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Access and Quality of Postnatal Care in Low- and Middle - Income Countries: A Pragmatic Review

Preeti Priyadarshani[1,2], Anderson Borovac-Pinheiro[2,3] and Thomas F Burke[2,4,5]*

[1]*Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, India*

[2]*Department of Emergency Medicine, Massachusetts General Hospital, Massachusetts, USA*

[3]*Department of Obstetrics and Gynecology, University of Campinas, Campinas (SP), Brazil*

[4]*Harvard TH Chan School of Public Health, Boston, Massachusetts, USA*

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***Corresponding author:** Preeti Priyadarshani, Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, Gorakhpur (UP), India

Abstract

The postnatal period is comprised of the 42 days after delivery and is a vulnerable time for mothers and newborns. Postnatal care has traditionally been the lowest priority in the continuum of maternal healthcare. In this paper, we review the literature on postnatal care in low- and middle - income countries to identify gaps in care, their causes, and means to address identified deficiencies. Adequate postnatal care may not be available to women, or women may decide to not use care available to them. Quality of care may also be sub-par when compared with existing standard guidelines. Health systems across low- and middle - income countries need to be strengthened to ensure availability of quality postnatal care. Maternal and neonatal morbidity and mortality data should be used to drive policy changes.

Keywords: Postnatal care; LMIC; Public health

Introduction

The postnatal period is comprised of the 42 days after delivery [1,2]. It is a vulnerable time for mothers and newborns. More mothers and newborns in low- income and middle-income countries (LMICs) lose their lives during the postnatal period than at any other time, yet this period consistently has the lowest coverage on the continuum of maternal care [2-4]. The Covid-19 pandemic has affected the health of mothers and newborns both directly and indirectly, the consequences of which will only be clear with the passage of time. However, emerging data suggests a significant rise in maternal mortality in low-income and medium-income countries. [5]. Worldwide, most maternal, and newborn deaths occur in LMICs, the majority of which are preventable. [6]. Eighty percent of maternal deaths and up to two-thirds of newborn deaths could be avoided by effective health interventions during and after birth [7,8]. Maternal deaths, however, represent only a minority of women that suffer untoward consequences from giving birth. Approximately 20 times the number of lives lost suffer serious health consequences [9]. Many countries have taken steps to provide skilled delivery services and antenatal care. However, these measures have shown limited success in reducing maternal and newborn mortality. About 140 million women give birth every year worldwide [10]. Although a primary aim of the Sustainable Development Goals (SDGs) is for universal health coverage by 2030, providing quality postnatal care to all these women is a challenge for both developing and developed countries [11]. Availability and utilisation of postnatal care is far more inadequate in LMICs due to poverty, lack of transportation, insufficient health care access, and overall weak health systems [11]. Until recently, many countries did not collect data on postnatal care services and coverage. Less than one in three women delivering in LMICs receive any postnatal care, yet up to 40% of women in low-income countries develop complications following delivery [3,12]. Nearly 15% of mothers in low-income countries encounter life-threatening conditions in the postpartum period [12]. The objective of this paper was to conduct a pragmatic review on the access to, and quality of postnatal care in LMICs. We sought to identify gaps and make recommendations for strengthening health systems.

Materials and Methods

We conducted a search using Pubmed, Google Scholar, and the Cochrane database. Search terms included combinations of

postpartum care, postnatal care, and LMIC. We tried multiple combinations and modified search results to identify relevant papers. The search strategy included MeSH terms. We included studies that met the following criteria: a) all studies that described postnatal care in low and middle- income countries, both for home and institutional deliveries b) all literature published in the English language c) all studies published between 1st January 1999 to 31 January 2019 (search was later modified to include articles published between 1 February 2019 to 31 March 2021). We manually screened abstracts of identified papers for relevance. We also conducted a hand search of references from identified research articles to find further published literature. All relevant studies were included irrespective of study design. Literature on individual low-or middle-income countries was not specifically sought, but all identified publications relevant to low- and middle- income countries were included. We applied WHO recommendations on postnatal care of mothers and newborns, and WHO recommendations on intrapartum care for a positive childbirth experience as benchmarks for evaluating quality of care [1,10].

Result

Access to postnatal care

Healthcare coverage during the postnatal period varies widely around the world. South Asian countries fare better than Sub-Saharan Africa countries in providing care within the critical 24-hour window after birth [13]. The proportion of women that receive postnatal care within 24 hours ranges from 5% in Ethiopia to 33% in Malawi, 40% in Nepal, 58% in Pakistan and 63% in Senegal [13, 14]. When considering care provided within the 48-hour window after birth, many countries fare better; from 9.7% in Ethiopia, 31% in Tanzania, 45% in Nepal to 70% in Cambodia [14-17]. Coverage of postnatal care increases when considering access within the first 42 days after birth. However, many women do not receive their initial postnatal care for more than a month after delivery [18,19]. Additionally, most women in LMICs able to access postnatal care services receive less than the recommended four postnatal visits [20]. Extensive nationwide lockdowns and disruption of routine health services during the pandemic further decrease the availability of routine postnatal services [21]. The negative public perception of hospitals as hotspots for contracting Covid - 19 also leads to avoidance of hospital visits [22,23]. Quality care within the first two days of life can decrease neonatal mortality by up to two-thirds [7]. However, not all countries measure coverage of care for neonates as an independent metric [23]. Newborns are vulnerable to delays in care - a few minutes, hours or days can lead to loss of life from sepsis, low birth weight and other complications [2].

Barriers to access of postpartum care

Many women do not utilize available postnatal care services. One study reported that while postnatal care was available to 65% of women, actual coverage was only 31.3% [19]. Barriers to availability and utilisation of postnatal care are described by three delays: delays in decision to seek care, delays in contact with a health worker or facility, and delays in adequate health service provision.Cultural, social and normative barriers are a major deterrent to seeking timely care [24,25]. Home deliveries are still prevalent in many parts of the world [26]. Women that deliver at home are at high risk of not receiving timely postnatal care [2,27-31]. They may even be discouraged from seeking postnatal care due to negative attitudes of healthcare providers towards them [32]. Only 9% of Ugandan women delivering at home receive early postnatal care within 48 hours [33]. Many cultures have the custom of confinement of the mother and newborn for a period after delivery. [1,18,20] Women often do not seek medical help if they do not perceive the need for medical care [25,34]. They may also not perceive problems serious enough to spend precious time and resources to visit a health facility [1,35]. This can in part be due to low awareness of the danger signs and symptoms of health problems [36]. Women sometimes choose to seek services of traditional birth attendants or other complimentary healers as they feel that care is more personalised, respectful, and culturally appropriate. They may even be deterred from accessing health facilities due to concerns about quality of care and emotional abuse [18,37]. Perceived high cost of health services and insufficient knowledge about government-run programs can also be a barrier [25,34]. The socio-economic conditions of women in low- and middle- income countries have been disproportionately affected by the ongoing Covid 19 pandemic [38] Lockdowns and travel restrictions imposed to control the pandemic, and the fear of contracting Covid-19 while visiting a health facility, can lead to a decrease in the number of women utilizing routine antenatal and postnatal facilities [21,39]. Women who receive antenatal care or delivery services from skilled providers are more likely to use postnatal care services. [36,40]. Geographic accessibility of health care centres plays an important role in determining use of care [25]. Inadequate counselling by health workers after delivery can lead to loss of follow-up [25,28,34]. Lack of availability of neonatal vaccines at health facilities may demotivate mothers from making a trip to a health facility [34]. The gender of healthcare providers may additionally play a role, with women in some cultures only seeking access to healthcare services if the providers are female [37,41]. Lack of access to an affordable transport system and long distances from health facilities are barriers to connecting with the health system after a decision to seek care has been made. [2,34,35] The COVID- 19 associated lockdowns and the consequent suspension of public transport facilities impose restrictions on travel to health facilities. The effect of access to antenatal care on postnatal care attendance is uncertain, but it has been shown that women that engage with the health system during pregnancy and at delivery are more likely to access postnatal care [42]. Where available, women may delay notifying service providers for home visits, which can further lead to delays in care [43]. There is a shortage of Emergency Obstetric Care (EmOC) services throughout LMICs. [24,44]. Care is often only provided to either the mother or the baby, and care for the other is missed even

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after reaching the health facility [18]. Health providers may not be aware of existing postnatal care policies [29]. Many health centres at various levels in LMICs are inadequately staffed to handle deliveries and postpartum care [9,35,44,45]. The shortage of skilled human resources is more pronounced in rural and remote areas [9]. Inadequate attendance of healthcare providers, both in home visits and in health care facilities, means inadequate coverage of women that need care [34]. Less than two-thirds of women delivering at a health facility in Uganda received postnatal care in the first two days of birth [33]. In many LMICs there are considerable missed opportunities to provide care to mothers and their babies simultaneously [13,19].

Quality of postnatal care

While the steep increase in the number of women that deliver in facilities across LMICs has been a tremendous accomplishment over the past decade, women who deliver in health facilities often receive poor postnatal care [2]. Women frequently do not receive adequate postnatal care prior to leaving the facility and often are discharged within few hours of birth [13,18,19]. In one study, almost 40% of maternity staff did not know essential management of postpartum haemorrhage and more than 50% had inadequate knowledge of newborn care [19]. Women discharged from a facility within a few hours of delivery are unlikely to return for future emergent or routine postpartum care [18,30,43,46]. Only a small proportion of women are adequately assessed and cared for at follow-up visits [19]. Care providers may sometimes focus on immunisation of the baby but miss the opportunity to provide care to the mother during the same visit [19,25]. A study in Uganda reported that while 87% babies attending postnatal clinics were examined, only 15% mothers reported their blood pressure was measured, 25% had an abdominal examination and 22% were asked about abnormal bleeding [19]. Another study from Haiti reported a higher number of women who were examined (94% had blood pressure taken, 78% had abdomen examined, 94% were asked about wellbeing) showing difference in assessment in different parts of the world. [47]. WHO recommends home visits in the first week after birth for care of mother and baby [1]. Although home-based postnatal care can lead to better neonatal health and maternal satisfaction, it is not commonly available and is inadequate even where it exists [2,43,46,48,49]. Counselling on family planning and the signs and symptoms of complications that may require seekig care is recommended for all women after giving birth [1] Only a minority of women in LMICs are offered counselling as a part of postnatal care, resulting in considerable knowledge gaps among postpartum women regarding postnatal care of mothers and babies [47,50, 51]. Poor quality of counselling services may also be responsible for low uptake of postpartum contraception [50,52]. Exclusive breastfeeding is practiced by a minority of women in LMICs and reflects poor advocacy, education, and support [2,23,26]. Data are sparse on the amount and extent of counselling provided to women regarding high-risk danger signs after delivery. One study reported that more than three out of four women had low awareness of postnatal danger signs for mother and baby, even though more than 50% of mothers were provided information on danger signs after delivery. [20] Variable coverage of postnatal vitamin supplementation is reported from different studies [19,20] Postnatal mental health problems are under-identified and under-treated in LMICs, even as WHO recommends providing psychological support to all women at risk of postpartum depression [1,3]. Policy and programmatic environment. Most countries focus on postnatal care as a part of the spectrum of MCH care. Countries like Uganda, Thailand, Niger, and Brazil eliminated user fees to improve attendance of postnatal visits [53-56]. India, Nepal, Indonesia, and Mexico initiated conditional cash transfer schemes while Rwanda and Burkina Faso introduced performance-based financing based on quality as well as quantity of services provided at the health facilities [34,57-61]. While these programs may have increased service utilisation in most areas, their effect on decreasing maternal and neonatal morbidity and mortality remains uncertain [53,54,62]. A Cochrane review published in 2017 found that while cash transfer programs may increase people's use of services, they may not lead to improvement of health indicators. The effects of change in user fees on service utilisation were also deemed uncertain [63].

Discussion

Evidence based guidelines for postnatal care of mothers and babies are frequently updated by WHO [1]. Published literature suggests that implementation of these guidelines varies widely across LMICs. Broad deficiencies in postnatal care exist at macro- and micro- system levels across many countries, often leading to sub-par care of mothers and babies [4] The pandemic and the response to the pandemic are further negatively affecting these deficiencies. Access to health services has been closely correlated with utilization of health services [35]. Empowering women with higher community- level autonomy and education is likely to increase the use of existing health services [12,13,24,35,42]. Health programs that ensure greater participation of male partners and family members in women's healthcare need to be promoted [2,20]. The first contact of pregnant woman with a health system should be used to formulate a care and support plan, with an emphasis on the significance of the continuum of care, even after delivery for both mother and child. Efforts must be taken during and after the pandemic to reduce the time lost in transportation to health services, as well as the time spent in hospital waiting rooms. Separate and secure treatment pathways must be designed for the care of obstetric patients wherever feasible during this time [22]. The use of various media tools such as mass media and text messages for care of women in socially and geographically vulnerable populations to develop prompt health seeking behaviour offer new opportunities [13]. Since a significant number of women residing in LMICs still deliver at home, the role of community involvement in reducing maternal and neonatal morbidity and mortality should be explored further in the context of different countries and communities [2,12,27].

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Merely increasing access to postnatal care is alone insufficient to improve maternal and neonatal health outcomes. Access to care must be accompanied with quality service from a skilled provider who additionally has ready access to higher levels of care [2,24]. EmOC services need to be strengthened and integrated into health systems [24]. Facilities that provide postnatal care must be equipped with the necessary equipment, drugs and supporting infrastructure [37,44]. Health care providers need to be regularly updated with recent guidelines to provide quality care [4,24]. Management protocols for emergency and routine healthcare visits should be in place. Postnatal counselling services need to be strengthened across LMICs and should include an emphasis on respectful quality care [37]. A discharge checklist/ visit checklist can be locally developed to ensure coverage of all aspects of maternal and neonatal care, and to help in early diagnosis of problems [1,46]. Dedicated postpartum clinics and postpartum registers can be established where resources permit [19,64]. Provision of comprehensive maternal and neonatal care simultaneously under one roof is more likely to increase attendance and improve outcomes [49]. Synchronised scheduling of visits of mothers and newborns will ensure that care is received by both, even if care is provided by different providers to mother and baby [49]. Steps need to be taken to ensure timely recruitment and retention of health workers, including timely payment of adequate wages and incentives [24,63]. The ratio of healthcare providers to the population served needs to be maintained [45]. Separate nursing staff should be dedicated to postnatal wards wherever feasible. [45] When the number of health care providers are inadequate, group discussions and counselling sessions for postpartum women may be utilized [45]. Regulations may be put in place to ensure attendance of employed health workers, especially during night shifts and weekends [24,37,45]. Special provision of health workers for home visits need to be ensured wherever required, especially in rural and remote areas [7,30]. Steps may be put in place to decrease the administrative workload of clinical health workers across cadres [65]. An integrated care plan including provision of both facility-based and home-based care needs to be developed and implemented. The role of home visits in decreasing maternal and neonatal morbidity and mortality should be explored further in the context of local settings [30,46]. National guidelines on postnatal care may not exist in many countries. In such scenarios, research is required on the means to promote large-scale uptake of WHO guidelines. Research is also needed to guide modifications of guidelines to best suit local needs [24,46]. Strengthening health systems at all levels from the ground-up is essential to provide optimal care to women delivering in LMICs. A strong political will to invest in a country's healthcare is essential to improving access to quality care being of women before, during and after delivery [2,24]. Data are powerful tools to inform quality of care. Maternal and neonatal morbidity and mortality data from audits should be used to drive policy changes at national and international levels. [2] Feedback from women that have recently delivered can be used to improve care provided at the local level. [50].

Conclusion

As many high-income countries are shifting their focus from preventing morbidity and mortality to promoting maternal and newborn wellness, most LMICs are struggling to achieve the 2030 SDG targets for maternal and newborn mortality [10]. Since government-supported health care programs continue to be the mainstay of care in many countries, governments and supporting agencies should work toward strengthening public health systems and establishing integrated healthcare services by providing a continuum of maternal and neonatal care that best serves their populations. During this time of pandemic, additional efforts are needed to ensure equitable access to quality postnatal care. This review has several limitations. Only literature published or available in the English language was included, therefore it is possible that relevant publications in other languages were missed. While the methodology of systemic reviews was employed, we did not record excluded articles. However, multiple authors selected relevant articles to minimise sampling bias.

Authors' Contributions

PP, AB-P and TB conceived of the study. PP, AB-P collected the data. PP, AB-P and TB wrote the first version of the manuscript. All the authors contributed with edits and draft revisions and the authors have no conflict of interest.

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