

Health information-seeking behaviour of pregnant women at the University College Hospital, Ibadan, Nigeria

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Abstract

Background: Health information is a vital aspect of antenatal care. Health seeking behaviour is largely influenced by the availability, accessibility and reliability of such information. In resource-poor nations, there exist strong inclinations to informal sources of information which may pose a threat to accessing qualitative health care.

Methods: A descriptive cross sectional survey of pregnant women attending the ante-natal clinic of the University College Hospital, Ibadan between 1st of September, 2015 and 30th April, 2016. Data collection was via a structured questionnaire which was then analyzed. Descriptive statistics were generated and presented as frequency tables, bar and pie charts.

Results: One hundred and one pregnant women participated in the study. A significant proportion (95.1%) was literate. The mean age of the participants was 32.04 ± 2.34 years. Books and magazines such as "Baby Wise, and The Mama's Natural Guide to Pregnancy and Childbirth" were the most sought after sources of formal information (96 respondents) while the internet (65 respondents) was the more popular source for daily information. While information from health workers especially the physician was the most valuable, attitude of these health care givers was the most important limitation to seeking health information.

Conclusion: With the increasing availability of internet services in Nigeria, a paradigm shift has become inevitable with our findings of about 65% of patients visiting the internet on a daily basis. There is therefore a need to develop a friendly and accommodating atmosphere for seeking health information at various antenatal health posts in Nigeria.

Keywords: *Health information, Behaviour, Antenatal care, Nigeria*

Abstrait

Contexte : L'information sur la santé est un aspect essentiel des soins prénatals. Le comportement de recherche de santé est largement influencé par la disponibilité, l'accessibilité et la fiabilité de ces informations. Dans les pays pauvres en ressources, il existe une forte inclinaison aux sources d'informations informelles ce qui peut compromettre l'accès à des soins de santé de qualité.

Méthodes : Une étude transversale descriptive des femmes enceintes fréquentant la clinique anténatale du Collège Hospitalier Universitaire, Ibadan entre le 1^{er} Septembre 2015 et le 30 Avril 2016. La collecte des données a été au moyen d'un questionnaire structuré qui a ensuite été analysé. Des statistiques descriptives ont été générées et présentées sous forme de tableaux de fréquences, de diagrammes à barres et à secteurs.

Résultats : Cent et une femmes enceintes ont participé à l'étude. Une proportion importante (95,1%) était alphabète. L'âge moyen des participants était de $32,0 \pm 2,3$ ans. Les livres et magazines tels que 'Sensation de Bébé, et le Guide naturel de la grossesse et de l'accouchement de Maman' étaient les sources d'informations officielles les plus recherchées (96 répondants), tandis que l'internet (65 répondants) était la source d'information quotidienne la plus populaire. Bien que les informations fournies par les agents de santé, en particulier le médecin, soient les plus utiles, l'attitude de ces prestataires de soins de santé était le principal obstacle à la recherche d'informations de santé.

Conclusion : Avec la disponibilité croissante des services internet au Nigéria, un changement de paradigme est devenu inévitable avec nos résultats concernant environ 65% des patients visitant l'internet de manière quotidienne. Il est donc nécessaire de créer une atmosphère amicale et accommodante pour rechercher des informations sur la santé dans divers postes de santé prénatals au Nigéria.

Mots-clés : *Information sur la santé, Comportement, Soins prénatals, Nigéria*

Introduction

Information is an important asset required for decision making in all areas of human endeavor. The quality of decision made by people may be related

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to the type of information available to them [1]. For individuals to make informed decision regarding their health; it is important for them to have access to adequate health information when in serious health situations [2].

Unfortunately, evidence has shown that women in developing countries have limited access to adequate health information sources, especially during and after pregnancy [3,4]. This usually limits their ability to make informed decision about their health, navigate complex health systems and can also result in poor maternal and child health outcomes [5].

Previous studies in Nigeria have also reported inadequate access to pregnancy-related health information by women. A survey by the Federal Ministry of Health and Johns Hopkins-Jhpiego revealed that over 60% of Nigerian mothers are not aware of available maternal health services, as well as safe practices to adopt for safe transition to motherhood [6-10]. As a result, they are unable to make informed choices about their health. They end up engaging in risky health behaviours that are based on myths, taboos and religious beliefs [4,9,11]. This health seeking behaviour poses a threat to the health of pregnant women in Nigeria.

To improve women's reproductive and infant health outcomes, an understanding of health information-seeking behaviours and barriers to accessing health information among pregnant women can possibly moderate the consistent negative correlations between health information poverty, and negative maternal and child health outcomes in Nigeria. Although there exist some research on the information sources consulted by pregnant women in Nigeria there has been limited exploration of pregnant women's health information seeking [1,4]. There is lack of comprehensive information on health information seeking behaviour of pregnant women as well as information sources they consult to meet their health information needs. Therefore, this study examined the information sources pregnant women registered at the first tertiary health facility in Nigeria, consult for their health information needs. This was with the intention to identify the most accessed, most reliable and preferred source of health information. This would provide important information on effective strategies for health information dissemination to mothers and to improve women's management of health issues in pregnancy.

Literature Review

Evidence from literature indicates that pregnant women seek information from both formal and

informal sources [12,13]. Informal sources of information consulted by pregnant women for their health information needs are newspapers, friends and family. The formal sources of information consulted during pregnancy include doctors, midwives, antenatal classes to a number of sources such as book, and some health sites (WHO, BabyCenter, Mayo Clinic etc.) on the Internet.

A cohort study [14] on the preferences for sources of health information of first-time mothers-to-be in five public maternity hospitals in Australia revealed parents as the most frequently consulted source, followed by medical practitioners. By the time the children reached school age, 78% of the mothers reported consulting health professionals, while only 13% consulted the Internet for health information. Another study in the same country [12] indicated that a significant number of respondents (70%) involved in the survey accessed pregnancy-related information via personal communication with midwives. While less than half (44%) used the Internet for health information, only 28% reported the Internet as a useful source of health information. The most consulted source of health information was books and the least preferred was the group sessions normally organized for pregnant women during antenatal visits.

In Ghana, a survey [15] on health information seeking behaviour of young mothers, revealed informal sources of health information as the key source of pregnancy-related information consulted by the respondents. The qualitative study showed that young mothers registered at the antenatal clinic in Ejisu Government hospital relied mostly on informal sources such as family and neighbours when compared to more formal sources such as midwives, nurses or doctors. This was unlike a report [16] from Ethiopia, where mothers mostly sought pregnancy-related information from doctors and nurses. Factors limiting access to health information were illiteracy, attitude and perception towards information providers and cultural barriers. In line with the Ethiopian report, a study conducted by Onuoha *et al* in Ibadan Metropolis [17] noted that mothers mainly consult formal sources of health information. Doctors and nurses led the list of major sources of pregnancy-related information consulted by the study respondents in Ibadan, Oyo State, Nigeria. Findings from this study indicated that the mothers sought information on cleanliness and immunization.

Another study in the same area of the country [1] indicated that pregnant women sought health information from a number of sources. The sources consulted by the study respondent were health

workers/maternity centre (22.8%), community talk show (22%), radio (20%), primary health centre (21%) the Internet (21%), traditional birth attendant (20%), family (19.9%), posters (18%), chemist (16%), and others (5%). Findings from the study indicated a significant joint effect of information needs of pregnant women, sources of health information use and constraints to use of health information sources.

On the other hand, a survey [4] exploring the health information needs and sources consulted by women in South-west, Nigeria, observed a different trend in the health information seeking behaviour of women. The study revealed that women sought health information for themselves and their children. About 90% of the women reported that they obtained health information from the radio, followed by friends, family and patent medicine vendors. The most active health information seekers were women who were confronted with making major decisions about their health, that of their families and communities.

A similar study by Gambo *et al* in the Northern part of Nigeria [18] indicated that women mostly sought information from informal sources such as relatives, friends, market women, Government agencies and NGO (Non-Governmental Organisation). The respondents mostly sought information on antenatal and postnatal care, routine child immunization, vesico vaginal fistula (VVF) care and how to ensure safe delivery.

These studies suggested that women in Nigeria sought reproductive health information predominantly from sources such as the mass media and personal communication (friends and family). This pattern of health information seeking by pregnant women in Nigeria probably exists because the radio is about the most affordable information communication technology (ICT) channel, furthermore, a lot of people still prefer personal communication because it is perceived as the most reliable source of information, particularly in the rural areas [3]. It is therefore imperative to promote maternal health information using sources preferred by the women to ensure vital health information reach the targeted audience.

Theoretical framework

The study was guided by Longo's expanded model of health information seeking [19]. Longo's model is based on constructs such as personal and contextual factors, and the output of the information (active or passive information) seeking process. According to the model, personal factors that can

affect information seeking include demographic and socio-economic factors, health history, genetics, anxiety, culture, language, attitudes, behaviours, current health status, cognitive abilities and interpersonal communication. The contextual factors comprise health situation, healthcare structure, delivery of healthcare, information environment, information seeking for self, family members or friend at risk or with current medical problems, interpersonal social supports and networks [20]. The output of information seeking is classified either as active information seeking or passive information seeking which is measured by its effect on the control of the disease, satisfaction in the patient, ease of everyday activities and finally better health status. Longo's model seems to be more comprehensive than this study, but it aptly captures the study. The model is key to this present study because it depicts the output process of information seeking for the patient which was absent in all previous models [21].

Pregnant women's health status or the need to take a decision about their health naturally prompts them to seek health information from different sources. Women's demographic healthcare structure, interpersonal communication, social supports and network will determine information seeking. This may lead to active or passive information seeking, resulting in improved patient/consumer outcomes (empowerment or control over disease, satisfaction in the patient, ease of everyday activities and finally better health status).

Methodology

This study is a descriptive cross sectional survey of pregnant women attending the ante-natal clinic of the University College Hospital, Ibadan. The University College Hospital (UCH), affiliated with the University of Ibadan was purposively selected for the study. Participants were enrolled after obtaining Ethical approval from the University of Ibadan /University College Hospital Ethics Committee.

The researchers informed the pregnant women about the study and voluntary participation of the respondents were obtained via written informed consent. All consenting women between 1st September, 2015 and 30th April, 2016 were enrolled in the study. Data collection was via a structured self-administered questionnaire which included sociodemographic variables such as age, religion, occupation and educational level. Other information obtained included sources and frequency of use of health information along with barriers to health information. Descriptive statistics were used to summarize the results and presented as frequency tables, bar and pie charts.

Result

A total of 151 pregnant women were registered for antenatal care during the study period, however only 120 pregnant women were willing to participate in the study. One hundred and ten questionnaires out of the 120 copies distributed were returned and only 101 copies of the questionnaire were suitable for analysis.

Demographic information

Pregnant women who participated in the study were aged 20 - 49 years. The mean age of the study population was 32.0 ± 2.3 years. A significant proportion of them were literate (95.1%). One hundred respondents were married, while only 1 woman was single at the time the study was conducted. Table 1 provides further information on the profile of respondents.

Table 1: Demographic Characteristics of the respondents

S/N	Demographic Variables	N (%)
1	<i>Marital Status</i>	
	Single	1 (1)
	Married	100 (99)
2	<i>Religion</i>	
	Christianity	23 (23)
	Islam	72 (71)
	Others	6 (6)
3	<i>Education</i>	
	Literate (Diploma and above)	96 (95.1)
	Semi-illiterate	3 (2.9)
	Illiterate	2 (2.0)
4	<i>Income</i>	
	< N20,000	16 (15.8)
	N20,001 - N50,000	44 (43.6)
	>N50,001	41 (40.6)
5	<i>Age</i>	
	20-24	3 (3.0)
	25-29	21 (20.8)
	30-34	39 (38.6)
	35-39	32 (31.7)
	40-44	5 (4.9)
	45-49	1 (1.0)

N= 101 Mean age 32.04 ± 2.3 years

Important source of maternal health information

Books and magazines (96 respondents) especially "Baby Wise, and The Mama's Natural Guide to Pregnancy and Childbirth" topped the list of formal sources of information consulted by the respondents. Other popular formal information sources consulted were medical doctors (69 respondents), antenatal classes (55 respondents) and the Internet (53 respondents). Informal information sources mainly

consulted were friends/family (47 respondents) and patent medicine vendors (77 respondents). Table 2 provides details on both formal and informal information sources of maternal health information consulted by the respondents.

Table 2: Sources of Maternal Health Information

Formal Sources	Responses	
	N (Yes)	N (No)
Radio	28	73
Television	37	64
Doctor	69	32
Advert	17	84
Antenatal Classes	55	46
Brochure, Posters, Billboards	16	85
Internet(Mayo Clinic, Baby Centre)	54	47
Others (Books, Magazine)	96	5
<i>Informal Sources</i>	<i>Responses</i>	
	<i>N(Yes)</i>	<i>N(No)</i>
Friends/Family	47	54
SMS service(MTN/Airtel)	6	95
Traditional Birth Attendant	11	90
Patent Medicine Vendors	77	24

N= 101

As presented in Table 3, the internet (64.4%) was the most frequently consulted source of information on a daily basis. This was closely followed by the television (52.5%) and radio (46.5%) sets.

Most preferred source of MH information

The result revealed that mothers preferred formal sources of maternal health information. The most preferred formal source of maternal health information reported by mothers was information obtained from medical doctors (26%). Other sources preferred by the respondents were books & magazines (21%) and the internet (15%). Figure 1 depicts the respondent's preferred sources of health information.

Maternal health information sought from these sources included information on foetal development, labour signs, how to care for the unborn baby, nutrition in pregnancy, medication in pregnancy, normal/abnormal symptoms and weight control in pregnancy. The most sought after information was on foetal development, labour signs and care for the unborn baby. Some of the respondents also sought information on child immunization and family planning. Figure 2 provides more information on the type of maternal health information accessed from the preferred sources.

Table 3: Frequency of use of information sources

Information Sources	Daily N (%)	Twice a week N (%)	Once a week N (%)	Once a month N (%)	Never N (%)
Radio	47(46.5)	10(9.9)	25(24.8)	8(7.9)	11(10.9)
Television	53(52.5)	18(18.2)	13(13.1)	10(10.1)	7(6.9)
Doctors	8(7.9)	8(7.9)	18(17.9)	66(65.3)	1(1.0)
Advert	22(21.4)	5(4.8)	19(19)	22(21.4)	33(33.4)
Internet	65(64.4)	10(9.9)	7(6.9)	10(9.9)	9(8.9)
Family/Friends	45(45.2)	14(13.7)	18(17.6)	20(19.6)	4(3.9)
SMS	28(27.3)	12(11.4)	5(4.5)	16(15.9)	40(40.9)

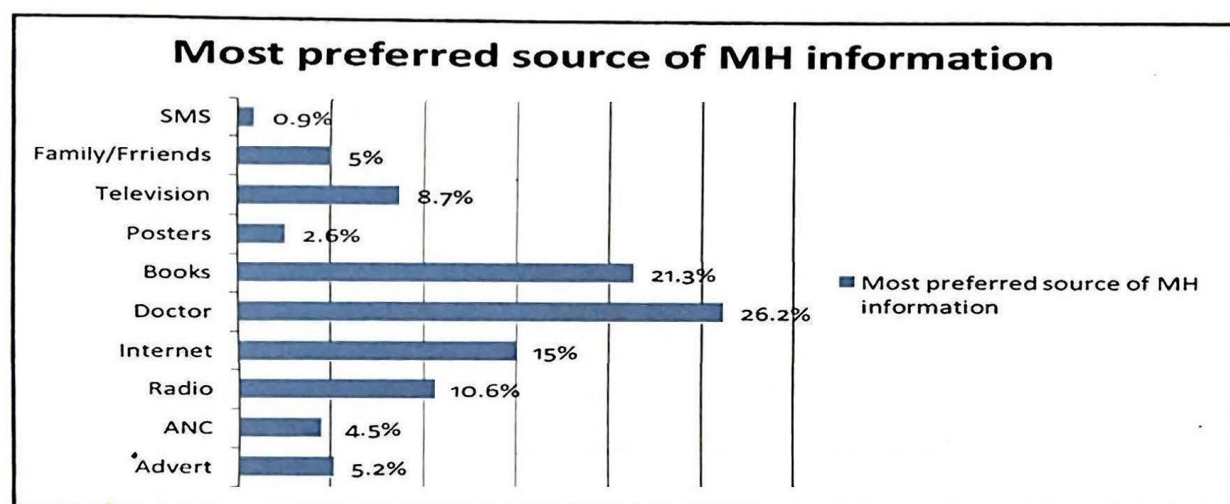


Fig. 1: Most preferred source of Maternal Health information

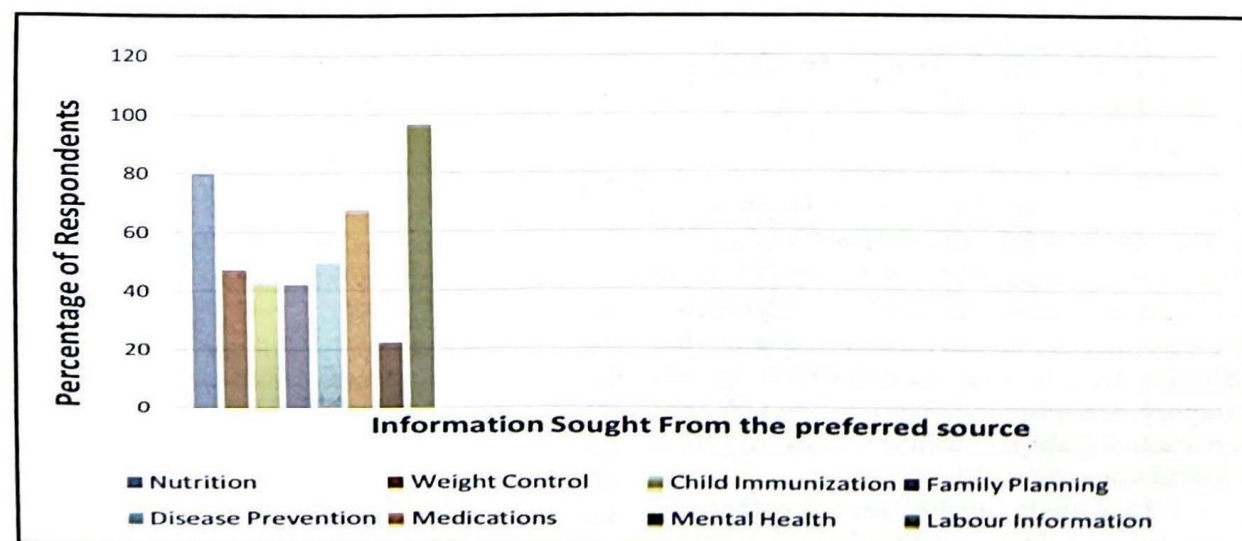


Fig. 2: Information sought from the preferred source

Barriers encountered when accessing health information

Fifty six (56) respondents encountered barriers while seeking health information. The most encountered barrier by the respondents when accessing maternal health information was the attitude of the health workers (16 respondents). This was closely followed by irregular power supply. Figure 3 provides a summary of barriers encountered when accessing maternal health information.

friends and family (47 respondents). The study participants mostly sought health information from formal sources like books and magazines such as Baby Wise and The Mama's Natural Guide to Pregnancy and Childbirth. This pattern of health information seeking probably exists because of the high literacy level of the respondents and therefore not surprising that a significant proportion resorted to exploring books and magazines for their health information. This affirms the finding from a previous

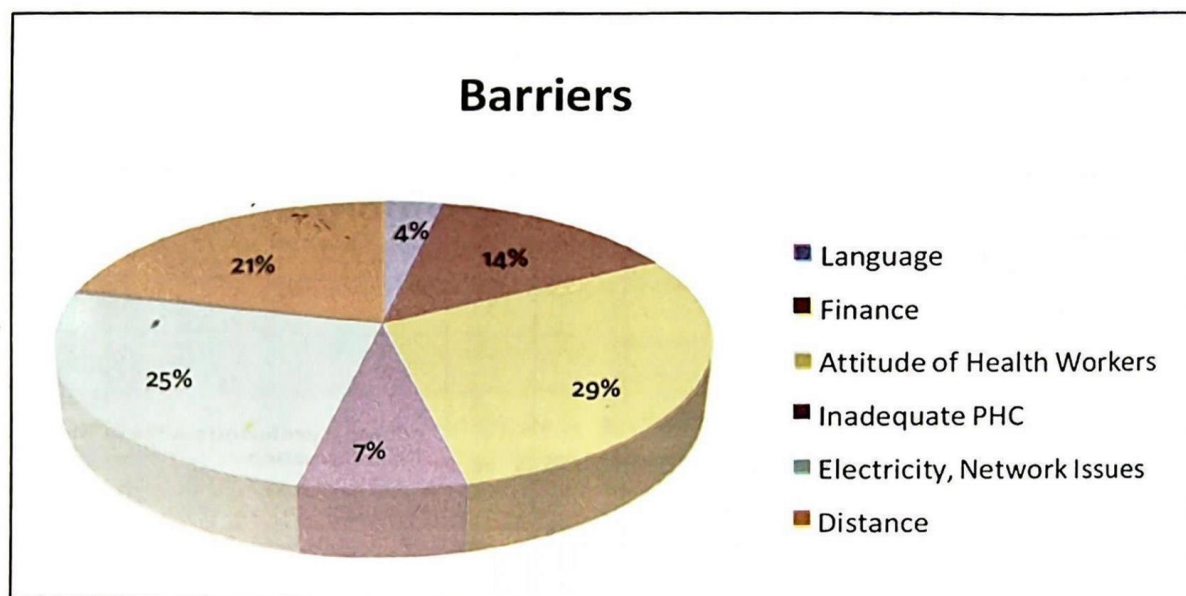


Fig.3: Barriers encountered when accessing information from the most reliable source

Discussion

The study participants were pregnant women registered at the antenatal clinic of the University College Hospital, Ibadan, Nigeria. The women who participated in this study were from different religious groups in Nigeria. Majority of them (91.1%) were within the age range of 25-39 years. The study revealed that the respondents were active information seekers; as most of them sought pregnancy-related information on a daily basis. This result was also corroborated in a study [22] in the US where they noted that women of reproductive age were high information seekers especially when pregnant. By inference, women within this age category are quite curious and tend to seek reproductive health information because they are at a critical stage of their lives.

This study further revealed that the respondents sought information from a variety of sources. The most consulted informal sources were the patent medicine vendors (77 respondents),

publication [23] that the mothers' level of education is a major moderating factor that influences the use of the print media as a source of health information.

However, with regards to the frequency of use of information sources, the result indicated that the respondents used the internet (64.4%) more frequently on a daily basis. This was followed by television (52.5%), radio (46.5%) and family (45.2%). This supports previous research which indicated reliance on the internet as a regular source of pregnancy-related information [12,24-27]; but was at variance with a study amongst young Ghanaian women [15]. While the Internet led the list of regular information sources consulted in the developed countries, young women registered at the antenatal clinic in Ejisu Government hospital in Ghana most frequently consulted friends and family for their health information needs. The result suggested that pregnant women will consult several information sources for their health information needs and the pregnant women who participated in

this study engaged in convergent information seeking. Convergent information-seeking verifies and reinforces health information from various sources. Such information-seeking offsets any credibility or accessibility issue associated with different information sources [28]. According to some authors [22,29], in order to validate health information from multiple sources, it was imperative that the pregnant woman engaged in convergent health information-seeking.

This study revealed that medical doctors and print materials were the most preferred formal sources of pregnancy-related information while the most reliable informal source consulted by the women was the patent medicine vendor. The least preferred source was the SMS messaging service. Earlier reports [16,17] in Nigeria and Ethiopia substantiated this fact, as respondents in these studies frequently sought pregnancy-related information from health professionals. The inference that can be drawn from this result is that women will seek health information from formal sources like printed materials and health professionals or may alternatively seek informal sources like the patent medicine vendor for their health information needs.

The respondents indicated that they preferred information from medical doctors and print materials because of the reliability of information from these sources. Health information sought from these sources were mostly on foetal development, labour signs, care for the unborn baby and nutrition in pregnancy. This was unlike an earlier report in Ibadan, Nigeria, where pregnant women mainly sought information on cleanliness and immunization [17]. This study therefore, supports the assertion of previous authors that women sought various types of health information from different sources depending on their health information needs [4, 16].

Major factors limiting access to health information were the attitude of the health workers and technical issues such as lack of electricity and poor internet network. This corroborates another report [17] where women cited attitude and perception towards information providers as hindrances to health information seeking. This further substantiates the result from Ghana [15] where young mothers indicated poor attitude on the part of some midwives as one of the factors hindering access to health information.

Conclusion

The study revealed that pregnant women were active seekers of health information. Although books and

magazines such as Baby Wise and The Mama's Natural Guide to Pregnancy and Childbirth were popular sources of health information; none of the respondent reported visiting the library or borrowing books from any information resource centre. This study further emphasized the role played by the internet as a popular health information source consulted by the respondents on a daily basis. To meet the health information needs of mothers, as well as improve health outcomes, it is imperative to place vital health information within their reach. Information resources such as pregnancy related books and magazines should be readily accessible at health centres, antenatal clinics and pharmacy shops. Initiatives such as e-doctor and websites containing pregnancy related information should be developed to improve access to health information.

Health policies should target subsidising as well as improving internet services for women within the reproductive age group at the various government owned health facilities by partnering with the private sector in order to improve access to health information as well as reproductive health.

This study, though hospital based, provides general information on health seeking behavior of pregnant women. Generalization may however be limited and further evaluation may be required to determine the health information seeking behavior and sources across different strata of the society.

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