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Original Research Article

Factors influencing the work performance of Mitanins (ASHA) in Bilaspur district, Chhattisgarh, India: a cross sectional study

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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 of the study was to study the factors influencing the work performance of Mitanins in Bilaspur district, Chhattisgarh, India.
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.
Results: Regarding counselling to pregnant mother on maternal and child health about (65.6%) Mitanins were having knowledge and out of these prevalence of its practice was found to be (75.4%). Their less knowledge for content of responsibility significantly affected their practices in community. Other major factors influencing their work performance are better training sessions (37.8%), support from health staff (65.6%), drug kit refilling (80%), and fewer hurdles in receiving incentives (85.6%.
Conclusions: Less knowledge of the work component, less cooperation from health staff, delay refilling of drug kit, incentive oriented practices, delayed and inadequate payment of incentives for Mitanins influences the work performance.

Keywords: Incentives, Knowledge, Mitanins, Work performance

INTRODUCTION

Despite significant improvements made in the past few decades, the public health challenges are not only huge but are also growing and shifting at an unprecedented rate in India.[1] Time and again the health policy researchers and planners had drawn the attention on human resources as one of the most essential ingredient for the successful health systems performance. It is often reported that there is growing human resource crisis, particularly in poor resource countries. In India the chronic shortage of well-trained health workers particularly most acutely felt in the inaccessible and remote rural areas that need them most.[2]

In this context community health workers have emerged as promising catalysts to strengthen the public health systems. 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.[2]

The Mitanin programme is a community health volunteer programme which was initiated by the Government of Chhattisgarh, India in 2002.[3] The Mitanin programme further progressed to lay foundation for the ASHA programme by the National Rural Health Mission.[4] 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 and skill development. Also, they must be continually and adequately supported by the government otherwise the program may not bear the encouraging outcomes.[5]

Mitanins 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 Mitanins. 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 district Bilaspur, Chhattisgarh, India to study the factors influencing the work performance of Mitanins.

METHODS

This was community based cross sectional study done in Bilaspur district, Chhattisgarh, India during March to August 2015 among 180 Mitanins and their respective 180 beneficiaries who were mothers of children ≤6 months. The methodology comprised of primary data collection through survey among selected Mitanins of district through formula $n = Z^2 P (1-P) / d^2$ and 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 Mitanins) 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, Chhattisgarh, India 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 mitanins had been taken for study randomly.

To cover up 180 mitanins, similar sampling was done in all three randomly selected blocks and in order to make equal representation to selected area 60 mitanins were being taken from each selected block.

Inclusion criteria

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

Exclusion criteria

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

The information collected was complied, processed and analysed in Microsoft Excel software. Collected data were checked for its completeness and correctness before data was analysed. 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.

Assessment of knowledge had been done by direct personal interview of Mitanins regarding their knowledge about duties and services they provide to their respective beneficiaries as per Mitanin programme: the context, approach and policy perspective. Raipur: State Health Resource Centre, Chhattisgarh, India. For validation of services direct personal interview of beneficiaries (mothers of children ≤6 months) of respective coverage areas of selected Mitanins were also being conducted. Some of the services given by mitanins were also verified from AWWs and ANMs.

RESULTS

Socio-demographic profile of Mitanins

A significant proportion of the Mitanins (56.7%) belonged to the younger age group of 26 to 35 years followed by (22.2%) who were 36-45 years. About (6.1%) were below the age of 25 years. Mean age of Mitanins in the study was 35.15 years (SD±9.2) with the range 20 to 58 years (Table 1).

Table 1: Socio-demographic profile of Mitanins.

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%
Work experience	<5 Years	31	17.2%
	5-10 Years	106	58.9%
	>10 Years	43	23.9%
Total		180	100%

Most (37.2 %) of the Mitanins had received education up to middle school. About (13.3%) of the respondents had completed secondary school or Pre-degree college education. Around (9.4%) of the participants were illiterate whereas only (1.7%) Mitanins had received education up to the graduation level. A majority (58.9%) of Mitanins reported to have 5 to 10 years of work experience and around (23.9%) of Mitanins mentioned that they had >10 years of work experience. Some of the Mitanins (17.2%) were found to be having less than 5 years of work experience.

Knowledge affecting the practices of Mitanins

About (56.1%) of Mitanins knew regarding the component creating community awareness about various health determinants as a part of their work and out of these about (56.4%) were creating awareness in the community on determinants of health. About (61.7%) of Mitanins knew regarding the component work with VHSC to develop village health plan as a part of their work and out of these about (73.9%) were practicing this activity. Least level of knowledge among study subjects was found to be regarding promotion for toilet construction, as much as (55%) were not aware about this component. (45%) mitanins knew about motivating the community for toilet construction and out of these about (32.1%) were practicing this activity (Table 2).

Table 2: Knowledge affecting the practices of Mitanins.

Knowledge	Practices	Yes	No	Total	Test of Significance
Create community awareness on determinants of health	Yes	57 (56.4%)	44 (43.6%)	101 (56.1%)	χ^2=4.5 p-value=0.033*
	No	32 (40.5%)	47 (39.5%)	79 (43.9%)	
Work with VHSNC to develop village health plan	Yes	82 (73.9%)	29 (26.1%)	111 (61.7%)	χ^2=12.51 p-value=0.0004**
	No	33 (47.8%)	36 (52.2%)	69 (38.3%)	
Promotion for toilet construction	Yes	26 (32.1%)	55 (67.9%)	81 (45%)	χ^2=10.67 p-value=0.0011**
	No	12 (12.1%)	87 (87.9%)	99 (55%)	
Counsel pregnant mother on safe delivery, ANC, Breast feeding, contraception	Yes	89 (75.4%)	29 (24.6%)	118 (65.6%)	χ^2=6.82 p-value=0.009**
	No	35 (56.4%)	27 (43.6%)	62 (34.4%)	
Accompany pregnant mother to hospital	Yes	154(94.4%)	9 (5.6%)	163 (90.6%)	χ^2=12.24 p-value=0.00046**
	No	12 (70.6%)	5 (29.4%)	17 (9.4%)	
HBNC visits to be made within 42 days after birth	Yes	99 (70.2%)	42 (29.8%)	141 (78.3%)	χ^2=6.251 p-value=0.0124*
	No	19 (48.7%)	20 (51.2%)	39 (21.7%)	
Providing ORS for diarrhoea	Yes	108(72.4%)	41 (27.6%)	149 (82.8%)	χ^2=13.17 p-value=0.00028**
	No	12 (38.7%)	19 (61.3%)	31 (17.2%)	
Mobilize community to access health services at different facility	Yes	67 (62.6%)	40 (37.4%)	107 (59.4%)	χ^2=6.18 p-value=0.0129*
	No	32 (43.8%)	41 (56.2%)	73 (40.6%)	

**Highly Significant *Significant (n = 180).

Among the study subjects maximum (90.6%) were aware that they should accompany the pregnant mother to the health facility and even the prevalence of practice was also found to be maximum (94.4%) regarding this component. As far as regarding counseling to pregnant mother on safe delivery, ANC, Breast feeding and

contraception about (65.6%) were having knowledge and prevalence of its practice was found to be (75.4%). About (78.3%) of Mitanins knew regarding the component HBNC visits to be made within 42 days after birth as a part of their work and out of these about (70.2%) were practicing this activity.

Knowledge regarding components like providing ORS for diarrhea, mobilizing community to access the health services available at different facilities was revealed to be (82.8%), (59.4%) respectively and out of these about (72.4%) and (62.6%) were practicing this activity respectively.

Support needed by mitanins to perform better

Major supports which Mitanin needed to perform better were fewer hurdles in receiving timely incentives (85.6%), timely refilling of drug kit (80%) and better support from health staff (65.6%) (Table 3).

Table 3: Support needed by Mitanins to perform better.

Description		Total (n=180)	
		No.*	%
More support needed to perform better	Better training sessions	68	37.8%
	More support from Mitanin Trainer	17	9.4%
	Better support from Health staff	118	65.6%
	Timely refilling of drug kit	144	80%
	Fewer hurdles in receiving incentives	154	85.6%
	Increase in incentives	121	67.2%

*Multiple choice responses.

DISCUSSION

The study revealed that more than half (56.7%) of the Mitanin workers were in the age group of 26-35 years. Thus majorities of the mitanins may be considered young and this may strength the programme as they are energetic and may deliver better service with proper motivation and capacity building. 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.[6] In a similar study of Shankar Das et al it was observed that about (47.4%) of their respondents belonged to the similar age group.[2] Other similar studies of Baishya AC et al and Nandan D et al observed maximum number (42.7%) and (40%) of ASHA belonged to the age group of 30-39 years respectively.[7,8] Regarding level of education, about (37.2%) of Mitanin workers had completed 8th standard, about (13.3%) of the respondents had completed secondary school or Pre-degree college education whereas around (9.4%) of the participants were illiterate. This can be explained by the fact that selection criteria are 8th class but at some places due to unavailability of qualified women criteria might have been reduced. In study of Das S et al it was found that about (50.1%) of Mitanins had received education up to middle class, (13%) were found to be illiterate or having no formal education and 1% were found to be graduate.[2] Similar finding was observed in a study of Baishya AC et al who found that maximum ASHA (53.7%) were 8th class passed, 5% were found to be illiterate or having no formal education and only 0.6% were found to be graduate.[7] Nandan D et al in his study found that most of the ASHA (>90%) were having qualification between 8th to 12th class.[8]

As far as work experience is concerned a majority (58.9%) of Mitanins reported to have 5 to 10 years of work experience and around (23.9%) of Mitanins mentioned that they had >10 years of work experience. Some of the Mitanins (17.2%) were found to be having less than 5 years of work experience. Increase rate of attrition due to lack of motivation might leads to a lack of continuity in the work and rapport between Mitanin and community which ultimately increases cost in selecting and training new Mitanins. Das S et al in his study observed that majority (53.1%) of Mitanins had more than 10 years of work experience and around (18%) of Mitanins had 4-6 years of work experience. Only a few Mitanin (<2%) had less than one year experience.[2] Baishya AC 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 (less than 1 year).[7]

In present study when depth and accuracy of knowledge and practice was checked it was observed that about (56.1%) of Mitanins were having knowledge regarding creating community awareness about various health determinants as a part of their work and out of these about (56.4%) were actually creating awareness in the community on determinants of health in their field practice area. In a similar study of Kumar S et al it was reported that about (34.8%) of Mitanins knew regarding creating community awareness about various health determinants as a part of their work and out of these about (61.7%) were actually practicing it.[9] In this study about (61.7%) of Mitanins knew regarding the component work with VHSC to develop village health plan as a part of their work and out of these about (73.9%) were practicing it. In study of Kumar S et al about (37.7%) of Mitanins knew regarding the component work with VHSC to develop village health plan as a part of their work and out of these about (66.7%) were practicing it.[9]

In this study least level of knowledge among study subjects was found to be regarding promotion for toilet construction, as much as (55%) were not aware about this component. (45%) mitanins knew about motivating the community for toilet construction and out of these about

(32.1%) were practicing this activity. Similar study of Kumar S et al found that least level of knowledge among study subjects was found to be regarding promotion for toilet construction, as much as (83.7%) were not aware about this component. (16.3%) Mitanins knew about motivating the community for toilet construction and out of these about (59.1%) were practicing this activity.[9]

Among the study subjects maximum (90.6%) were aware that they should accompany the pregnant mother to the health facility and even the prevalence of practice was also found to be maximum (94.4%) regarding this component. This activity is also associated with financial incentive. But many other jobs like counselling on family planning, counselling to pregnant mother on safe delivery, ANC, Breast feeding and contraception etc. were drawing lesser attention probably due to lack of incentives. These could be areas requiring reorientation. About (65.6%) were having knowledge and prevalence of practice was found to be (75.4%) regarding this component. About (78.3%) of Mitanins knew regarding the component HBNC visits to be made within 42 days after birth as a part of their work and out of these about (70.2%) were practicing this activity. In a similar study of Kumar S et al, it was reported that among the study subjects maximum (97.8%) were aware that they should accompany the pregnant mother to the health facility and even the prevalence of its practice was also found to be maximum (98.5%). As far as regarding counselling to pregnant mother on safe delivery, ANC, Breast feeding and contraception about (75.6%) were having knowledge and prevalence of its practice was found to be (92.2%). About (62.2%) of Mitanins knew regarding the component new born care after birth as a part of their work and out of these about (81%) were practicing this activity.[9]

Knowledge regarding components like providing ORS for diarrhoea, mobilizing community to access the health services available at different facilities was revealed to be (82.8%), (59.4%) respectively and out of these about (72.4%) and (62.6%) were practicing it respectively. In study of Kumar S et al, knowledge regarding mobilizing community to access the health services available at different facilities was revealed to be (66.7%) and out of these about (73.3%) were practicing it.[9] Lesser knowledge and comprehension of work component will obviously affect the practice. Throughout the process it was observed that some Mitanins who didn't have knowledge were practicing it but it might be interpreted as malpractice which could not be assessed during the study. It has been observed that Mitanins were performing particular practice which gives her the maximum incentive and rests of her practices remain at lower side irrespective of the importance of that component. In this study major supports which Mitanin needed to perform better were fewer hurdles in receiving timely incentives (85.6%), timely refilling of drug kit (80%) and better support from health staff (65.6%). In a similar study of Bhandari U et al it was observed that for betterment of work around (83.33%) expect better pay, (43.33%) feels more medicines should be given to them, (23.33%) feels better means of transport facilities for the patients, (13.33%) of the patients feels more training should be given to them whereas only (1.66%) feels that incentive should be given for more work.[10] Non-availability and delayed refilling of kits is a matter of concern. Availability of drug kit helps mitanins in not only attending some primary medical care needs, but also builds confidence of community in mitanins as someone available in hour of need.

CONCLUSION

Despite the training given to Mitanins, lacunae still exists in their knowledge regarding various aspects of Maternal and Child health. Many of them were not aware about their role in family planning, village health planning, creating awareness on basic sanitation and personal hygiene. Less knowledge of the work component, less cooperation from health staff, delay refilling of drug kit, incentive oriented practices, delayed and inadequate payment of incentives for Mitanins influences the work performance. Incentives in monitory terms and capacity building in the weak areas of training can act as driving force in delivering better health services. Mitanins do provide constellation of services and play a potential role in providing primary health care but still they need to put into practice their knowledge about while providing services and/or advice to negotiate health care for poor women and children.

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