A Quasi Experimental Study to Assess the Effectiveness of Structured Training Programme on Practices of Asha Workers Related to New Born Care Based on Asha Module- 6 "Skills that Saves Lives" in A Selected Communities of Delhi

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Abstract: *A Quasi experimental study was conducted to develop structured training programme for ASHA workers on new born care based on ASHA module 6 "skills that saves lives", to compare the practice of ASHA workers with regard to new born care before and after the administration of structured training programme in IPP VIII Maternity and Health centre, Badarpur, New Delhi and Government dispensary, Tuglakabad, New Delhi. The findings reveals that in the experimental group there was a significant increase in the practice scores of ASHA workers, from pre test to post test where as no significant change was observed in control group. The post test practice scores of the ASHA workers in the experimental group were significantly higher than that of control group. There was no association between practice scores and selected demographic variables i.e. age, years of experience and educational status of ASHA workers. The data was analyzed using descriptive and inferential statistics like frequency, percentage, t – test and Fischer Exact test.*

Keywords: ASHA workers, Training programme, Practices, Newborn care

1. Introduction

Children are our future and our most precious resource. Health of the future children's depends on the nurturing practice adopted by the family. The first few days of life is a period of transition occurring all of a sudden from parasitic foetal life (intra uterine environment) to a completely independent (extra Uterine life). The process of birth and adaptation to the new surroundings depend upon number of adjustments on the part of the newborn baby. Newborn care is of immense importance for the proper development and healthy life of a baby. Although childhood and infant mortality in South Asia has reduced substantially during the last decade, the rate of neonatal mortality is still high. Further, although 70% of infant deaths occur during the first month of life, the policy-makers and health professionals in developing countries, until recently, neglected newborn care. Every year, about 3.7 million babies die in the first four weeks of life (2004 estimates). Most of these newborns are born in developing countries and most die at home. Up to two-thirds of these deaths can be prevented if mothers and newborns receive known, effective interventions. A strategy that promotes universal access to antenatal care, skilled birth attendance and early postnatal care will contribute to sustained reduction in maternal and neonatal mortality. Studies have shown that home-based newborn care interventions can prevent 30–60% of newborn deaths in high mortality settings under controlled conditions. Therefore, WHO and UNICEF now recommend home visits in the baby's first week of life to improve newborn survival.

2. Review of Literature

Jyoti Sarin and Jeeva S conducted a research on practices of Auxiliary Nurse Midwives (ANM) regarding care of baby at birth with the aim to assess the expressed Practices of Auxiliary Nurse Midwives (ANMs) regarding care of baby at birth including neonatal resuscitation. Result shows that most of the ANMs used unsafe practices. It was concluded that there is an urgent need to reorient ANMs and to educate them on safe delivery practices and care of baby at birth including neonatal resuscitation.

Darshan K, S Mahyavanshi conducted a cross sectional study on ASHA workers with the aim to find out the knowledge, attitude and practice of ASHA workers regarding child health under five years of age, to associate their knowledge, attitude and practice with education level of ASHA workers, and to associate their knowledge, attitude and practice with total duration of services as ASHA worker. 130 ASHA Workers participated in the study. Sampling technique was Simple random sampling. The mean age of subjects was 27.8 ±6. About 70% of them had received Secondary level of education. Almost 86.2% of ASHA workers had improper knowledge regarding newborn care. There was no association found between the knowledge, practice and attitude with education and total duration of services. Study concluded that Inspite of training which is given to ASHA workers there is still a lacunae left in their knowledge regarding the various aspects of morbidity and mortality of children under 5 years of age. So

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frequency and quality of training of ASHA workers must be strengthened.

3. Materials and Methods

The study was conducted in National Capital Territory of Delhi. In present study, a quasi experimental design is adopted in order to achieve the objectives. The researcher has attended training of ASHA module-6 at IPP VIII, Maternity centre, Badarpur, New Delhi. The sample comprised of 30 ASHA workers (15 in Experimental group and, 15 in Control group) of selected community of Delhi. The structured practice questionnaire was used as a tool which consists of IV parts. Part I includes Demographic Profile of ASHA workers which contained 5 items, Part II includes Observational check list to assess the practices of ASHA workers on new born care which contained 40 items, Part III includes Multiple choice questions which contained 8 items and Part IV includes True and False which contained 5 items. There are total 53 items in the tool. Score of "one" is given for correct answer and "zero" for wrong answer. Maximum score is 53 and minimum score is 0. Tool 2 was structured opinionnaire which was developed to determine the opinion of ASHA workers regarding the acceptability and utility of the training programme in relation to the adequacy of the content, clarity of language, interest building factors, usefulness and demonstration. The opinionnaire comprised of 10 items, each with three alternative responses as to a great extent, some extent and not at all. After obtaining validity and administrative approval try out of the tool was done to check the clarity and practicality of the tool. The reliability of the structured opinionnaire was established by Cronbach's alpha method. Reliability coefficient of structured opinionnaire was found to be 0.91. The structured opinionnaire was found to be reliable. Pre testing of the Structured Practice Questionnaire was done on five ASHA workers of Govt. dispensary Sundernagri, New Delhi to check the clarity and ambiguity of items. It was found that items were clear and it took about 60 minutes by each subject to complete the practice questionnaire. The structured practice questionnaire was found to be feasible and the items were clear. The reliability of SPQN was assessed using Kuder Richardson- 20 formula

and reliability coefficient was found to be 0.75. A Final study was conducted after approval from the Institutional Review Board, Jamia Hamdard. A participant in the study was from IPP VIII Maternity centre, Badarpur and Govt. dispensary, Tuglakabad. Pre test was administered to both the control and experimental groups on the Day 1. Experimental group was taught about newborn care based on ASHA module 6 for a period of 3 hours for 2 days followed by demonstration. Post test was conducted on Day10 after the teaching session followed by assessment of opinion through structured opinionnaire for the experimental group.

4. Results

The data were analyzed by using descriptive and inferential statistics like frequency, percentage, t – test and Fischer Exact test. Data analyzed for statistical significance. Mean, standard deviation of pre-test and post-test scores of the control group and experimental group were calculated and t-test was used to find the significance of differences between; mean pre-test and post test scores of control and experimental group. Fisher exact test to find association of practice scores of experimental group with selected demographic data. Both the groups were homogenous with respect to the demographic variables. The mean scores of pre test of control group was 22.8 and in experimental group was 22.06. The mean of post test practice scores of experimental group was higher than the mean of practice scores of control group. The „t" value was computed and found to be 1.01 in control group and 3.3 in experimental group and found to be significant at 0.05 level. The mean of post test scores of experimental group (40.5) was higher than the mean of post- test scores of control group (23.5) with a mean difference of 17. The t value was computed and found to be 55.5 which is significant at 0.05 level. The computed fisher value of experimental group and control group was greater than 0.05, which is not significant at 0.05level. This indicated that post test practice scores had no association with age, experience and educational status of ASHA workers.

Table 1: Frequency and Percentage Distribution of ASHA workers by their age, years of experience, educational status, marital status and in service education attended., $n_1 + n_2 = 30$

S. No	Demographic Characteristics	Experimental group (n₁=15)		Control group (n₂= 15)		df	Test value (test used)	p value
		Frequency	%	Frequency	%			
1	**Age**					2	0.3 (Fisher exact test)	1.00
	21-30 years	0	0	0	0			
	31-40 years	12	80%	13	87%			
	41-50 years	3	20%	2	13%			
2	**Years of Experience**						0.2 (Fisher exact test)	0.71
	1-2 years	0	0	0	0			
	3-4 years	5	33%	7	47%	2		
	5-6 years	10	67%	8	53%			
3	**Education**						1.00 (Fisher exact test)	0.62
	Primary	0	0	0	0			
	Middle	6	40%	9	60%	3		
	Secondary	7	47%	4	27%			
	Sr. secondary	2	13%	2	13%			
4	**Marital status**							

	Yes	100	100%	100	100%				
	No	0	0	0	0				
5	In service education attended								
	Yes	100	100%	100	100%				
	No	0	0	0	0				

Table 2: Mean, standard deviation, standard error and „t‟ value of pre test practice scores of ASHA workers in the experimental group versus control group, $n_1+n_2=30$

Group	Mean	Standard deviation	SD_E	SE_{MD}	Mean D	„t‟ value	df	p value
Experimental group (n_1=15)	22.8	1.3	0.1	0.41	0.74	1.67	28	1.05
Control group (n_2 = 15)	22.06	1.2						

't'(28) = 2.05, p> 0.05, Not Significant.

Table 3: Mean, standard deviation and „t‟ value of pre- post test practice scores of ASHA workers between the experimental group and control group, $n_1+n_2=30$

Group	Pre test Mean± SD	Post test Mean ± SD	't' value	df	p value
Experimental group (n_1=15)	22.06 ± 2.0	40.5 ± 3.2	3.3	14	0.02*
Control group (n_2 = 15)	22.8 ± 2.2	23.5 ± 2.4	1.01	14	1.00

*t (14) = 2.15, p < 0.05, *Significant at 0.05 level

Table 4: Mean, standard deviation, standard error and „t‟ value of post test practice scores of ASHA workers in the experimental group versus control group, $n_1+n_2=30$

Group	Mean	Standard deviation	SD_E	SE_{MD}	Mean D	„t‟value	df	p value
Experimental group	40.5	0.26	2.04	0.41	17	55.5	28	0.02*
Control group	23.5	2.3						

't'(28) = 2.05, p< 0.05, *Significant at 0.05 level
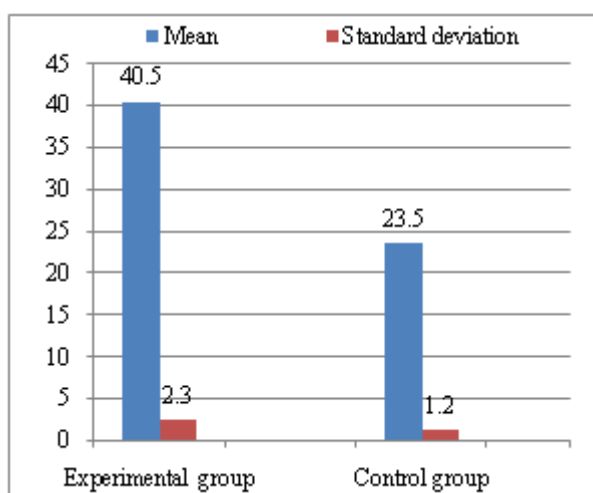
Figure 1: Multiple Bar Diagram Showing Mean and Standard Deviation of Post Practice Scores of ASHA workers.

Table 5: Fisher exact test showing association between post test practice scores and age of ASHA workers in experimental group and control group, n_1+n_2 =30

Group	Age	Practice scores			Fisher exact test	p value
		Safe practices	Moderately safe practices	Unsafe practices		
Experimental group (n_1=15)	21-30 years	0	0	0	0.50	1
	31-40 years	5	7	0		
	41-50 years	1	2	0		
Control group (n_2 = 15)	21-30 years	0	0	0	0.73	1
	31-40 years	0	2	11		
	41-50 years	0	0	2		

$p > 0.05$, Not significant.

Table 6: Fisher exact test showing association between post test practice scores and years of experience of ASHA workers of experimental group and control group, $n_1 + n_2 = 30$

Group	Years of experience	Practice scores			Fisher exact test	p value
		Safe practice	Moderately safe practices	Unsafe practices		
Experimental group (n_1=15)	1-2 years	0	0	0		
	3-4 years	2	3	0		
	5-6 years	4	6	0	0.42	1
Control group (n_2=15)	1-2 years	0	0	0		
	3-4 years	0	1	6	0.40	1
	5-6 years	0	2	6		

$p > 0.05$, Not significant.

Table 7: Fisher exact test showing association between post test practice scores and education of ASHA workers of experimental group and control group, $n_1 + n_2 = 30$

Group	Education	Practice scores			*Fisher exact test*	*p value*
		Safe practices	Moderately safe practices	Unsafe practices		
Experimental group (n_1=15)	Primary	0	0	0		
	Middle	1	5	0		
	Secondary	3	4	0	0.10	0.61
	Sr. secondary	1	1	0		
Control group (n_2=15)	Primary	0	0	0		
	Middle	0	1	8		
	Secondary	0	1	3	0.32	1
	Sr. secondary	0	0	2		

$p > 0.05$, Not significant.

Table 8: Frequency and percentage distribution of the opinion of ASHA workers regarding acceptability of the training programme on newborn care

Statements	*Great extent (f) (%)*		*Some extent (f) (%)*		*Not at all (f) (%)*	
I find that training programme was effective	12	80	3	20	0	0
I find training programme is impressive	12	80	3	20	0	0
I find that training programme is relevant	15	100	0	0	0	0
I find that training programme is interesting	13	86	2	14	0	0
I find that training programme is easy to understand	13	86	2	14	0	0
I feel that the language used was simple to follow	15	100	0	0	0	0
I find that training programme is logical	13	87	2	13	0	0
I feel that training programme helped me to retain content	12	80	3	20	0	0
I find that demonstration were helpful in understanding the content	13	88	2	12	0	0
I find that the duration of the programme was sufficient	11	74	3	26	0	0
Overall percentage	86.10		13.90		0	

5. Discussion

The present study confirmed the effectiveness of structured training programme on practices of ASHA workers. This finding is in accordance with the study conducted by P Stalin in Faridabad, which revealed that there was improvement in the practices of ASHA workers after giving one day training programme. The present study found no association between the practice scores with selected demographic variables, that is, age, years of experience and educational status. Similar findings were also found in another study S. Jyoti and Jeeva S whereby there was no significant association found between the age and educational status; but a significant association was found between the practice scores and years of experience. Also, Chandra, Naik, Wantamutte, and Mallapur in their quasi experimental study assessed the newborn practices given by traditional birth attendant"s (TBA). Their study revealed that practices related to newborn care services provided by the trained TBAs were poor. Moreover, the post-test evaluation showed that there was a progressive improvement in the newborn care provided to the experimental group. The present study also found improvement in the practices of newborn care among ASHA workers after the training programme. Likewise, Susham D Amol , H Samir, M Suresh, Y Arun assessed the effectiveness of training course of ASHA on infant feeding practices and concluded that the training programme is very effective in improving the ASHA worker practices. Thus, the present study findings conclude that the training programme on newborn care is very effective in improving the practices of ASHA workers.

6. Conclusion

The structured training programme on newborn care was effective in improving the practices of ASHA workers. There was significant difference between the mean practice scores of ASHA workers who receive structured training programme and who did not receive structured training programme. There was no significant association between the post test practice scores and selected demographic variables i.e. age, years of experience and educational status.

7. Future Scope

ASHA workers provide services to the community at grass root level. So, administrators can plan more in service education programmes to improve the practices of ASHA workers. Demonstrations for ASHA workers can be planned so, that they will be able to provide effective services to the community. Suggestions can be given to the administrators to give more incentives to the ASHA workers which can be a motivation to them. ASHA workers should be supervised regularly by the administrators. Other teaching methods like role play can be used to improve the practices of ASHA workers. Regular workshops, seminars can be organized by the nurse administrators for ASHA workers to update their practices.

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