Assessment of Onsite Coaching of Staff Nurses

Internship Training
at

COLUMBIA GLOBAL CENTERS | SOUTH ASIA

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Under the guidance of
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TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. Sindoora Adulapuram student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management and Research, Jaipur has undergone internship training at Columbia Global Centers, South Asia from 1st February 2014 to 30th April 2014.

The candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirement.

I wish her all the success in all her future endeavors.

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation title "**Assessment of On Site Coaching of Staff Nurses" in Mahabubnagar district, Andhra Pradesh** and submitted by Dr.Sindoora_Adulapuram Enrollment No.1380 under the supervision of Dr. Neetu Purohit for award of Post Graduate Diploma in Hospital and Health Management of the Institute carried out during the period from 1st February to 30th April, 2014 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

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Acknowledgements

The internship was started with a vision to be able to learn about the practical aspects of healthcare delivery system in a detailed manner. I hereby take this opportunity to express my deep sense of gratitude to all those who have been instrumental in the successful completion of my internship. Any accomplishment requires efforts of various individuals and this work is no exception

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I would also like to thank the staff of SVS Medical College, and all the health staff of Mahabubnagar district who have been co operative in this study.

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Abbreviations

AMTSL- Active Management of Third Stage of Labour

ANM- Auxiliary Nurse Midwife

APGAR- Appearance Pulse Grimace Activity Respiration

APH- Ante Partum Haemorrhage

ASHA- Accredited Social Health Activist

BMW- Bio Medical Waste

CDS- Central Drug Store

CEmONC- Comprehensive Emergency Obstetric and Neonatal Care

CGC- Columbia Global Centers

CHC- Community Health Centre

DHAP- District Health Action Plan

DPMU- District Programme Management Unit

EDD- Expected Delivery Date

FGD- Focussed Group Discussion

F-IMNCI- Facility-Integrated management of Neonatal and Childhood Illness

HPD- High Priority Districts

IAP- International Advisory Panel

IEC- Information Education and Communication

IMEP- Infection Management and Environment Plan

IMR- Infant Mortality Rate

IPD- In Patient Department

IUCD- Intra Uterine Contraceptive Device

JSK- JananiSurakshaYojana

JSSK- JananiSishuSurakshaKaryakram

KMC- Kangaroo Mother Care

MCH- Maternal and Child Health

MDEP- Model Districts Education Project

MDGs- Millennium Development Goals

MDHP- Model Districts Health Project

MMR- Maternal Mortality Rate

MO- Medical Officer

MOHFW- Ministry of Health and Family Welfare

NBSU- New Born Stabilization Unit

NRHM- National Rural Health Mission

NSSK- NavjaatShishuSurakshaKaryakram

NSV- Non Scalpel Vasectomy

OPD- Out Patient Department

OSCE- Objectively Structured Clinical Exam

OSPE- Objectively Structured Practical Exam

PHC- Primary Health Centre

PPH- Post Partum Haemorrhage

PPIUCD- Post Partum Intra Uterine Contraceptive Device

PROM- Premature Rupture Of Membranes

RMNCH+A- Reproductive Maternal Newborn Child and Adolescent Health

SBA- Skilled Birth Attendant

SC- Sub Centre

SN- Staff Nurse

SNCU- Special Newborn Care Unit

SPHO- Senior Public Health Officer

Abstract

Skilled staff in the health care service delivery is very important to improve the health status of any population and decrease the morbidity and mortality. This study is an attempt to assess and evaluate On Site Coaching of staff nurses, a one of its kind concept where the coaches travel to the health facilities on a routine basis and provide supportive supervision and focused guidance to the nurses. The study was conducted in four health facilities of Mahabubnagar district, which has high Infant and Maternal mortality.At the beginning of coaching program, for a total of 28 staff nurses, a quick needs assessment was conducted to understand the main challenges faced by the nurses, the technical areas where they required more training and support; and to list any systemic or facility-level factors that contribute towards their performance FGDs and in-depth interviews were conducted as part of this needs assessment.Coaching was conducted for over three months period from February to April 2014. Both knowledge and skill building activities were conducted concurrently over this time period. At the end of the program duration , a multi-stage examination along with a poster presentation event was conducted. Findings from the study show that prior to the coaching,only 60 percent of regular staff nurses were SBA trained, around 50 percent are NSSK trained. As high as 90 percent of the staff nurses were not aware how to conduct an episiotomy, 80 percent do not know how to manage third stage labour.Seventy percent of the staff nurses expressed the need to improve their skills on managing complications.Examinations conducted post the intervention and feedback show that there has been a marked improvement in the knowledge and skills levels of nurses to conduct complex procedures. It was evident that around 36 percent of staff nurses scored an A+ and as high as 53 percent scored an A+ in the theory based questionnaire which indicates improved knowledge levels.For practical based skills test, it was observed that 64 percent and 29 percent of the staff nurses scored very well by falling in A++ and A+ category respectively. It was also evident that none of the staff nurses scored poor as grade B was attained by zero percent. In the poster presentation, more than 50 percent of the staff nurses scored well with A++ grade showing improved confidence levels and none scored poor with zero percent of staff nurses in A or B grade.The nurses have also stated that they finds these training to be very useful and practical as it takes into account the strengths and limitations of the specific facilities . The results of this study may be useful in further

planning and scale up and similar concept could be retained in the future coaching programmes.

1.1Introduction

On Site Coaching is an incremental process that begins with a needs assessment to identify technical gaps that are then addressed with targeted skill building. These skills once built, are applied on actual cases with the mentorship of the trainer so that confidence of the staff can build. Supportive supervision sustains high quality service delivery and performance is measured through regular monitoring and post training evaluation tests.

In On-Site Coaching model, the coachesalong with the monitoring team rotate through target facilities on a routine basis and spend up to three days at the facility during each visit. The monitoring team observe the baseline performance of the facility as well as the skill level of each health worker. Needs assessment is done through discussions with the health staff. Based on this assessment, they then institute coaching customized to the unique needs of each worker. Skills are imparted through traditional classroom-based approaches, hands-on demonstrations with mannequins, and most importantly by seeing patients side-by-side with the health workers to reinforce their learning in actual practice. As the coaches regularly cycle back through each facility, they develop rapport with each health worker and also begin recognizing how each person learns best and how to most effectively boost the facility's overall performance. At the heart of this 'on-site coaching' model is the idea that clinical staff need hands-on mentorship while executing their daily tasks rather than being called away from their facilities in order to attend lectures. They need approaches that provide tailored solutions to the challenges they face and incrementally strengthen their skills and knowledge month-by-month.

Concept of On Site Coaching

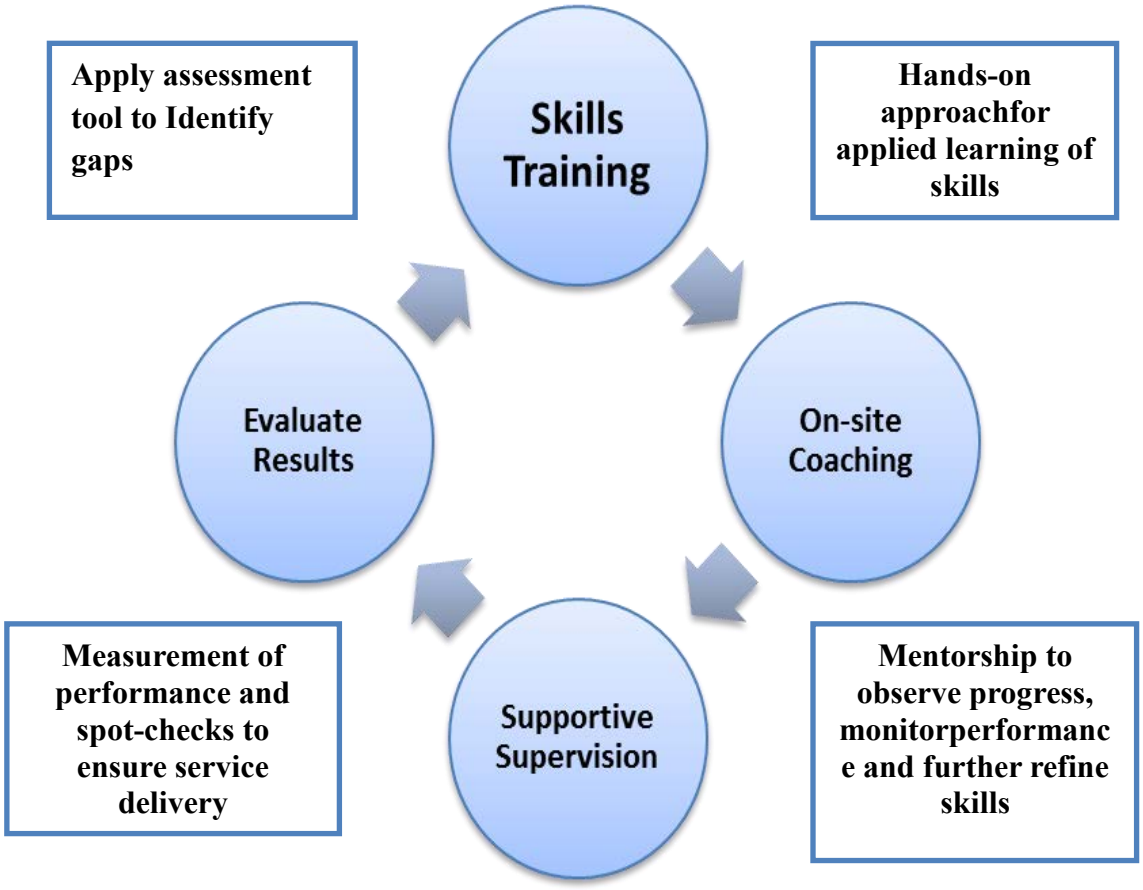


Figure 1.1 Concept of Onsite Coaching

1.2Problem Statement

Poor training quality with no enough clinical exposure, less focus on building competencies, lack of supportive supervision and refresher trainings for health staff has a direct impact on the service delivery of Maternal and Child health activities

1.3Rationale

In 2013, NRHM announced the rolling out of the RMNCH+A, a comprehensive strategy based on the concept of 'continuum of care' for improving maternal and child health outcomes in the country through high impact interventions across the life cycle. This strategy brings into focus the first 1000 days between pregnancy and the first 24 months of life as a window of opportunity for targeted interventions.

Key observations from the national level bottleneck analysis that fed into the RMNCH+A strategy included:

1. Limited availability of skilled human resources, especially nurses
2. Low coverage of services and of skilled staff posting among marginalised communities
3. Inadequate supportive supervision of front-line service providers
4. Low quality of training and skill building
5. Lack of focus on improving quality of services
6. Insufficient information, education and communication on key family practices

Mahabubnagar has been identified as a High Priority District (HPD) as both MMR (160) and IMR (56) are much higher than the State average of 134 and 46 respectively. The referral rate is also observed to be very high and access to health care facilities is low. These factors are contributing to decreased institutional deliveries and increased deaths.It is also observed from the gap analysis findings that less than 50 percent of the health facilities have personnel who have received skills training in SBA, NSSK, CEmONC, NSV, F-

IMNCI, IUCD, PPIUCD, IMEP, Immunization and Cold chain and Partographs etc.,Inspite of these trainings conducted by NRHM, the Skills and Knowledge of health staff is observed to be very poor.

On Site Coaching of health staff has few advantages over the existing style and can bridge the above gaps

- Coaches come to home-facility. Hence home facility services do not suffer with lack of staff and the staff gets trained in their facility and not in a higher facility.
- Individual attention to trainees and hands-on skill strengthening with focused guidance
- Takes on form of supportive supervision and mentorship.
- Practical training with case handling, managing, mannequins/laptop, flip charts and other tools

Hence this study was conducted to contribute to improve the skills and knowledge of staff nurses which could help in reducing the referrals and mortality rates.

1.4Research Question:

- DoesOn Site Coaching improve the skills, knowledge and confidence levels of staff nurses?

1.5Objectives

- To assess the baseline knowledge and needs of staff nurses
- To assess the process of On Site coaching
- To assess the post coaching knowledge, skills and confidence of staff nurses.

1.6Inclusion Criteria

- Facilities with high average delivery load OPD and IPD.
- Facilities with a minimum of four existing staff nurses.
- Facilities with catchment population as per IPHS standards
- Facilities with more referrals Maternal deaths and Infant deaths
- Geographical location of the facility

1.7Methodology

1.7.1Study Design

A longitudinal prospective study was conducted.

1.7.2Study Location

The study was conducted in four health facilities of Mahbubnagar district- two PHC's and two CHC's.

S.No.	Name of the facility	Catchment population	Average delivery load per month	Distance from head quarters
1	Balanagar PHC	38,539	17	30km NW
2	Marikal PHC	34,487	24	50km W
3	Kodangal CHC	1,60,000	28	70km NE
4	Achampet CHC	2,30,728	67	110km S

Table 1.1 Study facility details

1.7.3Study Subjects: All staff nurses of selected four health facilities.

1.7.4Sample size:A total of 28 staff nurses from the selected facilities.

S.No	Name of facility	Total number of staff nurses
1	Balanagar PHC	5
2	Marikal PHC	4
3	Kodangal CHC	6
4	Achampet CHC	13

Table 1.2: Total number of staff nurses in each study facility

1.7.5Duration/Timeline

The study was conducted from 1st Feb 2014 to 30th April 2014.

Report writing is done in the month of May.

At the beginning of the coaching the baseline levels of the staff was assessed through FGDs, interview sessions and observations. Needs assessment was done to find out the requirement and areas where the staff needs to build their skills.

The coaching was conducted for three months, where the coaches shuttle between the four facilities. It had a total of four rounds. The duration of each round was four days. The coaching programme was monitored to identify and correct gaps and effectively implement the programme.

At the end of the coaching programme, assessment of the coachees for clinical skills, knowledge and confidence level was done through a post-test evaluation exam and poster presentation

1.7.6 Sampling Frame

Purposive sampling was done to decide the health care centers and sample size.

All staff nurses in the selected four facilities were included in the sample.

1.7.7Data collection tool

Both qualitative and quantitative methods were used to collect information from coaches, staff nurses and medical officer.

Quantitative data was collected through checklists, semi structured post-test questionnaire.

Qualitative data is collected through observation, focused group discussionsFGDs) and in-depth interviews.

1.8Results and Analysis

1.8.1 Ethical Considerations

Informed consent was taken before starting the interview, FGDs and tests. If anyone disagreed to become part of the data collection process they were not forced by any means. Prior information was given before visiting any health facility. Confidentiality was ensured to all participants.

1.8.2 Baseline analysis

Status of past trainings of staff nurses

Through the FGD's conducted it is observed that 60 percent of regular staff nurses are SBA trained, around 50 percent are NSSK trained and as less as only 10 percent are IMNCI trained. The contractual nurses are not trained in any of the above.

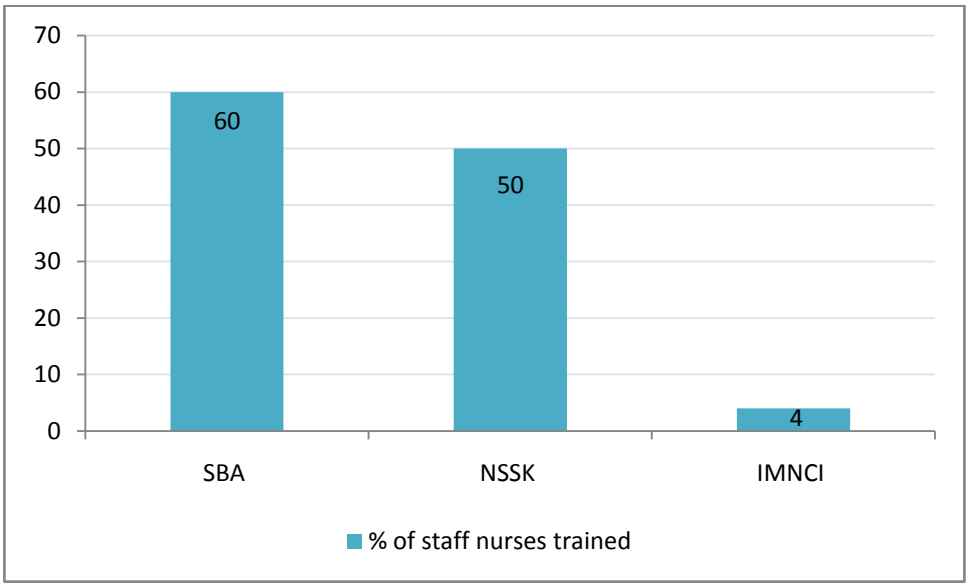


Figure 1.2: Past trainings of staff nurses

Expression of interest by staff nurses to be trained in specific areas

As a part of need assessment it is identified that most of the staff nurses were willing to get trained in many important procedures which they are ought to perform as part of their duty. 70 percent of the staff nurses expressed the willingness and need to improve their skills on

managing PPH cases and eclampsia, as high as 80 percent on new born resuscitation and Episiotomy and 60 percent of them expressed the need to learn breech presentation delivery.

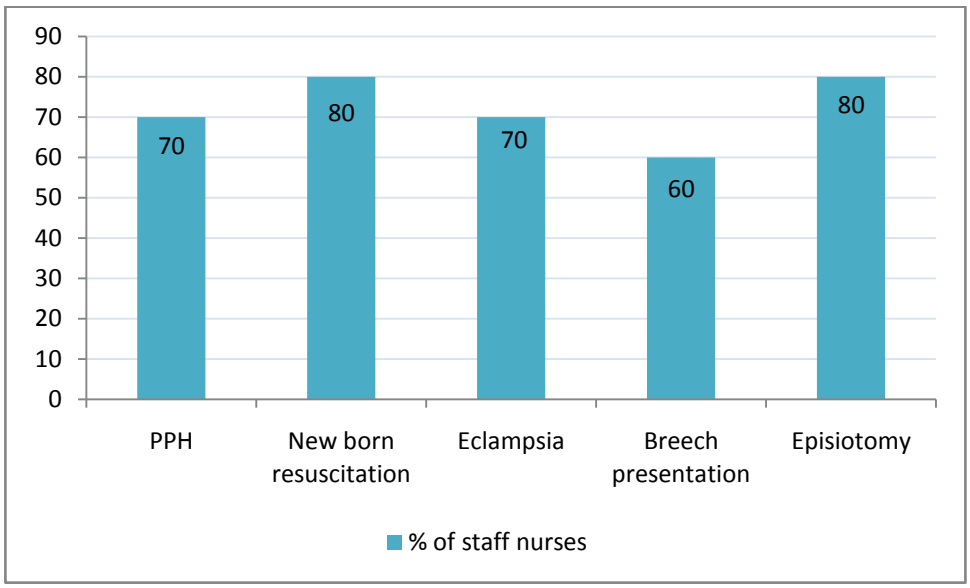


Figure 1.3 Percentage of staff nurses who expressed the need to be trained in few major areas

Status of skill levels of staff nurses

Baseline skill assessment shows that 90 percent of the staff nurses are not aware how to conduct an episiotomy, 80 percent do not know how to manage third stage labour and 70 percent of the nurses do not know ,management of eclampsia, maintain Partograph and Calculate APGAR.

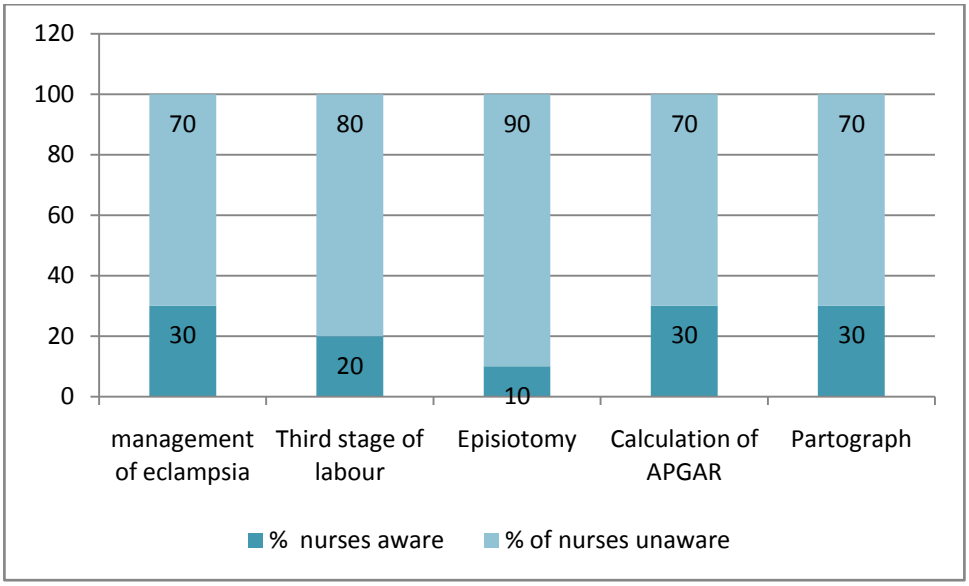


Figure 1.4 Status of skill levels of staff nurses

1.8.3 Steps followed for implementation of Coaching:Training activities

Round	Topics Covered	No. of deliveries during the coaching period	Major skill gaps identified and corrected
1st round	1. Introduction of MCH 2. Age at marriage 3.Pre conceptional care and preparation for parent hood 4. Female reproductive system 5. Referral cases 6. Staff development skills 7. Minor disorders in antenatal period 8. Records and reports 9.Antenatal assessment an antenatal examination 10.Organization of labour room 11.Infection control measures 12.Hand washing technique 13.Urine analysis 14.Vaginal examination 15. BMW Management 16.fetal skull 17. female pelvis	11	1.No awareness on segregation of BMW 2.hand washing technique not followed 3. No awareness on labour room essential equipments 4.No knowledge on urine analysis. Women sent to the lab technician for such minot procedures.

2nd round	1. Diagnosis of pregnancy 2. Scan reports 3. Physiology and mechanism of labour 4. Assessment of mother in labour 5. Management of labour 6. High risk labour 7.Partograph 8. APGAR 9. Care of low birth weight and premature baby 10. Birth asphyxia 11.New born care 12. Episiotomy 13.no. antenatal visits 14.levels of anaemia 15.false pains/true pains 16.sterilization of instruments 17.minor disorders of pregnancy 18.tocolytic agents 19.Syntocinon drip	12	1. Partograph not recorded for any delivery 2.Injudicious oxytocin 3. Staff not skilled to perform episiotomies 4. Calculation of APGAR and recording APGAR for every new born. 5. Sterile birth area not used 6. No immediate new born care 7. Protective aprons not in use
3rd round	1. Teenage pregnancy 2. Postnatal care assessment and examination 3. Identification of high risk postnatal mother 4. Identification of high risk new born 5. Neonatal resuscitation 6. KMC and Temperature regulation 7. PPH 8. Obstetrical shock 9. Sepsis 10. Forceps Delivey 11. Manual removal of placenta 12.IUCD 13.Immunization schedule 14.Procedures and drugs permitted to use by SBA 15.Referrals	6	1. No skills to identify high risk new born or high risk post natal mother. Women are discharged immediately or referred to higher facility with no stabililazation. 2. Not skilled to resuscitate a new born. Such cases are referred to higher facility. 3. Women not counselled on breast feeding technique or KMC. 4.Confusion in immunization schedule. JE vaccine doses in specific. 5. Not skilled to manage PPH. All cases are referred

4th round	1. Fetal distress 2. Birth injuries 3. Oxygen therapy 4. Diarrhoea and convulsions 5. Prolonged labour 6. Obstructed labour 7. Breech presentation 8. Anaemia 9. APH 10. Toxemia 11. Cord prolapsed 12. PROM 13. Retained placenta	5	1. Cases of fetal distress are referred. No management skills. 2. Breech delivery never conducted in the facilities earlier. 3.Cord prolapse, APH and all other obstetrical emergencies are referred to higher facilities without stabilizing the case.

Table 1.3: Training activities

Activities during monitoring visits

- Maintenance of interest and support in the planning and implementation of the programme.
- Liaison with respective SPHO's where necessary for a smooth implementation of the programme.
- Frequent relevant contact with from the medical officers to take inputs on the coaching programme.
- Check for any absenteeism of staff nurses and find out the reasons if any.
- Solve duty roster related issues of staff nurses being coached.

- Take inputs from the staff nurses on the modules taught. Find out the need for any other areas to be included in the coaching programme.
- Observe the willingness and participation of staff nurses in the coaching programme.
- Coordinate with the coaches to identify major skill gaps and correct them.

1.8.4 Status : Post implementation of Coaching

A post test was conducted on study sample to understand the levels of knowledge, skills and confidence gained after the coaching programme.It included a set of theory questions, set of practical procedures, likert scale questions, poster preparation and presentation

Knowledge levels were measured through a set of theoretical questions in various forms(True/False, Multiple Choice questions, Short answer questions and Fill up the blanks)

Skills were ascertained through a set of practical procedures which could be performed or demonstrated on dummies. An Objectively Structured Clinical/Practical Examination (OSCE/OSPE) tool was used to score the practical procedures demonstrated.

Confidence levels of the staff nurses are observed by conducting a poster presentation event at the end of the coaching programme. The topics were very strategically selected on the basis of the need expressed in the FGD's prior to the coaching programme.

Scoring and Gradingcriteria

1) Theory questions- Total 50 marks

- Fill in the blanks-10 marks
- True/ False- 10 marks

- Multiple choice questions- 20 marks
- Short answer questions – 10marks

<25 marks- B Grade, 25-29 marks-A Grade, 30-39 marks A+, 40-50 marks- A++ Grade

2) Practical exam – Total 100 marks. Five questions which carry 20 marks each. Scoring given as per a checklist with total steps to be demonstrated for each procedure.

- No steps demonstrated – 0 marks
- Atleast half of the steps demonstrated -10marks
- All steps demonstrated – 20 marks

<50 marks- B Grade, 50-59 marks- A Grade, 60-79 marks- A+ Grade, 80-100 marks- A++ Grade

3) Poster preparation and presentation

- Poster layout and appearance (matter relevant to topic, neatly displayed, explanation in different sections etc.,) – 10 marks
- Presentation skills, confidence levels (summarizes the poster concisely and accurately, does not simply read but expands upon poster content) -20 marks
- Response to questions (knowledge levels, able to answer any question directed at her regarding poster content or interpretations of the content and few questions from the key learnings of the training programme included commonly in a particular section of the posters) – 20 marks

<25 marks- B Grade, 25-29 marks-A Grade, 30-39 marks A+, 40-50 marks- A++ Grade

Post-test evaluation score sheet

S.No.	Facility Name	Theory total (Fill in the blanks+ True/ False+ Multiple choice+ Short Answers) (50 marks)	Practical exam (100 marks)	Poster presentation (50 marks)	Grand Total (200)
1	Balanagar	35	94	46	175
2	Balanagar	41	70	42	153
3	Balanagar	25	92	40	154
4	Balanagar	32	90	42	164
5	Balanagar	32	92	42	166
6	Kodangal	33	60	28	121
7	Kodangal	44	60	46	150
8	Kodangal	43	80	46	169
9	Kodangal	37	80	48	165

10	Kodangal	33	60	34	127
11	Kodangal	39	80	48	167
12	Achampet	40	90	48	178
13	Achampet	31	60	44	135
14	Achampet	38	70	30	138
15	Achampet	36	70	36	142
16	Achampet	44	80	46	170
17	Achampet	40	60	36	136
18	Achampet	32	60	26	118
19	Achampet	32	70	40	142
20	Achampet	27	60	34	121
21	Achampet	27	60	30	117
22	Achampet	36	70	48	154
23	Achampet	41	80	44	165
24	Achampet	34	80	40	154
25	Marikal	36	90	32	158
26	Marikal	43	90	32	165
27	Marikal	44	100	48	192
28	Marikal	41	90	46	177

Table 1.4: Post test score sheet

Post-test knowledge grades of staff nurses

It is evident that around 36 percent of staff nurses scored an A+ and as high as 53 percent scored an A+ in the theory based questionnaire.

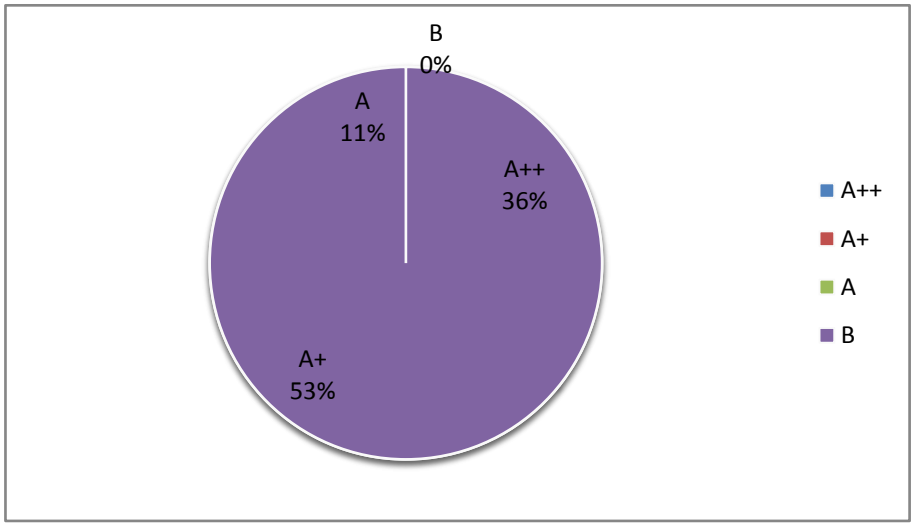


Figure 1.5:Post test knowledge grades of staff nurses

Post-test grades for practical skills gained by the staff nurses

It was observed that 64 percent and 29 percent of the staff nurses scored very well by falling in A++ and A+ category respectively. It was also evident that none of the staff nurses scored poor as grade B was attained by zero percent.

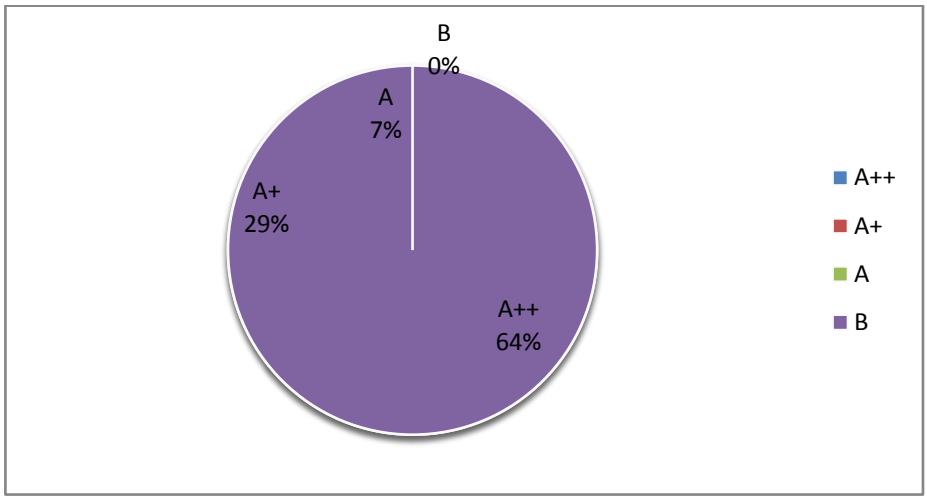


Figure 1.6: Post-test grades for practical skills gained by the staff nurses

Post-test Confidence levels of staff nurses

The staff nurses showed good confidence levels in the poster presentation event conducted to assess the the confidence of staff nurses in the skills gained and the ability to interpret and present the content of the poster well. More than 50 percent of the staff nurses scored well with A++ grade and none scored poor with zero percent of staff nurses in A or B grade.

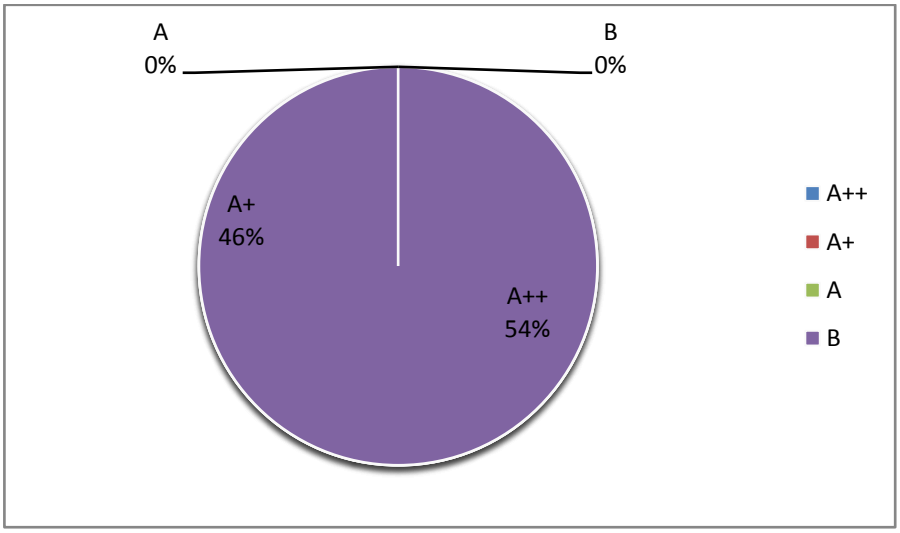


Figure 1.7: Post-test Confidence levels of staff nurses

Self-Reported satisfaction level of the trained nurses

Overall satisfaction with the training programme: 19 nurses (68 percent) strongly agreed to this and 9 nurses (32 percent) agreed to this statement with zero disagreement

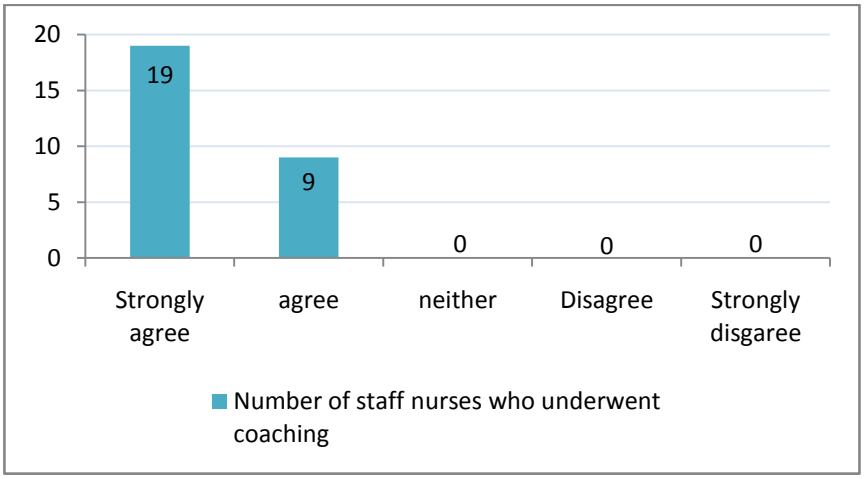
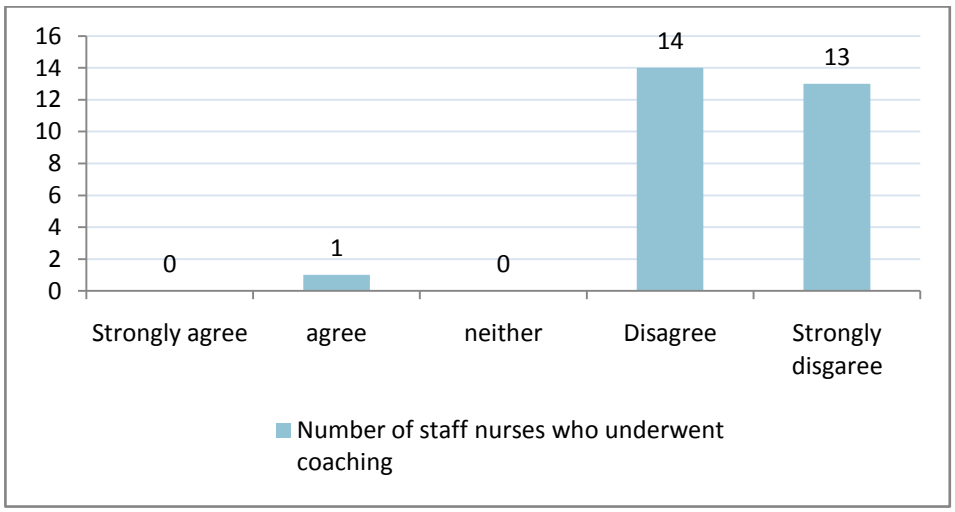


Figure 1.8: Overall satisfaction with the training programme

Expectations to learn things that are not reasonable and out of limitations of staff nurses: As high as 27 nurses disagreed to this statement except for one nurse who agreed to this statement



.**Figure 1.9: expected to learn things that are not reasonable and out of my limitations**

The practical On-Site approach- a good way of building new skills: All the staff nurses agreed to this statement.

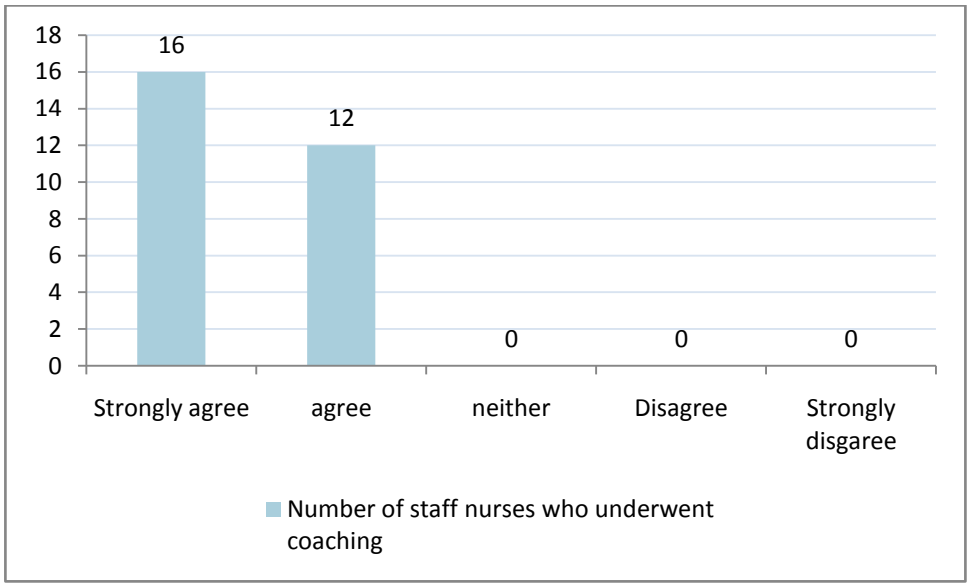


Figure 1.10: On-Site Approach, a good way of building skills

Organized and well-coordinated training programme. Cent percent staff nurses agreed to this. While more than 50 percent strongly agreed rest agreed to this statement.

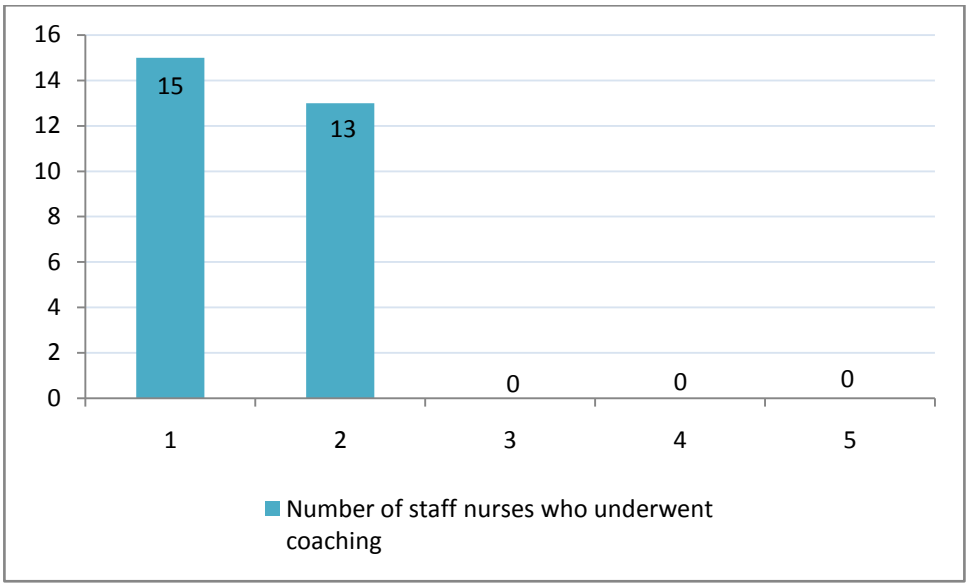


Figure 1.11: Well organized and co-ordinated training programme

Expectations from theory sessions: As high as 16 staff nurses out of 28 strongly agreed to this.

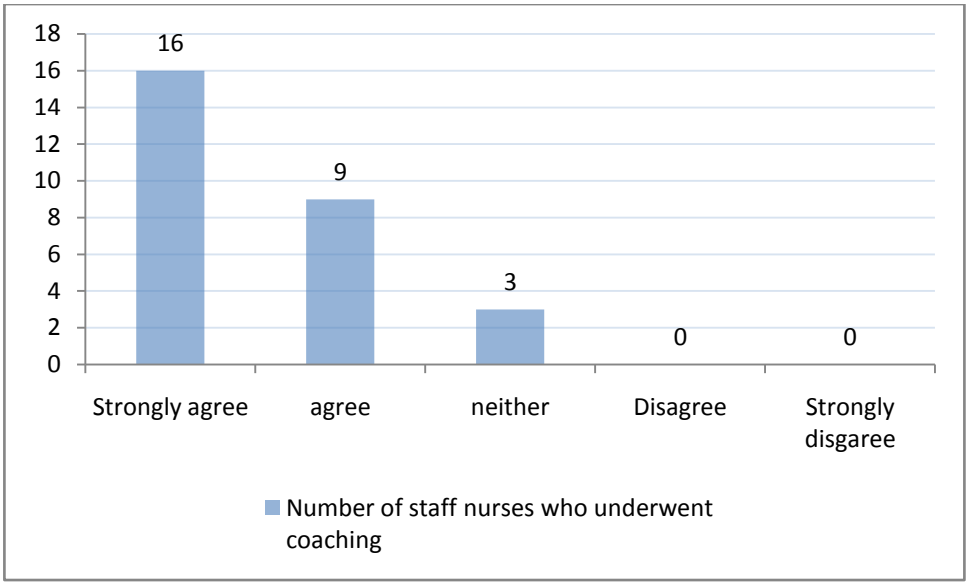


Figure 1.12: Theory sessions as per expectations

Expectations from practical sessions: Seventy one percent of staff nurses strongly agreed to this.

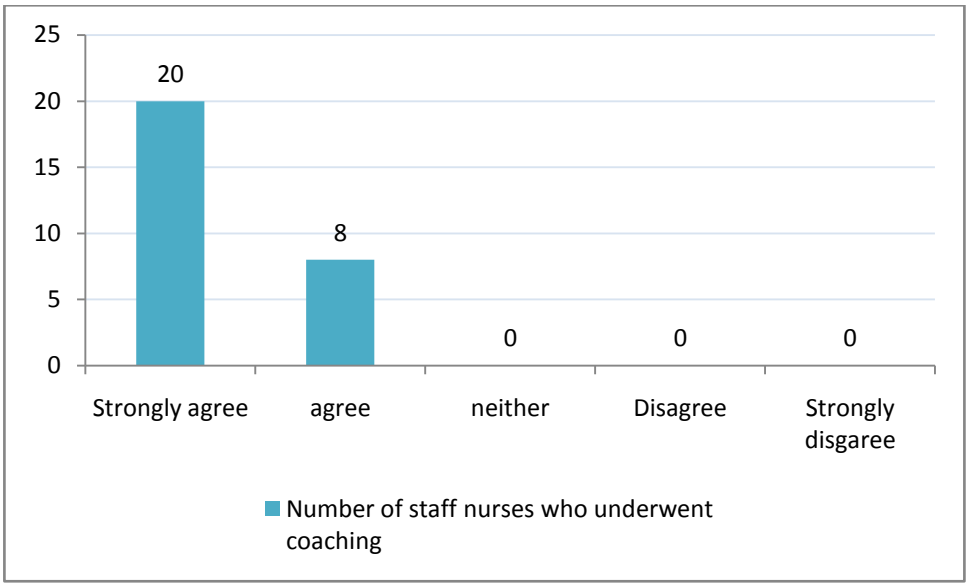


Figure 1.13: Practical sessions as per expectations

Enhancement of knowledge on key areas (such as labour room organization etc.,) through the coaching programme: While 89 percent of staff nurses agreed to this this, few (11 percent) showed no opinion on this statement.

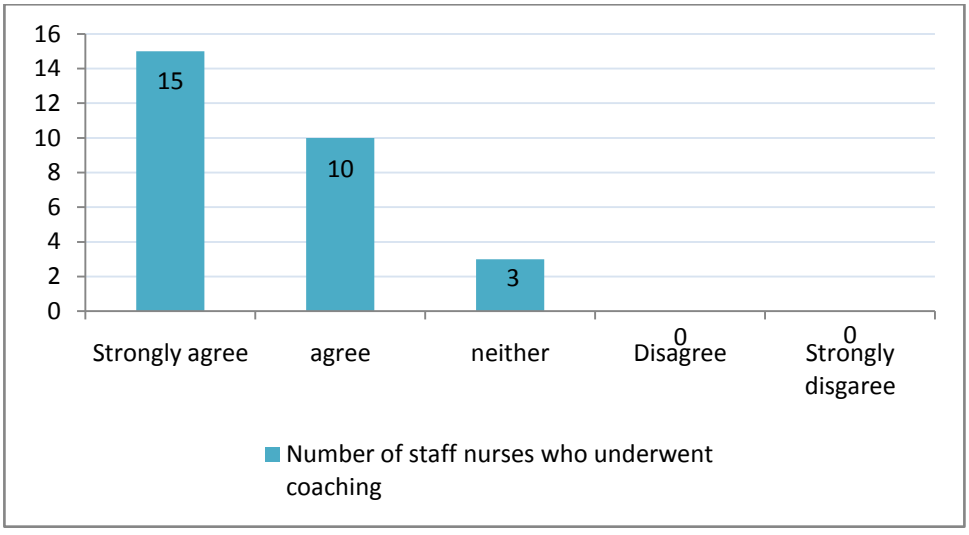


Figure 1.14: Enhancement of knowledge on key areas

Development of skills in areas such as episiotomy, breech delivery etc., through the coaching programme

Hundred percent of nurses agreed to this out of which 82 percent(23 nurses) strongly agreed.

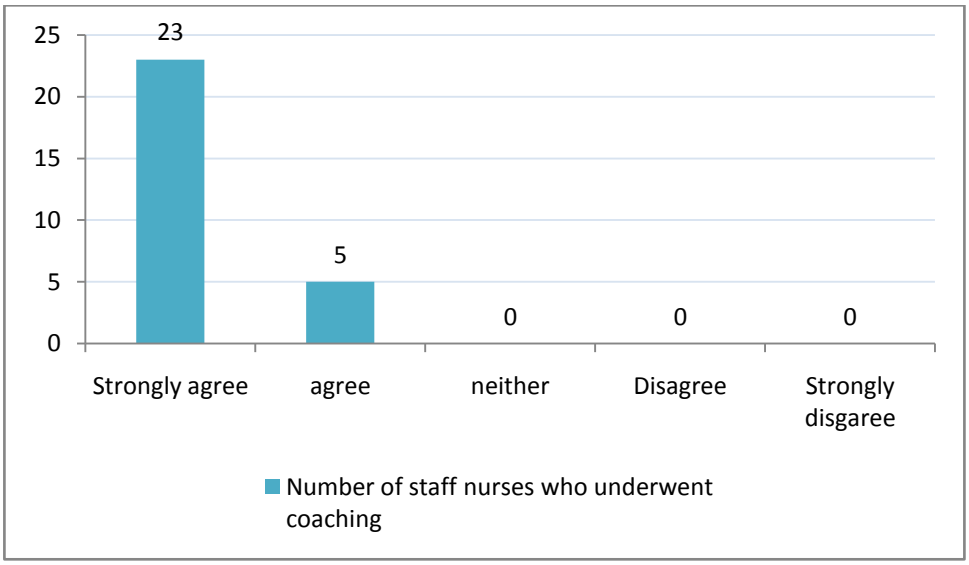


Figure 1.15: Development of skills in areas such as episiotomy, breech delivery etc.,

Coverage of critical areas that are not crucial to workof staff nurses in the coaching programme: There was a general disagreement seen to this statement. While 36 percent of nurses disagreed to this, 54 percent strongly disagreed.

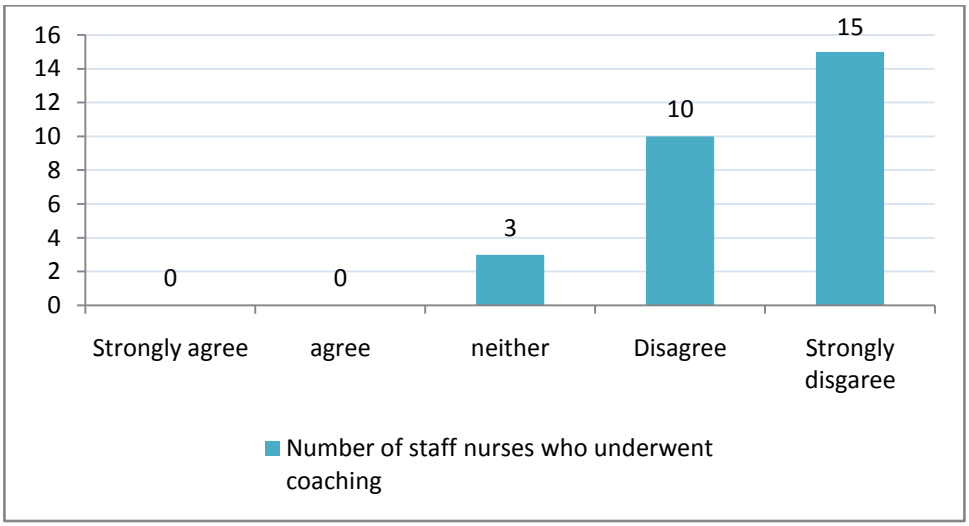


Figure 1.16: Coverage of critical areas that are not crucial to work of staff nurses in the coaching programme

Confidence in applying the skills that were learnt during the coaching: As high as 89 percent strongly agreed which was clearly demonstrated in the individual poster poster presentations.

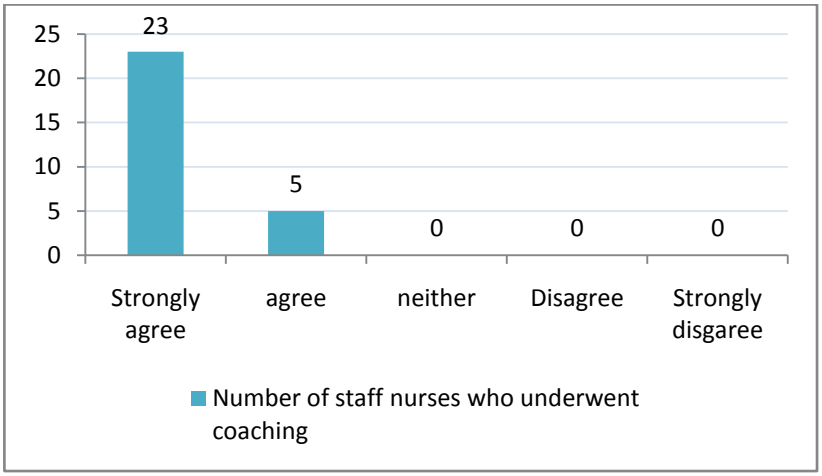


Figure 1.17: Confidence in applying skills learnt during the coaching

Analysis of pre and post coaching skills.

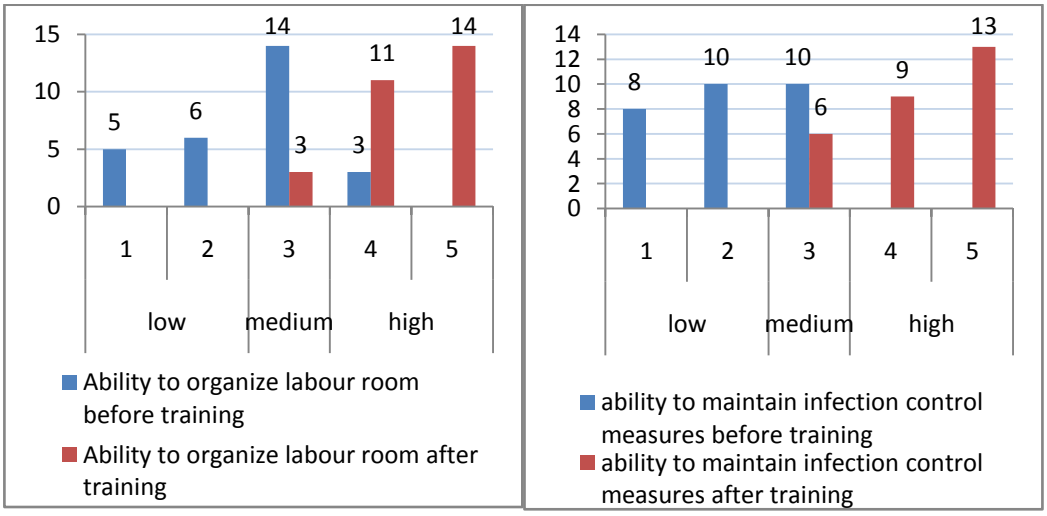


Figure 1.18: Ability to organize labour room and maintain infection control measures.

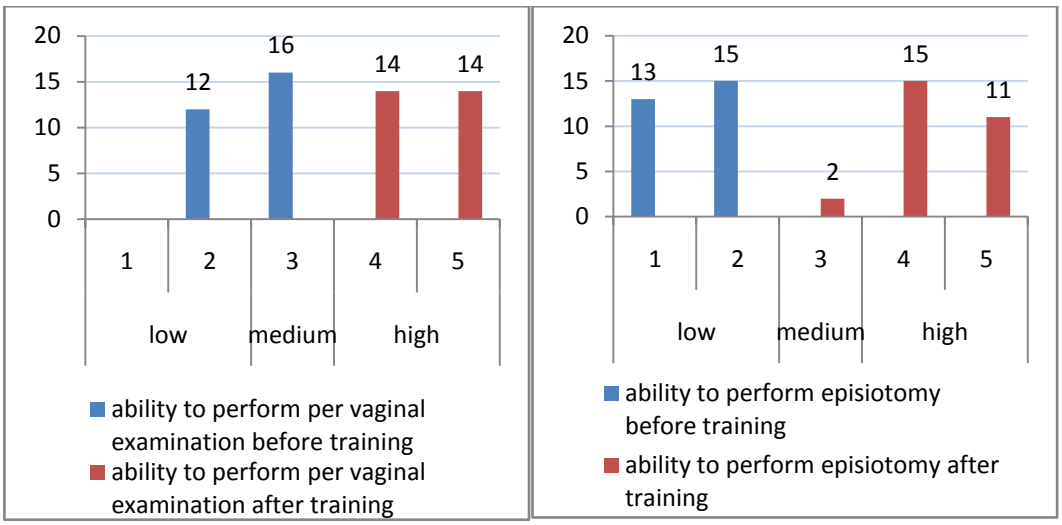


Figure 1.19: Ability to perform per vaginal examination and episiotomy

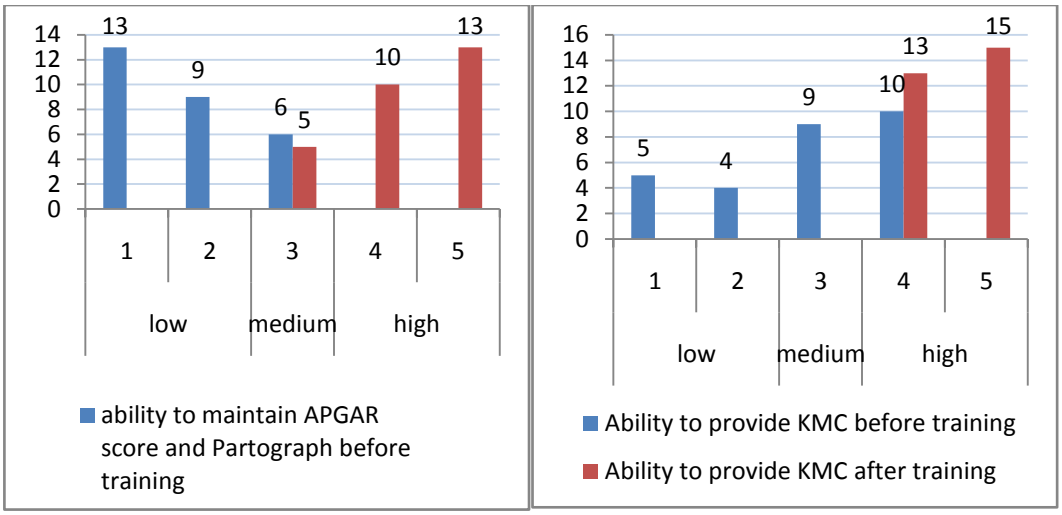


Figure 1.20: Ability to maintain APGAR, Partograph and provide KMC

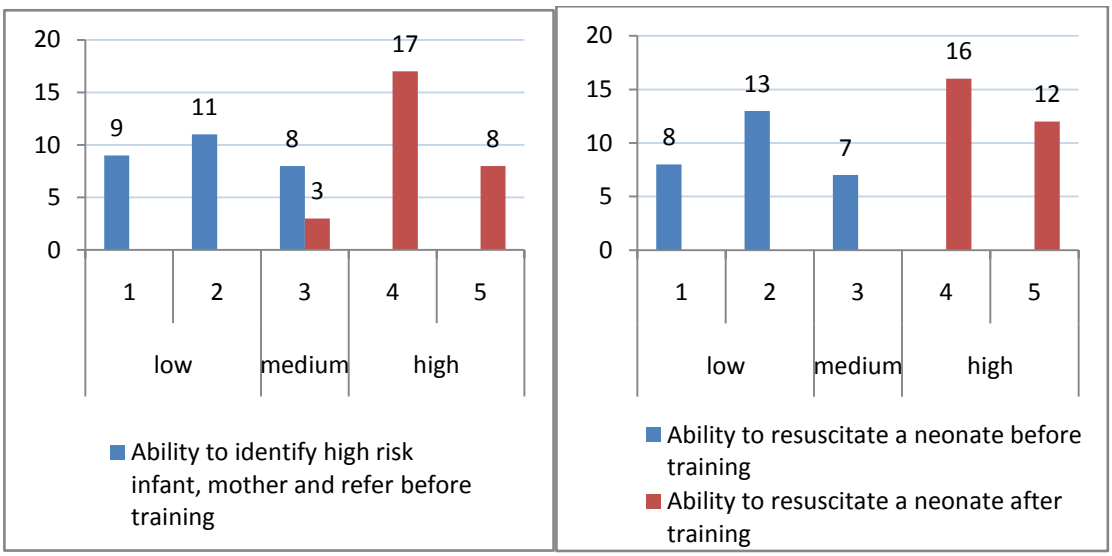


Figure 1.21: Ability to identify high risk cases and resuscitate a neonate

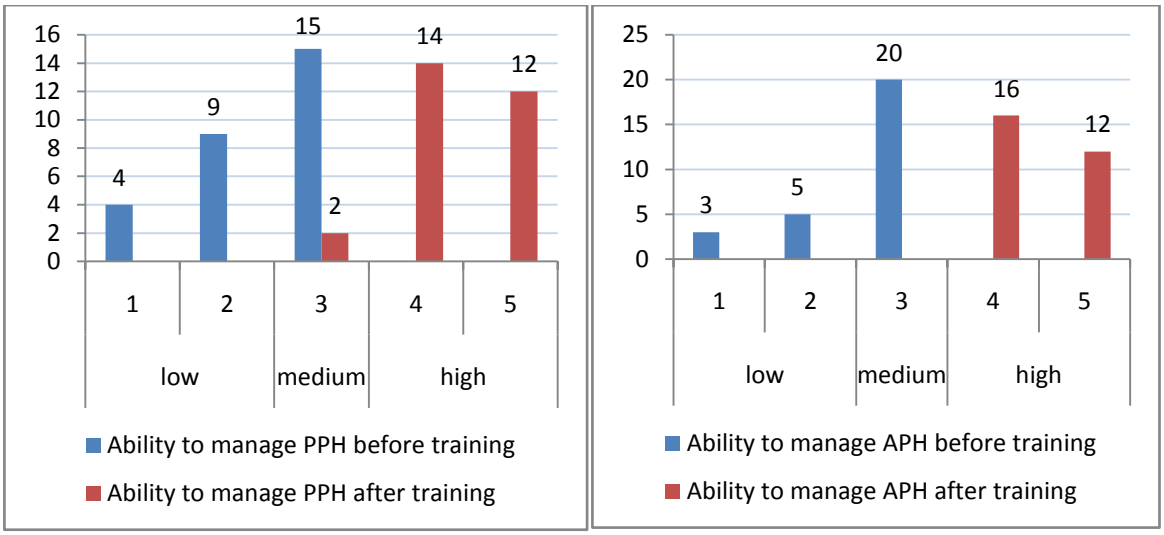


Figure 1.22: Ability to manage PPH and APH

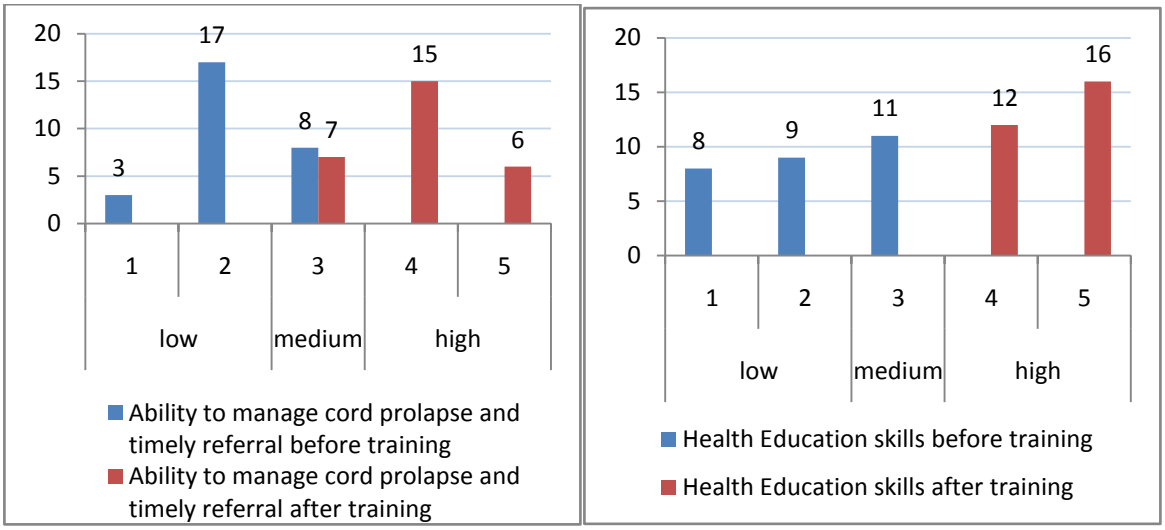


Figure 1.23: Ability to manage cord prolapse and levels of health education skills

The general observation from all the graphs above generated from the self-reported likert questionnaire showed that while a majority of pre coaching skills to manage various complications and performing procedures was low, the post coaching skills were reported to be high.

S.No	Question		low		medium	High		total score
	how do you rate your		1	2	3	4	5	
1	Ability to organize labour room	before training	5	6	14	3		71
		after training			3	11	14	123
2	ability to maintain infection control measures	before training	8	10	10			58
		after training			6	9	13	119
3	ability to perform per vaginal examination	before training		12	16			72
		after training				14	14	126
4	ability to perform episiotomy	before training	13	15				43
		after training			2	15	11	121
5	ability to maintain APGAR score and Partograph	before training	13	9	6			49
		after training			5	10	13	120
6	Ability to provide KMC	before training	5	4	9	10		80
		after training				13	15	127
7	Ability to identify high risk infant, mother and refer	before training	9	11	8			55
		after training			3	17	8	117
8	Ability to resuscitate a neonate	before training	8	13	7			55
		after training				16	12	124
9	Ability to manage PPH	before training	4	9	15			67
		after training			2	14	12	122
10	Ability to manage APH	before training	3	5	20			73
		after training				16	12	124
11	Ability to manage cord prolapse and timely referral	before training	3	17	8			61
		after training			7	15	6	111
12	Health Education skills	before training	8	9	11			59
		after training				12	16	128

Table 1.5: Score sheet of likert questionnaire

From the above sheet, we can generate the following

	Total score	Average score(mean)	Sample size
Before coaching	743	2.21	28
After coaching	1462	4.35	28

Table 1.6: Mean values

It is observed that there is a significant difference in the means of before coaching and after coaching

1.9Discussion

The main objective of this study was to monitor coaching programme and assess both baseline and post coaching knowledge and skills of staff nurses. Having skilled health care service providers is of utmost importance in improving the health status of any population.

An On Site training system of health staff has few advantages over the existing style

- Coaches come to home-facility. Hence home facility services do not suffer with lack of staff and the staff gets trained in their facility and not in a higher facility.
- Individual attention to trainees and hands-on skill strengthening with focused guidance
- Takes on form of supportive supervision and mentorship.
- Practical training with case handling, managing, mannequins/laptop, flip charts and other tools

The Study covered four facilities of Mahabubnagar district. The staff nurses were assessed for their need and their skills were observed prior to coaching.The study showed that only 50 percent of the regular staff nurses were trained in SBA and NSSK and as less as four percent were trained in IMNCI. Even among the trained staff it was quite evident from the study that as less as 20 percent know how to perform regular day-to-day procedures like

Episiotomy, maintain APGAR, Partograph or manage complications like Eclampsia.It was also identified that as high as 70-80 percent of the staff nurses expressed the interest and need to be trained in areas like management of PPH, Eclampsia, conduct a breech delivery, Episiotmy or resuscitate a new born.

Regular monitoring visits further helped identify gaps to be corrected in clinical skills of staff and other gaps in management and implementation. The monitoring activities included maintenance of interest and support in the planning and implementation of the programme, liason with respective SPHO's where necessary for a smooth implementation of the programme, frequent relevant contact with from the medical officers to take inputs on the coaching programme, check for any absenteeism of staff nurses and find out the reasons if any, solve duty roster related issues of staff nurses being coached, take inputs from the staff nurses on the modules taught. Find out the need for any other areas to be included in the coaching programme, observe the willingness and participation of staff nurses in the coaching programme.

A post coaching evaluation clearly showed an improvement in the Skills, knowledge and confidence of staff nurses.It was evident that around 36 percent of staff nurses scored an A++ and as high as 53 percent scored an A+ in the theory based questionnaire which indicates improved knowledge levels.It was also observed that 64 percent and 29 percent of the staff nurses scored very well in the practical skill testing by falling in A++ and A+ category respectively. It was evident that none of the staff nurses scored poor as grade B was attained by zero percent. The staff nurses showed good confidence levels in the poster presentation event conducted to assess the confidence of staff nurses in the skills gained and ability to interpret and present the content of the poster well. More than 50 percent of the staff nurses scored well with A++ grade and none scored poor with zero percent of staff

nurses in A or B grade. The self-reported likert questionnaire results clearly indicated that a majority of staff nurses were strongly in favour of the new concept of On-Site Coaching, its training methodology, the content covered, the skills imparted and there was a clear indication of the satisfaction levels of the staff nurses after coaching as a majority of them strongly agreed to positive aspects of the on site coaching. The general observation from the responses to the second self-reported likert questionnaire showed that while a majority of pre coaching skills to manage various complications and performing procedures was low, the post coaching skills were reported to be high.. These scores clearly showed the skills knowledge and confidence of staff nurses had improved after the coaching programme.

1.10Conclusion and Recommendations

The main objective of the coaching programme , which was to assess baseline and post coaching skills, knowledge and confidence of staff nurses and to monitor the coaching programme was achieved.An overwhelming majority of participants felt that their expectations of the level of training were met. Some of them felt that their expectations were even exceeded.

Inclusion of the concept ‘Coaching On-Site’ proved to be very useful and similar concept should be retained in the future coaching programmes.This report also provides an overview of the principles involved in the development, delivery and evaluation of effective training, including the management of training activities. The critical importance of coaches in a training period involvement is identified. The need to follow-up on programmes to ensure intended results are achieved is a principle accepted by all health managers. It is equally important to evaluate the effectiveness of training and modify programmes as needed.

1.11Limitations

- No quantitative baseline data
- Sustained support and commitment from the District Health and Medical Office

1.12References

- Ministry of Health and Family Welfare.Government of India. A Strategic Approach to Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) in India. , February 2013
- **http://tinyurl.com/lgrpxxp**
- globalcenters.columbia.edu/mumbai/
- mahabubnagar.nic.in/

2. Annexures

2.1 Check list for site selection

		facility 1	facility 2	facility n
1	Cluster			
2	Distance from DMHO office (kms)			
3	Catchment area population (13-14)			
4	Avg delivery load			
5	No. of referrals per month			
6	Primary reasons for referral			
7	Maternal deaths			
8	Infant deaths			
9	No. of MOs Sanctioned			
	In-position			
	Vacant			
10	No. of SNs			
	Sanctioned			
	In-position			
	Vacant			
11	No. of ANMs			
	Sanctioned			
	In-position			
	Vacant			
12	Training details of each nurse/ANM			
13	24*7 facility (Y/N)			
14	Required equipment available (Y/N)			
15	Absenteeism in nursing staff			

2.2 FGD data entry checklist

		1	2	3
PAST TRAININGS	past trainings (list all)			
	liked about them			
	did not like about them			
	what was missing?			
REFERRAL AND DEATH	do you refer cases?			
	what kinds of cases do you refer most?			
	why?			
	do you see any infant death?			
	what are the main causes?			
	do you see any maternal death?			
	what are the main causes?			
SUPPORT/HR	who else is there at the facility?			
	who conducts deliveries?			
	who handles complications?			
	can you ask anyone for support? Who?			
FUTURE TRAININGS	if you could strengthen any of your skills which ones would you focus on?			
	do you require training in anything (topics)?			
	what kind of training would you like (paedagogy)?			
INFRASTRUCTURE/EQUIPMENT	is there any equipment missing in your labour room?			
	is there a shortage of any kind of delivery-related medicines?			
	what is the condition of infrastructure in the labour room?			
KNOWLEDGE	how do you manage third stage labour?			
	how do you handle complications?			
	what do you do while conducting ANCs?			
	how do you test for anaemia?			
	what are the different reporting formats used?			

2.3 Monitoring visit template

Name of Monitor:

Name of Cluster: Name of Facility (PHC/CHC):

Date of visit (Day): Time of arrival: Time of departure:

I. Basic information on Session

1. Dates of this session:
2. Start timing everyday:
3. End timing everyday:
4. No. of staff nurses attending this session:
5. No. of ANMs attending this session?

II. Discussion with Trainers

1. What are the topics being covered in this session?
2. What are the topics that have been previously covered?
3. What aids did you use during this session? *(Probe: material, practice, discussion etc.)*Aids from SVS used
4. How have the trainees responded to the session? *(Probe: interest, engagement, attendance etc.)*
5. What worked best in this session? *(Probe: topics, teaching, practice, utility etc.)*
6. What was something you would change in this session?
7. How can we maximize the impact of the training? *(Probe: length; structure; content; participants etc.)*

   Increase participant willingness.

8. Discussion with Trainees

1. What are the topics that have been covered so far in this session?
2. What are the topics that have been previously covered?
3. How has the training added to your existing knowledge on the topic? *(Probe: material, protocols, teaching, smaller group etc.)*
4. Would you be more confident of handling cases related to (topic covered) now that you have had the training? *(Probe: Why? What does confidence link to?)*

5. What did you like best in this session? *(Probe: topics, teaching, practice, utility etc.)*
6. What was something you would change in this session?

7. Discussion with Facility Staff (MOs, specialists etc.)

1. How do you find the trainers in this session?
2. How did you find the content covered?
3. How are the trainees responding to the training? *(Probe: interest, engagement, confidence etc.)*
4. What is working in this training and why?
5. What would you change in this training and why? *(Probe: content, structure, length etc.)*
6. Can you see any impact of this training? *(Probe: change in attitude, skills, knowledge; changes in the facility)*

8. Other Observations

Please record any other observations/comments you might have in the space below. *This could include: Discussion with clients (or observation) regarding quality of services provided; any perceived change in recent months; bedside manner; nurses' attitude towards clients; hygiene and cleanliness at the facility etc.*

2.4Post Test Questionnaire

Examinee details

Name:Facility:Form no:

Section 1: Fill in the Blanks

(Please fill in the blank provided with the correct answer)

1. Normal fetal heart rate is ----------
2. ---------- is the total weight gain in pregnancy
3. Normal weight of new born baby is ----------
4. ---------- is the normal rate of cervical dilatation in labour per hour
5. ---------- shoulder will deliver first in normal labor
6. Administration of ---------- is the immediate management of eclampsia
7. ---------- and ---------- are the components of KMC
8. ---------- is the management of birth asphyxia
9. Name one post asphyxia complication ----------
10. A hemoglobin level of less than ----------at any time during pregnancy of the postpartum period is termed anemia.

Section 2: True or False

(Decide if each statement below is TRUE or FALSE. If it is true, put a 'T' in the blank provided. If it is false, write an 'F' in the blank provided.)

1. Cord pulsation will stop within 1 min after delivery. (_____)
2. Prolonged labour is labour> 24hrs.
   (_____)
3. A baby weighing 3kg is a Low birth weight baby(_____)
4. Fetal heart or Breech is palpated in fundal palpation. (_____)
5. Fetal heart rate of 150bpm indicates the fetus is in distress. (_____)
6. The IFA tablet used as prophylactic treatment against anaemia in pregnant women contains 100mg Iron and 1 mg Folic acid.
   (_____)
7. Syntocinon drip is indicated in all pregnant women in labour.
   (_____)
8. The usual blood loss after delivery is 500-600ml (_____)
9. Plastic waste such as catheters and syringes are discarded in red bin.
   (_____)

10. Premature labour is defined as one where the labour starts before the 37th completed weeks (_____)

Section 3: Multiple Choice Questions

(Choose the single best answer. Write its letter in the space provided.)

1. What is the most common presentation of fetus? ( )

   a) Breech b) face c) cephalic

2. At which month quickening will be felt by the mother? ( )

   a) 3 months b) 5 months c) 7 months

3. In which lie the fundal palpation will be empty? ( )

   a) Transverse b) longuitudinal c) oblique

4. Number of antenatal visits . ( )

   a) 1 b) 2 c) 3 d) 4

5. What is the duration of 1st stage of labour in primi? ( )

   a) 9 hours b) 10 hours c) 12 hours

6. What is full dilatation of cervix? ( )

   a) 8 cm b) 9cm c) 10 cm d) 12 cm

7. What is the normal dose of administration of oxytocin in normal labour ? ( )

   a) 8 units b) 9 units c) 10 units

8. Which is the normally used episiotomy incision? ( )

   a) Median b) mediolateral c) J shaped

9. What is the maternal parameter included in partograph ? ( )

   a) Cervical dilatation, uterine contractions & amniotic fluid b) FHS c) membranes

10. What is the fetal parameter included in the partograph ( )

    a) Fetal distress b) fetal movements c) fetal heart sound

11. What is the normal APGAR score? ( )

a) 0 -3 b) 4 – 6 c) 6-8 d) 7-10

12. What is the level of Hb % in severe anemia? ( )

a) < 7 gm /dl b) < 8 gm /dl c) < 9 gm / dl

13. What is the dose of vitamin K injection in normal newborn?( )

a) 0.2 ml b) 1 ml c) 1.5 ml

14. Folic Acid supplementation is given to reduce? ( )

a) neural tube defects b) congenital heart defects c) diarrhea d) neonatal jaundice

15. Which one is not a part of partograph components ( )

a) Oxytocin administration b) uterine contraction c) cervical dilations d)fetal heart rate

16. The choice of treatment if baby is found to be dead in Cord Prolapse( )

a) Emergency C-Section b) Forceps delivery c) wait for normal spontaneous delivery d)refer the case

17. Retained placenta is a complication of which stage of labour? ( )

a) 1st stage b) 2nd stage c) 3rd stage d) 4th stage

18. Step not a part of AMTSL is? ( )

a) Administration of uterotonic drugs b) Controlled cord traction

c) Administration of oxytocin d) Uterine massage

19. Anatomical waste is discarded in? ( )

a) Yellow coloured waste bin b) Red bin c) Blue bin d) Black bin

20. First fetal movements felt by mother is termed as? ( )

a) Crowning b) Quickening c) Show d) Lightening

Section 4: Short answer Questions

(Please write a reply in one-two sentences for each of the question below)

1. What is the formula to calculate EDD?

2. What findings will you notice in lateral palpation?

3. At which area the fetal heart rate will be heard clearly?

4. What is lightening?

5. Expand APGAR

6. When is oxytocin administered in normal labour?

7. What is the normal incision follow for episiotomy?

8. What is partograph?

9. What are the steps of new born resuscitation?

10. What are the major signs of pre eclampsia?

Section 5likert (1)*(Please rate the statements below and tick the most appropriate answer)*

S.No.	Question	Strongly agree	Agree	Neither	Disagree	Strongly Disagree

		(5)	(4)	(3)	(2)	(5)
1.	Overall, I am satisfied with the training programme.					
2.	I am expected to learn things that are not reasonable and out of my limitations.					
3.	The practical on-site approach is a good way of building new skills					
4.	The training programme is well organized and co-ordinated					
5.	The trainers conducted the theory sessions as per our expectations					
6.	The trainers conducted the practical sessions as per our expectations					
7.	The training has helped to enhance my knowledge on key areas such as labour room organization, infection control measures etc.,					
8.	The training has helped me develop skills in areas such as conducting Episiotomy, breech delivery etc.,					
9.	This training did not cover critical areas that are crucial to my work					
10.	I feel confident in applying the skills that I have learnt during this training in my day to day role					

Section 6likert (2)

(Please tick the most appropriate answer for both situations- before training and after training)

S. No	Question	Low		Medium	High	
	How would you rate your…	1	2	3	4	5
1	Ability to organize labour room Before training After training					
2	Ability to maintain infection control measures Before training After training					
3	Ability to perform per vaginal examination Before training After training					
4	Ability to perform Episiotomy Before training After training					
5	Ability to maintain APGAR score Before training and PartographAfter training					
6	Ability to provide KMC Before training After training					
7	Ability to identify high risk mother and infant and refer Before training After training					
8	Ability to resuscitate a neonate Before training After training					
9	Ability to manage PPH Before training After training					
10.	Ability to manage APH Before training After training					
11.	Ability to manage Cord prolapse and timely referral Before training After training					
12.	Health education skills Before training After training					

Summary evaluation

1. What are the three most important things [or topics] you learned during this training?

2. What did you like most about the training?

3. Do you have any feedback on what could have improved the training?

Thank you for your feedback

Practical Exam Topics

1. Partograph recording
2. BMW Segregation
3. Hand washing technique
4. Apgar scoring
5. Preparation of Hypochlorite solution
6. B.P recording
7. Sterilization procedure
8. Organization of labour room
9. KMC
10. Abdominal grips in antenatal assessment
11. Mechanism of labour
12. Controlled cord traction
13. Immediate new born care

3.5. Score sheet for Section 5 of post-test questionnaire

S.No.	Question	Strongly agree	agree	Neither	Disagree	Strongly disgaree
1	overall am satisfied with the training programme	19	9	0	0	0
2	I am expected to learn things that are not reasonable and out of my limitations	0	1	0	14	13
3	The practical On-Site approach is a good way of building new skills	16	12	0	0	0
4	The training programme is well organized and coordinated	15	13	0	0	0
5	The trainers conducted the theory sessions as per our expectations	16	9	3	0	0
6	The trainers conducted the practical sessions as per our expectations	20	8	0	0	0
7	The training has helped to enhance my knowledge on key areas (such as labour room organization etc.,)	15	10	3	0	0
8	The training has helped me develop skills in areas such as episiotomy, breech delivery etc.,	23	5	0	0	0
9	This training did not cover critical areas that are crucial to my work	0	0	3	10	15
10	I feel confident in applying the skills that I have learnt during this training in my day to day role	23	5	0	0	0

----------End----------