

Assessment of quality maternal health care services at primary health care level in Kamrup district, Assam

Alpana Priya Rabha¹

¹Assistant Professor, Dept. of Community Medicine, Assam Medical College, Dibrugarh, Assam

Email: alporabha@gmail.com

Abstract

Reduction in maternal mortality rate (MMR) has been an articulated goal of the Child Survival and Safe Motherhood (CSSM) Programme and Reproductive and Child Health (RCH) Programme-II has incorporated evidence-based strategies in specific contexts to reduce the MMR. The provision of good quality care is the main thrust of the RCH programme. Greater emphasis is given to better quality of services, as compared to the previous National Family Planning Programme. The study had been conducted in 5 PHCs and 10 Sub-Centres to assess the quality of maternal health care services at Primary health care level. The study instruments were quality assessment checklists for PHCs and S/Cs. The data was collected from records, interviews of the health personnel and exit interview with the clients availing the maternal health care services and by observation methods. The quality of maternal health care services was assessed by three dimensions of quality measurement using a system approach—input, process and output. The quality of maternal health services was found to be average at primary health care level.

Keywords: Maternal health, Quality of Care, Reproductive and Child Health, Maternal Mortality Rate, National Rural Health Mission.

Introduction

Quality of care was emphasized at the International meeting organized by World Health Organization in Almaty in 1998 to celebrate 20 years of the Alma-Ata declaration. The importance of quality of care in population programmes emerged in the International Conference on Population and Development (ICPD) held in Cairo in 1994. Provision of package of quality reproductive health services and addressing unmet reproductive health needs of the couples and individuals became the central theme.

In India, maternal mortality still remains high despite taking the different initiatives from time to time. More than one lakh women die each year due to pregnancy related complications. The maternal deaths in the South-East Asia Region are among the highest in the world. India has tried to cope up with these problems by formulating various national health programmes. The National Rural Health Mission launched since 2005 primarily aims to improve access of the rural population to equitable, affordable, and quality health care. Quality influences both health status and satisfaction. Quality of care as applied to a public health system is defined as “attributes of a service programme that reflect adherence to professional standards, in a congenial service environment and satisfaction on a part of user”.⁽¹⁾

Healthcare quality assessment and improvement has become a growing issue in healthcare system of all countries. For attaining safe motherhood, good quality care means attendance at delivery by midwifery trained personnel, development of an effective referral system with special emphasis at improving quality of essential and emergency obstetric care at first referral level in order to effectively improve the health status of mother. Quality of services is the service one would want to

receive or would want their spouse, children, or parents to receive.⁽²⁾

According to conceptual framework, proposed by Donabedian, the present study has been proposed to carry out in Kamrup District to assess the quality of maternal health care services at primary care level and to identify the weakness so that the appropriate measures may be taken to provide responsive and effective care to each mother and every child.

Materials and Method

The study had been undertaken in Kamrup district of Assam covering from Block Primary Health Centres and Sub-Centres. From the total numbers of twelve BPHCs, 40% of PHCs had been selected and from each PHCs two S/ Cs had been selected randomly based on and within five kilometres distances. Thus, a total number of 5 PHCs and 10 Sub-centres were selected for the study.

The study instrument consists of Quality Assessment Checklists for PHCs and S/Cs and exit interview with the clients availing the maternal health care services. The study population comprised of health care providers (MO, ANM/ LHV, Laboratory technician, health care seekers, and records. The quality of the health care service facilities were assessed following the conceptual framework proposed by Donabedian,⁽³⁾ three major aspects of quality of care, service input, process and output. In the present study, the quality of maternal health care services had been assessed by the following elements- mainly service environment, access, equipment and supplies, professional standards and technical competences, staffing knowledge and skill, client providers interaction, informed decision making and availability of protocols/guidelines. The statistical

analysis was carried out manually. The data was presented in forms of diagrams wherever applicable.

Results

Table 1 shows that none of PHCs had available MO's (trained/ skilled) in EmOC and RTI/STI. In 60% of PHCs had MO's trained in sterilization (M/F) and MTP. None of the PHCs had available lab technicians and LHV/ HS trained in RTI/ STI and also trained for blood storage protocols and cross-matching.

Table 1: Distribution of healthcare providers (skilled / trained) available at PHC

Providers' availability (skilled/trained)	PHC(n=5)	
	No.	Percentage
MO's trained in EmOC	0	0
MO's trained in RTI/STI	0	0

MO's trained in sterilization (M/F)	3	60
MO's trained in MTP	3	60
LHV/HS trained for RTI/STI screened with per speculum	0	0
Lab. technician trained for RTI/STI	0	0
Lab. technician trained for blood storage protocols and cross-matching	0	0

From Table 2, it had been observed that all the PHCs and S/Cs had waiting areas for clients in covered / shaded areas and drinking water facilities. Only 60% of PHCs and 70% of S/Cs had toilet facilities for women. All the PHCs had the facilities for a separate labour room with separate curtains on door and windows for privacy and only 70% of S/Cs had these facilities.

Table 2: Distribution of PHC s and S/Cs as per availability of essential amenities

Availability of essential amenities for the clients' comfort	PHC		S/C	
	No.	%	No.	%
Waiting area has benches in covered/ shaded area	5	100	10	100
Drinking water available for the clients	5	100	10	100
All occupied beds have mattresses, rubber cover and clean bed sheet	3	60	0	0
Toilet facilities for women	3	60	7	70
A separate labour room/ delivery room with separate curtains on door and windows for privacy	5	100	7	70

Table 3 showed that none of the PHCs and S/Cs had available guidelines on IUD insertion/ removal and MTP. All the PHCs and S/Cs had the available guidelines for organising immunization sessions in facilities and outreach. Normal delivery guidelines/ SBA guidelines available only on 60% PHCs and 20% S/cs. Newborn care guidelines were available only 40% PHCs and 20% of S/Cs. The RTI/ STI management guidelines were available only in 40% of PHCs. None of S/Cs had available guidelines on management of RTI/STI and guidelines on sterilization. All the PHCs and S/Cs had available guidelines on waste disposal.

Table 3: Availability of essential protocols / guidelines/Job-aids at PHC

Availability of essential protocols/guidelines/job-aids	PHC		Sub-Centre	
	No	%	No	%
IUD insertion/ removal guidelines available	0	0	0	0
MTP guidelines available	0	0	0	0
Normal delivery/SBA guidelines available	3	60	2	20
Newborn care guidelines available	2	40	2	20
Guidelines available for organizing immunisation sessions in facilities and outreach sessions.	5	100	10	100
RTI/STI management protocols available	2	40	0	0
Guidelines mentioning standards for sterilization available	3	60	0	0
Waste disposal guidelines available	5	100	10	100

Table 4 showed that BP apparatus and stethoscope, adult and infant weighing machine, complete DDKs were available in all the PHCs and S/cs. The labour table, step stool, mattresses etc, were available in all PHCs. None of the S/Cs had autoclave/ boiler, paediatric resuscitation kits and labour table etc. The autoclave/ boiler and suction

apparatus were available in only 60% of PHCs. The oxygen cylinder with tubing wrench and disposable masks were available only 40% of PHCs.

Table 4: Availability of equipment's and supplies at PHCs and S/Cs

Availability of equipment and supplies	PHC(n=5)		S/C(n=10)	
	No.	%	No	%
BP apparatus and stethoscope	5	100	10	100
Adult and infant weighing machine	5	100	10	100
Autoclave/boiler in working condition available	3	60	0	0
Complete delivery kits/DDK	5	100	10	100
Paediatric resuscitation kits	5	100	0	0
Suction apparatus	3	60	0	0
Sufficient no. of disposable syringes and needles available	5	100	10	100
Labour table, mattress, step Stool etc.	5	100	0	0
Oxygen cylinder with tubing wrench and disposable masks	2	40	0	0

Table 5 showed that the screening of ANC client and counselling were well maintained by the health care providers at the sub-centre. Tests for Hb, urine for albumin and sugar were not done in the sub-centres. The counselling on nutrition, birth preparedness and warning signs of pregnancy had been done well (100%) by the health care providers. None of the sub-centres had any records on labour or delivery as well as on new born care. The knowledge of ANM or health care providers on antenatal care, signs on recognition of labour and delivery and on postnatal was found to good at all the sub-centres.

Table 5: Process observation on maternal healthcare quality at Sub-Centres

Activities for maternal healthcare	No. of S/C(n=10)	No. and percentage (%)
Screening of ANC clients detection of pregnancy and screening	10	10(100)
Screened for signs of anaemia	10	10(100)
Lab.tests for Hb, urine sugar done	0	0
ANC Counselling on nutrition, birth preparedness and warning signs	10	10(100)
Encouraged for institutional deliveries	10	10(100)
Providers knowledge – did the health care provider or ANM tell the client to recognize complication during antenatal period	10	10(100)
Do ANM know when the client should come for antenatal or postnatal check up	10	10(100)
Does the ANM know how a women can recognize onset of delivery and signs of labour	10	10(100)
Records show women with labour are managed in the facility	0	0
Records show women with Obs complication identified and timely referral	0	0
Records show that new born for LBW referred to higher centres	0	0

From Table 6, it had been observed that screening of ANC clients; counselling on nutrition and rest, on danger signs of pregnancy were well done by the health care providers at all the PHCs. None of the PHCs observed counselling on breast feeding and LAM. The records on labour or delivery were also well maintained in all the PHCs. The vehicles for emergency referral

were available in all the PHCs. None of the PHCs had records on management of labour with Obstetric complication.

Table 6: Distribution of PHCs according to process observation of maternal health care

Activities for maternal health care	PHC (n=5)	
	No	Percentage
Screening for ANC clients- detection of pregnancy	5	100
Screened for signs of anaemia	5	100
Lab.tests for Hb, urine sugar done	5	100
ANC counselling on nutrition and rest	5	100
Counselling on recognition on danger signs during pregnancy	5	100
Counselling on breast feeding and LAM	0	0
Labour and delivery records showing women with Obs.complications managed in the facility	0	0
Records show that delivery took place between 8 pm and 8 am	5	100
Vehicle log book shows that women needing EmOC transported by facility vehicle to referral unit	5	100

Discussion

The study was aimed in finding the quality of maternal healthcare services at the primary care level in Kamrup district of Assam. The study has been analysed the quality of maternal health care services by using a system approach---inputs, processes and outputs. The availability of trained personnel was found to be inadequate in all the PHCs. None of the health facilities had found fully trained personnel including doctors and other supporting staffs. The skilled / trained MOs with sterilization (M/F) and in MTP. There were no trained LHV/ HS, Lab technician in RTI/ STI and in blood storage protocols and cross-matching in all the PHCs. But in case of S/Cs, it had been observed that almost all the ANM/ HW (F) trained in MCH services under CSSM Programme only. Training plays a key role in health manpower and management of health care system.⁽⁴⁾ At PHC level at least one MO trained 14.6% in sterilization, 14.6% in MTP, 47.4% in RCH integrated training at country level (Facility Survey 2003). Same study reported in Assam at least one MO trained in sterilization 19.66%, 28.97% in MTP, 53, 10% in RCH integrated training. From the Facility Survey (2003) reported that at least one paramedical staff trained in 56.3% in IUD insertion, 43% in checking BP, 52.7% IN CDD/ORT, 56.6% in UIP, 52.8% in CSSM, 68.5% in RCH and 48%

in ARI (Country level). In Assam, it was reported 75.52% in IUD insertion, 66.55% in checking BP, 84.53% in CDD/ ORT, 82.07% in UIP, 85.17% in CSSM, 88.97% in RCH and 73.79% in ARI. It is impossible to implement quality programmes if clinical staffs are not adequately qualified. All the PHCs are housed in Govt. buildings, but only 70% of the S/cs are housed in Govt. building, rest are in rented houses. The condition of the sub-centres located in government buildings are found to be satisfactory. In Assam, among the S/ Cs (5109), the facility according to the Government Infection Management and Environment Plan under Reproductive and Child Health Programme Phase II. None of the health care facilities had the any incinerator systems available. At the sub-centres also the health care workers had maintained the cleanliness of the facility by using the disposable bins. By Ray SK et al⁽⁵⁾ in their study in three districts of West Bengal also reported the general cleanliness of the facility at BPHC and S/Cs were poor. By Gupte M et al,⁽⁶⁾ reported in their studies that cleanliness is an important criterion for general health care and deliveries. In the present study, the essential amenities for the clients comfort was also found to be satisfactory. As under the Reproductive and Child health programme mainly emphasized on clients comfort and high quality services; it had been observed that all the health care facilities had proper sitting arrangements. All the sitting arrangements were in covered/ shaded areas with benches. The water and toilet facilities were also found to be satisfactory. Though running water facilities not available in all the facilities but other sources of water were found to be satisfactory. The toilet facilities for women and separate labour room were available in all the PHCs; but only 70% of the S/Cs. In the present study at PHC level only 60% facilities had bed with mattresses, rubber cover and sheets for the clients. At all India level Facility survey 2003, reported 48.4% having LR, 66.5% water supply, 52.3% toilet facility and 71.3% had at least one bed at PHCs. In Assam, 85.02% having water supply, 56.21% LR facility, 37.59% and 41.70% having at least one bed at PHCs (Facility Survey 2003). The availability of essential protocols/ guidelines were not available in all the health care facilities. Job-aids/ guidelines can make obtaining and retaining new knowledge and skills easier for providers.⁽⁷⁾ The essential drugs and supplies were available for maternal health in 100% PHCs and S/Cs. The emergency drugs were not available in S/cs. The other essential supplies such as laboratory equipment's supplies were not available in all the PHCs. None of the S/Cs had laboratory facilities. In Assam, 80.30% having BP instrument, 49% autoclave, 19.70% MTP suction aspirator, 38, 30% LR table available at PHCs. Ray SK et al⁽⁵⁾ reported lack of functional equipment's measuring BP and weighing machine. In a study conducted by Agarwal M et al,⁽⁸⁾ stated that only 66.66% had stethoscope and BP instruments, weighing machine available at S/cs. By facility survey 2003, reported,

86.7% and 84.9% had infant and adult weighing machine, 65.9% BP instrument, 79.5% stethoscope available at S/cs in India. In Assam, 50% and 32.40% PHCs had adequately equipped with supplies according to the facility survey report, 2003. By Ganguly E et al⁽⁹⁾ states non availability of equipment's in their study areas. The service process activities observed for maternal health including screening and physical examination of antenatal clients, screening for anaemia, examination for sugar and urine, counselling on nutrition and rest; danger signs of pregnancy, on labour and delivery records were found to be satisfactory. However, there was no counselling on LAM and on breastfeeding. Agarwal M et al,⁽⁸⁾ reported in their study that the quality of antenatal services was poor at primary care level. The quality of antenatal services was found to be good in respect to reviewing and up gradation of obstetric records. The newborn health care also were well maintained in all the PHCs and S/Cs. Arrangement for segregation of wastes generated at the health facilities were well maintained functioning 2637 are in Government buildings and rest (2472) in the rented buildings. In a study conducted by Jain S et al⁽¹⁰⁾ in Meerut district revealed that 2/3rd of the S/Cs were situated in rented building. All the health care facilities had maintained the cleanliness of facility as well as had proper arrangement of the hospital wastes generated at the health facilities.

Conclusions

The study concluded that the quality of maternal health care services were found to be average at the primary health care level. The infrastructure facilities should be strengthened at primary health care level. There must be periodical orientation of medical as well as paramedical staffs at the health care facilities.

References

1. United Nations Population Fund. UNFPA technical report 1999. Available on: <http://www.unfpa.org/publications/unfpa-annual-report-1999>.
2. National Institute of Health and Family Welfare. Reproductive and Child Health: Module for Medical Officer Primary Health Centre (PHC) MO PHC Integrated Skill Development Training. PHFI 2000. Publisher: New Delhi NIHFW 2000.
3. Donabedian A. Exploration in quality assessment and monitoring 1980, Vol. 1. The definition of quality and approaches to its assessment. Ann Arbor. Health Administration Press.
4. Dutta PK. Need for training for health professionals on National Rural Health Mission; Indian Journal of Public Health 2005; XXXIX(3):133-5.
5. Ray SK, Basu SS, Basu AK. An assessment of rural health care delivery system in some areas of West Bengal-an overview. Indian J Public Health 2011;55(2):70-80.
6. Gupte M, Bandeswar S, Pisal H. Improving quality of care in India's Family Welfare Programme the challenge ahead 1999, Pune, Maharashtra.
7. Rao RS, Raj M. The Qualities of Family Planning Programmes: Concepts, Measurements, Intervention or Effect: Studies in Family Planning 2003;34(4):227-248.
8. Agarwal M, Idris MS, Mohan U. Quality of reproductive health care at primary level. Indian Journal of Community Medicine 2002;26(3):119-27.
9. Ganguly E, Garg BS. Quality of Health Assistants in Primary Health Centres in Rural Maharashtra, India. Health Serv Insights. 2013;6:9-13.
10. Jain S, Singh JV, Bhatnagar M, Garg SK, Chopra H, Bajpai SK. Evaluation of physical facilities available at Sub-centres in Meerat. IJCM 1999;XXIV(1):27-9.