

Original Research Article

A study on evaluation of ASHAs for their knowledge, attitude and practice towards newborn care in Howrah district of West Bengal

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ABSTRACT

Background: Accredited Social Health Activist (ASHA) is a trained female community health activist. ASHAs are local women trained to act as facilitator and promoters of health care in their communities. ASHA is trained to work as an interface between the community and the public health system. ASHA play an important role in newborn care to reduce their morbidity and mortality.

Methods: Data were collected from ASHAs working in Shibpur area of Howrah District, west Bengal. The study sample consisted of 70 ASHAs working in the Shibpur area that fulfilled the inclusion criteria. A predesigned pretested questionnaire of ASHA was used to collect data in the study.

Results: The mean age of ASHAs was 35.74 years. Only 32 (45.71%) had received middle level (class VIII) education. Only 45.71 % of ASHAs had good knowledge and practice regarding hypothermia and its complication and the procedure of providing warmth the baby after delivery. Only 57.1% of ASHA had good knowledge regarding counseling and problem solving on breast feeding. Only 38.57% had good knowledge and practices on identification and basic skill on management of Low Birth Weight (LBW) having birth weight of <2.5kg and pre-term baby (<37 weeks of gestation).

Conclusions: In the present study, we found that Knowledge, Attitude and Practice of ASHAs were inadequate in some aspects of newborn care. This gap of knowledge should be taken seriously during training procedures so that effective knowledge and essential skill for newborn care can be imparted. During recruitment of ASHAs higher literacy status should be given preferences.

Keywords: ASHAs, Evaluation, KAP, Newborn care

INTRODUCTION

Neonatal period is from birth to 28 days and neonatal deaths are deaths, commencing at birth and ending in 28 completed days. Every year in India over one million newborns die before they complete their first month of life, accounting for 30% of the world's neonatal deaths.¹ Preterm, sepsis and intrapartem causes like birth asphyxia, congenital malformation and pneumonia

contribute to 43.8%, 13.6%, 18.9%, 11.1% and 5.1% respectively contributing 92.5% of neonatal mortality.² In India, the neonatal mortality rate was 24 per 1000 live births in the year 2016, having a great rural and urban differences.^{14,27} There is a great inter-state variation in the mortality rate, while Madhya Pradesh and Odisha have neonatal mortality rate 32, Kerala has only 6, and in West Bengal it is 17.³

Though infant mortality rate in India has steadily decline over the last few decades but there is a slow progress in reduction of neonatal mortality, particularly in the first week of life. Through essential newborn care that resuscitation of newborn with birth asphyxia, prevention and management of hypothermia, sepsis, exclusive breast feeding, and timely referral of sick newborn can reduce the neonatal mortality to a great extent.

The public health facilities in the rural areas across the country are far from adequate having a deficiency of trained medical personnel particularly gynecologist and obstetrician and pediatrician who are directly related to newborn care.⁴

So, if India has to achieve reduction of infant mortality rate to 12 per thousand live births as per the global target it has to utilize the services of ASHA and the states can thus explore the possibility of involvement of ASHAs in providing newborn care through graded training.⁵

This study was done to assess the Knowledge, Attitude and Practice of ASHAs in newborn care.

The basic rationale for conducting this study was to evaluate Knowledge, Attitude and Practice of ASHA workers in relation to newborn care according to ASHA Module so that proper interventions in the form of refresher training sessions could be undertaken to improve their knowledge in any deficient fields.⁶ Also, this study will help program managers in formalizing the future training sessions of newly recruited ASHAs.

Objective of the study is to assess the knowledge, attitude and practice of ASHAs towards newborn care and to find its association with the work experience and educational level.

METHODS

The study area was Shibpur of Howrah District, west Bengal. As per 2011 census the population of Shibpur is 1,077,075. According to the West Bengal Health Dept date a total of 384 ASHAs are posted in different health centres of the area.

The cross-sectional study was conducted from September 2018 to December 2018 after gaining permission from the Medical officer in charge of the primary health centres, who introduced us to the ASHA workers at the time of their monthly meetings and also helped to achieve rapport with the ASHA workers. All the ASHAs fulfilling the inclusion criteria were included in the study i.e. 70 ASHAs were included.

Inclusion criteria

The inclusion criteria of the ASHA workers who are a) must be trained for the newborn care, b) available at the time of data collection c) willing to participate in the study.

Exclusion criteria

The exclusion criteria of the ASHA workers who are not trained in newborn care and not willing to participate in the study.

A pre-tested, questionnaire was designed for ASHA workers regarding newborn care after thoroughly studying the ASHA Training Module.6 Each of the ASHA workers was then contacted individually after having the aim of the study explained, was interviewed face to face using the questionnaire. Socio demographic profile and personal details Asha were also collected.

All the data were tabulated in Microsoft Excel 2007 and analyzed by using Statistical Package for the Social Sciences (SPSS) version 20.0 software for proportions, chi-square tests, etc. Chi-square test has been used to associate the work experience more than three year with the variables. Informed consent was taken from each of the study participants. For assessing the knowledge, attitude and practice as satisfactory and non-satisfactory the response to each question was categorized yes, no and don't know. The response of yes was considered satisfactory while the response of no or don't know was considered unsatisfactory

RESULTS

All the 70 ASHAs belonged to the local community.

In Table 1, The mean age of subjects were 35.74 years, and majority were in the age group of 25-34 years (41.43%). A total of 45.71% had received Middle level (Class-VIII) of education and rest 38.57% of the ASHAs were upto secondary school level (Class X) and 68.57% had a work experience more than 2 years. Workers from every caste had participated showing majority from OBCs and General. 51.43% of the ASHAs were unmarried and 45.71% were married. 67.14% ASHAs belonged to upper lower class (according to modified BG Prasad scale, May 2016) and majority of ASHAs are Hindu by religion.

In Table 2, It was noticed that 65.71% of the ASHAs visited home as per schedule. Only 37.14% of the ASHAs had satisfactory skills of hand washing. It was also noticed that 62.86% and 68.5% of the ASHAs had satisfactory knowledge and skill of examining the newborn at birth and weighing the newborn respectively. But only 38.5% of the ASHAs had the satisfactory basic management skill of low birth weight and the preterm babies and only 31.43% of the ASHAs had the satisfactory knowledge of eye, skin and cord care. It was only noticed that 37.1% and 45.71% of the ASHAs had the satisfactory knowledge and skill of caring the newborn having hyperthermia and hypothermia respectively. Though 60% of the ASHAs could identify the danger signs of sepsis satisfactorily. Only 74.29% had the satisfactory knowledge of referral. It was further

noticed that 48.57%, 52.86%, 67.14% of the ASHAs had satisfactory knowledge regarding immunization, breast

feeding and family planning services respectively.

Table 1: Distribution of ASHA according to socio-demographic factors (n=70).

Attributes		Frequency (n=70)	Percentage
Age (in completed years)	18-24	6	8.57
	25-34	29	41.43
	35-44	26	37.14
	45-55	9	12.86
Marital Status	Unmarried	36	51.43
	Married	32	45.71
	Widow	2	2.86
Literacy status	Primary (class IV)	11	15.71
	Middle (class VIII)	32	45.71
	Secondary (Class X)	27	38.57
Work Experience	<2 years	22	31.43
	>2 years	48	68.57
Caste	General	21	30.00
	OBCs	24	34.29
	SCs	18	25.71
	STs	7	10.00
Religion	Hindu	62	88.57
	Muslim	5	7.14
	Christian	3	4.29
Social Class	Class-III (lower middle)	23	32.86
	Class-IV (upper lower)	47	67.14

Table 2: Knowledge, Attitude and practice of ASHA regarding newborn care.

Details of newborn health	No. of participants (n=70)				Association with their work experience	Association with their education
	Satisfactory		Not Satisfactory			
	Number	%	Number	%	p-value	p-value
Home visits as per schedule	46	65.71	24	34.29	<0.05	<0.05
Skill of Hand washing	26	37.14	44	62.86	>0.05	<0.05
Skill of examination of newborn at birth	44	62.86	26	37.14	<0.05	>0.05
Skill for weighing the newborn	48	68.57	22	31.43	<0.05	>0.05
Identification and basic management of low birth weight and preterm babies	27	38.57	43	61.43	>0.05	<0.05
Care of eyes, skin and cord	22	31.43	48	68.57	<0.05	<0.05
Care of newborn having hyperthermia (having temperature above 99 degree Fahrenheit)	26	37.14	44	62.86	>0.05	<0.05
Care of newborn having hypothermia (having temperature below 95 degree Fahrenheit) and its management (Kangaroo mother care)	32	45.71	38	54.29	>0.05	<0.05
Identification for early sign of sepsis	42	60	28	40	<0.05	>0.05
Referral knowledge	52	74.29	18	25.71	<0.05	>0.05
Knowledge regarding immunization	34	48.57	36	51.43	>0.05	<0.05
Exclusive Breast Feeding	37	52.86	33	47.14	<0.05	>0.05
Family Planning	47	67.14	23	32.86	<0.05	>0.05

Table 3: Knowledge, attitude and practice of ASHA regarding exclusive breast feeding.

Details of breast feeding	No. of participants (n=70)				Association with their work experience	Association with their education
	Satisfactory		Not Satisfactory			
	Number	%	Number	%	p-value	p-value
Advantages of breastfeeding	55	78.6	15	21.4	<0.05	<0.05
Early initiation of breastfeeding	64	91.4	6	8.6	<0.05	<0.05
Counseling and problem solving on breast feeding	40	57.1	30	42.9	<0.05	<0.05
Encourage mother for exclusive breastfeeding	62	88.6	8	11.4	<0.05	<0.05
Interval of breast feeding	39	55.7	31	44.3	>0.05	<0.05

In Table 3, Though 78.6% and 91.4% of the ASHA workers had good knowledge regarding the advantages and early initiation of breast feeding respectively, but it was noticed that only 57.1% of the ASHA had satisfactory knowledge and skill regarding counseling and problem solving on breast feeding. It was noticed that 88.6% of ASHA regularly encouraged mothers towards exclusive breastfeeding.

It was further noticed that only 57.1%, 51.4%, 55.7% of ASHA Workers had shown good knowledge towards position and attachment of breastfeeding, problem regarding breastfeeding and interval during breastfeeding respectively. 88.6% of ASHAs perform good practices for encouragement of mother towards breastfeeding.

On seeing association, majority of the variables show significant association with the work experiences of ASHA workers. All the variables of breastfeeding are significantly associated with their educational status.

DISCUSSION

All of the ASHAs belonged to the local community and acted as effective link people in the delivery of newborn care. In the present study, it was found that approximately 8.5% of the ASHA workers were below the age of 25 years, contrary to the fact that as per guidelines, ASHAs should be in the 25-45 years age group. Also, 15.71 % of the ASHAs were educated up to primary school level despite the requirement that ASHAs be educated to at least an 8th class standard.⁷ 70% of the ASHAs had an education level that was between the 8th and 12th class, while in the present study it was approximately 41.1%. Probable reasons could be low levels of literacy in the local area and a non-availability of educated women.

Proper fulfillment of criteria during ASHAs enrolment should be strictly maintained because with increase in education and age, there will be better knowledge and

practices towards newborn care, that is seen in this present study. The current study also showed that with increase in their work experience (>2 years) the good knowledge, attitude and practice also increased towards newborn care in many of the variables particularly in promoting exclusive breastfeeding.

In the present study 31.43% of ASHAs had satisfactory knowledge, attitude and practice of eyes, skin and cord care

In a study conducted by Saxena S et al found that 62.5% of ASHA opined that nothing should be applied in umbilical cord, 20.3% opined that mustard oil may be applied, 15.6% opined that antiseptic powder may be applied and 1.6% opines that ghee may applied ion the umbilical stump.⁷

In the present study 65.71% of ASHAs visited home satisfactorily

In a study conducted by Saxena S et al found that 67.2% of ASHA replied that first visit should be conducted within one week of delivery followed by within 24 hour of delivery by 28.1% and no visit by 4.7% ASHA.⁷ Kohli in their study concluded that only 67.3% ASHA workers reported that they used to visit the newborn in their area within a week of birth.⁸ Another study carried out in Uttar Pradesh by Kansal et al. found that 82% of ASHA workers used to visit newborns in the area.⁹

In the present study 37.14% of ASHAs had satisfactory knowledge regarding hypothermia

In a study conducted by Saxena S et al found that 96.9% of ASHA opined that new-born should be kept warm by wrapping.⁹ A study conducted by Dinesh Paul in their study reported by ASHAs included keeping the child warm (84%; not bathing the child until the 2nd day in case of normal weight (35%); keeping to cord dry (43%).¹⁰ A study conducted by Shashank KJ found that

all the ASHAs gave the correct responses regarding prevention of hypothermia, care of umbilical cord, pre lacteal feeds and exclusive breastfeeding practices.¹¹ A study conducted by Darshan et al. found that around 90% of ASHAs had improper knowledge regarding hypothermia and kangaroo care and also not knowing as what advice to give to mother for prevention of hypothermia and how to give kangaroo mother care.¹²

In the present study 74.29% of ASHAs had satisfactory knowledge regarding immunization

In a study conducted by Saxena S et al found that majority of ASHA 62 (96.8%) were aware of UIP and 61 (95.3%) ASHA were correct knowledge of vaccination schedule under UIP. Majority of ASHA 62(96.8%) were aware of it. Out of 64 ASHA, 61(95.3%) ASHA were correct knowledge of vaccination schedule under UIP.⁷

On the contrary in the study of Mahyavanshi, where nearly 63% of ASHA knew which are the vaccine preventable diseases but 70% ASHA workers had poor knowledge regarding schedule of immunization, had less knowledge when to take child for vaccination and for which vaccines.¹²

In the present study 74.29% of ASHAs had satisfactory knowledge of referral

A study conducted by Darshan et al. found that 86.16% of ASHA workers had poor knowledge regarding referral condition and when and where to refer the baby and it was found that 86% of ASHAs were conducting improper practice as they had poor knowledge regarding immediate referral condition.¹²

In the study conducted by SR Shrivastava et al found that 19.9% of the ASHAs did not feel the need for referral for a child with diarrhoea who is unable to drink or breast feed.

Similarly, in acute respiratory tract infections, 23.9% of ASHAs did not know to refer a child with fast breathing, 40.4% considered a baby crying for more than 3 hours following immunization not worth referring to a first referral unit.¹³ In a study undertaken in Rajasthan, it was observed that only 25% of the ASHA workers were aware of their responsibilities in helping ANM in the immunization program.¹⁴

In the present study 52.86% of ASHAs had satisfactory knowledge regarding exclusive breastfeeding practice

Study conducted by Saxena S et al found that mostly 96.9% ASHA knew that breastfeeding should be given first to the new-born and 95.3% ASHA were known that breastfeeding should be initiated within one hour of delivery and 71.9%.⁷

A study done by Paul, the knowledge of ASHAs about initiation of breastfeeding within an hour; feeding colostrum; avoiding pre-lacteal feeds and exclusive breastfeeding for six months was reported by 96 percent, 99 percent, 92 per cent and 98 percent of ASHAs.¹⁰ On the other hand to this Shashank et al reported that 87.1% of ASHA educate about breastfeeding to the mother before the delivery and 100% of them educate the mother and advocated breastfeeding to the new born as soon as possible after delivery.¹¹

In a study by Mahyavanshi et al found that 96.92% had good knowledge, attitude and practice regarding prelacteal feed and 82.31% knew the importance of immediate breast feeding, within half an hour of normal delivery. But around 70% had poor knowledge regarding interval of breast feeding as to how many times the child should be breastfed, in daytime and night. Nearly 86% and 71% had poor knowledge of problems regarding breast feeding and complimentary feeding respectively.

The study findings were similar to the findings of Mahyavanshi were among 130 ASHA workers, 126 (96.92%) ASHA had good knowledge; attitude and practice regarding pre lacteal feed and 107 (82.31%) knew the importance of immediate breast feeding, within half an hour of normal delivery. Around 90% ASHA had improper knowledge regarding hypothermia.¹²

In the study conducted by SR Shrivastava et al found that 100% correct knowledge was observed regarding counselling the exclusive breastfeeding of newborns.¹³ In contrast to this, in a study conducted in Orissa it was observed that 81.3% of ASHA workers had knowledge about their responsibilities regarding counselling on antenatal care/ postnatal care, breastfeeding and immunization.¹⁴

On the contrary, study done by Lodhiya where out 218 health worker female, 63.30% discouraging the use of pre-lacteal feeds to mothers.¹⁵ Thakre et al found that 94.44% of ASHA had proper knowledge of the fact that pre-lacteal feeds need to be given.¹⁶

In the present study 67.14% of ASHAs had satisfactory knowledge regarding family planning

In a study conducted by Charu et al, found that 96.4% of ASHAs counselling for family planning.¹⁷

CONCLUSION

In the present research, it has been largely observed that the ASHAs performance is unsatisfactory in various aspects of newborn care. There are still lacunae left in their knowledge related to various aspects of breastfeeding and newborn health. Also the practice towards various aspects of newborn health requires further improvement.

Recommendations

Training is the main source of skills building and functioning of ASHAs. This should be taken up with enthusiasm to identify key areas of thrust during training procedures. It has to be ensured during training that ASHAs are well aware about their job responsibilities and are capable to fulfill their job responsibilities. So, frequency and quality of training for ASHA workers must be strengthened and also there is need to increase their financial incentives as a motivating factor. However, in most cases it is well evident that CCSP training has been taken up well by the ASHAs and better performance and procedural correction is just a matter of reinforcement.

ASHAs having literacy status above the primary level had better KAP regarding newborn care. So, during the selection of ASHAs higher educational level should be given preferences.

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