Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20200976

A study on knowledge and practice in maternal health care by accredited social health activists of Vijyapaura district, Karnataka, India

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Received: 02 December 2019 **Revised:** 06 February 2020 Accepted: 06 February 2020

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ABSTRACT

Background: One of the key components of national rural health mission was to create a band of female health volunteers, appropriately named "accredited social health activist" (ASHA) in each village within the identified States to act as a bridge between the rural people and health services outlets. They act as health activists in community who will create awareness on health and its determinants, counsel mothers on key healthy behaviors and mobilize the community towards local health planning and increased utilization and accountability of the existing health services. Objectives of the study was to describe the socio-demographic profile of ASHAs working in Vijayapur district and to evaluate the knowledge, attitude, practice of ASHAs towards the maternal care.

Methods: A cross-sectional study on 617 ASHAs of Vijayapur district. A pre-designed, semi-structured questionnaire was prepared in English and the interview was conducted in Kannada by explaining them questions one by one.

Results: Out of 617 ASHAs interviewed, 427 (69.2%) of them told a pregnant woman should have antenatal care (ANC) visits and 413 (65.3%) ASHAs opined that a minimum of four ANC visits are required. While 542 (87.2%) ASHAs told that they should accompany pregnant woman transport to health centre during labour pains and 570 (92.8%) told that they should stay with the pregnant lady until her delivery is over. Also, it was found that knowledge of ASHAs regarding maternal care was significantly associated with age and duration of service of ASHAs.

Conclusions: On the whole, knowledge of ASHAs about care during pregnancy and care of new-born was considerably good.

Keywords: Accredited social health activist, National health mission, Maternal health

INTRODUCTION

Despite significant improvements made in the past few decades, the public health challenges are not only huge but also growing and shifting at an unprecedented rate in India. Studies done on primary health care set-up of India showed that the health care delivery system is acting as a weak link between the government services and beneficiaries. Sub-centre is the most peripheral level of contact with the community under the public health infrastructure, which ideally caters to a population norm of 5000, but has been effectively serving much larger population, especially in EAG States.²

Thus in order to address the health needs of rural population, especially the vulnerable sections of society, the Government of India launched the national rural health mission (NRHM) in 2005, under which many innovations

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were introduced in the states to deliver healthcare services in an effective manner, that seeks to provide effective health care to the rural population, especially the disadvantaged groups, by improving access, enabling community ownership and demand for services and strengthening public health systems for efficient service delivery.³ One of the key components of NRHM was to create a band of female health volunteers, appropriately named "accredited social health activist" (ASHA) in each village within the identified States to act as a bridge between the rural people and health services outlets.^{4,5}

ASHAs act as health activists in the community who will create awareness on health and its determinants, counsel mothers on key healthy behaviors and mobilize the community towards local health planning and increased utilization and accountability of the existing health services.³

Previous studies on ASHA workers in India have shown that majority of ASHAs (73-78%) were either middle or high school passed, which shows selection is in adherence with selection criteria of ASHAs.^{6,7} Several ASHAs (69-72%) were unable to specify all their job responsibilities. Many ASHA's (81-93%) claimed that they work approximately 25 hours a week.^{8,9} It was found that huge percentages of ASHAs (91- 95.5%) were serving for the population which was more than 1000 in number. Also, majority of the ASHAs (74.65%) received only 12 days of training against the recommended 23 days of training.¹⁰ The implementation of ASHA programme was started in 2005 in Karnataka state and it was implemented in 2008 in Vijayapur district.³

Out of 1410 ASHA posts sanctioned for Vijayapur district, 1394 have been filled. All of the appointees have undergone training. During this study period, 1093 ASHA's were working. This study was done for a period of 11 months to assess Knowledge, Attitude, and Practice of ASHAs in delivering the health care services.

Aims and objectives of the study were to describe the socio-demographic profile of ASHAs working in Vijayapur District. To evaluate the knowledge, attitude, practice of ASHAs towards the Maternal Care.

METHODS

The current study was carried out in Karnataka state, India. Study design was cross sectional study. Study area was Selected PHCs of the below mentioned taluks in Vijayapur District. Total study period was October 2018 to October 2019 (12 Months). Study subjects was all the ASHAs of 3 taluks' (Vijayapur, Basavana Bagewadi and Muddebihal) of Vijayapur district.

Inclusion criteria

All the ASHAs working for more than 6 months, ASHAs who have undergone training were included.

Exclusion criteria

Newly recruited ASHA's (<6 months), ASHA's who do not give their consent were excluded.

Official permission was obtained from District Heath Officer, Vijayapur. Details of ASHA's working in the above three taluks were obtained from District Health Office, Vijayapur. Along with that, information of ASHA facilitator and the details of all the Medical Officers and their PHC's of the study area were obtained. 228 ASHA's are working under 15 PHC's in Vijayapur taluk, 203 ASHA's are working under 14 PHC's in Basavana Bagewadi taluk and 186 ASHAs are working under 10PHCs in Muddebihal taluk. So, a total of 617 ASHA's were included in the study.

A pre-designed, semi- structured questionnaire was prepared in accordance with the study objectives. The questionnaire was prepared in English and the interview was conducted in Kannada language by explaining them questions one by one.

A pre-set date was designated with the prior permission of the Medical Officer. After obtaining his/her permission, ASHA facilitator was informed to mobilise the ASHAs from nearby 4-5 surrounding PHCs to a PHC which was decided as the centre for data collection. A preliminary self-introduction to every subject, orientation about the study, purpose of the study and manner in which it will be carried out was explained to them.

Data collection was done by interview technique. It included a questionnaire based oral interview. The interview was conducted by the investigator after taking oral consent of the study subjects at the PHC. Face to face interviews was carried out in Kannada, explaining them each question in detail and making sure they understand every bit of it. Once, all the ASHAs finished the question, and then the next question was taken up in the interview.

All responses were tabulated by the investigator using Microsoft Excel 2007 software. Graphical representations were made wherever necessary. Data was analysed by using SPSS software version 21. Statistical used are Mean, Proportions and percentages and Chi- square test.

RESULTS

Socio-demographic profile of ASHAs who were studied. Out of 617 study subjects, maximum number of them were from the age group 30-39 (52.4%), followed by the age group 20-29 (47%). The mean age of the study subjects in the given study was 30.67±4.65. Majority of ASHAs were married (68.6%) and nearly 32% were either separated or widowed. About 86.5% of ASHAs were high school educated. 95.8% ASHAs were Hindus, with monthly income less than 5000 (74.4%). Most of the ASHAs (78.1%) revealed that they come from nuclear family and work for the same village in which they were residing (80.1%) (Table 1).

Table 1: Socio-demographic profile of ASHA.

Socio-demographic		Frequency	Percentage (%)		
Age profile of ASHAs	20-29	290	47.0 52.4		
Mean age- 30.67	30-39	323			
SD:±4.65	40-49	4	0.6		
Marital status of ASHAs	Married	423	68.6		
	Widowed	76	12.3		
	Separated	118	19.1		
Educational status	High school	534	86.5		
	College	83	13.5		
Religion	Hindu	591	95.8		
	Muslim	18	2.9		
	Others	8	1.3		
Monthly income (Rs.)	< 5000	459	74.4		
	≈5000.00	107	17.3		
	>5000	51	8.3		
Husbands occupation	Farmer	308	72.8		
	Daily wage worker	73	17.2		
	Unemployed	42	10		
Family type	Nuclear	482	78.1		
	Joint	135	21.9		
Does the ASHA work for same	Yes	494	80.1		
village	No	123	19.9		
Demotion of sources (many)	<5	257	41.6		
Duration of service (years)	>5	360	58.4		

Table 2: Perception about maternal care among ASHAs.

Variables	Age (in years) (%)		Days of training (%)		Education (%)		Duration of service (%)		Total	
(n= 617)	20-29	30-39	40-49	17 days	23 days	High school	College	<5 yrs	>5 yrs	(%)
Number of ASHAs who replied ANC visits are necessary	197	228	2	58	369	360	67	138	289	427
	(46.1)	(53.3)	(0.46)	(13.5)	(86.4)	(84.3)	(15.6)	(32.3)	(67.6)	(69.2)
ASHAs who replied minimum	189	222	2	61	352	356	57	175	238	413
ANC visits should be 4	(45.7)	(53.7)	(0.48)	(14.7)	(85.2)	(86.1)	(13.8)	(42.3)	(57.6)	(65.3)
ASHAs who responded that they accompany pregnant woman to health centre during labour pains	258	281	3	76	466	469	73	202	340	542
	(47.6)	(51.8)	(0.55)	(14)	(86)	(86.5)	(13.4)	(37.2)	(62.7)	(87.8)
ASHAs who told that they stay with her until her delivery is over	267	302	1	78	492	495	75	239	331	570
	(46.8)	(53)	(0.17)	(13.6)	(86.3)	(86.8)	(13.1)	(42)	(58)	(91.8)
ASHAs who replied Hospital as ideal place of delivery	199	286	2	73	516	518	71	273	316	589
	(33.7)	(48.5)	(0.33)	(12.3)	(87.6)	(87.9)	(12)	(46.3)	(53.7)	(95.4)
ASHAs who told that all deliveries require skilled birth attendants	203 (41.6)	283 (58.1)	1 (0.2)	69 (14.1)	418 (85.8)	410 (84.1)	77 (15.8)	199 (40.8)	288 (59.1)	487 (78.9)
ASHAs who replied the minimum PNC visits as 6	165	182	3	41	309	306	44	121	229	350
	(47.1)	(52)	(0.8)	(11.7)	(88.2)	(87.4)	(12.5)	(34.5)	(65.5)	(56.5)
ASHAs who knew when to call a baby as low birth weight baby	97	196	0	29	264	250	43	101	192	293
	(33.1)	(66.8)	(00)	(9.8)	(90)	(85.3)	(14.6)	(34.4)	(65.6)	(47.4)
ASHAs who opined why is it necessary for babies to be wrappe in blankets from head to toe after birth?		217 (72)	1 (0.33)	39 (13)	225 (74.7)	250 (83)	51 (17)	132 (43.8)	169 (56.2)	301 (48.7)
	$\chi^2 = 61.6$ df = 16 p \le 0.05)		$\chi^2 = 6.05$ df = 8 p\le 0.05		$\chi^2 = 7.51$ df = 8 p\ge 0.05		$\chi^2 = 34.0$ df=8 p ≥ 0.05		

The above table represents knowledge of ASHAs regarding maternal care. It includes positive responses (i.e., YES and the correct responses) which ASHAs gave. Out of 617 ASHAs interviewed, 427 (69.2%) of them told a pregnant woman should have ANC visits and 413 (65.3%) ASHAs opined that a minimum of four ANC visits are required. While 542 (87.2%) ASHAs told that they should accompany pregnant woman transport to health centre during labour pains and 570 (92.8%) told that they should stay with the pregnant lady until her delivery is over. Also 350 (56.5%) ASHAs revealed that a recently delivered mother should have at least six post natal care (PNC) visits (Table 2).

Other questions regarding knowledge of ANC care revealed that, all the ASHAs (100%) told that, PHC (Govt) was most preferred place for ANC care, followed by Private institution (78.9%). Regarding the amount of food intake by pregnant women, 418 (67.7%) ASHAs opined that she should eat more than she normally does as she is eating for two. 519 (84.1%) of ASHAs had knowledge of Iron and Folic acid tablets and were aware that it is taken to prevent anaemia during pregnancy (Table 2).

From the above table, it was found that knowledge of ASHAs regarding maternal care was significantly associated with age and duration of service of ASHAs.

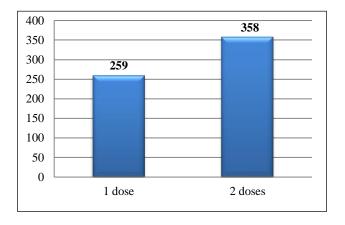


Figure 1: Knowledge about number of TT doses for pregnant woman.

The above figure represents knowledge of ASHAs regarding number of TT injections required by pregnant women. 259 (42%) of ASHAs told one dose is required, whereas 358 (58%) ASHAs told two as the required TT doses for a pregnant woman (Figure 1).

DISCUSSION

The knowledge of ASHAs on the nature of the activities and job responsibility is the prerequisite for effective service delivery. The ASHAs have been interviewed to assess their knowledge about their job responsibilities about maternal care. The present study made an attempt study the knowledge and awareness of ASHAs regarding care during pregnancy.

In the current study all the ASHAs had fair knowledge about ANC care, 69% of the ASHAs told that they knew the procedure of registering a pregnant woman. Also, nearly 70% of the ASHAs could give proper details about number and details of ANC visits. These findings were similar to the study done by Barge et al, where knowledge about tasks to be performed by ASHAs were assessed and 83% ASHAs responded by mentioning about ANC care and accompanying delivery cases. However, in a study by Swain et al half of the ASHAs have poor knowledge about their job responsibilities in ANC care and 45% have average knowledge and 5% good knowledge, owing to the reason of ASHAs working in tribal area. 11,12

In this study, when asked about, whether they should accompany pregnant mothers to hospital to delivery and stay until the delivery is over, nearly 88% gave positive response saying that they accompany and stay until the delivery is over. Similar trend was observed in the study done by Kori et al. ¹³ Also, in a study done by Bhatt et al revealed that most of the ASHAs have comprehended accompanying pregnant mother to hospital and counselling community on safe delivery, ANC/PNC. ¹⁴ These findings can be attributed in the light of the fact that one of the key motivational factors which drive ASHAs are financial gains and since delivery and site related events are financially rewarding, they are becoming the areas of primary interest to the ASHAs.

However, in a study conducted by Bajpai et al, 15 ASHAs lack knowledge to perform their jobs regarding ANC care, as most have not completed the stipulated 23 days of training as recommended by the MoHFW.

When asked about minimum number of ANC visits that a pregnant woman should have, 66% of ASHAs replied as four. These findings were roughly similar to Dr. Rekha Bhatnagar et al where 72.3% of the ASHAs mentioned 4 as minimum ANC visits. However, in a study done by National Institute of Public Cooperation and Child Development, only 24% responded for 4 check-ups.

In the present study majority (96%) of ASHAs opted for Hospital as preferred place of delivery. This was similar to study done by, MKCGMC et al.¹⁷ State Institute of Health and Family Welfare, and Singh et al.¹⁰

In contrast, a study by Indian Institute of Population Sciences 56 in Odisha, about 60 per cent of deliveries still take place at home according to DLHS 3 survey.

Regarding PNC, in present study surprisingly only 56.7% had proper knowledge about postnatal visits which is quite low. Also, only 48% knew what the criteria for a baby are to be termed as "low birth weight baby". These findings are similar to MKCGMC et al and Sharma et al where only 28.3% and 33.4% had proper knowledge of PNC respectively. A study by NIPCC in four states showed that, the percentage of beneficiaries who were visited at home, by ASHAs, soon after delivery, during

the postnatal period, were on 1st day (43%); 3rd day (56%); 7th day (55%); 14th day (31%); 21st day (33%); 28th day (20%); and 42nd day (19%).³ This component of Post Natal Care and importance needs to be highlighted in training to reduce maternal morbidity.

There was significant association of Knowledge of ASHAs regarding ANC/PNC care with Age and Days of training. The possible reasons for association may be due to, the younger age group (20-29) may be more enthusiastic towards learning and the (30-39) age group can be attributed to free from family responsibility, their more time spending towards work and the need to support their family financially. Also, ASHAs who underwent 23 days of training had significant association when compared to ASHAs who had 17 days of training. This shows duration and quality of training need to be focused and monitored for proper functioning of ASHAs.

CONCLUSION

On the whole, knowledge of ASHAs about care during pregnancy and care of newborn was considerably good. Transportation of expectant mothers was a major problem. In the villages, the transport services were not available, especially at night-time. Further, ASHAs told that the charges were much higher than the sanctioned amount for transportation. Measures to curb this lacuna should be implemented.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

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Cite this article as: Motappa R, Angadi M. A study on knowledge and practice in maternal health care by ASHAs of Vijyapaura District, Karnataka, India. Int J Community Med Public Health 2020;7:1114-8.