723*	0.001	Sig

In Table 6, the researchers sought to ascertain the association between opportunity-level factors and health information seeking. It was found that all four dimensions of opportunity significantly correlate with health information seeking. Therefore, the third assumption was supported and the researchers conclude that opportunity-level factors are significantly associated with information-seeking behavior. Comparatively, household opportunities scored higher (r =.981) than all the other dimensions.

Table 7
Personal and Facility-related Factors and Information-seeking Behavior

	Item	*R*	*p*.value	Decision
1	Personal factors	.701*	0.001	Sig
2	Facility-related factors	.881*	0.001	Sig
3	Information-seeking opportunities	.783*	0.001	Sig

In Table 7 above, the researchers sought to ascertain the relationship between personal and environmental factors and information-seeking opportunities, and found that they were significantly associated. Therefore, the fourth assumption was supported. Domestic autonomy, health information awareness, access to health facilities, and knowledge of health condition significantly affect the chances of the women in seeking health information.

Table 8
Health Condition and Sources of Information

	Item	*R*	*p*.value	Decision
1	Health condition	.708*	0.001	Sig
2	Sources of information	.981*	0.001	Sig

In Table 8 above, the researchers sought to ascertain the relationship between health condition and sources of information, and found a significant correlation. Therefore, the last assumption was also supported. To examine each of the health conditions relative to the sources of information, a correlation matrix was used and the result is presented in Table 9 below.

Table 9
Correlation Matrix between Health Condition and Sources of Information

Sources of info. / Health Cond.	Family and Friends	Mass Media	Social Media	Book	Place of Worship	Trained Doctor	Herbal Healer
Pregnancy	.608*						
Cancer	.677	.763*					
High Blood Pressure	**.675**	.677*	.567				
Stress Factor	.678	.786	.786*	.681*			
Diet and Nutrition	.567*	.576	.786	.576	.898	.678*	
Diabetes/Arthritis	890*	.675	.563	.465	685*	.786*	.987*

The correlation matrix above was computed to ascertain the association between the individual health conditions and sources of information. The women were more likely to get information on pregnancy-related health conditions from family and friends, while the mass media were more likely to be the sources for cancer-related issues. Information on high blood pressure was received more from family, friends, and the mass media, while information on stress factors came more from books and social media. Also, information on diet and nutrition was acquired from family and friends as well as trained medical doctors. Information on diabetes and arthritis was obtained from places of worship, medical doctors, and herbal healers.

The bar chart above (Figure 3) presents the results of the overall information-seeking opportunities of women measured on a scale of "low" and "high," with the majority of the women (70.5%) reporting low information-seek-

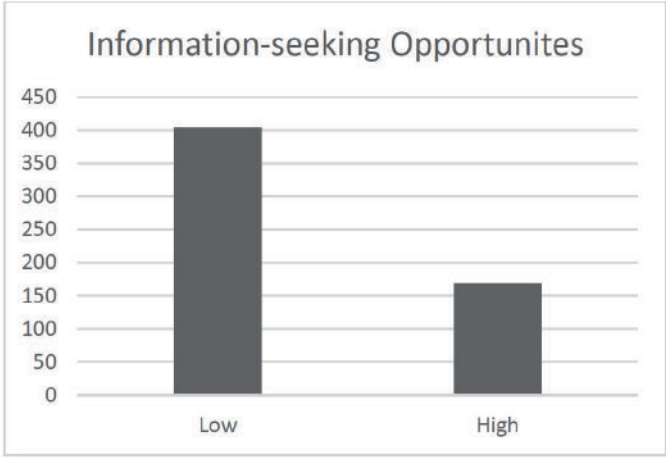

Figure 3. Information-seeking Opportunities

ing opportunities. The respondents were requested to rank items regarded as negative influences on their information-seeking opportunities. The results of the ranking are presented in the following table.

Table 10
Respondents' Ranking of Negative Influencers of Information-seeking Opportunities

	N	Mean	Std. Deviation		Skewness
	Statistic	Statistic	Statistic	Statistic	Std. Error
Finance	573	6.8	2.7	-1.656	.102
Time	573	5.3	2.7	-.379	.102
Religious beliefs	573	5.1	2.7	-.266	.102
Advice from religious teachers	573	4.8	2.8	-.029	.102
Spousal attitudes	573	4.9	2.7	.069	.102
Availability of experts	573	4.4	2.8	.157	.102
Advice from friends	573	4.2	2.6	.296	.102
Valid N (listwise)	573				

The table above (Table 10) shows in descending order the ranking of negative influencers on information-seeking opportunities. As may be seen from the table, finance ranked first followed by time, religious belief, advice from religious teach-

ers, spousal attitudes, availability of experts, and advice from friends in that order. This coincided with an earlier indication that the majority of the women reported finance as a major problem and that they were more likely to come from the lower economic class.

Discussion

The study examines the socio-cultural determinants of information-seeking opportunities among women in Nsukka, Southeast Nigeria. It seeks to promote non-drug based, pre-sickness health solutions against a backdrop of Nigeria's critically ailing health system.

We found that information-seeking opportunities among women in Nsukka were low. Although all the opportunity dimensions were associated with information-seeking opportunities, household opportunities scored higher (r=.981) than all the other dimensions. Household factors such as the influence of husbands and poor information autonomy negatively affected the chance and initiative to access health information. The difference between reported low information opportunity and the high number of those who made an effort to seek information about their health shows that household autonomy may be an obstacle to that self-conscious effort (Bustreo, 2015; Ezema, 2016; Ugwu, 2018). This corroborated an earlier mentioned inverse relationship between women's proven high tendency to health information seeking and the likelihood that they will eventually obtain the information they need (Jacobs et al., 2017; Wang et al., 2013).

Curiously, the majority of the women reported that their spouses did not have any negative influence on their (women's) effort to seek health information despite also reporting significant dependence on them (their spouses) for financial help to obtain that information. This could imply an appreciation of the help already being offered by the men. Another implication is the cultural belief in many parts of Nigeria that men should make key decisions on healthcare for everyone in the family, thus limiting women's opportunity for self-support (Bustreo, 2015; Ononokpono & Odimegwu, 2014; Osamor & Grady, 2018). The foregoing supports the findings of other studies, which found disparities between men and women in health-promoting opportunities and resources (Gagnè et al., 2018; Marmot, 2005; Ononokpono & Odimegwu, 2014; Osamor & Grady, 2018; Viswanath, 2006; Wang et al., 2013).

Demographics were significantly associated with information-seeking opportunities.

While younger women had lower information opportunities, those with higher educational attainments were more likely to have higher information opportunities. Younger women still bear the burden of child-rearing and this may explain their lower information opportunities than women with fewer than four children. Therefore, the association between marital status/number of children and information-seeking opportunities points to the fact that population controls may be needed to increase women's information-seeking opportunities.

These findings correspond with other studies which found that demographic attributes such as age, gender, education, and marital status were linked with (women's) information autonomy (Gagnè et al., 2018; Gollop, 1997; Jacobs et al., 2017; Tichenor et al., 1970; Wang et al., 2013). Wang et al. (2013, p. 4) found that "being female, increasing age, never-smoking and physically active were associated with frequent health information seeking."

The present study also found that health information awareness, access to hospitals, and knowledge of health condition significantly affect the chances women have in seeking health information. The result aligns with other studies which found that cultural capital such as higher education was associated with the likelihood of individuals seeking information from multiple sources (Abel, 2007; Gagnè et al., 2018; Moorman & Matulich, 1993). Similarly, Shieh et al. (2010) found that low health literacy was linked with the likelihood that pregnant women will depend on "powerful others"' to care for their unborn babies instead of depending primarily on their self-efficacy. The present study upholds the suggestion by Shieh et al. (2010, p. 436) that when developing interventions to facilitate low-income women's health information seeking, "increasing their self-efficacy may need to be the first priority." The authors point to studies (Campbell, 2009), which reported successes with some efforts to increase the information-seeking self-efficacy of minority women such as the respondents in the present study. They also suggest that skills (impacting a sense of control over one's health) are needed to overcome barriers such as financial constraints in self-efficacy interventions.

Apart from alerting women to health threats and risk factors, improving information consciousness and autonomy would boost information-seeking opportunities, especially the capacity of women to consciously work on individual and household factors affecting those opportunities. The women may have less capacity to influence environmental conditions such as access to hospitals. However, higher information opportunities and information-seeking habits may reduce susceptibility to health risk factors and actual morbidities, because health measures

will be taken before the onset of illness. Knowledge gaps can be bridged through information alerting people to threats such as poor lifestyle (Tichenor et al., 1970).

Type of occupation was associated with information opportunities, with finance foremost among household factors predicting information opportunities. Financial autonomy was also less likely to affect women with tertiary-level education, further corroborating Moorman and Matulich's (1993) model on the effects of economic and cultural capital on consumers' preventive health behaviors. Similarly, Gagnè et al. (2018, p. 397) found that economic capital leads to "higher odds of seeking information sources outside the family."

The study found that respondents used multiple sources of information. Apart from the finding that health condition and sources of information significantly correlate, the study also aligns with others reporting multiple sources of information and disparities in how they are distributed (Gagnè et al., 2018; Jacobs et al., 2017; Wang et al., 2013). Family and friends scored higher than other sources of information seeking. This finding also supports studies reporting the declining role of the mass media as primary sources of health information (Jacobs et al., 2017; Wang et al., 2013). However, while the present study found that respondents looked more to the mass media for information related to cancer, Jacobs et al. (2017) found that health professionals were the primary sources of information on chronic diseases such as cancer. The reliance on friends and family may be explained by the low literacy and income level of the majority of respondents in the present study. This may also account for why social media and the internet did not play significant roles as sources of information despite their rise as reported in some studies on HISB (Gollop, 1997; Jacobs et al., 2017; Marmot, 2005; Viswanath, 2006).

Although the study aimed to reach out to minority women who are rarely covered in national health surveys, the limited nature of the study population also makes its findings not generalizable to every woman in Southeast Nigeria. Future studies can relate information opportunities to specific illnesses and/or women of given socio-economic groups such as working-class women in Nigeria. Comparative studies involving other minority groups in the Southeast or other regions of the country are necessary to highlight the information-seeking opportunities in these areas since health needs are similar across Nigeria, where the health system is generally in crisis.

Conclusion

The study found low health information-seeking opportunities among women in Nsukka. This correlated with the low literacy level of the majority of respondents. The influence of economic status, household opportunities, and the number of children in a household tended to show the importance of the influence of familial conditions on information-seeking opportunities. The factors also highlighted the link between the need for population controls, family health support initiatives, and women's health. A majority of women who had more than four children also reported having a lower chance of seeking health information.

The danger of relying more on family and friends than on health professionals has been reported in several studies (Ononokpono & Odimegwu, 2014; Osamor & Grady, 2018). Government and women's groups should launch family support initiatives to boost women's domestic autonomy, health information awareness, and financial autonomy, and highlight the best ways to use health information from family and friends. Indeed, information opportunities open up a vista of concerns that make it worth studying as a health issue and as a health risk factor. However, if significantly boosted, information-seeking opportunities may become a cost-effective, non-drug measure that can considerably offset the challenge of access to health facilities and services by women in Nsukka, Nigeria.

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