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Original Research Article

A Cross-Sectional Study of Knowledge and Practices of Asha Towards Maternal Health Care in Rural Field Practice Area of PHC Kalyanpur, Bihar

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Conflict of interest: Nil

Abstract:

Background: ASHAs are essential to the success of NHM in India since they are the ones who are on the front lines. In order to provide maternal health services to the community, it is vital to ascertain whether they possess the requisite abilities and procedures. In order to make any necessary adjustments, it is crucial to discuss these worries and learn how people feel about the training component. Research to assess the abilities and strategies employed by ASHAs working in the catchment area was studied in the rural field practice area of the Darbhanga Medical College at PHC Kalyanpur, Samastipur, Bihar, to evaluate ASHA knowledge and practices, as well as the gaps between them, regarding maternal health care during pregnancy and postpartum.

Methods: This community-based cross-sectional survey was conducted in the rural field practice area of PHC Kalyanpur from January 2021 to December 2022. All 340 mothers and the 68 ASHAs that were chosen were personally contacted. All of the participants were first briefed on the study's objectives and asked for consent after being briefed on their part in the study. A semi-structured questionnaire that had been pre-tested was used to conduct one-on-one interviews to assess knowledge of each ASHA. Through one-on-one interviews with chosen beneficiary women, the practices of ASHA regarding the delivery of maternal health services were evaluated.

Results: 28% of the participating ASHAs have finished eighth grade, 61% of them were qualified more than tenth grade, and 11% of them were graduates. 44% had experience of at least 15 years, and 9% of the participants had fewer than ten years of experience. 75% of ASHA support early registration of expectant mothers at a nearby PHC before the third month of pregnancy. 14.70% of the ASHAs were aware of three danger signs of pregnancy, namely swelling of legs, convulsions, high blood pressure, and none of them knew how high blood pressure impacts the growth of the foetus. The majority of ASHA staff, 60.30% advocated for a routine check-up within two weeks of delivery, whereas the remaining 39.70% either were unaware of it.

Conclusion: The majority of ASHA staff, according to the aforementioned survey, has average expertise, which requires continuous revision and updating. ASHA employees were highly knowledgeable about prenatal care, with the exception of anaemia throughout pregnancy. They guided well about the public sector's prenatal, antenatal, and intranatal care services. The vast majority of women were utterly pleased with the antenatal services offered

by ASHA. In order for the ASHAs to obtain the necessary knowledge and skills with the most recent improvements, they should be undergoing on-the-job training.

Keywords: ASHA, NHM, Maternal care, Antenatal care.

Introduction

An international effort called the "safe motherhood initiative" aims to lower the number of deaths related to pregnancy and childbirth. The WHO first introduced it in 1987 [1]. In developing nations, maternal mortality and morbidity are major health issues. To achieve universal health, improving maternal health has been a crucial component [2]. In a perfect world, antenatal care would keep an eye out for complications during a pregnancy and diagnose and treat any present or previous pregnancy-related issues. On preventative care, food throughout pregnancy, delivery care, postnatal care, and other related topics, it should also offer guidance and counselling. All healthcare services with a focus on antenatal care and registration are given precedence. It is typically included in the services for maternity and pediatric healthcare. Everywhere women reside, there should be access to high-quality maternity healthcare that is respectful of social and cultural standards, acceptable to potential patients, and available to them. Complete care is offered, as well as access to other reproductive health services [3]. Community health workers (CHWs) are recognized as key members of the healthcare delivery system in the pursuit of the Millennium Development Goals (MDG) [4]. In the context of healthcare delivery in the community, the word "CHW" encompasses a broad variety of practitioners, from nurse midwives to in-home carers to paid employees to unpaid volunteers [5]. According to their definition, community health workers (CHWs) are "members of the community who work almost exclusively in community settings and who serve as connectors between health care consumers and providers to promote health among groups that have historically lacked access to adequate care" [6]. Due to the significance of maternity and child health, female health workers are typically recruited by CHW programmes [7]. In 2005, the government of India launched the National Rural Health Mission (NRHM) now National Health Mission (NHM) to enhance the country's healthcare infrastructure. One of the most revolutionary shifts was the inclusion of Accredited Social Health Activists (ASHA) in the public health system [8]. Antenatal, intra natal and postnatal care, as well as family planning and nutrition counselling, safe abortions, escorting pregnant women to hospitals for institutional births, increasing public awareness of institutional births and the potential danger signs and complications that can arise during pregnancy, labor, and the postpartum period, and mobilizing the community to make better use of existing health services are all responsibilities placed on ASHA [9]. Three hundred million women worldwide suffer from chronic or acute illnesses as a result of inadequate antenatal and postpartum care, which results in 500,000 women dying each year. One-fifth of all maternal deaths worldwide are caused by India alone [10]. In developing nations like India, maternal mortality and morbidity are serious health issues. To achieve universal health, improving maternal health has been a crucial component [11]. Only 24% of pregnant women in Bihar's rural population received all four antenatal checkups during their pregnancy, and only 51.9% of pregnant women had their antenatal checkups in the first trimester.

Only 24.9% of pregnant women in Darbhanga, Bihar, received all four antenatal checkups during their pregnancy, and only 51.8% of pregnant women had their antenatal checkups in the first trimester [12]. Bihar's MMR, which is currently 130 live births per lakh, is declining, but in order to get it down to the national average of 97 live births per lakh, it is critical to improve the rural health system [13].

Since they are the ones on the front lines, ASHAs are crucial to the success of NHM in India. Therefore, it is crucial to investigate whether they have the necessary skills and methods for providing maternal health services to the community. While delivering maternal health care services in the community, ASHA employees may encounter difficulties. It's important to talk about these concerns and understand how they feel about the training part so that any required adjustments may be made [14]. Despite this novel position in the health, no study has been conducted at the PHC Kalyanpur to evaluate the skills and methods used by ASHAs operating in the catchment area. Given this rationale, we propose to perform a research in the rural field practice area of the Darbhanga Medical College in PHC Kalyanpur, Samastipur, Bihar, to assess ASHA knowledge and practices and the gaps in between, towards maternal health care during pregnancy and postpartum period.

Materials and Methods

In the rural field practice area of PHC Kalyanpur, this community based cross-sectional survey was carried out from January 2021 to December 2022, which involves ASHA working under PHC Kalyanpur.

Sample Selection Criteria

Selection of sample was performed as follows:

Inclusion criteria

Each sample element must meet inclusion criteria in order to be included in the sample. ASHAs who had been working in their field area for more than two years prior to the start of the survey were considered eligible. They were face-to-face interviewed using a pre-structured, pretested questionnaire and their answers were cross-checked with those of beneficiaries who had delivered live babies within last six months from start of survey and are permanent resident of field area of selected ASHA.

Exclusion criteria

Exclusion criteria are characteristics that could skew or taint the study's findings, thus such subjects aren't included in the study.

- Those ASHA and beneficiary mothers who are not willing to participate in the study.
- Those ASHA and beneficiary mother who are severely ill and hence unable to respond.

Sample Size

The total number of ASHA posted in the rural field area of PHC Kalyanpur is 272. Every 4th ASHA were selected through systematic random sampling, so total 68 ASHAs were selected. 5 beneficiary mothers from the intervention area of each selected ASHA each having delivery in the last six months was also selected. So the final sample size of the study was 408 (68 ASHAs and 340 mothers).

Sampling Method

- Got the list of all ASHAs (272) employed by PHC Kalyanpur.
- First ASHA was selected using simple random sampling then every 4thASHA was selected for the study using a systematic random sampling procedure.
- In this manner, 68 ASHA were selected in total.
- The list of mothers who gave birth during the last six months were

collected from the selected ASHA. Five such mothers were chosen from the compiled list by using simple random sampling procedure.

Data Collection

- Personally approached to all selected 68 ASHAs and 340 mothers.
- All the participants were first oriented about the purpose of the study.
- After explaining their role in the study, the informed consent was taken from them.
- Knowledge of each ASHA was checked through one-to-one interview using a pre-tested semi-structured questionnaire.
- Practices of ASHA regarding maternal health service delivery was assessed through one-to-one consultations with selected beneficiary mothers, who act as a proxy indicator of ASHAs practices using pre-tested semi-structured questionnaire.

Data Analysis

SPSS software version 26.0 was used to evaluate the data once it was entered into MS Excel (Chicago II, USA). Quantitative data was expressed as mean standard deviation (SD), whereas qualitative data was expressed as percentages.

Ethical Clearance: The study was conducted after receiving approval from the Darbhanga Medical College and Hospital's ethics committee and obtaining the participants' consent. It was always understood that individuals might discontinue participation in the research at any moment. They were assured that their information would be kept confidential and anonymous.

Result Analysis

The knowledge of ASHAs was evaluated in the current study under various subheads relating to their anticipated work domains. The current study found that all ASHAs were aware of the need to support immunization programmes and attending delivery cases. The analysis and interpretation of the data collected are discussed in this chapter. As previously mentioned, 68 ASHA workers and 340 mothers were chosen for this study from rural field practice area of PHC Kalyanpur. Using statistical tables, we gathered and calculated their responses. To analyse, evaluate, and draw conclusions from data, appropriate statistical measures are produced using a variety of statistical techniques.

Educational qualification of ASHA: From the above data it is clearly evident that around 28% of participating ASHAs are educated upto 8^{th} standard in school, whereas 32% and 29.4% of ASHAs are educated up to 10^{th} and intermediate respectively. Around 10.6% of ASHAs were found to be graduate.

Age of ASHA: The average age of all selected ASHA was 44. 2 years. Among the selected ASHA the age of youngest ASHA was 29 years and the age of oldest ASHA was 60 years. Most of the selected ASHA were in the age group of 41 to 50 years.

Experience of ASHA: From the data it is clear that the interviewed ASHA were quiet experienced and well versed with nature of their responsibilities. Around 32(47%) of the members were experienced 11 to 15 years and 30 (44%) had experience of more than 15 years. Rest 6 (9%) of the ASHA members were also had experience of 2 to 10 years.

Knowledge of ASHA: The 68 selected ASHAs were interviewed one to one through a semi-structured questionnaire containing 20 questions of one mark each. Those ASHA who scored more than 15 marks (>75%) are graded as Good, between 10 and 15 (50% - 75%) as average and the ASHA with score less than 10 (50%) as poor.From the recorded data it is clear that more than 90% of interviewed ASHAs had fair knowledge of their responsibilities and are well aware of their duties. Around 39% of ASHA were having good knowledge of their job,

whereas less than 10% of ASHA workers were poorly equipped with basic knowledge to handle maternal health and practices.

ASHA awareness about basic maternal health: Out of 68 ASHA under study, 65 (95.58%) ASHA were well aware of the "Pradhan Mantri Surakshit Matritva Abhiyan" (PMSMA) day that is organized at PHC on date 9 of every month, has been started by the Government of India's Ministry of Health & Family Welfare (MoHFW). The programme seeks to offer guaranteed, thorough, and high-quality antenatal care to all pregnant women on the ninth of every month, free of charge.

Of 68 ASHA employees, 51 (75%) support early registration of expectant women to a local PHC or CHC before the third month of pregnancy, whereas the rest support registration during the second trimester.

On being asked about the component of Aadarsh Dampatti Yojna (ADY), 52 (76.5%) ASHA responded correctly in support of "Three years gap between two children". According to this program the newly married couples are motivated to have first child only after one year of marriage and second child after three years of birth of first child and to opt permanent contraceptive method after the delivery of second child.

Also, 52 (76.5) % of ASHA were in favour of Urine test for detection of pregnancy. Using a sample of urine, a pregnancy can be confirmed by using Nishchay kit which detect Beta human chorionic gonadotropin (β-hCG) hormone. An indication of pregnancy is a high ((β-hCG) level in urine. When asked about the services offered to expectant women, 66 (97%) said that a minimum of four antenatal (ANC) visits were necessary to screen for and prevent problems that might affect the foetus' growth.

64 (94.11%) ASHA employees were aware that all antenatal women need two doses of injection Tetanus and Diptheria (Td) vaccine; however they were unaware of the dosage or the appropriate time gap between the two injections. Only 14(20.58%) ASHAs were aware of the timing of the first dose of Tetanus and Diptheria (Td) vaccine. The national immunization schedule in India recommends two doses of Tetanus and Diptheria (Td) vaccine for pregnant women with unknown immunisation status, with the first dose being given as soon as pregnancy is detected in order to maximise the maternal antibody response and passive antibody transfer to the infant and the second dose is given four weeks after the first dose.

All ASHA employees were aware that all antenatal women should take iron and folic acid supplements during the pregnancy. But only 22% of ASHAs were aware of the dose and schedule of taking iron and folic acid (IFA) tablets. All pregnant women should take one tablet of iron and folic acid (IFA) daily in the last six months of their pregnancy. They can obtain iron and folic acid (IFA) tablets from the local Aanganwadi centre (AWC), subcentre or PHC/CHC.

Only 16% of ASHA were aware of the daily dose and schedule of calcium tablets during pregnancy. Women who are pregnant need 1,300 mg of calcium daily, while women under the age of 18 only need about 1,000 mg. For the prevention of preeclampsia in pregnant women, calcium supplementation is advised as part of antenatal care in populations where calcium intake is inadequate, especially in those who are more likely to develop hypertension. Keeping the above facts in mind, it is suggested that every pregnant women to have two tablets of calcium (500 mg each) daily for last six months of pregnancy.

Also, 49 (72%) of ASHA employees knew that pregnant women should take extra meal high in iron and protein, and 19 (28%) of them responded to heavy

workout and USG in every trimester during pregnancy.

Out of 68 ASHAs, only 10 (14.70%) ASHAs were aware of three danger signs of pregnancy namely swelling of legs, convulsions and blood pressure more than 140/90 mm Hg. Rest 58 (85.30%) ASHAs were aware of only one danger signs of pregnancy out of the three danger signs. Only 14.7% ASHA employees recognised that blood pressure more than 140/90 mmHg is a danger sign during pregnancy and none of them were aware of how high blood pressure affects foetal growth.

41 ASHAs (60%) ASHA workers recommended a routine check-up after two weeks post-delivery, whereas the rest of them were either having no or little idea about the same.

As per JSY norms, 61 (89.7%) ASHA workers were well aware of the correct birth weight (more than 2.5 Kg) of new-born. The new-born with more than 2.5 Kg Wt. at the time of delivery have better survival rate and good physical and mental development in their life.

Also 94.11% of them were well aware of the breastfeeding guidelines after the delivery. Only 57.35 % of the ASHA members are aware of the exclusive breastfeeding guidelines of new-borns by WHO, whereas the rest 42.6% seemed to be confused over the same. 73.5% of ASHA workers guided the new mothers to administer three vaccines i.e. Hepatitis B, Oral Polio and BCG vaccine after child birth. More than half i.e. 58.8% of ASHA workers supported PPIUD as most trusted method of birth control in immediate postpartum period due to their reliability. PPIUCD has fewer side effects, is tolerable, safe, long acting and has a high level of effectiveness. Access to contraception is more difficult during the postpartum period as most of the women do not seek any contraception during the postpartum time. 26.47% were in favour of MALA N, an oral contraceptive pills in immediate postpartum period which is wrong. It was good to see that 14.7% of ASHA workers are also aware of the injection Antara but unaware of timing of the injection which enables in birth control by stopping ovulation. It offers a single dosage of protection for three months. Nearly all women can use it safely and effectively after six weeks of their last delivery.

31(45.6%) ASHA were well aware of the updated marriage age of girls in India, whereas 37(54.4%) are unaware of the recent amendments in the law which increases the age of marriage of girls from 18 to 21 years. It was evident from the above data that there is a conflict of opinion among ASHAs regarding the legal age of marriage of girls in India. 54.4% ASHAs believed legal marriage age of girls to be 18 years, whereas 45.6% ASHAs consider it be 21 years. It is now 21 years for both boys and girls, after the Prohibition of Child Marriage (Amendment) Bill, 2021 is passed in the year 2021, with a majority in both chambers of the Indian Parliament.

Average time period (in months) of receiving incentive of Janani Suraksha Yojna (JSY) after delivery is one month and 45(66%) ASHA were in support of the same, while 23 (34%) of them disagreed on this note and suggested the time to be somewhere between two to six months.

Knowledge of Mothers

After selecting 68 ASHAs, 5 mothers who had delivered in last 6 months from the field area of each selected ASHA were interviewed one to one through semi-structured questionnaire containing 10 questions of one mark each. Those mothers who had scored more than 5 (>50%) marks are considered as having good knowledge, and the practices of corresponding ASHA is graded as Good, and those mothers who had scored 5 or <5 (50% or <50%) marks are considered as

having poor knowledge and the practices of corresponding ASHA is graded as poor.

Mothers opinion on practices of ASHA: From figure 5 it is evident that 89.7% mothers were satisfied with the jobs done by ASHA during their pregnancy and post-delivery period, and only 10.30% of mothers were found to be unhappy with their performances. It was clear from the scores obtained from the questionnaire. Mothers expressed complete satisfaction with several service elements, including pregnancy detection, health information; help with medication and hospital visits, and nutrition support. In addition to providing psychological and moral support, they assisted with accelerating registration and other administrative tasks, communicated with the medical staff, and assisted in obtaining the JSY monetary incentive.

Educational Qualification Vs Knowledge Score: There is significant association ($p < 0.05$) between the educational qualification and the knowledge of the ASHA towards maternal care.

Age of ASHA Vs Knowledge Score: The p value is < 0.05, so there is significant association between the age of ASHA and the knowledge of the ASHA towards maternal care providing in the rural field practice area of PHC Kalyanpur.

Experience Of ASHA Vs Knowledge Score: There is significant association ($p < 0.05$) between the experience of ASHA and the knowledge of the ASHA towards maternal care. As the experience of ASHA increases they become more knowledgeable towards maternal care.

Gap between knowledge and practices of ASHA: Knowledge of ASHA assessed through one to one interview of ASHA using semi structured pre-tested questionnaire containing 20 questions and practices of ASHA assessed through one to one interview of 5 mothers of every ASHA using semi structured pre-tested questionnaire containing 10 questions. The average score obtained by all ASHA was 71.47%, this reflects the knowledge of ASHA. The average score obtained by all mothers was 66.91%, this reflects the practices of ASHA. So there is a gap of 4.56% between knowledge and practices of ASHA.

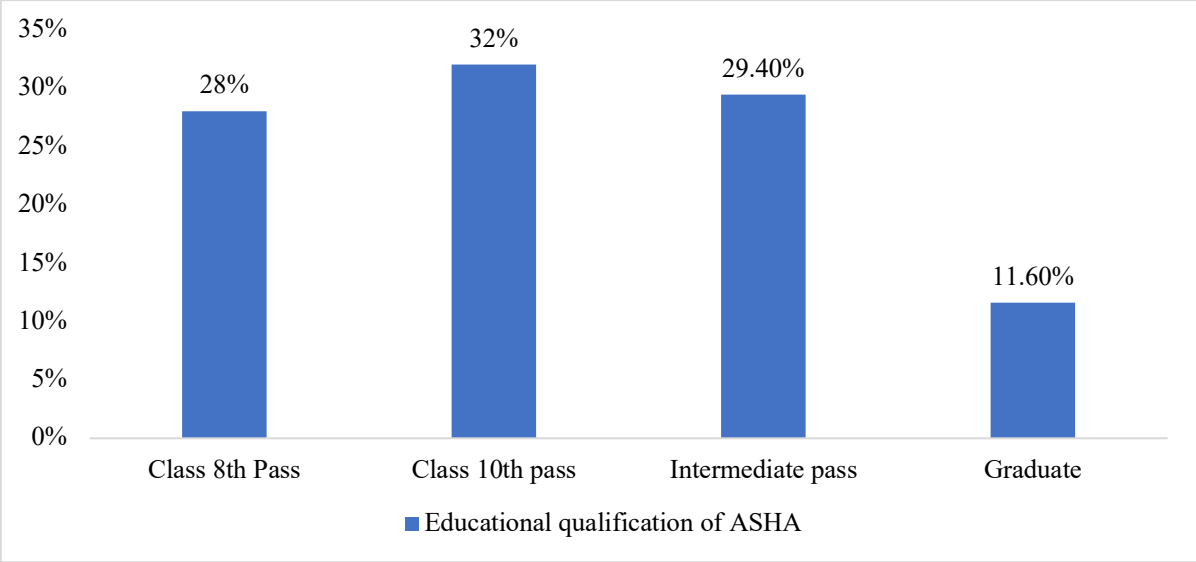

Figure 1: Educational qualification of ASHA

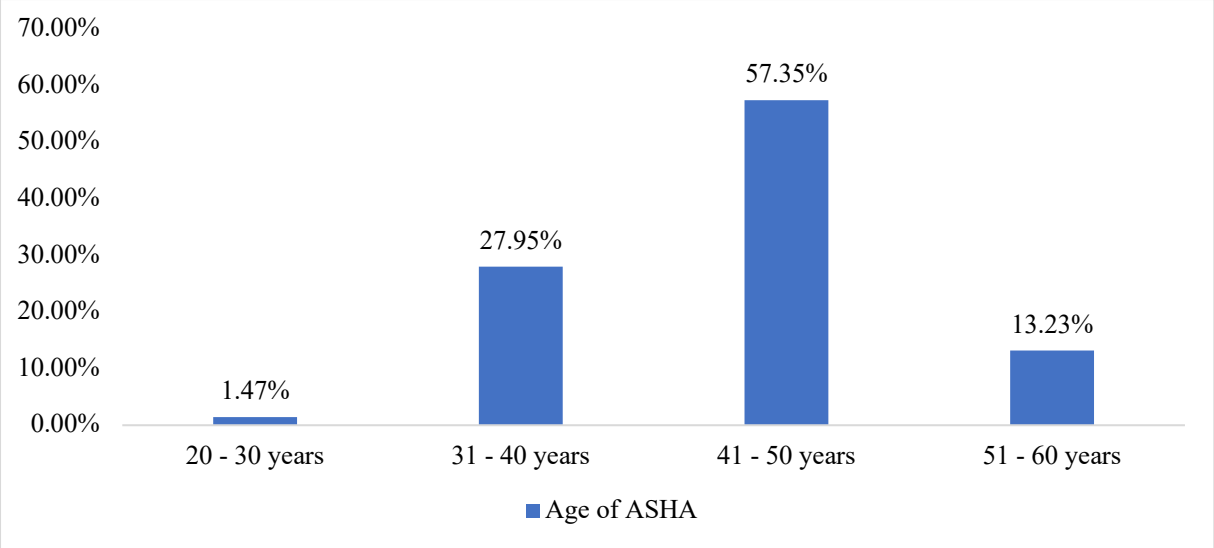

Figure 2: Age distribution of ASHA

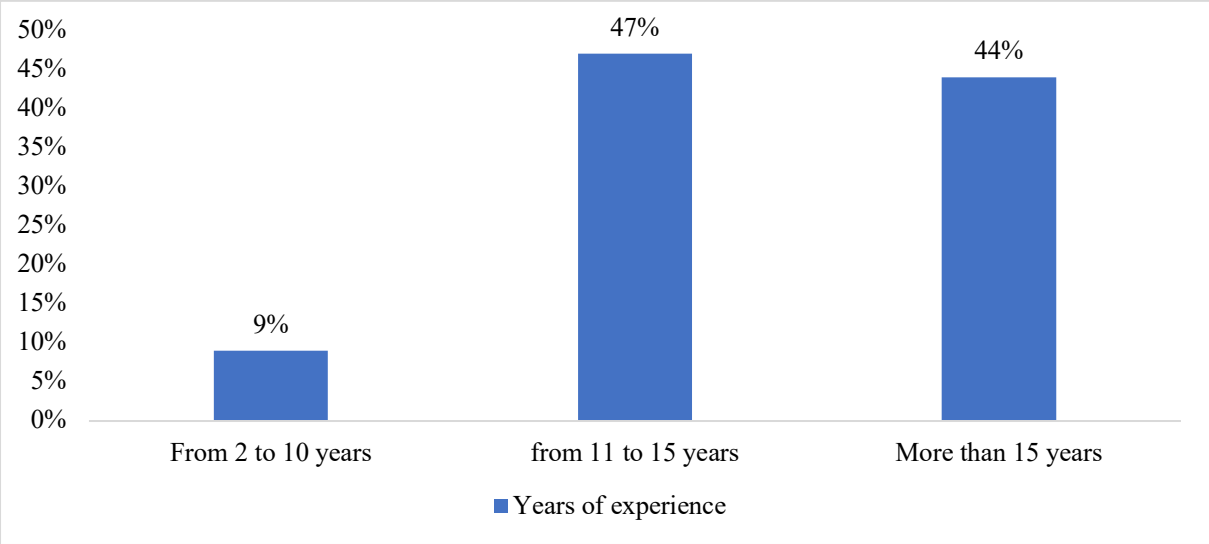

Figure 3: Work experience of ASHA

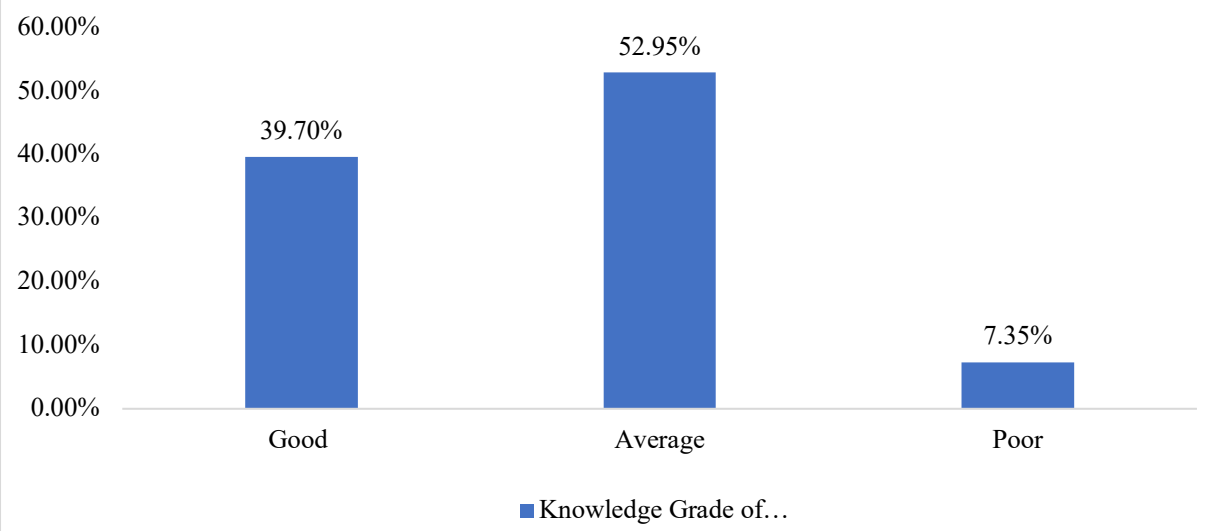

Figure 4: Knowledge and awareness of ASHA

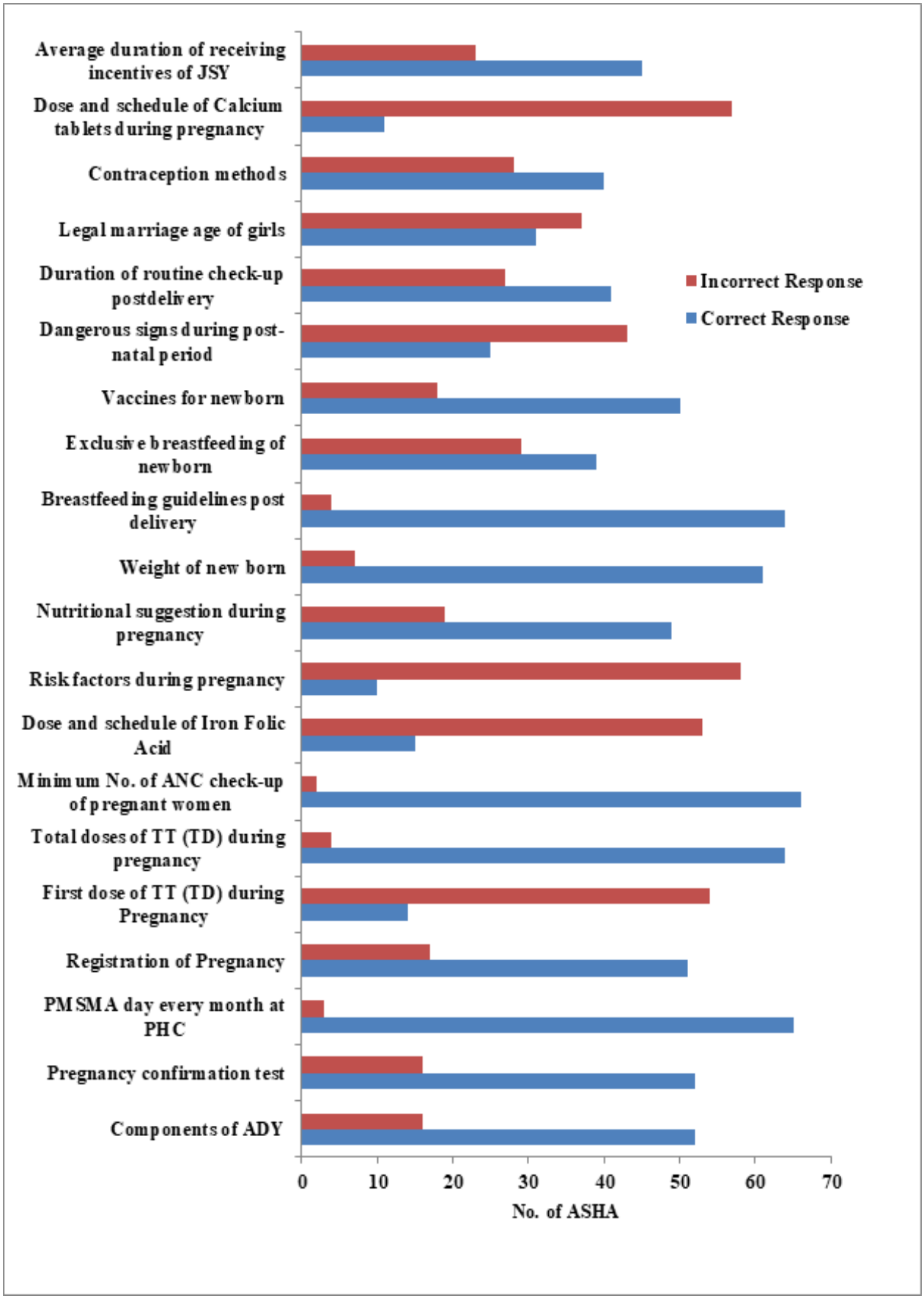

Figure 5: Knowledge of ASHA

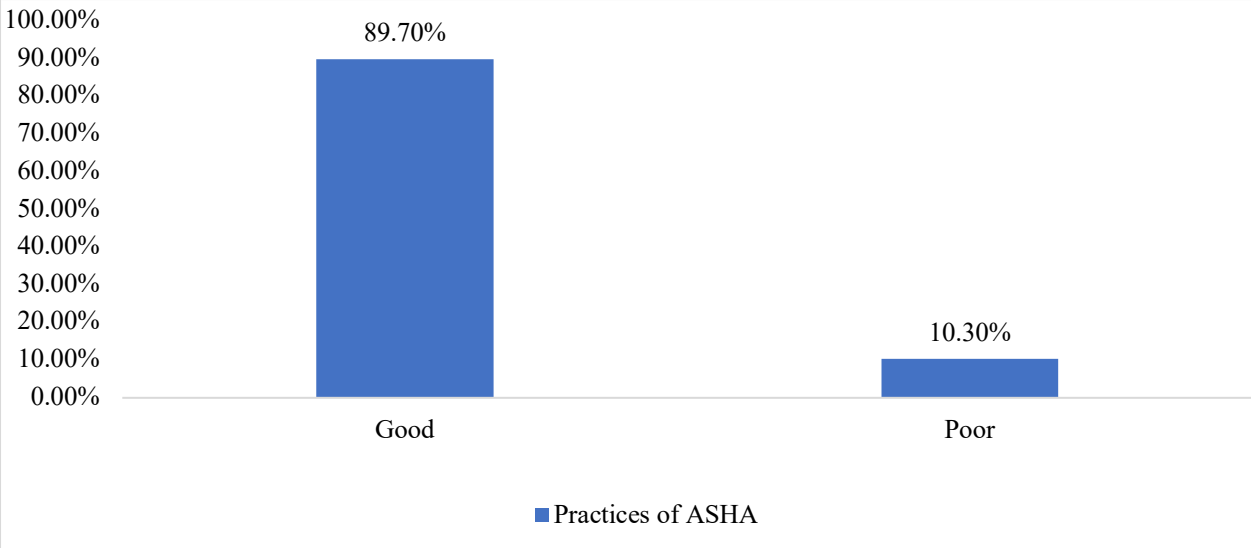

Figure 6: ASHAs practices according to beneficiary mothers

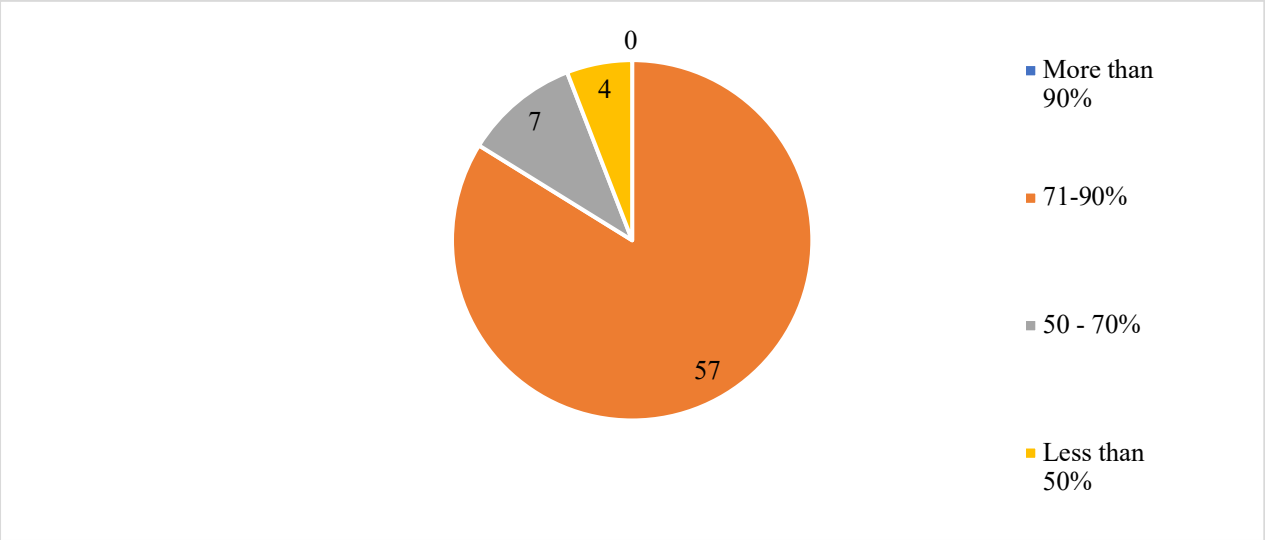

Figure 7: ASHA practices score

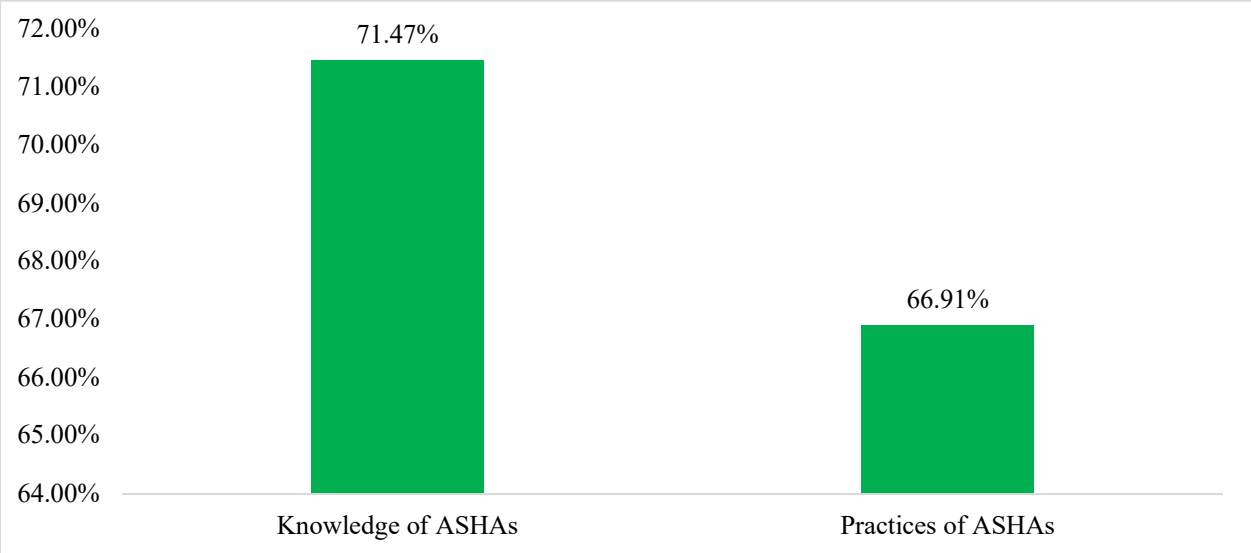

Figure 8: Gap between knowledge and practices of ASHA

Table 1: Educational qualification of ASHA

Educational Qualification	No. of ASHA	Percentage
Class 8th pass	19	28
Class 10th pass	22	32
Intermediate	20	29.4
Graduate	7	11.6
Total	68	100

Table 2: Age of ASHA

Age	No. of ASHA	Percentage
20 - 30 years	01	1.47
31 - 40 years	19	27.95
41 – 50 years	39	57.35
51 – 60 years	9	31.23
Total	68	100

Table 3: Experience of ASHA

Work Experience of ASHA	No. of ASHA	Percentage
2-10 Years	06	09
11-15 Years	32	47
>15 Years	30	44
Total	68	100

Table 4: Knowledge of ASHA

Score	Grade	ASHA (N=68)	Percentage
>15	Good	27	39.70
10 - 15	Average	36	52.95
<10	Poor	5	7.35

Table 5: ASHA awareness about basic maternal health

Study Variables	Correct Response	Incorrect Response
Aadarsh Dampatti Yojna (ADY)	52	16
Pregnancy confirmation test	52	16
PMSMA (PM Surakshit Matrit Abhiyan)	65	3
Registration of Pregnancy	51	17
First Dose of TT(Td)	14	54
Total doses of TT(Td)	64	4
Minimum No. of ANC Check-up of pregnant women	66	2
Dose and schedule of Iron Folic Acid	15	53
Danger signs of Pregnancy	10	58
Nutritional Suggestion during pregnancy	49	19
Weight of new born	61	7
Breastfeeding Guidelines post delivery	64	4
Exclusive Breastfeeding of Newborn	39	29
Vaccines for newborn	50	18
Danger signs during post-partum period	25	43
Duration of routine check-up Postdelivery	41	27
Legal marriage age of girls	31	37
Contraception Methods in post-partum period	40	28

Dose and schedule of Calcium tablets during pregnancy	11	57
Average duration of receiving incentives of JSY	45	23

Table 6: Knowledge of Mothers

Score	Grade	Number	Percentage
>5	Good	295	86.77
5 or <5	Poor	45	13.23
	Total	340	100

Table 7: Practices of ASHA

Practices	Number	Percentage
Good	61	89.71
Poor	07	10.29
Total	68	100

Above 90%	71 -90 %	50-70%	Below 50%
0	57	4	7

Table 8: Correlation between Educational qualification and Knowledge of ASHA

Educational Qualification	No. of ASHA	Total (n=68) Mean Score (±SD)	
Class 8Th	19	12.94 (±3.69)	**Chi Square** = 7.84
Class 10Th	22	13.95 (±3.49)	**Df** = 3
Intermediate	20	14.75 (±2.9)	**P- value** = 0.049437
Graduate	7	17.71 (±2.21)	

Table 9: Correlation between Age and Knowledge of ASHA

Age	No. of ASHA	Total (n=68) Mean Score (±SD)	
20 - 30 years	01	13 (±0)	**Chi Square** = 22.99
31 - 40 years	19	14.52 (±2.85)	**Df** = 3
41 – 50 years	39	14.12 (±3.65)	**P- value** = 0.000041
51 – 60 years	9	14.66 (±4.21)	

Table 10: Correlation between Work Experience and Knowledge of ASHA

Work Experience of ASHA	No. of ASHA	Total (n=68) Mean Score (±SD)	
2-10 Years	06	11 (±2.17)	**Chi Square** = 6.58
11-15 Years	32	14.59 (±2.75)	**Df** = 2
>15 Years	30	14.63 (±3.37)	**P- value** = 0.037254

Discussion: The knowledge of 68 ASHA employees regarding MCH services offered in their region and the use of MCH services by their beneficiaries was evaluated in this study. As providing MCH care is one of ASHA's key responsibilities, we also evaluated the MCH services that ASHA offered to 340 mothers of infants between the ages of 0 and 6 months.

According to the current study, the majority of ASHAs (61.8%) were matric pass, which is in line with the findings of studies by Pal et al. [15] and Azarudeen et al. [16] but at odds with those of Rohith and Angadi [17]. 27.94% ASHAs were having educational qualification of 8th class and 10.3% of workers were graduate.

In the current study, 100% of participants were aware of giving iron and folic acid

during the pregnancy but only 22% of ASHA were aware of dose and schedule of taking IFA tablets. This is lower than what Lodhiya et al. [18] reported. Only 47% of ASHA were aware of the Iron and Folic Acid Tablet Schedule in Pregnancy in their Gujarat study. IFA tablets should be administered in last 6 months of pregnancy.

When asked to spontaneously identify a danger sign of pregnancy, only 14.70% of ASHA employees were aware of three danger signs of pregnancy namely swelling of legs, convulsions and blood pressure more than 140/90 mm Hg. Rest 58 (85.30%) ASHAs were aware of only one danger signs of pregnancy out of the three danger signs. Only 14.7% ASHA employees recognised that blood pressure more than 140/90 mmHg is a danger sign during pregnancy and none of them were aware of how high blood pressure affects foetal growth.

Only 14 (20.58%) of the 68 ASHA workers were aware of the timing of 1stdosage of Tetanus and Diptheria (Td) vaccineand 64 (94%) were aware of the two doses of Tetanus and Diptheria (Td) vaccine administered during the antenatal period. All 68 ASHA workers were aware of the doses of injection Tetanus and Diptheria (Td) to be given to all antenatal mothers. Similar to the current study, where 100% of the ASHA workers were aware of two doses of Tetanus and Diptheria (Td) vaccine, Shashank KJ et al. [19] reported that all ASHA workers were aware of injection Tetanus and Diptheria (Td) vaccine.

In contrast to Rashmi et al study's which found that 81% of CHWs were aware of the recommended minimum number of ANC visits, 66 (97%) ASHAs were aware that the minimum number of antenatal visits is four [20].

Out of 68 ASHAs, only 10 (14.70%) ASHAs were aware of three danger signs of pregnancy namely swelling of legs, convulsions and blood pressure more than 140/90 mm Hg. Rest 58 (85.30%) ASHAs were aware of only one danger signs of pregnancy out of the three danger signs.

Similar results were reported by Karol and Pattanaik in Rajasthan, where they discovered that the average knowledge score for maternal health care was 86.7% [21]. Since ASHAs may be the first person any pregnant woman contacts when they experience symptoms that point to difficulties, it is crucial that ASHAs are well-versed in these indicators so that prompt action may be taken. It was unexpected to learn that 46 (83.6%) ASHAs said they would seek an ANM if someone presented with these symptoms. They should be made aware that in order to avoid needless delays; such patients must be quickly referred to hospitals. Nearly all ASHA employees were aware of their duties in relation to maternal and child health services. Similar findings were from a study carried out in Wardha by Gosavi et al. where all ASHAs were aware of their responsibility for antenatal care and immunizations [22].

When asked about pregnancy-related problems and how to address them, the ASHAs in a study done in Madhya Pradesh [23] frequently noted vomiting (73%), swelling of the hands and feet (72%), paleness, abdominal pain, body pain/backache, convulsions, and profuse bleeding. According to a study by Shahane Shweta et al. [24], 45% of ASHAs mentioned convulsions, whereas a third mentioned body pain or high fever. In contrast, 53 to 74 percent of ASHAs noted severe bleeding, paleness, vomiting, and hand- and foot-swelling as pregnancy problems. A study done in Bihar found that before citing abdominal pain, a sizable majority of ASHAs explained hand and foot swelling (74%), vomiting (58%) and physical discomfort/backache (50%) first. Due to ASHAs' better educational status, knowledge may be higher. ASHAs that are older may also have better expertise

because they may have had personal experience with pregnancy.

With the help of the counselling provided by ASHA staff, there was a statistically significant improvement in the practices of exclusive breastfeeding. Our findings shows that 64 (94.11%) ASHAs have proper idea regarding breastfeeding guidelines, and the study was in agreement with those of a hospital-based study completed by Tiwari et al. [25] 57.35% ASHA workers stressed on the idea of exclusive breastfeeding, whereas the rest 42.64% were unaware of the format and the sole reason behind the same.

The results of the current study were comparable to those of a study carried out in Delhi by Ghosh-Jerath et al., [26] but not to those of a study carried out in the Chandigarh Tricity by Dhiman et al. [27] Out of 68 ASHAs, 50 (73.5%) ASHAs suggested administration of HepB, BCG and OPV vaccine after birth of new-born. According to a study by Kaur et al., 2022, the majority of the women received advice from ASHA staff regarding breastfeeding and immunization [28].

This demonstrates that ASHAs prioritise only a few parts of infant care, such as breastfeeding and immunization, whereas the majority of ASHA employees across all settings overlook issues including eye care, cord care, fever treatment, and other newborn-related issues. So, attention must be given to these factors. Also, most mothers received nursing advice from ASHA staff; more than 65% were given advice on early nursing, exclusive breastfeeding, and holding off on administering water until the baby is six months old. Present the study's findings contrasted with those of Ghosh-Jerath et al. [26] and Grover et al. [29] but were similar to those of Baba et al. [30].

Out of 340 mothers, 305 (89.7%) of mothers reported being extremely satisfied with the practices of ASHAs towards maternal care they received from corresponding 62 (91%) ASHAs whereas 35 (10.30%) of mothers were not satisfied with the practices of ASHAs towards maternal care they received from corresponding 6 (9%) ASHAs. Mothers expressed complete satisfaction with a variety of services, including pregnancy detection, health information, aid with medication and clinic visits, and nutrition support, family planning methods and issues. Moreover, the majority reported being partly happy with benefits support.

Conclusion

According to the aforementioned study, the majority of ASHA employees have average knowledge, which needs to be periodically revised and updated. The ASHAs should be receiving on-the-job training in order to acquire the requisite knowledge and skills with the most recent upgrades. The Block level meetings should be used for feedback, knowledge expansion, and problem-solving for the ASHAs, with a focus on practical approaches to encourage community members to use health services. Authorities can implement several measures to encourage ASHA workers, such as offering awards for excellent performance, providing separate rooms at delivery centres for the ASHAs to spend the night, encouraging the conduct of health personnel, regularly increasing incentives, etc.

This study found that ASHA staff members had high awareness of prenatal care, with the exception of anaemia throughout pregnancy. They were also encouraging mothers to use the prenatal, antenatal and intranatal care offered by the public sector. The majority of mothers expressed complete satisfaction with the antenatal services provided by ASHA. It demonstrates that ASHA plays a significant part in providing community health services under the National Rural Health Mission. It has been observed that mothers' awareness of pre-lacteal feed and

exclusive breastfeeding is impacted by the counselling provided by ASHA staff to mothers. Lack of knowledge about postpartum care and new-born care, particularly about new-born birth weight, had an impact on the counsellors' ability to provide counselling. Because ASHA workers are the only community health workers who can offer women in rural regions accurate and timely aid and information, mothers in those areas suffer greatly as a result.

It is urgent to provide ASHA employees with refresher training in mother and child care, with an emphasis on antenatal, postnatal and newborn care. ASHA workers' performance can be further improved by routinely monitoring their actions on a big scale to ensure that the services they are giving to their beneficiaries are of a high standard. Strict adherence to the rules should be observed during the hiring and selection of ASHA employees. Training should focus on developing skills, and attempts should be made to remove any barriers they are currently encountering.

There has been a clear improvement in rural residents' health since ASHA was implemented. With its initiatives including the new-born immunisation schedule, cleanliness, and numerous health care programmes, ASHA has seen success. Since the implementation of ASHA, rural residents have a greater understanding of health issues like diet, basic sanitation, and hygienic habits. Supporting rural people is a key component of ASHA's work since it helps the rural community advance, which in turn advances our country. ASHA was created with these facts in mind, and as long as it continues to succeed in its goals and promote the empowerment of women and children, it will continue to do so.

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