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Keywords : *awareness, prenatal care, pregnancy, ICDS, Intervention.*

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Assessment of Knowledge of ICDS Women Beneficiaries in District Budgam of Kashmir Region Regarding Prenatal Care

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Abstract - Prenatal care is universally considered important for women and children. This study aims to assess the knowledge of women beneficiaries of ICDS centres related to prenatal care belonging to district Budgam of Kashmir region. Nursing mothers (NM), Pregnant women (PW) and Mother of children beneficiaries (MCB age 6 months-3years) were included to assess and compare the their awareness levels. A total of 600 women beneficiaries were randomly selected from four blocks of district Budgam (150 from each block). The results of the study revealed that majority (79.1%) of the respondents were aware of the importance of medical consultation during pregnancy and about 48.6% were fully aware with appropriate time of consultation. Almost all respondents were aware of weight monitoring during pregnancy but not about its significance. Respondents were also aware about the doses and time schedule of TT vaccination during pregnancy. Basic pre-natal care components are effective means to prevent range of pregnancy complication and reduce maternal mortality. The findings indicate that there is need for enhancement of intervention educational programme in ICDS regarding importance of prenatal care and service for the healthy birth outcome and mothers' well being.

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I. Introduction

In many developing countries ,complications of pregnancy and child birth are leading causes of death among women of reproductive age.The maternal health situation in the country has been staggering despite several changes in a rapidly evolving socioeconomic environment. The roles and responsibilities of primary care physicians have also been revised continuously in this context. Under their leadership, different cadres of health workers have been appointed to address the problem. As deadline for Millennium Development Goals (2015) is approaching, the need for improving the standard of maternal care is more than ever. In the last decade, as per the National data, health indicators including utilization of antenatal care services were as poor as 60% in rural India. Keeping in view the gap between the target and reality, National Rural Health Mission (NRHM) was launched in April 2005, to improve the rural health care delivery system and health status of the people. Accredited Social Health Activists (ASHA) were introduced at the village level for motivating the beneficiaries to utilize the antenatal care services provided by the government health facilities. Under supervision of Auxillary Nurse Midwives (ANM) and physicians at primary health care level, ASHA were planned to play the role of a connecting bridge between community and first level government health sector. These groups of health care providers, along with Anganwadi workers (AWW), build the base line of rural health services in the country. They, under the Mission, seek to provide universal access to equitable, affordable and quality maternal health care, as well as to bring about an improvement in the health status of the pregnant women belonging to underprivileged sections of the society. (Roy et al, 2013). Overall maternal mortality is much more prevalent in rural India, where the UN estimates the MMR to be 619. (Maternal Mortality in India- Report, 2008). ICDS (Integrated Child Services Scheme) is one of the centrally sponsored schemes with one of its important components of services responsible for overall improvement of health of expectant mothers by providing nutrition and health care during pregnancy and health education through their AWCs (Anganwadi centers) in collaboration with Primary Health Centres (PHC) particularly in rural areas. It delivers services at Anganwadis (AW village centres) right at the doorsteps of the beneficiaries to ensure their maximum participation. It utilises local women as honorary village level workers for delivery of the package of services (Tandon, 1993). The fact that more than 100,000 women in India are estimated to die every year from pregnancy and child birth related causes reinforces the importance of ensuring that all pregnant women receive adequate antenatal care during pregnancy and that deliveries takes place under the supervision of trained medical personnel in a hygienic environment. Antenatal care provide an opportunity for a variety of preventive intervention during pregnancy, including tetanus toxoid injection and educating women about nutrition, safe delivery and post partum care. (Swamy et al, 1993). An assessment of composite measure for antenatal care utilization was undertaken by Bloom, Lippeveld and

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Wypiji (1999) at Varanasi, Uttar Pradesh, India. Results showed that demarcating women's antenatal care status based on a simple indicator — two or more visits versus less — marked a large amount of variation in care received. Logistic regression analyses were conducted to examine the effect of antenatal care utilization on the likelihood of using safe delivery care, a factor known to decrease maternal mortality. After controlling for relevant socio-demographic and maternity history factors, women with a relatively high level of care had an estimated odds of using trained assistance at delivery that was almost four times higher than women with a low level of care. Similar results were obtained for women delivering in a health facility versus at home. This strong positive association between level of care obtained during pregnancy and the use of safe delivery care may help explain why antenatal care could also be associated with reduced maternal mortality. In another study, it was found that women attending ANC (Antenatal care) at least twice were more likely to have a live birth. Women attending for two ANC visits (but not more than two) were more likely to have a healthy weight baby (Brown et al, 2008). Another such study in India assessed that the characteristics of sample households for pregnant women were broadly in proportion to the characteristics of the all Indian population. About 89% of the pregnant women availed visits of which 62% has received three or more ANC visits. Those receiving the second dose of TT or booster dose were about 78%. About 73% of the pregnant women received IFA tablets during their pregnancy. About 53% of the pregnant women had full package of ANC i.e availed three or more ANC visits, both the doses of TT/ booster and IFA tablets. The proportion of pregnant women who availed full ANC package was lower in rural areas as compared to urban areas, higher for literate women as compared to illiterate women. The proportion of institutional deliveries managed by hospitals and health centres was about 41%, it being higher among literate women and in urban area (Singh and Yadav, 2009). Mothers who receive late (defined as beginning in the third trimester of pregnancy) or no prenatal care are more likely to have babies with health problems. Mothers who do not receive prenatal care are three times more likely to give birth to a low weight baby, and their baby is five times more likely to die (MCH Bureau, 2005). A study conducted in Karachi to assess the knowledge of women on obstetrical complication and care, has shown that the half of the sample population (married women of reproductive age) had no antenatal care in their last pregnancy and 75% of them delivered at home. It was also indicated in the findings that the women were having poor knowledge on pregnancy related complication. Only 5% of the women perceived absent / decreased fetal movements as a danger sign of pregnancy, other reported danger signs included premature uterine contraction by 3%, premature rupture of membrane by 3% and convulsion by 13% (Hassan and Nissar, 2002) prenatal care benefits all expecting mother and their unborn. Rather than decreasing, rates of low birth weight (LBW) babies and preterm births have risen and are now the highest they have been in more than three decades. Babies born too small or too early are at higher risk for death and for both short and long term health problems (Swamy et al, 2008).

a) Turmoil and Antenatal Care

Children exposed to negative shocks in-utero, or early in life, have higher mortality rates, lower birth weights and are shorter for their age. These shocks can include recessions, famines, droughts, and disturbed conditions. A new dimension to these external shocks are armed conflict. Kashmir province in J&K State has witnessed armed conflict since 1990. Official census reports (Census of India 2001, 2011) and reports based on the National Family Health Survey (NFHS-1997) draw a positive picture for the entire state of Jammu and Kashmir in terms of mortality rates, fertility and vaccination programmes etc. However, during pregnancy the access to health services including vaccinations, prenatal and antenatal care, and micro nutrients needed for the foetus development, is usually limited because of armed conflict. Stress experienced by expecting women due to disturbed socio-political environment during pregnancy changes the production and distribution of hormones, including intrauterine growth hormones.In addition, stress can also reduce the gestation time of the foetus. In a study, it was also revealed that exposure to violence in utero and early in life has adverse impacts on children's age–adjusted height (z-scores). It was found that children more affected by the insurgency were 0.9 to 1.4 standard deviations smaller compared with children less affected by the insurgency. The effect was found stronger for children who were born during peaks in violence. A robust finding in the health literature is that shorter children perform worse in schools, in jobs and are sicker throughout their life (Parlow, 2012).

Addressing maternal health means ensuring that all women receive the care they need to be safe and healthy throughout pregnancy and child birth. Prenatal care is an essential first step in child's life. Children and the unborn have a special place in all societies and their needs are frequently considered a high priority, but in reality their needs may frequently, for various reasons go unnoticed. One reason among them is the poor knowledge of pregnant women regarding the care or antenatal care which may directly affect an unborn child. The major components of prenatal care include the diagnosis and treatment of any health complication counselling about diet, avoidance of drugs etc. Comprehensive prenatal care may prevent complications of pregnancy, which can have life time

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effects and reduce premature labor and neonatal mortality. Keeping above factors in view the present study was taken with the purpose to determine the knowledge of women beneficiaries related to prenatal care with the objectives.

II. Objectives of the Study

The present research was undertaken with following objectives.

- To study the extent of knowledge among sample women beneficiaries of ICDS belonging to rural areas of district Budgam regarding prenatal care.
- To compare the knowledge level related to prenatal care among woman beneficiaries across groups (Pregnant woman, Lactating mothers and mothers of child beneficiaries) related to prenatal care.

III. Methodology

The sample comprised of 600 registered women beneficiaries of AWCs out of which 150 were nursing mothers, 150 were pregnant women and 300 were mothers of child beneficiaries (age group 6months-3years). Data was collected in the year 2011 from January2011-June 2011.

a) The Sample

The sample has been drawn from Kashmir, an area affected by armed conflict has been selected for this study.Among the districts, Budgam has been selected for the study which has eight blocks and about 593 villages. The total population of the district is 7.35 lacs with gender ratio 0f 830/1000 and literacy rate 57.98% (2011). Out of eight blocks of district Budgam, sample was collected from four blocks (Budgam, Nagam, Chadoora and B.K.Pora) in a representative manner. For sampling a list of Anganwadi centres (AWCs) was obtained from the office of Project Officer of ICDS of each block.After obtaining the list of Anganwadi centres from each block,the centres were selected by random sampling technique using lottery method. The maximum number of child beneficiaries in the age group 6months-3years registered in an AWC is 25 which can vary depending upon the population covered under the centre.Out of 25,only 5 mothers of child beneficiaries were purposively selected from the each AWC from the attendance register maintained for this group of beneficiaries.Similarly the maximum number of nursing mothers and pregnant women registered in an AWC is 06,but the number of both the groups of beneficiaries is not always equal.For the present study a total of 5 women beneficiaries from both the groups were purposively selected from the attendance register maintained by the AWW.Beneficiaries having children in the age group (0-6months) fall in the category of nursing mothers, whereas, beneficiaries having children in the age group (6months-3years) were considered as mothers of child beneficiaries.

b) Tools Used

In order to collect the data a self devised Interview Schedule.

i. *Interview Schedule*

After going through different review material, an Interview Schedule was prepared which was pretested on 25 women beneficiaries belonging to all finalised.

The interview schedule comprised of

a. General Profile of respondents.
b. Pregnancy and Prenatal care.
   i. Consultation during pregnancy.
   ii. Appropriate timing for consultation.
   iii. Knowledge about weight monitoring.
   iv. Vaccination and its importance during pregnancy.

c) Procedure of data collection

The data was collected by visiting the beneficiaries either at home or at AWC whichever was feasible for them.Before approaching the beneficiaries AWW of concerned area was informed who also helped in locating the beneficiaries and sometimes accompanied the researcher while collecting data.

IV. Results and Discussion

The results of the present study have been discussed under three categories

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Table 1 : Knowledge related to consultation during pregnancy

Demographic Character	Pregnant (PW) (n= 150)		Nursing (NM) (n=150)		Mothers (MCB) (n=300)		All Beneficiaries (n=600)		χ^2 Analysis
	f	%	f	%	f	%	f	%	
(a) Consultation During Pregnancy									
Private clinic	24	16	25	16.6	40	13.3	89	14.8	10.8_6
Mid- wife	--	--	--	--	2	0.66	2	0.3	
PHC / Hospital	124	82.6	115	76.6	234	78.0	473	79.1	
No consultation required	2	1.3	10	6.6	24	8.0	36	6.0	
Total	150	100.0	150	100.0	300	100.0	600	100.00	
(b)Appropriate Time for Consultation									
From beginning	84	56.0	76	50.6	131	43.6	291	48.6	14.0_{6*}
II Trimester	48	32.0	42	28.0	94	31.3	184	30.6	
IIItrimester	16	10.6	22	14.6	51	17.0	89	14.8	
Not Necessary	2	1.3	10	6.6	24	8.0	36	6.0	
Total	150	100.0	150	100.0	300	100.0	600	100.0	
(c)Knowledge about significance of weight Monitoring									
To Check growth of foetus.	46	30.6	50	33.3	89	29.6	185	30.8	1.7_6
To control weight	16	10.6	20	13.3	37	12.3	73	12.1	
Advised by AWW	1	0.6	1	0.6	1	0.3	3	0.5	
Unaware about its significance	87	58.0	79	52.6	173	57.6	339	56.5	
Total	150	100.0	150	100.0	300	100.0	600	100.00	

Column percentage ** denotes highly significant $p \leq 0.01$,*Significant $p \leq 0.05$ df is in subscripts of x^2 values

Pregnant women absolutely need good prenatal care.It is essential to ensure not only the health of mothers,but also the health and well being of the baby.The first prenatal visit starts at one month and continues till delivery as per the doctor's advice.Table-1 (a) reveals that majority of selected Kashmiri respondents (79.1%) were in favour of medical consultation during pregnancy either at Primary Health Centre or Government Hospital,whichever was easily accessible to them ,while as only small proportion(6%) did not find it necessary to consult a doctor during pregnancy .Statistically no significant difference ($p>0.05$) was observed among the groups.

With respect to awareness regarding appropriate time for consultation during pregnancy, it is clear from table (b) that majority (48.6%) of the Kashmiri beneficiaries under study were of the opinion that first prenatal visit should be started from the first trimester.Some (14.8%) women beneficiaries found it safe to start consultation in III Trimester if it is second pregnancy or if there is no complication or problem faced by pregnant women. The difference among the groups was statistically found significant ($p<0.05$).

Gaining weight is a positive sign that you are giving your baby what it needs to develop. There are two reasons for the weight gain during pregnancy, to nourish the developing foetus and to store up reserves for

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breastfeeding. For awareness regarding importance of weight gain, table (c) reveals that out of entire rural sample population from Kashmir majority (56.5%)were unaware about the significance of weight monitoring,while as a good percentage (30.8%) was also found fully aware of its significance,Ithough such difference in groups was statistically found insignificant.($p>0.05$).

Table 2 : Vaccination During Pregnancy

Variable	Pregnant (PW) (n= 150)		Nursing (NM) (n=150)		Mothers (MCB) (n=300)		Total (n=600)		χ^2 Analysis
	f	%	f	%	f	%	f	%	
Awareness about T.T vaccine during pregnancy									
Once during pregnancy	4	2.6	--	--	7	2.3	11	1.8	59.3_4**
Twice	127	84.6	97	64.6	148	49.3	372	62.0	
Thrice	19	12.6	53	35.3	145	48.3	217	36.1	
Total	150	100.0	150	100.0	300	100.0	600	100.0	
Doses of TT to be given									
Each dose in each Trimester	20	13.3	22	14.6	58	19.3	100	16.6	6.6_4
All doses in first two trimester	92	61.3	84	56.0	149	49.6	325	54.2	
All doses in 2nd two trimester	38	25.3	44	29.3	93	31.0	175	29.0	
Total	150	100.0	150	100.0	300	100.0	600	100.0	
Importance of TT									
Prevents infection	19	12.6	23	15.3	34	11.3	76	12.7	7.7_6
Safety of mother& child.	40	26.6	27	18.0	81	27.0	148	24.6	
Safety of Child only	3	2.00	6	4.0	15	5.0	24	4.0	
As per Doctor's advice	88	58.6	94	62.6	170	56.6	352	58.6	
Total	150	100.0	150	100.0	300	100.0	600	100.0	

Column percentage df is in subscripts of x^2

*denotes significant $p<0.05$, **denotes highly significant $p<0.001$

Vaccination is considered to be essential during pregnancy to give protection against infection to both foetus and the mother.Data from the table 2(a) reveal that all the Kashmiri rural women under study were aware that Tetnus Toxoid (TT) vaccination is to be taken. Only a small percentage (1.8%) of women beneficiaries were unaware about the importance of TT vaccination because they had taken only one dose of TT because of carelessness or lack of awareness about its importance during pregnancy.There was a highly significant difference among the groups statistically ($p<0.000$).

Similarly with reference to knowledge of selected Kashmiri rural women regarding the doses of TT given during pregnancy it is clear from the table(b) that majority(54.2%) women beneficiaries believed that all doses should be given in the first two trimesters.16.6% were of the opinion that each dose should be given in each trimester.No significant difference in knowledge among the groups was statistically found ($p>0.05$).

Further it is observed from table(sec-c) that although all the Kashmiri rural women were aware about TT vaccination during pregnancy, but the majority (58.6%) was not aware about the reasons for importance of TT during pregnancy. Only a small proportion (12.4%) of respondents were fully aware about importance of TT. All the groups were almost equally aware about its importance with no significant difference in knowledge among the group ($p>0.05$).

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V. Summary and Conclusion

The findings reveal that the knowledge of respondents about maternal health care, including the number and timing of antenatal and pre natal care was moderate, but there were still many aspects of pre natal care where the knowledge was lacking and in which respondents need to be made aware of. These included doses of Tetnus Toxoid and significance of weight monitoring.

Table; 3 presents the comparison between previous studies and the present studies in this area and the present research conducted on rural women in a remote district affected by armed conflict.

Table 3 : Comparison between Previous and Present Study

Name,Year and Place	Previous Studies	Present Study
el-Sherbini AF,el-Torkey MA, Ashmawy AA,Abdel-Hamid HS(1993)Assuit Egypt Ishra and Fatin (2012)Iraq,Baghdad Hasnain S and Sheikh NH(2007)Lahore, Pakistan Mattos et al (2005)Brazil	• 30.5% were aware about prenatal care (PNC) • 25% lacked basic & essential knowledge • 50% of PW were having inadequate knowledge about PNC. • 32% of women were having poor knowledge about TT vaccination. • Out of total sample 2.8% were not aware about PNC. • 92.1% were well aware about importance of TT vaccination.	• 48.6% were aware about PNC. • Only 6% sample women were having no knowledge regarding PNC. . • 62% Kashmiri sample women were well aware about TT vaccination. • 24.6% women beneficiaries from sample Anganwadi centres of district Budgam were well aware about importance of TTvaccination. • 58.6% unaware about importance of TT vaccination.

Better understanding of various aspects of antenatal care must be ensured by ICDS workers and Health care workers at grass root levels for improving the foetal and maternal health indicators. The results of the study point to need for enhanced efforts on the part of ICDS workers for aiming at educational intervention for women beneficiaries of ICDS centres.

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