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Awareness towards antenatal & postnatal care among the women in Sir Sunder Lal Hospital, BHU Varanasi, UP

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Abstract

Background: The concept of health is as old as human social history. Health is integral part of development. Health is a positive state of well-being in which harmonious development of physical and mental capacities of individual lead to enjoyment of rich and full life. According to world health organization Health is a state of complete physical, mental and socio well-being and not merely the absence of disease or infirmity. Reproductive Health of women consist of health of the women after puberty and before pregnancy and health care, utilization health services during pregnancy, delivery and postnatal care. The nutritional status of pregnant women directly influences their reproductive performance and birth weight of their child. Maternal health influences the fetus and neonatal health in a number of ways. Mother and child must be considered as one unit. During the Antenatal period, the fetus is a part of mother, during this period the fetus obtains all the building materials and oxygen from mother's blood. After birth the child dependent upon the mother at least up to age of 6 to 9 months, the child is completely dependent on the mother for feeding. The mental and social development of the child is also dependent upon the mother. If the mother dies, the child's growth and development are affected.

Method: A hospital-based cross sectional study was conducted in postnatal ward of Sir Sunder Lal hospital, BHU, Varanasi from 14th June 2015 to 15 January 2017. Altogether 500 respondents were taken and respondents were Mother who had delivered the neonates in SSL hospital.

Result: A total of 500 women studied, about 32% have made more than 3 antenatal care visits to Sir Sunderlal Hospital while about 69% have received PNC service within 24 hours of delivery. There were several factor is finding to affect the antenatal care and postnatal care which are age of the mother education level, reason family income of the house family member in house, employment status of the mother ANC provider, use of iron calcium supplements, type of delivery, mother's health within 24 hours of delivery, neo natal health within 24 hours of birth, care of neonatal.

Conclusion: The finding of the study shows that women was not fully awareness of her care during the pregnancy and also after delivery.

Keywords: ANC and Skilled Birth Attendance, PNC

Introduction

Aantenatal care is a medical service provided to a woman during her pregnancy to ensure that pregnancy and delivery do not have harmful effects on her baby. Antenatal care is an important pillar of safe motherhood. The acceptance of mere health care services in a society is mostly shaped and reshaped by the individual, social, environmental, psycho-cultural and ecological and political standards that exist in those areas. It is a very important subject for any country or state that what health facilities it provides during pregnancy for its women because a healthy woman can give birth to a healthy child. It can be helpful in the progress and development of the nation.

Around 830 women die every day due to pregnancy and delivery complications around the world. Statistics show that 99% maternal mortality was highest in developing and backward countries, especially in rural areas. The reason

behind this meager death is poor health care and lack of preventable antenatal care. The physical health and growth of the unborn child is affected by the nutrition of the expectant mother. From the figure of maternal and child mortality, it is known that most of the babies who die in gestational stage, the main reason for their death was the lack of proper care of the mother during pregnancy. Thus, pregnancy is a very important stage not only for the mother but also for the unborn child, so for the proper development of the fetus, proper care should be taken from the early stages of pregnancy.

The purpose of antenatal care (ANC) was to monitor and protect the well-being as well as to detect any complications of pregnancy and to take necessary measures, to respond to mother's complaints, prepare the mother for giving birth, etc in addition to providing health care to the mother. In fact, the ANC is a health and care platform that provides

important and necessary systems for health promotion, screening and diagnosis.

In my research survey and research analysis, I have included complications problems in a fetus and mother during pregnancy and after delivery. Most of the complications and adverse outcomes of pregnancy after pregnancy can be managed by health services and appropriate care for most patients. The most common complications during pregnancy include anemia, bleeding, urine infection, miscarriage, excessive vomiting etc. It was seen that many times due to these complications, women die in prenatal or even after delivery,

In 2001, WHO conducted a careful review of the effectiveness of different types of ANC through the ANC Care Trial? Subsequently, in 2002, WHO introduced the ANC model known as Focused ANC or Basic? WHO recommends under Focused Antenatal Care.

Model FANC that a pregnant woman should visit a health worker at least four critical times during pregnancy. The WHO also found that fewer prenatal visits were actually harmful to a pregnant woman's health. This is why in 2006 the World Health Organization issued a new number of recommendations aimed at improving the quality of antenatal care, reducing mortality, and reducing the risk of birth and pregnancy complications. At the same time, it aims to provide women with a positive pregnancy experience. WHO recommended five periods under ANC. Routine prenatal nutritional intake and fetal assessment, preventive measures, interventions for the management of common physical symptoms in pregnancy and health etc.

Thus in 2016 WHO calls for system-level interventions to improve the quality and use of the ANC, urging the agency to increase the number of contacts with pregnant women's health providers for guidance. During pregnancy, a pregnant woman should have at least four and eight contacts with health providers, including one contact in the first trimester, two contacts in the second trimester and 5 contacts in the third trimester. The guideline uses the term 'contact', it implies an active connection between a pregnant woman and a health care provider that is not implicit with the word 'visit', quality care including medical care, support and timely and relevant information

The WHO recommendations on ANC (2016) for a positive pregnancy experience are subdivided into five different content categories (nutritional interventions, maternal and fetal assessment, preventive measures, physiological symptoms, and health systems) and seek to integrate service provision across health domains (malaria, tuberculosis, HIV, etc.). Care of the mother and the newborn after delivery is known as a postnatal (PNC) or post-partal care. Broadly this care falls into two areas: care of the mother which is primarily the responsibility of the obstetrician; and care of the newborn, which is the combined responsibility of the obstetrician and paediatrician. This combined area of responsibility is also known as perinatology.

The objectives of the postpartal care are to prevent complications of the postpartal period to provide care for the rapid restoration of the mother to optimum health and check

adequacy of breastfeeding, to provide family planning services and provide basic health education to mother. The postnatal period is defined it is starting immediately after the birth and for the first six weeks of life and postnatal care services are services provided to new mothers within first six weeks. World health organization (WHO) suggest that woman and her infant to have a postnatal visit at least four times within the first six weeks after birth the first should occur within the first 24 hours after birth irrespective of the place of childbirth the second 2-3 days and third between 7-14 days and at fourth visit 6 weeks after birth.

Methodology

Objectives: To develop awareness for Antenatal and Postnatal care among the mother's in SSL hospital BHU.

Data collection method and sample size

A hospital-based cross sectional study was conducted in postnatal ward of Sir Sunder Lal hospital, Bhu, Varanasi from 14th June 2015 to 15 January 2017. Altogether 500 respondents were taken and respondents were Mother who had delivered the newborns in SSL hospital and the information was collected using pre design structured questionnaire. All women who gave birth within this period were asked questions by the researcher about antenatal health care and information on postpartum care was collected about the person and institution providing the ANC, the number of ANC visits and the component of the ANC. The women received PNC service within 24 hours of delivery, the health of the mother and the unborn child within 24 hours of delivery, all of which were asked by the researcher. Data was coded compile and analyze in statistical packages for social science (SPSS) version 21 software.

Statistical analysis

The data were analysed using univariate (frequency distribution), bivariate statistical methods. Frequency distribution was used to describe the characteristics of the women (mothers) of background characteristics. In bivariate analysis simple summary statistics mean for the count variables such as frequency of ANC visits and number of elements received during ANC visits were obtained for each category of the selected variables. The statistical significance was tested by χ^2 (chi-square) test for categorical dependent variable and analysis of variance (ANOVA) for count dependent variable.

Table-1

ANC Visit	Frequency	Percent
ANC<4	352	68.1
ANC≥4	165	31.9
Total	517	100.0

Table 1 indicates that around 32% respondents had 4 & above antenatal care visit in hospital whereas 68% of respondents had three antenatal care visits.

Table 2: Association between variables and Antenatal care visit

Characteristics	Number of women	Women who had <4 ANC visits	Women who had ≥4 ANC visits	χ ²	Mean of frequency of ANC visits	F
Total	517	352(68.09%)	165(31.91%)		3.32	
Mother's age at birth of Neonate						
19-23	136	99	37	8.49*	3.24	3.23*
24-28	254	158	96		3.44	
29-33	89	65	24		3.18	
34 & Above	38	30	8		3.18	
Mother's Education						
High school	150	111	39	4.14	3.17	2.16
Intermediate	166	106	60		3.39	
Graduate	157	104	53		3.39	
Post graduate & above	44	31	13		3.34	
Religion						
Hindu	489	329	160	2.69	3.35	5.04*
Muslim	28	23	5		2.96	
Category						
General	198	127	71	3.07	3.41	1.66
OBC	182	132	50		3.27	
SC/ST	137	93	44		3.27	
Parity						
1	234	155	79	0.73	3.35	0.22
2	168	116	52		3.29	
3+	115	81	34		3.32	
Family Income						
< 10000 Rs.	108	58	50	24.16***	3.48	3.15***
(10000-15000Rs.)	86	49	37		3.47	
(15000-20000Rs.)	138	104	34		3.27	
20000 Rs.& Above	185	141	44		3.21	
Family member in House						
<5	129	76	53	8.08*	3.47	3.58*
5≤F M<11	344	248	96		3.28	
F M≥11	43	27	16		3.35	
Employment Status of Mother						
Student	31	16	15	6.52*	3.65	2.75
House wife	391	264	127		3.32	
Working	95	72	23		3.22	
ANC Provider						
Doctor & Medical student	315	180	135	44.42***	3.59	83.58***
Medical student & Nurse	202	172	30		2.92	
Distance from hospital						
Less than 8 Km	252	137	115	48.61***	3.58	16.59***
(8-24) km	69	48	21		3.29	
(24-48) km	32	26	6		3.13	
48 km & above	164	141	23		2.99	
TT injection						
Yes	496	335	161	1.67	3.34	3.01
No	21	17	4		3.00	
Use of Iron & calcium tablets						
Yes "Both"	399	248	151	28.29***	1.38	29.81***
No	118	104	14		1.12	
Mother intake proper diet						
Yes	355	264	91	27.78*	3.25	4.09*
No	118	67	51		3.45	
No Response	44	21	23		3.57	
Contraceptive Use						
Herself	157	119	38	7.92*	3.16	5.30
Partner	38	21	17		3.61	
No	322	212	110		3.37	

Statistical significance: ***P<.001, **p<.01, *p<.05

Table 2 shows that the results of the bivariate analysis of the frequency of ANC visits, such as the mean of the frequency of ANC visits and 4 and more ANC visits by mother as recommended by WHO. The analysis indicate that maternal age, maternal education, religion, family income, family

member in house, employment status of mother, ANC Provider, distance from hospital, use of iron & calcium tablets, mother intake proper diet during pregnancy, contraceptive use have significant association with ANC visits. Mothers aged (24-28) years at the time of birth of the

neonate were more likely to have more than 3 ANC visits and higher mean of the frequency of ANC visits than their youngers aged (19-23) years and older aged 34 and above and mothers aged (29-33) years old and 34 & above at the time of birth was equal visits of ANC. The mean of ANC visit was found to be among the mother's belonging to Hindu religion 3.35 visits and Muslim religion 2.96 visits. Mothers' education showed significant positive association with the mean of ANC visits and the proportion of mothers who had more than 3 ANC visits and the mean of ANC visits was found to be 3.17 visits among the mothers with High school compared to 3.39 ANC visits among mothers with Intermediate & graduate education. Family income of house showed significant negative association with mean of ANC visits. The mean of ANC visit was found to be 3.21 visits among the mothers with family income 20000 Rs. & above compared to 3.48 ANC visits among mothers with family income less than 10000 Rs. Mothers with four family members were more likely to have more than 3 ANC visits and higher mean of ANC visits than the mothers with ten family members.

ANC provider and mother who had injected two TT dose during pregnancy receiving ANC services showed significant association with mean of ANC visits and the proportion of mother who had more than 3 ANC visits. Mothers intake proper diet were more likely to have more than 3 ANC visits and higher mean of ANC

visits than the mothers not intake proper diet during pregnancy. Mothers who consumed iron & calcium tablets were more likely to have more than 3 ANC visits and higher mean of ANC visits than the mothers not used iron & calcium tablets during pregnancy. The mean of ANC visit was found to be 3.58 visits among the mothers whose distance from hospital to home income 20000 Rs. & above compared to 3.48 ANC visits among mothers with family income less than 10000 Rs. Distance from home to hospital showed significant positive association with both the mean of ANC visits and the proportion of at least more than 3 ANC visit. The coverage of more than 3 ANC visits was found to be 45.6% among the mothers with distance less than 8 km, compared to 14% among the mothers with distance 48 km & above. 23% women and 10.3% Partner (husband) used contraceptive were more likely to have more than 3 ANC visits and 3.37 ANC visits by women's and her husband not used any contraceptive.

ANC Component	Frequency (N)	Percent (%)
Weight	412	79.7
Blood Pressure	383	74.1
Stomach checkup	353	68.3
Urine Test	437	84.5
Blood Test	350	67.7
Ultrasound	517	100
Any complication	80	15.5

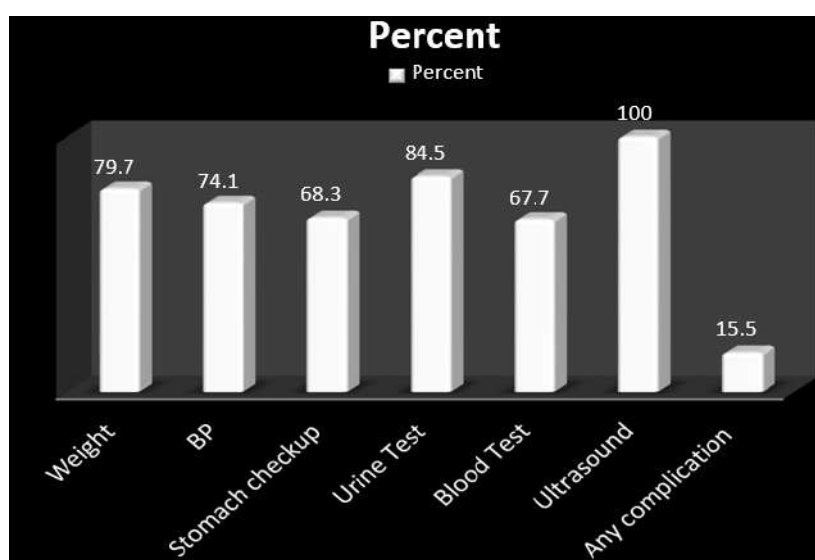


Fig: 1

Figure 1: Represents the percentage of mother receiving recommended components of ANC services in SSL hospital. A collected data on the following seven essential components of ANC services, measurement of weight and blood pressure, testing of urine and blood sample, performing ultrasound and counseling about any pregnancy complication. Considering the individual component 100% women had done ultrasound during pregnancy, urine test was the most common item received by 84.5% mothers in same manner followed by weight measurement by 79.7% mothers, 74.1% of mothers was measured blood pressure, 68.3 %had done stomach check up, 67.1% had blood testing and 15.5% mother had any pregnancy complication during the ANC visit.

Table 3: Skilled Birth Attendance

Variable Name	Frequency (N)	Percent (%)
Place of Delivery		
Sir Sunder Lal Hospital, BHU	517	100
Delivery Conducted By		
Doctor & Medical student	86	16.6
Medical student & Nurse	431	83.4
Type of delivery		
Normal	317	61.3
Caesarian	200	38.7
Type of Birth		
Single Birth	500	96.7
Multiple Birth	17	3.3

Table 3 shows that all the women who took antenatal care in Sir Sunderlal Hospital, all those women also delivered birth in Sir Sunderlal Hospital in another way we can say that 500 women gave birth to 517 babies. 16.6% of the deliveries were done by doctors while 83.4% were delivered by medical students. Most women have had a normal delivery compared to a caesarean delivery. There were a total of 517 births out of which 500 were single births and 17 were multiple births.

Table 4

Postnatal Care after delivery	Frequency	Percent
PNC after 24 hours of delivery	163	31.5
PNC within first 24 hours of delivery	354	68.5
Total	517	100.0

From table -4 It was clear that nearly 68.5 % women had received PNC services within first 24 hours of delivery and 31.5 % and women's had received PNC after 24 hours of delivery.

Table 5: Association between variables and Postnatal care

Characteristics	Number of women	PNC after 24 hours of delivery	PNC within first 24 hours of delivery	χ^2
Type of Delivery				
Normal	317	64	253	48.80***
Caesarian	200	99	101	
Mother's health (after 24 hours of delivery)				
Good	336	97	239	13.44**
Poor	166	55	111	
Average	15	11	4	
Care of Neonatal				
Yes	353	98	255	7.32*
No	119	47	72	
No response	45	18	27	
Neonatal Health				
Good	272	70	202	16.46***
Average	129	39	90	
Poor	116	54	62	
Medical Checkup of Neonatal (within 24 Hours)				
Doctor	153	50	103	8.99*
Medical student	196	74	122	
Nurse	168	39	129	
Family Planning advice				
yes	188	86	102	27.66***
No	329	79	250	

Statistical significance: ***P<.001, **p<.01, *p<.05

Table -5 shows that 71.5% of normal delivery women had received PNC services within 24 hours while 28.5% of caesarean delivery women had received PNC services within 24 hours. About 68% of women said that they were in good health after 24 hours of delivery, while 31% of women said that they were not in good health after 24 hours of delivery. About 72% of women said they were given advice on how to take care of a neonate within 24 hours by doctors or medical students, while 20% said they were not given any advice and almost 8% of the women did not respond in this regard. About 57% of women said that their neonate was completely healthy after 24 hours of birth, and about 18% of women said that the neonate was in poor health, 25% of women said that their neonate was in average health. About 29% of mothers said that their neonate had been medically checked up by doctors within 24 hours of birth, while 35% of mothers said their neonates were examined by a medical student and 36% of women was agreed that the medical check-up of their neonates was done by the nurse within 24 hours of delivery. About 71% of women said they were advised of family planning within 24 hours of delivery, while 29% of women said that no family planning advice was given within 24 hours of delivery.

Discussion

The journey of a safe and healthy baby birth does not end with the birth of a healthy newborn, but begins with antenatal visits by the mother to the hospital at 9 months and during the postpartum period, taking care of mother and newborn health so that mother and child can be protected

from any infection and disease. There was statistical significance between age of mother and ANC visit. 58% of women with age group (24-28) made four and more ANC visits to hospital, while Mamta *et al.* found that about 88% women good utilization of antenatal care services.

There was statistical significance between maternal education and ANC visit. About 36% of women with intermediate education have made 4 and more ANC visits to the hospital Similar study done by A.N.M. Rezaul Karim *et al.* And Mamta *et al.* There was a statistical significant in between family income of the house and ANC visit. About 30% of women have had 4 and more ANC visits with family income less than 10000. Shimla study found by Islam MM *et al.* There was a statistical significance between family member in house and ANC visit. About 58% of women made 4 and more ANC visits with 9 members in their households but contrary to earlier study done by A.N.M. Rezaul Karim *et al.* There was a statistical significance between occupation of mother and ANC visit. About 77% of the women who had 4 and more ANC visits were housewives. A.M. Rezaul Karim *et al.* study found that about 31% women who had three and more visit were employed and different result found by A.N.M. Rezaul Karim *et al.* there was a statistical significance between NC provider and ANC visit. About 82% of women obtained ANC through doctors and medical students. Similar study done by Islam MM *et al.* There was a statistical significance between distance from hospital and ANC visit. About 70% of the women made four and more ANC visits to the hospital whose distance from the hospital to home was less

than 8 km. A.N.M. Rezaul Karim *et al.* Study found that about 26% women who had three and more visit to the hospital whose distance from the hospital to home was less than 5 km. There was a statistical significance between use of iron and calcium supplements and ANC visit. 92% of women with four and more visits took both iron and calcium both supplements during pregnancy. Mamta sherpa Awasthi *et al.* found that about 32% women used iron and calcium tablet until delivery. There was statistical significance between mother intake proper diet during pregnancy and ANC visit. About 55% of women who followed a proper diet during pregnancy made four and more ANC visits to the hospital. there was a statistical significance between use of contraceptive and ANC visit. 30 % of women who used a contraceptive who had 4 and more visits similar study done by. A.N.M. Rezaul Karim *et al.* There were no relation between religion, category, parity, TT injection and ANC visit. Similar result found by A.N.M. Rezaul Karim *et al.* But contrary to the earlier study done by Islam MM *et al.* and Mamta sherpa Awasthi *et al.*

Most of the women with normal delivery received PNC service within 24 hours of delivery. Similar result found by Charles *et al.* More than 50% of women and neonatal had good health within 24 hours of delivery. Abhishek Singh *et al.* in their study found that less than 50% woman and baby in India received any care within 48 hours of birth and Radha Kumari paudel *et al.* In their study found that 25% mother and newborn received PNC service. Most women have been given advice on how to take care of the neonatal within 24 hours. Similar result found by Abhishek Singh *et al.* And F. Tesfahun *et al.* In their study found that About 7% of women received advice on child care Less than 30 % medical checkup of neonatal within 24 hours after delivery by doctor, similar result found by Radha Kumari paudel *et al.* less than 30% of women said that they were advised about family planning within 24 hours after delivery And F. Tesfahun *et al.* In their study found that about 42% counseled on family planning.

Conclusion

The study on awareness towards antenatal and postnatal care among the mothers in SSL hospital BHU has been done. It is based on reference to the minimum recommended compliance rules by WHO in the context of ANC and PNC. In this study, conducted on women, the number of ANS visits during pregnancy and the main content of ANC visits (weight, blood pressure, urine test, blood test, ultrasound, suggestion for any complication, two TT injections, iron/calcium supplements) at Sir Sunderlal Hospital were included. This study concludes that the use of ANC services is still a complex phenomenon, despite continuous awareness campaigns by government and non-government organizations on safe motherhood policies. In our study we found that the quality of ANC is sub-optimal. Factors influencing the ANC include healthcare provision and experience, demographic and socioeconomic inequalities, traditional beliefs, religious practices, lack of awareness of distance and transportation problems, fear of exposure to sunlight and wind, long waiting, and time identification etc. are prominent in health facilities. Despite the Janani Suraksha program being run by the Government of India, many women are still not able to take the minimum four ANC recommended by WHO during pregnancy. To achieve the goal of ANC, we have to adopt the goal of "Let no woman be left behind" and for this we have to spread

maternal education and awareness widely. Apart from this, healthcare also has to be made universally accessible and reliable. If women are instilled in the faith of ANC by health workers and service providers, sympathy is provided by doctors, proper transport arrangements are made, maternal education is promoted by skilled and trained health workers, non- government organizations will continue to support ANC. If a public awareness campaign is run about the importance, then undoubtedly the quality and goal of ANC can be achieved. The study highlights that more than half(68.5%) of mothers access postpartum services within 24 hours of delivery, a significant reason for not having postpartum care service was the absence of disease status in the neonatal, less knowledge about postpartum care services. If the mother is more aware of her health and the health of her child, then she will understand the importance of PNC service.

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