# INFORMATION NEEDS AND SEEKING BEHAVIOUR OF POSTNATAL WOMEN IN KANO STATE

**BY**

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## DECLARATION PAGE

I hereby declare that this work is the product of my own research efforts; undertaken under the supervision of Dr. Yahya Ibrahim Harande and has not been presented and will not be presented elsewhere for the award of a degree or certificate.

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## CERTIFICATION

This is to certify that the research work for this thesis and the subsequent preparation of this thesis by (Murtala Ismail Adakawa with registration number SPS/11/MLS/00052) were carried out under my supervision.

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## APPROVAL PAGE

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## TABLE OF CONTENTS

## LIST OF TABLES

## LISTOFABBREVIATIONS

| | |
|---|---|
| AIDS | Acquired Immunodeficiency Syndrome |
| AIHW | Australian Institute for Health and Welfare |
| CDs | Compact Discs |
| DVDs | Digital Video Drives |
| HIV | Human Immunodeficiency Virus |
| MAWSH | Muhammad Abdullahi Wase Specialist Hospital |
| MMSH | Murtala Muhammad Specialist Hospital |
| PND | Postnatal Depression |
| PPC | Postpartum Care |
| SIDS | Sudden Infant Death Syndrome |
| SMSSH | Sir Muhammadu Sunusi Specialist Hospital |
| STDs | Sexually Transmitted Diseases |
| UDUTH | Usmanu Danfodiyo University Teaching Hospital |
| VVF | Vascular Vaginal Fistula |
| WHO | World Health Organization |
| WHOGS | World Health Organization Global Survey on Maternal and Perinatal Health |

## ABSTRACT

*The study was conducted to investigate the information needs and seeking behaviour of postnatal women in Kano State. The study used a quantitative methodology using cross-sectional design to collect data from the respondents. The population of the study comprised of 3550 postnatal women from the three specialist hospitals in Kano State. Simple random sampling was used. Questionnaire was used as an instrument for data collection. A total of 347 copies of the questionnaire were distributed and 250 were returned and found useful. The data collected was analysed using descriptive statistics. The findings showed that postnatal clients had many information needs and the hospitals were able to satisfy some of them which include information on pre- and postnatal care, how to prevent mother-to-child transmission of HIV/AIDS. The findings revealed that they used both formal and informal means of seeking information notably via asking medical practitioners, friends and relatives. The findings however indicated that they utilised seminar/workshop as a resourceful medium through which they interact with one another and healthcare professionals; it was found out that the services provided by hospitals were parenting, reference and assistance of health workers in location of information or resources services. The postnatal clients did not find use of or browsing through library shelves as a source that influence their postnatal care decisions. The research further discovered several barriers that hindered the use of information resources and information services required by postnatal women. The study recommends the use of audiovisual especially on media such as CDs and DVDs to enable postnatal women be aware of what is expected of them during and after transition to parenthood. It is recommended that, more capable hands should be employed to render services to postnatal women so as to reduce maternal mortality and morbidity.*

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the Study

The spectrum and wavelength of information seem to be infinitely endless, its penetration power to cut across all human endeavours remains undiminished and its capacity to be relevant and persuasive emanates from diversity, complexity and sophistication the individual, organization or society experiences in every bit of second that passes. Moreover, information lingers as an inimitable commodity and obligatory tool required for societal development. Information is more than a provider; it protects and maintains the integrity of all of its users especially when handled and applied carefully. That is why information continues to expand with no slackening in pace.

However, information available to women, once they have a baby, is sadly lacking. Information that has concern for the wellbeing of the mothers or their babies or both is highly needed in view of its direct impact on their health. Postnatal care is often an under-resourced and undervalued part of the maternity services possibly because of the low attention given to a high mortality and inadequate knowledge about maternal morbidity; insufficient support, advice and treatment that can impact quite considerably upon woman's daily life, her relationships with family and friends, and her parenting abilities. Many women are reluctant to report problems as they are embarrassed or assume they are part of the normal consequences of childbirth.

The postpartum period is one of the most vulnerable [periods] for both mother andnewborn, yet often neither health programs nor mothers and families recognize this vulnerability; all the focus of information is on the pregnancy and birth. It is in concurrence with these facts that Hossain and Islam (2012) noted that, information that is needed to study changes in women's health status is either inadequate or unavailable. The quality of the decision made at any given time depends to a large extent on the type of information made available to the user (Hossain & Islam, 2012).

The postnatal period begins from birth and ends when the baby is six weeks of age (i.e. 42 days). The postnatal period is a special period where women undergo transition into motherhood. For during pregnancy, it is very difficult to know what just being mother would be like. The moment the baby arrives; women have no option than to face new changes in their lives. Information includes measures for identifying hazard and risks, and implementing control measures to eliminate, isolate or substitute the source of the risk.

The premise that all women want a service that offers safety; that is flexible and responsive to their individual linguistic, religious and cultural needs, that communicates effectively and provides the information that allows informed choices for evidence-based care is provided by most hospitals. Increasingly, clients are leaving the health care facility within 24 hours of delivery, with no further contact with health care professionals for 3 to 6 weeks. More healthcare professionals now recognise that a neonate's birth necessitates adaption by the entire family over an extended period. Also, consumers are demanding more personalised care than healthcare facilities traditionally have provided. Moreover, escalating healthcare costs and changing reimbursement policies have made early

discharge more common; early discharge may increase the needs for comprehensive follow-up care at home.

According to WHO (2009), the first hours, days and weeks after childbirth are a dangerous time for both mother and newborn infant. Among the more than 500 000 women who die each year due to complications of pregnancy and childbirth, most deaths occur during or immediately after childbirth. Every year three million infants die in the first week of life, and another 900 000 die in the next three weeks. Care in the period following birth is critical not only for survival but also to the future of mothers and newborn babies. Major changes occur during this period that determines their well-being and potential for a healthy future (WHO, 2009).

Women continue to occupy important highly esteemed positions politically, academically, to mention but a few. However, to some disadvantaged group particularly those with low socioeconomic income, their accessibility to healthcare facilities seems to encounter problems despite that the health of families and communities are tied to the health of women, the illness or death of a woman has serious and far-reaching consequences on the health of her children, family and community. Poor conditions lead to poorer health. An unhealthy material environment and unhealthybehaviour have direct harmful effects, but the worries and insecurities of daily life and the lackof supportive environments also have an influence.

The sophistication of any individual/society and nature of its development is largely determined by the sufficiency of information it has at its disposal. All postnatal women need information on personal, professional, health issues so as to be in conformity with

standard cultural, environmental, and social background. It is in the realization of this that, Tao (2008) noted that, consumer health information behaviour, which encompasses people's health-related information needs as well as the range of activities in which they engage (or not) in order to look for and make use of information related to their health condition crucially influences a person's ability to cope with and manage a chronically serious or acute health condition. People may interact with information in a wide variety of ways when attempting to cope with a chronically serious/acute health condition. These interactions may range from active information seeking to passive reliance on information supplied, and even to purposeful avoidance of any potentially relevant information (Tao, 2008).

In today's information driven society, health promotion, health maintenance, life expectancy, and improvement in quality of health are inseparable terms that all individuals are always in constant seeking for and information is considered as the ultimate blue print for catering these needs. For information to be utilized, it must be sought. Thus, information seeking behaviour can be interpreted as the way an information seeker/user conducts him/herself or acts when looking for or acquiring information. The postnatal women especially of this region do not have access to the resources or sources containing the relevant information. The more accessible information resources are, the more likely they are to be used. The information seeker tends to use information sources that require least effort to access.

Many postnatal women are ignorant of how to enquire for information; some of them lack knowledge about the existence of information resources/sources which make it difficult to articulate their information needs, this is because only very few of them engage in active

information seeking; proper channel of information enquiry/resource selection for use in the hospital will determine the extent to which users are kept abreast with relevance information resources for their information needs. The needs might be those that have direct bearing with women or their babies and these include information like body temperature, pulse, blood pressure, the height of the uterus, the type and amount of bleeding, problems with elimination (urine & bowel), perineum (stitches, bruising, swelling), emotional adjustment. Babies also need information like: temperature, cord, skin (colour, rashes, etc), how feeding is going, sleeping patterns, weight loss/gain, and elimination (urine/stools). Education is a big part of postnatal care. Education may be offered on a one to one basis or in group classes. This will enable these postnatal women to making sure that all resources sought for are utilized.

It is a common knowledge that, postnatal women who are starters encounter difficulties from the time of antenatal, intra-natal and postnatal care through the exit. First timers use to spend hours searching for a particular room, service or resource, the time that should be allocated for postnatal class/lectures; this category of women do not know hospitals, how it operates like registration, drug prescription, etc. That is why, information seeking by postnatal women may be difficult as to whom to complain, and most often they may experience fragmented care, long waiting times, insensitive care, lack of emotional support, inadequate explanations, lack of information, medical control, inflexibility of hospital routine procedures, and dehumanizing aspects of hospitalization and reproductive technologies. For this reason therefore, starters encounter difficulties or even impossibilities in parenting; ignorant about the importance attached with postnatal care, reproductive health issues such as infertility, family planning, infections especially STDs, counselling on how to manage a particular complication or infection. Once they perceive

these difficulties at the start, they will have a negative culture towards hospitals, resources, and services. The experienced postnatal women might have some problems that they cannot explain or because of the ignorance, negligence, etc.

Despitesignificance of information to postnatal women, very little is known about their information needs, information seeking strategies, with respect to this region, resources they need, the services they prefer, the antagonism they have with respect to hospitals, in Kano State. Therefore, for these reasons there is the need to conduct a research in this field to add up to the existing body of knowledge.

**1.2 Statement of the Problem**

The roles and responsibilities of parents are given much less attention in contemporary society and the birth of a baby is a major life-changing event that challenges even the strongest of the relationships. Postnatal care is often under-resourced and undervalued part of the maternity services possibly because of the low realization of high maternal mortality and inadequate knowledge about maternal morbidity. Women are often reluctant to report problems as they are embarrassed or assume they are part of the normal consequences of childbirth. These problems can have an impact on a woman's daily life, her relationship with her partner and her parenting abilities. Physical care following childbirth should be approached with the expectation that the mother will have a straightforward recovery to good health, but in the knowledge that a large number of women have, at least, one health problem for several months following birth (Hossain & Islam, 2012).

However, there is great value in gathering information from women in a community, before beginning to addressthe complex issues of their postnatal period and beyond. In

order to make a difference, it is important to determinethe needs and concerns of women (in terms of health information seeking behaviour, resources and services) who are facing the challenges on a daily basis. Effective approaches arebased on actual needs as defined by the women, not service provider's perception of the issues involved.

It is not known or very little is known, whether postnatal women of this region are aware of their information needs; they have strategies of accessing their information relevant to their health or condition.Therefore, there is the need to conduct a research in this area.

### 1.3 Research Questions

Based on the research problems highlighted above, the research sought for answer tothe following questions:

1) What factors are responsible for the information needs of postnatal women in Kano State?
2) What are the information seeking strategies of postnatal women?
3) What information resources available are used by postnatal women?
4) What type of information services are required by postnatal women?
5) To what extent are the postnatal women satisfied with the available requisite resources and services?
6) What are the barriers to use information resources and services?

## 1.4 Research Objectives

The objectives of the study were to:

1) Find out the factors responsible for the information needs of postnatal women in Kano State
2) Determine information seeking strategies employed by postnatal women
3) Investigate the information resources available used by postnatal women
4) Examine the types of information services required by postnatal women
5) Assess the extent the postnatal women are satisfied with available requisite resources and services
6) Ascertain the barriers to use of information resources and services

## 1.5 Significance of the Study

Because this group of people are mostly ignored in terms of information sufficiency that can assist them to take good care of themselves and that of their new born infants, the current study is of the following significance

It is a known fact that, due to the explosion and multiplicity of information, it has become difficult to locate desirable and relevant information resource that is responsive to individual needs. In other words, it is nowadays difficult for a user to quickly identify and locate useful information resources. The current study helps libraries and other information centres to limit and control the purchase of resources that are required by postnatal women. Hence, the medical librarians and information managers will be selective in determining the resources that are more relevant to postnatal clients.

The fact that postnatal women are unavoidably in a condition that requires maximum information exchange among themselves with experienced traditional birth-attendants,

family members and husbands in informed decisions concerning nutrition, drugs prescription, exercise, and host of other issues, the current study creates awareness on information needs of postnatal women. Most of them especially first-timers are considered unprepared and confused with different voices offering advice that can subsidise their psychological feelings to have sense of belongings and cared for. The current study enhances the relationship between postnatal women and other family members to care safely and confidently for the new babies; enable the mother and her partner to develop their parenting skills and strengthen social support network.

The findingis of significance to policy makers and practitioners in areas of policy- and decision-making concerning postnatal women's information needs, seeking strategies, conditions, susceptibility to infectious diseases, dehumanizing aspects experienced during and after transition to parenthood. Hence, the current study is of crucial importance to postnatal women, medical personnel, academic and non-academic staff, medical librarians, information managers, policy makers, etc. This study can provide a powerful resource for practitioners and policymakers.

### 1.6 Scope and Limitations of the Study

This study is basically centred on information needs and seeking behaviour of postnatal women attending specialist hospitals in Kano State. It was limited to specialist hospitals Kano State and did not cover other governmental and private hospitals because maternity care across the State is moving inexorably towards a greater concentration of birth in large hospitals, especially specialist hospitals, rather than birth at home or in smaller hospitals or community maternity units.

Gender differences coupled with the fact that most postnatal women were admitted into the intensive care units receiving treatment following birth, and that the research was conducted during election period were the most obvious limitations experienced by the researcher. However, these limitations were contained to the nearest minimum in order not to affect the outcome of the study.

### 1.7 Operational Definition of Terms

**Information:** facts, ideas that can reduce uncertainties and can assist in decision making.

**Information needs**: refers to a gap that when consciously grasped leads to information seeking

**Information seeking:** refers to how an individual/information user searches for information

**Information seeking behaviour**: refers to strategies/activities in which an information seeker conducts her/himself to look for information

**Postnatal period:** this is a period that starts from birth and ends when the child is 42 days

**Postnatal women**: are women who have just delivered and are within the first six (6) weeks i.e. 42 days of giving birth to a baby

**Hospital**: An institution suitably located, constructed, organized, staffed to supply scientifically, economically, efficiently and unhindered, requirements for the prevention, diagnosis and treatment of physical, mental and the medical aspects of social ills, complications, care giving, etc.

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# CHAPTER TWO

# REVIEW OF RELATED LITERATURE

## 2.1 Introduction

The area of information needs and seeking behaviour attracts the attention of different scholars in the field of information science. This section attempts to examine the available literature relevant to the study and reported in the following order

2.2 Concept and Significance of Information

2.3 Factors Responsible for the Information Needs of Postnatal Women

2.4 Information Seeking Strategies of Postnatal Women

2.5 Information Resources Available for Postnatal Women

2.6 Information Services Available for Postnatal Women

2.7 Barriers to Use Requisite Information and Services by Postnatal Women

2.8 Summary of the Review and Uniqueness of the Study

2.9 Theoretical Framework

## 2.2 Concept and Significance of Information

The term information simply means informing or be informed or told news or knowledge given. Information is greatly accepted as the means through which society is transformed as a result of innovation and technique by individuals. According to Judge (2011), information in its most restricted technical sense, is an ordered sequence of symbols that record or transmit a message. It can be recorded as signs, or conveyed as signals by waves. This means any sound that convey message from the sender to the receiver is called information and sign that sends message to the reader of that sign becomes information.

Burrell (2011) described information as that which is conveyed, and possibly amenable to analysis and interpretation, through data and the context in which the data are assembled.

Information can be referred to as a stimulus or message that reduces uncertainty. For example, if one is not certain as to when a train is leaving to another destination, he would search for this information in order to solve the uncertainty.

Furthermore, Capuro (2011; p305-11) noted that "information" refers to the selection within a system and "understanding" to the possibility that the receiver integrates the selection within his/her knowledge- constantly opens to revision i.e. to new communication in accordance with the intention(s) of the sender. Bates (2010) also sees information in a broader sense as well as in the world of information behaviour research. The term is generally assumed to cover all instances where people interact with their environment in any such way that leaves some impression on them- that is add or change their knowledge stored.

Folorunsho and Ibrahim (2005) defined information as a fact, an opinion or an idea from any source, which can give support to making adequate decisions. Information has also been defined as "a property of matter, any message, document, or information resource; any publicly available symbolic material; or any data" (Ikoja-Odonga & Mostert, 2006:54-66). Information is important to people in diverse vocations. For example- judges, lawyers and law students, as they require information in their day to day activities. For instance, they need information on how to determine the case (judges), argue or represent a client before the law court (lawyers), and how to pass the law examination (law students). Information is interdisciplinary in nature as it cuts across all angles of human endeavour, and academic disciplines. In other words, it involves social, economic, political, geographical or environmental, scientific, educational, medical, etc fields and extracts useful data for the benefit of the thus concerned with respect to the field.

Ikoja-Odonga and Mostert (2006:p54) indicated that the term information has been defined, understood and differently interpreted across various disciplines, vocations and professions. Olorunfemi (2009; p19-27) supports the view that people differently interpret the concept of "information". However, Information as a concept means different thing to different people. Olabode (2008; p55-56) stated that information refers to facts and opinion provided and received during the course of daily life. Mohammad (2012;p22), also made a submission that information can be conceived as anything that adds to our existing knowledge, ideas, skills, and experiences positively or negatively that enables us to take decisions or react to situations immediately or later at an appropriate period of time.

Mohammad (2012) added that it can also be conceived as the by-product of our conscious and unconscious actions and inactions that adds to our existing knowledge, ideas, skills and experiences that enable us respond to a given stimulus instantaneously or at a later period of time as a form of reaction or decision taken or to be taken. Bello (2006) defined information as "any idea or organized data, principles, policies, laws, conventions, etc generated through human interactions, for harmonious coexistence, and correlation, survival and continuity of human race".

As observed by Agoulu (2008), adequate information can increase our awareness, and our reason; it can also help to educate our people, accelerate progress and provide the source, data that is required for the solutions of our increasingly complex, economic, scientific and social problems. Similarly, Pandit (2007) noted that parliaments, all over the world, have been increasingly assuming new roles and added responsibilities in response to the growing hopes and aspirations of the people. Further, with the unprecedented growth in the range, magnitude and multi-dimensional government activities, information becomes of

vital importance to members of the parliament in effectively discharging their responsibilities.

However, Pandit (2007) made a statement that is of more significance to parliamentary, it is equally applicable to the postnatal women as they are considered double role participants: as mothers and wives. With the unprecedented growth in the magnitude, range, etc of the family, information becomes important for their own consumption. In other words, the more the responsibilities the more the roles they play in ensuring success with respect to themselves and their born babies. Therefore, they are always in constant search for information to enhance their well-being. The more the burden of pregnancy the more the complexity; every individual in the family requires the women to do one or more things and thus she serves as a representation of all the individuals in the family. This will enable her to provide meaningful contribution to members so as to arrive at decisions which are the best interest of the family.

In concurrence with this opinion, Bello (2006) referenced Daniel and Mathew (2000) and Ayo (2007) acknowledged that 'those nations that have been quick to adopt and apply innovations and strategies in information sphere have always had a competitive edge over other nations'. In that view, Folorunsho (2009) cited Okoro and Okoro (2005) admitted that information is an indispensable factor for promoting the development of society, is an essential part of a nation's resources being used as the raw material for making policies, for creating knowledge and fuelling the modern organization.

Aliyu (2011) cited Brian (2010) acknowledging that 'without ready access to relevant information, members of parliament have no hope of keeping up with the rapid changes our

societies are undergoing nor will they be able to make the right decisions'. Therefore, information has always been recognized as a catalyst for the growth and development of any society. Although Brian did not mention appropriate channels for transmitting postnatal women relevant information based on their needs. But they also need adequate, relevant and reliable information at their disposal in order to make informed decisions. Accordingly, identifying the postnatal women information needs and providing them with resources and services based on the identified needs could no doubt provide them access to relevant information for well informed decisions.

People's health outcomes, in turn, are fundamentally influenced by the health-related decisions that they make along the way. Therefore, a person's ultimate health outcome is likely to be significantly impacted by the ways in which they deal with information throughout the course of their illness. As Case, Andrews and Johnson (2005) put it, the scope and nature of the information on which to base medical judgments, the repertoire of alternative courses of action known to the searcher, and ultimately the action taken are all affected by individuals' information-seeking behaviours.

Consumer health information behaviour has been found to be both situational and dynamic. Consistent with the central role of time found in nearly all information behaviour and health-related behaviour theories and models, preferences for these informational coping styles have been found to vary not only across individuals, but also across time and situation within each individual (Tao, 2008). These different ways of dealing with information – active seeking, passive acceptance, or purposeful avoidance – have significant implications for the extent and usefulness of the information these individuals have available to draw from when it comes time to make health-related decisions.

Igbeka (2008) cited Rugge and Glossbrenner (1997) indicating that “because information is such a nebulous commodity, those seeking it will have a wide variety of information needs”. Therefore, it is a fact that efficiency in utilizing information is premised on sufficient and reliable information provided to all individuals including postnatal women. Maternalhealth is the health of women during pregnancy, childbirth, and the postnatal (or postpartum) period. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality. While preconception care can include education, health promotion, screening and other interventions among women of reproductive age to reduce risk factors that might affect future pregnancies; and the goal of prenatal care is to detect any potential complications of pregnancy early, to prevent them if possible, and to direct the woman to appropriate specialist medical services as appropriate; postnatal care issues include recovery from childbirth, concerns about newborn care, nutrition, breastfeeding, and family planning.

In a study conducted by Szwajcer, et al., (2005) though in Netherlands, showed that women do often use online resources or to be put more accurately ‘online midwife’ on issues like preconception, than consulting library resources or relatives, medical practitioners, etc. In other words, they consider their online resources and services better than the health professionals, in most cases. This is also true in America as reported by Bernhardt and Felter (2004) who revealed the same result. They indicated that, postnatal women and mothers of young children are active consumers of health information about themselves and their children, and there are countless books, magazines, videos, television programs, classes, and other resources on childbirth, parenting, and paediatrics from which mothers and mothers-to-be can choose. An additional mass communication channel, the

World Wide Web, has grown into a popular destination for women seeking health information on a wide range of paediatric topics.

This is to the exclusion of this society where women are unaware of the e-resources rather they depend on hearsays, for example someone used so-so medicine and proved to be effective on back pain; so-so hospital is more professional than the other; and host of other issues. In effect, developed countries depend largely on resourceful, reliable, timely access sources while most of this region depends solely on hearsays and other sources that are not scientific. In contrast to the developing countries, the information rich and information poverty gap is continually to broaden despite the current information era the world is experiencing. It is a challenge for the developing countries particularly Nigeria where both human and natural resources are abundant but that, the populace still relies on manually information retrieval systems than the online. The information managers, policy makers, stakeholders should strive to work hand-in-hand to gear the populace towards achieving their dreams of accessing and becoming information literate.

Similarly, Ugboma (2010) opines that Information is a major resource that is needed in every sphere of life endeavour especially in health matters (Ugboma, 2010). This is also in line with the findings of WHO (2008) that health information is a vital resource for individuals who seek information for as varying reasons as mere curiosity, self diagnosis and analyzing and evaluating treatment for health. Admittedly, information that is needed to study changes in women's health status is either inadequate or unavailable. The quality of the decision made at any given time depends to a large extent on the type of information made available to the user (Hossain & Islam, 2012). Information helps greatly in reducing the level of ignorance among the postnatal women.

Fattahi and Afshar (2006) considered information as “a data that has been processed into a form that is meaningful to recipient and is of real or perceived value in the current or the prospective action or decision of recipient”. Information is the most critical resource of the organization. Managing the information means managing the future. Information is knowledge that one derives from facts placed in the right context with the purpose of reducing uncertainties.

The parameters of a good quality are difficult to determine for information. Quality of information refers to its fitness for use, or its reliability. Fattahi and Afshar (2006) described the following as the essential characteristics of information: timeliness means that information must reach the recipient within the prescribed timeframe. For effective decision making, information must reach the decision-maker at the right time, i.e. recipient must get information when they need it. Delays destroy the value of information. The characteristic of timeliness, to be effective, should also include up-to-date, i.e. current information. Information should be accurate. It means that information should be clear and free from mistakes, errors, bias, etc. wrong information given to manager would result in wrong decisions.

Information should be reliable. Reliability deals with the truth of information or objectivity with which it is presented. An information user can only use information if (s)he is sure of its reliability and objectivity. When researching for an essay in any subject, the user might make straight for the library to find a suitable book/resource. The user is confident that the information found in the resource is reliable and (in the case of factual information) objective.

Identifying information significance and roles it plays can lead to personal, organizational, local, national, international and global effectiveness. This will increase the potential of exploiting information which can gain so many benefits for citizens of information society. Today, successful people and businesses are those who control information: its development, access, analysis and presentation. This is an information era. People buy and sell information, sometimes with money and sometimes by trading it for other information. Information is potentially powerful instrument for teaching and research in enhancing the growth of knowledge. Information itself will have no value unless it is used. Information stands as the basic ingredient for organization foundation and organization development.

In summary, the above definitions of information show that people must have information to take basic decision in their lives, the information made available to the user at a specific time will determine the benefit or detriment especially when utilised by the consumer. Information is needed to enable postnatal women to play active roles in their life and that of their newly born babies, to regulate tension, complications, to free themselves from shackles and ignorance on nutrition, exercise, labour, diseases, infections, etc. It can be seen that information serves as a saviour in this maternity episode "postnatal period" in various circumstances particularly to first-timers who are new in the system and equally to multiparous as every delivery comes along with its own complications that need peculiar information for its treatment. This study therefore, is an attempt to highlight the information needs and seeking behaviour of postnatal women in specialist hospitals in Kano State.

**2.3 Factors Responsible for the Information Needs of Postnatal women**

The concept of information needs has been variously defined and described by a number of writers, scholars and researchers. Reitz (2004) defined information needs as 'a gap in a

person's knowledge that, when experienced at conscious level as a question, gives rise to a search for an answer. He further maintained that, if the need is urgent, the search may be pursued with diligence until the desire is fulfilled'. Bello (2006) conducted a research on information needs and library resources provision for pastoral nomads in northern states of Nigeria, regards information needs as "a psychological feeling for information, triggered by a strong desire to solve a problem or resolve certain conflicts within psycho-social realm or that emerged from one's interaction with her/his environment".

Umbur and Igbashal (2011) conducted a research on age and sex differences in information utilization among legislators in Benue state of Nigeria, cited Demekaa (2000), acknowledged that, certain factors affect information needs of users. These are age, sex, educational background, linguistic ability, length of experience, nature of work and rank. While Umoru (2010) quoting Lor (2003) stated that, there are various types of information needs. The most recognizable is articulated or expressed need which is an actual recognized need that demands answer. The need may be acknowledged, but no attempt can be made to answer it. The second is the unperceived or unexpressed needs which are not recognised as information needs.

Furthermore, Bello (2006) quoted Weights, et al., (1993) who highlighted factors that can engender information needs as "needs for new information; and need to elucidate information held; need to confirm information held; need to elucidate belief and values held; need to confirm beliefs and values held. These are general factors that usually give rise to information needs". Virtually everybody is involved in the need to know and to confirm what is known (Bello, 2006).

In light of the above understanding, Herrera, Lotero and Rua (2009) wrote on the needs of users, established that, the main information needs of users fall into two categories: The need to locate specific document of which the bibliographical references are known- referred to as need for a 'known term'. The need to locate documents relating to a particular theme- known as thematic need; this can in turn be divided into two categories, namely: the need for information to solve a particular problem, the need for information on the latest development in a specialized field.

In a study by Hsieh and Brennan (2005), nine (9) participants indicated that they searched for information related to their prenatal genetic counselling need. Based on Experiences in Information Technology Use, all participants indicated that they used a computer, the Internet, and e-mail either at home or at work or both. A majority of the participants used the computer daily (n=9), and one used it at least once a week. Six participants indicated that they used e-mail at least once a day and four of them used at least once a week. Internet usage varied among the participants from daily, weekly to monthly. All participants have Internet access at home; four participants did not have Internet access at work. Most of the participants (n=9) used some kind of search engine (e.g., Google, Yahoo) to look for information; only four participants used it to search for prenatal genetic-related information. None of the participants were involved in any Internet self-help or support group. They gave reasons for Prenatal Genetic Counselling; all participants were referred to the clinic by their primary health care providers. Advanced maternal age was the main reason for prenatal genetic counselling for nine participants (Hsieh & Brennan, 2005).

Hossain and Islam (2012) conducted a research on information needs of rural women: a study of three villages of Bangladesh dwelled mainly on 60 respondents found that their awareness of information, the respondents were asked, do they know what the information is? One fifth of them answered that, they do not have any idea about information. Of the sixty participants, 80% were aware about information, while 20% of the respondents were not aware about it; on information needs, Bangladesh need agricultural, educational, health, economic and social information in their daily lives. The research showed that highest percentage of the respondents (86.66%) needed agricultural information, followed by information on animal husbandry (83.33%), food and nutrition (75%), health (75%), education (58.33%), religion (41.66), politics (25%), family planning (25%), loan (16.66%). The lowest percentage (8.33%) of the respondents needed information on both weather, and entertainment.

According to Berry and Gribble (2008) providing mothers with accurate information about the importance of breastfeeding to the health of their baby can result in changes in infant feeding decisions. Health promotion efforts should emphasise the importance of breastfeeding for normal growth and development, and the risks and costs associated with premature weaning (Berry & Gribble, 2008). The World Health Organization (WHO, 2009) recommends exclusive breastfeeding for babies up to six months of age, with breastfeeding continuing alongside complementary foods for up to or beyond two years of age, as this contributes to optimal physical growth and mental development (WHO, UNICEF, 2009). However, some postnatal women are unable to breastfeed their babies. This agrees with Amir and Donath (2008) submission that there are a number of reasons why women are less likely to breastfeed, including less family support for breastfeeding, less ability to seek help with breastfeeding problems, less flexibility with working

arrangements, and concerns about breastfeeding in public. Women with lower measures of education, income and occupational status; younger women; women who are overweight/obese and women who are smokers are also less likely to breastfeed (Amir & Donath, 2008).

It is worthy of note to acknowledge that postnatal women might need information on breastfeeding and the knowledge of benefits or otherwise attached to doing so. According to Stuebe and Schwarz (2010), during the postnatal (postpartum) period, many mothers breastfeed their infants and transmission of HIV/AIDS through breastfeeding is a huge issue in developing countries, namely in African countries. The majority of infants who contract HIV through breast milk do so within the first six weeks of life(Stuebe & Schwarz, 2010). However, in healthy mothers, there are many benefits for infants who are breastfed.

The World Health Organization recommends that mothers breastfeed their children for the first two years of life, whereas the American Academy of Paediatrics and the American Academy of Family Physicians recommend that mothers do so for at least the first six months, and continue as long as is mutually desired. Infants who are breastfed by healthy mothers (not infected with HIV/AIDS) are less prone to infections such as *Haemophilus influenza, Streptococcus pneumoniae, Vibrio cholerae, Escherichia coli, Giardia lamblia*, group B streptococci, *Staphylococcus epidermidis*, rotavirus, respiratory syncytial virus and herpes simplex virus-1, as well as gastrointestinal and lower respiratory tract infections and otitis media. Lower rates of infant mortality are observed in breastfed babies in addition to lower rates of sudden infant death syndrome (SIDS). Decreases in obesity and diseases such as childhood metabolic disease, asthma, atopic dermatitis, Type I

diabetes, and childhood cancers are also seen in children who are breastfed (Stuebe and Schwarz, 2010).

Similarly, according to the 2010 *Australian National Infant Feeding Survey* (Australian Institute for Health and Welfare (AIHW)(2011), almost all Australian babies commence breastfeeding but most do not continue as long as recommended. Although 96 per cent of babies were initially introduced to breast milk, 61 per cent were exclusively breastfed for less than one month and this progressively decreased to 15 per cent at around six months of age (AIHW, 2011).

In a similar vein, according to the AIHW survey, the main reasons why mothers gave their baby breast milk were that it was 'healthier for child', 'convenient' or 'helps with mother-baby bonding'. 'Wanting to share feeding responsibilities with their partner' and 'previously unsuccessful breastfeeding experiences' were the two most common reasons for not breastfeeding. Many women also felt that formula was just as good as breast milk (AIHW, 2011).

Postnatal care should be woman-centred to enable women to participate in informed decision making regarding their own care and the care of their baby. Postnatal care will be culturally appropriate and culturally safe. Women should be given appropriate and consistent written and verbal information and education relating to the postnatal period. This enables women to make informed decisions regarding their care and the care of their baby, and can increase women's confidence and satisfaction with the care provided (Newburn & Bhavnani, 2010). The information provided by health services should be given to women as early as possible, preferably during the antenatal period. It should be

easy to understand and communicated in the woman's primary language. Women should also be given the opportunity to discuss and ask questions about the information provided with a midwife and/or doctor.

The following information should be provided and discussed with women to support decision making regarding the provision of postnatal care and beyond: the birth experience; psychological and social adjustment to parenthood (for example, expectations, mood, self-care, child safety, relationship with partner, contraception); care of the baby (for example, feeding, bathing, handling and sleep/settling babies); maternal physical adjustments (for example, fatigue, sleep, breastfeeding, breast and body changes, sexual health); family adjustments (for example, care of the baby, siblings' acceptance of the baby); family environment (for example, housing, employment, safety) and social support and local networks (Stuebe & Schwarz, 2010).

The time that women spend in hospital following childbirth has steadily declined. In 2009–10, the average length of stay for a public hospital birth episode was two days for an uncomplicated vaginal birth and four days for a caesarean section without major complications (Department of Health, 2012). This reflects improvements in acute care and the development of alternative and appropriate care settings, including the woman's home. Whether the setting for care is the hospital or a woman's home, the focus should be on the most appropriate care setting for each woman. As a result, the average length of hospital stay following childbirth may continue to decrease. Whether postnatal care is provided in hospital or in the woman's home, it is imperative that the care provided is of the highest standard and meets the needs of the individual.

However, according to Forster, McLachlan, Yelland, Rayner and Lumly (2005) many women report lower levels of satisfaction with the care and support they receive during the postnatal period than at any other phase of their maternity care (Forster, McLachlan, Yelland, Rayner & Lumly, 2005). Feeling listened to and well supported, and receiving timely and consistent information are important factors contributing to women's satisfaction with their postnatal care. Providing information and education relating to the normal physiological changes associated with childbirth, breastfeeding and parenting is a key component of postnatal care that is aimed at giving women and their families the confidence to manage the care of their baby. For a number of first-time parents, the reality of caring for a baby can be overwhelming and often differs from their expectations. The provision of timely and effective postnatal care and support can have a significant impact on the long-term health and wellbeing of women and their families.

Postnatal women might need information on caesarean section. This agrees with submission of Commonwealth of Australia (2009) who stated that for women who have undergone a caesarean section, postnatal care is important to prevent and, where necessary, treat infection and post-birth complications. The rate of caesarean section is growing both in Victoria and nationally. This can be explained, in part, by factors such as maternal age and medical conditions such as obesity, diabetes and hypertension (Commonwealth of Australia, 2009b).

In 2008–09, the rate of caesarean section was 27.9 per cent of all deliveries in Victorian public health services compared with 39.4 per cent in private hospitals. This rate increased in public health services to 28.2 per cent in 2009–10 and 28.4 per cent in 2010–11. The WHO recommends a caesarean section rate of 15 per cent (WHO, 2009). Caesarean

sections performed following an appropriate medical indication are potentially life-saving procedures. At the same time, in many settings, women are increasingly undergoing caesarean sections without any medical indication (Souza et al., 2010).

The World Health Organization Global Survey on Maternal and Perinatal Health (WHOGS) provides evidence on the relationship between mode of delivery and maternal and perinatal outcomes. Findings indicate that an increase in rates of caesarean delivery is associated with increased use of antibiotics postpartum, greater maternal morbidity and mortality, and higher foetal and neonatal morbidity, even after adjustment for demographic characteristics, risk factors, general medical and pregnancy associated complications, type and complexity of institution, and proportion of referrals (Villar et al., 2006). The need for evidence-based counselling about the risks and benefits of caesarean section for women and their babies is imperative (Boutsikou & Malamitsi-Puchner, 2011).

When compared with vaginal delivery, emergency and elective caesarean deliveries are associated with a decreased rate of exclusive breastfeeding. In general, separation of the mother and baby, post procedure immobility and wound pain may attribute to some women's inability to breastfeed comfortably (and therefore exclusively) following a caesarean section (Bodner, Wierrani, Grunberger & Bodner-Adler, 2011). This emphasises the importance of appropriate breastfeeding education and support for these women in the immediate postpartum period.

Postnatal women might appreciate culturally induced practices than the corresponding modern methods. This agrees with submission of Demott et al., (2006) who noted that women and their families should always be treated with compassion, respect and dignity.

The views, beliefs and values of the woman and her family in relation to her care and that of her baby, should be sought and respected at all times. The woman should be fully involved in the planning of postnatal care so that care is flexible and tailored to meet her and her baby's needs (Demott et al., 2006).

Cultural awareness is an appreciation of cultural, social and historical differences. Cultural safety builds on the concept of cultural awareness and is based on the basic human rights of respect, dignity, empowerment, safety and autonomy (Phiri, Dietsch & Bonner, 2010). Culturally appropriate and culturally safe care recognises diversity and the dynamic nature of culture.A culturally competent healthcare system will support efforts to increase the capacity of the system to design, implement and evaluate culturally and linguistically competent services to address health disparities among populations from backgrounds and to promote health and mental health equity (Department of Health, 2012).

Needs concerning home-based care should be strengthened for postnatal women especially if there is no glaring problem with their health and that of their babies. Postnatal care, irrespective of setting, is focused on the needs of the mother and supporting her to care for her baby. Postnatal home-based care should be provided by a registered midwife from the birth hospital where possible, and supported by a number of individual health professionals forming part of a multidisciplinary team. However, home-based care may be transferred to the service of a different hospital, specialist hospitals, general hospitals or a private nursing agency to better suit the individual needs of a woman, particularly when located closer to the woman's home.

Home-based models of postnatal care are becoming increasingly important in assisting women to transition from hospital to home, and for providing them with care and advice in the most appropriate care setting for their needs. For many women, home can also be a more relaxed, convenient and private environment for recovery from childbirth and for the establishment of breastfeeding. As a minimum requirement, following discharge, public health services should offer women at least one postnatal visit in her home. Additional home visits are provided on the basis of individual clinical and psychosocial needs.

Postnatal women need information on depression. This was observed byAl Dallal and Grant (2012)who stated that several risk factors have been found to be associated with postnatal depression, including a mother's history of major depressive disorder and a past history of postnatal depression, depression during pregnancy and a family history of depression. Other important factors in some low-income countries are family disruption and a lack of social support, poor economic status and dissatisfaction with having a female child. Not breastfeeding, stressful life events, baby's health problems and unintended pregnancy were also found to be associated with postnatal depression. Despite its high prevalence and importance, postnatal depression is commonly under-diagnosed by healthcare professionals (Al Dallal & Grant, 2012).

The depression is of different types: 'baby blues' refers to a brief episode of mood swings, tearfulness, anxiety and difficulty in sleeping that is very common in the first week after the birth of a baby. It requires no special treatment, unless the symptoms are severe; "Antenatal depression" refers to depression that starts during pregnancy. Between 10-15 per cent of pregnant women experience mood swings during pregnancy that last more

thantwo weeks at a time and interfere with normal day-to-day functioning. Medical assessment

is necessary in such circumstances and “Postnatal depression (PND)” which describes the more severe or prolonged symptoms of depression (clinical depression) that last more than two weeks and interfere with the ability to function with normal routines on a daily basis including caring for a baby. Around 14 per cent women (one in seven) experience PND and for around 40 per cent of these women, the symptoms begin in pregnancy (Al Dallal & Grant, 2012).

Postnatal women may need information on the effects of smoke to their health and that of their babies. According to Al Dallal and Grant (2012) smoking has far reaching consequences on the health of the women, some of the effects include: reproductive problems such as early menopause, and linked to infertility, cancer, heart diseases, stroke and circulatory problems, high blood pressure and high cholesterol, respiratory diseases, etc; those effects on the future pregnancies and foetal include: increased risk of vaginal bleeding, premature delivery, abruption of placenta and placenta previa; greater risk of spontaneous abortion and perinatal mortality; increased risk of having a lower birth weight baby (Al Dallal & Grant, 2012).

Sometimes, postnatal women need information on ectopic pregnancy. In a study conducted by Panti et al., (2012) on a retrospective study of cases of ectopic pregnancy managed in the gynaecological unit of UDUTH from 1st January 2002 to 31st December 2011, the result showed that during the period, there was a total of 20,095 deliveries and 7,254 gynaecological admissions in the centre. Two hundred and ninety eight (298) patients had ectopic pregnancy accounting for 1.5% of all deliveries and 4.1% of all gynaecological

admissions. Most of the affected patients were young nulliparous women. Abdominal pain, amenorrhoea, vaginal bleeding and cervical excitation tenderness were the most common clinical features amongst patients. The ampulla of the fallopian tube was the commonest site of implantation (59.7%) and majority of the cases (70.1%) were already ruptured at the time of presentation. The main mode of treatment was unilateral salpingectomy (76.3%) However, 3.8% of the patients benefited from medical treatment using methotrexate. The case fatality rate was 1.4%. They concluded that, the rate of ectopic pregnancy in the centre is relatively high. Majority of the patients presented late with the ruptured variety. Improvement in health seeking behaviour among the populace coupled with high index of suspicion and use of modern diagnostic techniques by the clinicians will assist in early diagnosis and treatment prior to tubal rupture which will ultimately lead to reduction in maternal morbidity and mortality associated with the condition.

Also, Saleh and Lasisi conducted a research on information needs and information seeking behaviour of rural women in Borno state of Nigeria. Saleh and Lasisi (2011) view on women's information needs noted that: they need information to keep them abreast with antenatal and postnatal care, immunizations especially on the six killer diseases, how to prevent and manage Vascular Vaginal Fistula (VVF) (which according to the site can be juxta-cervical, mid-vaginal or juxta-urethral fistulae), and how to safely deliver pregnancy. The women also need information on how to prevent and control epidemics especially cholera and meningitis which are rampant in the area.

They went ahead to mention that, although the population of Northern Borno is homogeneous, the information needs of the rural women vary. It ranged from information needs of farmers to sawing, weaving, midwifery, animal husbandry etc. The needs are

categorized into the following: Agriculture 53%, Education 12%, Economy 11%, Health 20%, Political 03%, and Others 01%.

Thus, this is conspicuous and essential to all nursing/parenting mothers to be able to care for their babies even postpartum to be free from the diseases that they are mostly susceptible to due to environmental, weather, etc; and to protect and treat themselves from fistulae. Perhaps the health information required by women generally is hinged on hygiene, good food, family planning and clean environment. These are in fact necessary for the well being of the community and the society at large. Similarly, Momodu (2002) carried out a study on information needs of women in Nigeria. He identified that women particularly needed information on pre- and post-natal care and current immunization facilities for their children and themselves.

Also, Hsieh and Brennan (2005) who conducted a research on what are postnatal women's information needs and information seeking behaviours prior to their prenatal genetic counselling; and Mooko (2005) who conducted a research on the information behaviours of women in Botswana; commented on the information needs of postnatal women as follows:

The primary concern of women for information is on reproductive health and birth control. "They searched for information related to their prenatal genetic counselling need. Women in developing countries lack information they feel need the most: family planning and reproductive health. It is evident that postnatal women need information on reproductive health issues such as infertility, family planning, infections especially STDs, counselling on how to manage a particular complication or infection, etc or to control birth rate among a particular community".

Furthermore, Ogunmodede, Ebijuwa and Oyetola (2013) conducted a research on health information need and information sources of postnatal women in Ogbomosho metropolis, Oyo state, Nigeria found the information needs of postnatal women to include: Information on maternity, delivery, breast feeding, information on pregnancy period, after delivery, information on immunization, on family planning, and information on miscarriage.

Consequently, postnatal women seem to have many information needs for themselves, families: paediatrics, children and adolescents, education, etc; and the fact that they are on a demarcation line either live or death when it comes to delivery, these therefore need to be investigated concurrently and repeatedly so as to come up with their varying needs and ways forward; many researches need to be done empirically to ensure their needs are fulfilled to enable them actually assimilate and use the information thus sought. As Aliu (2010), quoted Kirkelas noted that over two decades ago that information needs is perceived within the context of an individual's environment. The individual recognizes an inadequacy in his/her knowledge that needs to be resolved in order to deal with a problem. Ormandy (2010), on his part clarified information needs from a patient's perspective as "the recognition that their knowledge is inadequate to satisfy a goal, within the context/situation that they find themselves at a specific point in time".

However, Bello (2006), cited Lancaster (1976), as identifying two types of information needs: (1) the need for information to aid the solution of a particular or to facilitate the making of a particular decision; and (2) current awareness needs-the need for information to keep up with development in one's field of endeavour or to satisfy curiosity for new information. In the American study conducted by Bernhardt and Felter (2004), they refer to how one woman found the information she sought from the internet during her

pregnancy relieved her anxiety or fear of 'not knowing what to expect'. Teres (2002) comments on how women need to connect and bond with one another during pregnancy, and to rely on other women for support. DIPEx.org (2005) is an example of a website developed in the UK where women can listen to a number of different audio-visual interviews of women talking about their experience of antenatal screening, as well as accessing information on treatment choices and where to find support.

Jacques, Bell, Watson and Halliday (2004) suggest the internet could be used as a form of personal support or 'virtual support'. Capitulo's qualitative study using ethnography to describe and interpret the culture of an online perinatal loss group, found the essence of the culture was 'shared metamorphoses. The culture of online support can link individuals who are geographically distant but share common issues. The internet linked women together who otherwise would not have met. Participants shared virtual identities, created a community and by joining the perinatal loss group ensured that they would never be alone (Capitulo, 2004). Similarly, Rillstone *et al.,* (2001), in their exploratory descriptive study noted how some women who had a previous pregnancy with a foetal abnormality benefited from accessing the internet for support when faced with a subsequent pregnancy.

It can be seen from the review that there are a number of factors responsible for information needs of postnatal clients; some physiological/morphological, psychological or environmental. It is also evident from the above that, different researches were conducted in different geographical areas around the globe that focused on the postnatal patients, their needs, and worked towards solving their individual problems. Researches in this field are little or even meagre with regards to this region. The current study is an attempt to add up to the existing body of knowledge concerning the information needs and

seeking strategies employed by postnatal women in satisfying their needs and that of their newly born babies especially with respect to this fragment of the earth.

It can be seen that, postnatal clients have a great deal of needs and some of their needs have been met by the hospitals they attended. It can also be seen that despite information needs exists, there is no guarantee that the person will take every step to search for such information. However, to the educated and ready to use information consumers, if the information is such significant especially on health issues, the clients will not regard it as a kid glove rather will take steps in addressing them in order to ensure life expectancy, health promotion, etc.

### 2.4 Information Seeking Strategies of Postnatal women

Information seeking behaviour is an area of study that attracts the attention of scholars over long time to know what methods, procedures, processes, etc seekers do exactly employ to satisfy their individual needs. However, the fact that information needs exist is not guarantee that the person who needs the information will take any action to find that information. The information seeking behaviour of users depends on education, access to library and the length of time a user wishes to devote to information seeking.

Information seeking behaviour is a complex activity, requiring access to diverse resources to deal with work-related, personal and social information or problems (Raza, 2010). Ocholla (2009) identified three strategies for locating information. These are: people, information and system. He went further to state that the study of individual seeking behaviour requires understanding of the psychological state of the users that may lead to insight into their exception and make it possible to predict information seeking activity.

Mick (1980) observed that “information producing and information seeking behaviour are closely linked and are not better accepted as they fail to provide linkage between the two activities.” It also recognizes that information seeking can be understood in two senses: it is continuous activity in a generic sense, in that individuals make sense of the world around them by gathering information, bit, for specific purpose, it is for typical organizational member, a highly spasmodic, even-driven phenomenon. And, the driven event is a crisis-either for the individual or for the organization. It is not possible to assume therefore that, people have well-developed formal information seeking skills. It is more likely that the process has to be learnt on each occasion- particularly if those occasions are widely spaced.

Taylor and Procter (2005) define information seeking as the ability to efficiently scan literature using manual or computerized methods, in order to identify a set of useful articles and books. According to Ikoja-Odonga and Ocholla (2004) who conducted a research on Information seeking behaviour of the informal sector entrepreneurs in Uganda, defined seeking information as the process where an individual goes about searching for information, which is a process that requires the information seeker to apply personal knowledge, skill or personal information infrastructure to solve a problem.

Aina, in Nkomo, Ocholla and Jacobs (2011) suggested that information seeking behaviour depends on user education, access to a library, and the length of time devoted to seeking information by the user. Also, information seeking is the process or activity of attempting to obtain information in both human and technological contexts. But some individuals tend to use in-person network to find their related information. However, Dutta (2009) reported that “there is relatively small number of studies done on the information behaviour of the

citizens of developing countries", and that, "the few concentrated on the educated individuals and the urban population located in the large cities than on citizens who live in the rural areas."

Despite the fact that we are living in information environment, postnatal women do not have strategies to seek for their relevant information; though not all information need to be disclosed; there are some information that are personal and confidential but, postnatal women find as a pride to discuss implicitly and explicitly on the quest for their information. This calls for need to develop the use of concept "e-postnatal women" so as to allow them to share the experience, skills, attitudes, knowledge, of many variables at a time.

Some postnatal women prefer information sourced from their relatives, friends, and unprofessional or unskilled individuals. This was made known variously especially by Tinkham and Voorhies. Sources of information as classified by Tinkham and Voorhies (1977) and Snunith (1998) are formal and informal sources. Some studies stressed that most postnatal women source relevant information as a result of interpersonal communications among themselves especially from the old women who have experienced such and they admit that they found such information as valuable. Mabawonku (1998) found that 57.5% of the respondents considered interpersonal communication from friends and relatives valuable and relevant source of health information. Also, Musoke (2005) studied information access and use by primary health care providers in rural Uganda and reported that the women disseminated health information informally to relatives and friends. Formal sources of information usually carry information that is public through print and non-print media.

Lynn (2005) who conducted a research on lack of preparedness: experiences of first-time mothers found that following the dramatic changes of pregnancy and delivery, the women in the study returned home feeling unprepared to care for themselves and their babies. Because of their lack of preparedness at a time of increased responsibility and vulnerability, they were overwhelmed. Exhausted, feeling unwell and isolated, they struggled to adapt to new role expectations. Propelled into information seeking by their lack of knowledge, they were further hampered by conflicting and fragmented advice. Family and friends were the primary sources for information for the majority of these new mothers, not healthcare professionals or services (Lynn, 2005).

In a research conducted by Ogunmodede, Ebijuwa and Oyetola (2013) at Ogbomoso metropolis, Oyo State, Nigeria found the information sources of postnatal women to include the following: ask a nurse, maternity health centre, local chemists, primary health centre, traditional birth attendants, radio, posters, community show talk, internet, ask a friend, ask my mother, and others. However, the statistics of internet usage with respect to this region among patients including postnatal women is yet to be published, it is evident that the rate is very low compared with the developed world and other developing countries. Because of the information security, privacy, right of access and freedom of information, and the fact that not all information/secrets need to be divulged, people still consider internet as their sole ultimate of information. According to Fox et al., (2011) based on the research conducted titled “the online health care revolution: How the web helps Americans take better care of themselves”opined that, “Now, people are increasingly turning to the Internet to find other patients with their disease. These individuals are known as e-patients, a term coined in the 1990’s to describe patients who used the Internet to find and share health information; they are not just looking for health information, but are seeking social support from patients with similar diagnoses in order to make sense of

their condition, learn about the psychosocial effects of their disease, and understand the impact of treatment options on their quality of life in order to aid decision-making".

Fox (2011) went further to suggest that according to a recent survey, 85% of the Internet users in the United States have searched for health information online; this number increases if the user has a chronic illness. There are three broad categories of e-patients: individuals who are well, people who are newly diagnosed and patients with chronic illnesses and/or their caregivers (Fox, 2011). This is also true for postnatal women as Szwajcer (2005) stated in their study that "In relation to the manifestation of nutrition-related information-seeking behaviours during first-time pregnancies, three groups of women could be distinguished: (1) women who feel like a mother from the moment they know that they are pregnant, (2) women who feel like a mother later in pregnancy and (3) women who do not feel like a mother yet". So these groups can share and exchange their information online using e-postnatal women websites. In Cain et al.'s study (2000), 5% of e-patients were newly diagnosed, and 35% had chronic illnesses or were caregivers for someone with a chronic condition. Newly diagnosed individuals are a dynamic and transient group, and they search "frenetically" for information, "covering a lot of ground in the first few weeks following their diagnosis".

Fox et al., (2011) also found that their searching behaviour varied depending on the social stigma carried by their condition. Participating in patient support groups online makes them feel more informed about their disease and enhances their sense of well-being, according to a recent survey of patients with life-threatening, unexplained, or chronic disabling conditions like fibromyalgia, breast cancer, or arthritis; there were no significant differences between patient groups in the study, indicating that the benefits of participation may not be affected by disease type (Fox et al., 2011).

But, majority of postnatal women in this region do not find worthy the available e-resources, e-patients, etc to discuss timely access, reliable, relevant, accurate and scientific information. Rather they prefer seeking information from healthcare professionals or experienced relatives. This is in contrast with the submission of Trisolini et al.'s study (2004), patients were eager to use the provided website for information seeking; however, they elected to participate in the study and were therefore likely to be more interested in using the Internet for health information seeking than people who did not participate. But here most postnatal women spend hours watching TV, DVDs, etc that does not solve but add salts to their problems.

These online websites tend to encounter challenges especially from qualified medical personnel as their profession is or tends to be fading due to the paradigm shift from using physical care to virtual care or increased responsibility of and variability in information seeking behaviours of a large array of patients. According to Eysenbach, (2005), the use of the Internet for health information has been noted as a problem for health care providers, who are particularly worried about the credibility, reliability, and accuracy of online information (Eysenbach, 2005). Though this occurs in developed world where they have enough medical personnel, it would have been better to implement e-postnatal women in this region because, the doctor-patient ratio is 1:3500 against the recommended figure by WHO that 1:600 and that postnatal women do complain about fragmented care, dehumanizing aspect of, lack of emotional support from healthcare professionals, etc, e-postnatal women will solve most if not all of their problems.

Increased consumer participation in interactive health communication is likely to influence the health care system due to its information dissemination, health promotion, and socialsupport and health services functions. Generally, patients (including postnatal women) are more likely to become involved in information-seeking and other empowerment activities depending on two factors: the severity of the illness, and their attitude towards their physician (Grandinetti, 2000). Patients with more severe illnesses/complications are more likely to seek information and to be involved in their care by relying on doctors to make decisions and finding more information about those decisions online without "wasting the doctor's time with questions" or viewing doctors as a partner in making healthcare decisions after doing research on their condition and discussing it with their doctor.

A major potential benefit of the Internet is its capacity for interactivity, emphasizing transactional rather than linear communication processes. Interactivity is reflected in complexity of choice, responsiveness or conversationality and interpersonal communication. Interactivity further promotes tailoring of messages and facilitates interpersonal interaction (Eysenbach, 2005).

In contrast to traditional sources of health information (e.g. print), interactive health communication offers the potential for more individually tailored messages in a variety of formats. Consumers can select sites, links and specific messages based on knowledge, educational or language level, need, and preferences for format and learning style, often at lower cost than conventional methods. At the same time, traditional health information and patient education materials and messages can be placed on the Internet inexpensively (Eysenbach, 2005). The Internet offers opportunities for consumers to interact

interpersonally with health professionals and peers. Research consistently indicates that health behaviour change typically results more from interpersonal than mass communication; thus, the Internet may be used to promote health behaviour change.

Relative to face-to-face interaction, interactive health communication offers potential anonymity. Consumers may access information on sensitive topics, and the stigmatized may interact without the predictable disconfirmation of face-to-face interaction. Those who have difficulty communicating face-to-face may be able to engage in interactive health communication (Trisolini et al., (2004).

Despite all these developments in the world around us, the challenges postnatal women in this region face are real, they are serious and they are many, they will not be solved easily or in short span of time; this is the right era to overcome these challenges; the use of either manual or computerised formats of information seeking among postnatal women is low. This may be *inter alia* due to them been too poor, too illiterate, negligence, inexperience, inaccessibility to, perception, satisfaction of information resources or services, or other hidden attributes that need to be investigated. Postnatal women should reject as false the choice between their safety and ideals and they should not give them up for expedient sake; they should ensure seeking a future of peace and dignity, health and conformity, this is because greatness is never given it must be earned/sought. Information seeking behaviour of different professionals/novice has been extensively studied and consequently followed by a great deal of descriptions on the pattern, methods, procedures, processes, etc individuals seek to satisfy one's needs but, that of postnatal women especially in this region has been neglected or is unavailable. Therefore, there is the need to conduct a research in this area to add up to the existing body of literature.

**2.5 Information Resources Available for Postnatal women**

Many scholars write on information resources which are of serious concern to information seekers for utilization, answering a query, filling in gap, etc. Information resources have no accepted universal definition. With advanced computer and networking technologies, more and more information can be accessed electronically. Information overload has become an issue and it is increasingly difficult for a user to quickly identify and locate useful information resources. It is important to examine not only what, but also why information resources are selected and used by users.

The nebulous nature of the concept "information resource" for a generally accepted definition has been criticised by many scholars. According to Laribee (1991) who conducted a research on defining information resources, maintained that "the abundance and diversity of definitions about the term information resources bewilders". Certain common themes however, have emerged despite the absence of widely accepted definition for this concept. Accordingly, Department of Information Resources Austin, Texas (2011), described information resource as "the procedure, equipment, facilities, software and data that are designed, built, operated and maintained to collect, record, process, store, retrieve, display, and transmit information".

From the above view, information resources could be said to consist of information content, people, machinery, and facilities that enable information user satisfies his/her information needs. Timothy and Katie (1996), corroborated this when they defined information resources as "information and related resources, such as personnel, equipment, funds, and information technology". Based on these facts, it is evident that, information resources need to reflect the information needs of information seekers. Thus resources should be in different formats in as much as to satisfy the user's needs.

Aliyu (2006), cited Maurice (1983) stated that: “One approach is to rethink the function and objective of a library. This approach will identify what the organization aims to do and how it aims to do it. Then calculate what information resources in terms of prints and non-prints are needed to serve the organization where they belong to, or establish to provide information for”.

Adewumi (2011) asserts that “information resources are information bearing materials which exist in various formats”. He continued to further said that information resources as “those materials which enable information centres to carry out their functions effectively. They are made up of books and other information bearing media”. Information resources always play an important role in information centres. In fact without adequate and quality of information resources the desire of achieving information needs of postnatal women and other individuals will not be possible. This was further confirmed by Adomi (2009), who noted that “information resources are the information items/resources acquired, processed and made available to patrons. They enable the information seekers to fulfil their goals of meeting their information needs”.

The recognition of information resources as indispensable complements in the attainment of the information needs of postnatal women can never be overemphasised. Therefore, to develop need based information resources for the postnatal women, their information needs must be determined and information resources in different formats and forms should be properly examined. As Popoola (2008), cited Allen (2005), stressed that “information resources to be acquired must have breadth and depth covering areas of information needs of users”. Based on the above facts, information resources remain the basic stock of postnatal women, although the extent to which they meet their information needs fluctuate

and varies. Thus, information resources that should be used by the postnatal women should be measured in terms of quality. Dudu (2008), referenced Camble and Rebadu (2002), described quality of information resources as "information resources that have the attribute of relevancy, accuracy and timeliness required for keeping pace with current development in the society, it should be accurate and provided at the right time".

Hossain and Islam (2012) observe that women also lack access to information resources and ability to access Information and Communication Technology. These same women are isolated from getting access to information resources that they would need to make their lives better. Similarly, Corragio (2011) noted that these same women have no time to seek information or to get into educational programs, even if those programs are available (Corragio, 2011). It is a known fact that according to the Global Health Council, "the health of families and communities are tied to the health of women, the illness or death of a woman has serious and far-reaching consequences on the health of her children, family and community." This means however that those who need information most particularly on health, HIV/AIDS are least served.

In order to successfully search for information about their health, patients must possess health literacy skills. Health literacy is closely linked with patient empowerment. In fact, patients who self-report higher levels of health literacy are more likely to believe they are empowered (Case, 2012). Although there are many definitions of health literacy, the defining attributes of the concept are reading skills, comprehension, the ability to use health information for decision-making, and the capacity to navigate the healthcare system successfully. It is related to information literacy, although information literacy deals with the ability to recognize and resolve information needs appropriately (Case, 2012).

Another aspect of information resource is its selection by individuals; belief affects the use of information resources. According to Tao (2008) based on the research conducted on an information resource selection and use model that, “Three behaviour beliefs (perceived usefulness, perceived ease of use, and perceived least physical effort) and two normative beliefs (instructor’s influence and reference librarian’s influence) largely mediated the relationship of external variables with primary resource selection, while fully mediating the relationship of external variables with the actual use of the primary resource”. The quality of information retrieved determines how well it will suit the desired output. According to the innovation theory, external factors do affect the use of technology, for example complexity, triability, affordability, usability, and even the attitudes (perception, feeling about) of the populace to the newly invented technology; for example, using bicycles, motorbike, motorcar, the advent of ATM machines, computers and the like; before all these were recognized and felt not only as a pressing necessity but an idle curiosity; it passed a long way of subjection into avoidance, rejection, etc. But nowadays, all these machines and others to evolve have been accommodated as the sole ingredients for development.

According to Case (2012) who opines that numerous authors bemoan the difficulty and limitations of establishing quality standards, yet a review of literature yields substantial consensus regarding such criteria. Health-related websites should be judged by the quality of health information found on them *and* by design features that may facilitate or impede use. Quality should be based on a comprehensive assessment rather than any single criterion. A readily navigable or updated site may contain inaccurate information (Case, 2012).

Quality of health information found on the Internet should be subjected to the same standards as traditional information, including source and message characteristics, as well as adaptability to targeted audiences. Internet *sources* include both site sponsors and sources of specific information. Credible Internet sources mirror tradition, including journals, universities and recognized research centers, libraries, government agencies, and professional organizations (Lamp & Howard, 1999).

However, health information may be found on sites sponsored by little known but credible organizations (e.g. organizations of providers, consumer advocacy groups, voluntary health-related organizations), as well as organizations whose names only *sound* credible, commercial sponsors, and individuals (both professionals and members of the public). Credibility constitutes the `premier criterion' for evaluating online health information (Rippen, 1999). According to O'Keefe (1990),*Credibility* is defined as in terms of judgments regarding believability of sources of messages, reflected in two dimensions: *authoritativeness* and *trustworthiness*. *Authoritativeness* (also termed competence or expertise) involves judgments of whether the source is in a position to know what is truthful or correct (O'Keefe, 1990). Consumers should seek evidenced-based information and advice from expert sources. Typically, physicians and health care organizations are perceived as authoritative; however, those associated with medical schools are deemed more credible by their research involvement. *Trustworthiness* refers to judgments regarding the character or integrity of a source in terms of motivation to be truthful. Even authoritative sources may be biased.

Postnatal women may get information about pregnancy and childbirth through a number of sources: health professionals, social services, family members and peers, books and other media. Midwives, obstetricians, GPs and paediatricians have traditionally been the main providers of information to women about their pregnancy, care and treatment options, but there is a growing body of literature that indicates this may be changing as women turn more and more to the internet for health information (Crandall, Zitzelbergr, Rosenberg, Winner & Holaday, 2001). The internet is one of the fastest-growing sources of information on a wide range of health-related issues, including pregnancy and childbirth for many postnatal women (Bernhardt & Felter, (2004). It's time to embrace the concept of the informed patient and use their web-surfing skills.

According to Bernhardt and Felter, (2004) many practitioners and researchers believe that people who are better informed are also better able to reduce their personal anxieties to understanding what is going to happen and to participate in decisions about their own health care. Similarly, according to Bowen et al, (2003)a great many health-seekers say that the resources they find on the Internet have a direct effect on the decisions they make about their health care and on their interactions with health professionals. This agrees with the submission of Odlind, Haglund, Pakkanen and Otterblad(2003) that it can only be assumed that use of modern communication, including the Internet, has affected women's awareness of their health options and increased their demand for sharing the decision-making regarding pregnancy and delivery.

Internet usage is very popular among users for accessing health information and failure to discuss their information with health practitioners may lead to problems among them. According to Wyatt (2005) survey data confirms that health information is very popular with internet users yet relatively little qualitative social science research has been

conducted about how people incorporate information from the internet into their everyday information practices. Murray et al, (2003) found out that midwives are expected to provide relevant, up-to-date information that meets the needs of women in their care. Health professionals who refrain from discussing with women information they have sourced from the internet may harm the relationship they have with their client.

In a media review, Teres (2002) points out that pregnancy is a time when many women feel isolated and confused. With so many choices in childbirth, so many different voices offering advice, it is difficult to know where to turn for information and support. For many women, the internet provides a new kind of safe haven. Often anonymous, it offers a never-ending source of information and reassurance. In a combined quantitative and qualitative project conducted by Lavender, Campbell, Thompson and Briscoe (2003) titled"looking at supplying women with evidence-based information", 71% of the 24 respondents who had internet access said they would use it as a source to access information.

When Soltani and Dickinson (2005) explored the views of 329 postnatal mothers on the information they were provided with during pregnancy, 88% of the respondents stated they received most of their information from health professionals and 72% from family and friends, but 28% also obtained information from the internet. However, when Jaques, Bell, Watson and Halliday (2004) asked 737 pregnant women about their preferred sources for information on prenatal testing for birth defects, only 6.8% of the women in the group who had prenatal testing and only 9.3% of women in the group who did not have any prenatal testing had used the internet as a source of information on the subject. In both groups, face-to-face counselling with a doctor or counsellor, followed by leaflets and then videos

were the most popular choices of information sources. However, they did not indicate what influence the information obtained from the internet had on the women.

In Westfall's interview-based research project, 3% of the 27 participants used the internet to seek advice and information on the use of home remedies to maintain their health during pregnancy (Westfall, 2003). In another small study carried out by Eriksson-Backa (2003) which compared three groups of people in different health situations (postnatal women, diabetics and 'healthy people'), 17% of the postnatal women stated that they would choose the internet as a first choice of health information. When Sinclair, Gardner, Mackin, Boreland and Hood (2001) asked 169 postnatal women from two maternity units about using the internet to find information about birth, 18% of women who had internet access in the rural hospital used the internet to source information about birth compared to 31% of women in the urban maternity unit.

From the literature sourced, it is not possible to measure the true extent of the use of the internet by postnatal women, as there are incidences where usage goes unreported e.g. Viau, Padula and Eddy (2002) in their study on the health concerns and health promotion behaviours of postnatal women over the age of 35, reported women sought health information from the internet but give no actual figures. Maijala,Åstedt-Kurki, Paavilainen and Väisänen (2003) briefly mention in their grounded theory study, which looked at interaction between care-givers and families expecting a malformed child, how parents who had been informed about a foetal malformation often sought information independently about the malformation from the internet – again, no actual figures were quoted.

In terms of the type of health information sought from the internet, the only literature found that discussed specific topics were those of Spink et al (2004) and Bernhardt & Felter (2004). Spink et al (2004) reported 'pregnancy/obstetrics' was one of the top five medical or health queries on the internet. Many queries related to health issues during pregnancy or the health of a baby. For example, 'When should I take a pregnancy test?' and 'Should postnatal women fly in an aeroplane?' Although they mainly focused on mothers of young children seeking online paediatric health information, they asked mothers questions about their use of the internet for health information during pregnancy and reported websites of particular interest were those that offered information on foetal development dependant on gestational age. Of the 20 women in their focus group, many of the participants reported that they sought social support on the web from other postnatal women and used the internet to research specific problems they were having with their condition. Unfortunately,they did not elaborate on what these 'specific problems' were.

In a prospective study using anonymous closed questionnaires conducted by Lass and Brinsden (2001), 5% of the 175 women used the internet as a decision-making tool in relation to helping them choose where they should have their private in-vitro fertilisation treatment. The internet was named by postnatal women as a trusted source for advice on the use of home remedies to maintain their health during pregnancy (Westfall, 2003); however, due to the small (n=27) non-random design, and geographic specificity of the study, no generalisations could be made. Discussions followed by web clinics, were the most popular form of internet source cited by postnatal women in the study conducted by Eriksson-Backa (2003), compared to the control group of healthy individuals who showed more interest in accessing online newspapers and magazines as a health information source. Bernhardt and Felter (2004) found commercial information websites to be the most

frequently visited sites by their research participants, but these were the least popular internet source in the study among postnatal women. The reasons given for women favouring these sites were because they could shop, socialise and research a wide range of topics all from the same website.

Sinclair, Gardner, Mackin, Boreland and Hood (2001) did express serious concern about trusting the reliability of information from commercial sites. More trust was given to websites that had little or nothing to gain financially. They praised organisational and academic websites as good for health information; however, there was criticism that these websites can be too scientific and difficult to understand. Many of the studies retrieved did not expand on the nature or quality of the information the postnatal women sourced from the internet or how the women used the information.

Similarly, Fox (2011) in the national telephone survey of 3,001 adults found that 70% of people turn to healthcare professionals and other credible authorities for information and support, especially when their questions are technical and related to specific health care issues. However, non-professionals are often preferred for more personal information about health conditions, such as how to emotionally cope with a particular issue (Chung & Kim, (2008); Coulson, (2005); Eysenbach, et al., (2004); Ferguson, (2007); Fox, (2011); Greene, et al., (2010). Often, the role of other patients is seen as purely providing emotional support; however, this view negates the expertise of patients and sets up a false dichotomy between emotional and informational support. In fact, the major types of support – informational, emotional, and tangible – are often intertwined and entangled concepts (Hartzler & Pratt, 2011).

If healthcare professionals are selected as information source to pregnant/postnatal women, is there any symmetrical or two-fold benefit between the two subjects. In other words, do professionals provide information to postnatal women based on their needs? According to the research conducted by McNeilis (2001) on information exchange between physicians and patients demonstrates that this relationship is asymmetrical, with providers receiving more information than patients. Unfortunately, attempts at information-seeking by patients in medical encounters are often embedded in declarative statements – and physicians rarely respond to these embedded questions with direct answers or elaborations on the question. Similarly, Cutilli (2010) maintained that while patients prefer to get factual information about their disease – things like their diagnosis, prescription drug information, and how to manage their condition – they may not be asking in a way that facilitates the response they need. Furthermore, physicians may struggle with exactly how much information to give to patients; in fact, Hippocrates argued that doctors have a responsibility to decide how much information to give to patients, and some physicians withhold information as a matter of course (Palmieri & Stern, 2009).

However, according to Cutilli (2010), the stymied information flow between patients and providers most often arises because information seeking and giving is a complex relational process, encompassing the characteristics of the physician, patient, and the situation. Sometimes due to environmental inclination and the fact that most healthcare professionals are male, it is evident that postnatal women are shy, or feel uncomfortable to communicate, or cannot vividly and explicitly show the conditions/complications they are undergoing; in other words, it is influenced by cultural and societal norms regarding patient empowerment and activation. However, according to Fox and Jones, (2009)

although the information flow is imperfect, patients still mostly go to their providers for health information (Fox & Jones, 2009).

However, according to Hesse (2005) in developed and in most developing countries across the globe, patients say they prefer to go to their health care providers first, although in practice they are much more likely to go online to seek health information before talking with their provider. Traditionally, the use of other patients as information sources has been facilitated in face-to-face support groups. It is generally noted that these relationships have a positive effect on patients including postnatal women, although Veinot, Meadowbrooke, Newman, Zheng and Perry (2010) do say that the death of other patients can be a difficult issue for some individuals on antenatal. This is likely because patients have an inordinate amount of contact with other similar patients as compared with other diseases.

Similarly, according to Zheng et al., (2010) a recent study on online peer-mentoring for young adults found that participants wanted the ability to express themselves, get to know other patients, stay in touch with those patients, and to seek both information and help in an online support group. The study conducted by Szwajcer, Hiddink, Koelen, and van Woerkum (2005) showed that, postnatal women use mass media. Postnatal women and women with a child wish use those media alternatives that best comply with their needs and which are most gratifying. They went further to mention McQuail (2000) who noted that there are four motives for media usage:

**Information**: seeking advice, getting oriented about events in the environment, learning;

**Personal Identity:** gaining self-knowledge, finding models of behaviour, reinforcing personal values;

**Integration and Social Interaction**: finding out about others, relating to others, finding out how to play one's roles, establishing a basis for social interaction;

**Entertainment**: relaxation, escaping from everyday problems, filling time.

These motives help to explain the differential patterns of media usage before and during pregnancy.

Other studies among first time postnatal women in their first trimester of pregnancy that information (especially learning), finding out about others and entertainment functions (fun, relaxation) of the media were particularly important. They use social environment, according to the Social Support Theory (Sarason & Sarason, 1985), social support can provide a sense of belonging (eg sharing a child wish together with other women), assistance with acquiring needed goods or services (e.g. getting baby clothes from friends), guidance and advice in uncertain circumstances (e.g. getting advice on how to decrease a high blood pressure) and access to new information (e.g. getting books from other postnatal women). Applying the Social Comparison Theory (Festinger, 1954), postnatal women are likely to evaluate themselves by comparison of their ideas, opinions and feelings with people in a similar situation who have the same values. In this way, they can evaluate if they are doing well.

Mabawonku (1998) who conducted a research on Health Information provision to semi-urban people in Oyo State, found that 57.5% of the respondents considered interpersonal communication from friends and relatives valuable and relevant source of health information. This agrees with submission made by Musoke (2005), who studied information access and use by primary health care providers in Uganda and reported that the women disseminated health information informally to relatives and friends.

However, according to Cutilli(2010), formal sources of information usually carry information that is public through print and non-print media. Health professionals are

preferred in particular when medical information is required (Cutilli, 2010). Depending on the nature of the information need, information is sought from different sources (Davies & Bath 2002; Rees & Bath 2000; Wathen & Harris 2006). However, Barone *et.al* (2002) research on parental knowledge of and attitudes, and Berg and Lipson (1999) study on information sources, menopause beliefs, and health complaints of midlife Filipinas, observed that sometimes informal sources, such as friends, family, and relatives, are the ones people turn to when they need health information.

However, there is not much research about what kinds of questions do postnatal women ask their health care providers, so it is difficult to tie this concept to evidence about what questions providers actually receive from postnatal women; and the fact that postnatal women do have unmet needs that could be met by providers (e.g. questions about disease, complications progression or medication), but to date there is no research about what specific questions do postnatal women ask their providers. This may be because it is a difficult research question to answer, particularly because the most common methods for understanding patient information needs are surveys and interviews; the best way to assess what kinds of questions postnatal women actually ask their providers would be through observation of clinic visits, which might be difficult.

In view of the above facts, it can be seen that little literature pertaining the postnatal women use of information resources including manual and computerized were conducted in this region, it is hoped that this piece of the current research adds up to the existing body of knowledge.

**2.6Types of Information Services Available for Postnatal Women**

Information service is a concept that various scholars and writers have defined and described interchangeably. To Prytherch (1990), information is defined as:

> "A service provided by, or for, a special library which draws attention to information possessed in the library or information department in anticipation of demand; this is done by preparing and circulating news sheets, literature surveys, reading lists, abstracts, particulars of articles in current periodicals, etc. which is anticipated will be of interest to potential users of the services".

In corroboration with the above views, Kumar (1996) had noticed two aspects of information service. He observed that "these are (a) Provision of information on demand and, (b) Provision of information in anticipation".

Kumar (1996) continued to remark that: a user feels the need for information. He approaches the reference/information desk and makes a request for information by means of a specific query. He would be provided an answer to his specific query on demand. This would form first aspect of information service. Taking a look at this definition of information service in relation to postnatal women is very vital, because by considering the nature of their health status, double role participation, responsibilities, and their gender susceptibility and softness to harsh experiences, postnatal women might require such type of services to enable them get exact information based on their needs within a very short period of time. Such services might be provided in hospitals where the woman is registered for antenatal and other routine hospital services.

Kumar (1996), further stated that, "the second aspect aims to keep the users well informed and up-to-date in their field of specialization and also in the related subjects. This is referred to as dissemination of information or current awareness service". While Edoka (2000), viewed that

> "information service involves the in-depth analysis of the intellectual contents of the literature of a specialized

> subject area and its systematic reorganization and dissemination in form of bibliographies, indexes, abstracts, review journals, current contents and other alerting reporting journals".

However, Bello (2006), cited Lancaster (1973), while contributing on evaluation of information service argued that, "in considering the evaluation of information services, it is important to distinguish between the information needs of the community served and the demand actually made on the service". Lancaster argued that restricting evaluation considerations to the demand made on the information service ignores "Needs of present users that are not converted into demands for information services; Needs of those within the community to be served who presently make no demands of the service". Paraphrasing Lancaster (1973), Bello (2006) stated that

> "The distinction between needs for information services and demands for them is important because managers of information services should be much concerned with the evaluation of the services in terms of the extent to which they match the needs of the potential users as they are with their evaluation in relation to the demand made by actual users".

From the forgoing, it can be argued that information services are a continuous process which has to be performed for all users to enable them access and utilize information. Hence, the services are provided to ensure that users are equipped with efficient techniques of accessing information resources to meet their information needs. In other literature, Prytherch (2005) also described information service as a generic term for a library or other organization of which the main role is the collection, analysis, dissemination and presentation of information. He further added that, such information may be held by the organization, assembled on demand or distributed for publicity purposes. This was elaborated with business dictionary.com (2011) as it refers to information services as agency or department responsible for providing processed or published information on specific topics to an organization's internal users, its customers, or general public.

Based on the above, it is evident that information services always keep emerging due to the emerging demands for information. Thus, these information services are the result and reflection of the information needs of postnatal women. As such these information services need to be accessed at the appropriate time. Leedy and Ellis (2005) declared that, information users were becoming more sophisticated in their needs and desires and place increasing priority on ease and speed of access to information.

Health services will facilitate timely and equitable access to postnatal care with women able to access services as close to home as possible. Health services will work in a collaborative and coordinated way with other health services and community-based providers of maternity and newborn services to optimise women's experiences and postnatal care outcomes. The postpartum period is one of the most vulnerable [periods] for both mother and newborn, yet often neither health programs nor mothers and families recognize this vulnerability. For mothers, death at delivery, immediately thereafter, and during the following week accounts for more than 60% of the estimated 529,000 annual maternal deaths. More than 4 million neonatal deaths occur every year and about 50% of these are within 72 hours of delivery. Add to this mounting death toll, the stillbirths that alone total nearly 3.3 million annually. Most of this burden of death occurs among women in developing countries who lack skilled care during labor, at delivery and in the immediate postpartum period. These numbers are large. Nearly half of women in developing countries deliver without any skilled birth care and less than a third are estimated to have any postpartum care (PPC) (The World Health Report, 2005)

Health services will collect and report accurate data on women's access to postnatal care also promote safe and high-quality outcomes for women and their families. A World Bank development report (1996) affirmed that the health of Nigeria's population is poor, as is the quality of most of the health services it receives. The report further stated that the healthcare delivery system needs to be revitalized through a more equitable distribution of healthcare delivery resource input and a more efficient utilization of those resources. Given this position of the World Bank on the quality of health of Nigerians, there is the need to have a model through which the healthcare delivery system would be revitalized.

Healthcare systems throughout the world are undergoing significant changes. These changes are due to acknowledgement of either medical errors or system errors (Ruiz & Simon (2004). Other factors responsible for these changes include: legal obligation for quality management in some countries such as Germany (Moeller et al., 2000), assessment of service quality provision, the sophistication of medical care and increasing costs of healthcare.

Newborn health and survival is inextricably linked to the health of the mother. Every year, four million infants die within their first month of life, representing nearly 40 percent of all deaths of less than five (5) year of age children. Almost all of these newborn deaths occur in developing countries, with the highest number in south Asia and the highest rates in sub-Saharan Africa (Save the children. Postnatal Care: A Critical Opportunity to Save Mothers and Newborns, Washington, DC (2007). In most sub-Saharan Africa, maternal and child mortality are still high. Around 80% of maternal deaths worldwide are brought about by direct causes such as haemorrhage, infection, obstructed labour, unsafe abortion, and high blood pressure. Severe obstetric bleeding is a major cause of death in both

developing and developed countries. Postpartum bleeding can kill even a healthy woman within two hours, if unattended. It is the quickest of maternal killers (WHO, 2009).
Moreover, preterm birth, asphyxia and severe infections contribute to two thirds of all neonatal deaths if not attended by skilled provider. Appropriate postnatal care (PNC) in the first hours and days following childbirth prevents the great majority of maternal and child morbidity and mortality (WHO, 2009). It is an opportunity for mothers and newborns to establish and maintain contact with a number of maternal and child health (MCH) services and promotes healthy behaviours such as getting proper nutrition during breastfeeding and using family planning.

Moreover, early postnatal care is critical to promote healthy household practices such as exclusive breastfeeding that are keys to the health and survival of the new born child. The World Health Organization (WHO) stated that the postnatal period begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth. The principal objectives of PNC services are to support the mother and her family in the transition to a new family constellation, prevent, early diagnose and treat complications of the mother and infant, refer the mother and infant for specialist care when necessary, counsel on baby care, support breastfeeding, counsel on maternal nutrition, and supplementation if necessary, counsel and provide contraception service, and immunize the infant. With limited resources, contact with the health care system at least during the first twenty four hours and before the end of the first week would be the most effective strategy.

Despite its importance, this period is generally the most neglected in developing countries and most mothers and new born babies do not receive postnatal care services from a skilled health care provider during the critical first few days after delivery (Save the

children. Postnatal Care: A Critical Opportunity to Save Mothers and Newborns, Washington, DC (2007). In developed countries virtually all women and their infants receive PNC, even though the nature and frequency of this care varies considerably.

However, in developing countries even the need for care and support after birth was less recognized and approximately one-third of women in sub-Saharan Africa give birth in facilities, and no more than 13 percent receive PNC within two days of delivery. Whether women deliver at home or in a facility, PNC services are often absent. Moreover, PNC services, where available, often lack essential elements of care required for the optimum health of the mother and her newborn (Save the children. Postnatal Care: A Critical Opportunity to Save Mothers and Newborns, Washington, DC (2007). In Africa, including Nigeria, the proportions of mothers attended PNC service are very much lower. The great majority of women (92%) who had live birth in the preceding five years did not receive PNC service. Among women who received PNC service, 4% were examined within 4 hours of delivery, and 2% within 3-41 days of delivery. Generally, only 7% of women received PNC service within two days, as recommended (Save the children. Postnatal Care: A Critical Opportunity to Save Mothers and Newborns, Washington, DC (2007).

Even though PNC service utilization plays a critical role in reducing maternal and new born child mortality, little is known about its determinants. Thus, knowing information needs and seeking behaviour of postnatal women will provide a substantial data for the services provided, preferred and enjoyed. It is in concurrence with this fact that, Nevah and Stern (2005) noted that the management of public health care system in Nigeria is laden with intractable problems that call for holistic approach to its management. There is shortage of manpower requirements in public health sector because of the unattractiveness

of the salary and this makes the doctor-patient ratio to be low when compared to WHO standard of one doctor to 600 patients. The current trend of doctor-patient ratio is 1:3,500 in Nigeria due to a number of reasons including salary update. This poor state of the health care delivery system is reflected in the declining standards and facilities at the federal, state and local government levels (Adeoti, 2011).

The frustration experienced by patients from hospital employees' nonchalant attitude hasbeen a source of discouragement to them from patronizing public health care service providers. Rosen (2001) noted that positive experience will induce a customer/patient to tell three people about it, while negative experience will induce a customer to tell seven other people about it.The postnatal women are a diverse group with varied experiences. Some received social assistance; otherswere working poor. Some were teens, others older. Some participants lived in a rural area, while otherwomen lived in an urban setting. A few have supportive family members, but many had no supports at all.However, in many important aspects, the women have very similar life experiences.

The maternal mortality rate as a key index for assessing the survival of women in Nigeria is abysmal. Noted by WHO as "one of the highest in the world", the country recorded 800 per 100000 live births in (2000). Disaggregated figures show that there are wide urban-rural and inter-regional disparities. Urban areas recorded low maternal mortality rate of 331 per 100, 000 live births compared to 828 in rural areas. Factors contributing to maternal mortality rate include poor health status, illiteracy, poor access to antenatal care, poor nutrition and HIV infection. In general, access to antenatal care is very low particularly for younger women.

Nigeria recognizes the right to health and has committed itself to its protection by assuming obligations under international treaties and domestic legislations mandating specific conduct with respect to the health of individuals within its jurisdiction. Prior to economic travails of the mid-1980s, the health sector witnessed robust growth, principally as a result of unfettered support by the government, coupled with assistance from international donor agencies. Except in rural areas, access to health care was readily available at public hospitals and clinics at no charge (Mohammad, (2012). However, by 1985, this positive development had screeched to a grinding halt, owing to plurality of factors, two of which clearly stood out; precipitous economic decline and military usurpation of power, the latter marking the genesis of many of the intractable challenges besetting the health system (Mohammad, 2012).

A report released by the United Nations (UN) shortly before democracy was restored came to the same conclusion, implicating the military as being non-responsive to the deficiencies and continued rot of the health system. This rot is evident in patchwork of decrepit public health infrastructure strewn across the country, most of which are severely understaffed and suffer extreme shortages of even the most basic equipment and medicine. Even in spotty instances where medical treatment and consultation are available, escalated cost means millions are effectively shut out of the system (Sofo, 2003).

With the demise of military dictatorship in 1999 came new expectations and rekindled hope for a change in status quo. In response the democratically-elected administration introduced several innovative policy initiatives some of which are presently being pursued at different tiers of government. These initiatives aim to restructure and revamp the health system and concomitantly, realize the goals of the recently revised national health policy

and other health programmes, including the health related benchmarks of Millennium Development Goals. Although the process has been far from perfect, the development and implementation of these programmes represent a significant departure from the errors and deficiencies of the past, at least in terms of openness and greater public participation (Okwonkwo, 2001).

Health information services should provide women with access to appropriate interpreting services (face-to-face or telephone). It is the responsibility of health services to arrange an interpreter for required postnatal care appointments, including home-based visits. This is necessary to ensure that information provided is understood and to enable women and their families to ask questions and seek additional advice. This is in line with The *Department of Human Services language policy* whichoutlines the requirements for providing access to professional interpreting and translating services in Victoria (Department of Human Services, 2005). The coordination of maternity and newborn services across the care continuum and throughout the postnatal period is important to ensure that women and their families are able to access timely and appropriate care that optimises their health and wellbeing and supports family functioning and child development.

The current system of maternity and newborn services in Kano State includes three specialist hospitals with tertiary services (plus a fourth tertiary service dedicated to neonatal and paediatric services) and a range of metropolitan, large regional and local rural hospitals, providing primary and secondary maternity care services. Public health services are responsible for providing postnatal care to women both in hospital and for the immediate period following the woman's discharge. This period of time is dependent on

the individual needs of the woman, the woman's geographical location and the health service configuration.

Health services will facilitate timely and equitable access to postnatal care with women able to access services as close to home as possible. Health services will ensure women have timely and consistent access to services across the continuum of care according to their needs. Health services will promote safe and high-quality outcomes for women and their families. The current health policy of Nigeria is embodied in the national health policy and strategy to achieve health for all Nigerians, introduced in 1988 and subsequently revised in 2004 founded on egalitarian principles, the policy seeks to improve the health of all Nigerians by devising a sustainable health system based on primary health care, that is promotive, protective, preventive, restorative and rehabilitative and which will ensure a socially and economically productive and fulfilling life to every individual. The policy adopts WHO's strategy for realizing primary healthcare as elaborated in the declaration of Alma Ata.

The main focus of the National Health Policy is on the national health system and its management, national healthcare resources, national health interventions and services delivery, national health information systems, partnership for health development and health research and healthcare law. Though they are still in their embryonic stages, each of these areas represents important components of an effective healthcare system and mould; if fully developed and implemented, go a long way in plugging the gaps and inadequacies of the current health care system in Nigeria (Mohammad, 2012).

However, the poor state of the healthcare delivery system in Nigeria cuts across all sectors of economy. This necessitated the need for government to stem the downward trend by setting up the National Health Insurance Scheme (NHS) as a corporate entity under act 35 of 1999 constitution. A key mandate of the NHIS is to provide easy access to healthcare services to all Nigerians irrespective of their geographical locations and socio-economic status. Universal health coverage means that all of the population has access to appropriate healthcare when needed and at an affordable cost.

Furthermore, over the ten years of its existence, but three years of active operation, the NHIS has provided health insurance cover for about three million people in the formal sector of the economy to have access to health services. These include employees of the public sector and the organized private sector as well as organization with ten or more employees. The formal sector however, accounts for less than 30% of the population. Therefore, in order to achieve its mandate of universal access the non-formal sector which constitutes over 70% of the population must be covered. This is particularly vital, not only because they are larger in number but also because they disproportionately experience the negative impact of the weak health systems in Nigeria (Ibrahim, 2011). The objectives of the NHIS scheme include to:

Ensure that every Nigerian has access to good healthcare services

Protect families from the financial hardship of huge medical bills

Limit the rise in the cost of healthcare services

Ensure equitable distribution of healthcare delivery cost among different income

Maintain high standards of healthcare delivery services within the scheme

Ensure efficiency in healthcare services

Improve and harness private sector participation in the provision of healthcare services

Ensure equitable distribution of health facilities within the federation

Ensure appropriate patronage of all levels of healthcare

Ensure availability of funds to the healthcare sector for improved services

Patients of whatever age, want to be kept well-informed about their illness. The well-informed patients stand a better chance of quick recovery, better adherence to drug prescription, psychological and physiological improvement because they know that their situation can be treated or managed to achieve better result. In addition there is anecdotal evidence from hospitals and medical defence organizations that state that poor communication and inadequate information can result in complaints and litigation. Although discussions about diagnosis, prognosis and medical trials in time pressured clinics are difficult, healthcare professionals can learn effective communications skills to assist them with these tasks (Maguire, et al.,; Razavi & Delvans; Wilkinson et al.,;) all cited in (Jenkins et al., 2001). It has been shown that doctors engage in more patient-centred behaviour following training which means that they are more flexible and responsible to patients' needs (Fallowfield et al., 1998).

Nigeria continues to manifest unacceptably high maternal, newborn and child mortality and morbidity characteristics, ten years after the global resolve to pursue the Millennium Development Goals (MDGs) ―to free humanity from the shackles of extreme hunger, poverty, illiteracy and disease (NPC, 2009; and United Nations MDGs, 2009). Although some reduction in maternal mortality has been reported in the country, from 800 per 100,000 live births in 1999 to 545 per 100,000 in 2008, various national and independent

surveys affirm wide variation in these statistics between the geo-political zones and states across the country. That is the reason why the Nigerian Demographic and Health Survey (NDHS) conducted a research in 2008 which showed that only 58% of Nigerian women received some form of antenatal care from a skilled provider and a wide disparity exists between regions of the country with only 31% of postnatal women in the north-west accessing services, compared with 87% in the south west and south east zones (National Population Commission (NPC) and ICF Macro-Nigeria Demographic and Health Survey, 2008).

Without ready access to relevant information postnatal women have no hope in keeping up with rapid changes the societies are undergoing, nor will they be able to make right decisions. Therefore, information has always been recognized as a catalyst for the growth and development of any society. But, there seems to be a misconception of information to be delivered as postnatal women use to (consciously or unconsciously) neglect the advantages attached with online (e-resources), antenatal care; the maternal and newborn mortality and morbidity is on increase and government at all levels provide resources and services to curtail these (re)emerging problems; once their information needs and information seeking behaviour is understood there will be a consensus of these varying differences and of course it will drastically reduce hence, this gap needs to be bridged. It is of relevance to state that, this is in line with the findings of Devadason and Lingman (1997) and Zhang (1998) that, understanding of information needs and information-seeking behaviour of various professional groups is essential as it helps in the planning, implementation, and operation of information system, and services in work settings and thus is fundamental to the provision of successful information services.

## 2.7 Barriers to Information Resources and Services Use by Postnatal Women

Information is such a nebulous commodity; a person seeking it must have a wide range of information needs. In trying to satisfy one's needs, a number of constraints can rise from using the resources that simplify the utilization of information services. Information service provision to patients in the hospital is one of the basic function of the hospital in order to ensure their total compliance with the treatment and drug prescription, it enables the patients to know the nature of their disease or illness and the best way to go about the treatment if it is a terminal disease or a lifelong ailment. Good information affords the patient the opportunity to learn how to prevent the disease from spreading, for example in cases of patients with HIV/AIDS or other contagious diseases which can be prevented from spreading to another person; the quality of information generated can be managed to ensure longevity of life of the patient.

Furthermore, constraints in information service provision to postnatal women can be attributed to a number of factors such as budgetary constraints, administrative constraints, etc. Mohammed (2012) referenced Cox et al cited in Carmel Sheppard (2009) in their write up identified a number of barriers to information giving, these include:

Communication skills

Patients did not ask

Ability to access information

Language

Fear of harming the patients

Lack of time

Handling difficult questions

Embarrassing issues

Lack of awareness of individual roles

Personal backgrounds/assumptions

These were further backed by Murtagh and Thoms (2006) by stating some of the reasons why some patients could not be given information adequately. These they said are due to the following reasons:

Many patients assume the doctor would have told them everything

Patients do not wish to take up more time

Patients do not wish to appear foolish

Want to be the good patients

From the above, it is pertinent to note that the task of information giving faces a lot of challenges and constraints. It involves effective medium of communication between the doctor and the patients; it requires the willingness on the part of the patients to want to know what is actually wrong with them, their readiness to access the information provided either on the Internet, on hand-held prints such as pamphlets, patients information handbook, flyers, posters, and so on. Another problem is the fear of how a patient might take certain information when they are told, this will make the doctor to be economical with words and may decide to use different medical terminologies that might not be easy for the patient to understand out-rightly.

Information giving involves different processes and it requires a careful planning before it can achieve its objectives. In this respect, Fallowfield et al., cited in Carmel Sheppard (2009) outlined the process of information giving in which they called it the journey of information giving, these include:

Initiating the session

Gathering information

Assessing needs

Build the relationships

Check understanding

Clarify

Close session

When the proper process of information giving is followed it ensures positive results on the part of the patients, add value to the services of the physician and save the management from embarrassing situations; these can be seen in Fallowfield et al., cited in Carmel Sheppard (2009) where he outlined a seven point of information outcomes these are:

Reduced hospital stay and pain control

Improved psychological/physiological status

Improved recall and understanding

Reduction in litigation

Satisfaction

Compliance/adherence

Improved resolution symptoms

In effect, many scholars wrote about the barriers encountered by patients during their face-to-face interactions with healthcare professionals like those of Hack, (1994) and the likes. These are given in simple terms as follows:

Inability to think of questions during regularly scheduled doctor visits (Hack et al., 1994);

A lack of up-to-date and personally relevant information about a particular disease, inaccessibility of the physical environment, family's denial, and negative emotions such as fear and uncertainty (Baker, 1998);

Mistrust of physicians (Matthews et al., 2002);

Lack of literacy skills, self-confidence, and knowledge of their disease (Clark, 2005);

Inability to gather and process the requisite information (Clark, 2005);

Pressure from doctors to make decisions quickly and to rely solely on the doctors' expertise (Clark, 2005);

And inability to later recall information provided by their doctors (Ankem, 2006a)

Inability to access formal channels of information due to poverty

Lack of adequate and efficient information delivery mechanism

Ignorance of governments responsibilities to its citizens

Lack of knowledge of how to obtain required information

Non- conducive operational hours

Bilszta, et al., (2008) wrote that myths of motherhood and not coping or fear of failure were the barriers that hindered postnatal women to use information resources and services alike. They went further to mention that there are also certain attributes that contribute to the ultimate non-responsiveness to use information which were categorised as:

Fear for their own safety or that of their child

Lack of control

Inadequate pain relief

Support

Previous traumatic event

Postnatal isolation

Fear of sex and childbirth

Avoidance of other medical procedures or health care

Problems bonding with baby

Similarly, in a study conducted by Ogunmodede, Ebijuwa and Oyetola (2013) identified the following barriers to information needs of postnatal women: Language barrier, Finance, Attitudes of the health workers, Inadequate functional PHC centre, Erratic power supply, Ignorance, Others.

## 2.8 Theoretical Framework

The theoretical framework of a study is thus the structure that holds and supports the theory of a research work. It serves as the lens that a researcher uses to examine a particular aspect of his or her subject field. In other words, it elucidates or explains the rationale, justification or basis of the study (Khan, 2010). The nature and function of a theoretical framework can be seen as an attempt to answer two basic questions:

1) What is the problem that you (as the researcher) set out to investigate and answer?

2) Why is your specific approach a realistic or feasible solution to the problem? The answers to these questions normally stem from the use of a number of sources which are outlined or discussed in a literature review and which therefore form a critical part of one's research proposal or study and theoretical framework (Ziedler, 2007).

Perhaps one of the most informative sources on the design and composition of a theoretical framework is offered by Leedy. In his paper, "Practical Research: Planning and Design", Leedy (1974) compares a theoretical framework to drawing and designing an architectural

structure prior to construction. Successful research, he points out, is only possible after carefully planning and conceptualizing the research objective(s) of the study. Thus all planning for research begins with an understanding of the manner in which knowledge is discovered. According to Leedy, there are only two ways to discover knowledge: through deductive logic, and through inductive reasoning, or what is today referred to as the scientific method (Leedy, 1989).

Thus, for the purpose of this research, the researcher used Wilson's Model of Information Behaviour.

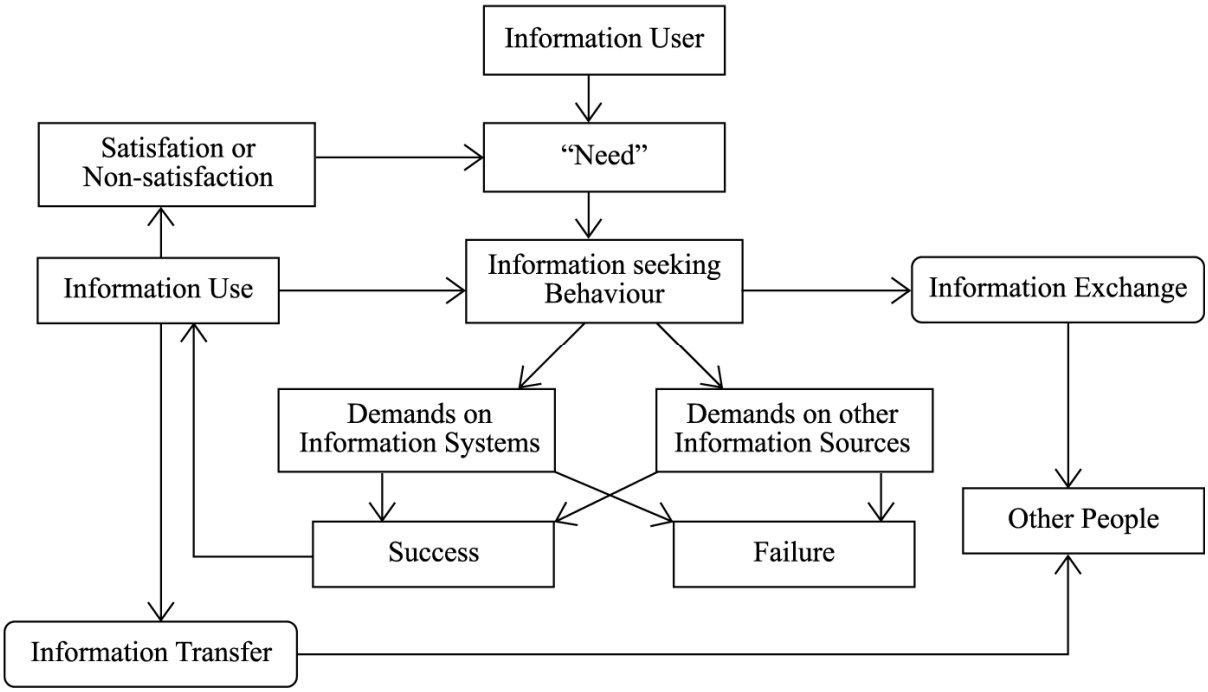


Fig. 2.1 Wilson's Model of Information Behaviour 2000

The current study adopted Wilson's Model of Information Behaviour as the theoretical framework that guides the theory of the study.

Figure 2.1 presents a way of thinking of the field, "user studies"; its aim is not to "model" information-seeking behaviour but to draw attention to the interrelationships among concepts used in the field. The figure suggests that information-seeking behaviour results from the recognition of some need, perceived by the user. That behaviour may take several forms: for example, the user may make demands upon formal systems that are customarily defined as information systems (such as libraries, on-line services, Prestel or information centres), or upon systems which may perform information functions in addition to a primary, non-information function (such as estate agents' offices or car sales agencies, both of which are concerned with selling, but which may be used to obtain information on current prices, areas of "suitable" housing, or details of cars that hold their second-hand value).

Alternatively, the user may seek information from other people, rather than from systems, and this is expressed in the diagram as involving "information exchange". The use of the word "exchange" is intended to draw attention to the element of reciprocity, recognized by sociologists and social psychologists as a fundamental aspect of human interaction. In terms of information behaviour, the idea of reciprocity may be fairly weak in some cases (as when a junior scientist seeks information from a senior but hierarchically equal colleague) but in other cases may be so strong that the process is inhibited, as when a subordinate person in a hierarchy fears to reveal his ignorance to a superior.

In any of the above cases of information-seeking behaviour, "failure" may be experienced: this is indicated in the diagram for the use of systems but, of course, it may also be experienced when seeking information from other people. Whatever the source of the information it will at some point be "used", if only in the sense of being evaluated to

discover its relationship to the user's need. That "use" may satisfy or fail to satisfy the need and, in either event, may also be recognized as being of potential relevance to the need of another person and, consequently, may be "transferred" to such a person.

Although all of these areas are of potential interest to the field of user studies, attention has been given in the past chiefly to the demands people make upon formal information systems. Curiously, information use (which ought to point most directly to the needs experienced by people) is one of the most neglected areas; and "information exchange" as defined here has tended to fall within the sphere of interest of sociologists and organizational theorists rather than within that of information scientists.

"Information" in the figure may be understood in any of the senses mentioned earlier. Thus, in information exchange, an individual may be looking for facts, advice or opinions, and may receive any of these either in writing or orally. Sometimes the channel itself may be of overriding significance, as when orally given advice may be preferred over anything in writing. Again, a user may be interested in a specific document as a physical entity, as in the expression of a need to view variant copies of an incunabulum. In information transfer it may be a fact, an opinion or a piece of advice that is transferred orally, or a physical document "containing" the fact, opinion or advice may be given to another person. It can easily be chosen to study the facts, ideas, advice or opinions, or the nature and distribution of the documentary "containers". In any event, when the term "user study" is employed the specific sub-field should be specified, and the aspect or aspects of "information" under consideration should be defined.

**Strengths and Weaknesses of the Model**

Within the field of user studies the investigation of "information needs" has presented seemingly intractable problems. If we date user studies from 1948 and the Royal Society Scientific Information Conference (Royal Society, 1948), with its several surveys of users' information-seeking behaviour, then the progress towards some theoretical understanding of the concept of "information need" has been slow. This fact is recognized by virtually every commentator on the subject from Menzel (1960); and Paisley (1965) through the various authors in the ARIST volumes, to Ford's review of 1977. As well as drawing attention to this fact, the authors have tried to discover why it is so and have generally concluded that the reason lies in inadequate methodology and the failure to do research that is "cumulative". Attention has also been paid to the definitional problem of "information need" and the difficulty of separating the concept from "wants", "expressed demand", "satisfied demand" and so on. However, while much of this work is very useful, the problem remains generally unresolved. Partly, this is the result of a failure to identify the context within which information needs investigations are carried out. Universe of knowledge is an attempt to show some of the possible contexts. (Figure 2.1 may be thought of as a sub-graph of universe of knowledge, centred on the user). It is difficult in any two-dimensional diagram to convey the complexity of the "real" world and abstract elements of that real world. The "universe of knowledge", for example, is an abstract concept, which embraces all knowledge-related objects, events and phenomena and, as such, clearly interacts with the "physical universe". To show the complex interactions of the physical and abstract universes, however, would involve a multi-dimensional diagram which would be extremely difficult, if not impossible, to express upon a sheet of paper. Accepting that difficulty, however, the "user's life world" can be defined as the totality of experiences centred upon the individual as an information user. Within this life-world one

important sub-world will be the world of work, within which will exist various "reference groups" with which the user identifies: fellow professionals, the peer group within an organization and so on.

The user will be in contact with a variety of "information systems", only one of which is shown in the diagram, hence the indicated overlap with the user and his life-world. Within the information system two subsystems are shown: the "mediator" (generally a living system, i.e. a human being) and the "technology", used here in the general sense of whatever combination of techniques, tools and machines constitute the information-searching subsystem.

### 2.9 Summary of the Review and Uniqueness of the Study

This chapter has presented and discussed various literatures on the concept and significance of information, where literatures in this respect showed that information can be conceived as anything that adds to the existing knowledge, ideas, skills, and experiences positively or negatively that enables us to take decisions or react to situations immediately or later at an appropriate period of time (Mohammed, 2012). A great deal of research was conducted on postnatal women in developed countries where they have identified any potential threats to the life and health of their populace and conferred solutions to the glaring problems. However, a few or no researches were conducted on the information needs of postnatal women in the context of Kano state hospitals. The literatures consulted and reviewed revealed a low attention given to the maternal mortality and morbidity experienced by postnatal women especially during this most neglected period of maternity. Literature has it that, the mortality rate in most developed countries is 4 or 0 per 100, 000 live births compared to the contemporary Nigeria's case.

Consequently, researches were conducted on factors responsible for the information needs of individuals including professionals and novice. However, most of the studies focused on developed countries that have already passed the level of fear of being in postnatal period which is contrary to the Nigeria's context where pregnant/postnatal women are labelled either die or live. However, studies of Ugboma (2010), Hossain and Islam (2012), Szwajcer et al., (2005), Souza et al., (2010) among others were found to be relevant to this study. Despite knowing the factors responsible for the information needs of postnatal women, little or no of these factors were highlighted in the literatures especially in developing countries particularly Nigeria.

Literatures on the information seeking strategies were also reviewed. Studies of Fox (2011), Trisolini (2004), Tinkham and Voorhies (1977), among others were found to be relevant to the current study. However, it was observed that, most of the seeking strategies employed by postnatal women were more of informal means of accessing information. In the context of Nigeria, the studies of Saleh and Lasis (2011) on information needs and seeking behaviour of rural women that identified their needs and seeking behaviours employed by the subjects in satisfying their needs were found to be relevant. But not all postnatal women in developing countries are aware of their information needs.

Similarly, studies were conducted on the use of information resources to satisfy needs. Most of the literatures however, were in the context of developed countries. Studies of Corragio (2011), Case (2012), Tao (2008), Teres (2002), etc are relevant to the current study. Little researches such as Mabawonku (1998) in the context of developing countries on the purpose of information resource were conducted.

Several studies have been conducted on the information services for postnatal women in the country. WHO (2005), Nevah and Stern (2005), Mohammed (2012), Okwonkwo (2001), were found to be very relevant to this study.

Studies on barriers to the use of information resources and information services required by postnatal women were conducted and reviewed. The contributions of Bilszta et al., (2008), Carmel Sheppard (2009), Clark (2005) were considered vital to this research work. From African perspective, Ogunmodede et al., (2013) highlighted the possible barriers that could hinder the use of information by users, to enable a better understanding of the information needs and seeking behaviour of postnatal women in Kano State. Wilson's Model of Information Behaviour developed in 2000 was adopted and used as the theoretical framework for the current study.

The uniqueness of this study lies in the fact that, most of the previous studies concentrated on developed world with little or no attention given to African countries and locations like Kano, Nigeria. The current study specifically concerned itself with postnatal women as the target population. The research settings were all specialist hospitals in Kano state. In terms of the achievement, the study realised the set objectives that triggered in seeking for postnatal information which encompassed environmental, psychosocial, medical, etc factors responsible for the information needs of postnatal women in Kano state. Most of the studies in developed countries used interviews, qualitative methodology, but the current study employed quantitative methodology, survey research design specifically cross-sectional design. Data generated was analysed using descriptive statistics.

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# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

The methodology adopted in this research was discussed under the following headings: research methodology and design, population of the study, sample and sampling techniques, sample size, data collection instrument, validation and reliability of research instrument, administration of research instrument and data analysis.

## 3.2 Research Methodology and Design

Research methodology employed in this study was quantitative methodology. Quantitative research methodology according to Hunter and Erin (2008) is the systematic, empirical investigation of social phenomenon via statistical, mathematical or computational techniques. The objective of quantitative research methodology is to develop and employ mathematical models pertaining to phenomenon. Quantitative research helps the researcher to ask specific and precise questions and collects numerical data from respondents to answer the questions. It is very quick and easy to use. The researcher used survey cross-sectional design. According to Imoisili (2006) "survey research technique involves the researcher to go out and meet the respondents that he believes have (or can give) the information (s)he wants. The researcher believes that the context in which the data are being collected will not influence the outcome (this is most granted by confidentiality and anonymity)". Akanbi (2006) sees survey research technique as a popular method of research especially where it involves large population. It is also a very popular method of collecting original data for describing a population too large to observe directly. Surveys are excellent vehicles for measuring attitudes and orientations in large population.

Hassan (2005) stated that

> "survey research method is the critical examination of events, objects with the intent of providing exact information about the conditions of such phenomena. The survey represents a probe to describe a given state of affairs that exists at a given time".

The reason for choosing survey research technique is that it is a widely used researchmethod for various purposes such as confirming assumptions, hypothesis and assessing a situation with the aim of identifying and correcting inadequacies as well as removing certain inefficiencies. In this study, cross-sectional survey research design was used. Cross-sectional survey research design is described as "snapshots" of the population about which they gather data. It is used to gather information from a population at a single point in time. The reason for choosing cross-sectional survey research is that, it is quick and cheap as there is no follow up; fewer resources are required to run the study. It is relatively inexpensive and takes little time to conduct.

### 3.2.1 Population of the Study

Population refers to all the inhabitants of a geographical area. In research, the term is used in a special sense to refer to all possible objects of a particular type as defined by the aims and objectives of the study (Bichi, 2004). Busher and Harter (1996), state that "a population is any set of person or object that possesses at least one common characteristic". Bello (2009) also described population "as that group about which the researcher is interested in gaining information and drawing conclusion". Sometimes a distinction is made between target population and accessible population. The target population refers to all members of a well-defined group to which the investigation relates, while the accessible population refers to those elements in the group that are within the reach of the research.

Therefore, the target population for this study consists of all the postnatal women who registered with the specialist hospitals in Kano State and according to the medical records of the cumulative hospital registers there are 3550 postnatal women as target population. The specialist hospitals are Muhammad Abdullahi Wase Specialist Hospital (MAWSH), Murtala Muhammad Specialist Hospital (MMSH) and Sir Muhammadu Sunusi Specialist Hospital (SMSSH). There were1200PNW in MAWSH, 1550 in MMSH and 800 in SMSSH. The accessible population is therefore 347 obtained through the use Krejcie and Morgan formula.

**Table 3.1 Distribution of Postnatal Women in Specialist Hospitals in Kano State**

| S/No | Name of Hospital | Year Established | Number of Postnatal women |
|---|---|---|---|
| 1 | MAWSH | 1972 | 1200 |
| 2 | MMSH | 1974 | 1550 |
| 3 | SMSSH | 1980 | 800 |
| **Total** | | | **3550** |

Source: Survey, 2015

### 3.3 Sampling Procedures

#### 3.3.1 Sample and Sampling Technique

A sample is a small proportion selected for observation and analysis. It is a portion of the population being studied, drawn through a definite procedure. Very often the target population is so large or spread over a very large area and time and available human and material resources are limited that is impractical to reach every member of the targeted population (Bichi, 2004).

Bebbie (2001) stated that, sample is the process of selecting a small part of a given population in order to determine the population view of the people targeted for the research. The application of sampling in educational research is fundamental, this is because it helps researcher to derive certain generalization applicable to the population from which the sample was drawn. Sample is considerable because it saves time, effort and money (Bichi, 2004).

The subjects of this research study comprised of the postnatal women (3550) attending specialist hospitals in Kano state. Also, the sample of 347 which is derived from a formula of Krejcie and Morgan is fairly sufficient to provide bulk of data for the study, since it would be very difficult to involve the entire population of the postnatal women in Kano State. According to John and James (2007), the ideal sample is large enough to serve as an adequate representation of the population about which the research wishes to generalize and small enough to be selected economically in terms of subject availability and expense in both time and money.

There are two major types of sample techniques: probability sampling technique and non-probability sampling techniques. This study applied the probability sampling techniques. Probability sampling is the kind of sampling in which every member of the sample has an equal and independent chance of being included in the sample. The inclusion of each member takes place by chance and is attained through randomization (Bichi, 2004).

This study also employed the simple random sampling. This is the best for probability sample procedure. Randomness is fundamental to simple random sampling. In this, every member has an equal chance of being included in the sample and that each choice is

independent of any other choice. As such, simple random sampling was used for this study.

**3.4 Sample Size**

There is no general rule regarding what sample size a research should use. The ultimate size a researcher uses depends upon the number of factors: the nature of the study, the instrument to be used, the nature of the population, and so on (Bichi, 2004). In sample size, the researcher derives certain generalization applicable to the population drawn.

Krejcie and Morgan, (2005);

$$\text{Sample size (S)} = \frac{x^2 \text{ x N x p x (1-p)}}{d^2 \text{ x (N-1)} + X^2 \text{ x p x (1-p)}}$$

Where

S = required sample size

$X^2$ = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)

N = the population size (which is equal to 3550)

P = the population proportion (assumed to be 0.50 since this would provide the maximum sample size)

d = the degree of accuracy expressed as a proportion (0.50)

Substituting 3550 in the above formula, 347 is obtained.

This was done as follows:

$$\text{Sample size (S)} = \frac{x^2 \text{ x N x p x (1-p)}}{d^2 \text{ x (N-1)} + X^2 \text{ x p x (1-p)}}$$

$$= \frac{(1.96)^2 \text{x } 3550\text{x}0.5\text{x}0.5}{(0.05)^2(3550\text{-}1) + (1.96)^2\text{x}0.5\text{x}0.5}$$

=3409.42
8.8725 + 0.9604

=346.7359578557699

=347

Thus,

**Table 3.2 Distribution of the Research Instrument to the Respective Specialist Hospitals**

| S/No | Name of Hospital | Year Established | Number of Postnatal women | % of PNW per Hospital | No. of Questionnaires Distributed |
|---|---|---|---|---|---|
| 1 | MAWSH | 1972 | 1200 | 33.4 | 116 |
| 2 | MMSH | 1974 | 1550 | 43.6 | 151 |
| 3 | SSSH | 1980 | 800 | 23 | 80 |
| | Total | | 3550 | 100 | 347 |

Source: Survey, 2015

The percentage **(%) of** postnatal women is obtained using the fact that:

Number of postnatal women per hospital x 100
Total number of postnatal women in the whole hosp

This implies that, for MAWSH

1200 x 100 = 33.4%
3550

For MMSH,

1550 x 100 = 43.6%
3550

For SSSH

800 x 100= 23%

3550

However, the number of Questionnaires distributed to each respective hospital was obtained through the use of:

$$\frac{\text{Percentage of each hosp}}{\text{Total number of Questionnaire}}$$

Thus, for MAWSH

$$\frac{33.4 \times 347}{100} = 116$$

For MMSH

$$\frac{43.6 \times 347}{100} = 151$$

For SSSH

$$\frac{23 \times 347}{100} = 80$$

**3.5 Data Collection Instrument**

The researcher used questionnaire as research instruments in the conduct of this study. According to Akuezuilo and Agu (2003), "in survey research, instruments like questionnaire, interviews and observations are often used to collect data from respondents"; therefore, in this research questionnaire would be used. According to Bebbie and Mouton (2001), Questionnaire is a document containing questions and other types of items designed to solicit information appropriate to analysis. The researcher went to the hospitals with the help of research assistants and administered the instrument to the postnatal women following the consent of the hospital management. The researcher employed a self-developed questionnaire consisting of close-ended questions.

The background questionnaire had been divided into six (6) sections:

Socio-demographic information about the respondents which included six (6) questions

Factors responsible for information needs of postnatal women included three (3) questions

Information seeking strategies employed by postnatal women consisted of seven (7) questions

Information resources available for postnatal women ten (10) questions

Information services available for postnatal women contained five (5) questions

The barriers to information resources and services use and required by postnatal women comprised of one (1) question

### 3.6 Validity of the Instrument

The instrument has gone through content and face validity check by the supervisor and other experts. This is to ensure that the instrument actually measures what is designed or intended to measure. Validity is often defined as the extent to which an instrument measures what it purports to measure (Kimberlin, 2008). Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concepts under consideration (Babbie 2001). The researcher submitted the instrument to the supervisor and experts in Library and Information Sciences and the professionals in the health sector for final validation in order to evaluate the items of the questionnaire and also to ascertain the index value of the instrument (so as to make the questions clear and straight to the point).

### 3.7 Reliability of the Instrument

Reliability is the consistency or repeatability of a test or measurement. Cronbach's alpha coefficient is an indicator of a question's reliability and assesses the degree to which the items that make up the question are all measuring the same underlying attribute.

Cronbach's alpha is the most common way to measure the internal consistency and provides an indication of the average correlation amongst all the items that make up the question. Values range from 0 to 1, with higher values indicating greater reliability. A recommended minimum level is 0.7 (Pallant, 2007). The Cronbach's alpha of the instrument of the current study is 0.901 and the requirement for the minimum is 0.70. Therefore, the alpha value of the questionnaire which is 0.901 indicates that the research instrument is reliable. It is attached to the work.

### 3.8 Administration of the Research Instrument

The instrument was self-administered with the help of a female research assistant who served as an intermediary in areas of gender barrier. Postnatal women were approached and given the consent forms to acknowledge their readiness and that of their partners to participate and respond to the questions supplied to them. However, this was facilitated with the help of matrons/nurses on duty. The researcher used to go to the respective hospitals early in order to issue the questionnaires which were given to those present who brought their children for vaccination/immunization following the advice of the hospital management.

The research assistant helped in the collection of the instruments back to the researcher and where proper explanation was needed, the attention of the researcher was drawn. They were still being advised that participation was voluntary and those that showed interest, they responded. But a great many respondents went along with the questionnaires in their possession. The postnatal women in this research probably due to the eagerness to leave and attend other home schedules responded almost equally to the questions posed to them.

### 3.9 Method of Data Analysis

The data collected was statistically analysed using descriptive statistics via SPSS. Percentages, frequency tables, were used in presenting the result of the analyzed data. The questionnaires were numbered from the first to the last so as to enable the researcher identify those that have been entered into the sheets of the SPSS. After entering the whole responses, percentages and frequencies were determined and presented.

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# CHAPTER FOUR

# DATA PRESENATION, ANALYSIS AND INTERPRETATION

## 4.1 Introduction

This chapter deals with the presentation, analysis and interpretation of the results of the data collected from the study on information needs and seeking behaviour of postnatal women in specialist hospitals in Kano State. The analysis of the data was discussed in line with the following subheadings contained in the work:

4.2 Response Rate

4.3 Scio-demographic Characteristics of the Respondents

4.4 Factors Responsible for the Information Needs of Postnatal Women

4.5 Information Seeking Strategies of Postnatal Women

4.6 Available Information Resources Used by Postnatal Women

4.7 Information Services Required by Postnatal Women

4.8 Barriers to Information Resources and Services Used and Required by Postnatal Women

## 4.2 Response Rate

The response rate of the postnatal women in specialist hospitals in Kano state is presented below:

**Table 4.1Response Rate**

| Questionnaire | Frequency | Percentage |
|---|---|---|
| Number of questionnaire distributed | 347 | 100 |
| Questionnaire returned | 250 | 72 |
| Questionnaire not returned | 97 | 28 |

**Source: Survey 2015**

Table 4.1 shows that three hundred and forty seven (347)set of questionnaires were distributed to the postnatal women out of which two hundred and fifty (250) copies were returned duly completed. This gives a response rate of 72%.

### 4.3 Socio-demographic Characteristics of the Respondents

**Table 4.2 Characteristics of the Respondents**

| **Variables** | **N(%)** |
|---|---|
| **Age categories** | |
| 10-20 | 22(8.8) |
| 21-30 | 77(30.8) |
| 31-40 | 123(49.2) |
| 41-and above | 28(11.2) |
| | |
| **Highest Educational Qualifications** | |
| SSCE | 181(72.4) |
| Diploma | 15(6) |
| NCE | 10(4) |
| HND/BA/BSc | 44(17.6) |
| | |
| **Marital status** | |
| Married | 244(97.6) |
| Divorced | 6(2.4) |
| | |
| **Pregnancy experience** | |
| Firstexperience | 80(32) |
| Second experience | 69(27.6) |
| Third experience | 96(38.4) |
| Multiple experience | 5(2) |

From the Table 4.2 above, it can be seen that, two hundred and fifty (250) postnatal women participated in this study. Less than half of the respondents 123(49.2%) were within the range of 31-40 years of age followed immediately by 21-30 years of age. This corresponds with WHO (2009) that reproductive age is within the range of 20-49 years of age.

More than half of the respondents 181(72.4%) attained Secondary school education. Only very few 6(2.4%) respondents felled within the category of divorced women and the

remaining were married. This might be culturally and religiously inclined in that they might have felt ashamed of showing delivered without lawful marriage. Less than half of the respondents 96(38.4) delivered up to 3 times (multiparous) and it was first experience for many others 80(32%).The respondents 96(38.4%) showed that they had third term pregnancy experience (parity/number of deliveries); this is to show how current they are with respect to postnatal care. Their experience does not make them reluctant as not to participate in the study and search for health information concerning their health and that of their born babies. However, first timers second them. This disagrees with the findings of WHO (2009) that majority of who deliver in sub-Saharan African region had not experienced pregnancy before; while those with multiple pregnancies were very few. This shows how women plan pregnancy spacing for a proper family planning.

However, it is important to note that, the letters used in the table above have meanings and these include N=frequency, %= percentage, SSCE= Senior Secondary School Certificate Examinations, NCE= National Certificate of Education, HND= High National Diploma, BA= Bachelor of Art, BSc= Bachelor of Science.

### 4.4 Factors Responsible for the Information Needs of Postnatal Women

**Table 4.3 Information Needs of Postnatal Women**

| Information on……. | Yes (a need) | No (not a need) |
|---|---|---|
| Pre and post natal care | 238 (95.2) | 12 (4.8) |
| How to improve health status | 237 (94.8) | 13 (5.2) |
| Drug and its application/administration | 225 (90) | 25 (10) |
| How to prevent postnatal depression | 229 (91.6) | 21 (8.4) |
| Prevent mother-to-child HIV | 235 (94) | 15 (6) |
| How to improve baby care | 230 (92) | 20 (8) |
| Breast feeding and return of menses | 223 (89.2) | 27 (10.8) |
| Nutrition | 206 (82.4) | 44 (17.6) |
| Immunization/vaccination | 210 (84) | 40 (16) |
| Preventing physical injuries to babies | 218 (87.2) | 32 (12.8) |
| Breast problems, tiredness, perineal | 224 (89.6) | 26 (10.4) |
| Managing backache, hemorrhoids, | 235 (94) | 15 (6) |
| Managing anaemia, headache, urinary | 228 (91.2) | 22 (8.8) |
| Labour pains and stress | 238 (95.2) | 12 (4.8) |
| How to manage body changes | 213 (81) | 37 (14.8) |

Table 4.3 shows that more than halfof the respondents revealed that they needed information in areas of pre- and postnatal care 238(95.2%), labour pain and stress 238(95.2%); how to improve health status 237(94.8%) and how to prevent mother to child transmission of HIV/AIDS 235(94%). Conversely, they expressed least need in areas of nutrition 44(17.6%) and immunization/vaccination 40(16%).

It is clear from the table above that postnatal women had an array of information needs and most recognized among them were pre- and postnatal care, how to improve health status before, during and after postnatal period and on labour pains and stress. These are the most critical issues as far as these respondents are concerned because they are all encompassing. This is conspicuous as all individuals strive to maintain, promote health and the more postnatal women bear children the more they seek for ways of maintaining their health status to normalcy. Labour pain has a tremendous effect on the present and consecutive deliveries to follow, there is always the need to lessen/alleviate or eradicate its happenings. These agree with the findings of MacLaren (1991) that pain during labour can be a threat and that postnatal clients need information on it. The least needs they had were those on nutrition and immunization/vaccination probably due to the enlightenment campaigns embarked upon by governments and non-governmental agencies at all levels as well as experience gathered during their home stays with their families.

### 4.4.1Factors Responsible for the Information Needs of Postnatal Women

**Table 4.4 Information Needs Satisfied By Hospitals**

| **Information on…….** | **Needs satisfied (%)** | |
|---|---|---|
| | **Yes** | **No** |
| Pre and post natal care | 229 (96.2) | 9(3.8) |
| How to improve health status | 218(92) | 19(8) |
| Drug and its application/administration | 208 (92.4) | 17(7.6) |
| How to prevent postnatal depression | 196(86) | 33(14) |
| Prevent mother-to-child HIV | 224 (95) | 11(5) |
| How to improve baby care | 193(84) | 37(16) |
| Breast feeding and return of menses | 184(83) | 39(17) |
| Nutrition | 179(87) | 27(13) |
| Immunization/vaccination | 202 (96) | 8 (4) |
| Preventing physical injuries to babies | 187(86) | 31 (14) |
| Breast problems, tiredness, perineal pain, | 198(88) | 26 (12) |
| Managing backache, hemorrhoids, | 224 (95) | 11(5) |
| Managing anaemia, headache, urinary | 200 (88) | 28(12) |
| Labour pains and stress | 229(96.2) | 9(3.8) |
| How to manage body changes | 183(86) | 30 (14) |

Table 4.4 showed that, more than half of the study respondents 229(96.2) were satisfied with the information provided by hospitals they attended especially on pre- and postnatal care, labour pains and stress 229(96.2%), and how to prevent mother-to-child transmission of HIV/AIDS 224(95%). Very few of them however were not satisfied with information on breastfeeding and return of menses 39(17%) and how to improve baby care 37(16%).

It can be seen from Table 4.4 that, concerning the needs satisfied with respect to hospitals attended by postnatal women, pre-&postnatal care, prevention of mother-to-child transmission of HIV/AIDS, immunization/vaccination were highly met by hospitals while information on how to improve baby care, breastfeeding and return of menses were among the least unmet needs that the hospitals failed to satisfy. This may be due to the fact that, majority of the respondents had previous experiences and were aware on how to take good care of their new born particularly on areas mentioned above. This however, contradicts the findings of MacLaren (1991) that postnatal clients regardless of the parity (primparous,

secudiparous, multiparous) need information on breastfeeding/return of menses, baby care, etc.

### 4.5 Information Seeking Strategies Employed by Postnatal Women

**Table 4.5 Types of Information Sought by Postnatal Women**

| Information Seeking Strategies of PNW | Yes (N %) | No (N %) |
|---|---|---|
| Postnatal care | 233 (93.2) | 17 (6.8) |
| Improvement of my health status | 226 (90.4) | 24 (9.6) |
| Drug and its application | 233 (93.2) | 17 (6.8) |
| Prevention of postnatal depression | 232 (92.8) | 18 (7.2) |
| Prevention of mother-to-child | 226 (90.4) | 24 (9.6) |
| How to improve my baby care | 210 (84) | 40 (16) |
| Breast feeding | 234 (93.6) | 16 (6.4) |
| Nutritional information | 213 (85.2) | 37 (14.8) |
| Immunization/vaccination | 227 (90.8) | 23 (9.2) |
| Preventing physical injuries to babies | 220 (88) | 30 (12) |
| How to manage body changes | 231 (92.4) | 19 (7.6) |

Key: PNW= postnatal women

Table 4.5 revealed that all respondents showed that they sought for postnatal care information. More than half of the respondents indicated that the notable areas where they sought for information encompassed postnatal care 233(93.2%), drug and its application 233(93.2), prevention of postnatal depression 232(92.8), breast feeding 234(93.6%) and how to manage body changes 231(92.4%). While the least areas where very few of the respondents sought for information were on how to improve baby care 40(16), information on nutrition 37(14.8) and preventing physical injuries to babies 30(12%).

It was discovered from the findings that, each postnatal period comes along with its own bedevilling complications. Postnatal women sought for information on areas of postnatal care, drug and its administration, prevention of postnatal depression, mother-to-child transmission of HIV/AIDS, breastfeeding and how to manage body changes, improvement of health status. Normally, people learn to cope with pain through experience, drawing on previously learned coping behaviours when pain recurs. This is one reason why clients

with multiple deliveries may cope with labour pains more successfully than primparous clients. This is in agreement with MacLaren (1991). This agrees with Theesen et al., (1989) that postnatal clients need information on postnatal depression and where PND occurs, supportive therapy, such as psychiatric consultation, should begin as early as possible. Many clients require hospitalization and psychotropic drugs or electro-convulsant therapy may be used as a last resort. However, the areas they least sought for information were how to improve baby care, nutritional information and preventing physical injuries to babies.

### 4.5.1 Reasons for Seeking Postnatal Care Information by Postnatal Women

**Table 4.6Purpose of Seeking Information**

| **Purpose of Seeking Postnatal Care** | **Yes** (N %) | **No** (N %) |
|---|---|---|
| For parenting | 234 (93.6) | 16 (6.4) |
| For sound health | 235 | 15 (6) |
| For know-how concerning drugs | 231 (92.4) | 19 (7.6) |
| For a free depression period | 211 (84.4) | 39 (15.6) |
| For improving the health of the new born | 227 (90.8) | 23 (9.2) |
| For awareness on the mood of mother-to- | 222 (88.8) | 28 (11.2) |
| For breast feeding | 209 (83.6) | 41 (16.4) |
| For boosting immune system | 234 (93.4) | 16 (6.4) |
| For promotion of health | 223 (89.2) | 27 (10.8) |
| For family planning | 230 (92.7) | 18 (7.3) |
| For coping with body changes and | 214 (85.6) | 36 (14.4) |

Table 4.6 showed that more than half of the respondents sought postnatal information because of parenting 234(93.6%), for sound health 235(94%), for know-how concerning drugs 231(92.4%), for boosting immune system 234(93.4%), and for family planning 230(92.7%). The least expressed reason for seeking information was breastfeeding 41(16.4%).

The findings also revealed that it is not surprising that, the reasons given by postnatal women for seeking health information were categorically and mainly for parenting, sound

health, know how concerning drugs, for boosting immune system of the new born, for family planning. This agrees with the submission made by MacLaren (1991) that both parent and child need sound health information to be able to survive. This agrees with Clinton (1987) that proper enlightenments about drug administration, boosting immune system can trigger in absolute adherence to treatment aimed at reducing drug abuse and encouraging immune system. The reason given by the respondents that was least for not seeking information was that of breastfeeding.

### 4.5.2Ways of Seeking Postnatal Care Information

**Table 4.7Means of Seeking Information**

| **Ways of Seeking Post natal care Information** | **Yes** (N %) | **No** (N %) |
|---|---|---|
| Medical enquiry | 246 (98.4) | 4 (1.6) |
| Using pamphlets | 166 (66.4) | 84 (33.6) |
| Browsing through library shelves | 93 (37.2) | 157 (62.8) |
| Internet browsing | 204 (81.6) | 46 (18.4) |
| Asking friends, relatives, etc | 245 (98) | 5 (2) |

Table 4.7 showed the ways employed by the postnatal clients in seeking for information. It can be seen from the table that more than half of the respondents246(98.4%) sought for their information by asking medical personneland by asking friends, and relatives 245(98%). This is probably due to the reality that medical practitioners were considered more versatile and competent in providing health information. While on the other hand, more than half of the respondents showed that they sought for information through asking friends, relatives probably because they are more easy to get, can provide timely access to information without costs, fatigue, etc. This agrees with Tinkham and Voorhies(1977) and Snunith (1998) that postnatal women seek for information through formal and informal sources. The least channel of seeking postnatal care information was browsing through library shelves 157(62.8%). This agrees with findings of Mohammed (2012) that

antenatal/postnatal clients do not find browsing through library shelves a substantial means of seeking information.

### 4.5.3 Rating of Information Sources by Respondents

**Table 4.8 Rating Skills in Using Mode of Information Seeking**

| Rating Skills in Using Mode of Information Seeking | | | | | | |
|---|---|---|---|---|---|---|
| | **Excellent** | **V. Good** | **Good** | **poor** | **Never used** | **Never heard** |
| Ask a nurse | 146(58.4) | 82(32.8) | 22(8.8) | - | - | - |
| Maternity health centre | 121(48.4) | 8(3.2) | 4(1.6) | 45(18) | 52(20.8) | 20(8) |
| Local chemists | 133(53.2) | 11(4.4) | 34(13.6) | 18(7.2) | 49(19.6) | 5(2) |
| Primary health care | 103(41.2) | 19(7.6) | 8(3.2) | 3(1.2) | 95(38) | 22(8.8) |
| Traditional birth attendant | 170(68) | 42(16.8) | 20(8) | 5(2) | 13(5.2) | -- |
| Radio/television | 191(76.4) | 47(18.8) | 12(4.8) | - | - | - |
| Community show talk | 104(41.6) | 22(8.8) | - | 5(2) | 44(17.6) | 75(30) |
| Ask my mother | 183(73.2) | 44(17.6) | - | - | - | 23(9.2) |
| Medical Enquiry | 222(88.8) | 25(10) | - | 3(1.2) | - | - |
| Using pamphlets | 104(41.6) | 96(38.4) | 6(2.4) | - | 34(13.6) | 10(4) |
| Browsing through Internet | 93(37.2) | 99(39.6) | 18(7.2) | 7(2.8) | 33(13.2) | - |
| Browsing through library Shelves | 63(25.2) | 80(32) | 6(2.4) | 5(2) | 75(30) | 21(8.4) |
| Ask friends | 89(35.6) | 108(43.2) | 22(8.8) | - | 9(3.6) | 22(8.8) |

Table 4.8 showed that more than half of the respondents were excellent in asking medical personnel 222(88.8%). This can be attributed to the fact that immediately after delivery, when they are kept in labour room, they had good contacts with the health professionals. As a routine work before discharge from the hospitals, it is possible that health workers asked a series of questions on any discomfort felt by the clients to ensure reliable and successful healthcare delivery at that spot in time. It can also be seen from the table above that postnatal women rated asking their mothers 183(73.2%) as excellent due to the fact that they are more closer to them when discharged and felt confident that any of their private information been discussed will not be divulged and the fact that traditional cure and care is highly appreciated by almost all and sundry, they appreciated to talk to their mothers more readily and accessibly without any hindrance. It can also be seen that more

than half of the respondents were excellent listeners of health programs broadcasted on radio/television 191(76.4%). However, less than half 99(39.6%) of the respondents were good at using the Internet while 75(30%) never use library.

### 4.5.4 Importance of Information Sought

**Table 4.9 Importance of Information Sought**

| Variable | N (%) |
|---|---|
| Very urgent | 150(60) |
| Urgent | 100(40) |
| Not sure | --- |
| Not urgent | --- |

Table 4.9 indicated that, all respondents considered information they sought for very important. This is to show the magnitude and significance of the health information to the respondents. This agrees with findings of McLaren (1991) that health information is imperative for those seeking it especially when the clients are in such conditions as postnatal care.

## 4.6 Information Resources Available For Postnatal Women

**Table 4.10Types of Information Resources Required by Postnatal Women**

| | N (%) | N (%) |
|---|---|---|
| **Information Resources Available for Postnatal Women** | Yes | No |
| Books | 166(66.4) | 84(33.6) |
| Pamphlets | 156(62) | 94(37.6) |
| News letter/bulletin | 156(62.4) | 94(37.6) |
| Seminar / or workshop | 243(97.2) | 7(2.8) |

Table 4.10 showed that more than half of the respondents 243(97.2%) obtained their information from hospital seminars/workshops. The findings showed that postnatal clients used seminar/workshops as an avenue in place of information resource more common.

This agrees with submission of MacLaren (1991) that patients find it more comfortable to attend seminars organized in & by hospitals to interact with one another and qualified healthcare professionals for sharing, exchange of ideas on how to boost their health status. They also made use of books, bulletins/pamphlets as information resources. This disagrees with the findings of Hossain and Islam (2009) that postnatal clients deny themselves access to resources even if those resources are meant for them.

### 4.6.1 Sources that Influence Decision Making

**Table 4.11Influential Sources for Taking Decisions**

| Source that Influences Decision Making | Yes N % | No N % |
|---|---|---|
| Medical staff | 229(91.6) | 21(8.4) |
| Internet | 203(81.2) | 47(18.8) |
| Friends | 225(90) | 25(10) |
| Family members | 230(92) | 20(8) |
| Colleagues | 211(84.4) | 39(15.6) |
| Radio/television | 210(84) | 40(16) |

Table 4.11 revealed that the decision of postnatal women concerning postnatal care of themselves and that of their babies was found to be influenced mainly by inputs from family members 230(92%), medical staff 229(91.6%) and friends 225(90%). This is so because family members are always concerned with the safety and health of the family especially the postnatal clients and their new born both economically, and socially. They are always at the spending end when the need arises. Medical staff especially the doctors, midwives and nurses influence postnatal decision because of their day-to-day experience, previous handling of similar cases that warrant proficient inferences on health. Thus, medical practitioners play a vital role in decision on and ensuring successful delivery, drugs administration, exercise, baby care, etc. Friends have also a role in decision making especially on issues that need informal decisions like traditional medicines, healing of uterus and umbilical cord of the new born, etc. These agree with the submissions of

Tinkham and Voorhies(1977). On the other hand, only very few of the respondents did not find worthy to utilise information from radio/television 40(16%) and internet 47(18.8%) in making important decision concerning postnatal care of themselves and their babies. This contradicts the findings and submissions made by Szwajcer, et al., (2005) though in Netherlands, that women do often use online resources or to be put more accurately 'online midwife' on issues like preconception, than consulting library resources or relatives, medical practitioners, etc.; Bernhardt and Felter (2004) revealed the same result.

### 4.7Types of Information Services Available For Postnatal Women

**Table 4.12 Information ServicesRequired by Postnatal Women**

| **Information Services Available for PNW** | N % Yes | N % No |
|---|---|---|
| Audio-visual | 11(4.4) | 239(95.6) |
| Telephone | 35(14) | 215(86) |
| Books | 55(22) | 195(78) |
| Face-to-face contact | 235(94) | 15(6) |
| In-house lectures | 97(38.8) | 153(61.2) |
| Parenting services | 245(98) | 5(2) |
| Reference services | 241(96.4) | 9(3.6) |
| Staff assistance in location of information and information resources | 250(100) | 0(0) |
| Current awareness services | 211(84.4) | 39(15.6) |
| Online internet services | 11(4.4) | 239(95.6) |
| Photocopying services | 35(14) | 215(86) |
| Loan of information resources | 31(12.4) | 219(87.6) |

Table 4.12 revealed that the most important services enjoyed was the assistance provided by staff in locating areas where services were provided such as parenting services 245(98%), reference services 241(96.4%) and face-to-face contact 235(94%). While the least services provided were in the areas of loan of information resources 219(87.6%), audio-visual 239(95.6%) and telephone 215(86%) services. It can be seen that the findings discovered that staff assistance in location of information and resources, reference services, parenting services and face-to-face contact were among the highly provided

services by hospitals. However, audio-visual and telephone and loan of information resources services were the least in terms of provision by hospitals. This agrees with the findings of Mohammed (2012) which she said that hospitals do not provide audiovisual, telephone to patients in their quest for meeting services required of them.

### 4.8 Rating of Information Services Provision to Postnatal Women

**Table 4.13 Rating of Information Services Provided to PNW**

| **Rating of Information Services Provision** | | | | | | |
|---|---|---|---|---|---|---|
| | **V. High** | **High** | **Average** | **Low** | **V. Low** | **Not available** |
| Audio-visual | - | - | 5(2) | 11(4.4) | 4(1.6) | 230(92) |
| Telephone | - | - | 5(2) | 11(4.4) | 4(1.6) | 230(90) |
| Books | 19(7.6) | 18(7.2) | 12(4.8) | 39(15.6) | 35(14) | 127(50.8) |
| Face-to-face contact | 136(54) | 82(32.8) | 12(4.8) | 20(8) | …. | … |
| In-house lectures | 15(6) | 24(9.6) | 30(12) | 14(5.6) | 40(16) | 127(50.8) |
| Parenting services | 81(32.4) | 64(25.6) | 83(33.2) | 8(3.2) | 8(3.2) | 6(2.4) |
| Reference services | 83(33.2) | 93(37.2) | 9(3.4) | 2(0.8) | 12(4.8) | 51(20.4) |
| Assistance provided by staff in locating of information resources | 84(33.6) | 88(35.2) | 15(6) | 8(3.2) | 51(20.4) | 4(1.6) |
| Awareness on current health issues | 67(26.8) | 51(20.4) | 30(12) | 66(26.4) | 17(6.8) | 19(7.6) |
| Online internet services | 35(14) | 29(11.6) | 78(31.2) | 10(4) | 13(5.2) | 85(34) |
| Loan of information Resources | ----- | ----- | 4(1.6) | 21(8.4) | 35(14) | 190(76) |

Table 4.13 revealed that when the respondents were asked to rate the non-clinical services provided by the hospitals, it was found that face-to-face contact 136(54%), parenting services 81(32.4%), reference services 83(33.2%) and assistance provided by staff in locating information resources 84(33.6%) were rated very high. While the information services not available in the hospitals assessed were audio-visual 230(92%), telephone 230(90%) and education resource like books 127(50.8%).

In terms of extent of satisfaction with information resources provided and services required, the clients showed that they were highly satisfied.

**4.9 Barriers to Use Information Resources and Services by Postnatal Women**

**Table4.14Barriers to Information Resources and Services Use**

| **Barriers to Information Resource and Services use** | Yes **N %** | No **N %** |
|---|---|---|
| Insufficient health information | 218 (87.2) | 32(12.8) |
| Lack of knowledge where information needs can be satisfied | 105 (42) | 145(58) |
| My inability to read printed materials | 150(60) | 100(40) |
| Unfavourable attitudes of the healthcare workers concern towards provision of the needed information | 70(28) | 180(72) |
| Lack of time with health workers to ask all the questions required | 195(78) | 55(22) |
| Lack of organized information resources | 94(37.6) | 156(62) |
| Difficulty in understanding the language of information | 167(66.8) | 83(33.2) |
| Unreliability of health information on the Internet | 153(61.2) | 97(38.8) |
| Difficulty of getting information from qualified personnel especially during home-based care | 166(66.4) | 84(33.6) |
| Lack of computer literacy | 178(71.2) | 72(28.8) |
| Problems of Internet connectivity | 203(81.2) | 47(18.8) |

Table 4.14 revealed that more than half of the respondents had problems of internet accessibility 203(81.2%), lack of computer literacy 178(71.2%), lack of time with health workers to ask all questions required 195(78%) and insufficient health information 218(87.2%) were the bedevilling and impressing challenges in obtaining adequate

postnatal care information for postnatal women. However, lack of knowledge on where to access health care information to be satisfied 145(58%), unfavourable attitudes of the health workers 180(72%) and lack of organized information resources 156(62%) were among the least barriers to obtaining postnatal information. The result also indicated that, insufficient health information, lack of time with health workers to ask all the questions required, lack of computer literacy and problems of internet connectivity were the most significant barriers to obtaining adequate information on postnatal care by postnatal women. However, lack of knowledge where information needs can be satisfied, unfavourable attitudes of the healthcare workers concerned towards provision of the needed information and lack of organized information resources were considered not barriers on obtaining adequate postnatal information by postpartum women.

### 4.10 Discussion of Major Findings

It is clear from the preceding chapters that, the spectrum and wavelength of information seems to be infinitely endless, its penetration power to cut across all human endeavours remains undiminished and its capacity to be relevant and persuasive emanates from diversity, complexity and sophistication the individual, organization or society experiences in every bit of second that passes. Moreover, information lingers as an inimitable commodity and obligatory tool required for societal development. Information is more than a provider; it protects and maintains the integrity of all of its users especially when handled and applied carefully.

Health information today is a vast and complex system. It reflects changes in society, changes in the populations that require information intervention and an emphasis on health promotion as well as illness care. The increasing complexity of the health care

system has led to a growing recognition of the need to refocus on the quality and safety of health care.

It is comprehensible from the study that 250 PNW participated in the research and that there were many factors that triggered information needs of PNW that can be classified into psycho-social, environmental, medical, economic, etc. They are social and environmental, for example, in that because of the cultural inclination, not being able to be pregnant is uncalled for, let alone to neglect the house chores. The partner will be pressured and advised to propose to another wife since the other one could not perform to the expectation. Probably, that is why they had an array of information needs particularly on pre- and postnatal care, how to improve health status and how to address labour pains and stress; this is because cases of abandoning women after giving births are still recorded in many researches.

The study revealed that, PNW sought for their information either informally or formally. Informally in the sense that, they prefer sharing personal information with their relatives especially mothers and friends, this is for the reason that, they are confident that their shared or exchanged information will not be divulged. And all other cultural practices that need to be done within this period particularly during their home stays are discussed safely and confidently. Breastfeeding, sleeping patterns, traditional naming ceremony and its arrangements, role expectations, etc are some of the things that are informally acquired. When it comes to health condition, they turned to their medical practitioners for such information. This is done especially when they are in hospitals where they are very close to professionals or they came back later after 6 days (as been practiced by many hospitals here for vaccination/immunization). This corroborates with submission of McLaren (1991) that both parent and child need information on sound health information to be able to survive. In the same vein, Clinton (1987) stated that proper

enlightenments about drug prescription and administration, boosting immune system can trigger in absolute adherence to treatment aimed at reducing drug abuse and encouraging immune system. If medical doctors are not in place, they turned to other means of satisfying their needs particularly internet, and pamphlets.

Due to the piece of evidence that, most PNW are in such a condition that warrants relatively less prone to harsh situations as they can hardly engage themselves in using information resource that does not need least effort to access, they tend to make use of resources that are easy to use. That is why the findings showed that postnatal clients used seminar/workshop as an avenue in place of information sharing more common. This is because of its relative simplicity, specificity and sensitivity as it involves amalgamating and intermingling of expert healthcare professionals with experienced postnatal women. This association enhances information sharing and exchange of ideas for the betterment of both. Novice postnatal clients are better informed in terms of intellectual intercourse, and multiparous individuals can update their practices. This agrees with the submission of MacLaren (1991) that patients find it more comfortable to attend seminars organised in and by hospitals to interact with one another and qualified healthcare professionals for sharing and exchange of ideas on how to boost their health status.

Decisions taken by individuals will always have to be based on judgement. But decisions have to be made for a future which will continue to be unpredictable and these decisions will always entail risks. Anything that can make the task easier, or aids to decision making, would be welcomed by individual. Because of the safety and financing abilities by family members that they are always at spending end when the need arises for caring and curing both postnatal client and baby and the risks attached with decision at any point in time,

family members were considered first for decision making. When the decisions were medical in nature, health professionals are deemed appropriate for discharging the responsibility. However, decisions to be taken or taken just heard over the media were less considered and rendered inappropriate due to multifaceted factors encompassing trustworthiness, credibility, reliability and dependability of information aired at this critical period in time. This is contrary to decision taken during antenatal period as indicated by Mohammed (2012) that antenatal patients do regard decisions broadcasted over radio. Similarly, this finding contradicts Szwajcer, et al., (2015) findings that women do often use online resources in quest of meeting their information needs.

What makes hospitals unique institutions is the type of services they provide and these are classified as clinical and non-clinical services. Among the non-clinical services are those highlighted in this research work. It was indicated that, staff assistance in location of information resources, reference services, parenting services were among the highly provided services by hospitals they attended. However, audio-visual, telephone and loan of information resources were the services that clients rated very low because of its short provision. As a matter of fact, audiovisual services should be incorporated into the routine hospital practices aimed at alleviating maternal mortality because of its relevant function. In other words, it takes healthcare professionals long time to explain certain aspects of postnatal period, but it is easier to see, hear and comprehend within the shortest possible time. This saves professionals' time and sets aside the tiredness, worries and boring that PNW might experience in this time. They can even purchase DVDs or CDs containing the available information required of them during and after this period and watch, assimilate and use the information generated or obtained there from. It can also add to the source of income to the hospitals economically. The PNW showed satisfaction with all the resources and services provided.

No matter how well satisfied a user is, there lies always a constraint that hinders him/her from using the resource or services comfortably. Similarly, the same thing applied here in that, a number of barriers hinder PNW from accessing and using relevant information resources and services which encompass internet connectivity, lack of computer literacy, lack of time with healthcare workers to ask all questions required and insufficient health information for themselves and their new infants. These barriers should be investigated on regular basis to come up with the promising solutions and devise means of alleviating them to the nearest minimum or eradicating them completely.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This chapter presents the summary of the study, summary of the findings, conclusion and recommendations of the research work. Areas for further research were also highlighted.

## 5.2 Summary of the Study

Chapter One covers the general background and overview of information needs and seeking behaviour of postnatal women in Kano state. It went further to mention the research problem, research questions and objectives of the study. The chapter concludes with the significance, scope and limitation and operational definitions of research terms.

Chapter Two presents a review of related and empirical literatures on the information needs and seeking behaviour of postnatal women. The review was in line with the research objectives which include: the concept and significance of information, factors responsible for the information of postnatal women, information seeking strategies of postnatal women, information resources and services used and required by postnatal women, barriers to information use based on the information resources and services, theoretical framework. The uniqueness of the study was highlighted in that most literatures reviewed focused on developed world with little or no attention given to developing countries particularly here.

Methodology of the study was captured in Chapter Three, where cross-sectional survey design was used in the study and a sample population of 347 postnatal women was used. Questionnaire was employed as the research instrument to gather data which was analysed using descriptive statistics. The validity and reliability of the instrument were also tested.

Chapter Four is made up of data presentation and analysis using descriptive statistics. It was established in this chapter that out of 347 questionnaires distributed, only 250 were

filled and returned and the remaining 97 questionnaires were not returned. This gives a response rate of 72%.

Chapter Five dealt with summary, conclusion and recommendations. In this Chapter, summary of the study in entirety and summary of the major findings were captured, conclusion was logically drawn, recommendations for the governments at all level, hospitals management, NGOs and other stakeholders were highlighted and areas for further research endeavours were listed for the contemporary and future generations.

**5.3 Summary of Major Findings**

Based on the reviewed literatures, presentation, and analysis of the findings generated from the sampled population of the study, the summary of the major findings are discussed in line with the research objectives:

**1**. In view of the factors responsible for the information needs of postnatal women in Kano State, it was found out that, the postnatal women had an array of information needs particularly on pre- and postnatal care, labour pain and stress, and how to manage body changes. These served as a motivator for seeking healthcare information. Because of the environmental, psychosocial, medical, etc factors postnatal women were eager to search for this information in order to remain healthy in terms of health promotion, health maintenance, life expectancy, etc so as to prevent their partners to add more wives.

**2**. In terms of the information seeking strategies of postnatal women, the study affirmed that postnatal women sought for information through medical enquiry, asking friends, and relatives, etc. The study also revealed that the use of library as a means of seeking health information was very low.

**3**. In reference to information resources available for postnatal women, the investigation revealed that seminar/workshop, books, pamphlets and newsletter/bulletin were found to be the resources used by postnatal women.

**4**. By considering the types of information services required by postnatal women, the study examined substantially that, the postnatal women showed that staff assistance in location of information and information resources, parenting services, reference services were the most required services needed by postnatal women. However, audio-visual and telephone were the least services provided for postnatal women by hospitals under study.

**5**. In the case of extent of satisfaction with information resources and services required by postnatal women**,** the study assessed the satisfaction expressed by postnatal women to be very high with information resources consulted and services provided by the hospitals.

**6**. In order to ascertain the possible barriers to use information resources and services required by postnatal women, it was revealed that problems of internet accessibility, lack of computer literacy and lack of time with health workers to ask all questions required were the most notable barriers to information resources use.

**5.4 Conclusion**

It is comprehensible from the current study that, 250 PNW took part in the study with different age categories, educational attainment, marital status and pregnancy experience. It is also clear that the postnatal women in Kano State had an array of information needs. The multiplicity of their information needs was due to *inter alia*environmental, psycho-social, medical, etc factors. These factors served as motivator for seeking health information thereby consulting different resources including manual and computerised so as to satisfy their needs.

In other words, they used various information resources particularly seminar/workshops where they interacted with other postnatal women of various ages and experiences, and expert healthcare workers where their information needs are satisfied. They used both informal and formal means of information seeking ranging from traditional birth attendants, friends, and family members to professional healthcare practitioners.

Similarly, they had identified barriers to their information use based on the resources and services utilised to encompass *inter alia* internet connectivity. It can be concluded that, in order to achieve their information needs thereby ensuring satisfaction with resources and services enjoined by postnatal women, their information seeking behaviour should frequently be studied to solve the menace of maternal and paediatric mortality and morbidity.

### 5.5 Recommendations

The following recommendations are hereby made based on the findings of the study:

1. There is the need for outreach programs especially awareness and enlightenment campaigns designed mainly for clarification of where postnatal women have weaknesses and devising means of conferring solutions to postnatal women's information needs.
2. The traditional birth attendants and relatives should be enlightened and educated regularly about the modern ways of seeking information for the betterment of postnatal women.
3. Seminar/workshop should be organised frequently. The use of posters, billboards, cardboards, etc showing how postnatal women can take care of themselves during and after the postnatal period to ensure maximum improvement in the quality of their health and that of their infants should be highly encouraged. Also, there is the need for hospitals to make available library buildings stocked with relevant resources to enhance delivery of health informationparticularly postnatal care information.
4. There is the need for hospitals to embrace the use of audio-visual means of transferring information and if possible to make it online or on other media, for example CDs, DVDs. This is so because, research has it that, average human being retains 10% of what he/she reads, 20% of what is heard, and 30% of what is simultaneously seen and heard (i.e.

audiovisual). There is the need to encourage postnatal clients to source for other means of meeting their information needs especially Internet, books and print media such as newspapers and magazines.

5) Government at all levels should strive to incorporate the use of Internet by investing significantly to make online all services and resources required by PNW. This has several advantages particularly in this period characterised as information era. This is conspicuous as females share and exchange information using mobile phones via social media.

6) There is the need to investigate barriers highlighted in the research on regular basis to come up with the promising solutions and devise means of alleviating the sufferings experienced by the clients to the nearest minimum or eradicate them completely.

### 5.5 Suggested Areas for Further Research

This study is designed to examine the information needs and seeking behaviour of postnatal of women in Kano State. Therefore, the scope covers only the state-government-owned specialist hospitals in Kano State. Areas recommended for additional research are:

1) Information resources and services required by postnatal women living with HIV/AIDS in specialist hospitals Kano State.

2) An investigation into information needs and seeking behaviour of postnatal women living with cancer in Northwest Zone of Nigeria

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**APPENDIX (I)**

Department of Library and Information Science,
Faculty of Education, Bayero University Kano.

Kano State.
27th February, 2015.

The Director,
Kano State Hospital Management Board,
Kano State.
Dear Sir,

**APPLICATION FOR ETHICAL CLEARANCE**

I am a master student of the above university, conducting a research on the Information needs and seeking behaviour of postnatal women in Kano State. I am using specialist hospitals in Kano notably Muhammad Abdullahi Wase, Murtala Muhammad and Sir Muhammad Sunusi Specialist Hospitals in Kano state as my case study and do hereby need the management's permission to administer my questionnaire. Find attached are photocopies of letter of introduction and a copy of my research proposal which contains the aims and objectives of the study.

I would grateful if my application is given a due respect and highly considered.

Thanks,

Yours faithfully,

Murtala Ismail Adakawa

SPS/MLS/11/0052

**APPENDIX (II)**

Department of Library and Information Science,

Faculty of Education, Bayero University Kano.
Kano State.
9th March, 2015.

The Director,
Kano State Hospital Management Board,
Kano State.
Dear Sir,

**LETTER OF INTRODUCTION**

This is to introduce Murtala Ismail Adakawa with the University Registration Number: SPS/MLS/11/0052 who is a student of this department undergoing Masters Programme.

You may kindly give him the necessary assistance he may need.

Thank you.

Dr. Shehu Onipe Bello

Head of Department

**APPENDIX III**

Department of Library and Information Sciences
Bayero University Kano

P. M. B. 3011
Kano
19th March, 2015.

Dear respondent,

**LETTER TO THE RESPONDENT**

I am MURTALA ISMAIL ADAKAWA a student of Bayero University Kano writing on "**Information Needs and Seeking Behaviour of Postnatal Women in Kano State**".This research work is designed to identify your information needs so as to provide a blueprint through which effective information service will be ensured and to access and utilize the most current and reliable information resources.

I would be grateful if you could take some minutes to answer the question presented below. All the questions are equally important in the conduct of the research work. Your confidentiality is guaranteed.

Thanks for your anticipated response

Yours faithfully,

**Murtala Ismail Adakawa**

**APPENDIX IV**

Consent Form for Recruitment of Postnatal Women into the Study Titled: **Information Needs and Seeking Behaviour of Postnatal Women in Kano State**.

My name is Murtala Ismail Adakawa, I am a postgraduate student of the Department of Library and Information Science, Bayero University Kano under the Faculty of Education.

I am conducting a research titled: **Information Needs and Seeking Behaviour of Postnatal Women in Kano State.**

The aim of the study is *inter alia* to determine the factors responsible for information needs of postnatal women in Kano State, to examine seeking strategies, the resources and services preferred to satisfy their information needs. I have the opportunity to ask questions about it and any question I been asked have been answered to my satisfaction.

I …….. will voluntarily participate in this study.

The procedure has been explained to me by ……. and I understand that I have right to withdraw from the study at any time.

_____ _____

Respondent's Signature Investigator's Signature

_____

Witness Signature

**APPENDIX V**

**SECTION A: DEMOGRAPHIC CHARACTERISTICS**

1. **Age**

a) 10-20 { }

b) 21-30 { }

c) 31-40 { }

d) 40 and above { }

**2. Highest Educational Qualifications Attained**

a) SSCE Certificate { }

b) Diploma Certificate { }

c) NCE { }

d) HND/BA/BSc { }

e) MSc and above { }

3) **Marital Status**

a) Married { } b) Single { } c) Divorced { } d) Widow { }

4) Parity (No. of deliveries)

a) No experience at all { } b) First Experience { }

c) Second Experience { } d) Third Experience { }

e) Multiple Experience { }

**SECTION B: FACTORS RESPONSIBLE FOR INFORMATION NEEDS OF POSTNATAL WOMEN**

5) From the list below, please indicate type of your information needs. (Please you may tick one or more options)

a) General Information on prenatal and postnatal care { }

b) Information on how to improve my health status { }

c) Information on drug and its application/administration { }

d) Information on how to prevent postnatal depression { }

e) Information on how to prevent mother to child transmission of HIV/AIDS { }

f) Information on how to improve my baby care { }

g) Information on breast feeding and return of menses { }

h) Nutritional information { }

i) Information on immunization/vaccination { }

j) Information on preventing physical injuries to babies { }

k) Information on how to manage body changes { }

l) Information on how to manage tiredness,perineal pain, breast problems { }

m) Information on how to manage backache, hemorrhoids, constipation { }

n) Information on how to manage anaemia, headache, urinary symptoms { }

o) Information on labour pain/stress

6) **How significant would you rate the above listed type of information to you in satisfying information needs?**

a) Very significant { }
b) Significant { }
c) Not sure { }
d) Not very significant { }

7) **From the listed type of information, what type of your information needs does the hospital frequently meet?**

a) General Information on postnatal care { }
b) Information on how to improve my health status { }
c) Information on drug and its application/administration { }
d) Information on how to prevent postnatal depression { }
e) Information on how to prevent mother to child transmission of HIV/AIDS (PMCT){ }
f) Information on how to improve my baby care { }
g) Information on breast feeding/participating in physical activity { }
h) Nutritional information { }
i) Information on immunization/vaccination { }
j) Information on preventing physical injuries to babies { }
k) Information on how to manage body changes { }
l) Information on how to manage tiredness,perineal pain, breast problems { }

m) Information on how to manage backache, hemorrhoids, constipation { }

n) Information on how to manage anaemia, headache, urinary symptoms { }

## SECTION C: INFORMATION SEEKING STRATEGIES OF POSTNATAL WOMEN

8) **Do you seek information for postnatal care?**

a) Yes { } b) No { }

9) **If yes, what type of information do you seek?**

a) Postnatal care { }
b) Improvement of my health status { }
c) Drug and its application { }
d) Prevention of postnatal depression { }
e) Prevention of mother to child transmission of HIV/AIDS { }
f) How to improve my baby care { }
g) Breast feeding { }
h) Nutritional information { }
i) Immunization/vaccination { }
j) Preventing physical injuries to babies { }
k) How to manage body changes { }

10)**For what purpose do you seek information?**

a) For parenting { }
b) For sound health { }
c) For know-how concerning drugs { }
d) For a free-depression period { }
e) For improving the health of the new born { }
f) For awareness on the mood of mother-to-child transmission of HIV/AIDS { }
g) For breast feeding { }
h) For boosting immune system { }
i) For promotion of health { }
j) For family planning { }
k) For coping with body changes and complications during the period { }

11) **From the list below, please indicate how you seek for information?**

a) I seek information through enquiry { }
b) I seek information using pamphlets { }
c) I seek information by browsing through library shelves { }
d) I seek information by Internet searching { }
e) I seek information by asking relatives, friends, etc { }

12) **How will you rate your skills in using the following mode of information seeking?**

| | Excellent | V. Good | Good | Poor | Never used | Never heard of |
|---|---|---|---|---|---|---|
| **a) Ask a nurse** | | | | | | |
| **b) Maternity health centre** | | | | | | |
| **c) Local chemists** | | | | | | |
| **d) Primary health centre** | | | | | | |
| **e) Traditional birth attendant** | | | | | | |
| **f) Radio/television** | | | | | | |
| **g) Community show talk** | | | | | | |
| **h) Internet** | | | | | | |
| **i) Ask a friend** | | | | | | |
| **j) Ask my mother** | | | | | | |
| **k) Enquiry** | | | | | | |
| **l) Using pamphlets** | | | | | | |
| **m) Browsing through library shelves** | | | | | | |
| **n) Others** | | | | | | |

13) **How urgent is the information sought?**

a) Very urgent
b) Urgent
c) Not sure
d) Not urgent
e) Not very urgent

## SECTION D: INFORMATION RESOURCES AVAILABLE FOR POSTNATAL WOMEN

14) **What type of information resources do you use in satisfying your information needs?**

a) Books { }
b) Journals { }
c) Pamphlets { }
d) Newsletter or bulletin { }
e) Seminar, conference or workshop proceedings { }
f) Others, (please specify) ……..

15) **How relevant is the information resource in satisfying your information needs?**

a) Very relevant { }
b) Relevant { }
c) Not sure { }
d) Not relevant { }

16) **Please, are you satisfied with information resource?**

a) Very satisfied { }

b) Satisfied { }
c) Not sure { }
d) Not satisfied { }

17) **How do you assess the adequacy of information resource of the hospital in satisfying your information needs?**

a) Very adequate { }
b) Adequate { }
c) Moderate { }
d) Inadequate { }

18) **How accessible are the information resources of the hospital?**

a) Very accessible { }
b) Accessible { }
c) Moderate { }
d) Inaccessible { }

19) **How would you rate the currency of the information resource?**

a) Very current { }
b) Current { }
c) Moderate { }
d) Not current { }

20) **Which of the following sources influences your decision to use information?**

a) Medical staff { }
b) Internet { }
c) Friends { }
d) Family members { }
e) Colleagues { }
f) Radio/television { }
g) Others (specify)……

21) **How often do you use information source in satisfying your information needs?**

a) Quite a lot { }
b) A lot { }
c) Moderately { }
d) A little { }

22) **How relevant is the information source in satisfying your information needs?**

a) Very relevant { }
b) Relevant { }
c) Not sure { }
d) Not relevant { }

23) **To what extent do any of these information resources contribute to the meeting of your information?**

a) Very high { }
b) High { }
c) Moderate { }
d) Low { }

## SECTION E: INFORMATION SERVICES AVAILABLE FOR POSTNATAL WOMEN

24) **Are you aware that the hospital provides postnatal care?**

a) Yes { } b) No { }

25) **If yes, what kind of information service does the hospital provide?**

a) Audio-visual { }
b) Telephone { }
c) Books { }
d) Face-to-face contact { }
e) In-house lectures { }
f) Parenting services { }
g) Reference services { }
h) Staff assistance in location of information and information resources { }
i) Current awareness service { }
j) Online internet services { }
k) Photocopying service { }
l) Loan of information resources { }

26) **How relevant are the services offered by the hospital?**

a) Very relevant { }
b) Relevant { }
c) Not sure { }
d) Not relevant { }
e) Not very relevant { }

27) **How do you rate the information services provided?**

| | Very high | High | Average | Low | Very low | Not available |
|---|---|---|---|---|---|---|
| a) Audio-visual | | | | | | |
| b) Telephone | | | | | | |
| c) Books | | | | | | |
| d) Face-to-face contact | | | | | | |
| e) In-house lectures | | | | | | |
| f) Parenting services | | | | | | |
| g) Reference services | | | | | | |
| h) Staff assistance in location of information and information resources | | | | | | |
| i) Current awareness service | | | | | | |
| j) Online internet services | | | | | | |
| k) Photocopying service | | | | | | |
| l) Loan of information resources | | | | | | |

## SECTION F: EXTENT OF SATISFACTION WITH INFORMATION RESOURCES AND SERVICES

28) i) **What is the level of your satisfaction with the available information resources?**

a) Highly satisfied { }
b) Satisfied { }
c) Fairly satisfied { }
d) Not satisfied { }

e) Not sure { }

ii)**What is the level of your satisfaction with the available information services?**

29) **Are you satisfied with the services offered by the hospital?**

a) Very satisfied { }
b) Satisfied { }
c) Not sure { }
d) Not satisfied { }
e) Not very satisfied { }

## SECTION G: BARRIERS TO INFORMATION USE BY POSTNATAL WOMEN

30) **What challenges do you face in utilizing the information resources to satisfy your information needs?**

a) Insufficient health information { }
b) Lack of knowledge where information needs can be satisfied { }
c) My inability to read printed materials { }
d) Unfavourable attitudes of the healthcare workers concern towards provision of the needed information { }
e) Lack of time with health workers to ask all the questions required { }
f) Lack of organized information resources { }
g) Difficulty in understanding the language of information { }
h) Unreliability of health information on the Internet { }
i) Difficulty of getting information from qualified personnel especially during home-based care { }
j) Lack of computer literacy { }
k) Problems of Internet connectivity { }
l) Others (specify)……

# APPENDIX VII RELIABILITY TEST USING CRONBACH'S ALPHA

```
RELIABILITY
  /VARIABLES=TYPIN1 TYPIN2 TYPIN3 TYPIN4 TYPIN5 TYPIN6 TYPIN7 TYPIN8 TYPIN9 TYPIN
10 TYPIN11 TYPIN12 TYPIN13 TYPIN14 TYPIN15 TYPIN16
   TYPIN17 TYPIN18 TYPIN19 TYPIN20 TYPIN21 TYPIN22 TYPIN23 INFSEEK INFSEEK2 INFSE
EK3 INFSEEK4 INFSEEK5 INFSEEK6 INFSEEK7
    INFSEEK8 INFSEEK9 INFSEEK10 INFSEEK11 INFPUR1 INFPUR2 INFPUR3 INFPUR4 INFPUR5
 INFPUR6 INFPUR7 INFPUR8 INFPUR9 INFPUR10 INFPUR11
   INFSKL1 INFSKL2 INFSKL3 INFSKL4 INFSKL5 TYPISB1 TYPISB2 TYPISB3 TYPISB4 TYPISB
5 TYPIR1 TYPIR2 TYPIR3 TYPIR4 TYPIR5 TYPIR6
    TYPIR7 TYPIR8 TYPIR9 TYPIR10 TYPIR11 TYPIR12 TYPIR13 TYPIR14 TYPIR15 TYPIR16
TYPIR17 TYPIR18 TYPIR19 TYPIR20 TYPIS1 TYPIS2 TYPIS
   3 TYPIS4 TYPIS5 TYPIS6 TYPIS7 TYPIS8 TYPIS9 TYPBAR1 TYPBAR2 TYPBAR3 TYPBAR4 TY
PBAR5 TYPBAR6 TYPBAR7 TYPBAR8 TYPBAR9 TYPBAR10
    TYPBAR11
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA

  /SUMMARY=TOTAL.
```

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 11 | 40.7 |
| | Excluded[a] | 16 | 59.3 |
| | Total | 27 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .901 | 95 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| GENERAL INFORMATION ON POSTNATAL PERIOD | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO IMPROVE MY HEALTH CONDITION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON DRUGS AND ITS APPLICATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO PREVENT POSTNATAL DEPRESSION | 175.82 | 37.764 | .000 | .901 |

| | | | | |
|---|---|---|---|---|
| INFORMATION ON HOW TO PREVENT MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS | 175.82 | 37.764 | .000 | .901 |
| BINFORMATION ON HOW TO IMPROVE BABY CARE | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON BREASTFEEDING | 175.82 | 37.764 | .000 | .901 |
| NUTRITIONAL INFORMATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON IMMUNIZATION/VACCINATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON PREVENTING PHYSICAL INJURIES TO BABIES | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO MANAGE BODY CHANGES | 175.82 | 37.764 | .000 | .901 |
| RATE OF SIGNIFICANCE OF INFORMATION | 171.91 | 35.091 | .723 | .895 |
| GENERAL INFORMATION ON POSTNATAL PERIOD | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO IMPROVE MY HEALTH CONDITION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON DRUG AND ITS APPLICATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO PREVENT POSTNATAL DEPRESSION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO PREVENT MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO IMPROVE BABY CARE | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON BREAST FEEDING | 175.82 | 37.764 | .000 | .901 |
| NUTRITIONAL INFORMATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON IMMUNIZATION / VACCINATION | 175.82 | 37.764 | .000 | .901 |
| IINFORMATION ON PREVENTING PHYSICAL INJURIES TO BABIES | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON HOW TO MANAGE BODY CHANGES | 175.82 | 37.764 | .000 | .901 |

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|---|---|---|---|---|
| DO YOU SEEK FOR INFORMATION ON POST NATAL CARE? | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON BREAST FEEDING | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON POSTNATAL CARE | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON IMPROVEMENT OF HEALTH STATUS | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON DRUGS AND THEIR APPLICATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON BABY CARE | 175.82 | 37.764 | .000 | .901 |
| NUTRITIONAL INFORMATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON PREVENTION OF PHYSICAL INJURIES TO BABIES | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON IMMUNIZATION/VACCINATION | 175.82 | 37.764 | .000 | .901 |
| INFORMATION ON MANAGING BODY CHANGES | 175.82 | 37.764 | .000 | .901 |
| FOR IMMUNITY AGAINST INFECTIOUS DISEASES | 175.82 | 37.764 | .000 | .901 |
| FOR PREVENTING SPREAD OF HIV / AIDS AMONG POPULACE | 175.82 | 37.764 | .000 | .901 |
| FOR PARENTING | 175.82 | 37.764 | .000 | .901 |
| FOR SOUND HEALTH | 175.82 | 37.764 | .000 | .901 |
| FOR KNOWLEDGE OF DRUG PRESCRIPTION | 175.82 | 37.764 | .000 | .901 |
| FOR IMPROVING THE HEALTH OF THE NEW BORN | 175.82 | 37.764 | .000 | .901 |
| FOR KNOWING THE TYPE OF FOOD APPLICABLE IN THIS PERIOD | 175.82 | 37.764 | .000 | .901 |
| FOR PROTECTION OF HEALTH | 175.82 | 37.764 | .000 | .901 |
| FOR BOOSTING THE IMMUNE SYSTEM | 175.82 | 37.764 | .000 | .901 |

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|---|---|---|---|---|
| FOR COPING WITH THE COMPLICATION, BODY CHANGES | 175.82 | 37.764 | .000 | .901 |
| LEVEL OF SATISFACTION WITH INFORMATION SOUGHT | 171.82 | 37.764 | .000 | .901 |
| PAMPHLETS | 170.91 | 35.091 | .723 | .895 |
| BROWSING | 171.82 | 37.764 | .000 | .901 |
| LIBRARY SHELVES | 170.91 | 38.291 | -.166 | .905 |
| FRIENDS | 171.82 | 37.764 | .000 | .901 |
| SEMINAR, CONFERENCE OR WORKSHOP | 171.36 | 35.055 | .394 | .900 |
| I SEEK INFORMATION THROUGH ENQUIRY TO MEDICAL PERSONNEL | 175.82 | 37.764 | .000 | .901 |
| I SEEK INFORMATION USING PAMPHLETS | 175.82 | 37.764 | .000 | .901 |
| I SEEK INFORMATION BY BROWSING THROUGH LIBRARY SHELVES | 175.82 | 37.764 | .000 | .901 |
| I SEEK INFORMATION THROUGH INTERNET BROWSING | 175.82 | 37.764 | .000 | .901 |
| I SEEK INFORMATION BY ASKING RELATIVES, FRIENDS | 175.82 | 37.764 | .000 | .901 |
| BOOKS | 175.82 | 37.764 | .000 | .901 |
| JOURNALS | 175.82 | 37.764 | .000 | .901 |
| PAMPHLETS | 175.82 | 37.764 | .000 | .901 |
| NEWSLETTER OR BULLETIN | 175.82 | 37.764 | .000 | .901 |
| SEMINAR, CONFERENCE OR WORKSHOP PROCEEDINGS | 175.82 | 37.764 | .000 | .901 |
| RELEVANCE OF INFORMATION RESOURCE | 172.00 | 33.800 | .513 | .899 |
| SATISFACTION WITH WITH THE RESOURCE | 171.82 | 37.764 | .000 | .901 |
| ASSESSMENT OF THE ADEQUACY OF INFORMATION RESOURCE | 171.82 | 37.764 | .000 | .901 |
| ACCESSIBILITY OF INFORMATION RESOURCE | 171.82 | 37.764 | .000 | .901 |
| CURRENCY OF INFORMATION RESOURCE | 171.82 | 37.764 | .000 | .901 |
| MEDICAL STAFF | 175.82 | 37.764 | .000 | .901 |

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|---|---|---|---|---|
| INTERNET | 175.82 | 37.764 | .000 | .901 |
| FRIENDS | 175.82 | 37.764 | .000 | .901 |
| FAMILY MEMBERS | 175.82 | 37.764 | .000 | .901 |
| COLLEAGUES | 175.82 | 37.764 | .000 | .901 |
| RADIO/TELEVISION | 175.82 | 37.764 | .000 | .901 |
| HOW OFTEN USING INFORMATION SOURCES? | 171.82 | 37.764 | .000 | .901 |
| RELEVANCE OF INFORMATION SOURCE | 171.82 | 37.764 | .000 | .901 |
| SATISFACTION WITH INFORMATION SOURCES | 171.82 | 37.764 | .000 | .901 |
| EXTENT OF CONTRIBUTION OF INFORMATION RESOURCES | 171.82 | 37.764 | .000 | .901 |
| AUDIO-VISUAL | 175.82 | 37.764 | .000 | .901 |
| TELEPHONE | 175.82 | 37.764 | .000 | .901 |
| BOOKS | 175.82 | 37.764 | .000 | .901 |
| FACE-TO-FACE CONTACT | 175.82 | 37.764 | .000 | .901 |
| IN-HOUSE LECTURE | 175.82 | 37.764 | .000 | .901 |
| PARENTING SERVICES | 175.82 | 37.764 | .000 | .901 |
| REFERENCE SERVICES | 175.82 | 37.764 | .000 | .901 |
| RELEVANCE OF INFORMATION SERVICES OFFRED BY HOSPITAL | 172.27 | 26.018 | .830 | .908 |
| SATISFACTION WITH THE SERVICE PROVISION | 171.82 | 37.764 | .000 | .901 |
| INSUFFICIENT HEALTH INFORMATION | 175.73 | 37.218 | .124 | .902 |
| LACK OF KNOWLEDGE WHERE INFORMATION NEEDS CAN BE SATISFIED | 175.00 | 33.000 | .990 | .890 |
| MY INABILITY TO READ PRINTED MATERIALS | 175.00 | 33.000 | .990 | .890 |
| UNFAVOURABLE ATTITUDES OF THE HEALTHCARE WORKERS TOWARDS PROVISION OF THE NEEDED INFORMATION | 175.00 | 33.000 | .990 | .890 |
| LACK OF TIME WITH HEALTHCARE WORKERS TO ASK ALL THE QUESTIONS REQUIRED | 175.00 | 33.000 | .990 | .890 |

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|---|---|---|---|---|
| LACK OF ORGANIZED INFORMATION RESOURCES | 175.00 | 33.000 | .990 | .890 |
| DIFFICULTY IN UNDERSTANDING THE LANGUAGE OF INFORMATION RESOURCES | 175.00 | 33.000 | .990 | .890 |
| UNRELIABILITY OF HEALTH INFORMATION ON THE INTERNET | 175.00 | 33.000 | .990 | .890 |
| DIFFICULTY OF GETTING INFORMATION FROM QUALIFIED PERSONNEL ESPECIALLY DURING HOME-BASED CARE | 175.00 | 33.000 | .990 | .890 |
| LACK OF COMPUTER LITERACY | 175.00 | 33.000 | .990 | .890 |
| PROBLEMS OF INTERNET CONNECTIVITY | 175.00 | 33.000 | .990 | .890 |