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ORIGINAL ARTICLE

A COMPARATIVE STUDY TO ASSESS THE IMPACT OF 6 DAYS CORE COMPETENCY TRAINING OF THE ANMs OF DAMOH DISTRICT OF MADHYA PRADESH

Pankaj Prasad[1], Rajendra Singh Arya[1], Manoj Bansal[1], S P Singh[2]

[1]Assistant Professor, [2]Associate Professor, Department of Community Medicine, Bundelkhand Medical College, Sagar (MP)

Correspondence:
Dr. Pankaj Prasad
Assistant Professor
Department of Community Medicine
Bundelkhand Medical College, Sagar (M.P.)
E-mail: drpankajprasad@gmail.com, Phone: 09039836521

ABSTRACT

Background: In India, public health nursing in the villages today is still limited to services rendered by Auxiliary Nurse Midwife (ANM). ANMs are regarded as the first contact person between people and organization, between needs and services and between consumer and provider. Recognizing this fact Japanese International Cooperation Agency (JICA) gave 6 days Core Competency Training to ANMs of Damoh district about Ante-Natal Care (ANC) check-up.
Objective: To confirm the impact of the 6 days Core Competency training of the ANMs.
Materials & Methods: The present study was a Case Control Study which was carried out in JICA/MP, RHP (Japan International Cooperation Agency/ Madhya Pradesh – Reproductive Health Project) intervened district i.e. Damoh and one of Non-Project district i.e. Sagar during January and February 2011. In total 30 ANMs were interviewed each from Damoh and Sagar district. Firstly, 3 blocks were randomly selected each from 7 blocks of Damoh and 11 blocks of Sagar respectively and than 10 ANMs were again randomly selected from each block.
Statistical analysis: Percentage, proportions and appropriate Test of Significance (Fisher's Exact Test) were applied to interpret the result.
Results: All the ANMs (100%) in Damoh district enumerated PROM (Pre-Mature Rupture of Membrane) as complication during Pregnancy as against 76.67% in Sagar district. 60% of ANMs in Damoh district appreciated Fetal Heart Sound (FHS) correctly as compared to merely 16.67% in Sagar district.
Conclusion: The findings in present study clearly show that such kind training which emphasize on improving the practical knowledge and skills of ANMs should be provided on regular basis. Impact of such training can be enhanced in the field if timely refresher or reorientation trainings are given to those who have been already trained.

Keywords: Auxiliary Nurse Midwife, Ante-Natal Care, Core Competency Training.

INTRODUCTION

In India, public health nursing in the villages today is still limited to services rendered by Auxiliary Nurse Midwife (ANM). ANMs are regarded as the first contact person between people and organization, between needs and services and between consumer and provider. It is through their activities that people perceive health policies and strategies. It is through them that planners at the upper level gain insights into health problems and needs of the rural people. Considering their status as grass-root level workers in the health organizational hierarchy, a heavy responsibility rests on them.

Thus ANM is the key field level functionary who interacts directly with the community and has been the central focus of all the reproductive child health programs.[1]

Recognizing this fact Japanese International Co-operation Agency (JICA) gave 6 day Core Competency Training to ANMs of Damoh district about ANC check up with the objective of improving knowledge & skills of ANMs.

And to assess the impact of this 6 days Core Competency Training of ANMs of Damoh district, present study was conducted with the following objectives:

- To assess the Practical knowledge of ANMs regarding ANC.
- To evaluate basic skills of ANMs related to ANC.

METHODOLOGY

For the assessment of outcome of JICA's Core Competency Training to the ANMs, a sample of 30 ANMs each in district Damoh and district Sagar have been selected. Thus, 60 ANMs have been interviewed in depth in their work places itself. This study was carried out in 2 month i.e. January and February 2011.

It was a Case Control Study where trained & Untrained ANMs of Damoh and Sagar district of M.P. respectively were compared..

As 30 ANMs has to be interviewed each from Damoh and Sagar district, 3 blocks were randomly selected each from 7 blocks of Damoh and 11 blocks of Sagar. (Randomly selected blocks in Damoh were Tendukheda, Hatta, Patharia and that in Sagar were Banda, Rehli & Rahatgarh) respectively. 10 ANMs were again randomly selected from each block (total of 30 from each district) and were interviewed.

A Pre-designed, pre-tested study tool consisting of two sections was used for data collection. First section was about Practical Knowledge were ANMs were asked to enumerate the causes of "High Risk Pregnancy" and "Complications that occur during Pregnancy". The second section consist of a check list were we actually observed the skills and techniques of ANMs relating to measurement BP; Checking of Anemia, Jaundice, Edema, Complete Abdominal Examination, Measurement of Fundal Height and appreciation of Fetal Heart Sound.

To evaluate ANM's basic ANC skills through observation of their performance, field visit was made in the selected blocks and ANMs were interviewed and their skills were directly observed by our field investigators. During direct observation following technique was considered or termed as correct:

Measurement of BP: ANMs who wrapped Cuff of sphygmomanometer in upper arm, who placed bell or diaphragm of stethoscope over brachial artery and who were able to appreciate Korotkoff sound was taken as correct method.[2]

Detection of Anemia: ANM's who checked Palpabral Conjunctiva, Fingernails and palms for anemia was considered as correct method.[3]

Detection of Jaundice: ANM's who checked Bulbar Conjunctiva for yellowish discoloration was considered as correct method.[4]

Detection of Edema: ANM's who checked Shin and Mallelous by pressing it for 5 second was taken as correct method to detect edema.[5]

Correct Method of Abdominal Examination included following points: 1) Checking of skin condition of Abdomen. 2) Checking for any scar mark or marks of previous Caesarian section. 3) Carrying out palpation to detect lie and position of the fetus.

Correct Method detection of Fundal Height: Fundal height signifies the total duration of pregnancy. ANMs who used the ulnar border of hand to check upper most border of the fundus and were able to tell during of Pregnancy for e.g. a) If it is just palpable it shows baby is of 12 wks. b) If at Umbilicus it is of 24 wks. c) At Xiphi-sternum it is 36 wks.

Correct Method detection of FHS: This was checked by seeing the correct position the stethoscope on abdomen of pregnant women according to the position and lie of baby and by appreciation of Fetal Heart Sound.[6,7,8] *(Learning Stethoscope was used Measurement of BP and appreciation of FHS)*

Data was compiled, entered in Microsoft Excel. In analysis of data- percentage, proportions and appropriate Test of Significance (Fisher's Exact Test) were applied.

RESULTS

As far as Practical Knowledge of ANMs of the two districts is concerned, it was seen that ANMs of Damoh district were more

knowledgeable than ANMs of Sagar district in terms of enumerating the causes of High Risk Pregnancy. 27 (90%), 26 (86.7%), & 22 (73.3%) ANMs in Damoh district enumerated Severe Anemia, Pre-Eclamsia/Eclamsia & Previous Section respectively as cause of High Risk Pregnancy as compared to 25 (83.3%), 15 (50%) & 11 (36.6%) ANMs in Sagar district. Likewise 56.7% of ANMs enumerated "Twin Pregnancy" as High Risk Pregnancy as against mere 26.7% of ANMs in Sagar district. (Table 1)

Table 1: Comparison of Knowledge and Practices of ANM

Knowledge & Practices	Damoh (n=30)	Sagar (n=30)
Knowledge regarding High Risk Pregnancy		
Short Stature	25	28
Elderly Primi	18	14
Multi-Gravida	18	17
Previous CS	22	11
Pre-Eclamsia/Eclamsia	26	15
Sever Anemia	27	25
Twin Pregnency	17	8
Disease/Other	18	12
Knowledge regarding Complication during Pregnancy		
Bleeding PV	29	27
PROM	30	23
Prolapse	27	10
Edema/Swelling	25	17
Excessive Vomiting	18	9
Accurate Practice in Field		
Measuring BP	26	14
Detection of Anemia	30	27
Detection of Jaundice	17	13
Detection of Edema	30	22

While enumerating the causes of "Complication that occur during Pregnancy" 96.6%, 90%, 83.3% & 60% of ANMs in Damoh district enumerated Bleeding per Vaginal, Prolapse, Edema and Excessive bleeding respectively as the Complication that occur during Pregnancy as compared to 90%, 33.3%, 56.7% and 30% ANMs in Sagar district. Likewise all the ANMs (100%) in Damoh district enumerated PROM (Pre-Mature Rupture of Membrane) as complication during Pregnancy as against 76.67% in Sagar district. (Table 1)

In terms of Basic Skills evaluation also, ANMs of Damoh district, those who were trained did fairly well than ANMs of Sagar district. Regarding measurement of BP, 26 (86.7%) ANMs in Damoh district measured it correctly as against 14 (46.7%) in Sagar district. Most of the ANMs were not able to appreciate Korotkoff sound. Secondly positioning of the bell or diaphragm of stethoscope was not correct (i.e. over bracial artery). 3 (10%) ANMs in Sagar were even not able to show correct method of detection of Anemia as against "None" (0%) in Damoh district. As far as detection of Jaundice is concerned there was not much difference between ANMs of Damoh and Sagar district as almost equal number of them in both district detected it correctly. All ANMs (100%) in Damoh district showed the correct method to detect edema as compared to very few (73.3%) in Sagar district. (Table 1)

Most of the ANMs (86.67%) in Damoh district carried out Abdominal Examination correctly as against 36.67% of ANMs in Sagar district. (Table 2)

Regarding measurement of Fundal Height, 70% of ANMs in Damoh district (i.e. trained ANMs) were able to measure it correctly and were able to tell the correct duration of pregnancy as compared to 33.33% of ANMs in Sagar district. (Table 2)

As far as Fetal Heart Sound is concerned large number of ANMs (i.e. 60%) in Damoh district appreciated it correctly as compared to very few ANMs (i.e.16.67%) in Sagar district. (Table 2)

Table 2: Skills of ANMs doing various clinical examinations

	Damoh (n=30) (%)	Sagar (n=30) (%)	*p value*
Doing Abdominal Examination correctly	26 (86.67)	11 (36.67)	*0.0001*
Measuring Fundal Height correctly	21 (70)	10 (33.33)	*0.0092*
Detected Fetal Heart Sound correctly	18 (60)	5 (16.67)	*0.0012*

DISCUSSION

The care to maternal and child health reflects the quality of health system running in any state. To enhance the quality of health care services for the pregnant mothers, the JICA Project has found that grass root level health care worker

i.e. ANMs must have appropriate knowledge and skills about antenatal care and deliveries. For this, JICA developed and organized 6 days ANC Core Competency training for ANMs with practical and effective knowledge, skills, tools and techniques.

On the basis of the finding we observed that there was significant difference in the knowledge, attitude and skills of ANMs regarding maternal health care, physical examination of pregnant mother, identification of high risk pregnancies and warning signs of complicated pregnancies between trained & untrained ANMs which are very much necessary to save life of pregnant mother and its successful termination into safe delivery. This is very crucial factor to reduce overall maternal morbidity and mortality. Adequate antenatal care and its end in successful delivery develop the faith of public to the health system.

CONCLUSION

There is an urgent need of incorporating such kind of training programs which helps to increase the practical knowledge and basic skills about ANC check up of ANMs during their service period. Impact of such training can be enhanced in the field if timely refresher or reorientation trainings are given to those who have been already trained. This kind of strategy will definitely help in improving the health status of the community by bringing down the Infant Mortality Rate and Maternal Mortality Rate.

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