Assessing Knowledge of Primary Health Care Workers on Antenatal Care at Selected Upazilla Health Centers, Sunamganj District

Nurjahan Begum[1], Dr. Md. Nasir Uddin Bhuiyan[2]
[1]Department of Public Health, Leading University, Sylhet, Bangladesh,
[2]Department of Public Health, Leading University, Sylhet, Bangladesh.

Abstract

Introduction: In Bangladesh maternal morbidity and mortality, child mortality morbidity is a burning problem. This is a national and international issue that is to achieve the goals and objectives of- MDG-4 & 5, SDG-3.Major causes of maternal morbidity and mortality, neo natal mortality and morbidity are due to complications in antenatal and postnatal period. Identifying these groups of mothers by Health Assistant, Family Welfare Assistant, Assistant Health Inspector and Health inspector, Family Welfare Visitor, Nurses, Midwives, Sacmo and Doctors. All this Community Health care provider can reduce MMR, IMR, NMR application of knowledge and practice of the PHC workers (mentioned above) can ensure save mother and save child. Professional knowledge, skill, capacity building and practice of primary health care workers is very much essential for promotion and development of maternal and child health at community level. Child bearing mother are 22.3% of total population. Improvement of maternal health reflects the major part of national health.
Objective: To Assesses the level of knowledge of Primary Health Care workers on antenatal care at selected Upazila Health Centers in Sunamgonj District.
Methodology: A cross sectional study was carried out to assess the knowledge of primary health care workers on ANC of Upazilla level. About 80 respondents were selected with eligibility criteria they were interviewed with a specific pre-designed and pre-tested questionnaire. Collected data were cleaned, edited, analyzed with the help of software SPSS window version 11.5.
Results: Among the respondents Medical officer-5(6.25%), senior staff nurse 14(17.5%), SAC MO-3(3.75%), FWV-4(5%), FWA-4 (5%), Health assistant 26(32.5%), CHCP-24(30.0%). Among them Male are 50% female are-50%. Among them religion was Islam-50(62.5%), Hindu-30(37.5%). All the respondents are employed and in govt. service .The are doctors, nurse, midwifery FWV, FWA, health assistants and CHCP. They are well qualified with secondary education and above, some with higher education. Among them 21.25% got professional training (MCH based), 78.25% have got no professional training. Among the respondents 31(38.75) got poor marks (5-10), 13 (16.25) got average marks (11-15), 17 (21.25) got Good marks (16-20), 19 (23.75) got Excellent marks (21-25).
Conclusion: This study revealed that most of the primary health care workers have poor and average knowledge on ANC. Most of them have got no professional training on MCH service. They require adequate training and skills development to ensure safe motherhood and safe child so that goals and target of MDG and SDG-3.1 can be achieved.

Key words: Knowledge, Primary Health Care, Antenatal Care.

INTRODUCTION

In Bangladesh maternal morbidity and mortality, child mortality morbidity is a burning problem. This is a national and international issue that is to achieve the goals and objectives of- MDG-4 & 5, SDG-3.Major causes of maternal morbidity and mortality, neo natal mortality and morbidity are due to complications in antenatal and post natal period. Identifying these groups of mothers by Health Assistant, Family Welfare Assistant, Assistant Health Inspector, Health inspector, Family Welfare Visitor, Nurses, Midwives, Sacmo and Doctors. All this Community Health care provider can reduce MMR, IMR, NMR application of knowledge and practice of the PHC workers (mentioned above) can ensure save mother and save child. Professional knowledge, skill, capacity building and practice of primary health care workers is very much essential for promotion and development of maternal and child health at community level. Child bearing mother are 22.3% of total population. Improvement of maternal health reflects the major part of national health.

Background Information:

Primary Health care (PHC) is an essential health service at upazila, union, ward, level (community level) Example: UHC (Upazila Health Complex), RHC (Rural Health Centre), USC (Union Sub Centre), FWC (Family Welfare centre), Community Clinic. Services provided like MCH Service (Maternal And Child Health Service), EPI (Expanded Program of immunization) CDC (Communicable Disease Control) NCDC (Non Communicable Disease Control),Sanitation, Nutrition LCC (Limited Curative Care),Family Planning Concept of PHC come into lime light in 1978.From 1998, 1st July, HPNSDP- Comprise a package program of ESP (Essential Service Package) of primary health care . Among all service's MCH service is most important to reduce maternal morbidity and mortality, neo natal mortality and morbidity, infant mortality and morbidity. MCH service comprises, Antenatal Care, Intranatal Care, Post natal Care and Neonatal Care. Above mention services are provided by doctors, nurses, midwives, field visitors, sacmo and field workers. They should have adequate knowledge, training on Antenatal Care. Well trained and adequate paid work force with well maintained facilities, logistic sand financing based on decisions and policies can ensure the expected service.

To ensure good maternal health, the following activities can be noticed.

- family planning
- antenatal care
  - TTimmunisation,
  - identification of high risk pregnancies,
  - iron folic acid supplementation
- TBA training and
- community education

How does family planning reduce maternal deaths?

- By preventing unwanted pregnancies and thereby preventing unsafe induced abortion which is frequently fatal.
- By reducing the number of pregnancies and thereby the number of women at risk of maternal death.

How does antenatal care serve to reduce maternal deaths?

- By detecting selected complication (such as pre eclampsia) and referring to appropriate facilities.
- By creating awareness regarding obstetric complications and actions to be taken.
- By promoting clean birth practices.

How effective is "risk screening" in predicting obstetric emergencies?
Global experience has shown that:

- Only about 30% of women identified as "high risk" actually develop complications.
- Around 60% of women who develop complications belong to the group identified as "normal" and only 40% are from the "high risk" group.

This information shows that:

- All women even those with " normal" pregnancies are at risk of serious obstetric complications
- Risk screening is not a reliable tool/method for predicting obstetric complications.

The various interventions influence the main causes of maternal mortality?

Cause of Death	Influenced of Interventions			
	Family Planning	ANC	Trained Birth Attendant	Case Management
Haemorrhage		+	+	+ + +
Induced Abortion	+ +		+	+ + +
Eclampsia		+ +	+	+ + +
Puerperal Sepsis		+	+ +	+ + +
Obstructed Labour		+	+	+ + +

ANC WHO Guide Line

1st visit	16 weeks
2d visit	24 weeks
3rd visit	28-32 weeks
4th visit	36-38 weeks

The obstetric emergencies that can cause a maternal death?

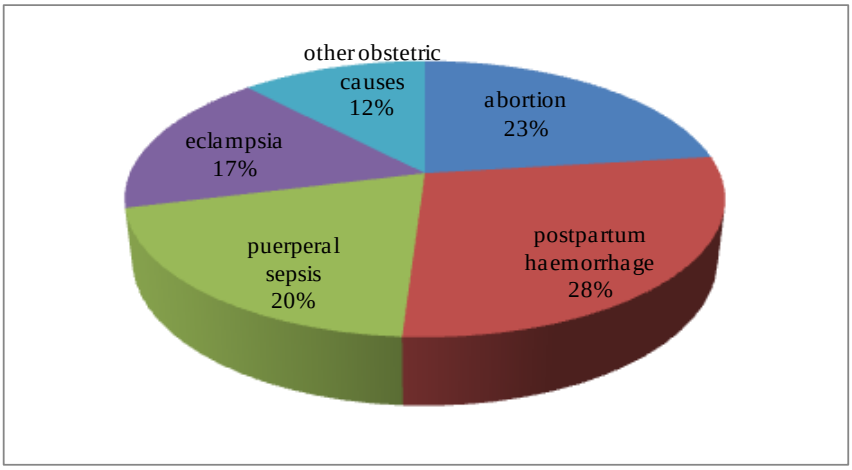
- haemorrhage
- abortion
- eclampsia
- puerperal sepsis
- obstructed labour

These conditions are also the cause of major morbidity among women and newborn baby.

Maternal death: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes is a maternal death.

The status in Bangladesh: In Bangladesh for every 1000 live births there are about 1.70 (BDH) maternal death. This is one of the highest in the world. The major causes of maternal death are:

Causes of Maternal death shown in figure.



Justification:
All the indicators of maternal and child health as well as family planning of Sylhet division differ from the other divisions. To overcome the deficiencies, limitations and constrains of maternal and child health service at community level- a study is essential from my point of view primary health care workers are the key persons to ensure sound maternal and child health and to achieve the goal and objective of Millennium Development Goal And Sustainable Development Goal.

Research Questions: What is the level of Knowledge of Primary Health Care Workers on Antenatal care at selected Upazila Health Center in Sunamgonj District?

Research Objectives:
General Objectives –
To assess the level of knowledge of Primary Health Care workers on antenatal care at selected Upazila Health Centers in Sunamgonj District.

Specific objectives:
1. To find out the socio-demographic characteristics of Primary Health Care Workers of Selected upazila Health center in Sunamgonj District.
2. To identify the professional status of the workers.
3. To assess the knowledge about different terminologies related to ANC such as ANC, PHC, LMP etc.
4. To assesses the knowledge about frequency and component of ANC visits.
5. To assesses the knowledge of the respondents on obstetrical history of pregnant mother.

Key variables:
1. Socio-demographic variables-age, Sex, Religion, occupation, Profession, Educational Qualification, Marital Status, Designation, salary status and Residence.
2. Antenatal care related variables- Pregnancy, EDD, ANC, MMR, IMR, Antenatal visit , TT 5, Gravida, Para, Anaemia, EOC, APH, Abortion, Stillbirth, PIH, GDM, IUGR, IUFD.
3. Job and service related variables-Designation, Job Description, Qualification, Training, Supervision and Monitoring.

Operational definitions:
1. Knowledge-knowing/ Awareness about antenatal care of Gestational mother
2. Knowledge-Develop Experience on facts related with antenatal care.
3. Knowledge-Have gone through the activities like history taking, Examination, investigation, Diagnosis, Treatment and advice
4. PHC-Primary Health Care is a care in the community level which is scientific, essential, and Acceptable by the people within the reach of people and within the govt. budget provided by the PHC workers.

4 ANC- Antenatal care is a care women during pregnancy to promote, protect and maintain maternal health .It comprise history taking, Examination Investigation, Diagnosis, Treatment and advise.

Limitations of Study:
1. Sample size is small.
2. Study period short.
3. Cross sectional study.
4. Management system.
5. Co-operational of the respondents.
6. Community level approach.

LITERATURE REVIEW
Previously there was no study found on assessment on knowledge practice and attitude of primary health care workers or ANC at Upazilla level so review study could not be possible.

METHODS & MATERIALS

Study design: Descriptive cross sectional study.

Study location: Chattak Upazila Health Complex, Rural health Centre, Union Sub Centre, Family welfare Centre and community clinic.

Study Population: Doctors, nurses, midwives, fieldworkers, field visitors, Community Health Care providers and sacmo of Chatak Upazilla.

Study period: September 2017 - December 2017

Calculation of Sample size:

$N=z^2pq/dz$
Q=1-p=1-.05=.95
N=sample size
d=acceptable **Error (.05)**
Z=Normal **Distribution (1.96)**
p=prevalence (.05)
$N=1.96^2.0.05.95/(.05)^2$
=72.96
By adding 10% of it=80

Eligibility criteria: Inclusion Criteria-Primary Health Care Workers, Co-operative workers. Exclusion Criteria- Non-Cooperative workers.

Data Collection tool: Pretested semi structured Questionnaire.

Data collection technique: Face to face interview.

Plan for data analysis: Data Collection, checked, Cleaned, compiled and Analyzed using appropriate statistical package for social science (SPSS) software window version. Descriptive study is expressed by mean, frequency, Distribution and standard Deviation.

Plan for data Presentation & interpretation:
By tables, Pie Diagrams and Bars.

Ethical considerations:

1. As guided by the ethical committee of Leading University.
2. Maintain privacy.
3. Voluntary participation.
4. Scientific objectivity has been maintained.
5. Personal information has been kept confidential.

RESULTS AND FINDINGS

A cross sectional study was carried out to assess the knowledge of PHC workers on ANC in the health center of chattakupazilla. Total 80 respondents were selected according to eligibility criteria. They were interviewed with a specific pre-designed and pretested questionnaire. Collected data were cleaned, edited in analyzed with the help of software SPSS window version-11.5.

Table-1: Distribution of the respondents by their designation of job (n=80).

Designation	Frequency	Percentage
Medical officer	5	6.25
Senior staff nurse	14	17.5
SAC MO	3	3.75
FWV	4	5.0
FWA	4	5.0
Health Assistant	26	32.5
CHCP	24	30.00
Total	80	100.0

Table shows that, among the respondents Medical officer were 5(6.25%), senior staff nurse SACMO-3(3.75%), FWV4 (5%), 14(17.5%), FWA-4(5%), HA-26(32.5%), CHCP-24(30)

Distribution of the respondents by sex (n=80).

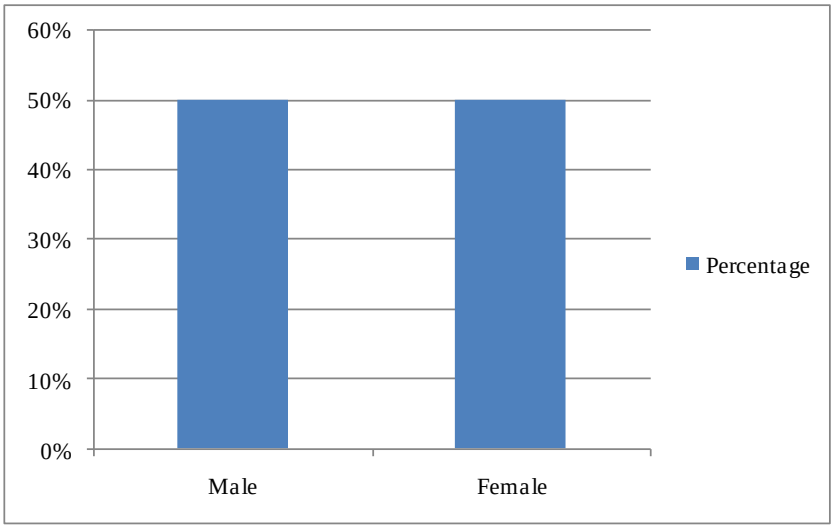


Figure-1: Figure shows that among the respondents 50% are male and 50% are female.

Table-2: Distribution of the respondents according to sex (n=80).

Sex	Frequency	Percentage
Male	40	50%
Female	40	50%
Total	80	100

Table shows that 50% are male and 50% are female.

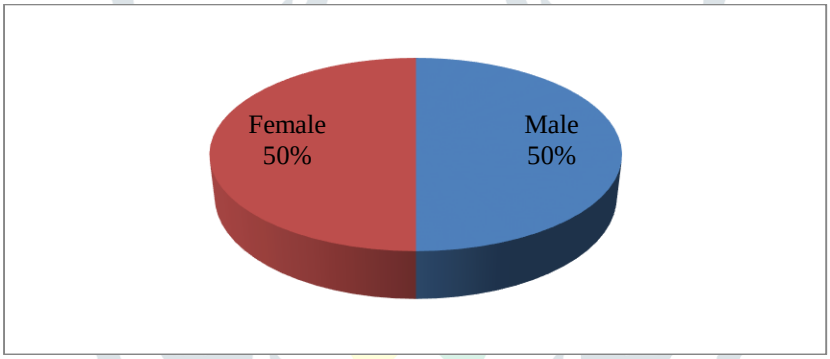


Figure-2: Figure shows that 50% are male and 50% are female.

Table-3: Distribution of the respondents by their religion (n=80).

Religion	**Frequency**	**Percentage**
Islam	50	62.5
Hindu	30	37.5
Total	80	100

Table shows that 62.5% are from religion of Islam and 37.5% are from Hindu.

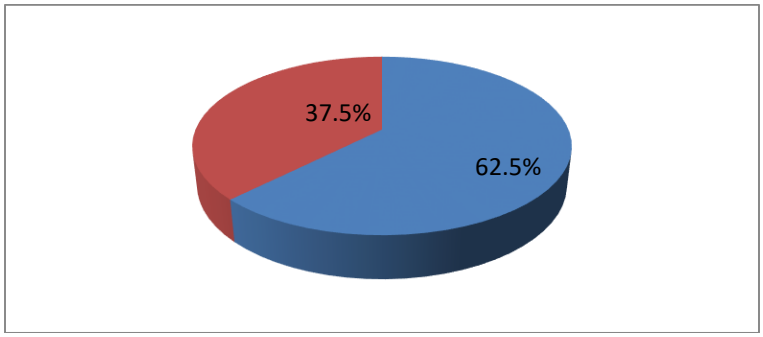


Figure-3: Figure shows that 62.5% are from religion of Islam and 37.5% are from Hindu.

Table-4: Distributor of the respondents according to their service (n=80).

Service	Frequency	Percentage
Govt. Service	80	100%
NGO	0	0%
Private	0	0%
No service	0	0%
	80	100%

Table shows that govt. services are 80(100%) and rest of them are 0%.

Table-5: Distributor of the respondents according to their educational status (n=80).

Educational status	Frequency	Percentage
Primary	0	0
Secondary	0	0
Higher Secondary and Above	80	100

Table shows that higher secondary and above are 80(100%) and rest of them are 0%.

Table-6: Distributor of the respondents according to their occupation (n=80).

Educational status	Frequency	Percentage
Employment	80	100
Unemployment	0	0
House Wife	0	0
Business	0	0
Farmer	0	0
Total	80	100

Table shows that employment are 80(100%) and rest of them are 0%.

Table-7: Distributor of the respondents according to their professional training (n=80).

Professional training	Frequency	Percentage
Yes	17	21.25
No	63	78.75
Total	80	100

Table shows that 17(21.25) got professional training and 63(78.75) got no professional training.

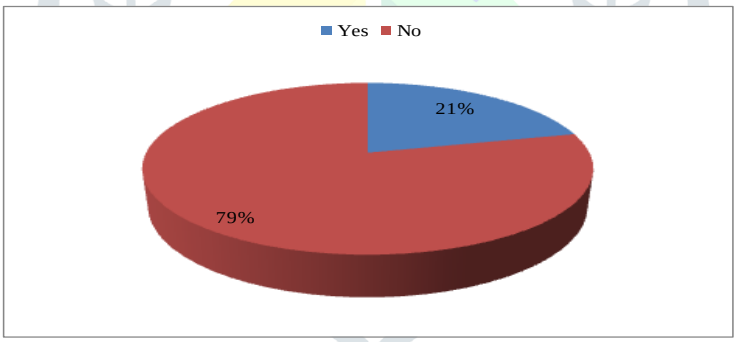


Figure-4: Figure shows that 17(21.25) got professional training and 63(78.75) got no professional training.

Table-8: Distributor of the respondents according to their educational qualification (n=80).

Educational Qualification	Frequency	Percentage
MBBS	5	6.25
Diploma in Nursing/Midwifery	14	17.5
Diploma in Medical Assistant Course	3	3.75
BA/B.sc	10	12.50
H.S.C (HA,CHCP,FWV,FWA)	48	60.0
Total	80	100

Table shows that MBBS are 5(6.25%), Diploma in Nursing/Midwifery 14(17.5%), Diploma in Medical Assistant Course 3(3.75%), BA/B.sc 10 (12.50%), H.S.C (HA, CHCP, FWV, FWA) 48(60.0%).

Table-9: Distributor of the respondents according to obtained marks (n=80).

Obtained Marks	No. Respondents	Percentage
Poor(5-10)	31	38.75
Average (11-15)	13	16.25
Good(16-20)	17	21.25
Excellent(21-25)	19	23.75
Total Marks-25	80	100

Table shows that 31(38.75%) got poor marks (5-10), 13(16.25%) got average marks (5-10), 17(21.25%) got good marks (16-20), 19 (23.75%) got excellent marks (21-25).

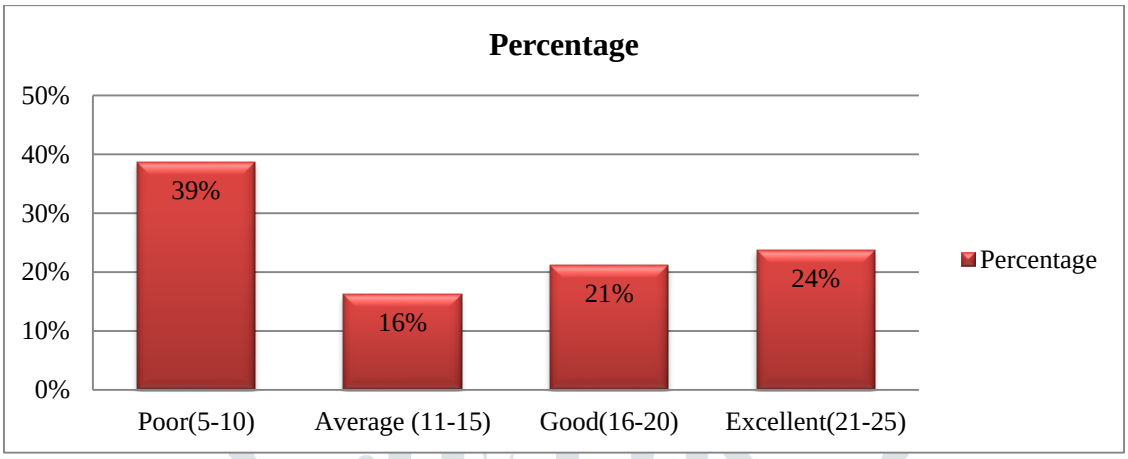


Figure-5:

Figure shows that 31(38.75%) got poor marks (5-10), 13(16.25%) got average marks (5-10), 17(21.25%) got good marks (16-20), 19 (23.75%) got excellent marks (21-25).

Distributor of the respondents according to obtained marks

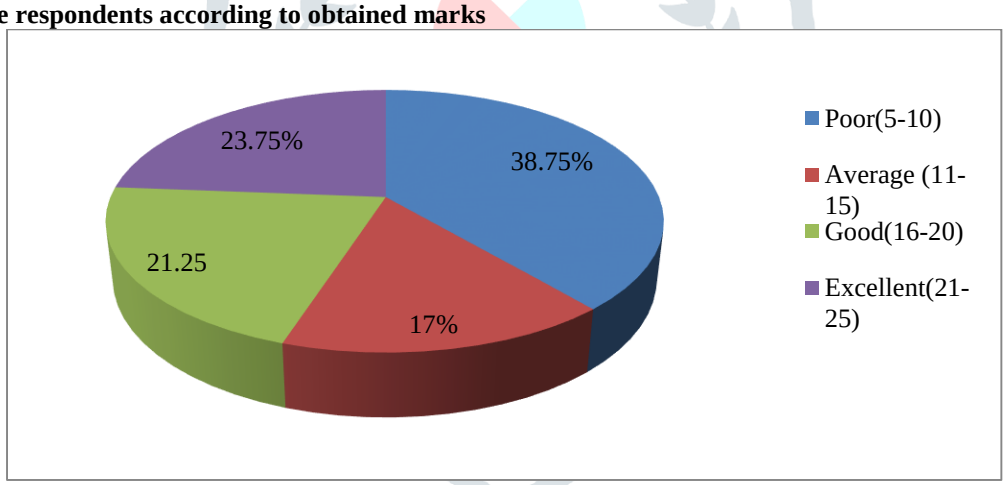


Figure-6

Figure shows that 31(38.75%) got poor marks (5-10), 13(16.25%) got average marks (5-10), 17(21.25%) got good marks (16-20), 19 (23.75%) got excellent marks (21-25).

Table-10: NO of respondent according to answers given to ANC, MDG, EDD, EOC, MMR, ANC components, Birth planning and gestational periods.

Answers given	Frequency	Percentage
Correct	55	68.75
Incorrect or left unanswered	25	31.25
Total	80	100%

Table shows correct answer given 55 (68.75) and incorrect or left unanswered 25(31.25).

Table-11: NO of respondent according to answers given toAPH, PHC, SDG, LMP, PIH, IMR, Antenatal visits, danger signs of pregnancy and stages of labour.

Answers given	frequency	Percentage
Correct	47	58.75
Incorrect or left unanswered	33	41.25
Total	80	100

Table shows correct answer given 47 (58.75) and incorrect or left unanswered 33(41.25).

Table-12: No. of respondent according to answers given to no. of pillars in safe motherhood, abortion, stillbirth, gravida, para, NMR and ALC.

Answers given	frequency	Percentage
Correct	33	41.25
Incorrect or left unanswered	47	58.75
Total	80	100

Table shows correct answer given 33(41.25) and incorrect or left unanswered 47(58.75)

DISCUSSION AND CONCLUSION

A cross sectional study was carried out to assess the knowledge of primary health care workers on ANC of Upazilla level. About 80 respondents were selected with eligibility criteria they were interviewed with a specific pre-designed and pre-tested questionnaire. Collected data were cleaned, edited, analyzed with the help of software SPSS window version 11.5. Among the respondents, Medical officer-5(6.25%), senior staff nurse 14(17.5%), SAC MO-3(3.75%), FWO-4(50%), FWA-4(5%), Health assistant 26(32.5%), CHCP-24(30.0%). Among them Male are 50% female are-50%. Among them religion was Islam-50(62.5%), Hindu-30(37.5%) All the respondents are employed and in govt. service .The are doctors, nurse, midwifery FWV, FWA, health assistants and CHCP. They are well qualified with secondary education and above, some with higher education. Among them 21.25% got professional training (MCH based), 78.25% have got no professional training. Among the respondents 31(38.75) got poor marks (5-10), 13 (16.25) got average marks (11-15), 17 (21.25) got Good marks (16-20), 19 (23.75) got Excellent marks (21-25).

PHC workers are the key persons to ensure adequate preventive curative and promotive health service to the beneficiaries who are close to them. They have the widest cooperation with the people. Pregnant mother and children are the weaker section of the community the knowledge, attitude and practice on ANC is very essential to reduce morbidity and mortality of these vulnerable sections, so as to reduce MMR, IMR and NNMR. Maternal in child morbidity and mortality is higher in the rural areas communities' level. Active participation of the PHC workers only can ensure to develop a healthy environment the study reveals that the knowledge of PHC workers is not adequate. Moreover majority of the workers have got no MCH based turning. Among the respondents health assistants and CHCP require training and their capacity building is necessary. Most of the participants have poor knowledge on antenatal care, visits, screening of high risk pregnancy, danger signs and obstetrical history of pregnant women.

CONCLUSION

This study revealed that most of the primary health care workers have poor and average knowledge on ANC. Most of them have got no professional training on MCH service. They require adequate training and skills development to ensure safe motherhood and safe child so that goals and target of MDG and SDG-3.1 can be achieved.

RECOMMENDATION

1. Develop knowledge, practice and attitude of PHC workers on ANC.
2. Bottom up planning.
3. Give emphasis to the PHC workers.
4. Registration of pregnant mother.
5. Best priority should be given to ANC and ensure visits to exclude high risk pregnancy.
6. Ensure safe delivery.
7. Strengthening supervision and monitoring.
8. Keep an eye towards the pockets where MMR and IMR are high.
9. PHC workers both health and family planning should work jointly.

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