Original Article

Situational analysis of ASHAs with respect to Comprehensive Child Survival Programme: A study from Chiraigaon block of district Varanasi

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ABSTRACT

Research question: What proportions of the ASHAs are performing according to the training they have received under the Comprehensive Child Survival Programme (CCSP)? **Objective:** To analyze the ASHAs' practice with respect to CCSP in related situations. **Study design:** Cross-sectional study. **Study location:** Chiraigaon Community Development Block, Varanasi **Material and method:** 173 out of the total 240 ASHAs (~72%) in the selected Chiraigaon Community Development Block of Varanasi were randomly selected and interviewed using a pre-designed, pre-tested, semi-structured questionnaire pertinent to CCSP**.** Only the first response was recorded. **Results:** All the ASHAs interviewed claimed that the CCSP training has helped them perform better in the community. Ninety-eight percent of the ASHAs knew that a new born weighing ≥2.5 kgs at birth is considered to be normal. Only ~ 63% (109) of the ASHAs were found to be home-visiting such newborns as per the CCSP recommendation. The percentage was found to be just 43% for the properly scheduled home visits of LBW newborns. The difference was found to be statistically significant ($p<0.001$). Almost 80% ASHAs estimated that their average home visit spans for at least 30 minutes. Just about a third of the interviewees suggested that a baby should be bathed only after the first 6 days while one-third said that they advise massaging for the newborn only after the first week. ASHAs rarely used a thermometer to assess the baby's temperature. Around 56% were confident about using a thermometer. Nearly 90% participants claimed of explaining about Kangaroo Mother Care to the parturient and/ or family. Majority of the ASHAs (92%) emphasized upon non-discontinuation of breast feeding for the baby during diarrhoeal episodes. However, only 44% revisited such babies. **Conclusion:** In most cases it is well evident that CCSP training has been taken up well by the ASHAs. The training may be refreshed.

Key words: ASHA, CCSP.

Introduction:

Uttar Pradesh has long been the cynosure of health care reforms and innovations given its poor and challenging health indicators. Reckoned as one of the states with the highest infant[1] and maternal mortality rates in India, the State Government of Uttar Pradesh has adopted the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) strategy with additional customized MCH care provisions under the Comprehensive Child Survival Programme (CCSP). The ASHAs of Chiraigaon Community Development Block of Varanasi district have been trained and are operational under CCSP for almost two years now. The present study was conducted in Chiraigaon Community Development Block of Varanasi with the objective to analyse the ASHAs' practice with respect to CCSP in related situations.

Material and Methods:

The Rural Health Training Centre of the Department of Community Medicine, IMS, BHU is located in Chiraigaon Community Development Block of Varanasi district. Chiraigaon block was chosen from among the 8 blocks of rural Varanasi keeping in mind feasibility and available logistic support for the study. It was envisaged to interview all the 240 ASHAs working in Chiraigaon Block. However, only 173 (~72%) could be available for the interviews which included at least 2 ASHAs from each subcentre. It was perceived that this number is sufficient to satisfy sample size criteria. A pre-designed and pre-tested semi-structured questionnaire pertinent to CCSP (mostly based upon selected skills assessment) was used and the interviews were conducted over a period of nearly 6 months (from June to November, 2010). Each interview lasted around 40 minutes and only the first responses were recorded. Neither simulation techniques nor non-participatory observation was adopted for the purpose and all responses were recorded as per the ASHAs' claim.

Results:

All the 173 ASHAs interviewed claimed that the CCSP training has been useful to them and has helped them perform better in the community. When asked about the 'normal' birth weight of a newborn, 98.27% of the ASHAs knew that a new born weighing 2.5 kilograms or more at birth is considered to be normal. While 2 ASHAs (1.17%) had the notion that the normal birth weight of a baby is 2 kg or more, the remaining one could not respond to the question.

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Newborn home-visits by the ASHAs: Majority of the ASHAs (90.8%) said that they pay at least 3 home visits to each normal birth-weight newborn within the first week of its birth **(Table 1)**. However, the claimed scheduling for the home visits was found to be as per the CCSP recommendation (of Days 1,3 and 7) in the case of only ~ 69% (109) of these ASHAs. As many as 16 ASHAs (9.2%) considered less than 3 home visits within the first week to be sufficient.

Table 1: Scheduling of home visits by ASHAs for normal birth weight babies

Sl. No	Minimum no. of visits in the 1st month	Scheduling of home visits (at days)		Total	
		1,3,7	Non-specific		
1	≥ 3 visits	69.4% 109	30.6% 48 75.0%	**157 90.8%**	**Fisher's exact probability =0.0000011**
2	< 3 visits	0	16 25.0%	**16 9.2%**	
Total		**109 63%**	**64 37%**	**173**	
Superscripted % indicate percentage within row; Subscripted % indicate percentage within column					

Only 74 of the 173 ASHAs (43%) were scheduling their home visits for LBW babies according to the norm i.e., home visits at least on days 1, 3, 7, 14, 21 and 28 **(Table 2)**. Although one-third of the ASHAs interviewed said that they visited such babies at least 6 times within a month of their birth, scheduling was found to be non-specific. Almost a quarter of the ASHAs were paying not even 6 home visits within the first month

Table 2 : Scheduling of home visits by ASHAs for low birth weight babies.

Significant difference was noted between the home visit scheduling by ASHAs for the normal birth weight babies and the LBW babies when it came to adherence to the CCSP prescription **(Table 3)**.

Table 3: Scheduling of home visits by ASHAs for new-born babies

As mentioned in **table 4** and depicted in **figure 1**, forty five percent of the ASHAs mentioned that they usually spend more than an hour with the newborn's family during each home visit. Collectively, almost 80% ASHAs estimated that their average home visit spans for at least 30 minutes. Some ASHAs (12%) could not specify any duration for their visits while 26 ASHAs considered a visit of just 15 minutes sufficient to serve their purpose. The average time as suggested by the ASHA was 43.42±17.717 mins. Thirteen ASHAs could be observed during home visits and the calculated average length of each visit came out to be 19.269±15.4132 mins. The practice of the observed ASHA could have been biased given the fact she knew that she was being observed. However, the researcher ensured a very friendly relationship prevailed between him and the ASHA in order to minimize this 'action bias'.

Sl. No.	Minimum no. of visits in the 1st month	Scheduling of home visits (at days)		Total	
		1,3,7,14,21, 28	Non-specific		
1	≥ 6 visits	56.1% 74	43.9% 58 58.6%	**132 76.3 %**	**Fisher's exact probability =0.000002**
2	< 6 visits	0	41 41.4%	**41 23.7 %**	
Total		**74 42.8%**	**99 57.2 %**	**173**	
Superscripted % indicate percentage within row; Subscripted % indicate percentage within column					

		Scheduling of home visits for LBW babies at days		Total	
		1,3,7,14,21,28	Non-specific		
Scheduling of home visits for normal birth-weight babies (at days)	1,3,7	67.9% 74	32.1% 35 35.35 %	**109 63%**	**Fisher's exact probability =0.000003**
	Non-specific	0	64 64.65 %	**64 37%**	
Total		**74 42.8%**	**99 57.2%**	**173**	
Superscripted % indicate percentage within row; Subscripted % indicate percentage within column					

Table 4: Amount of time spent per home visit by ASHA

Advice given regarding bathing and massaging the new born for the first time: Although the proportion is low

(2.3%), some ASHAs still advise the newborn to be bathed within the 1st hour of its birth or as soon as possible **(Table 5)**. As many as 13 ASHAs (7.5%) were ignorant about how long bathing of the newborn should be avoided. Just about a third of the interviewees suggested that a baby should be bathed only after the first 6 days.

Table 5: Advice given regarding bathing and massaging the new born for the first time

Sl. No.	Time spent per home visit (in minutes)	ASHAs' Opinion		Researcher's Observation	
		No.	Percent	No.	Percent
1	≤15	26	16.15	7	53.85
2	16-30	43	26.71	3	23.08
3	31-45	14	8.70	2	15.39
4	46-60	78	48.45	1	7.69
Total		161#	100	13	100
Mean±S.D.		43.42±17.717		19.269±15.4132	

2 ASHAs could not specify duration spent; hence, were excluded from calculation.
No visit duration beyond 1 hour was reported nor observed

One-third of the ASHAs said that they advise massaging for the newborn only after the first week while 9.8% had no idea about timing the first massage for the baby. The remaining 98 ASHAs interviewed would recommend that the baby be massaged within the first week of its birth.

Assessment of the baby's body temperature: Using a thermometer to assess the baby's temperature was found to be uncommon among ASHAs with just about 28% of them doing so always or mostly **(Table 6)**. Opining about the baby's body temperature seems to be based mostly upon subjective assessment by the ASHA using the back of her hand with almost 60% of them (103) never using a thermometer for the same. Twenty one ASHAs either did not bother to gauge the baby's temperature (non-responders have been included in this group).

Table 6: ASHAs' assessment of body temperature (N=173)

Ninety seven ASHAs (56.1%) were confident about using a thermometer. The remaining 44% either do not know how to read a thermometer or even how to use it.

Counseling provided to the newborn's family about Kangaroo Mother Care (KMC) during home visits: The word 'kangaroo' seems to have caught the fascination of the ASHAs! Over 90% of the ASHAs could explain about KMC and almost all of whom claimed that they explained about the technique to the mother and other family members of the newborn

Advice given by ASHA	ASHAs advising to bathe the newborn for the first time		ASHAs advising to massage the newborn for the first time	
	No.	Percentage	No.	Percentage
Within 1 hour of birth	4	2.3	3	1.7
Within 1-2 days	38	22.0	32	18.5
Within 6 days of birth	61	35.3	63	36.4
After 6 days of birth	57	32.9	58	33.5
Do not know	13	7.5	17	9.8
Total	173	100	173	100

(Table 7).

Table 7: ASHAs' counseling of the newborn's family about Kangaroo Mother Care

Parameter	Response	No.	%
Mode of assessment	Use a thermometer	49	28.3
	Use the back of hand	103	59.5
	Do not assess	21	12.1
Knowledge about thermometer use	Know how to use a thermometer	97	56.1
	Do not know	76	43.9

Care for the child suffering from diarrhea: Table 8 has been constructed using the multiple responses from the ASHAs regarding the advice they give regarding home-based care of the child having diarrhea. It is encouraging to note that majority of the ASHAs (91.9%) emphasize upon non-discontinuation of breast feeding for the baby during such episodes. That the baby should be given ORS was the opinion of 81.5% ASHAs while 64.7% advise home available fluids in the form of porridge, *dal* water, etc. Another 7.5% suggests the family to feed home-made fluids to the baby during the episodes. No advice is given by 8.7% (15) of the ASHAs in such situations.

Table 8 : ASHAs' advice for fluid replenishment during diarhoea# (N=173)

Sl. No.	Do you advise for KMC for the newborn during home visits?	No.	Percentage
1	Never advise	2	1.2
2	Mostly but not always	24	13.9
3	Always advise	131	75.7
4	Do not know what KMC is	16	9.2
Total		173	100

CCSP has prescribed a revisit after 2 days to all such babies who have been advised home-based care for diarhhoea. However, only about 44% of the ASHAs comply to this norm **(Table 9)**. Still, a massive 27.7% (48) ASHAs do not know whether a revisit is necessary or not; 23% never revisit such babies as they consider it unnecessary.

Table 9 : Scheduling for a revisit by ASHAs to a child who has been advised for home-based treatment for diarrhea on a previous occasion

Sl. No.	Advice given	No.	Percentage
1	Continue breast feeding	159	91.9
2	The baby should be given ORS	141	81.5
3	Advise for home available fluids	112	64.7
4	Advise for home made fluids	13	7.5
5	Do not know	15	8.7
[#] Multiple responses recorded for all the 173 ASHAs			

Sl. No.	Opinion regarding for a revisit	No.	Percentage
1	Revisit must after 2 days	76	43.9
2	Revisit required but no specific schedule	9	5.2
3	Revisit not required at all	40	23.1
4	Do not know whether a revisit is necessary or not	48	27.7
Total		173	100

Discussion:

While most ASHAs know that low birth weight babies need more attention, the purpose of the CCSP is betrayed by the fact that as many as 57.2% of the ASHAs follow either inadequate or inappropriate scheduling for the home visits of the newborns. It is well known that the first hour, first day and the first week of life are most critical for survival of the neonate (in that order). It has been observed that 63% of the ASHAs are vigilant during the first week **(Table 3)** with a significant difference between scheduling for normal birth weight and LBW babies but things begin to scatter later on in the case of ~20% ASHAs. ASHAs that pay visits to the newborn as per the schedule in the first week tend to continue with proper home-visit pattern for the remaining 3 visits of the LBW newborns in 67.9% cases. With this background, correcting non-specific scheduling after the first week could increase the home-visits for the LBW neonate by nearly 20%. More so, ASHAs (overall 37%) tend to visit the newborns less often than specified or with improper timing mainly due to ignorance. A single check-list for all scheduled home visits per neonate could be recommended to be supplied to the ASHA.

It appears that the ASHAs spend adequate amount of time with the family of the neonate during the home-visit. An average of 1 hour per visit (3) is usually recommended but given the fact that the ASHA is from the same village, it is highly probable that she is already known to the family and need not over indulge in establishing inter-personal relationship with the beneficiary's family. Thus, even if more than 50% of the ASHAs claim of spending more than 45 mins per visit, their time perception seems questionable! However, it also indicates that ASHAs are quite comfortable spending time with the family.

Hypothermia is a killer of neonates and hence, thermal control is an essential newborn care component (2). Considering this fact and prevalent practice of bathing the newborn immediately after birth, it has been aptly recommended by the programme for the ASHA to counsel the family to bathe the neonate from Day 7 onwards (4). Contact with ASHA has been previously reported to have a significant impact in delaying newborn bathing (5). Similarly, massaging the baby is not recommended until it is at least 7 days old (4). It is found that just about one-third of the ASHAs know about this and advise accordingly. This may be explained and emphasized upon by the ANMs or the Medical Officer during their encounters with the ASHAs.

Thermometers have been consistently supplied to all the ASHAs of the study area in the CCSP child survival kit. Instruction regarding using them has also been given with demonstration during the CCSP training. The ASHAs, however, generally rely upon self-perception based assessment of the baby's body temperature. The thermometer being a extremely potable instrument, the reason for not using it often was enquired and it was found that just 56.1% of the ASHAs were confident about reading it. Identifying hypothermia is as important as detecting fever and hence, thermometer usage could be a savior and should be affirmed.

KMC has been identified as a better way to keep newborn warm than wrapping the baby in a warm cloth or similar other methods by various studies (6). It must be appreciated that most ASHAs always explain about KMC to the child's mother (and family). It has been sensed through the study that some ASHAs (14%) restrict this advice only to the family of LBW babies while nearly 10% are still unaware of it. KMC is a certain favorite with the ASHA and once it is stressed upon by the ANM during Routine Immunisation sessions (as it allows teaching in small groups) it is unlikely for her to miss this advice during home visits. The session is also perhaps the best occasion to re-train the ASHAs about thermometers.

The mother of the baby suffering from diarrhea is mostly counseled for continuance of breast feeding during such episodes by the ASHAs. Most of them also advise for supplementation for lost body fluid through ORS or home available fluids. However, ASHAs very rarely demonstrate how to prepare ORS solution.7.5% of the ASHAs suggest for preparing home based fluids ('ORS equivalent') while nearly 9% do not know what to do. Even if they recommend for home-based care for such neonates, just about 50% consider a revisit to such babies. The situation seems challenging with almost a quarter of the ASHAs bearing the conviction that a revisit is not required at all, and another quarter being confused about a revisit. This problem needs to be identified and worked upon. The ASHAs may refer the CCSP module regarding ORS advice if in doubt.

Conclusion:

It has been largely observed that the ASHAs are functioning as per the training given. Although studies have been conducted regarding the knowledge of the ASHAs regarding their job responsibilities, research on their on-field performance is lacking. This should be taken up with enthusiasm to identify key areas of thrust during training procedures. With incentive-based performance being in vogue and health programmes like CCSP and Janani Surakshya Yojana commonly intersecting into each other, it is difficult to demarcate whether a particular skill or concern is solely attributable to a particular programme. 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.

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