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**ORIGINAL ARTICLE****A Cross-sectional Assessment of Knowledge of ASHA Workers***Sangeeta Kori<sup>1</sup>, Manohar Bhatia<sup>2\*</sup>, Ashok Mishra<sup>2</sup>*

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**Abstract:**

*Background:* The Government of India launched the National Rural Health Mission on 5<sup>th</sup> April 2005. A new band of community based functionaries, named as Accredited Social Health Activist (ASHA) was proposed to escort and transport the client to reach the hospital and provide referral services in case of complications. A time to time assessment of the knowledge of ASHAs is essential as the success of government's health programmes in rural areas depends on them and hence the present study was undertaken. *Material and Methods:* This cross sectional study was conducted in the Barai block rural area of Gwalior district and 88 ASHAs were included in the study as per the eligibility criteria. *Results:* 88.6 % & 85.2% of ASHAs responded for abdominal pain & bleeding respectively as complications during pregnancy and 88.6% and 85.20 % ASHAs responded for obstructed labor and excessive bleeding as complications during delivery. 73.8 % ASHAs responded for antenatal care counseling followed by family planning (70.4%). *Conclusion:* There is a need to revise and update the knowledge of ASHA workers from time to time. On the job trainings of the ASHAs should be in process to develop necessary knowledge and skills with recent updates. The block level meetings should be utilized for the feedback, enhancing knowledge & solving the problem faced by the ASHAs.

**Keywords:** Antenatal Care, Complications during Pregnancy, Knowledge, Newborn Care

**Introduction:**

Recognizing the importance of health in the process of economic and social development and to improve the quality of life of its citizens, the Government of India launched the National Rural mission seeks to improve rural health care delivery system [1]. Infant Mortality Rate (IMR) in India is 40/1000 live births (SRS 2013), while in rural area it is 51[2]. Maternal Mortality Ratio (MMR) in our country is 167/ 100000 live births (2011-13) [3]. These data show poor condition of the maternal & child health in India.

In relation to maternal and child health, Madhya Pradesh (MP) holds very bad position. IMR in MP is 54/1000 live births (SRS 2013) [4], whereas in rural areas of MP it is 67/1000 live births which is highest in India. MMR of MP is 230 (2010-12). All these data indicate the poor condition of maternal & child health in Madhya Pradesh [4].

In order to decrease MMR & IMR in India which is an integral component of NRHM, the Honorable Prime Minister of India launched safe motherhood intervention in the form of Janani Suraksha Yojana (JSY) on April 12, 2005. JSY aims to promote institutional deliveries among poor pregnant women in all the states and union territories with special focus on low performing states which needs proper counseling of pregnant women for the antenatal checkup, birth preparedness, immunization and post natal care. It

also envisages making them aware and informed about health related services provided by government of India [1].

According to National Family & Health Survey-3 the percent of institutional births in India is 40.8, while in rural India it is 31.1, for MP it is 29.7 and for rural MP it is 20.2[5]. In availing institutional delivery services, the client needs escort and transport to reach the institution and in case of complication referral services are required. Thus a new band of community based functionaries, named as Accredited Social Health Activist (ASHA) has been proposed to fill this void [6]. The ASHA is a health activist who creates awareness on health and social determinants of health to mobilize the community towards local health planning and to motivate the beneficiaries to utilize existing health services provided by the government. ASHA also provides a minimum package of curative care as appropriate and feasible for that level and makes timely referrals [5].

The ASHAs would get performance-based compensation for promoting universal immunization, referral and escort services for Reproductive and Child Health (RCH), construction of household toilets and other healthcare delivery programmes. Though Central government makes general guidelines for appointment of the ASHAs, various States are free to follow their own models based on the requirements of the State. The success of government's health programmes in rural areas depends much on the success of this scheme [5].

As the ASHA is the first link between health care facility and society, the success of government's health programmes in rural areas depends much on the success of this functionary, especially

success of Janani Suraksha Yojana is highly dependent on ASHAs. Hence time to time assessment of knowledge of ASHAs & evaluation of their functioning is essential to give feedback for up-gradation of their efficiency and to promote rural health especially the maternal & child health.

### **Material and Methods:**

This cross sectional study was conducted in the Barai block rural area of Gwalior district for a period of one year from September 2011 to September 2012.

**Inclusion Criteria:** Eligible ASHAs were included who had been active in the field for more than six month before the date of survey started. They were interviewed face-to-face using a pre-structured, pretested questionnaire and also cross checked with beneficiaries who have given birth to live babies within last 6 months & whose children were still alive and on breastfeeding. Verbal consent was obtained both from ASHAs and beneficiaries. At the time of the survey 147 ASHAs were registered in the block Barai and after applying inclusion and exclusion criteria, 88 ASHAs were found eligible for the study. The study received ethical approval from the Ethics Committee, Gajra Raja Medical College, Gwalior.

The questionnaire had 31 knowledge and 20 performance related questions. Knowledge and performance were separately scored. Correct response to each knowledge related and performance related question was given three marks. No negative marking was done. Maximum score was 93 for knowledge related questions while 60 for performance related questions and minimum score was 0 for both in knowledge and performance. Grading was done as poor, average, good or very good for marks  $\leq$

25%, 26 to 50%, 51 to 75% respectively for subheads and total scores. Proforma included general profile of ASHA workers like ID no., name, village, sub health centre, PHC, CHC, age, education, religion, category, marital status, education of the husband, occupation of the husband, type of family, monthly income of family, total number of family members, number of years she has been living for in that area, number of years she has been working as ASHA, number of training sessions, she has attended, number of block meeting she has attended etc. Knowledge related questions included details regarding their roles & responsibilities, knowledge regarding antenatal, intranatal and postnatal care, newborn care, breastfeeding, immunization, family planning, STD, HIV, TB, malaria and drugs provided.

### Statistical Analysis:

Data analysis was carried out by percentage, proportion, chi-square test and P value was calculated utilizing EpiCalC 2000.

### Results:

In the present study knowledge of ASHAs was assessed under different subheads related to their expected areas at work. Present study revealed that all the ASHAs were aware about accompanying delivery cases & helping in immunization programme. 73.8 % ASHAs scored average or above for antenatal care followed by family planning (70.4%), creating awareness on nutrition & basic sanitation (59%), help in registration of birth and death (51.1%) as shown in Table 1.

**Table 1: Assessment of Level of Knowledge of ASHAs on Individual Topic**

SN	Topic	Knowledge Grade ASHA (%) (N=88)				P Value
		A (Very Good)	B (Good)	C (Average)	D (Poor)	
1	Roles & Responsibility	32(36.36)	32(36.36)	24(27.28)	0(0.0)	P<0.01
2	Antenatal Care	11(12.50)	13(14.78)	49(55.68)	15(7.04)	P<0.01
3	Intranatal Care	11(12.50)	21(23.86)	46(52.27)	10(11.37)	P<0.01
4	Post natal care	8(9.09)	27(30.68)	37(42.05)	16(18.18)	P<0.01
5	Newborn care	10(11.37)	16(18.18)	50(56.81)	12(13.64)	P<0.01
6	Breastfeeding	78(88.63)	9(10.23)	1(1.14)	0(0.0)	P<0.01
7	Immunization	25(28.42)	31(35.22)	32(36.36)	0(0.0)	P<0.01
8	ICDS Services	2(2.27)	45(51.14)	40(45.45)	1(1.14)	P<0.01
9	Family planning	74(84.10)	14(15.90)	0(0.0)	0(0.0)	P<0.01
10	STD/HIV/Tuberculosis/Malaria and Drugs	21(23.86)	40(45.46)	17(19.32)	10(11.36)	P<0.01

In the present study mean age of the ASHAs was found to be around 36 year & most of the ASHAs were educated from 8<sup>th</sup> (30%) to 10<sup>th</sup> (29%) class. Majority of the ASHAs were married (89.7%) and nearly 53% belonged to schedule caste /tribe & around 94% ASHAs were Hindu & 55.7% were from joint family. Regarding their husbands, 47.7% husbands were labourers and having private job and most of them were educated from 8<sup>th</sup> to 10<sup>th</sup> class. Out of 88 ASHAs 12.50%, 38.60%, 38.60% and 10.30% were having grade A, B, C, & D from their knowledge scores respectively as shown in Table 2.

**Table 2: Assessment of Level of Knowledge of ASHAs Overall**

SN	Knowledge Grade	ASHA(N=88)	Percentage
1.	<b>A-Very Good</b>	11	12.5
2.	<b>B-Good</b>	34	38.6
3.	<b>C-Average</b>	34	38.6
4.	<b>D-Poor</b>	9	10.3
	<b>Total</b>	88	100

$$\chi^2 = 34.84 \text{ df} = 3 \text{ p} < 0.01$$

On asking complication which may develop during pregnancy 88.6 % and 85.2% of ASHAs responded as abdominal pain and bleeding respectively. 85% of ASHAs responded as swelling over feet followed by anemia (51.1%) and high grade fever (44.3%) as shown in Table 3. When ASHAs were asked about complication which may develop during delivery maximum number of ASHAs (88.6%) responded as obstructed labor, followed by excessive bleeding (85.20%), convulsion (70.40%) and abnormal position of fetus (51.1 %).

When asked about danger signs of Newborns, 81.8 % of ASHAs were aware for diarrhoea not controlled by home management & lethargy/ unconsciousness, 47% responded for poor suck/refusal for breastfeeding while (45.4%) answered as blood in stool followed by high grade fever (37.5 %) and yellow palm and sole (24%) as shown in Table 3.

**Table 3: Knowledge about Complications which May Develop During Pregnancy and Delivery and Danger Signs In Post-Natal Period**

A	Complications Which May Develop During Pregnancy	No. of ASHA (n=88)	Percent
1	Bleeding	75	85.5
2.	Anemia	45	51.5
3.	Abdominal pain	78	88.6
4	High grade fever	39	44.3
5	Convulsion	35	39.7
6	Labour pain for more than twelve hours	28	31.8
7	Bursting of water bag without labour pain	25	28.4
8	Swelling over the feet not resolving even after rest	75	85.2
9	Blurring of vision	28	31.8
<b>B</b>	<b>Complications Which May Develop during Delivery</b>		
1.	Excessive bleeding	75	85.2
2.	Blood pressure problem	43	48.8
3.	Abnormal position of the fetus	45	51.1
4.	Convulsion	62	70.4
5.	Obstructed labour	78	88.6
<b>C</b>	<b>Danger Sign in Post Natal Period</b>		
1.	Excessive bleeding	65	73.8
2.	Burning micturition	23	26.1
3.	Poor control over bowel & bladder	9	10.2
4.	High grade fever	28	31.8
5.	Foul smelling discharge from vagina	12	13.6
6.	Convulsion	10	11.3
7.	Blurring of vision	18	20.4

**Discussion:**

According to a study done in Madhya Pradesh [7], when asked about complications of pregnancy and their management, a large proportion of the ASHAs commonly cited vomiting (73%), swelling of hands and feet (72%) followed by paleness, abdominal pain, body pain/backache, convulsions, excessive bleeding. A study done in Rajasthan [8] found that when knowledge about tasks to be performed by ASHAs was assessed, eighty three percent ASHAs responded by mentioning accompanying delivery cases, creating awareness about health/HIV (56%) and counseling (47%) while a lesser number believed assisting ANM in village health planning.

The findings in the present study were different as all the ASHAs were aware about accompanying delivery cases & helping in immunization programme. It could be due to more duration of the work as ASHAs in the present study as compared to other studies.

A study by Shahane Shweta *et al* [9] found that 53 to 74 percent of the ASHAs mentioned swelling of hands and feet, vomiting, paleness, and excessive bleeding as complications during pregnancy while 45% of the ASHAs mentioned about convulsions, while one-third mentioned about abdomen or body pain, and high fever.

A study in Bihar [10] revealed that a large proportion of the ASHAs explained about swelling of hands and feet (74%), vomiting

(58%), and body pain/backache (50%), followed by abdominal pain, paleness. However, the findings in the present study were somewhat different. The knowledge may be higher due to higher education status of ASHAs. Higher age of ASHAs may also results in more knowledge because they might have experienced in their own pregnancies.

According to a study done in Madhya Pradesh [7], only 36 percent of the ASHAs were aware about newborn care.

**Conclusion:**

The above study clearly indicates that the knowledge of most of the ASHA workers is at an average level and there is a need to revise and update it from time to time. On job trainings of the ASHAs should be in process to develop necessary knowledge and skills with recent updates. The Block level meetings should be utilized for the feedback, enhancing knowledge & solving the problem faced by the ASHAs & special emphasis should be given on practical approach to motivate community for utilization of health services. Provision of rewards for good performance, separate rooms at delivery centre for the ASHAs for night stay, supportive behavior of health staff, regular increment in incentives etc. are certain initiatives that authorities can apply for motivating ASHA workers for better results.

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