

## Knowledge of Accredited Social Health Activist (ASHA) Workers Regarding Maternal Health Services: A Comparative Study between Rural and Urban Areas of a Block of Haryana

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### Abstract:


**Introduction:** All people, everywhere, deserve the right care, right in their community. In any community, maternal mortality ratio strongly reflects the overall effectiveness of health systems. To increase utilization of existing health services, Accredited Social Health Activist (ASHA) is the key component of the National Rural Health Mission. **Objective:** To assess and compare the level of knowledge of ASHA workers regarding maternal health services in between rural and urban areas of a block of Haryana. **Method:** The present cross-sectional, community-based study was conducted in block Barwala, district Hisar of Haryana. The assessment of knowledge of ASHA workers was done on the basis of scoring. Appropriate statistical tests like percentages and chi-square ( $\chi^2$ ) test were applied. **Results:** Regarding maternal health services majority of ASHA workers had good knowledge, assessed by score gained by them and none of them was having poor knowledge about maternal health services. However in rural area, score gained was better than urban area & the observed difference was found to be statistically significant. Knowledge of identification & treatment of anaemia and identification of danger signs during pregnancy were inadequate among ASHA workers of both areas. **Conclusion:** Knowledge of ASHA workers was inadequate as far as anaemia and danger signs during pregnancy were concerned. Frequent and regular refresher training should be organized in their working area.

**Keywords:** ASHA workers, Danger signs, Maternal health services, Rural, Urban.

### Introduction:

All people, everywhere, deserve the right care, right in their community. The primary health care is an approach that includes health promotion, disease prevention, treatment, rehabilitation and palliative care.<sup>[1]</sup> In any community, mothers and children constitute a priority group as a part of mother and child health (MCH). These groups (i.e., children under the age 5 years and women in the reproductive age group (15-44 years) comprise about 32.4 per cent of the total population in India.<sup>[2]</sup> The National Rural

Health Mission (NRHM) has created a cadre of trained female community health activists called Accredited Social Health Activist (ASHA) to strengthen the health care system and to mobilize community towards increased utilization of existing health services.<sup>[3]</sup> Maternal mortality ratio strongly reflect the overall effectiveness of health systems. Maternal mortality and infant mortality are the main health indicators of any civilized society.<sup>[4]</sup> To increase utilization of existing health services, ASHA is the key component of the National Rural Health Mission.

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Assessment of ASHA's knowledge should be done regularly to strengthen this grass root level link worker and their activities. A time-to-time assessment of knowledge of ASHA is essential as the success of national health programmes launched by Government of India in rural and urban areas. Considering the above facts the present study was planned with objective to assess and compare the level of knowledge of ASHA workers regarding maternal health services in rural and urban areas of a block of Haryana.

### Method:

The present cross-sectional study was conducted in block Barwala, district Hisar of Haryana, which is a field practice area of the Department of Community Medicine, Maharaja Agrasen Medical College, Agroha (district Hisar). The study was conducted during January 2022 to June 2022. All ASHA workers (rural area=70 & urban area=30) under National Health Mission were trained as per module 2 (maternal & child health services) and were having experience of 6 months and above had been included in the study. A predesigned, pretested, semi-structured schedule was used to collect the information. It was prepared in English and Hindi languages. The proforma included details of socio-demographic profile of ASHA workers and questions about knowledge of maternal health services like early registration of pregnancy, antenatal visits, various danger signs during pregnancy, Janani Suraksha Yojana (JSY), preparedness of birth, danger signs during pregnancy. Official permission for the study was obtained from Senior Medical Officer of Community Health Centre (CHC) Barwala. Details of Primary Health Centre (PHC) in-charges & ASHA workers had been obtained from Senior Medical Officer of block Barwala. The schedule for interview was prepared. After explaining the purpose of the study and obtaining informed consent from the participants, the interview was conducted at village level depending on availability of ASHA worker by explaining them question in their own language one by one. The confidentiality of the information was assured.

The assessment of knowledge was done on the basis of scoring. For each correct response score one (1) was given & incorrect response was awarded zero (0). Information regarding maternal services consists of total 15 questions. The range of scores for maternal health was 0-15. Scoring was categorised as; 0-5 poor knowledge, 6-10 average knowledge and 11-15 good knowledge of maternal health services.

The data thus collected was first coded, then entered and compiled in the MS excel sheet. Statistical analysis was carried out using Statistical Package for Social Sciences (SPSS) Software Version 20.0. Appropriate statistical tests (percentages & chi-square test) were applied in order to draw relevant inference.  $P < 0.05$  was considered as level of significance statistically.

Age group wise distribution of study subjects display that in rural area majority of ASHA workers (55.7%) were >36 years old, however equal participation of each category of age group is seen in urban area. Mostly ASHA workers were married. In rural area majority of ASHA workers (37.2%) belonged to backward caste however in urban area 50% belonged to schedule caste. More than half (51.4%) were educated up to high school in rural area whereas 46.7% were educated till senior secondary in urban area. Majority of ASHA workers were having >5 years of work experience. (Table 1)

Regarding maternal health services majority of ASHA workers had good knowledge, assessed by score gained by them and none of them was having poor knowledge about maternal health services. However in rural area score gained was better than urban area & the observed difference was found to be statistically significant. (Table 2)

Table 3 shows that knowledge regarding early registration of pregnancy and ANC visits was found to be adequate among ASHA workers of both rural and urban areas. However knowledge of identification & treatment of anaemia was inadequate among ASHA workers of both areas. Majority of ASHA workers either working in rural or urban areas, were having inadequate knowledge about identification of danger

**Table 1: Socio-demographic profile of ASHA workers (N=100)**

Characteristics		Area	
		Rural (n=70)	Urban (n=30)
Age group (Years)	≤ 30	8 (11.4)	9 (30.0)
	31-35	23 (32.9)	11 (36.7)
	≥ 36	39 (55.7)	10 (33.3)
Caste	General caste	22 (31.4)	1 (3.3)
	Backward Caste	26 (37.2)	14 (46.7)
	Schedule Caste	22 (31.4)	15 (50.0)
Marital Status	Married	66 (94.3)	27 (90.0)
	Widow	4 (5.7)	3 (10.0)
Education	Middle School	10(14.3)	4(13.3)
	High School	36(51.4)	12(40.0)
	Senior secondary	24(34.3)	14(46.7)
Work Experience	<5 years	8 (11.4)	4 (13.3)
	>5 years	62 (88.6)	26 (86.7)

(Figures in parentheses indicate percentages)

**Table 2: Area wise distribution of ASHA workers based on scores gained by them regarding knowledge of maternal health services (n=100)**

Area	Good knowledge	Average knowledge	Total	p Value <sup>#</sup>
Rural	58 (82.9)	12 (17.1)	70(100)	0.014 (Significant)
Urban	18 (60)	12 (40)	30 (100)	

(Figures in parentheses indicate percentages) #Chisquare test applied as a test of significance

**Table 3: Knowledge of ASHA workers regarding maternal health services during home visits (N=100)**

Maternal health services	Rural n=70 (100)		Urban n=30 (100)		p-value <sup>#</sup>
	Adequate Knowledge	Inadequate Knowledge	Adequate Knowledge	Inadequate Knowledge	
Early registration of pregnancy	67 (95.7)	3(4.3)	30 (100)	0.0(0)	0.250
Minimum ANC visits	69 (98.6)	1 (1.4)	30 (100)	0.0 (0)	0.511
Identification of anaemia & treatment	10 (14.3)	60(85.7)	6(20.0)	24(80.0)	0.475
Immunization during pregnancy	57(81.4)	13(18.6)	17(56.7)	13(43.3)	0.010*
Five cleans	29(41.4)	41(58.6)	5(16.7)	25(83.3)	0.017*
Danger signs during pregnancy	2 (2.9)	68 (97.1)	1 (3.3)	29(96.7)	0.898

\*Statistically significant #Chisquare test applied as a test of significance

signs during pregnancy. Most of rural ASHA workers (81.4%) had adequate knowledge regarding immunization during pregnancy however about half of ASHA workers working in urban area had adequate knowledge and this difference of level of knowledge was found to be statistically significant ( $p=0.01$ ). ASHA workers had inadequate knowledge of five cleans whether working in rural or urban area, however level of knowledge was somewhat better among ASHA worker working in rural area and this difference was found to be statistically significant ( $p=0.017$ ).

### Discussion:

The present study was conducted to assess the level of knowledge of ASHA workers regarding maternal health services in rural and urban areas of block Barwala, district Hisar of Haryana. No study of ASHA workers working in urban areas was found so all the studies which are compared with this study were related to knowledge of ASHA workers working in rural areas.

In the present study, in rural area majority of ASHA workers (55.7%) were >36 years old, however equal participation of each category of age groups is seen in urban area. Singhal P et al<sup>[5]</sup> found in their study that 52.7% of ASHA workers were in the age group of 30-39 years. Sugandha BK et al<sup>[6]</sup> and Grover K et al<sup>[7]</sup> observed that majority (51.9% & 62.12% respectively) of study subjects belonged to younger age group as compare to our study. Pal J et al<sup>[8]</sup> and Ratnam AL et al<sup>[9]</sup> found that majority (98.9%) of ASHA workers were in the age group of 40-50 years, which was older age group than observed in our study.

Mostly ASHA workers were married (rural-94.3%, urban-90%) in the present study similar finding was observed by Grover K et al,<sup>[10]</sup> Nagaraj S et al,<sup>[11]</sup> Shashank KJ et al.<sup>[12]</sup> Sugandha BK et al<sup>[6]</sup> in Mysuru, observed that among ASHA workers, 86.4% were married which is lower than the present study.

In this study, more than half (51.4%) workers were educated up to high school in rural area whereas 46.7% were educated till senior secondary in urban area. Grover K et al<sup>[10]</sup> observed that 95% ASHA workers were educated up to high school or above. Bajpai N et al<sup>[13]</sup> observed that nearly 90% of ASHA workers had completed eight years of schooling & similarly Sexena S et al<sup>[14]</sup> were found that majority of participants (70.3%) were educated up to middle school which is quite different than this study. However Shet Set al<sup>[15]</sup> observed that majority of the ASHA workers (65%) have finished secondary level of education.

In this study majority of ASHA workers were having >5 years of work experience similar findings were observed by Grover K et al,<sup>[10]</sup> Singhal P et al<sup>[5]</sup> and Choudhary ML et al.<sup>[16]</sup> Bhandhari DJ et al<sup>[17]</sup> and Valiveti PDSK et al<sup>[18]</sup> observed in their study most of ASHA workers were working for more than 4 years & 2.4 years respectively which was lesser than the present study. The observed difference in work experience may be due to different time of selection of ASHA workers in different geographical areas.

Regarding maternal health services majority of ASHA workers in this study had good knowledge, assessed by score gained by them and none of them was having poor knowledge. However in rural area score gained was better than urban area. Choudhary ML et al<sup>[16]</sup> observed that almost half of the ASHA workers (47.9%) had average knowledge and Sugandha BK et al<sup>[6]</sup> observed that among ASHA workers 30.8% had good knowledge and 43.4% had average knowledge. In the present study about 3% ASHA workers either working in rural or urban areas, were having adequate knowledge about identification of danger signs during pregnancy. In contrast this a much higher percentage of ASHA workers knew about danger signs during pregnancy in study conducted by Kohli C et al<sup>[19]</sup> (80%) and Sugantha BK et al<sup>[6]</sup> (49.5%).

In this study knowledge of identification & treatment of anaemia was inadequate among ASHA workers of both areas. Shet S et al<sup>[15]</sup> found that 80% of the ASHAs were aware about the importance of vitamin and iron supplementation during pregnancy & Shashank KJ et al<sup>[20]</sup> observed that 90% of ASHA workers agree that Iron tablets should be provided to pregnant women. In the present study knowledge regarding ANC visits was found to be adequate among ASHA workers of both rural and urban areas. Same findings are observed by Sugandha BK et al.<sup>[6]</sup> A lower percentage (79.5%) of knowledge of ASHA workers regarding minimum number of ANC visits was observed by Shashank KJ et al.<sup>[20]</sup> In this study most of rural ASHA workers (81.4%) had adequate knowledge regarding immunization during pregnancy however about half of ASHA workers working in urban area had adequate knowledge. Shashank KJ et al<sup>[20]</sup> and Sugandha BK et al<sup>[6]</sup> observed in their study 100.0% and 96.6% study participants respectively knew about vaccine given during pregnancy which is better than our study.

#### Conclusion:

In this study authors concluded that in spite of work experience more than 5 years, majority of ASHA workers did not have adequate knowledge of identification of danger signs during pregnancy. Even they did not know how to identify anaemia during pregnancy & how to treat it. So frequent and regular refresher training should be organized in their working area.

#### Declaration:

Funding: Nil

Conflict of Interest: Nil

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