International Journal of Community Medicine and Public Health
Baghel A et al. Int J Community Med Public Health. 2017 May;4(5):1637-1643
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20171776

Original Research Article

A study on awareness and practices of mitanin (ASHA) in rural areas of Bilaspur district, Chhattisgarh, India

Ashish Baghel[1]*, Kamlesh K. Jain[2], Sachin Pandey[1], Gopal Prasad Soni[2], Anubha Patel[3]

[1]Department of Community Medicine, Chhattisgarh Institute of Medical Sciences, Bilaspur, Chhattisgarh, India
[2]Department of Community Medicine, Pt. JNM Medical College, Raipur, Chhattisgarh, India
[3]Department of Microbiology, Chhattisgarh Institute of Medical Sciences, Bilaspur, Chhattisgarh, India

Received: 05 March 2017
Revised: 31 March 2017
Accepted: 03 April 2017

***Correspondence:**
Dr. Ashish Baghel,
E-mail: dr.ashish9999@gmail.com

ABSTRACT

Background: The mitanin programme is a Community Health volunteer programme which was initiated by the Government of Chhattisgarh, India in 2002. The mitanin programme further progressed to lay foundation for the Accredited Social Health Activists (ASHA) programme by the National Rural Health Mission. There is robust indication that the community health workers could significantly contribute towards the betterment of health outcomes. The objective was to study the awareness and practices of mitanins (ASHA) in rural areas of Bilaspur district.
Methods: A community based cross sectional study was carried out among 180 mitanins selected through multistage random sampling in Bilaspur district, Chhattisgarh, India during March to August 2015. A predesigned, pretested questionnaire was used for data collection. SPSS 21.0 version software was used to analyze the data.
Results: Most of the mitanins had good knowledge regarding antenatal visits (62.2%) & HBNC visits (52.2%). About (62.8%) had an average knowledge regarding basic cleans to be followed for safe deliveries & regarding danger signs of pregnancy (46.7%). About (36.1%) had poor knowledge regarding symptoms of diabetes & contraceptive advice for spacing (35.6%). About (82.2%) of mitanins had opinion that fast breathing is an indicator of immediate referral of child followed by child unable to drink or breast feed (61.1%). In case of pregnancy, mitanins considered indicators of immediate referral should be swelling of face/hands (90.6%) followed by vaginal bleeding (74.4%). Major activities that they have conducted in last six months includes; accompanying pregnant women for institutional deliveries (92.2%) & participation in immunization sessions (87.8%).
Conclusions: Mitanins play vital role in providing primary health care but still they need to put into practice their knowledge about services. Despite the training given to mitanins, lacunae still exists in their knowledge regarding various aspects of health care. Many of them were not aware about family planning, diabetes, tuberculosis, danger signs for pregnancy & newborn that indicate the need for immediate referral.

Keywords: Awareness, Knowledge, Practices, Mitanins

INTRODUCTION

Community health workers have emerged as promising catalysts to strengthen the public health systems especially in developing country like India. There is an increasing feasibility for successfully engaging community health workers tackle the shortage of health care workers, mostly in the developing countries. The primary health care evolution is full of innumerable experiences ranging from large-scale national programmes to small-scale, community-based initiatives. The ever changing socio-economic, demographic, community and epidemiological structures and health

organizations worldwide demand renewed and revised community health worker programmes, which are assumed to be able to face the challenges produced by the changing environments. There is ample research evidence which supports the noteworthy contribution of CHWs towards improving the utilization of health services and health outcomes. It also argued that they could play pivotal role in health care delivery and could be the indispensable part of the universal health coverage schemes.[1]

The mitanin programme is a community health volunteer programme which was initiated by the Government of Chhattisgarh, India in 2002.[2] Mitanin have been appositely defined as outreach women volunteers who attend to the health care needs of the communities, engage in social mobilization and advocacy of health issues.[3] The valuable lessons learnt from the Mitanin programme contributed to the development of countrywide CHW programme called the accredited social health activist (ASHA) under the National Rural Health Mission, giving them a national identity. Many studies in India have elucidated that the mitanin have successfully addressed the social determinants of health.[4] This fact is also supported by research on developing countries by Lehman and Sanders.[5]

There is robust indication that the CHWs could significantly contribute towards the betterment of health outcomes. However, it could only be possible when there is an institutionalized selection and training process after their recruitment for their knowledge & skill development. Also, they must be continually and adequately supported by the government otherwise the program may not bear the encouraging outcomes.[6]

Mitanin form the backbone of the health system of Chattisgarh state and are meant to be selected by and be accountable to the community. They need to provide preventive, promotive and curative health facilities in the community. During the initial period of their implementation much emphasis was given on enrollment and training of mitanin. Now there is a need to comprehensively look into the functioning among them. In this background, a community based cross – sectional study was taken up in high priority area to study the awareness and practices of mitanin (ASHA) in rural areas of Bilaspur district.

METHODS

This was community based cross sectional study done in Bilaspur district during March to August 2015 among 180 mitanin & their respective 180 beneficiaries who were mothers of children ≤ 6 months. The methodology comprised of primary data collection through survey among selected mitanin of district through formula $n = Z^2 P (1-P) / d^2$ & their respective beneficiaries through multi-stage random sampling.

Sample Size was calculated at 95% confidence level and taking the expected proportion to be 50% as it gives highest sample size and with an absolute error or precision of 7.5 %, the sample size comes out to 171, by using the formula $n = Z^2 P (1-P) / d^2$

Where n = sample size

Z = 1.96 value of the standard normal variant corresponding to level of significance alpha 5%.
P = Expected proportion in population (50%).
d = Absolute error or precision (7.5%).

Thus using this formula for categorical study variable in single sample,

$n = 1.96^2 \times 50 (100 - 50)/7.5^2 = 171$ (which is rounded up to 180 Mitanin) were to be considered for the study.

Multi-Stage Random Sampling method was used in the study. Out of seven blocks, three blocks of Bilaspur district were being selected randomly through lottery method. From each block, thirty villages were selected from the list of villages again by simple random sampling method and from each selected village two mitanin had been taken for study randomly. To cover up 180 mitanin, similar sampling was done in all three randomly selected blocks & in order to make equal representation to selected area 60 mitanin were being taken from each selected block.

Inclusion criteria

Mitanin who have been recruited ≥3 years & those who were willing to participate in the study.

Exclusion criteria

Mitanin who have been recruited (< 3 years) & those who were not willing to participate in the study.

Data collected was compiled in Microsoft Excel software and checked for its completeness and correctness before data was analyzed. Descriptive statistical analysis has been carried out in the present study. Results on categorical measurements are presented in numbers (%). Chi-square test been used to find the significance of study parameters on categorical scale between two or more groups. P-value of <0.05 was considered to be statistically significant. SPSS 21.0 version software was used to analyze the data.

Assessment of knowledge has been done by direct personal interview of mitanin regarding their knowledge about duties & Services they provide to their respective beneficiaries as per mitanin programme: The Context, Approach and Policy Perspective. Raipur: State Health Resource Centre, Chhattisgarh. Each question was given marks according to options they were having & each

Mitanin was graded good, average and poor according to the correct responses she gave.

Good: >70%, Average: Range between 40 – 70% Poor: <40%.

For validation of services direct personal interview of beneficiaries (mothers of children ≤6 months) of respective coverage areas of selected Mitanin were also being conducted. Some of the services given by mitanin were also verified from AWWs & ANMs.

RESULTS

Table 1 A significant proportion of the Mitanin (56.7%) belonged to the younger age group of 26 to 35 years followed by (22.2%) who were 36-45 years. Most (37.2 %) had received education up to middle school whereas around (9.4%) were illiterate. Maximum (46.1%) Mitanin came under Class III as per modified Prasad's Scale 2014 followed by Class IV (26.1%). A majority (58.9%) reported to have 5 to 10 years of work experience while some (17.2%) were found to be having

Table 1: Socio-demographic profile of Mitanin (n=180).

Socio-demographic parameter		n	%
Age group (years)	≤ 25	11	6.1%
	26-35	102	56.7%
	36-45	40	22.2%
	≥ 45	27	15%
Education	Illiterate	17	9.4%
	Primary School	40	22.2%
	Middle School	67	37.2%
	High School	32	17.8%
	Higher Secondary	24	13.3%
Socioeconomic status (As per Modified B.G.Prasad's Scale 2014)	Class (I)	7	3.9%
	Class (II)	29	16.1%
	Class (III)	83	46.1%
	Class (IV)	47	26.1%
	Class (V)	14	7.8%
Work experience	<5 Years	31	17.2%
	5-10 Years	106	58.9%
	>10 Years	43	23.9%
Population size covered	≤ 250	5	2.8%
	251 – 500	102	56.7%
	501 – 750	42	23.3%
	>750	31	17.2%
Total		180	100%

less than 5 years of work experience. More than half (56.7%) of mitanin cover 251 to 500 population size in their respective hamlet followed by (23.3%) who cover 501 to 750 population size. However only (2.8%) of mitanin were found to be covering ≤250 population size.

Figure 1, mitanin had good knowledge regarding minimum antenatal visits (62.2%), Home based neonatal care (HBNC) visits (52.2%), tetanus immunization for pregnant women (59.4%) & vaccination to new born (60%). Majority (62.8%) had an average knowledge regarding basic cleans to be followed for safe deliveries, regarding danger signs of pregnancy (46.7%), advice given to mother of new born (41.7%), advice given for diarrhea (61.7%), regarding signs & advice for pneumonia (59.4%), regarding malaria (51.1%) & advice for prevention of oral cancer (50%). It was found that about (36.1%) had poor knowledge regarding symptoms of diabetes, contraceptive advice for spacing (35.6%) & advice for long lasting cough (35%). Overall about (36.1%) of mitanin had good knowledge level, (41.1%) had an average knowledge level & about (22.8%) had poor knowledge level.

Table 2 Most of the mitanin (73.3%) had opinion that child who is not able to drink or breast feed should be immediately referred to first referral unit. Similarly, in acute respiratory tract infections about (82.2%) had opinion that fast breathing is an indicator of immediate referral of child. In fever about (54.4%) considered that unconscious child should be referred immediately. About (73.3%) considered that if child develops high grade fever after immunization it's an indicator of immediate referral. In case of pregnancy mitanin considered indicators of immediate referral should be swelling of face/hands (90.6%), followed by vaginal bleeding (74.4%) & foul smelling vaginal discharge (71.7%)

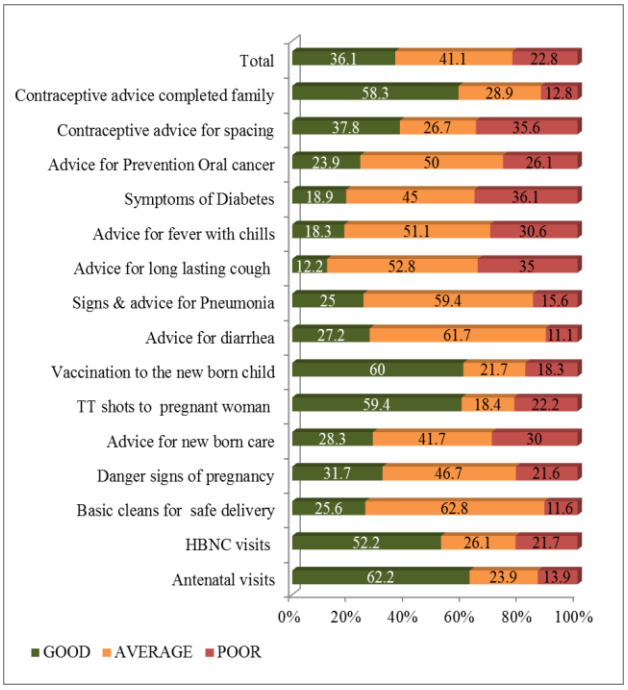

Figure 1: Distribution of mitanin according to their level of knowledge regarding major aspects of Health services.

Table 3 As informed by Mitanin, some of the major activities that they have conducted in last six months includes; accompanying pregnant women for institutional deliveries (92.2%), visiting new born for advice/care (81.1%), nutrition counseling (79.4%), participation in immunization sessions/Village Health Nutrition Day (87.8%), household visit (65.6%), distribution of medicines for minor illness (71.1%), counseling women on all aspects of pregnancy (68.9%) & participation in Village Health Sanitation & Nutrition Committee meeting (63.9%). Approximately half (56.1%) Mitanin informed about motivating the couple for family planning.

Table 4 about 53.2% of mitanin who identified danger signs of pregnancy had good knowledge level. About 34% of them had an average knowledge level. The association between identifying danger signs of pregnancy & knowledge level was found to be highly statistically significant with p value = 0.0010. About 52.3% of mitanin who identified danger signs of newborn had an average knowledge level. About 20.9% of them had good knowledge level. The association between identifying danger signs of newborn & knowledge level was found to be highly statistically significant with p value = 0.0004.

Table 2: Distribution of mitanin according to their knowledge for danger signs that indicate the need for immediate referral.

Condition	Danger Signs	Total (n=180)	
		No.*	%
Diarrhea	Child becomes lethargic	123	68.3
	Not able to drink or breast feed	132	73.3
	Blood in stool	47	26.1
	Doesn't pass urine for 8 hours	53	29.4
Acute Respiratory Tract Infection	Fast breathing	148	82.2
	Difficulty in breathing	119	66.1
	Unable to drink	110	61.1
	Lethargy	136	75.6
Fever	Unconsciousness	98	54.4
	Convulsions	86	47.8
	Child not able to drink	97	53.9
	Duration > 5 days	113	62.8
Immunization	Baby crying > 3 hours	100	55.6
	High grade fever	132	73.3
	Baby drowsy, convulsing or unconscious	80	44.4
Pregnancy	Vaginal bleeding	134	74.4
	Persistent abdominal/pelvic/back pain	111	61.7
	Seizures	125	69.4
	Swelling of face/hands	163	90.6
	Foul smelling vaginal discharge	129	71.7
	Severe headache/blurry vision	113	62.8

* Multiple choice responses

Table 3: Distribution of Mitanin according to Activities undertaken (in last 6 months).

Activities	Total (n=180)	
	No.*	%
Conducting Household Visits	118	65.6
Counseling women on major aspects of pregnancy	124	68.9
Accompanying for institutional delivery	166	92.2
Visiting new born for advice/care	146	81.1
Nutrition Counseling	143	79.4
Participation in immunization program/VHND**	158	87.8
Advise for home management or referral in case of illness	136	75.5
Distribution of medicines for minor illness	128	71.1
Family planning related work	101	56.1
Malaria control related work	86	47.8
Participation in VHSNC* meeting**	115	63.9

* Multiple choice responses **Village health nutrition day ***Village health sanitation and nutrition committee.

Table 4: Distribution of mitanin according to their knowledge & identification of danger signs.

Danger Signs (Pregnancy) Identified	Poor		Average		Good		Total	
	No.	%	No.	%	No.	%	No.	%
Yes	6	12.80%	16	34%	25	53.20%	47	26.10%
No	33	24.80%	68	51.10%	32	24.10%	133	73.90%
Total	39	21.70%	84	46.70%	57	31.70%	180	100%
n= 180 , x2 = 13.805 , DF = 2 , p < 0.01 (0.0010)								
Danger Signs (Newborn) Identified	Poor		Average		Good		Total	
	No.	%	No.	%	No.	%	No.	%
Yes	23	26.70%	45	52.30%	18	20.90%	86	47.80%
No	5	5.30%	62	66%	27	28.70%	94	52.20%
Total	28	15.60%	107	59.40%	45	25%	180	100%

n= 180, x2 = 15.748, DF = 2, p <0.01 (0.0004).

DISCUSSION

This study revealed that more than half (56.7%) of the Mitanin workers were in the age group of 26-35 years. This finding was in accordance with the national level finding of the ASHA evaluation that reported the maximum number of ASHA were between the age group of 25-35 years.[7] In a similar study of Das et al it was observed that about (47.4%) of their respondents belonged to the similar age group.[1] Other similar studies of Baishya et al and Nandan et al observed maximum number (42.7%) and (40%) of ASHA belonged to the age group of 30-39 years respectively.[8,9]

Regarding level of education, about (37.2%) of Mitanin workers had completed 8th standard whereas around (9.4%) of the participants were illiterate. In study of Shankar Das et al it was found that about (50.1%) of Mitanin had received education up to middle class, (13%) were found to be illiterate.[1] Similar finding was observed in a study of Baishya et al who found that maximum ASHA (53.7%) were 8th class passed & 5% were found to be illiterate.[8] Nandan et al in his study found that most of the ASHA (>90%) were having qualification between 8th to 12th class.[9]

In our study maximum (46.1%) Mitanin came under Class III as per modified Prasad's Scale 2014. In study of Shankar Das et al it was found that significant proportion (42%) of the families of the respondents earned between Rs 2000 to Rs. 5000 per month.[1] Baishya et al in his study found maximum ASHAs (35.4%) have shared that monthly income of the family is between Rs.1000 and Rs.3000.[8] Nandan et al in his study found that more than half (61.67%) of ASHAs belonged to below poverty line.[9]

As far as work experience is concerned a majority (58.9%) of Mitanin reported to have 5 to 10 years of work experience and about (17.2%) were found to be having less than 5 years of work experience. Shankar Das et al in his study observed that majority (53.1%) of Mitanin had more than 10 years of work experience and around (18%) had 4-6 years of work experience.[1] Baishya et al revealed from his study that maximum of the ASHAs (30.5%) have been working as ASHA for more than last 6 years, while only (7.9%) have joined few months back.[8]

In our study more than half (56.7%) of Mitanin cover 251 to 500 population size in their respective hamlet. Shankar Das et al in his study found about (46.6%) of Mitanin

covered 151 to 300 population size.[1] Baishya et al in his study found population covered by maximum of ASHA (40.2%) was more than 1000.[8] Bhandari et al in his study observed about (74.13%) of ASHA covered population of more than 1000.[10]

In our study mitanin had good knowledge regarding minimum antenatal visits (62.2%), HBNC Visits (52.2%), Tetanus immunization for pregnant women (59.4%) & vaccination to new born (60%). Majority (62.8%) had an average knowledge regarding basic cleans to be followed for safe deliveries, regarding danger signs of pregnancy (46.7%), advice given to mother of new born (41.7%), advice given for diarrhea (61.7%) & regarding signs & advice for pneumonia (59.4%). About (36.1%) had poor knowledge regarding symptoms of diabetes, contraceptive advice for spacing (35.6%) & advice for long lasting cough (35%). Baishya et al in his study found nearly (80%) ASHAs had full knowledge on pregnant woman with danger sign; about (50.6%) had full knowledge for number of TT shots to be given during pregnancy. Most ASHAs were found to have good knowledge about advice given to mother of new born. More than (87%) ASHAs were found to have full knowledge about advice given for diarrhea. Knowledge of ASHA on immunization schedule was average. It was also found that they have better knowledge about immunization schedule of child within 10 weeks (75.6% with full knowledge), as compared to knowledge about ASHA on vaccination to be given to a child at 9 months (50.6%). They have better knowledge about correct contraceptives methods to be advised to couple wanting no more child (73.8%) as compared to recently delivered woman who want to have gap for next pregnancy (61% with full knowledge).[8]

In our study most of the Mitanin (73.3%) had opinion that child who is not able to drink or breast feed should be immediately referred to first referral unit. About (82.2%) had opinion that fast breathing is an indicator of immediate referral of child. About (73.3%) considered that if child develops high grade fever after immunization it's an indicator of immediate referral. In case of pregnancy Mitanin considered indicators of immediate referral should be swelling of face/hands (90.6%), followed by vaginal bleeding (74.4%). In a similar study of Shrivastava et al most of the ASHAs (80.1%) had opinion that child who is not able to drink or breast feed should be immediately referred to first referral unit. Similarly, in acute respiratory tract infections about (76%) of ASHAs had opinion that fast breathing is an indicator of immediate referral of child. In fever about (81.5%) ASHAs considered that unconscious child should be referred immediately. About (71.2%) ASHAs considered that if child develops high grade fever after immunization it's an indicator of immediate referral.[11]

In this study some of the major activities that Mitanin have conducted in last six months includes; accompanying pregnant women for institutional deliveries (92.2%), visiting new born for advice/care (81.1%) & participation in immunization sessions/VHND (87.8%), distribution of medicines for minor illness (71.1%). Baishya et al in his study found major activities that they have conducted in last six months includes; counseling women on all aspects of pregnancy (86%), counseling of pregnant woman & accompanying them for institutional deliveries (100%), counseling on good nutrition, breast feeding & weaning practices (76.7%), participation in immunization sessions (100%), household visit (76.7%), new born care (81.1%), participation in VHSNC meeting & developing village health plan (48.8%) & distribution of medicines for minor illness (41.9%).[8] Nandan et al in his study found that major activities were help in delivery (56.66%), family planning (53.33%) & immunization (73.33%).[9] Sundararaman et al in his evaluation study observed major activities of ASHAs were found to be Counseling women on all aspects of pregnancy (91.75%), accompanying women for delivery (90.9%), promotion and coordination for immunization program (89.5%), visiting newborn for advice/care (80.4%), house hold visits (78.5%), nutrition counseling (62%), malaria control related work (41.5%) & consultation for minor illness and use of drug kit (36.5%).[4]

CONCLUSION

Mitanin play vital role in providing primary health care but still they need to put into practice their knowledge about services. Despite the training given to Mitanin, lacunae still exists in their knowledge regarding various aspects of health care. Many of them were not aware about family planning, diabetes, tuberculosis, danger signs for pregnancy & newborn that indicate the need for immediate referral. Training is the backbone of capacity building and functioning of the Mitanin so refresher training should be planned on regular interval with regular monitoring & it should be made more comprehensive with focus not only on imparting information but acquisition of knowledge and skills to efficiently perform their designated functions.

ACKNOWLEDGEMENTS

Authors would like to acknowledge the support and co-operation of Head of the Department, Guide, Co-Guide and staff of Community Medicine department of Pt. J.N.M Medical College, Raipur, Chhattisgarh, India to carry out the study smoothly. Warm and sincere thanks to all women of community, Mitanin, Mitanin trainers, coordinators, AWWs & ANMs who gave their valuable time with patience.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Das S, Talpade S, Evaluation of Mitanin programme in Chhattisgarh, India, Ministry of health & family welfare, Govt. of C.G, Tata Institute of Social Sciences (TISS) Mumbai, 2015.
2. Nandi MS, Mishra MT, Nandy M. A Study to assess the Mitanin referral system in C.G.
3. Sundararaman T. Mitanin Programme - Operational Guidelines, Raipur: State Health Resource Centre, Chhattisgarh, SHRC 2003.
4. NHSRC, N. H. 2010, ASHA: Which Way Forward. Evaluation of the ASHA Programme. Available at http://nhsrcindia.org/download.php?downloadname =pdf_files/, Accessed on March 19, 2015
5. Nandi S, Schneider H, Addressing the social determinants of health: A case study from the Mitanin (community health worker) programme in India Health Policy Plan. 2014;29 Suppl 2:ii71-81.
6. Bhutta ZA, Lassi ZS, Pariyo G and Huicho L, Global experience of community health workers for delivery of health related Millennium Development Goals: A systematic review, country case studies, and recommendations for integration into National health systems, Global health workforce Alliance, 2010.
7. NHSRC, 2010, Evaluation of the ASHA Programme, Available at, http://nhsrcindia.org/download.php?downloadname pdffiles/resources thematic/ Community Participation /NHSRC Contribution/360.pdf, Accessed on March 21, 2015.
8. Baishya AC, ASHA evaluation Nagaland, 2012.
9. Nandan D, Srivastava DK, Prakash S. A Study of Interface of ASHA with the community and the service providers in Eastern Uttar Pradesh, 2008-09.
10. Bhandari U. Evaluation of ASHA scheme under NRHM in Uttar Pradesh September, 2013.
11. Shrivastava S, Shrivastava PS, Evaluation of trained Accredited Social Health Activist (ASHA) workers regarding their knowledge, attitude and practices about child health, rural and remote health 12: 2099. (Online) 2012. Available at: http://www.rrh.org.au, Accessed on March 23 2015.

Cite this article as: Baghel A, Jain KK, Pandey S, Soni GP, Patel A. A study on awareness and practices of mitanins (ASHA) in rural areas of Bilaspur district, Chhattisgarh, India. Int J Community Med Public Health 2017;4:1637-43.