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KEY WORDS: ANMs, ASHAs, MCH care, Knowledge, Assessment.

ASSESSMENT OF KNOWLEDGE OF ASHAS AND ANMS IN ANTENATAL AND PERINATAL CARE: AN OBSERVATIONAL STUDY

Dr. Yerrakota Parimala Devi Postgraduate, Kurnool Medical College

Dr. A. Srilakshmi Professor And HOD , Kurnool Medical College

ABSTRACT

Background: Community health care workers (ANMs and ASHAs) are the paraprofessionals who have a comprehensive understanding of a community's culture and language. They mainly focus on Mother and Child Health care services (MCH) such as Antenatal and postnatal care, identifying high risk pregnancies, treating anaemia, etc. Providing culturally competent health services to the population is thought to be the main responsibility of ANMs and ASHAs, who typically have less training than medical professionals. The present study was done to assess their level of knowledge regarding MCH services. **Methodology:** An observational study was done with 15 ANMs and 45 ASHAs working in a Community Health Centre for a period of 3 months. Association between study variables was measured by Chi square test or Fishers exact test and p value of <0.05 was considered as statistically significant. **Results:** ANMs had higher knowledge levels than ASHAs and compared to the pre-test, better results were seen in post-test in both the groups. **Conclusion:** Reorientation training should be given at regular intervals to update as well as revise their MCH knowledge levels.

INTRODUCTION

India committed to promote primary healthcare and provide universal health coverage through the National Health Policy [1] and Astana Declaration. [2] To cover the health care needs of highly populous country like India, different cadres of health care personnel are created. ANMs (auxiliary nurse midwives) are one of the most significant frontline health workforces in the Indian public health system, with over 200 000 of them in the country. [3] These ANMs are essential to the delivery of primary healthcare, especially when it comes to maternity and child health (MCH) services. Based on the disparities of rural and urban health care deliveries, on April 12, 2005, the Indian government launched the National Rural Health Mission (NRHM).[4-7] The NRHM program's goal was to assign Accredited social health activist (ASHA) to rural areas for every 1,000 people.[6,7] ASHA employees serve as a bridge between the healthcare delivery system and rural populations.[8,9] To provide better health care services, these ANMs and ASHAs are given induction training initially at the time of joining into the services on various aspects of MCH care. [10] All health care personnel have to update their knowledge to provide better health care services as the technology advances. Most of the available review of literature had focused only on the assessment of the knowledge among ASHAs, and a very few articles had done studies among ANMs. As per the knowledge of the author, none of the articles had done any comparative study between ASHAs and ANMs in the given context. Hence, an attempt was made to compare the knowledge of ASHAs and ANMs regarding MCH services i.e., antenatal care, perinatal care, breast feeding, anemia, high risk pregnancies, and menstrual hygiene, so that if any gap is found that can be filled for better functioning of these personnel.

MATERIALS AND METHODS:

Study Design: Cross sectional study
Study Duration: Three months
Study Setting: Community Health Centre (CHC), Midthur.
Study Population: ANMS and ASHAs
Sampling Method: Simple random sampling
Sample Size: 15 ANMs and 45 ASHA workers

Inclusion Criteria:

- ANMs and ASHAs working in the same location for a minimum period of 2 years.
- Participants who gave written informed consent.

Exclusion Criteria:

- Participants not willing to give consent.
- Not available at the time of the study.
- Recently migrated from some other area to the study area.

Methodology:

This study was undertaken after obtaining permission from the Institutional Ethics Committee of the Tertiary Care Hospital, Kurnool, and permission from the Superintendent in charge of CHC, Midthur, and written informed consent of the study participants. A pre designed, pre tested questionnaire was given to the study participants regarding antenatal care, perinatal care, breast feeding, anemia, high risk pregnancies, and menstrual hygiene and answers were noted down. The questionnaire had 20 questions; each right answer was given one mark. Scores of 12 and above (≥60%) are regarded as good, those with scores below 12 (<60%) as poor. After that through knowledge was given through lectures and IEC materials regarding the same. Once again, the same questionnaire was given as post-test evaluation and the pre-test results were compared to the post test result. For grading of education, modified BG Prasad socio economic classification was used.[11]

Statistical Analysis:

The data were entered into Microsoft Excel version 11 and analyzed with Statistical Package for Social Sciences (SPSS) version 26.0. Results were expressed into tables and graphs. Pre and post test results were compared with Paired t test. Association between study variables was measured by Chi square test or Fishers exact test. A, p value of <0.05 was considered as statistically significant.

RESULTS:

The majority of study participants were ASHAs, i.e., 45 (75%) and 15 (25%) were ANMs (Figure 1).

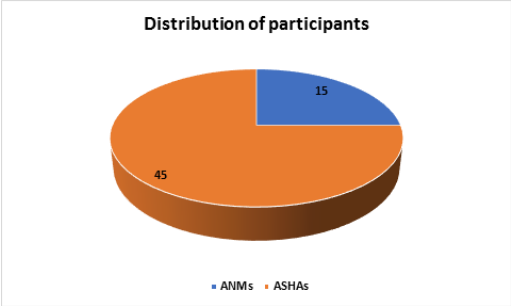

Figure 1: Distribution Of Participants

Table 1: Age Distribution Of The Study Participants

Age distribution (in years)	ANMs	ASHAs	Total
18-25	1(6.7%)	12 (26.7%)	13 (21.7%)
26- 30	6 (40%)	17 (37.8%)	23 (38.3%)
31-35	5 (33.3%)	13 (28.9%)	18 (30%)
36-40	3 (20%)	3 (6.7%)	6 (10%)
Total	15 (25%)	45 (75%)	60 (100%)

Fishers exact test 4.17; P value 0.24 (Non-significant)

As per the table 1, age of the participants was in the range of 18-40 years with the mean age of 28.3±1.3 years. Most of the ANMs and ASHAs were of 26- 30 years, i.e., 6 (40%), and 17 (37.8%), respectively, followed by 31-35 years, i.e., 5 (33.3%), and 13 (28.9%), respectively. As per the figure 2, most of the cases had secondary education in both ANMs and ASHAs, i.e., 6 (40%) and 21 (46.7%), respectively, followed by Intermediate (+2), i.e., 4 (26.7%), and 14 (31.1%) cases, respectively.

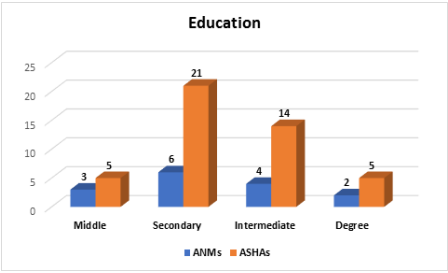

Figure 2: Education of the study participants

Table 2: Comparison of knowledge of ANMs and ASHAs

Knowledge about	ASHAs			ANMs		
	Pre test	Post test	P value	Pre test	Post test	P value
Antenatal care	31(68.9 %)	40 (88.9%)	0.53	11 (73.3%)	14 (93.3%)	0.72
Perinatal care	30 (66.7%)	36 (80%)	0.65	12(80%)	14 (93.3%)	0.84
Breast feeding	21 (46.7%)	33 (73.3%)	0.04*	11(73.3 %)	13(86.7 %)	0.79
Anaemia	35 (77.8%)	38 (84.4%)	0.71	13(86.7 %)	14 (93.3%)	0.89
High risk pregnancies	13(28.9 %)	23(51.1 %)	0.05	10(66.7 %)	12(80%)	0.73
Menstrual hygiene	19(42.2 %)	32(71.1 %)	0.03*	11(73.3 %)	13(86.7 %)	0.63

*Significant P value, i.e., <0.05.

As per the above table 2, there was improvement in the knowledge of both ANMs and ASHAs after briefing regarding various maternal and child health care services, but the pre and post-test difference was significant among ASHAs regarding breast feeding, and menstrual hygiene.

DISCUSSION

As the knowledge of ANMs and ASHAs is very vital in implementing better MCH services, the present study was tried to assess the knowledge of the ANMs and ASHAs which was backed up with the awareness sessions separately for ANMs and ASHAs about proper delivery of MCH services. The present study was conducted with 45 (75%) ASHAs and 15 (25%) ANMs.

In this study, most of the ANMs (40%), and ASHAs (37.8%) were of 26- 30 years, similar to the study by Shashank KJ and Angadi MM [11] (53.8%), while it was 25 to 34 years in the studies by Sugandha BK and Jagannath P, [12] (51.9%), and Desai PB [13] (71%). These age wise variations were because of different aging gradings followed in the above studies. Both the ANMs and ASHAs participate in community mobilization. Age has a significant role in mobilization, because people in the age group of 25 and 45 are more active than the old age people. Age of the present study participants matches the same active age group.

In the present study, most of the cases had secondary education among both ANMs (40%) and ASHAs, (46.7%), similar to the studies by Sugandha BK and Jagannath P,[12] (61.3%), and Nagaraj S et al. [14] (77.3%). Higher education imparts them good knowledge about MCH services which is additive to their experience. The same was observed in this study.

Knowledge about proper Antenatal care (ANC) among ANMs, during pretest was 73.3%, that had increased to 93.3%, and among ASHAs, ANC knowledge had increased from 68.9% to 88.9%, which was lesser than Shashank KJ and Angadi MM. [11] (79.5%), but higher than the Sugandha BK, and Jagannath P study [12] (47.2%), and Kori S et al.[15] (37.2%). Regarding knowledge about high-risk pregnancies among ANMs, it increased from 66.7% to 80%, and among ASHAs, it increased from 28.9% to 51.1% in post-test, which was less than the study by Shashank KJ and Angadi MM. [11] (90.9%).

Regarding knowledge about anemia among ANMs, it increased from 86.7% to 93.3%, and among ASHAs, it increased from 77.8% to 84.4% in posttest, which was more in Shashank KJ and Angadi MM study. [11] (90.9%). Among ANMs, knowledge about perinatal care (PNC) during pretest was 80%, and that had increased to 93.3% in post- test, and among ASHAs, this knowledge increased from 66.7% to 80%, which was similar to the study by Kohli C et al.[16] (67.3%), but lesser than Kansal S et al.[17] (82%).

Among ANMs, knowledge about proper breast feeding increased from 73.3% to 86.7%, and among ASHAs, it increased from 46.7% to 73.3%, which was less than the study by Sugandha BK and Jagannath P [12] (73.9%). Among ASHAs, 42.2% of cases had knowledge about menstrual hygiene which was improved up to 71.1% in posttest, while, among ANMs, it was increased from 73.3% to 86.7%.

All the above described MCH services are very crucial for better outcome of a pregnancy which depends on the knowledge levels of both ANMs and ASHAs.

CONCLUSION

Compared to pretest in the post-test, there was an improvement in the knowledge of both ANMs and ASHAs regarding various maternal and child health care aspects, and this pre and post-test difference was significant among ASHAs regarding breast feeding, and menstrual hygiene. Even though the ANMs and ASHAs received training during their induction, with the evolvement of newer concepts in the medical field they have to update themselves to deliver better MCH services, for that reorientation and retraining sessions should be conducted at regular intervals at their respective primary health care centers.

Limitations

There is paucity of the studies regarding the assessment of MCH knowledge of ANMs, and less sample size was one more limitation of this study.

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