Original Research Article

# Assessment of Knowledge of ASHAs as DOTS provider in rural area Maharashtra

Sonia Ashtekar<sup>1</sup>, Jitendra Surwade<sup>2\*</sup>, Satish Haridas<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Community Medicine, Grant Government Medical College, Mumbai, Maharashtra, INDIA. <sup>2</sup>Assistant Professor, Department of Community Medicine, Government Medical College, Jalgaon, Maharashtra, INDIA. <sup>3</sup>Medical Officer, Civil Hospital, Beed, Maharashtra, INDIA.

Email: drsva28@gmail.com

#### <u>Abstract</u>

Background: One of the key components of the mission is creating a band of female health volunteers, appropriately named "Accredited Social Health Activist" (ASHA) in each village within the identified States. These village level community health workers would act as a 'bridge' or an interface between the rural people and health service outlets and would play a central role, in achieving national health and population policy goals. Aims and objectives: Assess the knowledge of ASHAs about RNTCP and DOTS. Materials and method: The present cross-sectional study was conducted in the department of preventive and social medicine of a medical college. ASHAs were selected from the total 10 functioning blocks from the district. From each block one PHC was randomly selected. The day of monthly meeting was selected for data collection. Information regarding basic demographic data including age, educational qualification and length of service were enrolled in the proforma. Information regarding the knowledge of RNTCP and DOTS was also inquired. Total 311 ASHAs from ten PHCs were included in the study. Permission from proper authority was obtained before starting the study. Results: Majority of the ASHA's were in the age group of 26 to 36 years. Majority of the ASHAs were educated upto 12th standard. 45.98% ASHAs were having length of service between 3 to 4 years. 36.66% ASHAs scored between 25 to 50% marks whereas 35.05% scored between 50 to 75%. Better performance was given by younger ASHA but the difference observed was not statistically significant. It was seen that as the level of educational qualification was increasing the knowledge of ASHA regarding the RNTCP was increasing. As the length of service was increasing the knowledge of ASHAs regarding RNTCP was increasing with the statistically significant difference. Conclusion: The ASHAs were having average knowledge about RNTCP and DOTS with mean score of 49.14% ± 22.27%. Thus there is need of regular training to enhance the knowledge of ASHAs regarding RNTCP and DOTS so that they can serve better.

Key words: ASHA, RNTCP, DOTS, Knowledge.

#### \*Address for Correspondence:

Dr. Jitendra Surwade, Assistant Professor, Department of Community Medicine, Government Medical College, Jalgaon, Maharashtra. **Email:** <u>jitendrapsm@gmail.com</u>

Received Date: 20//08/2018 Revised Date: 16/09/2018 Accepted Date: 02/10/2018 DOI: https://doi.org/10.26611/1011832



## **INTRODUCTION**

The National Rural Health Mission (NRHM) was launched on 12<sup>th</sup> April 2005 by the Government of India. The aim of the programme is to provide accessible, accountable, affordable, effective and reliable primary

health care, especially to the poor and vulnerable sections of the population<sup>1,2</sup>. One of the key components of the mission is creating a band of female health volunteers, appropriately named "Accredited Social Health Activist" (ASHA) in each village within the identified States. These village level community health workers would act as a 'bridge' or an interface between the rural people and health service outlets and would play a central role, in achieving national health and population policy goals.<sup>3,4</sup> It is estimated that One third of the global population is infected with TB bacillus <sup>5</sup>. India is 17<sup>th</sup> among them (in terms of TB incidence rate). India and China alone account for an estimated 35% of TB cases worldwide<sup>6</sup>. The treatment of tuberculosis under the RNTCP programme is done through DOTS strategy with the help of DOTS providers. The DOT providers are the link person between TB Health Visitor/Health worker and

How to cite this article: Sonia Ashtekar, Jitendra Surwade, Satish Haridas. Assessment of Knowledge of ASHAs as DOTS provider in rural area Maharashtra. *MedPulse International Journal of Community Medicine*. November 2018; 8(2): 25-28. https://www.medpulse.in/

patients. They carry out IEC (Information, education and communication) activity in community, refers suspected TB patients to health centre, initial verification of address of the tuberculosis patients, motivation of the patient with respect to treatment requirements and expected duration of the treatment, examination of contacts of sputumpositive cases, recording of the result in the treatment Card, ensure that all doses in the intensive phase and the first dose of each weekly blister during the continuation phase are taken under direct observation, ensure collection of empty blister packs which should be preserved till the end of treatment, ensure timely examination of sputum at defined intervals, until the patient completes the course of treatment, immediate retrieval of patients who are late for their treatment, refer all TB suspects for sputum examination to the nearest microscopy centre/sputum collection centre, to provide health education to the patient and their families<sup>7</sup>. ASHAs are expected to provide primary medical care with her kit. ASHAs help to control of diseases by information, education, sanitation, and surveillance.8 Among the various services provided by ASHAs, they are also working as DOTS providers. In the present study we tried to assess the knowledge of ASHAs about RNTCP and DOTS.

#### **MATERIAL AND METHOD**

We conducted the present cross-sectional study in the department of preventive and social medicine of a medical college. To achieve the above mentioned objective, ASHAs were selected from the total 10 functioning blocks from the district. From each block one PHC was randomly selected. Data collection was done in the month of October 2013. The day of monthly meeting was selected for data collection. A prestructured and pretested questionnaire was used to collect the data. Reference of training modules used for basic trainings of ASHAs by government of Maharashtra was taken while preparing the questionnaire. Information regarding basic demographic data including age, educational qualification and length of service were enrolled in the proforma. Information regarding the knowledge of RNTCP and DOTS was also inquired.

All the ASHAs present on the day of monthly meeting were included in the study. However those without basic modular training were excluded. Therefore 311 ASHAs from ten PHCs were included in the study. Permission from proper authority was obtained before starting the study.

#### RESULTS

|     | Table 1: distribution of ASHAs according to demographic features |                                      |                      |       |  |  |  |  |
|-----|--|--------------------------------------|----------------------|-------|--|--|--|--|
|     | Varia  | able                                 | No. of ASHAs (n=311) | %     |  |  |  |  |
| -   |  | 21-25                                | 40                   | 12.86 |  |  |  |  |
|     | Age  | 26-30                                | 127                  | 40.84 |  |  |  |  |
|     |  | 31-35                                | 106                  | 34.08 |  |  |  |  |
|     |  | >35                                  | 38                   | 12.22 |  |  |  |  |
|     | Education  | Less than 8 <sup>th</sup>            | 005                  | 1.61  |  |  |  |  |
|     |  | 8 <sup>th</sup> to 10 <sup>th</sup>  | 136                  | 43.73 |  |  |  |  |
|     |  | 11 <sup>th</sup> to 12 <sup>th</sup> | 148                  | 47.59 |  |  |  |  |
|     |  | Above 12 <sup>th</sup>               | 022                  | 7.07  |  |  |  |  |
|     | Length of service  | Upto 12 months                       | 43                   | 13.83 |  |  |  |  |
|     |  | 13 - 24 months                       | 23                   | 7.40  |  |  |  |  |
|     |  | 25 - 36 months                       | 33                   | 10.61 |  |  |  |  |
|     |  | 36 - 48 months                       | 143                  | 45.98 |  |  |  |  |
|     |  | >48 months                           | 69                   | 22.19 |  |  |  |  |
| • . |  | • •                                  | 6.0.6 . 0.6          |       |  |  |  |  |

It was seen that majority of the ASHA's were in the age group of 26 to 36 years. Majority of the ASHAs were educated upto 12<sup>th</sup> standard. It was seen that 45.98% ASHAs were having leant of service between 3 to 4 years (Table 1).

#### Sonia Ashtekar, Jitendra Surwade, Satish Haridas

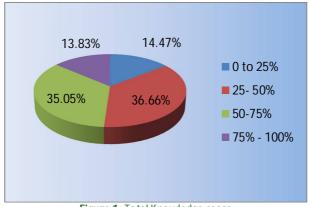


Figure 1: Total Knowledge score

| Marks in % | No. of ASHAs     | %     |
|------------|------------------|-------|
| 0 to 25%   | 45               | 14.47 |
| 25-50%     | 114              | 36.66 |
| 50-75%     | 109              | 35.05 |
| 75% - 100% | 43               | 13.83 |
| Total      | 311              | 100   |
| Maap 0/ c  | aara, 10 11 , 22 | 27    |

| Mean % score: 4 | $9.14 \pm 22.27$ |
|-----------------|------------------|
|                 |                  |

| Table 3: Effect of various factors affecting knowledge score of ASHAs. |                                       |             |             |         |  |
|--|---------------------------------------|-------------|-------------|---------|--|
| Factors  |                                       | < 50%       | ≥50%        | P value |  |
| 1  | 21-25                                 | 19 (12.50%) | 21 (13.21%) |         |  |
| Age of ASHA  | 26-30                                 | 59 (38.82%) | 68 (42.77%) | 0.3139  |  |
| Ауе ОГАЗПА   | 31-35                                 | 50 (32.89%) | 56 (35.22%) |         |  |
|  | >35                                   | 24 (15.79%) | 14 (8.81%)  |         |  |
|  | Less than 8 <sup>th</sup>             | 4 (2.63%)   | 1 (0.63%)   |         |  |
| Education  | 8 <sup>th</sup> to 10 <sup>th</sup>   | 78 (51.32%) | 58 (36.48%) | 0.0016* |  |
| Euucation  | 11 <sup>th</sup> and 12 <sup>th</sup> | 66 (43.42%) | 82 (51.57%) |         |  |
|  | Above 12 <sup>th</sup>                | 4 (2.63%)   | 18 (11.32%) |         |  |
|  | Up to 12 months                       | 30 (19.74%) | 13 (8.18%)  |         |  |
|  | 13 – 24 months                        | 5 (3.29%)   | 18 (11.32%) | 0.0009* |  |
| Length of service  | 25 – 36 months                        | 21 (13.82%) | 12 (7.55%)  | 0.0009  |  |
| -  | 36-48 months                          | 63 (41.45%) | 80 (50.31%) |         |  |
|  | >48 months                            | 33 (21.71%) | 36 (22.64%) |         |  |

\* Statistically significant

It was evident from the table that 36.66% ASHAs scored between 25 to 50% marks whereas 35.05% scored between 50 to 75%. The mean score observed was 49.14% with SD 22.27% (Table 2). It was seen that better performance was given by younger ASHA but the difference observed was not statistically significant. It was seen that as the level of educational qualification was increasing the knowledge of ASHA regarding the RNTCP was increasing. The difference observed in educational qualification and knowledge was also statistically significant. It was seen that as the length of service was increasing the knowledge of ASHAs regarding RNTCP was increasing with the statistically significant difference (Table 3).

### DISCUSSION

The present study was conducted with the objective to assess the knowledge of ASHAs about RNTCP and DOTS. It was seen that majority of the ASHA's were in the age group of 26 to 36 years. Shashank K J *et al*<sup>9</sup> also observed similar findings in their study. Majority of the ASHAs were educated upto  $12^{\text{th}}$  standard. Similar findings were observed by Neera Jain *et al*<sup>10</sup>. 45.98% ASHAs were having length of service between 3 to 4 years. Majority of the ASHAs (36.66%) scored marks between 25 to 50% marks which was followed by (35.05%) 50 to 75% marks. The mean score observed was 49.14% with SD of 22.27% which means that the majority of the ASHAs were having average knowledge

about RNTCP and DOTS. Dhiraj Bhawnani *et al*<sup>11</sup> in their study observed that 55.15% of DOT providers had average knowledge score.

When the association between age of ASHA and knowledge was compared it was seen that younger ASHA scored better as compared to older ASHAs. But the difference observed was not statistically significant. It was seen that ASHAs having educational qualification more than 10<sup>th</sup> class (SCC) were having better knowledge as compared to ASHAs havening educational qualification up to 10<sup>th</sup> class. Thus we can state that as level of educational qualification was increasing the knowledge of ASHA regarding the RNTCP was increasing. And the difference observed in educational qualification and knowledge was also statistically significant.

It was seen that 72.95% ASHAs scored more than 50% marks were having length of service more than three years whereas 27.05% ASHAs were having service less than three years. Thus we can state that as the length of service was increasing the knowledge of ASHAs regarding RNTCP was increasing with the statistically significant difference. Dhiraj Bhawnani *et al*<sup>12</sup> conducted a study to assess the implementation direct observe treatment short course (DOTS). They observed that majority of DOTS providers were (63.4%) were ASHA. They also observed that proper implementation of DOTS in only 13.2% DOT centers.

### **CONCLUSION**

Thus from the above mentioned results and discussion we conclude that the ASHAs were having average knowledge about RNTCP and DOTS with mean score of  $49.14\% \pm 22.27\%$ . Thus there is need of regular training to enhance the knowledge of ASHAs regarding RNTCP and DOTS so that they can serve better.

#### REFERENCES

1. Government of India, National Rural Health Mission (2005 - 12), Mission Document. Available at: http://www.mohfw.nic.in/NRHM/Documents/Mission\_Docum ent.pdf .

- Assessment of ASHA and Janani Suraksha Yojana in Madhya Pradesh. Available at: www.cortindia.com/RP/RP-2007-0301.pdf.
- Srivastava DK, Prakash S, Adhish V, Nair KS, Gupta S, Nandan D. A study of interface of ASHA with the community and the service providers in Eastern Uttar Pradesh. Indian J Public Health 2009; 53(3):133-6.
- 4. Darshan K. Mahyavanshi, Mitali G. Patel, Girija Kartha, Shyamal K. Purani, Sunita S. Nagar. 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(2): 50-53.
- Technical and operational Guidelines for Tuberculosis control, Central TB Division, Directorate General of Health Services, MOHFW, Nirman Bhawan, New Delhi-110 108, October 2005
- RNTCP Annual Status Report 2011 Central TB Division Directorate General of Health Services, MOHFW, Nirman Bhawan, New Delhi-110 108.
- RNTCP, Module for Multipurpose workers and other DOT Providers, Central TB Division, Directorate General of Health Services, MOHFW, Nirman Bhawan, New Delhi-110 108, June 2005
- 8. P K Garg, Anu Bhardwaj, Abhishek Singh, S. K. Ahluwalia. An evaluation of ASHA worker's awareness and practice of their responsibilities in rural Haryana. National Journal of Community Medicine. 2013;4(1): 76-80.
- Shashank K J, M M Angadi, K A Masali, Prashan Wajantri, Sowmya Bhat, Arun P Jose. A study to evaluate working profile of accredited social health activist (ASHA) and to assess their knowledge about infant health care. Int J Cur Res Rev. 2013; 5(12): 97-103.
- Neera Jain, Srivastava, N.K, Khan A.M, Neera Dhar, V Adhish, S. Menon and Deoki Nandan. Assessment of Functioning of ASHA under NRHM in Uttar Pradesh, Health and Population: Perspectives and Issues. 2008;31(2): 132-140.
- Bhawnani D, Verma N, Tiwari A, GS B. Assessment of knowledge of Direct observe treatment (DOT) providers regarding tuberculosis and Revised National Tuberculosis Control Programme in Raipur district of Chhattisgarh state. Int J Res Health Sci [Internet]. 2014 Apr 30;2(2):629-35.
- Bhawnani D, Verma N, Soni GP, Tiwari A. Assessment of Direct Observe Treatment Short Course (DOTS) Implementation and Treatment Card Update By Dot Providers Under Revised National Tuberculosis Control Programme in Raipur District of Chhattisgarh State. Natl J Community Med 2014; 5(2):195-198.