Evaluation of knowledge and practice of ASHAs, regarding child health services in Vijyapaura District, Karnataka

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Abstract

Background and Aims: NHM has created a cadre of trained female community health activists called Accredited Social Health Activists (ASHAs) to mobilize the community toward increased utilization of existing health services. ASHAs play an important role in the rollout of government health programs such as the Janani Suraksha Yojana (JSY), a conditional cash transfer scheme to incentivize women to give birth in a health facility. The ASHAs work closely with other frontline workers like Auxiliary Nurse Midwives (ANMs) and Anganawadi Workers (AWWs) to conduct community-level activities. Method: A cross-sectional study was conducted in 11 months. 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. Data collection was done by interview technique. Results: Out of 617 ASHAs interviewed, 580 (94%) ASHAs had proper knowledge about exclusive breast feeding and the duration, 560 (90.7%) told colostrum was necessary to the baby. Only 323 (52.3%) ASHAs had correct knowledge regarding schedule of immunization. 580 (94%) ASHAs could tell when the weaning should be started correctly and 611 (99%) ASHAs knew about ORS packets and the steps that went in preparing it. Conclusion: Generally, knowledge of ASHAs about care of new-born and child health care was considerably good. However, knowledge of ASHAs about the immunization schedule was found to be inadequate.

Keywords: Accredited Social Health Activists, child health, knowledge

Introduction

The Government of India’s flagship National Health Mission (NHM) aims to provide accessible, affordable and effective primary health care, especially to poor and vulnerable sections of the population and to address the deficit in rural health care.[1] NHM has created a cadre of trained female community health activists called Accredited Social Health Activists (ASHAs) to mobilize the community toward increased utilisation of existing health services. ASHAs play an important role in the rollout of government health programmes such as the Janani Suraksha Yojana (JSY), a conditional cash transfer scheme to incentivize women to give birth in a health facility.[2] The ASHAs work closely with other frontline workers like Auxiliary Nurse Midwives (ANMs) and Anganawadi Workers (AWWs) to conduct community-level activities.[3]

ASHAs are supposed to conduct Home Visits, for up to 2 hours every day, for at least 4-5 days a week. They should visit the families living in her allotted area, with first priority being accorded to marginalized families. Home visits are intended for health promotion and preventive care. They are important...
The ASHA should prioritize homes where there is a pregnant woman, new-born, child below two years of age, or a malnourished child. Home visits to these households should take place at least once in a month. Where there is a new-born in the house, a series of six visits or more becomes essential.

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 ASHAs (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]

A family physician is one who provides competent, compassionate, whole person primary care in a person centred, family focused way, within the context of continuing, comprehensive, coordinated, collaborative, cost-effective, community-based health care.

ASHAs being the first point of contact between the families and health care system, it is utmost important for the ASHAs to be updated with the knowledge and good practices regarding child health services. Effective communication between the ASHAs and the primary care physician, can help the physician in providing comprehensive care and addressing the common illness. The implementation of ASHA programme was started in 2005 in Karnataka state and it was implemented in 2008 in Vijayapur District.[11]

Out of the 1410 ASHA posts sanctioned for Vijayapur district, 1394 have been filled. All of the appointees have undergone training. During our study period, 1093 ASHAs 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
1. To describe the socio-demographic profile of ASHAs working in Vijayapur District.
2. To evaluate the knowledge, attitude, practice of ASHAs towards the Child Health Care

Methods
The current study was carried out in Karnataka state of India.

Study design- Cross-sectional study.

Study area- Vijayapur District.

Total study period- 12 months.

Study subjects- All the ASHAs of 3 Taluks (Vijayapur, Basavana Bagewadi and Muddebihal) of Vijayapur district.

Inclusion criteria
1. All the ASHAs working for more than 6 months
2. ASHAs who have undergone training.

Exclusion criteria
1. Newly recruited ASHAs (<6 months)
2. ASHAs who do not give their consent.

Official permission was obtained from District Health Officer, Vijayapur. Details of ASHAs 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 PHCs of the study area were obtained. 248 ASHAs are working under 15 PHCs in Vijayapur Taluk, 223 ASHAs are working under 14 PHCs in Basavana Bagewadi taluk and 186 ASHAs are working under 10 PHCs in Muddebihal Taluk. Hence, a total of 617 ASHAs 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 each question in detail to them and making sure they understood every bit of it. Once all the ASHAs finished the question, the next question was then 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
The above table represents socio-demographic profile of ASHAs who were studied [Table 1]. 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 worked for the same village in which they were residing (80.1%).

The above table represents knowledge and practice of ASHAs regarding Child health [Table 2]. It includes positive responses (i.e., YES and the correct responses) which ASHAs gave. Out of 617 ASHAs interviewed, 580 (94%) ASHAs had proper knowledge about exclusive breast feeding and the duration, 560 (90.7%) told colostrum was necessary to the baby. Only 323 (52.3%) ASHAs had correct knowledge regarding schedule of immunisation. 580 (94%) ASHAs could tell when the weaning should be started correctly and 611 (99%) ASHAs knew about ORS packets and steps in preparing it. Also, 610 (98.8%) ASHAs knew what exactly ARI was. From the above table, it was found that Days of Training and Duration of service were significantly associated with Knowledge of ASHAs regarding Child Health.

When ASHAs were asked about what advice they would give to mothers when the babies are suffering from diarrhoea, 574 (93%) ASHAs told ORS, 264 (42.8%) told homemade fluids as the treatment options. 97 (15.2%) ASHAs told that the babies should be referred to higher centre if the diarrhoea is severe.

### Discussion

The knowledge of ASHAs on the nature of the activities and job responsibility is the prerequisite for effective service delivery. The

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### Table 1: Socio-demographic profile of ASHA

|                          | Frequency | Percent |
|--------------------------|-----------|---------|
| **Age profile of ASHAs** |           |         |
| 20-29                    | 290       | 47.0%   |
| 30-39                    | 323       | 52.4%   |
| 40-49                    | 4         | 0.6%    |
| Marital status of ASHAs  |           |         |
| Widowed                  | 76        | 12.3%   |
| Separated                | 118       | 19.1%   |
| **Educational status**   |           |         |
| College                  | 83        | 13.5%   |
| High school              | 534       | 86.5%   |
| **Religion**             |           |         |
| Hindu                    | 591       | 95.8%   |
| Others                   | 8         | 1.3%    |
| **Monthly income**       |           |         |
| <5000                    | 459       | 74.4%   |
| ≈5000.00                 | 107       | 17.3%   |
| >5000                    | 39        | 6.3%    |
| **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 village** | | |
| Yes                      | 494       | 80.1%   |
| No                       | 123       | 19.9%   |
| **Duration of service**  |           |         |
| <5 years                 | 257       | 41.6%   |
| >5 years                 | 360       | 58.4%   |

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### Table 2: Knowledge and practice regarding child health among ASHAs

| Variables (n=617)        | Age (%) | Days of Training (%) | Education (%) | Duration of service (%) | Total (%) |
|--------------------------|---------|----------------------|---------------|-------------------------|-----------|
|                          | 20-29   | 30-39                | 40-49         | 17 Days | 23 Days | High School | College | <5 yrs | >5 yrs |
| ASHAs who knew correctly what Exclusive Breast Feeding is | 273 (47) | 305 (52.5) | 2 (0.34) | 80 (13.7) | 500 (86.2) | 498 (85.8) | 82 (14.1) | 261 (45) | 319 (55) | 580 (94) |
| ASHAs who knew what colostrum is | 269 (48) | 288 (51.4) | 3 (0.5) | 76 (13.5) | 484 (86.4) | 479 (85.5) | 81 (11.4) | 226 (40.3) | 334 (59.7) | 560 (90.7) |
| ASHAs who told correctly when to start the initiation of Breast Feeding | 240 (48.3) | 254 (51.2) | 2 (0.4) | 65 (13.1) | 431 (86.8) | 414 (83.4) | 82 (16.5) | 168 (33.8) | 328 (66.2) | 496 (80.3) |
| ASHAs who told when the weaning of the baby should be started correctly | 275 (47.4) | 301 (51.8) | 4 (0.68) | 79 (13.6) | 501 (86.3) | 507 (87.4) | 73 (12.5) | 275 (47.4) | 305 (52.6) | 580 (94) |
| ASHAs who were aware of the correct immunisation schedule | 132 (40.8) | 191 (59.1) | 0 (0.0) | 53 (16.4) | 270 (83.5) | 267 (82.6) | 56 (17.3) | 129 (38.7) | 194 (61.3) | 323 (52.3) |
| ASHAs who knew what is meant by ARI correctly | 288 (47.2) | 318 (52.1) | 4 (0.65) | 86 (14) | 524 (86) | 528 (86.5) | 82 (13.4) | 255 (41.8) | 355 (58.2) | 610 (98.8) |
| ASHAs who could explain the steps in preparation of ORS correctly | 287 (47) | 320 (52.3) | 4 (0.65) | 86 (14) | 525 (86) | 528 (86.4) | 83 (13.5) | 290 (47.4) | 321 (52.4) | 611 (99) |

\[ \chi^2 = 8.95, \quad \chi^2 = 0.762, \quad \chi^2 = 6.47, \quad \chi^2 = 30.05 \]

\[ df = 12, \quad df = 6, \quad df = 6, \quad df = 6 \]

\[ p = > 0.05, \quad p = < 0.05, \quad p = > 0.05, \quad p = < 0.05 \]
ASHAs have been interviewed to assess their knowledge about their job responsibilities about child health care.

The present study made an attempt study the knowledge and awareness of ASHAs regarding child health care.

In the current study, 94% of ASHAs had a proper knowledge about Exclusive breast feeding and weaning. Study by Dr. B K, Sugandhia et al. [11] and Dr. B. Mohapatra et al. [12] had similar findings to the current study. Also studies by Mahyavanshi, K.D et al. [1] and The Population Council gave similar findings.

However, a study by NHSRC [9] in Rajasthan revealed that only 23.4% of ASHAs had proper knowledge of duration of EBF and weaning attributing to the factor that the trainers did not explain the content material properly during training session.

About 91% of ASHAs had knowledge about colostrum and said it is essential for babies to boost their immunity and health. 94% of ASHAs had good knowledge about weaning and told it should start with mashed food and green leafy vegetables should be added regularly in complementary feeds. This was similar to a studies conducted by Gosavi et al. [9] and Dehingia N et al. [13] where it was found that ASHAs told to add, mashed egg, meat, fats and oils, whenever possible.

Majority (74.7%) of ASHAs had poor knowledge regarding schedule of immunisation as they had little knowledge as to when to take child for vaccination and for which vaccine. Regarding dosage, level of knowledge of ASHAs of the present study is considerably good, with the exception for doses of Hepatitis B and vitamin A supplementation. This was similar to the study done by SIHFW. In a study done by Singh K. Manish et al. [14] majority (70%) of ASHAs had poor knowledge regarding schedule of immunisation as they had little knowledge as to when to take child for vaccination and for which vaccine. On the contrary, Mahyavanshi, K.D. et al. [7] found that considerable proportion of ASHAs (63%) knew immunisation schedule and which the vaccine preventable diseases are.

However, ASHAs helped ANMs or the Nurses in the concerned PHCs in Immunization activities, held on Immunization days.

Almost all the ASHAs in our study were aware of ORS packets and their uses, with 99% able to explain the steps of ORS solution preparation correctly. Similar results were obtained in a study conducted by Maheshkumar Choudary et al. [13] and Laura M Lamberti et al. [14] where knowledge scores of ASHAs regarding ORS were good, owing to the reason of ASHAs undergoing refresher training recently. However, in a study by Mrigen Deka et al. [18] revealed that majority of ASHAs had neither clarity nor the steps in preparing ORS solution.

Knowledge and practice of ASHAs regarding child health was significantly associated with days of training and duration of service of ASHAs. ASHAs who underwent 23 days of training were more exposed to details of the topics compared to ASHAs who underwent 17 days of training. Also, ASHAs who had served the community for more than 5 years seemed to have more knowledge about child health compared to ASHAs who had served less than 5 years.

**Conclusion**

On the whole, knowledge of ASHAs about care of new-born and child health care was considerably good, whereas their knowledge about the immunisation schedule was found to be inadequate. 86.7% of ASHAs told that they were well aware of immunisation dates in their concerned PHCs and assist ANMs on immunisation days. This was consistent with the other studies. It was also found that days of training done and duration of service were significantly associated with the knowledge of ASHAs regarding child health. ASHAs with 23 days of training and more than 5 years of service had better understanding about their roles and responsibility towards child health care.

**Ethical approval**

Study protocols were reviewed and approved by institutional ethical committee by BLDE University, Vijayapur.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

**References**

1. Guidelines on Accredited Social Health Activists (ASHA). India; [Internet] 2009; Available from: www.mohfw.nic.in/NRHM/RCH/guidelines/ASHA_guidelines. [Last cited on 2016 Sep 10].
2. Park K. Park’s Textbook of Preventive and Social Medicine. 22ed. Jabalpur: M/s Banarsidas Bhanot; 2011. p. 405-6.
3. National Rural Health Mission (2005-2012): Mission documents and monograph 1-6 Ministry of Health and Family Welfare, Nirman Bhawan, New Delhi; [Internet] 2005; Available from: www.mohfw.nic.in/nrhm.html. [Last cited on 2015 May 12].
4. Update on the ASHA programme: National Rural Health Mission, Ministry of Health and Family Welfare, Govt of India, New Delhi; Jan 2012.
5. About ASHA-Government of India [Internet] 2016; Available from: http://nrhm.gov.in/communitisation/asha/abo
6. Mohapatra B, Datta U, Gupta S, Tiwari VK, Nair KS, Nandan D. An Assessment of the Functioning and Impact of Janani Suraksha Yojana in Orissa. Health and Population: Perspectives and Issue 2008;31:120-5.

7. Mahyavanshi DK, Patel MG, Kartha G, Purani SK, Nagar SS. A cross-sectional study of the knowledge, attitude and practice of ASHA workers regarding child health (under five years of age) in Surendranagar district. Healthline 2011;2:50-3.

8. Karol GS, Pattanaik BK. Community health workers and reproductive and child health care: An evaluative study on knowledge and motivation of ASHA (Accredited social health activist) workers in Rajasthan, India. Int J Humanit Soc Sci 2014;4:137-50.

9. Gosavi SV, Raut AV, Deshmukh PR, Mehendale AM, Garg BS. ASHAs’ awareness and perceptions about their roles and responsibilities: A study from rural Wardha. J Mahatma Gandhi Inst Med Sci 2011;16:1-8.

10. Singh MK, Singh JV, Ahmad N, Kumari R, Khanna A. Factors influencing utilization of ASHA services under NRHM in relation to maternal health in rural Lucknow. Indian J Community Med 2010;35:414-9.

11. Sugandha BK, P J. Knowledge of ASHA workers about maternal and child health services in Mysuru. Public Health Rev. 2019;6:169-76.

12. Dehingia N, Shakya H, Chandurkar D, Hay K, Dey A, Singh K, et al. Family support and community respect for community health workers and the association of these with CHW productivity and clinic health care utilization. J Glob Health 2020;4:123-30.

13. Choudary M, Varia K, Kothari N, Ghandhi S, Makwana NR. Evaluation of knowledge of ASHA workers regarding various health services under NRHM in Saurashtra Region of Gujarat. Natl J Community Med 2015;6:193-7.

14. Lamberti LM, Fischer Walker CL, Taneja S, Mazumder S, Black RE. The association between provider practice and knowledge of ORS and Zinc supplementation for the treatment of childhood Diarrhea in Bihar, Gujarat and Uttar Pradesh, India: A multi-site cross-sectional study. PLoS One 2015;10:114-8.

15. Deka M, Mathur BP. A Study on Evaluation of ASHAs for their Knowledge, Attitude and Practice towards Newborn Care in RHTC area of District Jhansi in Uttar Pradesh. Int J Health Sci Res 2014;4:43-48.