

FEEDBACK FROM POSTNATAL MOTHERS REGARDING ANTENATAL AND POSTNATAL HEALTH CARE SERVICES IN TWO DISTRICTS OF A HILLY STATE OF NORTH INDIAVikas Thakur^{1*}, Rakesh Thakur², Sumit Sharma³, Gurmeet Singh⁴ and Jai Gopal Vohra⁵¹Junior Resident, Department of Community Medicine, Maharishi Markandeshwar Medical College and Hospital Kumarhatti Solan (H.P), India.^{2,3}Junior Resident Department of Community Medicine Indira Gandhi Medical College Shimla (H.P), India.⁴Prof. & Head Department of Community Medicine, Maharishi Markandeshwar Medical College and Hospital Kumarhatti Solan (H.P), India.⁵Associate Prof. Department of Community Medicine, Maharishi Markandeshwar Medical College and Hospital Kumarhatti Solan (H.P).***Corresponding Author: Dr. Vikas Thakur**

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ABSTRACT**Objectives:** To assess the effect of facility and community based interventions on maternal and newborn care.**Methods:** cross-sectional study done in selected health blocks from two districts of Himachal Pradesh with the help of pre tested and pre designed Questionnaires for postnatal mothers. **Results:** Our study describes about feedback from postnatal mothers regarding provision of ANC and PNC services it was found that 67% pregnancies were diagnosed by ASHA workers and remaining 33% were diagnosed by ANMs. All were registered in first trimester. Out of total postnatal mothers interviewed 72.3% of them were examined by ASHAs regarding complications of post-natal period and 95.4% of them were educated by ASHAs regarding immunization of baby. It was found that 59.6% of them were educated by ANMs about complications during ANC, 63.8% of them were motivated by ANMs for institutional delivery, 74.3% of them were educated by ANMs regarding breast feeding practices, 63.83% of them were examined by ANMs regarding complications of post-natal period & 60.6% of them were educated by ANMs regarding immunization of baby. We observed that 7.4% of post-natal mothers were not educated about complications during ANC, 11.7% were not motivated for institutional delivery, 22.3% were not educated regarding breast feeding practices, 7.4% were not examined regarding complications of post-natal period and 1.1% were not educated regarding immunization of baby by any of the service providers. **Conclusions:** All health care providers should target for 100% service delivery which is lacking in our study.**KEYWORDS:** ANC, PNC, ASHA, ANM.**INTRODUCTION**

Strengthening of healthcare services has great impact on maternal and newborn care. Comprehensive Primary Health Care (CPHC) and Universal Health Coverage (UHC) has proved a great blessing to achieve better targets. Receipt of health services from antenatal period to postnatal period has been designed to reduce out of pocket expenditure. Department of health and family welfare has put in magnificent efforts at community and facility based interventions to upgrade maternal and newborn care after 2010. The impact of skill development of frontline health workers i.e. Accredited Social Health Activist (ASHA), Auxiliary Nurse Midwife (ANM), Multi-Purpose Worker (MPW) along with community and facility based interventions on Maternal and Newborn Care have definitely improved Maternal and Child Health (MCH) services.

Transportation of delivery cases in 108 ambulances from home to delivery points and skill development staff (Emergency Medical Technician-EMT) in conducting delivery in emergency situations along with neonatal resuscitation skills has also played an important role in improving institutional deliveries after its launch on 2nd October 2010 in Himachal Pradesh.^[1] This study also includes impact on Facility Based Newborn Care (FBNBC) operational guidelines 2011 for planning and implementations.^[2] Government of India has launched Janani Shishu Suraksha Karyakaram (JSSK) on 1st June, 2011.^[3] Clear articulation of the reproductive, maternal, newborn, child and adolescent health (RMNCH+A) is an effort in this direction which was started in 2013, this strategic approach will prove useful in strengthening efforts and renewing India's commitment towards a compelling vision of improving maternal health and

child survival in India.^[4] Rashtriya Bal Swasthya Karyakram (RBSK) was launched in February, 2013 under National Rural Health Mission. This initiative aims to screen and manage children from birth to 18 years of age for Defects at Birth, Deficiencies, Diseases and Developmental Delays including disabilities.^[5] In India Newborn Action Plan (NBAP) developed in response to the Global Every Newborn Action Plan, was launched in June 2014, which outlines the targeted strategy for accelerating the reduction of preventable newborn deaths, still births and maternal deaths in country with a goal to attain single digit neonatal mortality and stillbirth rate by 2030. Janani Express-102 (ambulance) for free transport and drop back facility to expectant mothers, women after delivery and sick child up to 1 year under the Janani Shishu Suraksha Karyakram (JSSK) in the entire state of Himachal Pradesh was flagged off on 5th December 2014.^[6] Poshan Abhiyaan (National Nutrition Mission) is India's flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers was launched in March 2018 with targeted approach to reduce the level of stunting, under-nutrition, anemia and low birth weight in children, adolescent girls, pregnant women and lactating mothers, thus holistically addressing malnutrition. ASHA worker's module 6 and 7 are especially designed to enhance their knowledge along with skill development regarding maternal and new born care. ASHA are given incentives for ANCs, immunization, Home Based New Born Care (HBNBC), detection of high risk pregnancy and sick newborn which has definitely lead to great improvements in Maternal and newborn care. Himachal Pradesh being a hilly state ranked first in reducing newborn mortality rate and under 5 mortality rate at 5th National Summit on "Good & replicable Practices and innovations in Public Healthcare Systems in India".^[7]

Review of literature

Ghosh-Jerath, et al.: (2015) carried out a cross sectional study in Pregnant Women (PW) and mothers who had delivered in the past three months; Recently Delivered Women (RDW) in urban slums of North-east district of Delhi, India, to explore ANC utilization, dietary practices and nutritional outcomes. They found that almost 80% (274 out of 344) women received some form of ANC but the package was inadequate. Determinants for non-utilization of ANC were poverty, literacy, migration, duration of stay in the locality and high parity. Counselling on nutrition was reported by a fourth of the population. Nutrient intake showed suboptimal consumption of protein and micronutrients like iron, calcium, vitamin A, vitamin C, thiamine, riboflavin niacin, zinc and vitamin B12 by more than half of women. A high prevalence of anemia among PW (85%) and RDW (97.1%) was observed. There was no difference in micronutrient intake and anemia prevalence among women who received ANC versus who did not.^[8]

Farajnezhad F, et al.: (2017) in their cross-sectional study on pregnant women in Savojbolagh County studied

4552 pregnant women referred to health centers, who had opened files for antenatal care were investigated. Data was collected on the basis of demographic feature, information about current pregnancy circumstances, previous pregnancy circumstances and previous history of illness, complications and problems of previous pregnancy were gathered up via health files and those of current pregnancy were gathered up by routine gestational physical examination and interview. In their study they found that 4.4% of pregnant women were less than 18 years old, and 7.4 percent were more than 35. Also 4.16 percent of pregnant women were in 5th or more their gestation. 75 percent had one of perinatal risk factors. The most common risk factors in the scene of previous pregnancy were history of cesarean section 17.1 percent and abortion & preterm labor 5.8 percent. The most common risk factors in the scene of current pregnancy were abnormal BMI (%23.5) and symptoms of preeclampsia (%1.5).^[9]

Jena D, et al.: (2017) A cross-sectional study was conducted among 200 mothers attending immunization OPD of MKCG Medical College during June to August 2016, Study was done to evaluate the perception among mothers about antenatal care from MCP card and to associate selected variables of interest with their knowledge. They noticed that 86% have read the MCP card and understood it. Among them 10% have understood it pictorially, 62% have understood it both pictorially and literally. It was found that higher education, multiparty, early pregnancy registration, were statistically significantly associated with adequate knowledge ($p < 0.05$). About various aspects of antenatal care, 90% correctly stated that 2 injections of TT are given in pregnancy but only 12% could say that deworming is done after 3rd month of pregnancy. 86% correctly said bleeding as a danger sign but only 2% knew about pallor as a danger sign. 81% said contacting health worker as an arrangement for emergency labour but only 35% said that they would identify a hospital in advance. They concluded that MCP card can be utilized as a tool of health education for counseling during ANC visit at village level in the Anganwadis.^[10]

Deepak, et al.: (2018) in their cross sectional study which was conducted with an aim to assess the utilization of maternal health care services (ANC and PNC) and the factors influencing maternal health care utilization in urban slums of Lucknow. In their study it was found that 77% of study participants were registered for ANC, most of them were registered at a Govt. maternity center (78.6%). ANC registered participants who undertook more than three ANC visits were low (15.3%) and only one third of these participants undertook first ANC visit during their first trimester. Approximately two-third of registered participants did not receive IFA tablets and 96.6% of participants had either one or two doses of TT vaccination. About 95% of all study participants didn't undertake PNC visit. As low PNC services puts the mother at undue risk of maternal

mortality, therefore postnatal care should not be overlooked. The better utilization of the maternal health services can be achieved by overall socio-economic development including focus on women empowerment and education, incorporation of religious norms and faiths in the health policies. Interventions should be focused on factors like overall literacy levels of couple, parity and religion. They suggested that further research should be carried out to study issues with low use of PNC and the qualitative aspect of maternal health care services. The potential beneficiaries of their study were from community and the mother in particular. They also suggested that future studies could use the qualitative approach to study issues associated with the low use of postnatal services. Further organizations working on maternal health care services may find the results of their study as an input in their planning for improving utilization of maternal health care services.^[11]

Dehury and Chatterje, et al.: (2018) in their study an assessment of Health Management Information and its utilization for improvement of maternal health program in the tribal-dominated Jaleswar block in Odisha, India was done. It was a cross-sectional where primary data were gathered from health professionals to understand the challenges in generating information for HMIS and its utilization. Next, to understand the nature and orientation of HMIS, data pertaining to tribal block were analyzed. They found that there are challenges in generation of quality data, capacity building of workforce, and monitoring of vulnerable tribal population. The discrepancies between HMIS data and field reality display the gap in formulation of policy and its implementation.^[12]

AIMS AND OBJECTIVE

To assess the delivery of health care service on maternal and newborn care

RESULTS

Table 1: Feedback from Post Natal Mothers regarding provision of ANC and PNC services in Solan and Mandi Districts of H.P.

Total Post Natal Mothers Interviewed N=94				
S. No	Parameters		N	%
1.	Pregnancy Diagnosed by	ASHA	63	67
		ANM	31	33
2.	Registered in First Trimester	Yes	94	100
		No	0	0
3.	Call Received from MCTS Call Centre (104 Phone Call)	Yes	49	52.1
		No	45	47.9

Table 1/Fig. 1 describes about feedback of postnatal mothers regarding provision of ANC and PNC services. Pregnancies were diagnosed by ASHA workers in 67% and remaining 33% were diagnosed by ANMs.

Table 1/Fig. 2 it is depicted that 100% cases were registered in first trimester after detection of pregnancy.

MATERIALS AND METHODS

Study area: Himachal Pradesh has 12 districts out of which Solan and Mandi Districts were selected by random technique. 3 blocks were chosen from each of these Districts using lottery method. Health Blocks chosen from Solan District were Arki, Chandi and Dharpur and with similar technique blocks chosen from Mandi District were Padhar, Katuala and Ratti.

Study design: cross-sectional study.

Study period: 1st January 2019 to 31st December 2020.

Inclusion criteria: Postnatal mothers who were present during their postnatal visits and gave informed consent were included in study

Exclusion criteria: All subjects and stakeholders not willing to give informed consent and not willing to participate in study were excluded from study

Sampling technique: Health care centres were visited on day of Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) on 9th of the Month. Most of postnatal mothers visited health care facilities on this fixed day for checkups. For the purpose of convenience, to avoid an additional visit the data was collected on PSMA day. Postnatal mothers who gave informed consent to participate in study were given Questionnaire. To collect the valid information the questions were explained to them in local language.

Study tools: Data was collected from Pre tested and pre designed Questionnaires for postnatal mothers.

Statistical analysis: Data collected was analyzed with the help of Statistical Methods.

Ethical consideration: After getting the approval from Institutional Ethics Committee, the research work was started. Informed consent was taken from the participants in study and there will be no financial burden on the participants.

Table 1/Fig. 3 represents the call details about Mother and Child Tracking System MCTS call center which is also assigned helpline number 104. Out of total postnatal mothers interviewed 52.1% told that they received calls from this number regarding their antenatal and postnatal care.

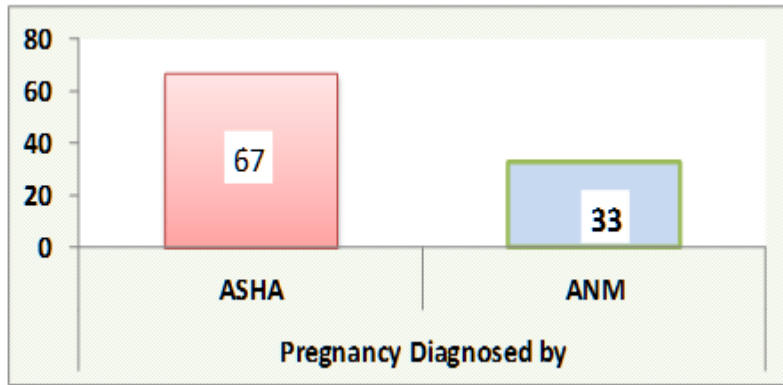


Fig. 1: Feedback from postnatal mothers regarding diagnosis of pregnancy.

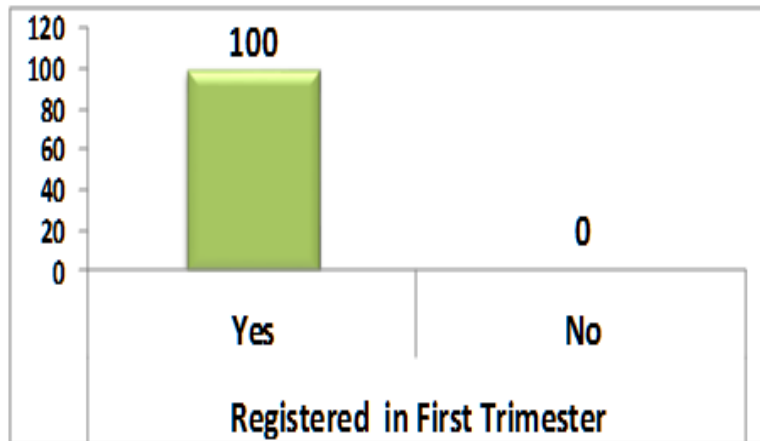


Fig. 2: Feedback from postnatal mothers regarding registration.

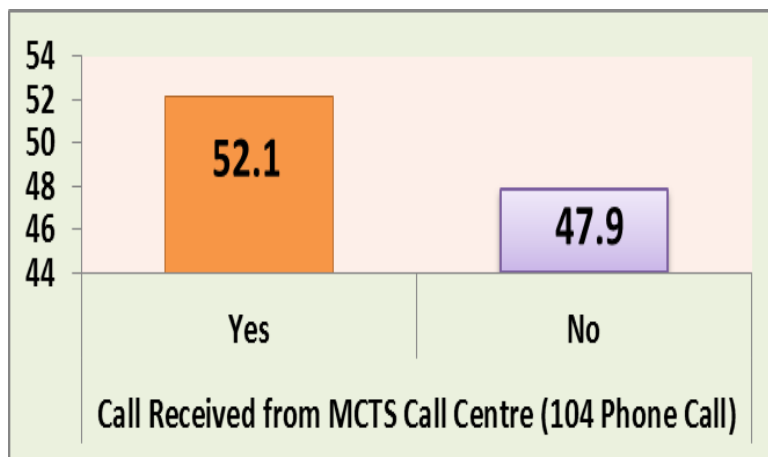


Fig. 3: Feedback from postnatal mothers regarding call received from MCTS call centre related to ANC & PNC

Table 2: Feedback from Postnatal Mothers regarding ANC&PNC provided by ASHAs.

Post-natal mothers interviewed N=94			
S. No.	Services provided by ASHA workers	N	%
1.	Educated about complication during antenatal period	75	79.4
2.	Motivated for institutional delivery	64	68.1
3.	Educated about breast feeding practices	74	78.7
4.	Examined/Enquired about complications during PNC	68	72.3
5.	Educated about immunization	85	95.4

Table 2/ Fig. 4 depicts that after interviewing Postnatal mothers regarding service provided by ASHA it was

found that 79.8% of them were educated by ASHAs regarding complications during ANC, 68.1% of them

were motivated by ASHA workers for institutional delivery, 78.7% of them were educated by ASHAs regarding breast feeding practices, 72.3% of them were

enquired/examined by ASHAs regarding complications of post-natal period and 95.4% of them were educated by ASHAs regarding immunization of baby.

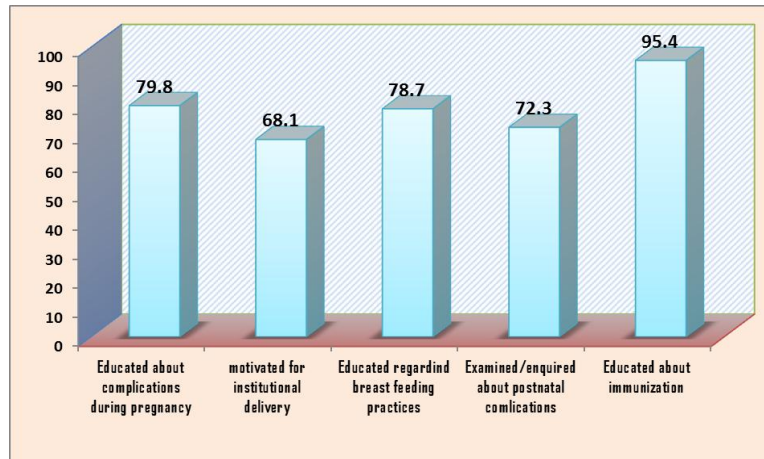


Fig. 4: Feedback from Postnatal Mothers regarding ANC&PNC provided by ASHA workers.

Table 3: Feedback from Postnatal Mothers regarding ANC&PNC provided by ANMs.

Post-natal mothers interviewed N=94			
S. No.	Services provided by ANMs	N	%
1.	Educated about complication during antenatal period	56	59.6
2.	Motivated for institutional delivery	60	63.8
3.	Educated about breast feeding practices	69	73.4
4.	Examined/Enquired about complications during PNC	60	63.8
5.	Educated about immunization	57	60.6

Table 3/ Fig. 5 reflects that after interviewing postnatal mothers regarding service provided by ANMs it was found that 59.6% of them were educated by ANMs about complications during ANC, 63.8% of them were motivated by ANMs for institutional delivery, 74.3% of

them were educated by ANMs regarding breast feeding practices, 63.83% of them were enquired/examined by ANMs regarding complications of post-natal period and 60.6% of them were educated by ANMs regarding immunization of baby.

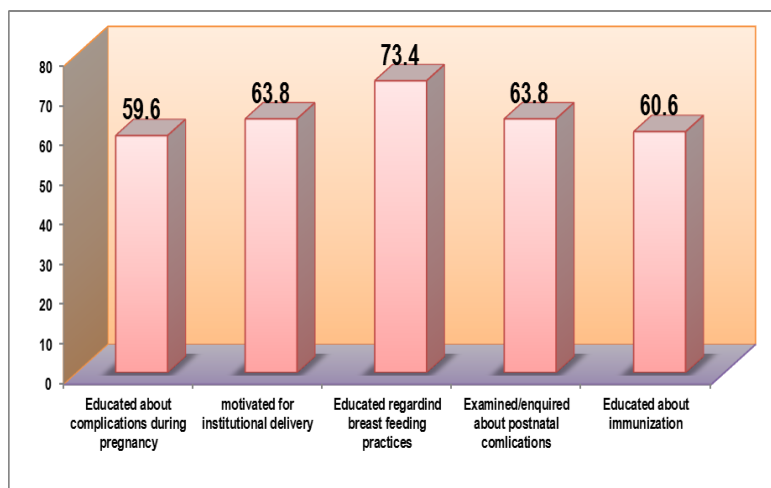


Fig. 5: Feedback from Postnatal Mothers regarding ANC&PNC provided by ANMs.

Table 4: Feedback from Postnatal Mothers regarding ANC&PNC were provided by ASHAs, ANMs & MCTS all together.

Post-natal mothers interviewed N=94			
S. No.	Services provided by ASHA workers	N	%
1.	Educated about complication during antenatal period	24	25.5
2.	Motivated for institutional delivery	19	20.2

3.	Educed about breast feeding practices	21	22.3
4.	Examined/Enquired about complications PNC	19	20.2
5.	Educated about immunization	22	23.4

Table 4/ Fig. 6 points out that few postnatal mothers were approached by ASHAs, ANMs & MCTC all together and we found that 25.5% of them were educed about complications during ANC, 20.2% were motivated for institutional delivery, 22.3% were educated regarding

breast feeding practices, 20.2% were enquired/examined regarding complications of post-natal period and 23.4% were educated regarding immunization of baby by all of them.

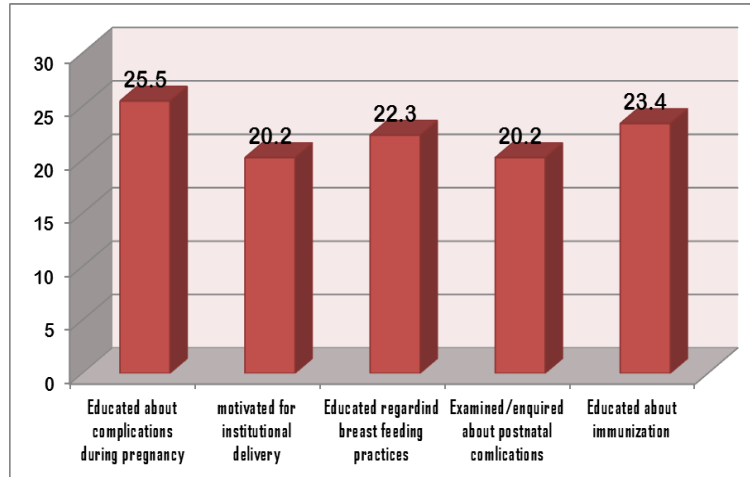


Fig. 6: Feedback from Postnatal Mothers regarding ANC&PNC provided by ASHA workers, ANMs & MCTS all together.

Table 5: Feedback from Postnatal Mothers where ANC&PNC were provided by none of the service providers.

Post-natal mothers interviewed N=94			
S. No.	Services provided by none of the service providers	N	%
1.	Educated about complication during antenatal period	7	7.4
2.	Motivated for institutional delivery	11	11.7
3.	Educed about breast feeding practices	21	22.3
4.	Examined/Enquired about complications during PNC	7	7.4
5.	Educated about immunization	1	1.1

Table 5/ Fig. 7 indicates we found 7.4% of post-natal mothers were not educed about complications during ANC, 11.7% were not motivated for institutional delivery, 22.3% were not educated regarding breast

feeding practices, 7.4% were not enquired/examined regarding complications of post-natal period and 1.1% of postnatal mothers were not educated regarding immunization of baby by any of these service providers.

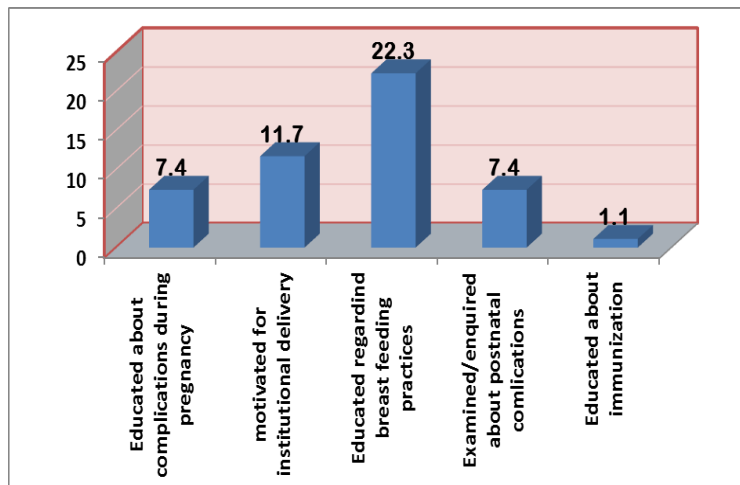


Fig. 7: Feedback from Postnatal Mothers where ANC&PNC were provided by none of the service providers.

DISCUSSION

In our study it was found that postnatal mothers were sensitized regarding complications during antenatal and postnatal period. 79.8 % acquired knowledge from ASHAs, 59.6 % from ANMs, 25.5% from MCTS call (104 phone call), 25.5% from all of them where as 7.4 % were not contacted by anybody. It was found that 68.1 % were motivated by ASHAs for institutional delivery, 63.8 % were motivated by ANMs, 20.2 % were motivated by MCTS call centre at the same time 20.2 were motivated by all the above sources whereas 11.7 5 were motivated by none. *Punyatoya Bej, et al.: (2018)*^[13] community study was conducted in a district hospital in North Delhi of India about antenatal care among pregnant female. It was found that score for positive attitude was 93% and score for antenatal care practices was 62% antenatal check-up clinic.

In our study it was found that ASHA workers contacted 78.7% of post-natal mothers and educated them about benefits of breast feeding. Amongst all postnatal mothers 73.4 % were contacted by ANMs and sensitized about importance of breast feeding. At the same time 22.3% of total were contacted by MCTS call center and by all of the above sources with respect to breast feeding the babies. But 22.3% post-natal mothers were not educated by any of the above sources. *Pandey D, et al.: (2019)*^[14] in their study done in Jabalpur district Health workers were provided help for improvement of breast-feeding technique in 83.33% of mothers advice for exclusive breast feeding in 91.11%.

CONCLUSION AND SUMMARY

In our study few postnatal mothers were approached by ASHAs, ANMs & MCTS all together and we found that 25.5% of them were educed about complications during ANC, 20.2% were motivated for institutional delivery, 22.3% were educated regarding breast feeding practices, 20.2% were enquired/examined regarding complications of post-natal period and 23.4% were educated regarding immunization of baby by all of them. Similarly we found 7.4 % of post-natal mothers were not educed about complications during ANC, 11.7% were not motivated for institutional delivery, 22.3% were not educated regarding breast feeding practices, 7.4% were not enquired/examined regarding complications of post-natal period and 1.1% of postnatal mothers were not educated regarding immunization of baby by any of these service providers. All health care providers should target for 100% service delivery which bring excellent results and outcomes.

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