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ORIGINAL ARTICLE

A STUDY ON KNOWLEDGE AND SKILLS OF FEMALE HEALTH WORKERS REGARDING MATERNAL CARE UNDER RCH PROGRAMME

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ABSTRACT

Background: More than three quarters of the population of our country lives in rural areas. The female health workers at the SC have to take care of all the reproductive health needs of the rural population. Hence the present study was conducted with the objective to assess their knowledge & practices in relation to RCH services.
Methods & Materials: This was a cross sectional descriptive study, conducted in rural areas of Jamnagar district. All the HW-Fs of the district were included in the study.
Results: Out of 218 HW-Fs, only 71.56% were able to enumerate at least 5 criteria of at-risk mothers. Only 40.37% & 60% HW-Fs performed HB estimation & urine investigation of mothers.
Only 27.98% knew at least 5 of the indications for referral of the mother in labour to higher centre.
Conclusion: The knowledge & skills of HW-Fs was grossly lacking in many basic health care components. Negligence in essential health care practices was detected.

Keywords: Maternal care, quality of care, Female Health Workers, Knowledge & skills, RCH.

INTRODUCTION

Maternal mortality & morbidity are significant health problems in developing countries. Improving maternal health has been an essential element for achieving health for all & has been included in millennium developmental goals to be achieved by 2015.[1]

The primary health care services to rural areas of India are chiefly provided by Sub-Centre's (SC). SC is the most vital peripheral contact point between the health system and the community. The multipurpose health workers at the SC have to take care of all the basic health needs of the rural population and thus become back-bone of the public health delivery system. These health workers (HW) are more accessible and acceptable to the clients in their community and thus can improve the overall coverage and quality of health services. Hence it is very important to study whether they are capable of delivering the required services. With this backdrop the present study has been carried out to assess their knowledge and skills in delivering reproductive health care services.[2]

This study was carried out with the following aims and objectives.

1) To assess the knowledge and practices of health workers – female (HW-F) in relation to maternal care services, under RCH programme.
2) To assess the Information Education & Communication (IEC) services provided by HW-F in delivering maternal care services.

METHODS & MATERIALS

This was a cross sectional descriptive study, conducted in rural areas of Jamnagar district. The study subjects were health workers - female, of various PHCs & SCs of the district. All the 230 HW-F working in all the 37 PHCs & 266 SCs of the district were included for the study. Of them 12 HW-F could not be included in the study because of various reasons (viz. absenteeism, on the job training at places other than place of work, field visits, involvement with other national programs & various personal reasons).

There was no drug administration or invasive procedure involved in the study, so ethical clearance was not needed. However, every health worker was clearly explained the purpose of study & their consent was taken. All the health workers who participated in the study gave their consent to be part of the study & the response rate was 100%.

All the available documents including Indian Public Health Standards (IPHS) [3] & HWs training modules describing the expected performance of basic healthcare workers in India were reviewed. A pre tested semi-structured in-depth instrument for data collection was developed in context to maternal care provided by the HWs.

Data were obtained by the following methods:

A) Through oral questionnaire method by interviewing the HW for assessing their knowledge in relation to maternal health care.
B) Through on site observation for evaluation of their practices & technical skills.

The study period was one year, from March 2009 to February 2010. The data entry & analysis was done, using the Microsoft excel 2007. Results were presented as percentage of number of HWs with correct responses & their 95% confidence intervals (CI).

RESULTS

The mean age of HW-Fs was 39.92 ± 10.44(SD) years. They had 12.15 ± 2.20 years of schooling & 13.07 ± 4.79 years of work experience. One HW-F covers about 5600 population.

Only 71.56% HW-F were able to enumerate at least 5 criteria of at-risk mothers. Less than one third of HW-F (32.3%) knew methods of prevention of malaria during pregnancy like providing insecticide treated mosquito nets (ITMN) and prophylaxis through CHQ 300mg once weekly in high risk areas.

Table 1: Distribution of HW-F as per their knowledge on antenatal care (ANC) (n=218)

Knowledge of HW- F on ANC	Yes	%Yes (95% CI)
Knowledge about Identification of high risk cases	156	71.56 (65.57-77.55)
Knowledge about Correct estimation of gestational age based on Fundal height	142	65.14 (58.81-71.47)
Knowledge about dose and schedule for Iron Folic acid(IFA) tablets	104	47.71 (41.08-54.34)
Knowledge about Prevention from malaria during pregnancy	71	32.5 (26.28-38.72)
Knowledge about Janani Suraksha Yojana and its beneficiaries	176	80.73 (75.49-85.97)
Knowledge about Chiranjivi Yojana and its beneficiaries	150	68.81 (62.66-74.96)

Table 2: Distribution of HW-F as per their quality of ANC services (n=218)

Practice of HW- F on ANC	YES	%Yes (95% CI)
Did she ask for complications (headache, edema feet, blurring of vision)	98	44.95 (38.35-51.55)
Did she ask for pre-existing chronic illness	109	50 (43.36-56.64)
Did she ask for H/O addiction/drug abuse	20	9.17 (5.34-13.00)
Did she perform Hemoglobin estimation of the mother	88	40.37 (33.86-46.88)
Did she perform urine examination of the mother	131	60.1 (53.60-66.60)
Did she provide ITMN	00	00 (00-00)
Did she remind the mother for her next visit	119	54.59 (47.98-61.20)

Also none of them provided ITMN to the beneficiary as they were not supplied the same.

Only 52.3% HW-F agreed to have conducted or assisted at least one delivery in last year as almost all were referring all women in labour to nearby government or private institution under various maternal schemes.

On exploring the knowledge of HW-F regarding Post Natal Care(PNC) services, it was found that only 51.38% had sufficient knowledge about complications to be looked for during post natal visit which is a very serious and disheartening observation indicating apathy and casual attitude of HW-F towards PNC services.

External Evaluation of Lady Health Worker (LHW) Programme in Pakistan Final Report (2002),[4] revealed that as many as 40 percent of HW-Fs failed to recognize the need to refer life-threatening conditions such as pre-eclampsia while Bratati Banerjee (2009)[5] found that warning danger signs during antenatal period were explained by HW-Fs to only 10% of the women.

Table 3: Distribution of HW-F as per IEC services provided on antenatal care (n=218)

IEC services	YES	%Yes (95% CI)
Advice regarding nutrition given	148	67.87 (61.67-74.07)
Advice for personal hygiene given	116	53.21 (46.59-59.83)
Motivated mother for institutional delivery	205	94.04 (90.90-97.18)

Table 4: Distribution of HW-F according to quality of intranatal care provided by them (n=218)

Intra-natal services	YES	%Yes (95% CI)
Did she conduct/assist any delivery in last one year	114	52.3 (45.67-58.93)
Knowledge about 5 cleans	110	50.46 (43.82-57.10)
Knowledge about when to refer the mother in Labour	61	27.98 (22.02-33.94)
Knowledge about significance of weighing the new born	168	77.06 (71.48-82.64)
Knowledge about resuscitation of the new born	118	54.13 (47.52-60.74)

The practices of HW-F in delivery of ANC services were also not according to required standards. Except for maintenance of ANC records, measuring weight, TT administration, IFA and calcium tablets distribution, the rest of the components of ANC check up were grossly missing. The following were some of the reasons found for the deficiencies in services provided.

- For not measuring the height of the mother, HW-Fs considered it not necessary or said that they did not have a scale for height measurement.
- For not performing HB estimation, they gave excuse of not having the equipment or chemicals, not knowing the procedure or lack of time and so used to refer them to private institutes.
- For not auscultating Foetal Heart Sound (FHS), they gave reason of not having a stetho/fetoscope or not having enough time and required skills.
- For not informing the beneficiary about her next visit, HW-Fs felt that it was the duty of ASHA or AWW to inform the mothers about the session.

Table 5: Distribution of HW-F according to knowledge and quality of PNC care provided (n=218)

HW- F on PNC	YES	%Yes (95% CI)
Knowledge about conditions to be looked for in PNC visits	112	51.3 (44.75-58.01)
Knowledge about physical examination of new-born	85	38.99 (32.52-45.46)
Knowledge about when to refer new born	55	25.23 (19.46-31.00)
Did she instruct about umbilical cord care of new born	154	70.64 (64.59-76.69)
Did she advice for exclusive Breast Feeding (BF)	205	94.04 (90.90-97.18)
Did she mention health benefits of BF	83	38.07 (31.62-44.52)
Did she instruct about method of BF	135	61.9 (55.48-68.38)
Did she discourage prelacteal feeds	138	63.30 (56.90-69.70)
Did she provide iodized salt to mother	53	24.31 (18.62-30.00)
Did she inform her for next post partum visit	68	31.2 (25.05-37.35)

A large percentage of HW-Fs were not offering these components of ANC services to the mother which is quiet revealing and shocking when there is so much of the focus on quality of services. These observations further reinforce

the need for strengthening of these crucial cadres of HW-F.

Monica Agrawal et al (2001)[6] found that while almost all the HW-F reviewed and updated obstetrics records, administered TT injection and gave IFA tablets, only 66.7% recorded date of LMP and EDD, 33.3% measured weight, 10% measured fundal height and 13.3% referred for Hb/urine/sugar/albumin. About half of them (50%) had counseled regarding nutrition and rest while only 6.7% advised regarding place/person of delivery. About half of them (50%) had reminded the client for her next visit. None of them (0.0%) asked about h/o complication, about any chronic illness, about drug abuse/any medications, heard foetal heart sounds, measured height, recorded the blood pressure or encouraged the client to ask for any question.

Similarly, T. S. Syamala (2004)[2] found that only 65.5 % of HW-Fs were measuring height, 91.1% measuring weight, 33.7% estimating HB, 30.8% checking for urine albumin, 67.9% testing for urine sugar, 84.6% had done abdominal examination and 73.1% had auscultated the fetal heart sounds. 92% gave some health education to the-beneficiary.

Table 6: Distribution of HW-F according to IEC services provided to post-natal mothers (n=218)

IEC during PNC visits	YES	%Yes (95% CI)
Did she counsel on family planning	136	62.39 (55.96– 68.82)
Did she counsel on maternal nutrition	116	53.21 (46.59-59.83)
Did she counsel on weaning practices	121	55.50 (48.90-62.10)

Deoki Nandan et al (2008-09)[1] mentions that when asked the HW-F about antenatal care provided by them, most of them (>80%) said that they 1st register the pregnancy, then ask their obstetric history, look for an anaemia, take weight, give them TT injection and IFA tablet and check position of baby. Very few (<10%) said they will also take BP of mother regularly. Nearly half of them render dietary advice. Some (10%) advised them to come to hospital for safe delivery.

Also DLHS-3 (2007-08)[7] in Gujarat revealed that only 51 percent beneficiaries had their blood pressure checked, 68.6% were given at least one TT & only 50.7% had consumed over 100 IFA tablets, while the findings of DLHS 2 (2004)[8] in Gujarat revealed that 67 percent of women had an abdominal examination, 62 percent had their blood pressure checked, 61 percent got their blood tested and 58 percent were weighed, as the part of the antenatal check-ups. Other common components of antenatal check-ups were urine test (56 percent), internal examination (41 percent), breast examination (24 percent) and the measurement of height (21 percent).

These observations indicate that the clinical examination skills and counseling skills were lacking in a substantial proportion of HW-F which indicates a need to train them in these aspects, for improving ANC services in peripheral and rural set-up where these HW-F are the main functionaries to deliver care.

Quality of PNC services provided by HW-F was also much below the required standards with IEC activities in particular. The following were few of the explanations given by HW-Fs for deficiencies in the PNC services:

- For not performing PNC visits most of them argued that they will be covered in next Health and Nutrition Days (MAMTA DIVAS) in the village or the mothers will themselves report if they have any problems.
- For not providing Iodized salt reason given was that it was out of stock.
- For not informing the mother for birth registration of her child, the HW-F said that it was not their job responsibility.

Other studies on this aspect also suggest similar deficiencies.

Monica Agrawal et al (2001)[6] found that while all HW-F (100%) asked outcome/problems of last delivery, only 39.1% instructed mother on health benefits of breast feeding. None of them (0.0%) provided iron/folic acid tabs to mother, inquired about mother's knowledge and practice concerning breast feeding or instructed mother on method of breast feeding. None of them (0.0%) informed the mother about next post-partum visit. While 65.2% of HW-F discussed family planning methods, only 43.4% provided appropriate counseling on diet and none of them advised mother on weaning practices.

Bratati Banerjee (2009)[5] have mentioned that warning danger signs during postnatal period were explained to only 10% of the women. While 85.7% of women were advised on BF,

weaning was properly explained to only about 81.1% of the mothers. Advice regarding subsequent nutrition was given to only 60.9% of the women.

Conclusion and Recommendations: There were serious deficiencies in the knowledge, practice & skills of HW-F in regards to ANC & PNC services. This suggests a very casual & negligent attitude of HW-F on these very crucial aspects of maternal care which is so important for prevention of maternal mortality & morbidity.

Therefore in service periodical sensitization & advocacy workshops & trainings of these HWs are recommended. Supervisory cadres are required to brace themselves for more strict & stringent vigilance & supervision of the functioning of HW-Fs. Encouraging research on health care system for proper implementation of national health programmes is necessary.

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