

CHAPTER -8

COMPETENCY AND MOTIVATION OF ASHA WORKERS

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8.1 Competency of ASHA Workers

To provide high quality health care services in both developed and developing countries, performance of health care providers need to be improved. The poor performance in providing primary health care services is caused by low competency of health care providers. Improved competency is likely to improve performances of health workers. Competency is essential for determining the ability and readiness of health workers to provide quality services (N.kak, Burkhalter and cooper 200, 1-28).

It is very important to measure competency because department of health or health care organizations must ensure that appropriate levels of competency are set and health workers need to conform to the standard. Competency assessment can help to identify health workers who are competent to provide health care services and also who need improvements in specific knowledge or skill areas. Competence assessment can also help in determining the efficacy of training, finding knowledge and skills gap and help to improve training programmes. Low score on competence assessment after training may indicate that the training was ineffective, poorly designed, poorly presented or inappropriate. Trainers can use this information to improve training content or delivery. Competence assessment can also guide health care manager when recruiting new health workers to ensure that they can do the job they are hired for.

8.1.1 Knowledge level of ASHA workers in different aspects of health related issues

Knowledge of ASHA workers: Knowledge is the information that enables an individual to have confident understanding of a subject, with the ability to use it for a specific purpose. For this study knowledge can be defined as a body of understood information possessed by ASHA workers to perform her role. Knowledge is one of the important prerequisite or the covert and overt behavior of ASHAs and it is assumed that if an ASHA has adequate knowledge she will develop a favourable attitude towards innovation. In order to measure competency of ASHAs a knowledge test has been conducted on different aspects of health related issues like knowledge about community, maternal health, child health, sanitation and hygiene, and food and nutrition.

Based on the knowledge score (mean score) obtained, respondents were classified into three category namely low, medium and high.

Table 8.1, Mean scores of ASHA workers in existing level of knowledge regarding different aspects of health issues.

Aspects	Category	mean score
Knowledge about their community	high level of knowledge	2.85
Maternal health	high level of knowledge	2.65
Child health	medium level of knowledge	2.44
Hygiene and Sanitation	medium level of knowledge	2.35
Food and nutrition	medium level of knowledge	1.94

8.1.2 Knowledge level of respondents regarding their community

The findings presented in the table 8.1 shows that ASHA workers have high level of knowledge regarding their community. They know thoroughly (mean score-2.86) about total population of their village, numbers of pregnant women, numbers of children below 5 years of age and numbers of fully immunized children.

8.1.3 Knowledge of respondent regarding maternal health

ASHA workers have high level of knowledge about maternal health with mean score 2.60. They know thoroughly about cash benefits available to the pregnant women (mean score 3) and about their antenatal care (mean score 2.79), but they know somewhat about first milk of mother being called colostrum and that it contain antibody (mean score 2.35), and the time of giving Tetanus Toxide (TT) to a pregnant women and interval between second doses of TT (mean score 2.12).

8.1.4 Knowledge level of respondent regarding child health

Findings presented in the table 8.1 shows that ASHA workers have medium level of knowledge regarding child health with mean score 2.46. They know thoroughly about Oral Rehydration Solution and sugar salt solution that is given immediately to the children who

suffer from diarrhoea. They know some what about exclusive breast feeding to a baby for the first six months, immunization of children to be done against six killer diseases, vitamin A doses given at age of nine month to protect against night blindness with mean scores (2.45), (2.26) and (2.33) respectively.

8.1.5 Knowledge level of respondent regarding sanitation and hygiene

ASHA workers have medium level of knowledge regarding sanitation and hygiene with mean score of 2.39. They know thoroughly about hand wash, covering containers and proper disposal of garbage to prevent diarrhoea, and about subsidies for construction of low cost latrine for rural people its mean score being 2.90 and 2.81 respectively. They know somewhat about all reasons of mosquitoes breed and symptoms of malaria (mean score 2.5). ASHA workers have least knowledge about soak pit which is used to avoid pools water, particularly in street and common pathways (mean 1.35)

8.1.6 Knowledge of respondents regarding food and nutrition

Findings in the table 8.1 indicated that ASHA workers have medium level of knowledge regarding food and nutrition with mean score 1.94, they know thoroughly about Mamoni scheme which provide financial support to pregnant women to have nutritious food and supplement (mean 2.94), know some what about importance of vegetables and its consumption to prevent blood deficiency (mean 1.96). They have least knowledge about benefits of condiment and consumption of fruits, vegetables and sprouts which contain vitamins and that they protect from diseases and food contain fibre necessary for bowl movement.

8.1.7 Overall knowledge of respondents in health related issues

Regarding overall knowledge of respondents, it revealed that respondents have medium level of knowledge with an average mean score of 2.386.

8.1.8 Knowledge Scores of ASHA workers on different aspects of health issues and selected independent variables

The study tried to find out whether existing level of knowledge of ASHAs is dependent on their demographic profile, if the average knowledge score of ASHAs related to different

aspects of health issues differ significantly across the variables such as age, education, organizational involvement and previous work experience. Hence one way analysis of variance (ANOVA) has been carried out to examine the following hypothesis-

a) knowledge of ASHAs on different health issues and their age groups

Hypothesis 1: There is no significant difference in average knowledge score of ASHAs across their age groups.

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3$

Where, μ_1 = average knowledge score of ASHAs for age group 15-25 years

μ_2 = average scores of knowledge of ASHAs for the age group 26-35 years

μ_3 = average scores of knowledge of ASHAs for the age group 36-45 years

Table 8.2, ANOVA test of knowledge scores of the respondents with their age

Age	Frequency (N)	Mean (SES)	Sig. Level for AVOVA
16-25 years	42	2.53	.003
26-35 years	68	2.33	
36-45 years	34	2.49	

The above table 8.2 shows the average knowledge scores of ASHA workers across the age groups. The Null Hypothesis was tested with one way ANOVA. The result in the table 8.2 indicates that a significant difference exists among the average knowledge scores across their age group. Where (p= .003) which is less than 0.05. Therefore, the formulated null hypothesis i.e. ‘there is no significant difference in knowledge score across different age group’ of the respondent can be rejected. The post hoc test was conducted to see in detail the difference among the different age groups. The analysis indicated that the knowledge score of the respondents that are within the age group of 15-25 and 26-35 significantly differ. However, there is no significant difference seen between the knowledge scores of respondents among the age group of 16-25 years and 36-45. (Append ix-XI, Table, A7).

b) Knowledge of ASHAs in different health issues and their educational qualification.

Further, the study tried to check whether knowledge of ASHAs significantly differ across educational level. ANOVA was carried out to check statistical significance in the difference in knowledge of ASHAs across different educational level.

Hypothesis 2: There is no significant difference in average knowledge score of ASHAs across their educational level.

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

Where, μ_1 = average knowledge score of ASHAs, for (educational level) can read and write

μ_2 = average knowledge score of ASHAs for primary level

μ_3 = average knowledge scores of ASHAs for middle school level

μ_4 = average knowledge score of ASHAs for high school level

μ_5 = Average knowledge score of ASHAs for higher secondary

Table 8.3, Average Scores of respondents across their Educational level

Educational level	N (frequency)	Mean	Sig. Level for ANOVA
Can read and write	6	2.04	.000
Primary level	40	2.19	
Middle school level	46	2.43	
High school level	41	2.61	
Higher secondary level	11	2.81	

The findings reveal that there is a significant difference across the average of existing knowledge and educational level of ASHAs (p value =0.00). It implies that formulated null hypothesis can be rejected. Average knowledge score is increasing with increase of educational level which implies that formal education widen the horizon of knowledge of an individual and it help ASHA workers to acquire basic skill and knowledge about health related issues. This finding is in line with the findings of Sharma et al. (1999). To determine existence of significant difference among ASHAs knowledge and their educational qualification post hoc analysis was

carried out. The post hoc analysis results pointed out that there lie a significant difference lies among existing knowledge of ASHAs in regards to their educational level. Table 8.7 shows that can ‘read and write and middle school level’, ‘can read and write and high school level’, ‘can read and write and higher secondary’, ‘Primary and middle school level’, ‘primary and high school level’, ‘primary and higher secondary’, ‘middle school and high school level’ and ‘middle school and higher secondary level’ of education are significantly different where as no significant difference are observed in regards to ‘can read and write and primary level’ of education. It implies that knowledge of ASHAs increase with increase of educational level.

c) Knowledge of ASHAs regarding different health issues and their organizational involvement.

Organizational involvement helps individual to share their knowledge and also provide a scope to learn from one another. This may produce changes in the cognition and existing knowledge level. In order to check whether any significant difference exists between the knowledge of ASHAs across their organizational involvement ANOVA was done. The following hypothesis is tested.

Hypothesis 3: There is no significant difference in the average knowledge score across Organizational involvement of the ASHAs.

Symbolically, $H_0 : \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

Where, μ_1 = average knowledge score for never involvement of ASHAs

μ_2 = average knowledge score for little involvement of ASHAS

μ_3 = average knowledge score for average involvement of ASHAS

μ_4 = average knowledge score for active involvement of ASHAS

μ_5 = average knowledge score for very active involvement of ASHAS

Table 8.4, ANOVA test for knowledge score and organizational involvement of ASHAs

Organizational involvement	N (frequency)	Mean scores of knowledge of the respondent	Sig. level (ANOVA)
Never	39	45.92	.039
Little	53	49.20	
Average	43	50.00	
Active	7	50.02	
Very active	2	52.5	

The findings reveal that there is a significant difference in the average scores of existing knowledge and organizational involvement (p value=.039 is less than 0.05). Therefore we reject the formulated null hypothesis. Average score of knowledge is increasing with increase of their level of involvement. It indicated that greater involvements of ASHAs in organizational activities help them to acquire more skills and knowledge, and it might improve their confidence level. Further the post hoc analysis revealed that there is a significant pair wise difference among the groups never and average, never and little organizational involvement (appendix-XII, Table A9).

d. Knowledge of ASHAs in different health issues and their previous work experience.

The study also tries to assess whether there is any significant differences among the mean score of knowledge of ASHAs with their previous work experience. Independent t- test was conducted to test the formulated hypothesis.

Hypothesis 4 : There is no significant difference in average knowledge score and their previous work experience of ASHA workers

Where, $\mu_1 = \mu_2$

μ_1 = mean knowledge of ASHAs with previous work experience

μ_2 = mean knowledge of ASHAs with no previous work experience

Table 8.5, Independent sample t- test for knowledge Scores of ASHAs with their work experience

		Levene' s Test for Equality of Variances		t- Test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Mean of knowledge score	Equal variances assumed	5.824	0.017	1.022	142	0.309
	Equal variances not assumed			1.148	126.861	0.253

Table 8.5 indicated that equality of variances (for Levene’s test) is 0.017 less than 0.05 ($p>0.05$)), significant (2-tailed) value was 0.253 which is greater than 0.05 indicating no significant difference in knowledge of ASHAs with their previous work experiences, therefore formulated null hypothesis can be rejected. Hence it implies that knowledge of ASHAs regarding different health related issues with previous work experience is not significant.

8.2 Skills of ASHA Workers

Skills of ASHA Workers: Skill is the capacity to perform a specific task or it refers to an action that an individual performs in a competent way in order to achieve a goal (Ericsson 1996). Skill is gained through proper training. One may have no skill, some skill and complete mastery. Skill is also an important factor for ASHA workers to improve their competence in order to improve their performances. Different skills such as communication skill, interpersonal skill, organizational skill, advocacy skill, coordination skill and teaching skill were studied to find out competency of ASHA workers in performing their task.

8.2.1 Scores obtained by ASHA workers for their skill

The mean scores of analyzed data regarding skills of ASHA workers reveal that they have a complete mastery in communication skill (3.50) and coordination skill (3.56). They have some skills regarding organizational (3.02), interpersonal (3.44) and teaching skills (2.85). ASHA workers have very little skills in advocating (2.01) their community.

Table 8.6, Mean scores of skills of ASHA workers

Skills	category	mean score
1. Communication skill	complete mastery	3.50
2. Interpersonal skill	some skilled	3.44
3. Organizational skill	some skilled	3.02
4. Coordination skill	complete mastery	3.56
5. Advocacy skill	little skilled	2.01
6. Teaching skill	some skilled	2.85

8.2.1 Overall skills of ASHAs in performing their task

Regarding overall skills of ASHAs fig 8.1 shows that majority (49.9%) have some skill followed by 46.1% of respondents have complete mastery in their work and only 3.5% respondent have very little skill. Mean scores of ASHAs in skills is 3.09, which depicts that majority of ASHA worker are some skilled. Findings shows that 100% ASHAs do not possess mastery in performing their work. It is may be due to the incomplete training. The level of mastery will be gained by ASHAs not only after getting induction training but after getting additional training and hands on experience that might help them to reach to a level that could be certify them as competent.

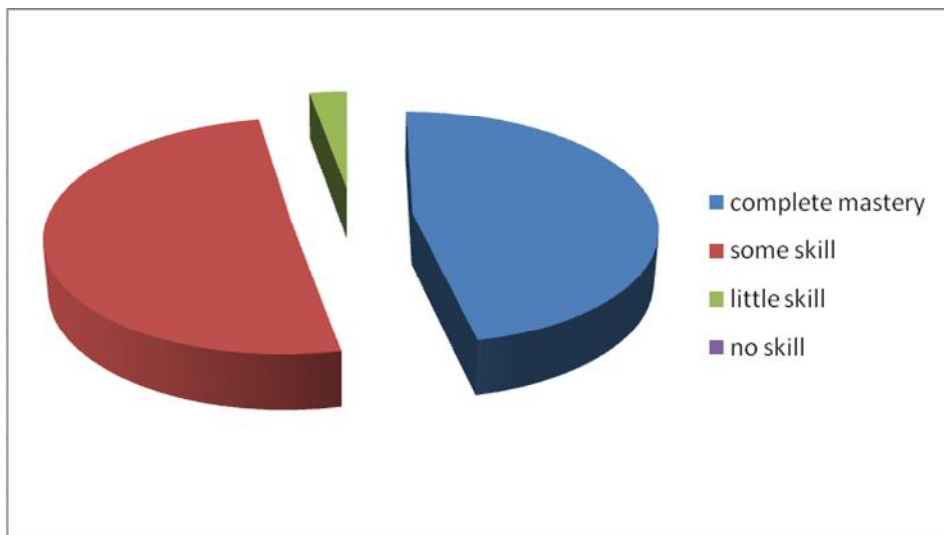


Fig 8.1, Distribution of ASHAs according to score obtained for their skills

8.2.2 Previous work experience of ASHAs and their skills

An independent sample t-test at a significant level of 5% ($\alpha=0.05$) is carried out to determine whether the mean of overall skills of ASHAs (refer table 8.7) differ with their previous work experiences. Therefore the variable, ASHA’s overall skills is treated as test variable (dependent variable) while the previous work experience of ASHAs is taken as grouping variables (independent variable). The following hypothesis is formulated.

H_0 : There is no significant difference in the average skills score of ASHA workers with their previous work experience.

$$H_0: \mu_1 = \mu_2$$

Where, μ_1 = mean score of overall skills of ASHAs with their previous work experience
 μ_2 = mean scores of overall skills of ASHAs without previous work experience

Table 8.7, Independent sample t- test- previous work experience and Skills of ASHAs

		Levene' s Test for Equality of Variances		t- Test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Average scores of skills	Equal variances assumed	2.142	.146	1.573	142	0.118
	Equal variances not assumed			1.520	86.026	0.132

Results in the table 8.7 shows that the equality of variance is 0.146 which is more than 0.05. Therefore significant (2 tailed) p value = 0.118, and it is more than $\alpha= 0.05$, hence the formulated hypothesis cannot be rejected. This indicated that their work experiences may not be exactly related to the activities usually undertaken by ASHAs therefore previous work experience have no connection with their present skills required for work.

8.3 Attitude

8.3.1 Attitude of ASHA workers towards their work

This study involves measurement of attitude of ASHAs towards their work which may influence their competency. Table 8.8 shows that the majority of the respondents 78.6% had positive attitude towards their work, 20% had neutral opinion and only 1.4% of the respondents had negative attitude towards their work. Mean scores of attitude is 4.01 which depicts that majority of ASHA workers had positive attitude.

Table 8.8, Attitude of ASHA workers towards ASHAs work

Variable	Positive		Neutral		Negative		Mean of attitude
	frequency	percent	frequency	percent	frequency	percent	
Attitude	119	78.6	23	20.0	2	1.4	4.01

8.3.2 Attitude of ASHAs and their knowledge in different health issues.

A one way ANOVA at a significant level of 5% ($\alpha = 0.05$) is carried out to examine whether the average attitude score of ASHA workers towards their work differ across their knowledge in various health issues. Therefore respondents attitude towards their work is treated as the dependent variable while their knowledge in various health issues is treated as independent variable refer questionnaire no.3 in section 6 questionnaire given in the appendix-3). The following hypothesis is formulated,

Hypothesis 1: there is no significant difference in the average attitude score across the knowledge level of ASHAs.

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

Where, μ_1 = average knowledge score of ASHAs for their community

μ_2 = average knowledge score of ASHAs for maternal health

μ_3 = average knowledge score of ASHAs for children health

μ_4 = average knowledge score of ASHAs for sanitation and hygiene

μ_5 = average knowledge score of ASHAS for food and nutrition

Table 8.9, ANOVA test for mean scores of Attitude with mean scores of knowledge of ASHAs.

	Sum of Squares	df	Mean Square	F	Sig. level(ANOVA)
Between Groups	10.563	26	.406	.746	.804
Within Groups	63.697	117	.544		
Total	74.260	143			

Results of one way ANOVA reveals that p value =0 .804 and it is higher than $\alpha= 0.05$, hence it not statistically significant. Thus, we cannot reject the formulated null hypothesis “there is no significant difference among average attitude score of ASHAs towards their work across their level of knowledge in various aspects of health. Hence, attitude is not dependent on having knowledge in the different aspects of health issues.

8.3.3 Attitude and selected demographic variables

Further, an ANOVA is conducted to examine if the average score in attitude of ASHA workers significantly differ across the variables like age group, educational level, organizational membership and social category. This is done with an intention to verify whether demographic profile influences attitude of ASHA workers towards their work. ANOVA is conducted to test the following hypothesis.

Hypothesis 2: There is no significant difference of average score in attitude of ASHA workers across age groups

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3$ where μ_1 = age group 16-25 years

μ_2 = age group 26-35 years

μ_3 = age group 36-45years

Table 8.10: ANOVA result of average attitude scores of respondent with regards to their age

Age	Frequency (N)	Mean (SES)	Sig. value (ANOVA)
15-25 years	42	4.05	.788
26-35 years	68	3.95	
36-45 years	34	3.97	

Results in the table 8.10 indicates that significant value for one way analysis of variance is 0.788 which is greater than 0.05, therefore, null hypothesis cannot be rejected. It indicates that there is no significant difference in the average attitude scores across the age group.

Hypothesis 3: There is no significant difference in average attitude scores of ASHA workers across their educational level

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

Where, μ_1 = average attitude scores of ASHAs those who can read and write only

μ_2 = average attitude scores of ASHAs for their primary level of education

μ_3 = average attitude scores of ASHAs for their middle school level of education

μ_4 = average attitude scores of ASHAs for their high school level of education

μ_5 = average attitude score of ASHAs for their higher secondary level of education

Table 8.11, ANOVA test for attitude scores of respondent with their educational level

Educational level	N (frequency)	Mean	Sig. value (ANOVA)
Can read and write	6	4.13	0.09
Primary level	40	3.90	
Middle school level	46	3.86	
High school level	41	4.03	
Higher secondary level	11	4.50	

Results reveal that p value=0.09 and it is more than $\alpha= 0.05$, hence the formulated null hypothesis cannot be rejected. Therefore it implies there is no significant difference between the average attitude score across their educational level.

Hypothesis 4: There is no significant difference of average attitude scores of ASHA workers across their organizational membership

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3$

Where, μ_1 = average attitude score of ASHAs for no organizational membership

μ_2 = average attitude score of ASHAs for membership in one organization

μ_3 = average attitude score of ASHAs for membership in more than one organization

Table 8.12, ANOVA test for attitude score of respondent with their organizational membership

Organizational membership	N (frequency)	Mean	Sig. value (ANOVA)
No membership	54	4.06	.093
Membership in one organization	69	3.85	
Membership in more than one organization	21	4.2	

The one way ANOVA result showed in the table 8.12 indicates that the significant value is .093. Hence, formulated null hypothesis cannot be rejected. It implies that there is no significant difference between the average attitude scores and their organizational membership.

Hypothesis 5: There is no significant difference in average attitude score of ASHA workers across their social category

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3$

Where, μ_1 = average attitude score of ASHAs for general

μ_2 = average attitude score of ASHAs for OBC/MOBC

μ_3 = average attitude score of ASHAs for SC/ST/ Tea tribes

Table 8.13, ANOVA result in the attitude scores of respondent with respect to their social category.

Social category	N (frequency)	Mean	Sig. value (ANOVA)
General	37	3.93	.278
OBC/ MOBC	55	4.12	
ST/SC/ Tea tribes	52	3.86	

The table 8.13 shows that (p- value= 0.278 more than $\alpha=0.05$), therefore formulated null hypothesis cannot be rejected. Hence, it implies that attitude of ASHAs towards their work is not dependent on their social category.

8.4 Institutional training imparted

Capacity building of ASHA workers is very important to enhance their effectiveness in work, and it has been envisaged that training help to equip them with necessary knowledge, skills and confidence. The training curriculum specially developed for ASHAs in Assam is based on Government of India NRHM modules. They are provided five level module training for 23 days. The scheme envisaged three types of training, induction training followed by periodic training which is held for two days, once in every alternate month to refresh and upgrade ASHAs knowledge and skills and also for keeping up their motivation and interest. On the job training is also provided to ASHAs in order to support them during the work. The ASHA guide of NRHM recommended tasks for ASHAs in the following areas-

- i) Preventive health and record keeping
- ii) Maternal health (accompany for 3 prenatal checkup and care during pregnancy and postnatal period)
- iii) Child health (promotion of breast feeding new born baby and home based care and immunization)
- iv) Adolescence health and awareness
- v) Referral and first aid
- vi) Food and nutrition
- vii) Sanitation and hygiene

Training is a continuous process and considering the tasks to be performed, her induction training is planned for 23 days in 4 rounds (10 +4+4+ 5) days in a year with refreshers training every year. Training material is produced at the national level. States have the freedom to modify the contents as per local needs. The training materials include facilitator guide, training aids and resource materials of ASHA. Regarding training of ASHAs in the study area several gaps have been observed in the ASHA’s training programme.

8.4.1 Duration of training

Findings in the table depict that majority of ASHA workers i.e. 51.4% has undergone 10 days training programme and only 32.6% received prescribed 23 days of training. It shows that majority of ASHAs have received training less than the required amount. Hence it is difficult to expect their performance to be optimal.

Table 8.14, Distribution of ASHA workers according to the duration of receiving training

Training duration	Frequency (f)	Percentage (%)
10 days training (module 1&2)	74	51.4
14 days training (module 3)	3	2.1
18 days training (module 4)	20	15.3
23 days training (module 5)	47	32.6

8.4.2 Training helps ASHA workers

ASHA workers revealed that training helps them most in enhancing their knowledge and update information (mean= 3.79), secondly it helps them to feel more comfortable in performing ASHAs duties (3.25), thirdly Training helps them to obtain better pay (mean= 2.37) as it improves skills and make them more efficient in doing work as ASHAs are getting incentives for each work. Lastly they consider training helps them to obtain better job also.

Table 8.15, ranking of training benefits to ASHA workers.

How did training help ASHAs	mean	rank
Help to obtain better job	2.06	IV
Help to obtain better pay	2.37	III
Help to feel more comfortable in performing duties	3.25	II
Enhancement of knowledge and updates information's	3.79	I

8.4.3 Area covered during the training

100% ASHA workers received training on tasks under maternal health and child health whereas 38.9% receive training under the area of hygiene and sanitation and record keeping, followed by 31.2% in food & nutrition and only 29.2% ASHAs received training in the area of adolescence health and 21.5% in referral and first aid respectively. It implies that all ASHAs have not received appropriate training and it is not standardized. Refreshers training rarely happen. Thus ASHAs are given incomplete training.

Table 8.16, Distribution of ASHA workers according to the area of receiving training

Sl. no.	Area of training	Frequency (f)	Percentage (%)
1.	Maternal health	144	100
2.	Child health	144	100
3.	Adolescence health	42	29.2
4.	Hygiene and sanitation	56	38.9
5.	Food and nutrition	45	31.2
6.	Referral and first aid	31	21.5
7.	Record keeping	56	38.9

8.4.4 Kind of support required by ASHA workers to implement their work more effectively.

ASHA workers are asked to rank their responses for the support they required for implementation of their work effectively.

Their responses revealed that they need more training to enhance their skill and knowledge (mean = 3.85), followed by timely payment of their honorium (mean = 3.37). Their expectation for fixed remuneration and love and affection for their work from their community ranked third (mean= 3.65). ASHA workers responses for community participation (mean = 3.62) and supervision (mean= 3.25) ranked fourth and fifth respectively to carry out their work.

Table 8.17, Kind of supports required by ASHAs to enhance their work

Sl. No	Variables	means	rank
1	More training	3.85	I
2	Timely payment	3.73	II
3	Fixed remuneration	3.65	III
4	Love and affection	3.65	III
5	Community participation	3.62	IV
6	Supervision	3.25	V

8.4.5 Knowledge of ASHAs and duration of training received

One way ANOVA was done to find out whether knowledge of ASHAs in different health issues has significant difference with the duration of training received. The following hypothesis is formulated.

Hypothesis 1: Average knowledge score of ASHAs do not vary across duration of training received.

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

Where μ_1 = average knowledge score for those who received 10 days training

μ_2 = average knowledge score for those who received 14 days training

μ_3 = average knowledge score for those who received 18 days training

μ_4 = average knowledge score for those who received 23 days training

Table 18.18, ANOVA test for knowledge and duration of training received

Duration of training	Frequency	mean	sig. value for ANOVA
10 days training	74	2.33	0.001
14 days training	3	2.36	
18 days training	20	2.42	
23 days training	47	2.58	
total	144	2.43	

One way ANOVA results in the table 8.18 shows that there is a significant difference in the knowledge of ASHAs with the duration of training received (p value less than $\alpha = 0.05$) hence, null hypothesis is rejected. It implies that training enhances the workers knowledge. With the increase in duration of training the knowledge level of ASHAs also increased. Further post hoc analysis is done to find out their level of significant among the duration of training. The post hoc analysis reveals that there is a significant difference between the 10 days training (1st module training) and 23 days training (4th module training), again, between 14 days (2nd module) training and 23 days training (4th module). The training module 3rd and 4th consist of few similar topics, and this might be the reason due to which no significant difference found between 18 days training (3rd module) and 23 days training (4th module). (Refer appendix –XIII, Table, A9).

8.4.6 Skills of ASHAs and duration of training received

To find out whether skills of ASHAs have any relation with the duration of training received, one way ANOVA was done and the following hypothesis is formulated.

Hypothesis 2: Average overall skills score of ASHAs do not vary across duration of training received.

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

Where μ_1 = average overall skills score for those who received 10 days training

μ_2 = average overall skills score for those who received 14 days training

μ_3 = average overall skills score for those who received 18 days training

μ_4 = average overall skills score for those who received 23 days training

Table 18.19, ANOVA test for skills and duration of training received

Duration of training	Frequency (N)	mean	sig
10 days training	74	3.10	0.167
14 days training	3	3.01	
18 days training	20	3.14	
23 days training	47	3.05	
total	144	3.09	

The duration of training has no significant difference in respondents skills ($p = 0.167$ more than $\alpha = 0.05$) hence null hypothesis cannot be rejected. It might be that the additional days of training do not focus on enhancing their job intended skills to a large extent.

8.4.7 Attitude and duration of training

Hypothesis 3: Mean scores of attitude of ASHAs do not vary across duration of training received.

Symbolically, $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

Where μ_1 = Average scores of attitude of ASHAs for those who received 10 days training

μ_2 = Average scores of attitude of ASHAs for those who received 14 days training

μ_3 = Average scores of for attitude of ASHAs who received 18 days training

μ_4 = Average scores of attitude of ASHAs for those who received 23 days training

Table 18.20, ANOVA test for attitude and duration of training received

Duration of training	Frequency	Average	sig. value for ANOVA
10 days training	74	3.86	0.015
14 days training	3	3.96	
18 days training	20	3.78	
23 days training	47	4.25	
total	144	3.98	

One way ANOVA results in the table 8.20 shows that there is a significant difference between the attitudes of ASHAs with the duration of training received (p value less than $\alpha = 0.05$) and null hypothesis is rejected. It implies that with the increase of module of training, attitude of ASHAs towards their work also improved hence training enhance the attitude of ASHAs. This is supplemented by post hoc analysis, where pair wise significant differences are established at $\alpha = 0.05$ (refer appendix –XIV, Table A10). The result reveals that there is a significant difference between the 10 days training (1st module training) and 23 days training (4th module training), 18 days (3nd module) training and 23 days training. The effectiveness of ASHA workers performance largely depends on training and support from both the health system and the community. Therefore, reorientation training should be conducted to understand the problem they are facing and to improve their efficacy.

8.5 Motivational level of ASHA workers

The purpose of analyzing the ASHA workers motivational level and effects of intrinsic and extrinsic reward on their work motivation is to find out the reasons why they choose to volunteer the work and expected benefits from their volunteering work.

8.5.1 ASHA workers feel about their work

Data analysis is done with the help of frequency distribution tables, measure of central tendency, and standard deviation. Responses on satisfaction level of intrinsic and extrinsic reward and discouraging factors were given on five point Likert rating scale. Findings in the

table 8.21 indicated that the feelings of ASHA workers about their work. The majority of ASHA workers (61.8%) to a large extent feel that their work is challenging, 54.2% considered that their work is promising and 82.6% ASHA workers considered their work is laborious. 57% ASHA workers enjoy their work to a large extent and 38.8% ASHAs feel it is enjoyable to some extent because they consider that they are engaged in such activities in their community which could include promoting adoption of better health practices that act as catalysts in improving health status of their community leading to improved standard of living. To some extent majority of ASHA workers i.e. 51.4% and 58.3% feel their work is novel and interesting respectively. Majority of ASHAs (55.65%) did not feel their work dull at all whereas 31.2% and 13.2% felt their work dull to a little extent and to some extent respectively.

Table no. 8.21 Distribution of ASHA workers according to their feelings about their work

Characteristics	Category			
	To large extent	To some extent	To little extent	Not at all
Challenging	61.8%	36.8%	1.4%	-
Novel	33.3%	51.4%	15.3%	-
Enjoyable	57%	38.8%	4.2%	-
Interesting	36.8%	58.3%	4.9%	-
Promising	54.2%	34.7%	11.1%	-
Dull	-	13.2%	31.2%	55.65
Laborers	82.6%	13.25	4.2%	-

8.4.3 Motivational factors that influences ASHAs to work.

Study of motivational factors helps to understand, to what extent it influences ASHAs to work as volunteers and motivate them to retain their work. The findings in the table 8.22 indicated that majority of ASHA workers (84.7%) responded that to large extent they are motivated by the recognition received for the work from their community. 75.7% ASHAs reveal that positive health outcomes of the community is the motivating factor to a large extent, similar findings was reported by Dieleman et al. 2003. This is followed by enhancement of their status,

flexible working hour, support and supervision provided by health officials and felicitation they get for their work. It indicates that ASHA workers feel pride in being selected by their community for the voluntary health worker role. Their selection implies that the community appreciated them, gave them responsibility to teach about health and considered them knowledgeable, though (51.3%) ASHA workers responded that pay for performance is least motivating factor but whatever they are getting for their performance or for each task is an additional income to the family and financially empowered the ASHA workers. Opposite finding is reported by Latham in 2007 that financial incentives in the form of remuneration was the primary motivating factor for engaging in efficient and effective behavior of workers. Further majority of ASHA workers (39.6%) and (40.3%) respectively responded training and accessories provided to them were least motivating factors. This may be due to the reasons that training provided to them with the knowledge they needed to work as health workers is not sufficient. 93% ASHA workers reveal that they will continue their work as they desire to serve for benefit of their community and protecting them from diseases. It shows that ASHA workers are self motivated and satisfied. Sadri Robertson 1993 states that ‘a satisfied worker actually works harder’ and likely to remain in the role.

Table 8.22, Distribution of ASHAs according to their extent of their motivational factors

Category	Extent of Motivation				Mean
	To large extent	To some extent	To little extent	Not at all	
Positive health outcomes	75.5%	24.3%	-	-	3.76
Recognition	84.7%	15.3%	-	-	3.85
Support and supervision	28.5%	37.55	34%	-	2.94
Training	24.3%	31.2	39.6%	4.2%	1.92
Enhancement of status	52.1%	35.4%	12.5%	-	3.4
Pay for performance	15.3%	17.4%	40.2%	27%	2.32
accessories	15.3%	29.9	51.2%	2.9%	2.8
felicitation	41.3	15.0%	40.3%	4.6%	2.83
Flexible working hour	32.6%	42.4%	20.8%	4.2%	3.03

8.5.3 ASHA workers satisfaction with the rewards provided to them.

The extrinsic reward is rated by ASHA workers as mentioned in the table 8.23 as follows: The satisfaction level of ASHA workers are measured in five point likert scale as highly satisfied, satisfied, not decided , dissatisfied and highly dissatisfied and the data shows that Average and standard deviation of the variables, accordingly it ranked. Certificate (X=1.5 sd= .715), felicitation (X=1.8, sd=3.65), pay for performance (X=2.0, sd=.950) and Accessories (X=2.3, sd= 1.255). The findings reveal that ASHA workers are not satisfied with the extrinsic reward provided to them like accessories, certificate, felicitation and the pay provided to them for their performance, though they are self motivated and want to continue their work for their community. Extrinsic rewards are important and essential for performance enhancement and thus it allows the retention of skilled and experienced ASHA workers in the system and plays a crucial role in work motivation. Providing certificate to the ASHAs will be more encouraging for their work motivation. This should be provided in all the health development blocks.

Table 8.23, ASHA workers satisfaction in regards to intrinsic and extrinsic rewards

Types of rewards	category	Average
Extrinsic reward	Pay for performance	2.0
	Accessories provided for ASHA’s work	2.3
	felicitation	1.8
	certificate	1.5
Intrinsic reward	Faith and responsibilities provided by community as well as health officials	4.5
	Enhancement of duties	3.7
	Recognition	4.5
	Positive health outcomes	3.9
	training	2.4
	Support, supervision and appreciation by health officials	4.0
	Love and affection of community people	3.8
	Enhancement of status	3.8
	Flexible working hour	3.8

During the data collection ASHA workers responded that they will be more satisfied if they are provided a fixed remuneration and better incentives. Several studies have shown that financial incentives alone are not sufficient for retention workers in the health sector; the working environment has a strong influence on job satisfaction. Opportunities to continue education, training and professional development have been identified as important motivating factor for health workers (Henderson and Tulloch 2008, 6-18). Data presented in the above table 8.23 indicated that ASHA workers are satisfied with the intrinsic rewards. The intrinsic rewards rated by ASHA workers is given in the table 8.23., findings shows that ASHA workers of Nagaon , Sonitpur and Sivsagar district are highly satisfied with the recognition they are getting out of their work and the faith and responsibility provided to them by health officials and community people. This is followed by positive health outcomes of the community, enhancement of their duties, support, supervision and appreciation provided to them, love and affection of the community and flexible working. Training holds last rank. They are not satisfied with the training which may be due to the reasons that training provided to them regarding the knowledge they needed to work as health workers is not sufficient. They need more training to enhance their knowledge and motivation, which in turn could strengthen their effectiveness at work. In comparing extrinsic and intrinsic reward, it seems that ASHA workers are more satisfied with intrinsic reward than extrinsic reward provided to them. Lack of satisfaction in relation to the extrinsic rewards may reduce their motivation and their retention in the long run.

Conclusion

It can be concluded from the above analysis that ASHAs have medium level of knowledge and skills in the study area though they have positive attitude towards their work. Further this chapter has brought forward some very important insight regarding quality and duration of training provided to ASHAs. The workers considered for the study are not completely aware about their roles and responsibilities and 100% ASHA have not undergone prescribed 23 days of training. The study of motivational factor helped to understand as to what extent it influences ASHAs to work as volunteers for the community and motivate them to continue their work.

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