Original Article

Association of Biosocial Profile and Work Performance of Accredited Social Health Activist in Jaipur District

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ABSTRACT

Introduction: Accredited social health activist (ASHA) is the first port of call for any health-related demands of deprived sections of the population, especially women and children, who find it difficult to access health services. ASHA's work performance is different in different areas and there are many factors that could influence ASHA work performance i.e. age, education, marital status, religion, caste, socio-economic status, family structure etc. Objective of this study was to determine the association between biosocial profile of ASHA with their work performance with special emphasis on maternal and child health activity.

Methodology: This observational study was done in Chaksu block of Jaipur district, Rajasthan. Primary and secondary data were collected through Anganwadi register, village health index register of ASHA, Mamta card and personal interview with ASHA. ASHA's work performance was assessed and scored.

Results: Almost all ASHAs were moderate performer. Significant gap was seen in first and fourth antenatal care (ANC) visits. Age, education, and socioeconomic status had significant influence while caste, religion, marital status, husband education, and family structure had no significant effect on her work performance.

Conclusion: None of the socioeconomic variables such as age, education, socioeconomic status, religion, caste, family size, family type, husband education, and husband occupation were significantly associated with their work performance. Periodic training and motivation may improve and update their knowledge and skills for efficient work performance.

INTRODUCTION

Accredited social health activist (ASHA) is created by National Rural Health Mission (NRHM) to increase health awareness, mobilize the community, and increase utilization of existing health services.[1,2] She is also known as front line worker for health system as she links with community directly. It was observed that ASHA's work performance is different in different areas despite standard selection criteria. There are many factors that could influence work performance of ASHA i.e. age, education, marital status, religion, caste, socio economic status, family structure etc. Rendering maternal and child health services in community is the most vital of all works done by ASHA. Hence, her work performance was assessed on maternal and child health care parameters for this study. The objective of this study was to determine the association of biosocial profile of ASHA and their work performance with special emphasis on maternal and child health activity.

METHODS

The present study was a field based descriptive, observational study conducted at two Primary Health Centres (PHC) i.e. Kadera and Chandlai of block Chaksu of district Jaipur, Rajasthan. The study was conducted during September 2018 to October 2018. While sampling, two PHCs were selected after selecting one block in district Jaipur, Rajasthan using simple random sampling. All eligible 42 ASHAs working in these selected PHCs were included in the study. Pre-designed and pre-tested semi structured questionnaire was prepared on the basis of

working paper series on work performance of ASHA in India conducted by Columbia University.[3] Primary data were collected through in-depth interview and one to one interaction with ASHA. Secondary data were collected from Anganwadi register, counter Mamta card, annual health reports, and village health index register of ASHA. Work of ASHA was assessed on following parameters: registration of antenatal care (ANC), registration of ANC within first trimester, provision of all 4 ANC (ante natal care) services, Tetanus Toxoid (T T) vaccine given within first trimester, maternal death and infant deaths in area, immunization status of children (13 to 24 months aged), provision of HBNC (home based neonatal care) service. Their work performances were divided in three categories on the basis of questionnaire's score: poor (4-36), fair (37-56), and good (57-76) and the range of score was from 4 to 76. For statistical analysis, data were entered and analysed in Microsoft excel. Count data were expressed in form of percentages. Differences in proportion in different groups were analysed using chi square test. The level of significance was kept 95% for all statistical analysis.

RESULTS

A total of 39 out of 42 ASHAs performance could be assessed as two were on maternity leave and one denied consent. Majority (46%) were young in 26-30 years age group, five percent were even below 25 years and one third were above 35 years also. All were Hindu. Majority (63%) studied up to secondary or senior secondary and 18% were eighth class passed. Every fourth ASHA was from below poverty line (BPL) family. Majority were from other backward class (OBC) category (41%) followed by general category (25%), scheduled caste (SC) (23%), and schedule tribe (ST) (10%). Half of them (48%) belonged to middle class, followed by lower middle class (38%), upper middle class (10%), and only five percent were from lower class as per modified BG Prasad classification 2017).[4] Majority (87%) of ASHAs live in same working village and 13% live in neighbouring village. Majority of them (92%) served one Anganwadi centre but eight percentage had additional charge of one more Anganwadi centre from last two years. About 43% served a population of 1001-1500 followed by 500-800 population (38%), 801-1000 population (10%), and five percentage served less than 500 populations. About 56% were from joint family and 44% were from nuclear family. Most ASHAs (41%) have larger family size of more than

seven members, followed by 28% who had 5-7 family members, 15% had small family of up to four family members. Only eight percent ASHA were mothers of young children (<5 years). Majority (51%) ASHA's husbands were engaged in unskilled work followed by government employee (18%), own small business (15%), and skilled worker (15%). One third (33%) spouses were graduate followed by senior secondary (28%), secondary (23%), and up to eighth class passed (15%). Around 31% of them have auxiliary nurse midwife (ANM) seat vacant in their respective sub-centre and no Anganwadi worker seat was vacant during reference period.

Work performance: Only 28% of ASHA could register more than 80% of ANC, majority (44%) registered 61-80% of ANCs. There were five percentages who registered even less than 40% targets. Highest (49%) early registrations were done by those ASHAs who had also achieved maximum ANC registration, similarly ASHAs with very poor ANC registration (< 40%) had none early registration (Table 1). One third ASHAs provided all four scheduled ANC visits to pregnant women, 40% ASHAs provided three ANCs and there were 10% of ASHAs who provided only one ANC to pregnant women. However, all HBNC visits were completely done as per schedule by all ASHAs. One third ASHAs (33.33%) had reported at least one infant death in their area in last one year but no maternal death. Out of the total reported 13 infant deaths, four infant deaths occurred due to pneumonia, three due to premature birth, and three due to low birth weight. Cause of one death was congenital anomalies, other was ventricular septal defect, and one cause of infant death was unknown. Less than half of ASHAs (41%) could achieve more than 80% fully vaccinated children in their area, followed by 28% who achieved 41-60%, 23% had achieved 61-80% of target of full vaccination of children, and there were around 8% of ASHAs who could fully vaccinate less than 40% of children which was statistically significant (p=0.001). About half of ASHA (41%) had dropout of 21-40% between first and fourth ANC services given to pregnant women followed by 28% had drop out less than 20% and 21% of them had dropout of 41-60% and few of them (10%) had dropout more than 60% which was also statistically significant (p value = 0.00) (Table-1).

All ASHA's (100%) work performance lied in fair category, neither of them in good nor poor category.

However, all ASHAs (n = 39) of fair category were further divided in two, marginally fair (n = 7) and moderately fair (n = 32).

Associated factors: Age was not significantly associated with their work performance. Majority (84%) of young ASHAs (25-35 year) as well as ASHAs older than 35 years were moderately fair performers. Both very young ASHAs (< 25 year) were moderate performer (Table 2). The proportions of moderate performers increased with increase in education status of ASHAs i.e. middle to graduation: 57% to 100%, however this difference was not statistically significant. BPL and above poverty line (APL) status of ASHAs was also not associated with their work performance. Similarly, socioeconomic status was not associated with work performance, proportions of moderate performers were almost equal in all strata of socioeconomic status ranged from 75% to 87% (Table 1). ASHAs from nuclear or joint family had comparable work performance. All three ASHAs who had very young child of less than 5 years were moderate performers while 20% of ASHAs who had children older than five years showed marginally fair performance, though this was not a significant factor. Higher proportion (84%) of ASHAs who were working in same village of their location were moderate performer against 66% of ASHAs who were working in a village other than their native village,

Table 1: Working performance of ASHAs

S No.	Variable	Fair (N=39)		p value	χ² value	d f
		Marginally fair (%) (N=7)	Marginally fair (%) (N=32)			
1	**ANC Registration%**					
	0-40 (n=2)	1 (50)	1 (50)	0.0798	1.949	3
	41-60 (n=9)	2 (22.22)	7 (77.77)			
	61-80 (n=17)	2 (11.76)	15 (88.23)			
	>80 (n=11)	2 (22.22)	9 (77.78)			
2	**Early ANC Registration %**					
	0-40 (n=0)	0 (0)	0 (0)	0.258	4.74	3
	41-60 (n=9)	2 (22.22)	7 (77.77)			
	61-80 (n=11)	4 (36.36)	7 (63.63)			
	>80 (n=19)	1 (5.26)	18 (94.73)			
3	**Difference between 1st and 4th ANC services%**					
	0-20 (n=11)	1 (9.09)	10 (90.90)	0.00	17.21	3
	21-40 (n=16)	0 (0)	16 (100)			
	41-60 (n=8)	2 (25)	6 (75)			
	>60 (n=4)	4 (100)	0 (0)			
4	**T.T Vaccine in 12 weeks of ANC%**					
	0-40 (n=0)	0 (0)	0 (0)	0.25	4.74	3
	41-60 (n=9)	2 (22.22)	7 (77.77)			
	61-80 (n=11)	4 (36.36)	7 (63.63)			
	>80 (n=19)	1 (5.26)	18 (94.73)			
5	**Infant death in area**					
	Yes (n=13)	4 (30.76)	9 (69.23)	0.394	0.727	1
	No (n=23)	3 (13.04)	20 (86.95)			
6	**Full immunization status (13-24 month)%**					
	0-40 (n=3)	3 (100)	0 (0)	0.001	15.899	3
	41-60 (n=11)	1 (9.09)	10 (90.90)			
	61-80 (n=9)	2 (22.22)	7 (77.77)			
	>80 (n=16)	1 (6.25)	15 (93.75)			
7	**ANM seat vacant**					
	Yes (n=12)	2 (16.66)	10 (83.33)	0.754	0.098	1
	No (n=27)	5 (18.51)	22 (81.48)			

Table 2: Association of ASHA based on their socio-demographic profile

S No.	Variables	Work performance of ASHA (N=39)		p value	χ² value	df
		Marginally Fair (%) (N=7)	**Marginally Fair (%) (N=32)**			
1	**Age (in years)**			0.548	1.203	2
	<25 (n=2)	0 (0)	2 (100%)			
	25-35 (n=26)	4 (15.38)	22 (84.61%)			
	>35 (n=11)	3 (27.28)	8 (72.72%)			
2	**Education Status**			0.132	6.24	3
	Eighth standard (n=7)	3 (42.85)	4 (57.14)			
	Secondary School (n=11)	3 (27.27)	8 (72.72)			
	Sr. Sec. School (n=14)	1 (7.14)	13 (92.85)			
	Graduation or more (n=7)	0 (0)	7 (100)			
3	**Economic status**			0.5	0.454	1
	BPL (n=10)	3 (30)	7 (70)			
	APL (n=29)	4 (13.79)	25 (86.20)			
4	**Socio economic status**			0.132	6.24	3
	Upper middle class (n=8)	1 (12.5)	7 (87.5)			
	Middle class (n=12)	2 (16.66)	10 (83.33)			
	Lower middle class (n=8)	2 (25)	6 (75)			
	Lower class (n=11)	2 (18.18)	9 (81.81)			
5	**Type of family**			0.822	0.051	1
	Nuclear family (n=18)	4 (22.22)	14 (77.77)			
	Joint family (n=21)	3 (14.28)	18 (85.71)			
6	**No. of family members**			0.126	4.144	2
	<4 (n=4)	0 (0)	4 (100)			
	5-7 (n=20)	6 (30)	14 (70)			
	>7 (n=15)	1 (6.66)	14 (93.33)			
7	**Husband education**			0.662	0.445	3
	Eighth standard (n=5)	2 (40)	3 (60)			
	Secondary education (n=10)	2 (20)	8 (80)			
	Sr. Sec. School (n=12)	2 (16.66)	10 (83.33)			
	Graduation or more (n=12)	1 (8.33)	11 (91.66)			
8	**Husband occupation**			0.162	5.785	3
	Govt. Employee (n=2)	0 (0)	2 (100)			
	Business (n=3)	2 (66.66)	1 (33.33)			
	Unskilled work (n=10)	2 (20)	8 (80)			
	Skilled work (n=24)	3 (12.5)	21 (87.5)			
9	**Child less than 5 year**			0.952	0.004	1
	Yes (n=3)	0 (0)	3 (100)			
	No (n=36)	7 (19.44)	29 (80.55)			
10	**Population served**			1.000	1.076	3
	<500 (n=2)	0 (0)	2 (100)			
	500-1000 (n=19)	3 (15.78)	16 (84.21)			
	1001-1500 (n=17)	4 (23.52)	13 (76.47)			
	>1500 (n=1)	0 (0)	1 (100)			
11	**Work location**			0.625	0.239	1
	Same village (n=33)	5 (15.15)	28 (84.84)			
	Others (n=6)	2 (33.33)	4 (66.66)			
12	**No. of Anganwadi served**			0.952	0.004	1
	1 (n=36)	6 (16.66)	30 (83.33)			
	2 (n=3)	1 (33.33)	2 (66.66)			

however this difference was not significant. Other observations from table 1 such as number of family members, husband education, husband occupation, served population, and serving anganwadi centre were also not significantly associated with their work performance.

DISCUSSION

Almost half of ASHAs were less than 30 years of age in present study; similar finding was also observed by Srivastava et al.[5] Majority (71%) of ASHAs were young (<35 years) in our study, little lower (40%) was seen in study of Jain N et al.[6] Few (5%) ASHAs were even below 25 years, however much higher proportion was found by Srivastava et al[5] (25%) and Saxena et al[7] (23%), that is against prescribed preferable age group of 25-45 years by Government of India (GOI).[8] Similar to Jain N et al[6] and Srivastava et al[5], this study also observed that more than 90% ASHA were Hindu and married.

Similar to Kansal et al[9] study, majority of ASHAs were from OBC category in our study followed by general category. It has been observed that caste status of ASHA in majority of studies shows up in same pattern (OBC > GEN /OC>SC>ST)[5-7,9-12] except in study of Bajpai et al[3] in 2010, in which more than half ASHA were from ST (54%) followed by SC (9%), general category (20%), and OBC (17%) in Rajasthan. Maximum weightage of guidelines of GOI is on education level of ASHA for their appointment that can help her to pursue her work in effective manner. Present study showed all ASHAs were educated equal or more than 8th class which is as per guidelines of GOI[2] and little lower in Bajpai et al[3] study (98%). Around 36% ASHAs had education up to senior secondary and 18% of ASHAs were graduate or more, which is similar to Kansal et al[9] (in which two third of total respondents were having education up to high school) and better than Neeraj Jain et al[6] study in which majority (53%) of respondents were educated up to middle school.

In Bajpai et al study[3], 76% ASHAs were from same working village which is little lesser than present study's observation (87%) and it might be significant because working from other village might affect her performance, local resident of village is one of foundation factors for ASHA recruitment. Average population served by ASHA was 923 in this study which is almost same as Bajpai et al study[3] (904 population). The present study showed 71%

ASHAs has registered pregnancy out of total annual target which is much less than Bajpai et al study[3] observation (100%). In present study, every registered pregnant lady got at least one ANC services which is better than Bajpai et al[3] study (12% registered lady didn't get any ANC services) and every pregnant lady (100%) who get registered within 12 weeks of pregnancy get Tetanus toxoid shots in their first ANC visit which is essential to prevent maternal tetanus in case of spontaneous abortion that is more common in first trimester of pregnancy. All ASHAs (100%) have visited newborn within one week at least one time under home based neonatal care (HBNC) program which is similar to Bajpai et al[3] study (98%) which is correct as per HBNC guidelines of NHRM[13] but only 5.12% ASHA have visited new born more than one time in a week. It has also been observed that there is significant difference between first and fourth ANC services given to pregnant lady.

CONCLUSION

All ASHAs performed fair, neither excelled nor had poor performance. Eighteen percentages were marginally fair and 82% were moderately fair worker. None of socioeconomic variables such as age, education, socio economic status, religion, caste, family size, family type, husband education, and husband occupation were significantly associated with their work performance. All ASHAs were well aware about provision of HBNC and ANC services but lacked adequate skills for providing them, which is a vital component to reduce infant and maternal death. Periodic training and motivation may improve their work performance.

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