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Knowledge and Awareness of Mothers on Antenatal Care and Feeding New Born at Khulna District in Bangladesh

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ABSTRACT

Antenatal care can help women prepare for delivery and understand warning signs during pregnancy and childbirth. Through preventive health care, women can access micronutrient supplementation, treatment of hypertension to prevent eclampsia as well as immunization against tetanus. However the present study has conducted to assess the awareness of rural and urban mothers regarding antenatal care; to identify the knowledge of rural and urban mothers about exclusive breast feeding, to determine the status of knowledge of rural and urban mothers regarding complementary feeding. This study was a descriptive cross sectional type of research design. This study was conducted at labour wards and Gynaecology wards of the Khulna Medical College Hospital in Bangladesh. A large number of mothers were coming from different places to receive antenatal care, child birth and postnatal care. However, the final sample size for data analysis in this study was 442 antenatal mothers. Among them 241 mothers from rural and 201 mothers from urban area as considered their living place. Systematic random sampling method was used to recruit the eligible subjects in this study. Data were collected from primary and secondary sources. Primary data were collected by using questionnaire. Primary data were collected by face to face interview with the respondents. Secondary data were collected by review secondary sources such as books, research reports, journals, different websites and internet etc. The content validity of the instruments (The Demographic data questionnaire, the knowledge related questionnaire and the Impact related questionnaire) in the original English version were validated by reviewing relevant data and information. Collected data were analyzed by computer program Microsoft Excel. Both descriptive and inferential statistics were used for analyzing the data. The descriptive statistics including frequencies, percentages, mean, and standard deviation were used for analyzing the demographic characteristics; awareness related and impact related data. The inferential statistics including chi-square test were used for analyzing the co-association between urban and rural mother's awareness. From the result it was found that the mother's awareness gained through antenatal care, most 91.3% rural mothers and 97.5% urban mothers knew about the meaning of antenatal care and only 8.7% rural and 2.5% urban mothers did not know about that. Regarding the place of care provide most 93.8% rural and 90% urban mothers knew where antenatal care provide and whether or not taken of antenatal care majority 96.3% rural and 90.5% urban mothers were taken antennal care. Maximum 81.3% rural and 74.11% urban mothers knew that antenatal care is important for mother and children benefit but only 2.1% rural and 1% urban mothers didn't know about the important of antenatal care. Half of the mothers 58.5% rural and 51.2% urban mothers knew that examination is done when antenatal care provide. The result showed that the antenatal visits half (51.5%) rural mothers had taken fourth ANC for the check up but urban mothers' less than 50% fourth visit had taken during pregnancy. Maximum 90.9% rural and 86.1% urban mothers knew about colostrums, respectively most mothers (90.9% rural and 82.1% urban) knew about meaning of colostrums, benefit of colostrums. From the result it was also found that the advantages of breastfeeding maximum 93.4% rural and 84.1% urban mothers knew about the benefit of breastfeeding. On behalf of counseling of breastfeeding maximum 25.7% rural and 42.3% urban mothers said that they had counseled by the doctors. Regarding the complementary feeding maximum 87.6% rural and 84.6% urban mothers knew that complementary feeding should start after 6 months and more than half (57.3%) rural and 60.2% urban mothers knew that breastfeeding continue with complementary up to 24 months. Maximum 75.5% rural and 73.6% urban mothers said that they had advised about extra nutrition during ANC and mostly 68% rural & 62.2% urban mothers knew that extra food need for mother and babies good health. More food intake during pregnancy maximum 54.4% rural and 52.7% urban mothers told that they are rice, dal, meat, fish, egg, milk and vegetables. And mostly mothers 78.8% rural and 66.6% urban knew that anemia, low birth weight and illness are the more common problem due to less food intake.

Key words: Antenatal care, Mother, New born, Knowledge, Awareness, Rural, Urban Exclusive breast feeding, Complementary feeding.

INTRODUCTION

The magnitude of women's reproductive health problems is a serious matter of concern. Among the reproductive health parameters Antenatal care (ANC) and safe delivery have important positions as these are directly related with maternal morbidity and mortality. Maternal and infant morbidity and mortality is a serious public health problem globally (The State of the World's Midwifery: 2011, Datta, D.C. 2014, WHO). Both maternal and child health are interdependent and substantially contributing to high burden of mortality worldwide. Every year, 2,89,000 women die due to complications in pregnancy and childbirth, and 6.6 million children below 5 years of age die of complications in the newborn period and of common childhood diseases (MDGs- 2015, WHO, 2014). 99% of these deaths occur in

the developing countries. Not only that estimated 8 million more suffer serious illness and lifelong disabilities (WHO, UNICEF, UNFPA and the World Bank, 1990-2008, and WHO, 2010). Every year 2 million newborns die within first 24 hours of life. Each day 12,000 babies die among the 35,000 babies within their first month of life, 2.6 million stillbirths, of which approximately 45% occur during labour and birth. More over millions of newborns suffer birth trauma that impairs their development and future productivity. These deaths occur late in pregnancy, at birth, or soon after delivery due to poor maternal and newborn care or inadequate management of pregnancy related complications. The overwhelming majority of these deaths occur in developing countries (Lawn J. Cousens S. Zupan J, 2005, Stillbirth: An executive summary. 2011, Lozoff B, Beard J, Connor J, Barbara F, Georgieff M, Schallert T. 2006, and Projahnmo, 2008). Appropriate antenatal care is one of the pillars of Safe Motherhood Initiatives, a worldwide effort launched by the World Health Organization (WHO) and other collaborating agencies in 1987 aimed to reduce the number of deaths associated with pregnancy and childbirth (World Bank, 2007).

Bangladesh is one of the developing countries with in the world. The Maternal and infant morbidity and mortality are still high (Bangladesh progress report, 2007). Maternal Mortality Ratio (MMR) - 194/100000 live birth (BDHS, 2011), Neonatal Mortality Ratio (NMR)- 28/1000 (BDHS, 2014) live births, Infant Mortality Ratio (IMR)- 38/1000 (BDHS, 2014) live births and Under 5 mortality Rate (U5MR)-46/1000 (BDHS, 2014). More over every year 600,000 women suffer from maternal complications and 600,000 under-5 children suffer from various diseases. These deaths and complications have to occur especially during child birth, soon after delivery and within 6 weeks after birth due to lack of proper antenatal care and inadequate management of postnatal care (BD Progress Report, 2013, HPNSDP, 2012, Countdown, 2015, World's Midwifery, 2012).

In comparison to develop world which are remain high like in Azerbaijan country: MMR-26/100000 live birth, IMR-31/1000 live birth, NMR-15/1000 live birth, U5MR-35/1000 live birth (Countdown, 2015). It is well recognized that good antenatal care improves maternal, perinatal and neonatal outcomes. That's way the Health Population & Nutrition Section Development Program has been initiated by the Ministry of Health and Family Welfare (MOHFW), Government of Bangladesh (GOB) for a period of five years from July 2011 to June 2016. After HPSP (1998-2003) and HNPSP (2003-2011) to achieve the Millennium Development Goals 4 (to reduce child mortality) & 5 (to improve maternal health) (HPNSDP, 2012). According to WHO CCS, Bangladesh 2014-17, reported that there has been slow progress in antenatal care coverage by medically trained providers. Mothers having had only one visit 50.5% in 2004 and 54.6% in 2011 (BDHS, 2011) and having had four visits increased from 16.7% in 2004 to 25.5% in 2011. The government target of four visits is at least 50% and one visit 100% by 2015. Deliveries attended by skilled health personnel doubled from 15.6% in 2004 to 31.7% in 2011. This is due to a significant increase in facility delivery. Of the 68% home deliveries, only 3% were attended by skilled providers. Moreover, there is a large disparity in skilled assistance at delivery between rural 24% and urban 48% areas (BDHS, 2011). Target of children being exclusively breastfed for the first six months of the life is only 64%. Complementary foods are introduced at an early stage (BDHS, 2011). Postnatal care also increased significantly from 15.8% in 2004 to 27.1% in 2011. The latest data show postnatal care coverage of 38.9% in urban areas and 16.5% in rural areas (BDHS, 2011). Maternal Mortality Rate from 194/100000 live births to <143/1000000 live births, Neonatal Mortality Rate from 32/1000 live births to 21/1000 live births, Infant Mortality Rate from 43/1000 live births to 31/1000 live births, and Under Five Mortality Rate from 53/1000 live births to 48/1000 live births. These are all to be achieved by 2015 (BDHS, 2011, BD progress report, 2012).

Antenatal care (ANC) is one of the program to achieve the Millennium Development Goals 4 & 5. Antenatal care have to take complete physical check-up at regular intervals and early detection of deviation from the normal and their proper intervention or timely therapy. In addition counseling and advice of mother about various aspects like personal hygiene, nutrition, rest & sleep, travelling, birth spacing, place of delivery, exclusive breastfeeding, complementary feeding and postnatal care about their children. More over providing psychological and social support through patient hearing, suggestions for alleviation of fear and anxiety and referral to appropriate services solving any major problem faced by the women (Dutta, D.C., 2014). Maternal and neonatal morbidity and mortality is higher in the rural and urban slums due to lack of appropriate knowledge and practices among the mothers regarding their pregnancies and newborn care over the pregnancies and the postnatal period. Therefore, it is very important to identify the existing outcome of mothers awareness gained through antenatal care who are living both rural and urban area, whether the ANC services successful achieve or not. The findings of this study will help to formulate the strategies to develop the specific message to promote and sustain the program to achieve the Millennium Development goals 4 and 5.

OBJECTIVES OF STUDY

The Objectives of Study are as follows:

- 1. To assess the awareness of rural and urban mothers regarding antenatal care;
- 2. To identify the knowledge of rural and urban mothers about exclusive breast feeding
- 3. To determine the status of knowledge of rural and urban mothers regarding complementary feeding.

RESEARCH METHODOLOGY

Research design: This study was a descriptive cross sectional type of research design. The study was conducted from January 2020 to October, 2022

Population: The population of this study was Antenatal mothers and newborns.

Setting: This study was conducted at labour wards and Gynaecology wards of the Khulna Medical College Hospital in Bangladesh. A large number of mothers were coming from different places to receive antenatal care, child birth and postnatal care. This study intended to examine the impact of rural and urban mother's awareness gained through antenatal care on mothers and newborn health.

Sample and Sample size: The sample of this study was the antenatal mothers admitted to the labour and Gynecology wards of Khulna Medical College Hospital. The sample size in this study was estimated by using formula (Daniel, 1991, Kothair, 1985).

$$N = \frac{Z^2p(1-p)}{d^2}$$

Where n is sample size, Z = is the level of confidence or level of significance, d is the standard error, p is the proportion in the population possessing of interest. However, there are few prevalence studies in Bangladesh. It is estimated that average 45-50 mothers have to give childbirth per day. The 'p' is the proportion in the postpartum mother's which is obviously known. Since p = 0.5 in the formula yield the maximum value of 'n' and the sample will yield at least the designed precision. A 95% confidence interval (z = 1.96) with 0.05 standard error (z = 0.05) is desired in this study. Hence, the sample size is as follows:

$$(1.96)^2 (0.5)(0.5)$$

(a) n = ----- = 384.16
 $(0.05)^2$

However, the final sample size for data analysis in this study was 442 antenatal mothers. Among them 241 mothers from rural and 201 mothers from urban area as considered their living place. Determinant the living place: those mothers were living outside the Khulna or far from Khulna city, they are considered as rural mothers and those mothers were living within the Khulna city or near the Khulna city, they are considered as urban mothers.

Sample selection criteria

i. Inclusion criteria

- Mothers were delivered at least one day before;
- Agreed to participate;
- Both healthy and unhealthy mother;

ii. Exclusive criteria

• Mothers who disagree to participate in this study.

Sampling Method: Systematic random sampling method was used to recruit the eligible subjects in this study. Antenatal mothers who were given child birth before one day at antenatal and Gynecology wards and who were meet the selection criteria. Systematic random sampling were done by distribution of patients' bed i.e. two alternative bed selection to prevent bias. If the selected patient of the bed is unable to meet the selection criteria then next patient of the bed were included for sampling.

Research Instrument

Data were collected by using three questionnaires:

- 1) The Demographic data questionnaire,
- 2) The knowledge related questionnaire and
- 3) The Impact related questionnaire.

1. Demographic data questionnaire

The Demographic data questionnaire was designed by the researcher based on the literature review. It consisted of mothers' age, religion, educational level, occupation, monthly family income, living place, types of family, number of family member, number of children, gestational age and condition during pregnancy.

2. Awareness related questionnaire

Knowledge related questionnaire was developed by the researcher based on the literature review. It consisted of meaning of antenatal care, from where knew, where antenatal care provider, have taken antenatal care, importance of

antenatal care, component of antenatal care, who advise to give antenatal care, antenatal care provider, number of antenatal care received, advised about colostrums, who advised, meaning of colostrums, benefit of colostrums, advantages of breastfeeding, advised about breastfeeding and exclusive breastfeeding, who advised, length of exclusive breastfeeding, length of complementary feeding, advised about place of delivery, advised about antenatal care, advised about nutrition.

Translation of the Instruments

The original instruments were developed in the English language. In this study, the English version instruments were translated into the bangali language. The method of translation was the back translation technique (Brislin, 1970). It is a translation process which ensures accuracy and the culturally equivalence of the instruments when translated to another language. Three bilingual translators who were fluent in both English and bangali translated the instruments (e.g., they were two medical physicians and one English editor). The process of back translation was conducted as follows.

- 1. The first bilingual translator translated the English version of instruments into the Bengali language.
- 2. The second bilingual translator back translated the instruments from the Bengali versions into the English language. This translation was unfamiliar with the original English version.
- 3. The third bilingual translator clarified and identified the differences in all items of two English versions.

After completion the back translation process, the researcher reviewed and compared both English versions. The researcher analyzed each item in details and revised based on the two translations. Then, the researcher modified the words of the instruments as needed in order to establish the same meaning within acceptable limits.

Validity of the Instruments

The content validity of the instruments (The Demographic data questionnaire, the knowledge related questionnaire and the Impact related questionnaire) in the original English version were validated by reviewing relevant data and information.

• Reliability of the Instruments

The researcher conducted a pilot study, using the Bengali version of the instruments with 30 postpartum mothers who had the same inclusion criteria as the subjects of this study. The purpose of the pilot study was to assess the readability and reliability of all the instruments (knowledge related and impact related questionnaires). The internal consistency and reliability of the knowledge related and impact related questionnaire were tested using Cronbach's alpha coefficient, with an acceptable level of at least 0.70 (Polit & Beck, 2008). In this study Cronbach's alpha coefficients were 0.738.

Preparation Phase

Approval of the research proposal was given by the American Independent University, California. The researcher took written permission from the relevant authority to collect the data.

Data Collection Phase

- 1. After getting permission from the relevant authorities, the researcher met with the head nurse of antenatal and labor wards and explained the purpose of the study and data collection procedure.
- 2. Before collecting the data, the researcher approached the mothers who met the inclusion criteria, and introduced her-selves. She briefly explained the purpose of the study, the procedure for collecting data, and their rights about participating in the study.
- 3. The researcher asked mothers to sign an informed consent form that stated they had the right to refuse to participate in the study at any time.
- 4. The researcher gave the questionnaire to the mothers who decided to participate in this study. The researcher read the questions to the mothers 'word by word' and asked them to provide the answers in accordance with the questions being asked.
- 5. The researcher checked that the questionnaires had been completed.

Data analysis: Both descriptive and inferential statistics were used for analyzing the data. The descriptive statistics including frequencies, percentages, mean, and standard deviation were used for analyzing the demographic characteristics; awareness related and impact related data. The inferential statistics including chi-square test were used for analyzing the co-association between urban and rural mothers awareness. Correlation and one sample test with significant test was used for analyzing the relationship between demographic, awareness and impact of information.

RESULTS

The aims of this study was to examine the impact of rural and urban mothers awareness gained through antenatal care of which mothers admitted in the labour ward and postnatal wards of Khulna Medical College Hospital for child birth. The sample size was 241 from rural mothers and 201 from urban mothers. A total of 442 mothers being used as

sources of the data analyze in this study. The findings of this study are presented in three parts as figures and tables with brief explanation as follows:

Part I. Demographic characteristics of mothers

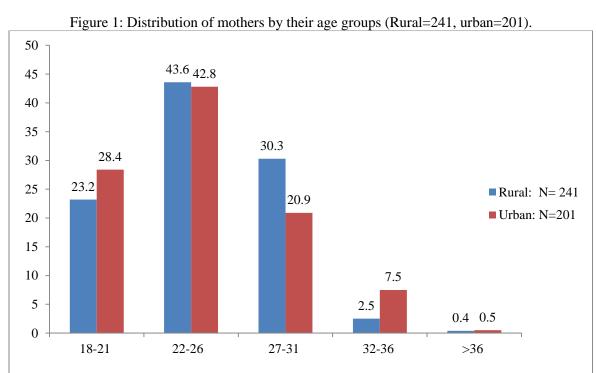
Part II. Awareness and impact of mothers about antenatal care

Part III. Relationship between Impact and Awareness of mothers on ANC and Level of impact and awareness of mothers on ANC.

RESULTS

Part I. Demographic characteristics of mothers and newborns

The mean age of rural mothers was 24.82 ± 4.03 years and 24.68 ± 4.5 years of urban mothers. The bar diagram (figure-2) showed, most 43.6% of rural mothers and 42.8% of urban mothers age group was 22-25 years.



Mean age: 24.82 ± 4.03 years rural & 24.68 ± 4.5 years urban

Table: 1 shows that the mean age of newborn was 2.21 ± 1.5 days rural & 2.6 ± 1.3 days urban. Most (41.55%) rural and (38.3%) urban newborn age was 3 days.

Table 1: Distribution of newborn by their age (Rural=241, Urban=201)

Tuble 1: Distribution of newborn by their age (Marai-241, Ciban-201)						
A are of mount own	Rural (N	N=241)	Urban (N=201)		
Age of newborn	Frequency	%	Frequency	%		
2 days	71	29.5	72	35.8		
3 days	100	41.5	77	38.3		
4 days	37	15.4	27	13.4		
5 days	9	3.7	5	2.5		
6 days	3	1.2	4	2.0		
>6 days	13	5.4	5	2.5		
Stillborn	8	3.3	9	4.5		
Death	-		2	1.0		
Total	241	100	201	100		

Mean age: 2.21 ± 1.5 days rural & 2.6 ± 1.3 days urban newborn

Table 2 shows the mean education of rural mothers was 36.7 and 42.0 for urban mothers. Most rural mothers had a primary education (57.3%) and almost half of the urban had a primary level education (41.3%).

Table 2: Frequency and Percentage of Mothers Educational qualification

Mothers: Education level	Rural: N=	N= 241 Urban: N		N=201
Mothers: Education level	Frequency	%	Frequency	%
Illiterate	37	15.4	38	18.9
Primary School	138	57.3	83	41.3
Secondary School	51	21.2	48	23.9

Higher secondary	10	4.1	25	12.4
Bachelor degree	3	1.2	4	2.0
Masters	2	.8	3	1.5
Total	241	100	201	100

From the table 3 it was found that almost all of them were Muslim (80.5%) to the rural mothers and (87.1%) to the urban mothers. 19.5% rural mothers were Hindu, 12.4% urban mothers were Hindu and only 0.5% urban mothers were Christian.

Table 3: Religion of the Mothers

Religion	Rural: N	N= 241 Urban: N		N=201
Rengion	Frequency	%	Frequency	%
Islam	194	80.5	175	87.1
Hindu	47	19.5	25	12.4
Christian	-	-	1	.5
Total	241	100	201	100

From the table 4 it was found that 96.7%% rural mothers were House wife, 93.0%% urban mothers were House wife, 1.2%% rural mothers were Public service holder, 1.0%% urban mothers were Public service holder, 1.7%% rural mothers were NGO employees, 3.5%% urban mothers were NGO employees and 0.4%% rural mothers were Worker, 2.5%% urban mothers were Worker

Table 4: Occupation of the Mothers

Occupation	Rural: N	I= 241	Urban:	N=201
Occupation	Frequency	%	Frequency	%
House wife	233	96.7	187	93.0
Public service	3	1.2	2	1.0
NGO	4	1.7	7	3.5
Worker	1	.4	5	2.5
Total	241	100	201	100

From the table 5 it was found that 64.7% rural and 56.7% urban mother's monthly family income were 5000-10000 taka.

Table 5: The average monthly family income was 7500 taka of mothers.

Family income	Rura	İ 💮	Url	oan
<5000	25	10.4	12	6.0
5000-10000	154	64.7	114	56.7
11000-15000	41	17.0	47	23.4
16000-21000	10	4.1	18	9.0
21000-25000	3	1.2	4	2.0
>25000	6	2.5	6	3.0
Total	241	100	201	100

From the table 6 it was found that most (60.2%) rural mother's type family was joint and (67.2%) urban mother's types of family were nuclear. 39.8% rural mothers' family was nuclear type and 32.8% urban mothers' family was joint type.

Table 6: Type of Family of Mothers

Type of family	Rural: N= 241		Urban: N=201	
Type of family	Frequency	%	Frequency	%
Nuclear	96	39.8	135	67.2
Joint	145	60.2	66	32.8
Total	241	100	201	100

From the table 7 it was found that most (59.3%) rural mothers number of children was 2-3 and 50.2% urban mothers have less than 2 children. On the other hand 39.4% rural mothers had less than 2 children and 1.2% rural mothers had 4-5 children. 46.8% urban mothers had 2-3 children and 3.0% urban mothers had 4-5 children.

Table 7: Number of children

Number of children	Rural: N= 241		Urban: N=201	
	Frequency	%	Frequency	%
<2 child	95	39.4	101	50.2
2-3 child	143	59.3	94	46.8

4-5 child	3	1.2	6	3.0
Total	241	100	201	100

From the table 8 it was found that 64.3% rural and 60.2% urban mother's family member were 4-6 persons. On the other hand 16.6% rural mothers' had less than 4 family members, 14.5% rural mothers had 7-9 family members and 4.6% rural mothers' had more than 9 family members. 30.8% urban mothers had less than 4 family members, 6.5% urban mothers had 7-9 family members and 2.5% urban mothers' had more than 9 family members.

Table 8: Number of family member

Number of family member	Rural: N	= 241	Urban:	n: N=201	
	Frequency	%	Frequency	%	
<4 person	40	16.6	62	30.8	
4-6 persons	155	64.3	121	60.2	
7-9 persons	35	14.5	13	6.5	
>9 persons	11	4.6	5	2.5	
Total	241	100	201	100	

From table 9 it was found that regarding gestational age of mother maximum 84.6 rural and 76.6% urban mother's gestational age was term. On the other hand 14.5% rural mothers' gestational age were preterm and 0.8% rural mother's gestational age were post term. 22.4% urban mothers' gestational age were preterm and 0.8% urban mother's gestational age was post term.



Table 9: Gestational age of mother

Gestational age of mother	Rural: N	= 241	Urban:	N=201
Gestational age of mother	Frequency	%	Frequency	%
Term	204	84.6	154	76.6
Preterm	35	14.5	45	22.4
Post term	2	.8	2	1.0
Total	241	100	201	100

From the table 10 it was found that most mothers had no complication (97.5) to the rural mothers and (98.0) to the urban mothers condition during pregnancy. On the other hand 2.5% rural mothers had complication during pregnancy and 2% urban mothers had complication during pregnancy.

Table 10: Condition during pregnancy

Condition during programmy	Rural: N	= 241	Urban: N=201	
Condition during pregnancy	Frequency	%	Frequency	%
No complication	235	97.5	197	98.0
Complication	6	2.5	4	2.0
Total	241	100	201	100

Part II. Awareness and Impact on antenatal care of mothers

Regarding the mother's awareness gained through antenatal care, most 91.3% rural mothers and 97.5% urban mothers knew about the meaning of antenatal care and only 8.7% rural and 2.5% urban mothers did not know about that. Among this areas both mothers knowledge statistically highly significant (p=000*** and 001***). Regarding the place of care provide most 93.8% rural and 90% urban mothers knew where antenatal care provide and whether or not taken of antenatal care majority 96.3% rural and 90.5% urban mothers were taken antennal care. Maximum 81.3% rural and 74.11% urban mothers knew that antenatal care is important for mother and children benefit but only 2.1% rural and 1% urban mothers didn't know about the important of antenatal care. Half of the mothers 58.5% rural and 51.2% urban mothers knew that examination is done when antenatal care provide. At the same time the less than half percent mothers knew about the component of antenatal care. But statistically only important of antenatal care moderately significant with the both mothers knowledge (p=.045**). But antenatal care provider statistically highly significant to both mothers (p=.009***) (table 11).

Regarding the antenatal visits half (51.5%) rural mothers had taken fourth ANC for the check up but urban mothers less than 50% fourth visit had taken during pregnancy. Maximum 90.9% rural and 86.1% urban mothers knew about colostrums, respectively most mothers (90.9% rural and 82.1% urban) knew about meaning of colostrums, benefit of colostrums. In this regards the mothers awareness were showing highly significant with who did counseling about colostrums and benefit of colostrums (p=.009*** and p=.001***) and moderately significant with meaning of colostrums (p=.011**). Regarding the advantages of breastfeeding maximum 93.4% rural and 84.1% urban mothers knew about the benefit of breastfeeding. On behalf of counseling of breastfeeding maximum 25.7% rural and 42.3% urban mothers said that they had counseled by the doctors. These two areas mothers awareness were statistically highly significant (p=.000***and p=.006***). At the same time maximum 92.9% rural and 86.60% urban mothers knew about the exclusive breastfeeding and also most (93.8%) rural and 85.5% urban mothers knew that the duration of exclusive breastfeeding is up to 6 months. But mothers awareness statistically highly significant with who told about exclusive breastfeeding? (p=.001***) (Table 11).

Regarding the complementary feeding maximum 87.6% rural and 84.6% urban mothers knew that complementary feeding should start after 6 months and more than half (57.3%) rural and 60.2% urban mothers knew that breastfeeding continue with complementary up to 24 months. Statistically mothers awareness were showing highly significant with who told about complementary feeding (p=.000***) and moderately significant with breastfeeding continue with complementary feeding up to (p=.040**). Regarding advised on extra nutrition, maximum 75.5% rural and 73.6% urban mothers said that they had advised about extra nutrition during ANC and mostly 68% rural & 62.2% urban mothers knew that extra food need for mother and babies good health. More food intake during pregnancy maximum 54.4% rural and 52.7% urban mothers told that they ate rice, dal, meat, fish, egg, milk and vegetables. And mostly mothers 78.8% rural and 66.6% urban knew that anemia, low birth weight and illness are the more common problem due to less food intake. Regarding the advised on place of delivery maximum 91.7% rural and 94.5% urban mothers said that they received information about place of delivery; respectively 84.2% rural and 94.7% urban mothers said that they advised about hospital delivery. Regarding postnatal care (PNC) maximum 78.4% rural and 69.7% urban mothers said that they advised about PNC during pregnancy (Table 11).

Awareness about antenatal care

Whether the respondents know or don't know about meaning of antenatal care has shown in the table 11. From the result it was found that in rural areas 91.3% respondents know about meaning of antenatal care but 8.7% respondents don't know about meaning of antenatal care. On the other hand in urban areas 97.5% respondents know about meaning of antenatal care but 2.5% respondents don't know about meaning of antenatal care.

Table 11: Meaning of antenatal care

Answer given by the	Rural: N= 241		Urban: N:	X ² Test	
mothers	Frequency	%	Frequency	%	A Test
Know	220	91.3	196	97.5	p=.000***
Don't know	21	8.7	5	2.5	$X^2 = 15.90$
Total	241	100	201	100	

From where knew about antenatal care has shown in the table 12. From the result it was found that in case of rural areas 43.2% respondents replied that they knew from relatives which was maximum about antenatal care but in case of urban areas 39.8% respondents replied that they knew from relatives which was maximum about antenatal care.

Table 12: From where knew about antenatal care

Answer given by the	Rural: N= 241		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	A Test
Relatives	104	43.2	80	39.8	
Neighbor and relatives	60	24.9	55	27.4	000***
Relative and media	22	9.1	23	11.4	p=.008*** X ² =19.12
Media	14	5.8	18	9.0	A = 19.12
Neighbor	41	17.0	25	12.4	
Total	241	100	201	100	

Place of antenatal care providing has shown in the table 13. From the result it was found that in case of rural areas 93.8% respondents know about place of antenatal care providing but 8.7% respondents don't know about meaning of antenatal care. On the other hand in urban areas 97.5% respondents know about place of antenatal care providing but 2.5% respondents don't know about meaning of antenatal care.

Table 13: Place of antenatal care providing

Answer given by the	Rura <mark>l: N= 241</mark>		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	A Test
Know	226	93.8	181	90.0	p=.079
Not know	15	6.2	20	10.0	$X^2 = 3.09$
Total	241	100	201	100	

Whether taken antenatal care has shown in the table 14. From the result it was found that in case of rural areas 96.3% respondents taken antenatal care and 3.7% did not take antenatal care. On the other hand in case of urban areas 90.5% respondents taken antenatal care and 9.5% did not take antenatal care.

Table 14: Whether taken antenatal care

Answer given by	Rural: N= 241		Urban: N=201		X ² Test
the mothers	Frequency	%	Frequency	%	A Test
Yes	232	96.3	182	90.5	P=.280
No	9	3.7	19	9.5	$X^2 = 1.16$
Total	241	100	201	100	

Importance of antenatal care has shown in the table 15. From the result it was found that in case of rural areas 81.3% respondents replied that antenatal care is important for mother and child benefit which was maximum. But in case of urban areas 74.1% respondents replied that antenatal care is important for mother and child benefit which was maximum.

Table 15: Importance of antenatal care

Angreen given by the method	Rural: N	Rural: N= 241		Urban: N=201	
Answer given by the mothers	Frequency	%	Frequency	%	X ² Test
Mother and child benefit	196	81.3	149	74.1	
Child benefit	32	13.3	45	22.4	n= 120
Mother benefit	3	1.2	1	.5	p=.139 X ² =9.67
Child and family benefit	5	2.1	4	2.0	A = =9.07
Don't know	5	2.1	2	1.0	

Total	2/1	100	201	100	
1 Otal	∠ 4 1	100	201	100	

Reason of going Hospital/Clinic has shown in the table 16. From the result it was found that in case of rural areas 58.5% respondents replied that they go to Hospital/Clinic for examination which was maximum. But in case of urban areas 51.2% respondents replied that they go to Hospital/Clinic for examination which was maximum.

Table 16: Reason of going Hospital/Clinic

	Rural: N= 241		Urban: N=201		al: N= 241 Urban: N=201		X ² Test
	Frequency	%	Frequency	%	A Test		
For examination	141	58.5	103	51.2	n_ 252		
For investigation	94	39.0	95	47.3	p=.253 X ² =4.08		
Don't know	6	2.5	3	1.5	A =4.08		
Total	241	100	201	100			

Component of antenatal care has shown in the table 17. From the result it was found that in case of rural areas 37.3% respondents replied that full physical care is component of antenatal care which was maximum. But in case of urban areas 51.2% respondents replied that component of antenatal care is advice and counseling which was maximum.

Table 17: Component of antenatal care

Component of entenetal care	Rural: N	Rural: N= 241		Urban: N=201		
Component of antenatal care	Frequency	%	Frequency	%	X ² Test	
Advise and counseling	90	37.3	78	38.8		
Full physical care	99	41.1	70	34.8	$p=.427$ $X^2 = 2.78$	
Investigation	45	18.7	51	25.4	$X^2 = 2.78$	
Don't know	7	2.9	2	1.0		
Total	241	100	201	100		

Person advice about antenatal care has shown in the table 18. From the result it was found that in case of rural areas 30.3% respondents replied that they received antenatal care related advice from Doctor which was maximum. But in case of urban areas 36.8% respondents replied that they received antenatal care related advice from Doctor which was maximum.

Table 18: Person adviced about antenatal care

Answer given by the mothers	Rural: N=	Rural: N= 241		=201	X ² Test	
Answer given by the mothers	Frequency	%	Frequency	%	A Test	
Doctor	73	30.3	74	36.8		
Nurse	17	7.1	15	7.5		
Relatives	62	25.7	53	26.4		
FWV	57	23.7	36	17.9	n= 200	
Doctor and nurse	10	4.1	14	7.0	p=.309 X ² =8.27	
Doctor and FWV	16	6.6	7	3.5	$\Lambda = 0.27$	
No body	6	2.5	2	1.0		
Total	241	100	201	100		

Antenatal care provider has shown in the table 19. From the result it was found that in case of rural areas 30.7% respondents replied that Doctor was antenatal care provider which was maximum. But in case of urban areas 34.3% respondents replied that Doctor, Doctor and nurse were antenatal care provider which was maximum.

Table 19: Antenatal care provider

Answer given by the	Rural: N= 241		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	X Test
Doctor	74	30.7	69	34.3	
Nurse	5	2.1	8	4.0	
Doctor and nurse	68	28.2	69	34.3	
Doctor, nurse and FWV	18	7.5	16	8.0	p=.038*** X ² =16.35
FWV	41	17.0	22	10.9	$X^2 = 16.35$
Doctor and FWV	24	10.0	12	6.0	
Nurse and FWV	6	2.5	3	1.5	
No body	5	2.1	2	1.0	
Total	241	100	201	100	

Number of antenatal care visit has shown in the table 20. From the result it was found that in case of rural areas 51.5% respondents replied that they took four antenatal care visits which was maximum. But in case of urban areas 47.8% respondents replied that they took four antenatal care visits which was maximum.

Table 20: Number of antenatal care visit

Answer given by the	Rural: N=	Rural: N= 241		Urban: N=201	
mothers	Frequency	%	Frequency	%	X ² Test
One visit	11	4.6	17	8.5	
Two visit	56	23.2	40	19.9	
Three visit	35	14.5	24	11.9	p=.07* X ² =10.15
Fourth visit	124	51.5	96	47.8	$X^2 = 10.15$
More than fourth visit	9	3.7	22	10.9	
No visit	6	2.5	2	1.0	
Total	241	100	201	100	

If ANC visit less than fourth visit attended, reason has shown in the table 21. From the result it was found that in case of rural areas 66.6% respondents replied that they took less than four antenatal care visits for money problem which was maximum. But in case of urban areas 43.2% respondents replied that they took less than four antenatal care visits for money problem and for no opportunity which was maximum.

Table 21: If ANC visit less than fourth visit attended, reason

Answer given by the	Rural		Urban		X ² Test
mothers	Frequency	%	Frequency	%	A Test
Money problem	72	66.6	35	43.2	
No opportunity	23	21.3	35	43.2	p=.013** X ² =14.53
No time	5	4.6	5	7.46.2	$X^2 = 14.53$
Far from home	8	7.4	6	7.4	
Total	108	100	81	100	

If no one visit attended, reasons has shown in the table 22. From the result it was found that all the respondents took no one antenatal care visit due to lack of money or money problem.

Table 22: If no one visit attended, reasons

Answer given by the	Rural		Urban	X ² Test	
mothers	Frequency 1	%	Frequency	%	A - Test
Money problem	6	100.0	2	100.0	p=.435 X ² =1.66

Whether the respondents receive any information about colostrums has shown in the table 23. From the result it was found that in case of rural areas 90.9% respondents replied that they took any information about colostrums which was maximum. But in case of urban areas 86.1% respondents replied that they took any information about colostrums which was maximum.

Table 23: Whether the respondents receive any information about colostrums

Answer given by the	Rural: N= 241		Urban: N	X ² Test	
mothers	Frequency	%	Frequency	%	A Test
Yes	219	90.9	173	86.1	p=.585
No	22	9.1	28	13.9	$X^2 = 0.298$
Total	241	100	201	100	

Meaning of colostrums has shown in the table 24. From the result it was found that in case of rural areas 90.9% respondents replied that they know about colostrums which was maximum. But in case of urban areas 92.5% respondents replied that they don't know about colostrums which was maximum.

Table 24: Meaning of colostrums

Answer given by the	Rural: N= 241		Urban: N	X ² Test	
mothers	Frequency	%	Frequency	%	A Test
Know	219	90.9	186	92.5	p=.03**
Don't know	22	9.1	15	7.5	$X^2 = 6.84$
Total	241	100	201	100	

Counseling persons about colostrums has shown in the table 25. From the result it was found that in case of rural areas 33.6% respondents replied that Doctor was counseling person about colostrums which was maximum. But in case of urban areas 47.8% respondents replied that Doctor was counseling person about colostrums which was maximum.

Table 25: Counseling persons about colostrums

Answer given by the	Rural: N= 241		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	A Test
Doctor	81	33.6	96	47.8	
Nurse	21	8.7	23	11.4	
Doctor and nurse	47	19.5	28	13.9	n_ 016**
Relative	32	13.3	24	11.9	p=.016** X ² =15.66
FWV	29	12.0	13	6.5	$\Lambda = 13.00$
Doctor and FWV	14	5.8	6	3.0	
No body	17	7.1	11	5.5	
Total	241	100	201	100	

Knowledge about benefit of colostrums has shown in the table 26. From the result it was found that in case of rural areas 90.9% respondents replied that they know about benefit of colostrums which was maximum. But in case of urban areas 94.5% respondents replied that they don't know about benefit of colostrums which was maximum.

Table 26: Knowledge about benefit of colostrums

Answer given by the mothers	Rural: N=	241	Urban: N	=201	X ² Test
implied given by the mothers	Frequency	%	Frequency	%	11 1000
Know	217	90.0	180	94.5	p=.002***
Don't know	24	10.0	11	5.5	$X^2 = 12.25$
Total	241	100	201	100	

Knowledge about advantages of breastfeeding has shown in the table 27. From the result it was found that in case of rural areas 93.4% respondents replied that they know about advantages of breastfeeding which was maximum. But in case of urban areas 95% respondents replied that they don't know about advantages of breastfeeding which was maximum.

Table 27: Knowledge about advantages of breastfeeding

Angway given by the methors	Rural: N=	Rural: N= 241		=201	X ² Test
Answer given by the mothers	Frequency	%	Frequency	%	A Test
Know	225	93.4	191	95.0	p=.007***
Don't know	16	6.6	10	5.0	$X^2 = 9.97$
Total	241	100	201	100	

Counseling person about breastfeeding has shown in the table 28. From the result it was found that in case of rural areas 25.7% respondents replied that Doctor was counseling person about breastfeeding which was maximum. But in case of urban areas 42.3% respondents replied that Doctor was counseling person about breastfeeding which was maximum.

Table 28: Counseling person about breastfeeding

Answer given by the mothers	Rural: N= 241		Urban: N:	=201	X ² Test
	Frequency	%	Frequency	%	A Test
Doctor	62	25.7	85	42.3	
Nurse	45	18.7	27	13.4	
Doctor and nurse	60	24.9	32	15.9	000***
Relatives	21	8.7	20	10.0	p=.000*** X ² =35.23
FWV	34	14.1	14	7.0	A = 33.23
Nurse and relative	6	2.5	5	2.5	
Doctor and FWV	13	5.4	9	4.9	
Total	241	100	201	100	

Whether advised about exclusive breastfeeding has shown in the table 29. From the result it was found that in case of rural areas 92.9% respondents replied that they advised about exclusive breastfeeding which was maximum. But in case of urban areas 86.6% respondents replied that they advised about exclusive breastfeeding which was maximum.

Table 29: Whether advised about exclusive breastfeeding

Answer given by the	Rural: N= 241		Urban: N=	X ² Test	
mothers	Frequency	%	Frequency	%	A Test
Yes	224	92.9	174	86.6	p=.839
No	17	7.1	27	13.4	$X^2 = .041$
Total	241	100	201	100	

If answer is yes, telling person about exclusive breast feeding has shown in the table 30. From the result it was found that in case of rural areas 22.4% respondents replied that Doctor was counseling person about exclusive breastfeeding which was maximum. But in case of urban areas 36.3% respondents replied that Doctor was counseling person about exclusive breastfeeding which was maximum.

Table 30: If answer is yes, telling person about exclusive breast feeding

Answer given by the mothers	Rural: N= 241		Urban: N	X ² Test	
	Frequency	%	Frequency	%	
Doctor	54	22.4	73	36.3	
Nurse	33	13.7	29	14.4	p=.004***
Doctor and nurse	46	19.1	42	20.9	$p=.004***$ $X^2 = 20.83$
Relatives	14	5.8	13	6.5	
FWV	47	19.5	19	9.5	
Doctor and FWV	18	7.5	8	4.0	
Nurse and FWV	12	5.0	8	4.0	
No body	17	7.1	9	4.5	
Total	241	100	201	100	

Duration of Exclusive breastfeeding has shown in the table 31. From the result it was found that in case of rural areas 93.8% respondents replied that 6 months was the duration of exclusive breastfeeding which was maximum but in case of urban areas 85.6% respondents replied that 6 months was the duration of exclusive breastfeeding which was maximum.

Table 31: Duration of Exclusive breastfeeding

Answer given by the mothers	Rural: N= 241		Urban: N=	X ² Test	
inotite s	Frequency	%	Frequency	%	
6 months	226	93.8	172	85.6	p=.359 X ² =2.05
3-5 months	2	.8	20	10.0	$X^2 = 2.05$
Don't know	13	5.4	9	4.5	
Total	241	100	201	100	

Counseling person about complementary feeding has shown in the table 32. From the result it was found that in case of rural areas 20.7% respondents replied that Doctor was counseling person about complementary feeding which was

maximum. But in case of urban areas 33.3% respondents replied that Doctor was counseling person about complementary feeding which was maximum.

Table 32: Counseling person about complementary feeding

Answer given by the	Rural: N= 241		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	
Doctor	50	20.7	67	33.3	
Nurse	30	12.4	37	18.4	
Doctor and nurse	45	18.7	40	19.9	p=.000***
FWV	48	19.9	19	9.5	$X^2 = 59.37$
Nurse and FWV	10	4.1	10	5.0	
Relatives	17	7.1	8	4.0	
Doctor and FWV	15	6.2	4	2.0	
Nurse and relatives	3	1.2	3	1.5	
Media	9	3.7	4	2.0	
No body	14	5.8	9	4.5	
Total	241	100	201	100	

Starting time of complementary feeding has shown in the table 33. From the result it was found that in case of rural areas 87.6% respondents replied that after 6 months was starting time of complementary feeding which was maximum. But in case of urban areas 84.6% respondents replied that after 6 months was starting time of complementary feeding which was maximum.

Table 33: Starting time of complementary feeding

Rural: N= 241		Urban: N=	X ² Test	
Frequency	%	Frequency	%	
3	1.2	18	8.9	p=.654
211	87.6	170	84.6	p=.654 $X^2=1.62$
15	6.2	6	3.0	
12	5.0	7	3.5	
241	100	201	100	
	3 211 15 12	Frequency % 3 1.2 211 87.6 15 6.2 12 5.0	Frequency % Frequency 3 1.2 18 211 87.6 170 15 6.2 6 12 5.0 7	Frequency % Frequency % 3 1.2 18 8.9 211 87.6 170 84.6 15 6.2 6 3.0 12 5.0 7 3.5

Breastfeeding continued with complementary feeding has shown in the table 34. From the result it was found that in case of rural areas 57.3% respondents replied that breastfeeding continued with complementary feeding up to 24 months which was maximum. But in case of urban areas 60.2% respondents replied that breastfeeding continued with complementary feeding up to 24 months which was maximum.

Table 34: Breastfeeding continued with complementary feeding

Answer given by the mothers	Rural: N= 241		Urban: N=201		X ² Test
mothers	Frequency	%	Frequency	%	
6 months	2	.8	9	4.5	p=.178
12 months	4	1.7	9	4.5	$X^2 = 10.20$
18 months	21	8.6	17	8.5	
24 months	138	57.3	121	60.2	
3 years	66	27.4	38	18.9	
4 years	7	2.9	3	1.5	
Don't know	3	1.2	4	2.0	

Whether mother was advised about extra nutrition during ANC has shown in the table 35. From the result it was found that in case of rural areas 75.5% respondents replied that mother was advised about extra nutrition during ANC. But in case of urban areas 73.6% respondents replied that mother was advised about extra nutrition during ANC.

Table 35: Whether mother was advised about extra nutrition during ANC

Answer given by the mothers	Rural: N= 241		Urban: N=2	X ² Test	
modicis	Frequency	%	Frequency	%	
Yes	182	75.5	148	73.6	p=.310 X ² =2.34
No	59	24.5	53	26.4	$X^2 = 2.34$
Total	241	100	201	100	

If answer is yes, reasons have shown in the table 36. From the result it was found that in case of rural areas 90.1% respondents replied that extra nutrition during ANC is needed for mother & baby good health which was maximum. But in case of urban areas 69.6% respondents replied that extra nutrition during ANC is needed for mother & baby good health which was maximum.

Table 36: If answer is yes (reason of extra nutrition during ANC)

Answer given by the mothers	Rural: N= 241		Urban: N=201		X ² Test
	Frequency	%	Frequency	%	
Mother & baby good health	164	90.1	135	69.6	p=.474 X ² =4.54
Baby s good health	13	7.1	27	13.9	$X^2 = 4.54$
Mothers good health	6	3.3	31	15.9	
Able to eat	1	.5	1	.5	
Total	241	100	201	100	

Food should intake more during pregnancy has shown in the table 37. From the result it was found that in case of rural areas 54.4% respondents replied that rice, dal & fruits should intake more during pregnancy which was maximum. But in case of urban areas 69.6% respondents replied that rice; dal & fruits should intake more during pregnancy which was maximum.

Table 37: Food should intake more during pregnancy

Answer given by the mothers	Rural: N= 241		Urban: N=201		X ² Test
	Frequency	%	Frequency	%	
Rice, dal & fruits	131	54.4	106	52.7	p=.376
Rice, dal, meat, egg, milk vegetable	68	28.2	68	33.8	$X^2 = 6.43$
Rice, dal, fish & vegetables	34	14.1	17	8.5	
Rice, dal, fruits, milk & vegetables	8	3.3	10	4.9	
Total	241	100	201	100	

Problems arise if extra food not taken during pregnancy has shown in the table 38. From the result it was found that in case of rural areas 78.8% respondents replied that LBW, anaemia & Illness will arise if extra food not taken during

pregnancy which was maximum. But in case of urban areas 68.6% respondents replied that LBW, anaemia & Illness will arise if extra food not taken during pregnancy which was maximum.

Table 38: Problems arise if extra food not taken during pregnancy

Answer given by the mothers	Rural: N= 241		Urban: N=201		X ² Test
	Frequency	%	Frequency	%	
Aneamia and abnormal baby	22	9.1	30	14.9	
LBW & death	5	2.1	4	2.0	p=.244 X ² =12.65
LBW, anaemia & Illness	190	78.8	138	68.6	$X^2=12.65$
LBW, anaemia & V/bleedin.	7	2.9	15	7.4	
Don't know	17	7.1	14	6.9	
Total	241	100	201	100	

Whether advised get about place of delivery during ANC has shown in the table 39. From the result it was found that in case of rural areas 91.7% respondents replied that they got advice got about place of delivery during ANC which was maximum. But in case of urban areas 94.5% respondents replied that they got advice got about place of delivery during ANC which was maximum.

Table 39: Whether advice got about place of delivery during ANC

Answer given by the mothers	Rural: N= 241		Urban: N=2	X ² Test	
moners	Frequency	%	Frequency	%	
Yes	221	91.7	190	94.5	p=.000 X ² =17.47
No	20	8.3	11	5.5	$X^2 = 17.47$
Total	241	100	201	100	

If answer is yes, name of receiving ANC has shown in the table 40. From the result it was found that in case of rural areas 84.2% respondents replied that they received ANC from hospital. But in case of urban areas 94.7% respondents replied that they received ANC from hospital. On the other hand in case of rural areas 15.8% respondents replied that they received ANC from home with TBA. But in case of urban areas 15.8% respondents replied that they received ANC from home with TBA.

Table 40: If answer is yes, name of receiving ANC

Answer given by the mothers	Rural: N= 241		Urban: N=	X ² Test	
	Frequency	%	Frequency	%	
Hospital	186	84.2	180	94.7	p=.000 X ² =270.0
Home with TBA	35	15.8	10	5.3	$X^2 = 270.0$
Total	241	100	201	100	

Advice got about PNC during ANC has shown in the table 41. From the result it was found that in case of rural areas 78.4% respondents replied that they got advices about PNC during ANC. But in case of urban areas 69.7% respondents replied that they got advices about PNC during ANC. On the other hand in case of rural areas 21.6% respondents replied that they did not get advices about PNC during ANC. But in case of urban areas 30.3% respondents replied that they did not get advices about PNC during ANC.

Table 41: Advice got about PNC during ANC

Answer given by the mothers	Rural: N= 241		Urban: N=2	X ² Test	
	Frequency	%	Frequency	%	
Yes	189	78.4	140	69.7	p=.020 X ² =5.401
No	52	21.6	61	30.3	$X^2 = 5.401$
Total	241	100	201	100	

CONCLUSION

This descriptive cross sectional study designed to examine the extent to which mother's awareness of antenatal care influence the impact on mother and newborn health. This study was conducted at labor ward and postnatal ward in Khulna Medical College Hospital from January 2020 to June 2022 Four hundred forty two mothers were used in the statistical analysis. Among them two hundred fifty six rural mothers and one hundred eighty six urban mothers. Mothers were asked to respond to the instruments that included the demographic Data, the awareness Questionnaire, the Impact Questionnaire. The instruments were validated by seven experts. All Instruments were translated into Bengali language through the back translation procedure. A pilot study was done with 30 postpartum mothers. The Cronbach's alpha reliabilities of questionnaire were .738. Descriptive statistics were used to analyze the demographic data, awareness and impact data. Pearson's product correlation was used to analyze the relationships among variables. The results showed that almost of half of the mothers age group had 22-28 years (43.8% rural & 42.5% urban). Half of the mothers had primary school (55.9% rural & 41.9% urban). Almost all of them (80.9% rural & 87.1% urban) were Muslims and (96.9% rural & 92.5% urban) mothers were housewives. The level of family income of mothers were (65.2% & 55.4% urban) from 5000-10000 Taka per months. Most of the mothers type of family was nuclear (67.2% rural & 43.4% urban). More than half of them (64.55 rural & 59.75 urban) family member were 4-6 person and maximum (60.2% rural & 51.6% urban) of the mother children were 2-3 & less than two in urban mothers.

The mean score of mothers awareness (M=19.07) and impact (M=9.40) of mothers awareness on antenatal care were not much higher than actual mean scores. In terms of relationship, there was a statistically highly significant and positive relationship between mothers awareness and impact of mothers awareness on antenatal care on mothers and newborn health (r=, p=.092*).Regarding the level of mothers awareness and impact, it was observed that mothers who had high level awareness, they had also high level impact and statistically moderate significant (p=.033**) to the all mothers and mild significant (p=.077*) to the urban mothers but no significant (p=1.779) to the rural mothers was found.

RECOMMENDATION

Findings showed that all level of ANC has greater achievement. Not only that 4 visit >50% mothers has completed during pregnancy, more than 93% delivered in hospitals, 75% did not face any problem during and after child birth, above 80% babys birth weight was normal, >73% babys condition was good during child birth, >77% mothers condition was good during and after child birth, >82% babys first feeding was colostrun after child birth, >84% babys exclusively breastfeeding after birth. But the present study has made some recommendation to be achieved:

1. Encourage the mother and family about 3 delays during ANC.

- 2. Increase to use the partograph during labour to reduce Caesarean section because normal delivery decreases complication than Caesarian section.
- 3. Increase the mother's awareness about initiation of breastfeeding within half hour.
- 4. Based on the results and limitation of the present study, the findings of the study can be used in further experimental study to represent the whole population.

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