Review Article

Improving the quality of maternal health care in developing countries

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ABSTRACT

Background and Aims: Quality of care is an important adjunct in the prevention of maternal morbidity and mortality in developing countries. The objective of this review was to assess components of maternal health care that have a bearing on quality of care. Source of materials for this article are from learned journals and reports on this subject.

Conclusion: Quality of care in Obstetrics is a continuum that spans pre pregnancy period, pregnancy and the aftermath. Many parameters can be employed to define the quality of care received by women. The emphasis is however on the optimal utilization of the health system in providing the best possible care.

Keywords: Developing countries; maternal health care; quality of care.

Introduction

Attention to the quality of care has been growing in the reproductive health field and there have been significant efforts to define criteria and develop methodologies to assess the quality of maternal health services. Key determinants of quality include the technical competence of providers, their interpersonal skills, the availability of basic supplies and equipment, the quality of physical facilities and infrastructure, linkages to other health services and the existence of a functional referral system. High quality maternal health services must be part of a continuum of care that spans from the pre-pregnancy to the postpartum period, and in which women and health providers are partners in care.[1,2]

Elements of Maternal Health Services

The World Health Organization (WHO) has issued a new series of recommendations to improve the quality of antenatal care to reduce the risk of stillbirths and pregnancy complications and give women a positive pregnancy experience. By focusing on a positive pregnancy experience, these guidelines seek to ensure not only a healthy pregnancy for mother and baby but also an effective transition to positive labor and childbirth and ultimately to a positive experience of motherhood. An antenatal care model with a minimum of 8 contacts are recommended to reduce perinatal mortality and improve women's experience of care.

The quality of the scientific evidence underpinning the recommendations was graded using the Grading of Recommendations Assessment Development and Evaluation (GRADE) and Confidence in the Evidence from Reviews of Qualitative research (CERQual) approaches for quantitative and qualitative evidence respectively. Based on the GRADE evidence-to-decision framework, the Guideline Development Group (CDG) classified each recommendation

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for intrapartum care into one of the following categories defined below.

Recommended: This category indicates that the intervention or option should be implemented.

Not recommended: This category indicates that the intervention or option should not be implemented.

Recommended only in specific contexts: This category indicates that the intervention or option is applicable only to the condition, setting or population specified in the recommendation and should only be implemented in these contexts.

Recommended only in the context of rigorous research: This category indicates that there are important uncertainties about the intervention of option. In such instances, implementation can still be undertaken on a large scale provided that it takes the form of research that is able to address unanswered questions and uncertainties related both to effectiveness of the intervention or option, and its acceptability and feasibility.

Increasing access to obstetric care is only a first step towards the reduction of maternal mortality, as the services offered cannot be assumed to be effective. There is increasing evidence that the services offered in obstetric facilities fall short of acceptable standards and substandard obstetric care is now known to be an important contributor to maternal mortality in poor countries.[3]

Why is Quality of Care Important?

Good quality services are cost-efficient, by meeting women's health needs without delay, health systems can avoid having to provide at least some of the more intensive care at a later stage. Good quality services are defined within the following subtitles.

Good quality services are equitable

Health systems have an obligation to provide the highest possible quality of care within the parameters of existing resources to all who need them.

Good quality services are cost efficient

By meeting women's need without delay, health systems can avoid having to provide at least some of the more intensive and more expensive care at a later stage.[2]

Good quality services are effective

When qualified staffs are working with adequate resources and other support, they are able to manage health problems more effectively, reducing deaths and chronic ill health. In addition, when services are appreciated and valued by community members, they are more likely to be used on a timely basis, reducing the need for emergency interventions and helping to prevent overburdening of referral facilities.

Good quality services improve staff morale

Health workers are likely to have more positive attitudes towards their work and to perform better when they receive the support and resources they need to provide essential services, and when the community values their work.[2]

Good quality services saves women's lives

A study in Egypt found that 92 percent of 718 maternal deaths could have been avoided if standard maternal health care had been provided.[3]

Overtime, definitions of quality of care have become more inclusive and now address patient and provider satisfaction, social, medical and financial outcomes as well as aspects of equity and performance according to standards and guidelines. A comprehensive definition of high quality maternity care which includes: (i) the provision of a minimum level of care to all pregnant women and their newborns, (ii) a higher level of care to those who need it, (iii) obtaining the best possible medical outcome, (iv) providing care that satisfies women, their families and care providers, and (v) maintaining sound financial performance and developing existing services to raise the standards of care provided to all women. The notion of a minimum level of care for all and a higher level of care for some is an important one as most users of maternity services are well and do not need specialized care. Unmet need for obstetric care for those who need it might go hand in hand with over treatment and over medicalization for those not needing such care and quality of care assessments in maternal health have to address both these issues, even where access to care is poor.

The framework that is most commonly used to assess quality of care is that of structure, process and outcome. Structure refers to the question: what facilities, equipment, staff etc., were there; process implies what was done to the patient and outcome questions 'what was the outcome for the patient'. Examples of outcome indicators in the context of maternity care include the case fatality and perinatal mortality rates. Examples of process data include the proportion of women with eclamptic seizures who have received magnesium sulphate or the proportion of women with severe morbidity in which an observation chart has been maintained according to protocol. Process data are usually more sensitive measure of quality than outcome data because a poor outcome does not occur every

time there is an error in the provision of care and outcome may not always be under the control of health providers.

The field of obstetrics has in many ways been privileged because evidence-based practice guidelines have been developed based on scientific literature.[4] In addition, explicit criteria of quality of obstetrics care have been established for those processes for which we have sound scientific evidence or a formal consensus of experts that the criteria when applied, lead to an improvement in health. Such process criteria have been developed in a number of countries. Although these criteria are by no means exhaustive, they are certainly a useful starting point for establishing the technical performance of care in emergency and ambulatory care facilities. Apart from the above, process criteria, there are as yet no satisfactory standard tools to compare the quality of obstetric care across the country. Ready to use tools exist for infrastructure and supplies but comprehensive testing of management knowledge, skills, interpersonal relations and attitudes is difficult.

Contributors to Quality of Care

Good quality maternal health services are those which meet the following criteria[5]:

- Are accessible and available as close as possible to where women live, and at the lowest level facility that can provide the services safely and effectively
- Are acceptable to potential users and responsive to cultural and social norms, such as preferences for privacy, confidentiality and care by female health workers
- Have on hand all essential supplies and equipment
- Provide comprehensive care and or linkages to other reproductive health services
- Provide for continuity of care and follow-up
- Are staffed by technically competent health care provider who rely on clear guidelines/protocols for treatment
- Are staffed by workers who provide respectful and non-judgmental care that is responsive to women's needs
- Provide information and counseling for clients on their health and health needs
- Involve the client in decision-making and see clients as partners in health care and active participants in protecting their own health
- Offer economic and social support to health care providers that enables them to do the best job they can.

High quality maternal care can be provided in a variety of settings, and does not refer only to hospital-based treatment. High quality care must be assured in whatever environment maternal health care takes place – be it the home, rural or urban health centers or well-equipped hospitals in large cities. In order to assure high quality, maternal health services should be evaluated at regular intervals from both service provider and client perspectives and improved as needed.

The most common factors that contribute to poor quality care include; substandard care, lack of drugs and supplies, delays in referrals and poor interaction between clients and health care providers.

Substandard care: It is often the result of staff being poorly supervised, underpaid and overworked, with many not having received adequate training or refresher courses to upgrade their skills. In convenient operating hours, services organized around fixed or rigid timetables and stipulations on who can accompany a woman to a health facility also detract from the quality of the service.[6] If people have access to more than one facility, the quality of the services often becomes the key decision making variable.[7]

Supply shortages and infrastructure problems: Many facilities lack basic supplies and equipment. A study in Jamaica found that nurses at the main maternity hospital were continually frustrated by a lack of basic supplies like gloves, bleach and pens. These frustrations affected their interactions with patients seeking care.[7]

Delays in referrals: Delays in referring women from community health facilities to hospitals is one of the most important and avoidable factors that prevent women from receiving care that could save their lives. Staff at the community facilities may not recognize the seriousness of the problem. Even if they do, many rural health centers have no means of communication with health facilities offering more advanced care or systems for transporting women to such services.

Client provider interactions: Many studies have found that health care workers often treat women in an insensitive manner not paying adequate attention to their concerns and treating them rudely, particularly when they come late for treatment or do not comply with medical advice. Similarly, it is found that poor women without formal education are most likely to be poorly treated by health care professionals. Quality of care may be perceived differently by clients and providers, with providers anxious to ensure technical correctness, whereas clients may be more concerned with issues such as birthing position and social support. The two approaches need to be reconciled in the search for quality.

Evaluating Safe Motherhood Programs

The main objective of an evaluation is to influence decisions to continue, change, expand or end a project or programme. How

complex and precise the evaluation must depend on whom the decision-maker is and on what types of decision will be taken as a consequence of the findings. Different decision makers demand not only different types of information but also vary in their requirements of how informative and precise the findings must be. For example, hospital managers may be interested in knowing what the quality and cost of their services is in order to decide what needs to be done to improve them. District managers, on the other hand, may need data on provision and utilization of safe motherhood services then plan further amendments to the numbers and types of such services within their district. National agencies may require assessments of coverage or impact to justify further investments in their programme. International agencies, on the other hand, may wish to make global comparisons in coverage and impact to understand global trends in maternal health, for advocacy or to justify continued funding.

It is not possible to design an evaluation strategy that will provide sufficiently valid and precise information for decisions to be taken at all various levels of decision-making. National safe motherhood programs and donors who support them are placing increasing emphasis on measuring progress towards goals. Measuring progress implies selecting indicators and setting final and interim targets. Progress can be assessed via frequent regular measurements or by periodic, usually more in-depth reviews. Monitoring and evaluation are of crucial importance in public health programs. This is as true in developing countries as it is in the industrialized world.

Monitoring and evaluation allow us to accomplish a number of things. We are able to measure the initial situation in order to assess the needs, set realistic goals and provide a baseline against which to assess change. Given the economic situation in many developing countries, it may be crucial to be able to assess the cost effectiveness and absolute cost of particular interventions. The results of these may be used to influence decisions to continue, expand or even stop activities and possibly gain political or financial support.

Health programs often express their goals in terms of health impact indicators. Many programs also use indicators of change along the pathway to the impact on health or process indicators. Good process indicators are directly related to both key interventions and health outcomes and are responsive to program inputs. In addition, the data are easily available and understood and changes over short periods of time can be measured. These characteristics allow good process indicators to be part of an action oriented management process and to have an immediate influence on policy formulation.

A reduction in maternal mortality ratio is a general target for safe motherhood programs. With the hindsight of countries with experience of reduction in maternal mortality, enormous benefit is derived from measuring this variable. In countries with high maternal mortality rates, vital registration is usually highly inefficient and maternal deaths in particular are often missed or misclassified. Maternal deaths are a relatively rare event, even in high mortality countries and surveys require large sample sizes. Large changes are needed over a long time to ensure that changes observed are statistically significant. These constraints mean maternal mortality measures are not a practical tool for program monitoring.

Several indicators have been derived to monitor safe motherhood programs. Some of these, such as receipt of prenatal care delivered by trained traditional birth attendants, have not been shown to have any direct relationship with maternal mortality. The majorities of maternal mortality in developing countries result from 5 direct obstetric causes (hemorrhage, sepsis, eclampsia, obstructed labor and complications of abortion) and can be addressed through access to well-understood medical interventions.

This has been the premise on which the United Nations Children's Fund, the United Nations Population Fund and the World Health Organization developed 6 new indicators, known as the UN process indicators for monitoring emergency obstetric care that measure the availability and use as well as quality of emergency obstetric services.[8] These indicators can all be calculated using data on health service delivery that are theoretically available in the registers or other records at health facilities.

The first 2 indicators measure the availability and distribution of health facilities that can provide basic emergency obstetric care and comprehensive emergency obstetric care. The former provide 6 signal functions, while the latter provide these and caesarean section and blood transfusion. The indicator is calculated by determining the number of these facilities per 500,000 people. A minimum acceptable level for the population is 4 BemOC (Basic emergency obstetric care) and 1 CemOC (Comprehensive emergency obstetric care) facilities. The distribution is determined by identifying the geographical location of these facilities at both national and sub-national levels.

The third, fourth and fifth indicators measure use of services for institutional childbirth and management of obstetric complications and for operative delivery. It has been estimated that around 15% of pregnant women develop life threatening obstetric complications. This means that

at least 15% of women must deliver in health facilities if those who need services are to receive them. Because many of the women who deliver in facilities do not in fact need obstetric interventions, we also have a more targeted indicator- met need for obstetric care. This indicator measures the proportion of pregnant women with one or more defined obstetric complications who receive treatment in a health facility. There is also the proportion of births by caesarean section, which measures use of a lifesaving intervention. A more precise but less easily measured version of this indicator is the unmet need for all major obstetric interventions. All these indicators use a denominator based on expected numbers of births in a defined catchments population and so are coverage indicators calculated in a way similar to how childhood indicators for immunization are calculated.

The final indicator measures the proportion of deaths among women with obstetric complications admitted to a particular facility, the case fatality rate. This indicator can be used as a proxy of quality of care. These indicators have been recommended by the United Nations since 1997 and have been used for needs assessments and to a lesser extent for evaluation.

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Conflicts of interest
There are no conflicts of interest.

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