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Deepesh Swami
Government College of nursing, Jodhpur, Rajasthan, India.

Corresponding Author:
Deepesh Swami
Government College of nursing, Jodhpur, Rajasthan, India.

Knowledge of Asha worker regarding reproductive and child health package in selected community health centres district Jodhpur, Rajasthan with a view to develop a brochure

Deepesh Swami

Abstract
Accredited Social Health Activist (ASHA) acts as interface between community and public health system through implementation of Reproductive and child health package. Objective 1) to assess the knowledge of ASHA worker regarding RCH package. 2) To establish the relationship between knowledge of ASHA workers with selected socio demographic variables. 3) To develop a Brochure. A Non experimental co relational design was used with 100 sample size. R was 0.78. Maximum 59% of ASHA workers had Average, 38% had Good and 3% had poor knowledge. ASHA had adequate knowledge regarding Essential New Born Care, Safe motherhood & inadequate regarding Family Planning, Oral rehydration therapy, Prevention & control of Vitamin A deficiency in children, Immunization, Prevention & management of RTI/STD. Relationship with Academic qualification, Duration of Experience & Training for Module- 6 or above was statically significant at p value 0.05. Regular up gradation of training module is recommended.

Keywords: ASHA, NRHM, Reproductive and child health package, Training programme for module-6 or above

1. Introduction
In India the rates of infant mortality and maternal mortality are alarming. Maximum numbers of women in their reproductive age group dies due to complications of pregnancy or child birth. The RCH program integrated the safe motherhood, child survival and prevention of RTI/STI (Reproductive Tract Infection / Sexually Transmitted Diseases). The services were aimed to be client cantered, demand driven with high quality and based on the needs of the community. RCH package is implemented through strategies of RCH Phase- I, II and NRHM to improve rural health care delivery by creating a new cadre of community based functionaries, named as ASHA. objective of the study was (i) to assess the knowledge of ASHA worker regarding RCH Package (ii) to establish the relationship between knowledge of ASHA workers regarding RCH Package with selected socio demographic variables i.e. Age, Academic qualification, Duration of experience, Religion, Training Programme for module- 6 or above and Residence (iii) to develop a Brochure.

2. Materials and methods
A Descriptive survey approach is used to to assess the knowledge of ASHA worker. The data collected in-between 11/11/2017 to 17/11/2017 including 100 ASHA workers, 50 ASHA workers from Community Health Center Mandor, 30 ASHA workers from Community Health Center Salawas and 20 ASHA workers from Community Health Center Banar in District Jodhpur, Rajasthan.

2.1 Research design: Non-experimental correlational design used. Research implies without any manipulation of the variables or control over the research setting. The data collected at a single point of time.

2.2 Study setting: Three community health centers were selected in district Jodhpur Rajasthan. CHC Mandor, CHC Banar and CHC Salawas.

2.3 The Sample size and sampling technique: Purposive sampling technique was used for sample selection. All the ASHA workers who were trained and working under selected Community Health Center constituted the population of research study and first 100

were selected for the final study. It was 50 ASHA workers from CHC, 30 from Salawas and 20 from Banar.

2.4 Criteria for sample selection

- **Inclusion Criteria:** ASHA workers who are trained and working in selected CHCs, Only those ASHA workers who will be present at the time of data collection.
- **Exclusion Criteria:** ASHA workers who are not trained and not working in selected CHCs, Those ASHA workers who are not present at the time of data collection.

2.5 Variables under study

- **Dependent Variable:** The knowledge of RCH package among ASHA workers.
- **Independent Variables:** Age, Academic qualification, 2.2.1 Duration of experience, Religion, Training programme for module- 6 or above and Residence of ASHA.

2.6 Population of the study: all the ASHA workers who were trained and working under selected CHC, Mandor, Banar and Salawas district Jodhpur, Rajasthan.

2.7 Description of the tool: The Structured Questionnaire schedule comprised of two sections:

- **Section A:** Consists of socio demographic characteristics of respondent seeking information such as age, academic qualification, duration of experience, religion, training programme for module- 6 or above and residence.
- **Section B:** It has 24 items and consisted of items related to 7 sub areas of Reproductive and Child Health package such as essential newborn care, safe motherhood, family planning, oral rehydration therapy, prevention and control of vitamin A deficiency in children, immunization, prevention and management of RTI/STD.

2.8 Criterion Measures: ASHA workers knowledge regarding RCH Package was assessed using Self structured Questionnaire schedule below 50% poor, 50% to 75% Average and Above 75% Good Knowledge. Each right answer was awarded one mark and wrong answer was awarded zero mark.

2.9 Reliability of the tool: Reliability was assessed by collecting data from 10 ASHA workers in Banar, calculated by test retest method using Spearman's Brown Prophecy formula. The reliability was r = 0.78. It was statistically significant and thus reliable.

2.10 Plan of data analysis: The data obtained was analyzed in terms of achieving the objectives of the study using descriptive and inferential statistics.

- Descriptive statistics include calculation of Mean, Median, and Standard deviation to describe the measures of central tendency of the data.
- Inferential statistics was done using Pearson's chi square test to test the relationship of knowledge with selected variables.
- P value less than or equal at 0.05 level was considered statistically significant.

3 Result and discussion

3.1 Assessment of Asha workers knowledge according to RCH package in total content area

Maximum possible score was 24. Table no. 1 depicts that the distribution of knowledge score of ASHA workers according to RCH Package ranged from 11 - 22. Mean knowledge score of the scores obtained by ASHA workers was 16.6, Mean percentage was 66.16%, Median was 17 and SD was 2.77.

Table 1: Shows Mean, Median and SD of Knowledge scores of ASHA workers according to RCH package in total content area

Area	Max possible score	Max obtained score	Min obtained score	Mean	Mean %	Median	SD
Knowledge regarding RCH Package	24	22	11	16.6	69.16	17	2.77

Table No. 2 and Figure 1 shows Maximum 59% of ASHA workers had Average knowledge, 38% of ASHA workers had good knowledge and least 3% of ASHA workers had poor knowledge regarding Reproductive and Child Health package. It can be concluded that more than half of ASHA workers had average knowledge regarding Reproductive and Child Health package. This emphasized that ASHA workers need to improve their knowledge regarding Reproductive and Child Health package.

Table 2: Shows ASHA workers knowledge scores according to RCH Package in total content area

Knowledge Scores			
Level of knowledge	**Range/Criteria**	**Frequency**	**Percentage**
Poor	Below 50%	3	3%
Average	50% to 75%	59	59%
Good	Above 75%	38	38%

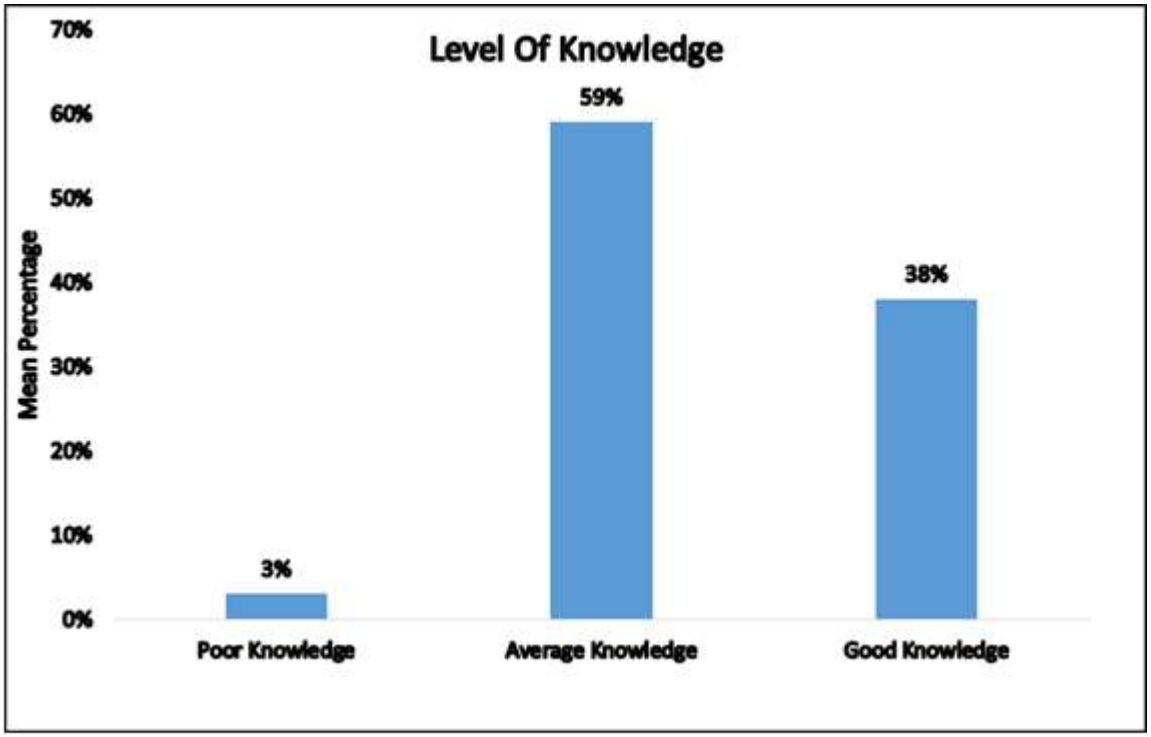

Fig 1: Shows Percentage distribution of ASHA workers knowledge score according to RCH Package in total content area

3.2 Section II: Knowledge of Asha workers in sub areas of RCH package

Table No. 3 and Figure No. 2 depict sub area wise mean knowledge score and mean percentage of ASHA worker according to RCH Package. Mean percentage of knowledge score was varying from 79% to 41.50% among sub content areas of RCH package. Mean knowledge score was maximum (79%) regarding Essential new-born care followed by (74%) regarding safe motherhood, (73.50%) regarding prevention and control of vitamin A deficiency in children, (73.20%) regarding Immunization, (61%) regarding Oral Rehydration Therapy, (58.75%) regarding family planning respectively and least knowledge score (41.5%) regarding prevention and management of RTI/STD.

Table 3: ASHA workers knowledge scores according to RCH Package in sub content area

S. No.	Areas/knowledge	Maximum possible score	Mean Score	Mean %	Rank order
1	Essential new-born care	06	4.74	79	1
2	Safe Motherhood	04	2.96	74	2
3	Family Planning	04	2.35	58.75	6
4	Oral Rehydration therapy	01	0.61	61	5
5	Prevention and control of Vitamin- A deficiency in children	02	1.47	73.50	3
6	Immunization	05	3.66	73.20	4
7	Prevention and management of RTI/STD	02	0.83	41.50	7
	Total knowledge	24	16.62	69.25%	

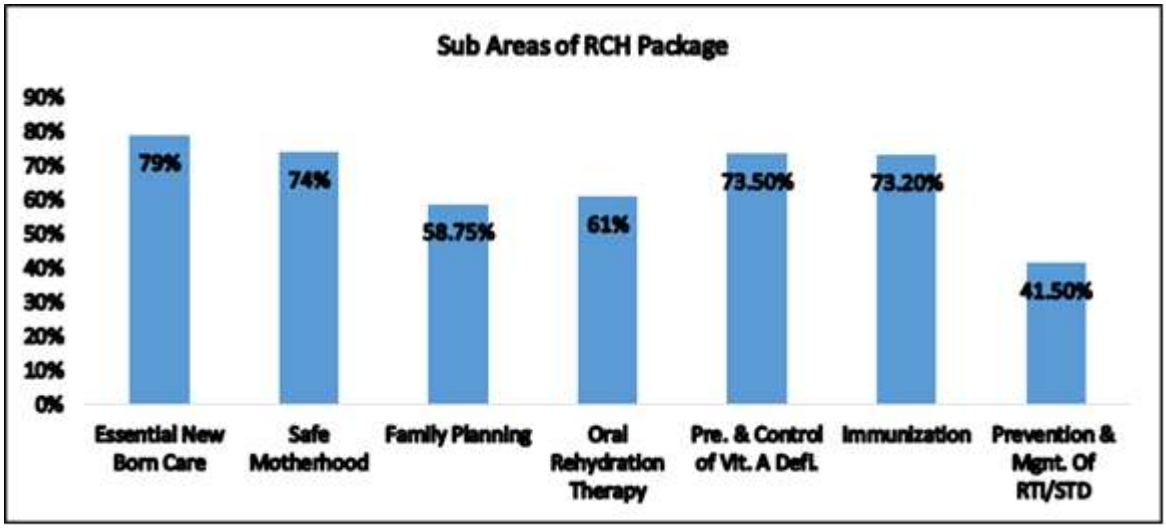

Fig 2: Mean percentage distribution of ASHA workers knowledge scores according to RCH package in sub content areas

3.3 Section III: Relationship between knowledge of Asha workers according to RCH package with selected variables.

3.3.1 Relationship between knowledge scores of ASHA workers according to RCH package and their Age

Table No. 4 and Figure No.3 depicts that maximum above mean knowledge score (57.14%) of ASHA workers according to Reproductive and Child Health package was found in the age group of above 35 years followed by (50%) in the age group of 26-30 years,(48.48%) in the age group of 31-35 years, (0%) in the age group of 20-25 years. In order to explore association the X^2 value of 2.84 at df 3 was not found to be significant at 0.10 level. Thus age had no impact on knowledge of ASHA workers according to Reproductive and Child Health package.

Table 4: Chi square value computed between knowledge scores and age of ASHA workers

Age in yrs.	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
20-25	02	00(00%)	02(100%)	$X^2 = 2.84$ df = 3 P Value = 0.89
26-30	16	08(50%)	08(50%)	
31-35	33	16(48.48%)	17(51.52%)	
Above 35	49	28(57.14%)	21(42.86%)	
Total	100	52(52%)	48(48%)	

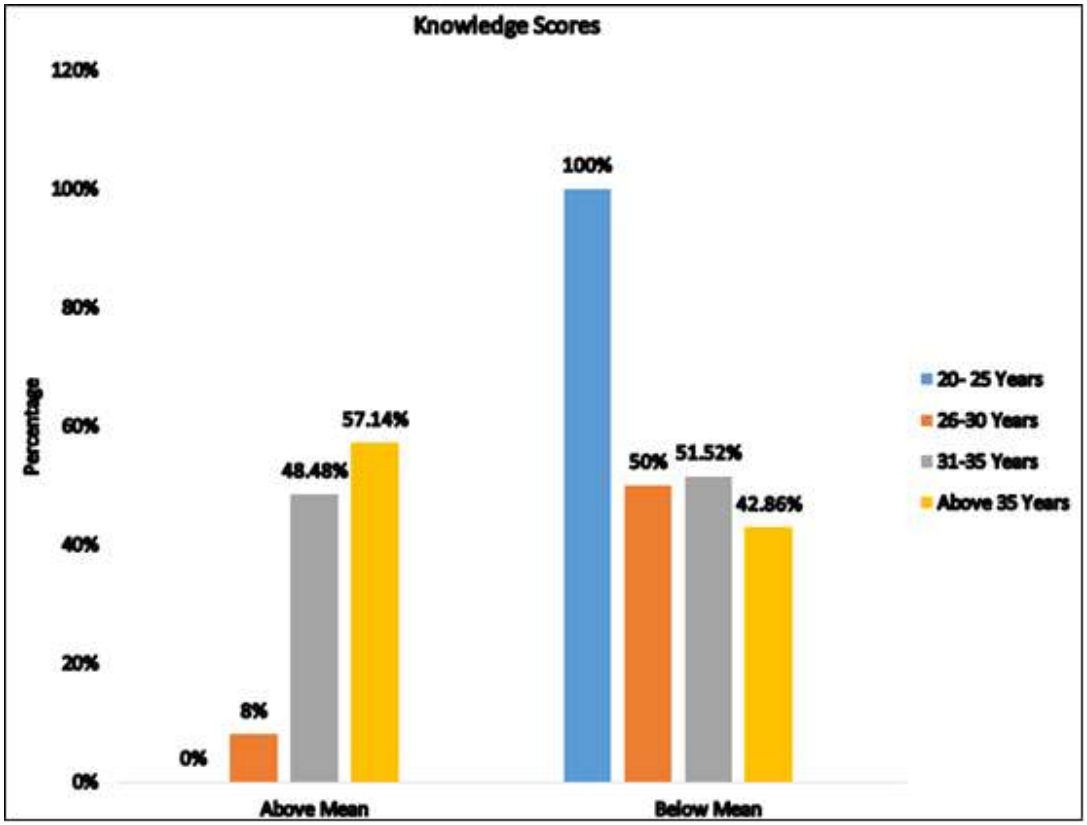

Fig 3: Relationship between knowledge scores of ASHA workers according to RCH package and Age

3.3.2 Relationship between knowledge score of ASHA workers according to RCH package and their Academic qualification -

Table No. 5 and Figure No. 4 shows that maximum above mean knowledge score (88%) of ASHA workers according to RCH package was found with academic qualification B.A. followed by (70%) with academic qualification 10+2, (52%) with academic qualification10^{th}, (36%) with academic qualification 8^{th} respectively. In order to explore association the X^2 value of 17.7 at df (3) was found to be statistically significant at .05 level. There is significant relationship between knowledge of ASHA workers according to RCH package and academic qualification. Hence it can be emphasized that Academic qualification influence knowledge of ASHA workers according to RCH Package.

Table 5: Chi square value computed between knowledge scores and Academic qualification of ASHA workers

Academic qualification	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
8^{th} standard	28	13 (46.42%)	15 (53.57%)	$X^2 = 17.7$ df = 3 p value = 0.0005
10^{th} standard	36	21 (58.33%)	15 (41.67%)	
10+2 standard	12	09 (75%)	03 (25%)	
B.A./Graduate	24	19 (79.16%)	05 (20.84%)	
Total	100	62 (62%)	38 (38%)	

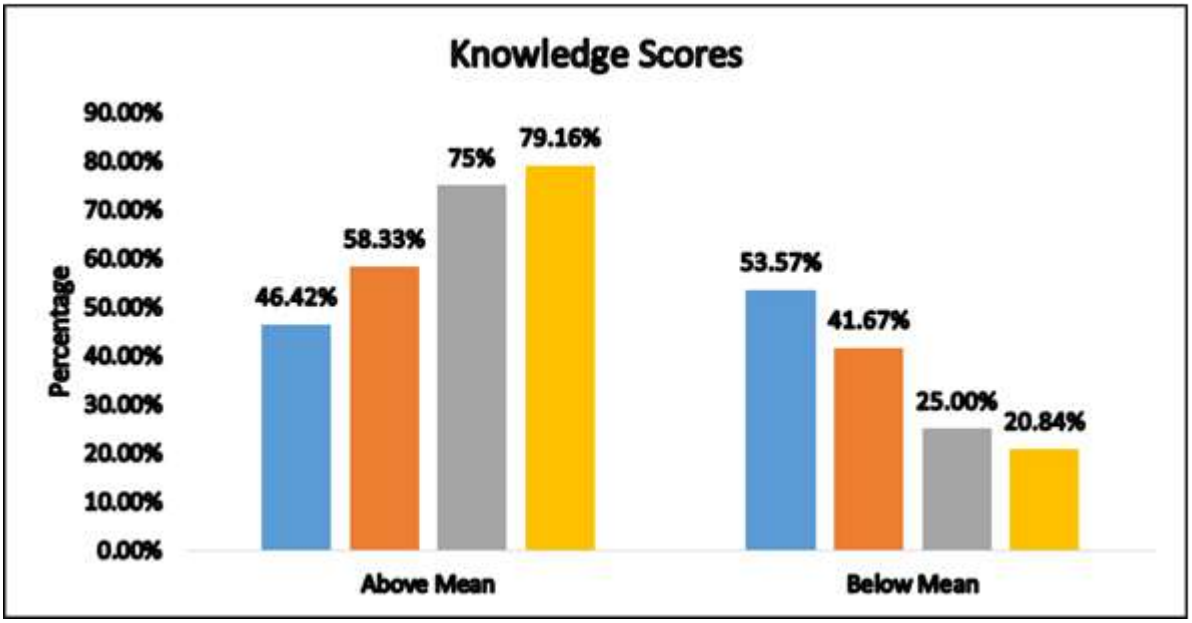

Fig 4: Relationship between knowledge scores of ASHA workers according to RCH Package and their Academic qualification

3.3.3 Relationship between knowledge scores of ASHA workers according to RCH package and their duration of experience-

Table No. 6 and figure No. 5 depicts that maximum above mean knowledge score (68%) of ASHA workers according to RCH package was found with Duration of experience above 24 months, followed by (50%) with 6-12 months experience and (38.8%) with 18-24 months experience and least (29.17%) with 12-18 months of experience respectively. In order to explore association the X^2 value of 11.56 at df 3 was found to be significant at .05 level. Thus it can be concluded that duration of experience had impact on knowledge of ASHA workers according to RCH package.

Table 6: Chi square value computed between knowledge scores and Duration of experience of ASHA workers

Duration of experience	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
6-12 months	08	04(50%)	04(50%)	$X^2 = 11.56$ df = 3 p = 0.009
12-18 months	24	07(29.17%)	17(70.83%)	
18-24 months	18	07(38.8%)	11(61.11%)	
Above 24 months	50	34(68%)	16(32%)	
Total	100	52 (52%)	48 (48%)	

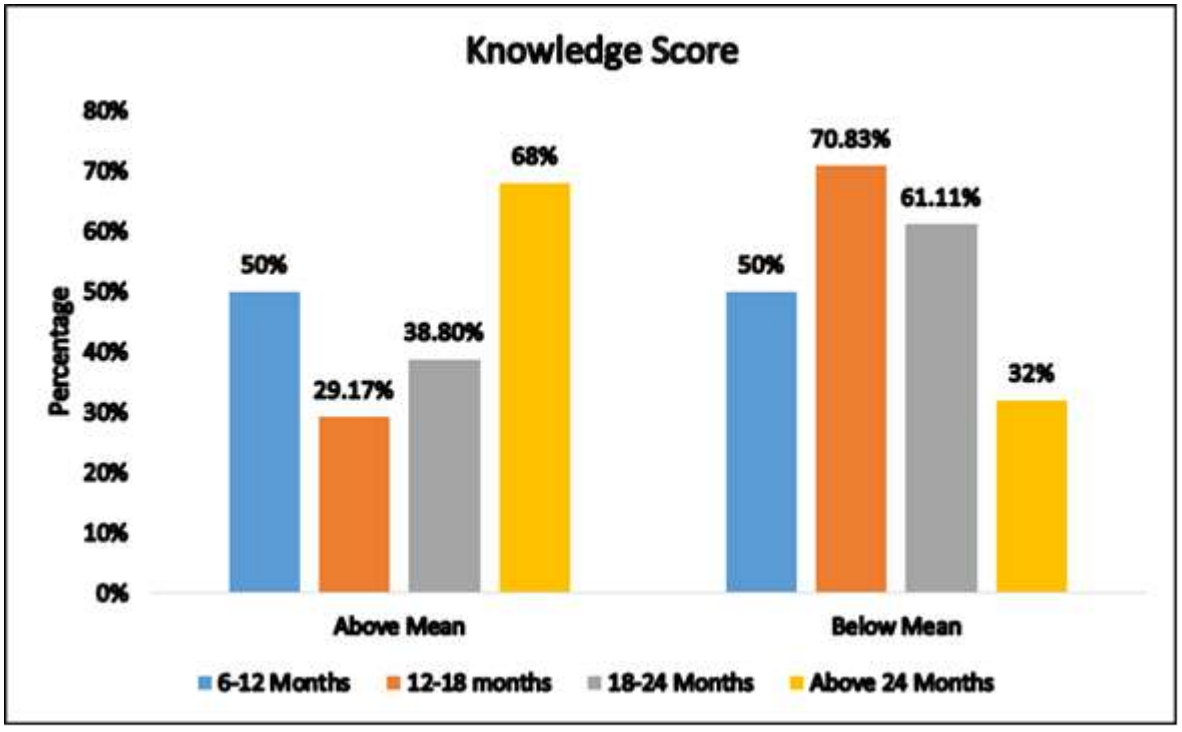

Fig 5: Relationship between knowledge scores of ASHA workers according to RCH package and duration of experience

3.3.4 Relationship between knowledge scores of ASHA workers according to RCH package and their Religion

Table No. 7 and figure No. 6 depicts that maximum above mean knowledge score (100%) of ASHA workers according to RCH package was found with Christian Religion, followed by (60.86%) with Hindu Religion and (57.14%) with Muslim Religion Respectively. In order to explore association the X^2 value of 0.68 at df 3 was found to be not significant at .05 level. Thus it can be concluded that Religion had no impact on knowledge of ASHA workers according to RCH package.

Table 7: Chi square value computed between knowledge scores and Religion of ASHA workers

Religion	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
Hindu	92	56(60.86%)	36(39.13%)	$X^2 = 0.68$ df = 3 p = 0.8778
Muslim	7	04(57.14%)	03(42.85%)	
Christian	1	01(100%)	00	
Others	00	00	00	
Total	100	61(61%)	39(39%)	

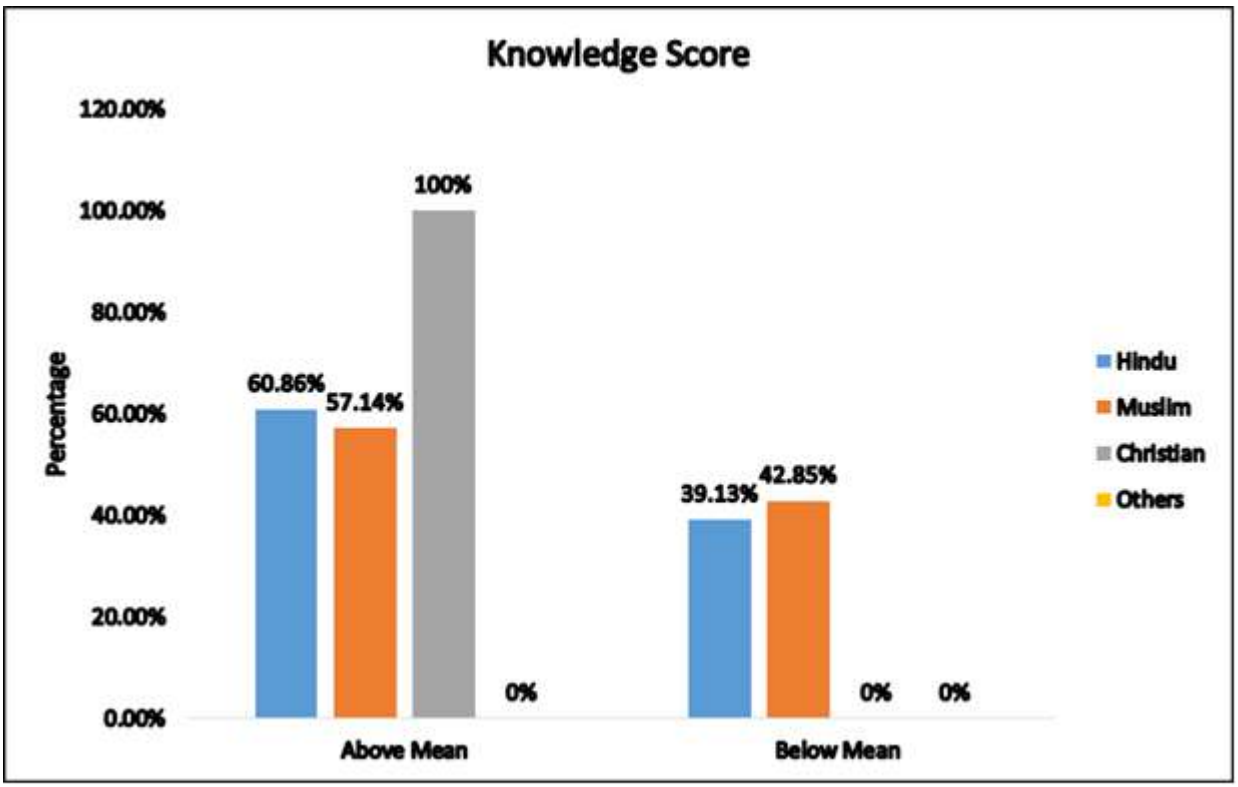

Fig 6: Relationship between knowledge scores of ASHA workers according to RCH package and Religion

3.3.5 Relationship between knowledge scores of ASHA workers according to RCH package and their training for module-6 or above

Table No. 8 and figure No. 7 depicts that maximum above mean knowledge score (86.67%) of ASHA workers according to RCH package was found with those ASHA who have Trained for Module -6 or above, followed by (25%) with those ASHA who have not Trained for Module-6 or above. In order to explore association the X^2 value of 38.738 at df 1 was found to be significant at 0.05 level. Thus it can be concluded that Training for Module -6 or above had impact on knowledge of ASHA workers according to RCH package.

Table 8: Chi square value computed between knowledge scores of ASHA workers and their training for module-6 or above

Training for Module -6 or Above	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
Yes	60	52 (86.67%)	08 (13.33%)	$X^2 = 38.738$ df = 1 p = 0.0001
No	40	10 (25%)	30 (75%)	
Total	100	62 (62%)	38 (38%)	

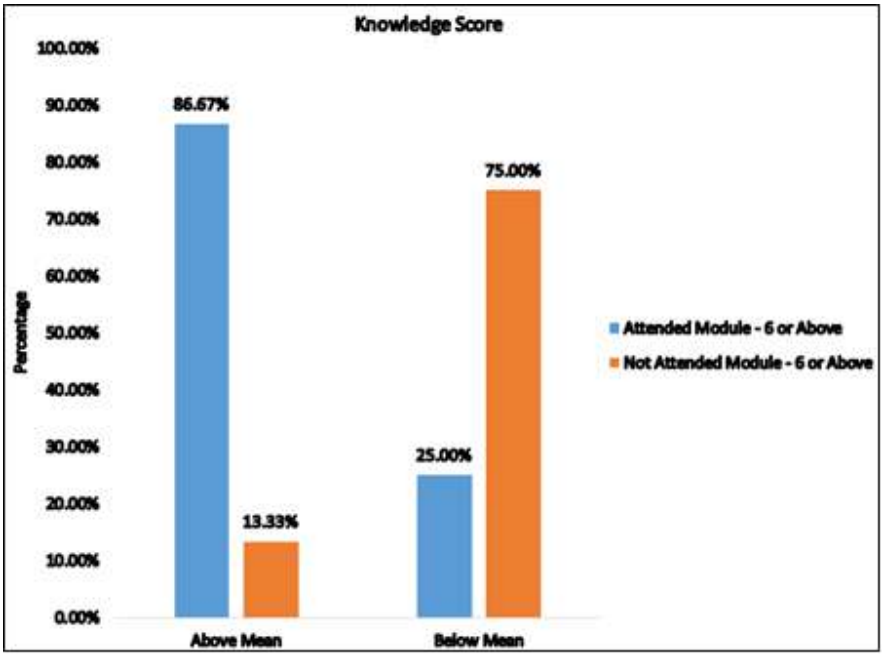

Fig 7: Relationship between knowledge scores of ASHA workers according to RCH package and their training for module-6 or above

3.3.6 Relationship between knowledge scores of ASHA workers according to RCH package and their Residence- Table No. 9 and figure No. 8 depicts that maximum above mean knowledge score (66.66%) of ASHA workers according to RCH package was found with those ASHA who have Rural Residence, followed by (54.28%) with those ASHA who have Urban Residence. In order to explore association the X^2 value of 1.321 at df 1 was found to be Not significant at 0.05 level. Thus it can be concluded that Residence of ASHA had No impact on knowledge of ASHA workers according to RCH package.

Table 9: Chi square value computed between knowledge scores and Residence of ASHA workers

Residence	N	Knowledge Scores		Chi square
		Above mean (%)	Below mean (%)	
Urban	70	38 (54.28%)	32 (45.71%)	$X^2 = 1.321$ df = 1 p = 0.2503
Rural	30	20 (66.66%)	10 (33.34%)	
Total	100	48 (48%)	52 (52%)	

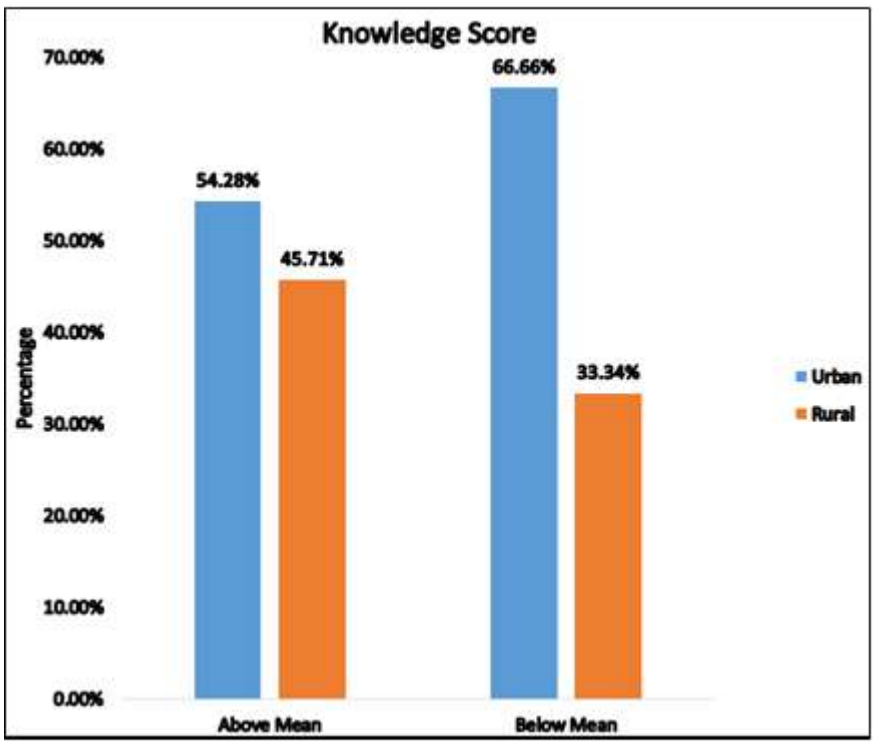

Fig 8: Relationship between knowledge scores of ASHA workers according to RCH package and their residence

3.3.7 To develop a brochure

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4. Conclusion

Maximum 59% of ASHA workers had Average, 38% had good and least 3% had poor knowledge regarding RCH package. Mean percentage of knowledge score was varying

from 79% to 41.50% among sub content areas of RCH package. Mean knowledge score was maximum (79%) regarding Essential newborn care followed by (74%) regarding safe motherhood, (73.50%) regarding prevention and control of vitamin A deficiency in children, (73.20%) regarding Immunization, (61%) regarding Oral Rehydration Therapy, (58.75%) regarding family planning respectively and least knowledge score (41.5%) regarding prevention and management of RTI/STD.

Relationship of knowledge score of ASHA workers with Academic qualification, experience and Training for Module- 6 or above is found statistically significant at P<0.05. Findings of the present study reveals that ASHA workers who are more educated, experienced and attended Training for Module- 6 or above are having more knowledge.

5. Recommendations

1) Refresher training at regular interval should be imparted at block and district level on specific topics.
2) ASHA workers should be paid more remuneration.
3) Training of ASHA workers is neither as per norms nor regular. Training must be done timely, properly and effectively.
4) ASHA's being a new incumbent in health system need a lot of cooperation, coordination and supportive supervision from other stakeholders.

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