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Liza Devi

PhD Research Scholar,
Department of Extension
Education and
Communication Management,
Assam Agricultural
University, Jorhat, Assam,
India

Dr. Sayanika Borah

Assistant Professor,
Department of Extension
Education and
Communication Management,
Assam Agricultural
University, Jorhat, Assam,
India

Knowledge of lactating mothers regarding maternal health care services: a community based cross-sectional study in Assam

Liza Devi¹, Sayanika Borah²

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ABSTRACT

Maternal Health is a worldwide public health concern as it reflects the overall efficiency of the health system of a nation and is vital for decreasing the maternal and neonatal mortality while accomplishing sustainable development goals. The health care services that promote safe pregnancies and deliveries, help lowering the chances of complication of both mother and infants, enhancing public health as a whole are termed as Maternal Health Care Services. The present study was undertaken to assess the knowledge of the lactating mothers regarding Maternal Health Care Services. The study was conducted in four districts of Assam viz Jorhat, Sivasagar, Biswanath and Sonitpur. A cross-sectional descriptive cum analytical research design was adopted and data were collected from 240 lactating mothers having 0 to 24 months of children using a structured interview schedule and employing multistage purposive sampling. The findings revealed that majority (71.67%) of the respondents had medium level of knowledge regarding maternal health care services. It was also observed that majority (74.17%) of the respondents had medium level of knowledge on antenatal care.

Keywords: Maternal health, Knowledge, Antenatal care, Intranatal care, Postnatal care

Introduction

Maternal Health is an essential domain of public health as it determines the overall health status and development of a nation and it has a direct impact on the health of future generations. It is a key component of a country's development in terms of equity and poverty reduction.

The World Health Organisation (WHO) (2018) defines Maternal Health as "the health of women during pregnancy, child birth and the post-partum period". WHO stated that all stages of pregnancy are to be a positive experience where women and newborns reach the maximum possible health and well-being. This definition is not only limited to survival but also to quality of care, dignity and respect of women in the course of maternity. It has become a global priority because of its profound impact on the women's health as well as the health outcome of children and families ultimately affecting the overall human development of a society. The health and wellbeing of mothers play a vital role in addressing significant social, economic and developmental issues.

The concept of maternal health is a holistic provision that involves the implementation of a continuum of care approach to unify the antenatal, intranatal and postnatal care services. Maternal mortality is an index that assesses the reproductive health of women in a given region. Maternal Mortality is defined by WHO (1993) [1] as "the annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy". India has been very successful over the years in the lowering of maternal mortality. As of the Special Bulletin on Maternal Mortality in India, 2020 [2]-22 based on the Sample Registration System, the Maternal Mortality Ratio (MMR) in India stands at 88 per 100,000 live births, reflecting a decline from 130 in 2014-16 and 93 in 2019-2021 (Special Bulletin on Maternal Mortality in India 2020 [2]-22, National Sample Registration System (SRS), Office of the Registrar General, India).

The Maternal Mortality Ratio of the state of Assam has consistently been above the national average in a series of decades. The Sample Registration System also reported that Assam was among the states with the high maternal mortality in the country, which means that it did not have access to quality maternal health care services and has delayed access and receipt of care (Office of the Registrar General of India, 2022).

The relationship between knowledge and maternal health care services is crucial in influencing health-seeking behaviour of pregnant, child bearing and postnatal women. Numerous studies on public health have emphasized that knowledge is an essential element that influences awareness, perception and finally the usage of health services. As per the World Health Organization (2016) [3], knowledge is a determining factor to positive health behaviours adoption as individuals should never be ignorant of the health risks and actions prior to undertaking any measure. Knowledge or awareness is associated with pregnancy registration, regu

Corresponding Author:

Liza Devi

PhD Research Scholar,
Department of Extension
Education and
Communication
Management, Assam
Agricultural University,
Jorhat, Assam, India

lar antenatal care and using skilled attendance of birth as part of research in maternal health. Knowledge deficiency, though, has been associated with the delayed care-seeking, reliance on conventional practices and strong probability of maternal complications (Bhandari *et al.*, 2020) [4].

The low level of knowledge in relation to maternal health among the developing nations has been a major concern of the public health. The studies also revealed that a significant percentage of women are unaware of how many antenatal visits they are supposed to have, whether they should be delivered in the institution or not, and the availability of free maternal health services at the government programmes (Singh *et al.*, 2019) [5].

Gupta *et al.*, (2018) [6] revealed that a larger percentage of women were unaware of the usefulness of afterbirth care especially after uncomplicated delivery. Poor utilisation of postnatal service has been attributed to ignorance on the service particularly by the rural group and socio-economically disadvantaged groups.

Therefore the present study aims to assess the knowledge of the lactating mothers regarding Maternal Health Care Services (MHCS) in Assam.

2. Materials and methods

Location of the research study

The research study was carried out in the state of Assam. Though Assam has consistently reported the highest Maternal Mortality Ratio (MMR) among all the states in India, this year the state has shown a significant decline. Still, it remains above the national average and has wide regional disparities in the utilization of maternal health services.

2. Sample and sampling procedure

Multi-stage purposive sampling design was followed for the present study. The sampling plan of the study is explained under the following sub heads:

Selection of districts

A list of all the districts of Assam containing data regarding ANC registration of pregnant women in the first trimester had been prepared on the basis of National Family Health Survey (NFHS)-5 report, 2019-21. Based on the list, two districts with highest Antenatal Care (ANC) registration in the 1st trimester namely Jorhat and Sivasagar and two districts with lowest Antenatal Care (ANC) registration in the 1st trimester namely Biswanath and Sonitpur were selected purposively for conducting the present study.

2.2 Selection of block primary health centers

From each of the selected districts, as per the reports received from Office of the Joint Director of Health Services, one Block Primary Health Centre (BPHC) with highest ANC registration and one Block Primary Health Centre (BPHC) with lowest ANC registration were selected purposively. Thus, total eight numbers of Block Primary Health Centres (BPHCs) were selected for the current study. Permission was taken for data collection at the selected BPHCs from the Joint Director of Health Services of each selected district.

From each BPHC, in consultation with Sub-Divisional Medical & Health Officer and ASHA workers, 30 lactating mothers having 0-24 months of children at the time of data collection were selected purposively using equal allocation technique under stratified sampling. Thus, total Two Hundred and Forty (240) respondents were selected for carrying out the present study.

2.3 Selection of respondents

From each Block Primary Health Centre (BPHC), in consultation with Sub-Divisional Medical & Health Officer and ASHA workers, 30 lactating mothers having 0-24 months of children at the time of data collection were selected purposively for the study using equal allocation technique under stratified sampling. Thus, total Two Hundred and Forty (240) respondents were selected for carrying out the present study.

2.4 Selection of variables

2.4.1 Dependent variable

Knowledge

According to Merriam Webster Dictionary (2021) [7], knowledge is the fact or the condition of knowing something with familiarity gained through experience or association. In the present study, knowledge is operationally defined as detailed information possessed by the respondents regarding various aspects of Maternal Health Care Services. A knowledge test is developed for the present study, where the responses of the respondents were recorded as “known”, “partially known” and “not known” and assigned with scores “3”, “2” and “1” respectively. Based on the mean and standard deviation obtained from the scores, the respondents were categorized into three categories as follows:

Sl. No.	Districts	BPHCs
1	Jorhat	Nakachari Bhogamukh
2	Sivasagar	Kaloogaon Urban BPHC
3	Sonitpur	Bihaguri Tezpur Urban
4	Biswanath	Behali Gohpur

2.5 Construction of research tool for data collection

Section I (Background information): For the first objective of the research study, one interview schedule has been prepared to collect the primary information of the respondents. It was classified into four sub groups such as “Personal Characteristics, Family Characteristics, Economic Characteristics and Social Characteristics”. Personal Characteristics included age, age at marriage, marital status, and educational qualification, while Family Characteristics included family type, family size, and educational qualification of the spouse. Under economic characteristics, information related to housing condition, availability of sanitary facility, occupation of the respondent, occupation of the spouse and annual income were included. Under Social Characteristics, Caste, mass-media exposure and contact with health personnel were included.

Category	Score Range
Low level	Below ($\bar{x} - SD$)
Medium level	($\bar{x} - SD$) to ($\bar{x} + SD$)
High level	Above ($\bar{x} + SD$)

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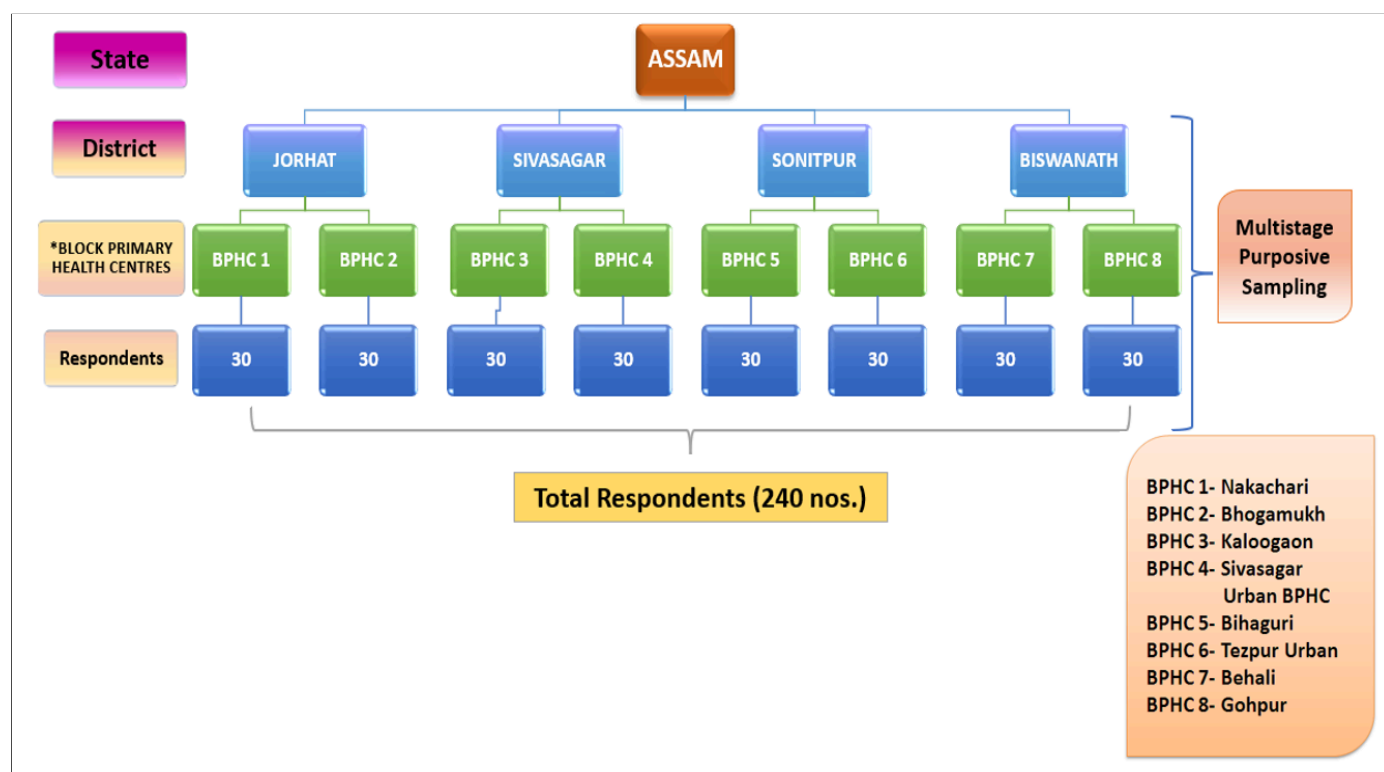


Figure 1.1. Sampling Design

Section II (Knowledge regarding Maternal Health Care Services):

This section contains 26 knowledge statements related to antenatal care, intranatal care and postnatal care services. The statements were recorded as “known”, “partially known” and “not known” with assigned scores “3”, “2” and “1” respectively.

Ethical consideration

Ethical approval for carrying out the present study has been taken from Institutional Ethics Committee for Human Studies IEC (H) at Assam Agricultural University, Jorhat before commencing data collection. (Certificate attached, Annexure I)

Informed written permission was obtained from Office of the Joint Director of Health Services from each of the districts undertaken for the study.

Written consent

Informed written consent was also obtained from all the participants before collection of data, following a detailed explanation of the objectives, nature of the study and confidentiality.

Pretesting of research tool

The prepared research tool was pre-tested with 30 non-sampled respondents in Jorhat district of Assam. On the basis of experience gained and information obtained, necessary modifications were made and finalized the tool for data collection.

2.6 Procedure of data collection

The primary data were collected from the respondents with the help of the structured interview schedule through personal interview method. The data were collected during the month of March, 2025 to

June, 2025. All the efforts were made to clarify the questions to the respondents during the time of interview.

2.7 Analysis of data

The collected data were coded, tabulated and analyzed in accordance with the objectives of the study.

3. Results and discussion

1. Background information of the respondents

The findings from the Table 1.1 revealed that majority (74.60 percent) of the respondents belonged to the middle age group of 22 to 29 years with large majority (90.40 percent) of the respondents were 18 years and above at the time of marriage and almost cent (99.60 percent) of the respondents were married. It was found that 27.90 percent of the respondents were higher secondary passed, 22.10 percent of the respondents' spouse were high school passed, nearly half of the respondents belonged to joint family (48.30%) and more than half of the respondents were from medium sized family (52.10%). Regarding housing condition, 67.50 per cent of them were living in pucca house with cent per cent having bathroom and toilets at their home which reflects availability of a good sanitary condition at the study areas. Most of the respondents (86.70%) were home maker, with nearly half (48.75%) of the respondents' spouse were daily wage earner, 87.10 percent of the respondents had medium level annual income of Rs. 85000 to Rs. 325000 and the highest percentage of the respondents belonged to General caste (39.20%).

Regarding the level of exposure to mass media, the majority (67.08%) of the respondents had medium level of exposure. Findings revealed that majority of the respondents (66.67%) had medium level of contact with health personnel.

Table 1.1. Distribution of respondents according to their background information

Variable	Category	Frequency	Percentage
Personal Characteristics			

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Variable	Category	Frequency	Percentage
Age	Young (Below 22 years)	31	12.90
	Middle (22 to 29 years)	179	74.60
	Upper Middle (29 and above)	30	12.50
Age at Marriage	Young (Below 18 years)	23	09.60
	Adult (18 years and above)	217	90.40
Marital Status	Married	239	99.60
	Widow	1	0.40
Educational Qualification of the respondent	Illiterate	3	1.30
	Primary	19	7.90
	Middle	58	24.20
	High School	55	22.90
	Higher Secondary	67	27.90
	Graduate	33	13.80
	Post Graduate and above	5	2.10
Family Characteristics			
Educational Qualification of Spouse	Illiterate	1	0.40
	Can read and write	1	0.40
	Primary	34	14.20
	Middle	46	19.20
	High School	53	22.10
	Higher Secondary	49	20.40
	Graduate	49	20.40
Family Type	Post Graduate and above	7	2.90
	Nuclear	100	41.70
	Joint	116	48.30
Family Size	Extended	24	10.00
	Large	80	33.30
	Medium	125	52.10
	Small	35	14.60
Economic Characteristics			
Housing condition	Pucca	162	67.50
	Semi-Pucca	56	23.30
	Non-Pucca	22	09.20
Sanitary Facility	Yes	240	100.00
Occupation of the Spouse	Farming	8	3.30
	Service	49	20.40
	Business	66	27.50
	Daily Wage Earner	117	48.75
Annual Income	Low (Rs. 80000 to 85000)	2	0.80
	Medium (Rs. 85000 to 325000)	209	87.10
	High (Rs. 325000 to 700000)	29	12.10
Social Characteristic			
Caste	General	94	39.17
	OBC	71	29.58
	SC	48	20.00
	ST	24	10.00
	MOBC	3	1.25
Level of mass-media exposure	Low	43	17.92
	Medium	161	67.08
	High	36	15.00
Level of contact with health personnel	Low	46	19.17
	Medium	160	66.67
	High	34	14.17

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2.1

Overall knowledge of the respondents regarding maternal health care services

Knowledge is referred in the present study as the detailed information possessed by the respondents regarding various dimensions of mater-

nal health care services. It was assessed by developing a knowledge scale in the current study entailing twenty six (26) statements under three sub heads namely antenatal care, intranatal care and postnatal care.

Table 2.1. Distribution of respondents according to their overall Knowledge on Maternal Health Care Services $n = 240$

SI No	Category	Score Range	Frequency	Percentage	Mean Score	Standard Deviation
1	Low	Less than 49.76	38	15.83	56.045	6.284
2	Medium	49.76 – 62.33	172	71.67		
3	High	More than 62.33	30	12.50		

From the Table 2.1, it was observed that majority (71.67%) of the respondents had medium level of knowledge regarding maternal health care services, followed by 15.83 percent had low level of knowledge. The data also reveals that only 12.50 percent of the respondents had high level of knowledge on maternal health care services. The moderate level of knowledge regarding maternal health care services observed among the respondents may be attributed to their exposure to information through health workers or through routine maternal health check-up; however they may lack a comprehensive understanding regarding all the recommended maternal health care practices. Organizing awareness programme by various government or non-government organization can enhance the knowledge level of the women regarding the services provided at health facilities.

This finding is supported by Singh *et al.* (2022) [8] where it was revealed that majority (62.50%) of the respondents under their study population had average level of knowledge regarding maternal and child health care services, followed by 24.20 percent of the respondents had good level of knowledge and 13.30 percent of them had poor level of knowledge on maternal health services.

2.2 Dimensions wise ranking of knowledge of the respondents regarding MHCs

In the present study, the statements on knowledge were formulated in three dimensions such as antenatal care (ANC), intranatal care (INC) and postnatal care (PNC). Based on the mean score they were ranked. From the Table 2.2, it can be observed that “Knowledge regarding Antenatal Care (ANC)” occupied the 1st rank with mean score 20.85, followed by “Knowledge regarding Intranatal Care (INC)” ranked II with mean score 20.45. “Knowledge regarding Postnatal Care (PNC)” got the lowest rank (3rd rank) with mean score 14.75. It can be interpreted from the data that the level of knowledge of the respondents regarding the health care services required by both the mother and child after the delivery is relatively lower as compared to the knowledge regarding the health care services required during pregnancy and child birth. Limited knowledge about postnatal care may adversely affect the health and wellbeing of both the mother and the child. The finding highlights the need to postnatal counselling through frontline health workers, particularly during antenatal visits, childbirth and postnatal home visits to encourage the effective utilisation of postnatal care services.

2.3 Ranking of the knowledge statements

The mean score of each of the statement under the three sub-categories for all the 240 respondents was calculated and based on that the statements were ranked. The result presented in the Table 2.3 shows a remarkable insight into the respondents’ level of knowledge on maternal health care services. The statement “Medicines other than those prescribed by doctor can cause harm to the baby” ranked I with mean score 2.95, reflects that the respondents had adequate knowledge on importance of prescribed medicines by doctors for the well-

being of the baby. The statement “For free transport from home to institution, between facilities in case of a referral and drop back home under Janani Shishu Suraksha Karyakram, 102, 108 and Adaruni services are available in each district” ranked II with mean score 2.93, which suggests that the respondents had proper knowledge on availability of free government ambulance services for transportation to the health facilities to access the maternal health care. The statement that occupied the 3rd rank was “A pregnant woman should deliver her baby in a health facility rather than at home”, which determines that the respondents understand the importance of institutional delivery for the wellbeing of both the mother and the baby and to receive the proper care during the delivery. The statement “In case of any problem like Vaginal bleeding, excessive vomiting etc., should report health centre” ranked IV with mean score 2.83, indicates that the respondents were aware that any kind of health complications to be treated under the supervision of doctor immediately rather than staying at home waiting to be cured automatically. Additionally, the statement “All births should be assisted by skilled health personnel both at the health facility and at home” got 5th rank, which specifies that the respondents had knowledge on the importance of delivering the baby in the presence of skilled birth attendant such as doctor, nurses and midwives whether at health institution or at home for the well-being and survival of both the mother and the infant.

However, the statement “Janani Shishu Suraksha Karyakram (JSSK) is a scheme under which, pregnant women delivering in public health institutions are entitled to free drugs and consumables, free diagnostics, free blood wherever required” ranked XX with mean score of 1.28, indicates that the respondents were aware about the free drugs which they received during the maternal health care period but they were unaware about the scheme under which drugs, consumables, free diagnostic etc. are provided at free of cost. The statement “If expected pregnant women get delivered at home by a trained service, she will get monetary assistance of Rs. 500” occupied 21st rank with mean score 1.16, indicates low level of knowledge of the respondents regarding monetary assistance of skilled birth attendant in case of home delivery. The statements “All mothers and babies need at least four postnatal check-ups in the first 6 weeks after delivery” and “2nd PNC should be on the 3rd day after delivery” got the lowest rank among the 26 statements with mean score 1.11 and 1.04 respectively, which revealed that the respondents had low level of knowledge regarding postnatal services provided at the health facilities for the good health and well-being of both the mother and the child.

It can be interpreted from the ranking of the statements that, the knowledge of the respondents regarding antenatal and intranatal care is relatively better than the knowledge on postnatal care, which may directly affect their utilisation of the postnatal services. Lack of knowledge on postnatal care may result in low utilisation of postnatal services which may affect the health status of both the mother and the baby.

Table 2.2. Ranking of the Knowledge areas based on the obtained mean score

SI No	Knowledge on different area	Mean score	Rank
1	Knowledge regarding Antenatal Care (ANC)	20.85	I
2	Knowledge regarding Intranatal Care (INC)	20.45	II
3	Knowledge regarding Postnatal Care (PNC)	14.75	III

Similar findings by Yogi *et al.* (2024) [9] revealed that majority of the mothers under their study showed satisfactory knowledge on antenatal care but they had insufficient knowledge on postnatal care.

2.4 Knowledge of the respondents regarding antenatal care (ANC)

To assess the knowledge of the respondents regarding antenatal care (ANC), nine (9) statements were included in the knowledge scale related to registration and first check-up of pregnancy, minimum ANC to be received, two mandatory doses of Tetanus Toxoid (TT) injection, Iron and Folic Acid (IFA) tablets etc. From the Table 2.4, it can be observed that majority (74.17%) of the respondents had medium level of knowledge on antenatal care, followed by low level of knowledge (18.75%). It was also observed that only 7.08 per cent of them had high level of knowledge on antenatal care.

Knowledge of the respondents regarding the need for ANC visit increases the utilisation of health care services, resulting in enhanced birth consequence.

Table 2.3. Ranking of the statements of the overall Knowledge based on the obtained mean score

SI No	Statements	Mean Score	Rank
1	Medicines other than those prescribed by doctor can cause harm to the baby	2.95	I
2	For free transport from home to institution, between facilities in case of a referral and drop back home under JSSK 102, 108 and Adaruni services are available in each district	2.93	II
3	A pregnant woman should deliver her baby in a health facility rather than at home	2.92	III
4	In case of any problem like Vaginal bleeding, excessive vomiting etc., should report health center	2.83	IV
5	All births should be assisted by skilled health personnel both at the health facility and at home	2.69	V
6	ASHA should make home visits in the postnatal period to diagnose and refer in case of complications such as bleeding or infection	2.65	VI
7	Maternal health care is a fundamental right of women	2.63	VII
8	ASHA worker should accompany the pregnant woman to the health centre for facilitating institutional delivery	2.63	VII
9	Registration and 1 st check-up should be done within 1 st trimester (12 weeks) of pregnancy	2.61	VIII
10	Under JSY, Rs. 1400/- and Rs. 1000/- cash incentives are provided to the mothers of rural and urban area respectively	2.53	IX
11	Two doses of TT (Tetanus Toxoid) injections are mandatory to ensure quality antenatal care	2.51	X
12	Breastfeeding should be initiated within 24 hours after birth	2.4	XI
13	Intake of at least 100 Iron and Folic Acid tablets is necessary to prevent iron deficiency anemia	2.38	XII
14	In case of cesarean, the mother and the baby should be discharged after 7 days	2.15	XIII
15	Janani Suraksha Yojana is a scheme that provides cash assistance and post-delivery care to mothers who deliver in government health institutions or Accredited Private Hospital	2.15	XIII
16	Minimum 4 antenatal check-ups are necessary	2.12	XIV
17	In case of vaginal birth, the mother and the baby should be discharged from the health center only after 48 hours of delivery	2.07	XV
18	If the birth takes place at health facility, the mother and the new born baby should receive Post Natal check-up by skilled health personnel within 48 hours of delivery	2.06	XVI
19	If the birth takes place at home, the first postnatal check-up should be as early as possible within 24 hours of birth	2.04	XVII
20	Under the scheme Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), quality antenatal care is provided free of cost, universally to all pregnant women on the 9th of every month	1.42	XVIII
21	At least one ANC should be done by medical officer (Preferably 3 rd ANC)	1.4	XIX
22	Janani Shishu Suraksha Karyakaram (JSSK) is a scheme under which, pregnant women delivering in public health institutions are entitled to get free diet for three days for normal delivery and seven days for C- Section delivery	1.4	XIX
23	Janani Shishu Suraksha Karyakaram (JSSK) is a scheme under which, pregnant women delivering in public health institutions are entitled to free drugs and consumables, free diagnostics, free blood wherever required	1.28	XX
24	If expected pregnant women get delivered at home by a trained service, she will get monetary assistance of Rs.500/-	1.16	XXI
25	All mothers and babies need at least four postnatal check-ups in the first 6 weeks after delivery	1.11	XXII
26	2 nd PNC should be on the 3 rd day after delivery	1.04	XXIII

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In a study conducted by Ibrahim *et al.* (2014) [10] revealed that majority (85.30%) of the respondents had high level of knowledge on antenatal care. It was also stated that most of the respondents (97.30%)

under their study had knowledge about the need to go for ANC and the harmful effect of smoking on their fetus.

Table 2.4. Distribution of respondents according to their Knowledge on Antenatal Care $n = 240$

SI No	Category	Score Range	Frequency	Percentage	Mean Score	Standard Deviation
1	Low	Less than 18.12	45	18.75	20.85	2.73
2	Medium	18.12 - 23.58	150	74.17		
3	High	More than 23.58	45	7.08		

2.5 Knowledge of the respondents regarding intranatal care (INC)

Intranatal Care (INC) refers to the health care services needed by the mother and the baby during the time of delivery. In the present study, the knowledge on intranatal care of the respondents was assessed through a knowledge test involving nine (9) statements related to delivery of baby at health facility rather than at home, presence of skilled birth attendant at the time of delivery, time of discharge in case of vaginal and c-section delivery etc.

The data presented in the Table 2.5 reflected that majority (64.58%) of the respondents had medium level of knowledge regarding intranatal care. It was also revealed that 18.33 percent of the respondents had low level of knowledge on care during the intranatal period. Only 17.08 percent of them had high level of knowledge on health care services needed during the time of delivery.

Similar findings by Memchoubi (2019) [11] revealed that highest percentage (57.50%) of the mothers had average knowledge on care during intranatal period, followed by 27.50 percent of them had good knowledge, 11.50 percent had poor knowledge. It was also stated by them that only 3.50 percent of the respondents under their study had very good knowledge regarding intranatal care.

2.6 Knowledge of the respondents regarding postnatal care (PNC)

Postnatal care services refer to the health care services essential for the good health and well-being of both the mother and the infant instantly after birth up to 42 days of life. In the present study, the knowledge of the respondents on postnatal care was assessed through a knowledge scale containing eight (8) number of statements regarding the need of at least 4 postnatal check-ups up to first six weeks after delivery, the first postnatal check-up within 48 hours after institutional delivery, the first PNC within 24 hours in case of home delivery, information on the scheme Janani Suraksha Yojana etc.

The data presented in the Fig 2.1 reflects that majority 69.58 per cent of the respondents had medium level of knowledge, followed by 17.50 per cent of them had low level of knowledge on postnatal care. Only 12.92 per cent of the respondents had high level of knowledge on health care services needed by both the mother and the child after delivery. From the data, it can be interpreted that the respondents had moderate level of knowledge on postnatal care but the knowledge level is relatively lower than the knowledge on antenatal and intranatal care. During the data collection it was reported that most of the respondents were unaware about the need of minimum four postnatal visits up to one and a half month from the day of delivery. It was also revealed that most of the respondents did not have knowledge regarding the day of second PNC visit and the monetary assistance to be received by them in case of home delivery in the presence of skilled health Personnel.

Table 2.5. Distribution of respondents according to their Knowledge on INC $n = 240$

SI No	Category	Score Range	Frequency	Percentage	Mean Score	Standard Deviation
1	Low	Less than 18.28	44	18.33	20.45	2.17
2	Medium	18.28 - 22.62	155	64.58		
3	High	More than 21.58	41	17.08		

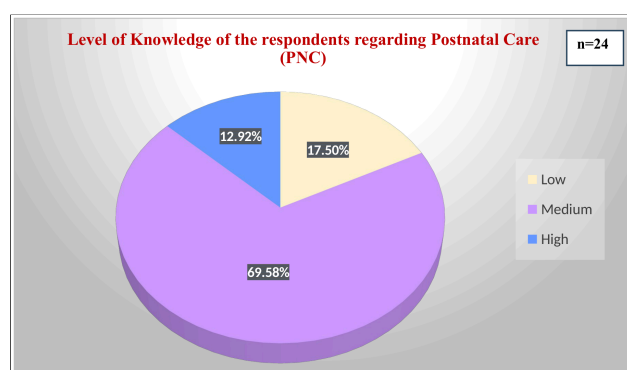


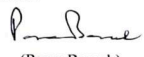
Figure 2.1. Distribution of respondents according to the level of knowledge on Postnatal Care

4. Conclusion

Based on the findings of the present study, it can be concluded that the lactating mothers were found to have moderate level of knowledge regarding maternal health care services. The relationship be-

tween knowledge and maternal health care services is crucial in influencing health-seeking behaviour of pregnant, child bearing and postnatal women. It was found that, a remarkable number of the respondents lacked awareness regarding the significance of postnatal care and services which will result in relatively low usage of services after the delivery of the child. Therefore, it was suggested that focused community-oriented awareness initiatives should be strengthened to elevate women's understanding of the significance of antenatal care, institutional births and notable, postnatal care. Engaging ASHA workers, ANMs and self-help groups enhance outreach, especially among less educated and rural women. It can be recommended that current maternal health initiatives and incentive-driven programs need to be executed more efficiently, focusing particularly on identifying and supporting socio-economically disadvantaged women. Consistent assessment and observation can aid in reducing disparities between policy and implementation.

Certificate of Ethical Approval

INSTITUTIONAL ETHICS COMMITTEE (IEC) FOR HUMAN STUDIES (H)		
Department of Food Science and Nutrition College of Community Science Assam Agricultural University, Jorhat-785013, Assam		
Approval No. AAU/CCSc/FSN/IEC(H)/20-HDJ-14(ii)/24-25/06		
Communication of decision of the Institutional Ethics Committee for Human Studies IEC (H)		
Topic of the PG Research : Utilization of Maternal Health Care (MCH) Services: A Community Based Study in Assam.		
Name of the Student: Ms. Liza Devi		
Department: Extension Education and Communication Management College of Community Science, AAU, Jorhat		
☐ New review	☐ Revised review	☐ Expedited review
Date of review (DD/MM/YYYY): 10/09/2024 Date of previous review, if revised application:		
Decision of the IEC (H): The protocol is approved by IEC (H), College of Community Science, Assam Agricultural University, Jorhat		
☒ Recommended	☐ Recommended with suggestions	
☐ Suggested Revision	☐ Rejected	
Suggestions/ Reasons/Remarks:		
Please note: Inform IEC (H) immediately in case of any adverse events. Inform IEC (H) in case of any change of study procedure, site and investigation Members of IEC (H) have right to monitor the trial/experiment with prior intimation		
 (Paran Baruah) Chairman, IEC (H) Institutional Ethics Committee (M) College of Community Science Assam Agricultural University Jorhat-13, Assam		

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