Research Paper

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Role of Accredited Social Health Activist (ASHA) in Promoting Maternal Health Services: A Cross Sectional Study in Rural Areas of Aurangabad City

Medical Science

KEYWORDS : ANC registration, ASHA, NRHM, Home delivery

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ABSTRACT

Background: Government of India has launched an ambitious initiative called National Rural Health Mission on 5th April, 2005, for seven years (2005-2012). One of the key components of NRHM is to provide trained female health activist i. e. ASHA in every village to work as an interface between community & public health system. Objectives: 1)To assess the role of ASHA in promoting institutional delivery. 2) To study the constraints of ASHA regarding promotion of maternal health services Material and methods: Study was undertaken in two sub centers under one of the PHCs in Aurangabad District. A total of 659 respondent women and 26 ASHAs were interviewed to collect information. Results: Out of total 799 births in the year 2007 to 2012, 28.03% were home deliveries and 71.9% were hospital deliveries. Results revealed no significant year wise difference between home and hospital deliveries in villages without ASHA as compared to those with ASHA. Conclusions: It was found that prevalence of hospital delivery was higher in women who had promoted for ANC. There are so many health auxiliaries for promoting mothers to deliver at hospitals, in spite of presence of ASHA in village; prevalence of home delivery was at par.

Introduction

In an effort to reduce India's high maternal mortality ratio, various programmes and schemes are being implemented. In 1992–93, the Child Survival and Safe Motherhood Programme(CSSM), is initiated to achieve improvement in the health status of women and children; which includes early registration of pregnancy, minimum three antenatal visits, universal coverage with tetanus toxoid and iron and folic acid tablets, referral services of at risk mothers, deliveries by trained health personnel, birth spacing and facilities to manage emergency obstetrical cases.[1] In 1997, safe motherhood and child health services were incorporated into the Reproductive and Child Health Programme as RCH phase-I and in April, 2005 as RCH phase-II.[2]

Government of India has launched an ambitious reform initiative called National Rural Health Mission on 5th April, 2005 for a period of seven years (2005-2012). National Rural Health Mission (NRHM) has envisaged ensuring all deliveries in institutions-a major challenge as multiple factors interplay in making the choice of place of delivery. The main goals of NRHM related to maternal and child health care are, IMR reduced to 30/1,000 live births, MMR reduced to100/100,000 live births and TFR reduced to 2.1. [3, 4]

The main backbone and one of the key components of NRHM is to provide female Accredited Social Health activist i.e. ASHA. She has been evolved as the new band of community based functionaries in addition to Anganwadi workers and Auxiliary Nurse Midwives (ANMs). ASHA has been assigned the duty to identify beneficiaries and facilitate receipt of adequate antenatal, natal and postnatal care. [5]

One of the prime activity of NRHM is to decrease maternal morbidity and mortality by promoting institutional deliveries which in turn leads to decrease in maternal mortality rate, as most of the maternal deaths are due to lack of emergency obstetric care (EmOC) that can be provided by trained professionals in an institution which will not be available at home.[6]

On this background, the present study was carried out to find out the role of ASHA in promoting maternal health services in rural areas.

Study Methods:

Study design, settings and duration : A community based, descriptive, cross-sectional study was conducted between July 2011 to June 2012 in one of the PHCs in Aurangabad District Of Maharashtra.

Study Population:

In total 659 respondent women were interviewed to assess the pattern of delivery (during 2007 to 2012) with respect to presence or absence of ASHA in respective villages under study. All the ASHAs (total 26) working in selected sub centers were interviewed and accordingly information was collected in pretested proforma.

Sampling technique:

Investigator had purposively selected one of the PHC(i.e. Pimpalwadi) out of three PHCs (Pimpalwadi, Nandar, Balanagar) adopted by Paithan RHTC which is a field practice area of our hospital. Investigator interviewed 659 respondent women to study the prevalence and factors affecting home delivery. Total of 799 births were recorded from ten villages where ASHA's have been appointed and 225 births were recorded from remaining villages without ASHA. Investigator had also interviewed all the ASHAs which were appointed in respective villages in two sub centers under selected PHC. We have selected two sub centers consisting of total fourteen villages from the same PHC and found that the ASHAs were appointed in ten villages while there were no ASHAs in remaining four villages. Total 26 ASHAs one from each village working under the PHC was interviewed to assess the constraints of ASHA regarding promotion of maternal health care services.

We have assessed the role of ASHA in promoting pregnant women for institutional delivery by analyzing the time trend of home and hospital deliveries in last five years in two sub centers with respect to her appointment in the village and they were interviewed about their promotive, advisory role in ANC, diet, PNC services, conduction of health related activities, record keeping during their service period, difficulties and kind of support she was getting.

Enquiry was also made about her co-ordination with other health care personnel in promoting maternal health services. For the assessment of role, each ASHA was explained about the purpose of the study and informed consent was taken accordingly.

Data analysis: Data was entered in MS Excel Sheet and the indicators were expressed in proportions. Chi square test was used for univariate analysis to study factors related to place of delivery. Diagrams and figures were used wherever necessary to represent the data.

Ethical Considerations: Institutional Ethical committee ap-

proval was taken. A verbal consent was taken from all the participants.

Results and discussion:

Out of total 1024 births bearing to 659 respondent mothers, majority i.e.71.8% deliveries were promoted for ANC by AWW, of which 27.8% were delivered at home and 72.1% were delivered in hospital.

Total 4.1% deliveries were contributed by women who had promoted for ANC by ASHA, of which 27.9% were delivered at home and 72.09% were delivered in hospital. Total 5.8% deliveries were contributed by women who had promoted for ANC by ASHA and AWW of those, 10% delivered at home and 90 % delivered in hospital. Total 9.7% deliveries were not registered for ANC of which 67 % were delivered at home and 33 % were delivered in hospital.

Fatmi Z and Avan B I (2002) [7] observed that out of 222 respondent women, 29.3% had received antenatal care, of which maximum 72.3% had received antenatal care from government care providers. Md. Mosiur Rahman et al (2008) [8] carried out a study in Bangladesh had found that, total 25.6% and 25.3% women had received antenatal care from doctors and nurse respectively. 49.1% did not receive antenatal care.

K M Mustafizur and Prosannajid Sarkar (2009) [9] a study conducted in Bangladesh, observed that in rural area, women mostly receive antenatal care from doctors and other health worker. While 56.7% did not receive antenatal care. In urban women, 36.4% did not receive antenatal care; these study findings were not comparable with our study findings.

A study by Nazli Khatib et al (2009) [10] had found that proportion of women those received regular antenatal care was lowest in hospital delivered women as compared to home delivered which was in contradictory to our study findings.

Out of total 799 births recorded in ten villages in the year 2007 to 2012, 28.03% were home delivered and 71.9% women were delivered in hospital. It was revealed that there was a significant year wise difference between home and hospital deliveries in ten villages before (2007-2008) and after (2009-2012) the appointment of ASHA. It was found that there was a significant increase in preference for hospital delivery from the year 2007 to 2012.

After applying $\chi 2$ test it was found that there was no significant year wise difference between home and hospital deliveries in four villages without ASHA as compared to those villages with ASHA, though we were getting increasing trend of hospital deliveries in the year 2007 to 2012. Though ASHA was working in Pategaon; a village in one of the Sub center, we found prevalence of home delivery was highest i. e. 57.4% due to low educational status & lack of awareness about the importance of institutional delivery in Dombari tribe which was residing there.

A cross-sectional study conducted by S D Kotnis and R M Gokhale (2007) [11] in Solapur had found that out of total 91 women who had delivered at home, in 2002 proportion of home deliveries were 23.07%; thereafter overall trend of home delivery from 2003 to 2007 was nearly same. Thus these findings were not in conformity with that of our study, with respect to increasing trend of hospital delivery as years passes.

Geeta S. Pardeshi et al (2011)[12] a study in Nanded, Maharashtra had found overall increasing trend of hospital (Government and private) deliveries from 42% in 2004 to 69% in 2009. Our study findings were in consistency with this study showing increased proportion of hospital deliveries during the NRHM period.

The performance of ASHA was assessed on the basis of maintenance of registers & record keeping which she is supposed to look after (viz. Promoting ANC services and advice to deliver in hospital, PNC, referral services, HIV testing, delivery of HIV positive women in hospital and promoting family planning operations.)

It was found that out of total 26, 24(92.3%) ASHA had maintained ANC register properly. 92.3% ASHA were good in maintaining family planning register while 38.4% had given referral services to the women and only 7.6% had properly kept the record of PNC.

Most common advice given by the ASHA to the women regarding ANC was consumption of iron & folic acid tablets, followed by TT immunization, early ANC registration, regular health check-up, minimum three ANC visits and blood testing.

In dietary advice, out of total 26, 21(80.7%) ASHA had advised about consumption of vegetables and fruits, frequent meals by 4(15.3%), consumption of locally available affordable home based food such as jaggery groundnut laddu, Satu flour, and proteins i.e. sprouted pulses by 3(11.5%) of ASHAs.

Regarding PNC services, most common advice given was early breast feeding followed by newborn immunization, regular PNC visits and newborn care (i.e. rooming in, thermal protection).

Health care activities (health day, nutrition day) were conducted regularly by 96.1% of ASHAs. All ASHAs were having drug kits with them and they knew how to use the available drugs. Total 57.6% were partly knows the criteria of JSY, 38.4% were completely known and 3.8% ASHA did not know any criteria of JSY.

[Note: Knowledge of at least one or two of the selected criteria for JSY eligibility was considered as partly known]

It was found that most of the ASHA i.e. 96.1% were fully supported by ANM while 80.7% ASHA were fully supported by the AWW in promoting maternal health services. Total of 88.4% and 92.3% ASHA had got the support from beneficiaries and local community members (Sarpanch, Gramsevak and members of Grampanchayat) respectively.

During the promotion of health care services ASHA came across some difficulties like, non response from beneficiaries viz. problem in registration and follow up of family planning operation cases. Problem at institutional level i.e. lack of coordination with other health care personnel, political interference i. e. in meeting arrangement, conduction of health related activities etc.

Conclusions:

It was observed that there is a significant association between promotion of ANC services to the women and the place of delivery, showing higher proportion of hospital deliveries in those seeking regular ANC check-ups.

Results revealed no significant year wise difference between home and hospital deliveries in four villages without ASHA as compared to those villages with ASHA, though we were getting increasing trend of hospital deliveries from 2007 to 2012. It shows that role of ASHA in promoting institutional delivery is short term as other factors also do play the role.

It is observed that the ASHAs are effective link in promoting maternal health services. Most of the ASHA were good in record keeping of ANC registration and family planning operation.

During the promotion of health care services ASHA came across some difficulties like non response from beneficiaries, problem

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at institutional level and some had experienced political interference. It was found that most of the ASHA were fully supported by ANM, AWW, beneficiaries and local community members.

There are many health auxiliaries who promote pregnant mothers for institutional delivery. In spite of the presence of ASHA in particular village prevalence of home delivery was at par compared to villages where ASHA was not appointed. It seems that, though ASHAs were good in record keeping, they were less effective in promoting women for institutional delivery as this role was mostly performed by Anganwadi Worker.

ASHA does not get fixed honorarium from the Government. She has been paid on case basis for promoting BPL, lower caste women for the institutional delivery. This is actually becoming disincentive for ASHA that she is not getting the benefit. It is ridiculous to observe that incentive is not given for promoting all hospital deliveries, when each and every hospital delivery is important in reducing the rate of maternal mortality.

Recommendations:

1. Health care personnel's should take early initiative to assess the sociodemographic factors associated with home delivery viz. lower educational status, occupation, higher parity and previous delivery status of the mother and accordingly promote them to deliver in hospital. Thus there are so many long term factors; to tackle these factors appropriate long term measures are required. Role of ASHA is very short term; there is still scope for the improvement in their working pattern.

2. ASHA should get monetary benefits for promoting the woman for hospital delivery irrespective of the socioeconomic status and caste of the women.

3. Extra efforts are needed to increase the knowledge and awareness of ASHA regarding importance of antenatal care, postnatal care, new born care, importance of locally available food stuffs and timely referral of emergency cases. Thus there is need to sensitize ASHA on these issues by regular training and orientation programs.

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Conflict of Interest - None declared

Funding- None

Table 1. Distribution of study subjects as per promotion of ANC by health care personnel and place of delivery.

Health personnel	Place of delivery		Total
	Home	Hospital	
ASHA	12(27.9)	31(72.09)	43(4.1)
AWW	205(27.8)	531(72.1)	736(71.8)
ASHA and AWW	6(10.0)	54(90.0)	60(5.8)
ANM	1(10)	10(90)	11(1.07)
DOCTOR	1(1.5)	65(98.4)	66(6.4)
Health personnel	Place of delivery		Total
	Home	Hospital	
Self	0(0)	8(100)	8(0.78)
None	66(66.0)	34(34.0)	100(9.7)
Total	291(28.4)	733(71.5)	1024*(100)

(Figures in the parenthesis indicates percentages)

$\chi 2$= 66.03, d (f)1; p< 0.0001 (ASHA, AWW, ANM & Doctor Versus self & none categories were clubbed together for chi square test application)

(*Total of 1024 births by 659 respondent women in last five years in SC-I & II)

Table 2: Time trend of home and hospital deliveries in ten villages with ASHA

Year	Place of delivery (ten villages with ASHA)		Total
	Home	Hospital	
2007	38(42.2)	52(57.7)	90(11.2)
2008	52(32.09)	110(67.9)	162(20.2)
2009	49(28.6)	122(71.3)	171(21.4)
2010	42(25.7)	121(74.2)	163(20.4)
2011	33(21.2)	122(78.7)	155(19.3)
2012	10(17.2)	48(82.7)	*58(7.2)
Total	224(28.03)	575(71.9)	**799(100)

(Figures in the parenthesis indicates percentages)

$\chi 2$=10.76, d (f)1; P =0.0010 (For chi square test application years 2007& 2008 versus 2009, 2010, 2011 & 2012 were clubbed)

(**Total of 799 births in ten villages with ASHA)

[Note: *Total 58 births only in the year 2012 (from January to April 2012)]

(Note: Total of 1024 births by 659 respondent women from the year 2007 to April 2012 in SC-I & II.)

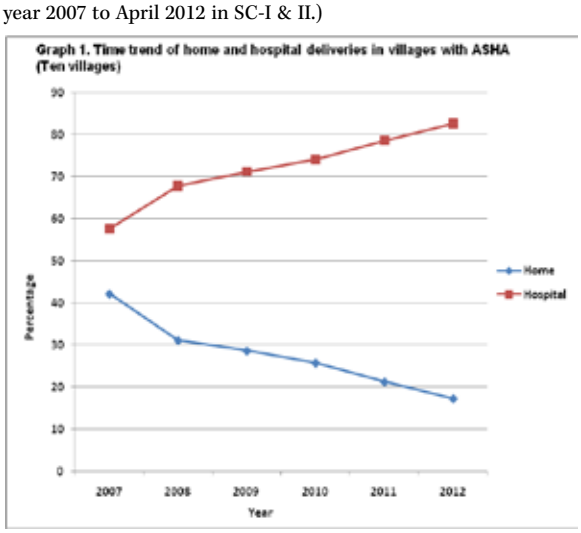

Table 3. Time trend of home and hospital deliveries in four villages without ASHA

Year	Place of delivery (four villages without ASHA)		Total
	Home	Hospital	
2007	18(43.9)	23(56.09)	41(18.2)
2008	15(28.3)	38(71.6)	53(23.5)
2009	14(38.8)	22(61.1)	36(16.0)
2010	11(25)	33(75)	44(19.5)
2011	7(20)	28(80)	35(15.5)
2012	2(12.5)	14(87.5)	*16(7.1)
Total	67(29.7)	158(70.2)	**225(100)

(Figures in the parenthesis indicates percentages)

$\chi 2$ = 2.19, d (f)1; P = 0.138 (For chi square test application years 2007& 2008 versus 2009, 2010, 2011 & 2012 were clubbed)

[Note: *Total 16 births in the year 2012 (from January to April 2012)]

(Note: **Total 225 births in four villages without ASHA)

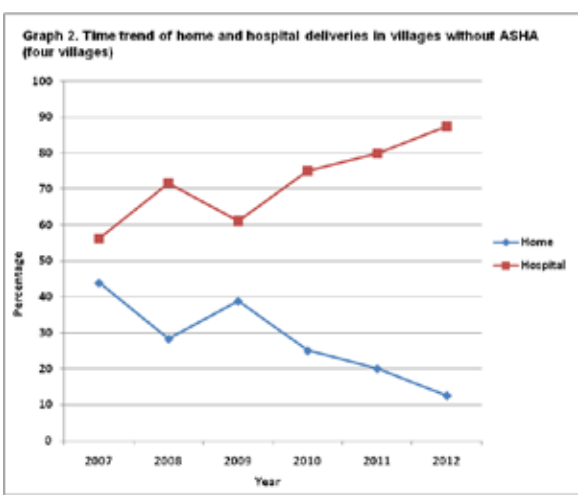

Table 4. Distribution ASHA as per their allotted activities in promoting maternal health services and record keeping (n=26)

Sr. no.	Register	Yes (%)	No (%)	Total
1	ANC	24(92.3)	2(7.6)	26(100)
2	PNC	2(7.6)	24(92.3)	26(100)
3	Referral services(emergency obstetric cases)	10(38.4)	16(61.5)	26(100)
4	HIV Testing and delivery of a HIV positive women in hospital	19(73.07)	7(26.9)	26(100)
5	Family planning operations	24(92.3)	2(7.6)	26(100)
6	Drug kit and its use	26(100)	0(0)	26(100)
7	Health care activities (Health day, nutrition day etc.)	25(96.1)	1(3.8)	26(100)
8	JSY scheme – Known	10(38.4)	0(0)	10(38.4)
	JSY scheme – Partly known	15(57.6)	0(0)	15(57.6)
	JSY scheme – Not known	0(0)	1(3.8)	1(3.8)
	JSY scheme – Total	25(96.1)	1(3.8)	26(100)

(Figures in the parenthesis indicates percentages)

[Note: Knowledge of at least one or two of the selected criteria for JSY eligibility was considered as partly known]

Table 5.Distribution of ASHA as per the health advice given to pregnant women

Health advice		Yes (%)	No (%)	Total
ANC	Early registration	17(65.3)	9(34.6)	26(100)
	Three ANC visits	4(15.3)	22(84.6)	26(100)
	Consumption of IFA tablets	22 (84.6)	4(15.3)	26(100)
	TT immunization	18(69.2)	8(30.7)	26(100)
	Blood testing (Hb, HIV testing)	3 (11.5)	223(88.4)	26(100)
	Regular health check up	7(26.9)	19(73.07)	26(100)
Diet	Consumption of vegetables and fruits	21((80.7)	5(19.2)	26(100)
	Use locally available and affordable food items	3 (11.5)	23(88.4)	26(100)
	Frequent meals	4 (15.3)	22(84.6)	26(100)
	Consumption of proteins(Sprouted pulses)	3 (11.5)	23(88.4)	26(100)
PNC	Early breast feeding (Colostrum feeding)	20(76.9)	6(23.07)	26(100)
	Immunization of newborn	11(42.3)	15(57.6)	26(100)
	PNC visits	3 (11.5)	23(88.4)	26(100)
	Newborn care (Rooming in)	2 (7.6)	24(92.3)	26(100)

(Figures in the parenthesis indicates percentages)

Table 6. Distribution of ASHA as per difficulties faced in promoting maternal health services.

Difficulties	Yes (%)	No (%)	Total
Non response of beneficiaries	10(38.4)	16(61.5)	26(100)
problem at institutional level	7(26.9)	19(73.07)	26(100)
Political interference	2(7.6)	24(92.3)	26(100)

(Figures in the parenthesis indicates percentages)

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