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Assessment of the Knowledge of Anganwadi Workers and Basic Functioning of Mobile Health Team of RBSK in Rural Area of Jubbal Block, District Shimla, Himachal Pradesh

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Abstract:

Background: *Unequivocally, child health, early detection of illness or deficiency and its management initiative as envisioned with the launch of Rashtriya Bal Swasthya Karyakaram (RBSK) in 2013 under National Rural Health Mission by the Govt. of India, as well as its evaluation of this programme are of paramount importance for the development of our nation. Specifically, the aim of this programme is early detection and management of the Defects at birth, Diseases, Deficient conditions & Developmental Delays (4Ds) in children of 0-18 years and the children below 6 years are screened in Anganwadi Centres (AWCs) with the assistance of Mobile Health Team (MHT). Objectives: To assess the knowledge of Anganwadi workers about RBSK programme & basic functioning of MHT in Anganwadi Centres in rural area of Jubbal Block, Shimla HP. Method: A cross-sectional study with telephonic interview method was used for data collection. Results: Less than half of the AWWs were between 31-40 years of age and almost the same were educated up to senior secondary level, but slightly more than half had 6-10 years work experience. Most of the AWWs (above 90 %) reflected poor knowledge; didn't know name of RBSK and designation of MHT members, about 3/4 did not know benefits of the project. Almost all MHTs used 1-5 equipments out of 15 during screening. In about one tenth AWCs the screening was above 76 % but in less than half it was between 26-50%. In all AWCs only 0-10% cases were referred. The results indicated highly significant associations between presence of ASHA on screening day with no. of children screened, MHT prior information with timely information by AWWs to their beneficiaries and no. of visits in last year with knowledge. Significant association was found between time spend by MHT in AWCs with children screened. Conclusion: The knowledge of AWWs was found deficient regarding RBSK programme & MHT. Regarding functioning, three fourth MHT's did not inform AWWs in time and percentage of screened & referred children were low.*

Conclusion: *The knowledge of AWWs was found deficient regarding RBSK programme & MHT. Regarding functioning, three fourth MHT's did not inform AWWs on time and percentage of screened & referred children were very low. Overall, functioning of the programme was very poor.*

Keywords: *Rashtriya Bal Swasthya Karyakram, Anganwadi Worker, Anganwadi Centre, Mobile Health Team.*

I. INTRODUCTION

In 2013, the Ministry of Health and Family Welfare, GOI launched Rashtriya Bal Swasthya Karyakram (RBSK) under National Rural Health Mission, which was technically called "Child Health Screening and Early Intervention Services". This programme was aimed at early detection and management of the 4Ds, (Defects at birth, Diseases, Deficiency conditions and Developmental Delays) in children. These 4Ds covers 30 diseases of children between the age group of 0-18 years (1). The RBSK programme corresponds to the Reproductive, Maternal, Newborn, Child Health and Adolescent Health strategy (RMNCH+A) (2).

According to this programme children below the age of 6 years are screened twice in a year (after every 6 months) in Anganwadi Centre (AWC) and between age of 6-18 years in Government and Government aided schools once in a year. For the screening of these children Mobile Health Team (MHT) is established for every block; each team comprised of 2 AYUSH medical officers, (a male and a female), 1 Auxiliary nurse midwife (ANM) and 1 pharmacist cum data entry operator. These MHTs work according to a micro plan which is prepared by them annually, and as per this micro plan, they inform schools and AWCs 3 days or more before their visit. This beforehand information would enable Anganwadi worker and Principals of Government and Government aided schools to ensure maximum presence of children for the fixed screening day. In addition, this would also enable ASHA to have time to motivate & arrange children on AWC for screening day. The children who are suspected on 4Ds are then referred to the nearest government hospital (PHC/CHC/SDH/DH) or District Early Intervention Centre (DEIC) as per their required treatment. DEIC is also established in each district to give referral support service to these children. The staff composition of DEIC consists of Pediatrician, Medical officer, Dentist, Physiotherapist, Optometrist, Psychologist, Special

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educator cum Social health worker, Audiologist, Speech therapist, Staff Nurses, Lab technician, DEIC manager, DEIC coordinator & Data entry operator. DEIC manager & DEIC coordinator regulate the activities of mobile health teams and coordinate between district level referrals and tertiary care facilities (3).

Responsibility of Anganwadi worker are - to identify birth defect in the babies of age between 0-6 weeks by visiting homes & inform MHT, explain and motivate parents or attendants of babies about child health screening programme, inform their beneficiaries about visit of mobile health team, inform ASHA about visit of mobile health team and to help parents or attendants of babies in referral case(4). In our country there are approximately 27 crores targeted children who require screening which are divided in 3 categories, (a) babies born at public health facilities and home, in which 2 crores children are to be screened between age group of birth to 6 weeks, (b) preschool children in rural areas and urban slum, in which 8 crores children are to be screened between the age group of 6 weeks to 6 years and (c) school children enrolled in class 1st to 12th in government and government aided schools which are 17 crores between the age group of 6 years to 18 years(5). Out of every 100 babies born in this country annually, 6 to 7 have a birth defect. In Indian context, this would translate to 1.7 million birth defects annually and would account for 9.6 per cent of all newborn deaths(6).

There are 30 selected health conditions for child health screening & early intervention services, which are categorized in 4Ds, (Defects at birth, Deficiency conditions, Diseases and Developmental Delays). Defects at birth consist of 9 health conditions (Nural tube defect, Down's Syndrome, Cleft Lip & Palate/ Cleft palate alone, Talipes (club foot), Developmental dysplasia of the hip, Congenital cataract, Congenital deafness, Congenital heart diseases, Retinopathy of prematurity), Deficiency conditions in children consist of 5 health conditions (Anaemia especially Severe anaemia, Vitamin A deficiency-Bitot spot, Vitamin D deficiency-Rickets, Severe Acute Malnutrition, Goiter), Diseases in children consist of 6 health conditions (Skin conditions, Otitis Media, Rheumatic heart disease, Reactive airway disease, Dental conditions, Convulsive disorders) and Developmental delays and Disabilities consist of 9 health conditions (Vision Impairment, Hearing Impairment, Neuro-motor Impairment, Motor delay, Cognitive delay, language delay, Behavior disorder-Autism, Learning disorder, Attention deficit hyperactivity disorder)(7). For screening of these 4Ds condition, a kit consisting of 15 tools are provided which include Weighing machine- Infants and adults one for each, Stadiometer, Infantometer, Stethoscope, Head circumference tape, Mid arm circumference tape, Sphygmomanometer, Torch, Crayons, 1-inch cubes, Bell, Rattle, Red ring, Raisins or kismis, Pictoral book with only single photo on each page (8).

Ever since the launch of this scheme, RBSK it has not been assessed adequately for its functioning in most of the part of the country. Extensive exploration of the literature in this context could enable the researcher to get only one study that has been done in 2016 in Madhya Pradesh. As the evaluation of this scheme would reveal multiple facets of its functioning and the steps that could be taken after highlighting its strengths and weaknesses to benefit the needy children at their tender age for their early detection, treatment and management, it was reasonable to conduct a research on the assessment of knowledge of AWWs in the rural area of Himachal Pradesh where the mobility and the health facilities were more or less deficient, particularly in rainy season as it was directly related with the performance of the RBSK and functioning of the MHTs under this scheme.

II. METHODS

A descriptive cross-sectional study was carried out in the rural area of Jubbal Block of District Shimla. The study was conducted in June-July, 2017. Approval from National Health Mission,Shimla, HP was taken. The procedure for the selection of final sample was as follows- the list of all the AWCs of rural area of Jubbal block was procured from office of CDPO, Jubbal Block after being allowed to contact the AWWs. The lists of phone nos. of 116 AWCs were then also collected from the said office. While all the AWWs were attempted for data collection, 26 AWWs could not be interviewed because of multiple reasons like, unwillingness, switched off/ not reachable/ not existent. As such 90 AWWs finally constituted the sample of the study.

Data Collection Tools & Techniques: After briefing AWWs about aim of the study, each AWW was interviewed on phone with the help of structured questionnaire and the responses were recorded.

The questionnaire for the survey was made taking references from various research papers and validated by 5 experts. It consisted of three Sections - Section A, B & C.

Section-A: Comprised of personal and work experience, Section- B: Knowledge on RBSK Programme and MHT, and Section-C: Functioning of MHT. Overall the questionnaire included of 25 questions. Informed verbal consent was taken from the respondents. Confidentiality was assured & privacy of the information was maintained and used only for the purpose of study.

Data entry and analysis were done in statistical package for social sciences (SPSS version 23). Descriptive statistics such as frequency distribution and cross tabulation between dependent and independent variables were applied to describe and summarize the results. Chi square test was used to show association between variables.

III. RESULTS

Present study is based upon responses elicited through telephone received from 90 AWWs of rural area of Jubbal Block, Shimla district regarding their knowledge of RBSK and functioning of MHT. The study revealed, 44.4% AWWs were of the age group

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between 31-40 years, about half, 47.8% were educated up to senior secondary level and most, 55.6% of respondents had work experience between 6–10 years. Almost all, 97.8% of the AWWs didn't know about the name of RBSK programme & 76.7% of AWW didn't know about benefits of the project. Maximum, 91.1% didn't know about the designation of MHT members, 94.4% team used 1-5 equipments (out of 15) during screening. In half of the AWCs screening was between 26-50% where as in only 11.1% AWCs it was 76-100%. In all AWCs minimum referred cases were seen.

Table-1: Demographic characteristics of Anganwadi workers (n=90)

Variables		Frequency	Percentage
Age (Yrs)	21-30	7	7.8%
	31-40	40	44.4%
	41-50	36	40.0%
	>50	7	7.8%
Educational status	Middle	1	1.1%
	Matriculation	37	41.1%
	Senior secondary	43	47.8%
	Graduation & Above	9	10.0%
Work experience	0-5	7	7.8%
	6-10	50	55.6%
	11-15	4	4.4%
	>15	29	32.2%

Table-2: Knowledge of Anganwadi workers regarding programme (n=90)

Variables		Frequency	Percentage
Knew the project name	No	88	97.8%
	Yes	2	2.2%
Knew benefits of the project	No	69	76.7%
	Yes	21	23.3%
Knew designation of MHT members	No	82	91.1%
	Yes	8	8.9%
Knew no. of visits made by MHT in a year	1	9	10.0%
	2	76	84.4%
	3	3	3.4%
	≥4	2	2.2%
Knew no. of equipments used by MHT for screening.	0	8	8.9%
	1-5	81	90.0%
	6-10	1	1.1%
	11-15	0	0.0%

Table-3: Basic functioning of MHT (n=90)

Variables		Frequency	Percentage
ASHA present on screening day	No	46	51.1%
	Yes	44	48.9%
No. of MHT member present on screening day	1	0	0.0%
	2	29	32.2%
	3	56	62.2%
	4	5	5.6%
No. of days before MHT informed to AWC	Not informed	4	4.4%
	Same day	8	8.9%
	1	33	36.7%
	2	20	22.2%
	≥3	25	27.8%
No. of equipments used by MHT during screening	0	4	4.4%
	1-5	85	94.4%

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	6-10	1	1.1%
	11-15	0	0.0%
Time taken by MHT in screening children	≤1	0	0.0%
	1-2	1	1.1%
	2-3	7	7.8%
	≥3	82	91.1%
Time spend by MHT in AWC for screening children	≤1	7	7.8%
	1-2	38	42.2%
	2-3	35	38.9%
	≥3	10	11.1%
Percentage of children screened	≤25%	11	12.2%
	26-50%	39	43.3%
	51-75%	30	33.3%
	76-100%	10	11.1%
Percentage of children referred to other health facility	≤10%	90	100.0%
	11-20%	0	0.0%
	21-30%	0	0.0%
	31-40%	0	0.0%
	≥41%	0	0.0%
On-spot treatment provided by MHT	No	85	94.4
	Yes	5	5.6

Table-4: Association between presence of ASHA with percentage of children screened

		Percentage of children screened				χ^2	df	p-value
		≤25	26-50	51-75	76-100			
ASHA present on visit day	No	11	19	10	6	14.72	3	.002**
	Yes	0	20	20	4			

The results indicated that there was highly significant association between presences of ASHA and children screened.

Table-5: Association between knowledge of no. of visits in a year with no. of visits by MHT last year

		No. of visits by MHT in last year			χ^2	df	p-value
		1	2	3			
Knowledge of no. of MHT visits in year	1	7	1	1	48.56	6	.001**
	2	11	65	0			
	3	0	2	1			
	≥4	0	1	1			

There was highly significant association between no. of visits in last year and knowledge.

Table-6: Association between no. of days before MHT informed AWWs with no. of days before AWWs informed beneficiaries

		No. of days before AWW informed beneficiaries				χ^2	df	p-value
		Same day	1 Day	2 Day	≥3 Day			
No. of days before MHT informed	Not informed	4	0	0	0	230.49	12	.001**
	Same day	7	1	0	0			
	1 Day	4	29	0	0			
	2 Day	0	0	20	0			
	≥3 Day	0	0	0	25			

There was highly significant association between no. of days before MHT informed and no. of days before AWW informed beneficiaries.

Table-7: Time spent by MHT in AWCs with percentage of children screened

		Percentage of children screened				χ^2	df	p-value
		≤25	26-50	51-75	76-100			
Time spent by MHT in AWCs	≤1	3	4	0	0	19.55	9	.021*
	1-2	4	21	10	3			
	2-3	4	12	13	6			
	≥3	0	2	7	1			

Significant association between time spent by MHT in AWC and children screened.

IV. DISCUSSION

The present study was conducted to assess the knowledge of 90 AWWs on RBSK programme through telephonic interviewing using structured questionnaire in rural area of Jubbal Block, Distt. Shimla, Himachal Pradesh. In all, there were 116 AWCs but 90 AWWs could be contacted for detailed interviewing. It was found that only 81 AWWs were present and other were being managed by the helper or ASHA or both. The study found that 97.8% AWWs didn't know the project name, 76.7% the project benefits and out of 15 equipment only 1-5 were used by 94.4% MHT for screening of children. MHT did not inform 3 days or more prior to their visit. The time spent on screening of children in AWCs ranged from 1-2 hours in 42.2 % AWCs, and more than 3 hours in 11.1% AWCs; which did not justified their service.

The percentage of the screened children were 26-50% in 43.3% AWCs and the children who were referred for different problems were less than 10% from all the 90 AWCs in sharp contrast to about 40% referrals. In 94.4% AWC no on-spot treatment was given by MHT doctors. As such, the study indicated highly deficient knowledge of AWWs and functioning of the MHT. Almost similar results have been enunciated in the study of Parmar S. et al.(9) that indicated deficiencies in functioning of MHT. It found that ear speculum was not available in all the 4 MHTs and gloves were not available in the kits of 3 MHT out of 4 in Indore and 1 MHT (25%) of Ujjain district. Bell was unavailable in the kit of 1 MHT (25%) of Indore, infant weighing scale was also not available in the kit of 1 MHT (25%) of each district, Bowl and lawn tennis ball were not available in the kits of all MHTs of Ujjain district.

The current study revealed that inadequate MHT members were visiting AWCs; only 5.6 % of the MHTs visited with all members, 32.2% with 2 MHT members, 62.2% with 3 MHT members. Similar results have been reported by Parmar S. et al., that in Ujjain only 1MHT (25%) had nurse, while other MHTs had no nurse. Data entry operator was available with 2 MHTs (50%) in Indore. In our study majority of MHT, i.e. 36.7% & 22.2% informed AWC 1 day & 2 days prior to their visit, while in the study of Parmar S. et al.(9) 85.7% MHTs reported the necessity of informing AWCs before their visit in Indore district, whereas 87.5% had reported in Ujjain.

V. CONCLUSIONS

The present study tries to analyze the knowledge of AWW & functioning of MHT working in Jubbal Block of District Shimla, Himachal Pradesh. Maximum AWWs were highly deficient in knowledge about the project RBSK & MHT, and the basic functioning of MHT was also not up to mark.

VI. LIMITATIONS

I. The sample of this study was small viewing the large number of AWCs. So, future studies need to include a larger sample size so as to generalize the results for drawing reasonable inference.
II. The study was conducted in remote & only one hilly block with AWCs scattered far off in rainy season when some link roads become so depleted that the approach becomes difficult.
III. The information was collected through telephone, so there may be inherent deficiency of this method cannot be ruled out.

VII. RECOMMENDATIONS

Based on the observations made, the following are the recommendations of the present study:

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- More researches with adequate sample covering different demographic areas need be conducted time to time on functioning of RBSK and its assessment so that its deficiency can be removed to ensure sound health of each child.
- Proper training should be given to AWWs about the project RBSK & MHT and the latter must follow its micro plan and inform ASHA at least 3-4 days prior to coming so that they are enabled to motivate the beneficiaries. MHT must spend proper time in the Centre so that maximum no. of screening should be done and the percentage of referral increase. MHT must use all provided screening equipments and keep necessary medicines with them so that on-spot treatment can be given to ill children.
- ASHA's presence must be mandatory in AWC on the day of screening by MHT and she must inform the beneficiaries well in time and motivate them properly.
- Posters of RBSK (in Hindi language) should be providing in AWCs and in Sub Centres/ PHC/CSC/Distt. Hospitals so that people may be benefited. Details of RBSK should also be advertised in the Government Immunization card.

REFERENCES

1. National Rural Health Mission, https://en.wikipedia.org/wiki/National_Rural_Health_Mission
2. Rashtriya Bal Swasthya Karyakaram programme details at: https://rbsk.gov.in/RBSK/
3. Press Information Bureau, Government of India, Child Health Screening and Early Intervention Services under NRHM. http://www.pib.nic.in/newsite/mbErel.aspx?relid=94602
4. Guideline s for Implementation of RBSK http://www.nrhmhp.gov.in/sites/default/files/files/RBSK_AWW%20Guidelines.pdf
5. RBSK resource material. Available at:http://nrhm.gov.in/images/pdf/programmes/RBSK/ Resource_Documents/RBSK%20Resource%20Mate rial.pdf.
6. NRHM, (http://nhm.gov.in/images/pdf/programmes/RBSK/For_more_information.pdf)
7. Rashtriya Bal Swasthya Karyakaram, http://vikaspedia.in/health/nrhm/national-health-programmes-1/rashtriya-bal-swasthya-karyakram-rbs
8. Job aids 2013, Rashtriya Bal Swasthya Karyakaram, https://nrhm.gujarat.gov.in/images/pdf/Job-Aids-23-01-2014-Revised.pdf
9. Parmar S, Bansal SB, Raghunath D, Patidar A. Study of knowledge, attitude and practice of AYUSH doctors, evaluation of MHTs working in RBSK and client satisfaction. Int J Community Med Public Health, 2016;3: 2186-90.

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