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Birth Preparedness and Complications Readiness for Safe Birth, Safe Womanhood and Safe Childhood

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Introduction

In developing countries, many women deliver at home and never see a trained health provider, before or after birth. Also skilled providers in low resource regions may lack access to current tools or may not be able to use them. Around 50 percent of neonatal deaths occur on the first day of life, many die of preventable causes, even though they are born in health facilities. As such many of the neonates who die on first day of birth are born at home, far from medical care. Families may not seek care or follow medical advice [1]. The period when newborn deaths take place also coincides with period of most maternal deaths.

Maternal and neonatal severe sickness and deaths continue to occur because of various reasons, but most important is, because maternal/neonatal emergencies remain unidentified and unmanaged, as needed services are either not available or not accessible, or there is lack of awareness about use of services or lack of resources. There are several underlying environmental, socio-cultural, economic, family factors and also pre-existing disorders which play critical role in the causal pathways. Also some women do not want to go to health facilities for care and / or birth due to beliefs, disbeliefs and personal problems. All these factors added by illiteracy, lack of awareness are responsible for high maternal neonatal mortality and morbidity. Antenatal care sets in the maternal, newborn, and child health (MNCH) continuum [2]. However most crucial time, birth can change everything. Labour dynamics also continue to be a problem for neonatal mortality, morbidity and maternal mortality and morbidity [3,4]. The concept of birth preparedness, complications readiness (BP/CR), emerged almost two decades back has been included by the WHO as an essential part of the antenatal care package [5,6].

Initiatives promoting BP/CR have been described as "one of the conceptually compelling and logical means" of ensuring timely receipt of skilled emergency obstetric care [7]. Operational definitions of BP/CR have varied widely, contributing to a diversity of approaches with little consistent evidence of intervention effectiveness or essential elements of these interventions. Some researchers have focused primarily on preparations for obstetric emergencies (e.g., heightening awareness of danger signs, identifying a facility where emergency obstetric care is available, setting aside money for an emergency, identifying a potential blood donor, and arranging for emergency transport [8-10].

Objective

To get information about efficacy of birth preparedness, complications readiness for advocacy for safe birth, safe womanhood and safe childhood and share.

Methodology

It was a simple review of available literature, reviews and studies in relation to birth preparedness and complications readiness.

Evidence

Since birth preparedness is a new concept, hence currently fragmented. It includes awareness of possibilities of complications and needs for safe birth, even if there are no complications during pregnancy. It also includes interventions like prevention and treatment of infections, awareness about delivery strategies with packages for promotion of psychological health, advancing from important to do, to can be done.

The evidence increasingly points to the need of preparedness for better outcomes for the mothers and newborns [11-13]. Though over the generations it is known that families do various ceremonies for welcoming the new born, the concept

of birth preparedness in a scientific way has emerged in recent years as a potentially vital tool not only for improving outcome for mother and newborn, but supporting their health over the years. Birth preparedness means advocacy provided to women couples / families before birth, to improve health outcomes for women and newborns. It includes set of interventions that aim to identify and modify behavioural and social risks to a woman's health or pregnancy outcome through prevention and timely management. For instance, education and awareness about labour complications, importance of safe birth place, resources needed for mother and baby, can increase receptiveness to utility of health facility. The specific aim of BPCR is to improve pregnancy outcomes for mothers and newborns, by creating awareness.

It is essential that girls / women with known disorders, those with underweight and overweight are specially guided. Prevention and treatment of anaemia, management of diabetes, hypertension is possible before birth. Maternal iron deficiency is associated with low birth weight (LBW). Maternal undernutrition and iron deficiency anaemia increase the risk of maternal death, accounting for at least 20% of maternal mortality [14]. Being severely underweight is associated with smaller infant head circumference and lower ponderal index. They need to be guided. Women who are obese are likely to have hypertensive disorders [15,16] and also dystocia [17].

Further pregnancy in a very young woman is a very high risk event, because teenage girls are physically and psychologically immature for reproduction and need better preparedness. An estimated 10 million girls younger than 18 years are married each year [18]. Coffey [19] advocated that evidence-based interventions must be introduced in the pre-birth period especially in countries with a high burden of undernutrition and young age at first pregnancy. Women and couples who have had previous poor outcomes are also helped in addition to those in difficult social situations, like those with low resources and immigrants. However, targeting and reaching a sufficient number of those in need may be a challenge. During the past two decades, considerable efforts have been made in community-level interventions to raise awareness of pregnancy-related risks and danger signs in order to address the "three delays" [20].

The combination of socio-economic, cultural and health system factors cause delay in deciding to seek care (delay one), reaching health facilities (delay two) and receiving adequate timely care (delay three). However it is essential to always remember that each of these delays have many visible / invisible subdelays. With BPCR and planned supervised system, all women can receive the essential care during birth and post-birth and those mothers and babies who need special care are helped to find their way to referral well in time. Despite poor functioning health systems in low-and middle income countries [21-23], increased BPCR would allow women and their families to anticipate potential delays and ensure timely use of skilled care for birth and arrival at the appropriate facility in case of complications. Implementation of BP/CR interventions that focus on individuals, families and communities are intended to reduce at least the first two delays [24]. It is equally important that health facilities and referral systems are ready to deliver essential care and are able to manage complications, which would contribute to reduction of the third delay [7,25].

BPCR, implementation strategies are diverse and include facility, community, or home-based services. The presence of a skilled attendant at birth (SBA) is the key strategy to prevent the leading causes of maternal and neonatal mortality and morbidity [26-28]. BPCR has the potential to increase birth with a skilled attendant. BPCR helps in selection of place of birth; preferred birth attendant; location of the closest facility for birth and in case of complications; funds for any expenses; supplies and materials to bring to the facility, an identified labour and birth companion; an identified support person to look after other children at home; identified transport to a facility for birth or in case of complications; and identification of compatible blood donors if needed [29]. It is essential to acknowledge that not only women, but also families, communities, health care providers and policy makers need to be geared.

A recent systematic review of randomized controlled trials (RCTs) revealed that BPCR strategies could reduce maternal and neonatal [7,25,30] mortality [31], however, seven out of the twelve included studies implemented BPCR through action-learning cycles with women's groups, a specific intervention and methodology which reported improvements to maternal and newborn health outcomes [32,33]. As the primary objective of BPCR is safe birth, in case of a complication, mortality reduction also depends on accessibility and availability of services being provided. This makes the contributing effect of the BPCR interventions on mortality less clear. In addition, change in mortality rates over the time is difficult to assess and figures are often unreliable [34]. The effect of BP/CR on increasing skilled birth attendant (SBA) has been studied [35].

Later researchers did systematic review of the literature, including qualitative studies, BPCR interventions and concluded that BP/CR can increase knowledge of preparations for birth and complications; however this does not always correspond to an increase in the use of a skilled attendant at birth [36]. BPCR helps in generating awareness about possible dangers during birth, the need of behavioural change in the community towards needs during birth, timely health seeking in case of complications, so as to make a positive difference in reducing maternal, perinatal morbidity and mortality.

BPCR offers a window of opportunity to introduce a positive agenda for better outcomes for the mother and baby and strengthening families and community health. It also offers a wedge or a space for other interventions, intersectoral collaboration, within the health sector and between the health sector and other sectors. With BPCR and a planned supervised system all women should be able to receive the essential care during birth and post-

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birth and those mothers and babies who need special care should find their way to referral well in time. The health, economics and social benefits of BPCR need to be communicated effectively. However being aware is not the only thing; there are other issues of available, accessible needed care.

Kumar [37] reported that women's knowledge about preparations for any birth (normal or complicated) was positively associated with increased preparations for birth, which itself was associated with institutional delivery. The study findings highlighted the importance of focusing on preparations for all births and not simply emergencies, interventions aimed at increasing women's use of skilled maternity care. BPCR offers an appealing strategy for increasing women's use of institutional services for birth. Evidence on the effectiveness of these interventions, however, is mixed. Initiatives promoting BPCR have been described as "one of the conceptually compelling and logical means" of ensuring timely receipt of skilled and emergency obstetric care [7].

Similarly, in a prospective cohort study in one district of Nepal, Karkee and colleagues [38] found that the number of BPCR visits made during pregnancy was positively associated with use of institutional delivery care. Evidence on the association between BP/CR and women's care-seeking during childbirth from other research, however is inconclusive. The results of other intervention studies, which used measures of BP/CR such as women's knowledge about danger signs/risks, their use of care during pregnancy, and their preparation for newborn care showed that there was weak or no association between BP/CR interventions and women's use of skilled maternity care [8,39,40]. Receiving BP/CR counseling had a stronger association with women's preparation for birth and their use of institutional delivery than did receipt of four or more ANC visits.

It remains unclear which elements of BPCR interventions are important in supporting and motivating women to seek institutional delivery. Example is the recent revelation. As per Maternal Health Task Force, Blog, January 2016 [41], not only has US not come close to reaching MDG5, but the maternal mortality ratio actually has increased over the last 15 years. Facility and community level interventions promoting BP/CR were both positively associated with increased knowledge about both BPCR. CR knowledge (i.e., knowledge about obstetric risks and danger signs), however, was not associated with increased preparation for childbirth or with women's use of health facilities for delivery. Women's knowledge about routine birth preparations (e.g., deciding place of delivery, saving money for delivery, making arrangements for transport, etc.) was positively associated with their practice of birth preparedness, which was itself strongly associated with institutional delivery. Importantly, neither literacy nor wealth status were significantly associated with higher preparation for birth. In view of the strong association between birth preparation and use of institutional delivery, these findings are noteworthy as they suggest that promoting birth preparedness among poor and low-literate women can be an important strategy for addressing wealth disparities in use of professional maternity care. There is evidence for important implications for the design of both community- and facility-level interventions to improve maternal survival.

BPCR extends the maternal, neonatal and child health continuum of care and thus contributes to MDGs 4 and 5. It empowers women and thus contributes to MDG 3. It offers a window of opportunity to introduce a positive agenda better outcome for the baby and strengthening families and community health, a wedge or a space for other interventions. Risks of care include stress, blaming women (stigmatization, undermining women's autonomy) introducing on the privacy of women. Diluting effects of certain interventions if stretched too far and neglecting existing maternal, neonatal and child health interventions that work, medicalizing issues that are better dealt with by experts or stakeholders in other domains (e.g. sociocultural, religious) [42].

Possibilities

With appropriate care, advocacy, planned supervised system for transfer, ensuring availability of emergency care, all women can receive essential care during birth and post-birth, even in low resource settings. It is essential that all women get essential prenatal care and appropriate advocacy for essential intra natal and post natal care and those who need special care, should find way to referral well in time, knowledgeable local people, social health activists, village health workers, and auxiliary nurse midwives being the backbone of such system. Advocacy, awareness are the backbone of BPCR.

A low cost simple alternative Boll and Bangle method for awareness about labour dynamics can further help in prevention of sequela of prolonged / obstructed labour. Indian women wear many bangles during pregnancy in last weeks of pregnancy. This practice has science which was not realized. It can be used as an early warning system for pregnancy-induced hypertension (PIH). Also the philosophy was the fetus has auditory experiences, sound made by the bangles drove away scorpions or snakes [43].

Focusing on BP can offer women and their families' specific, concrete actions they can take to ensure access to professional care during childbirth, whereas focusing on risks and danger signs does not appear to achieve the same results. Consistent with these findings, it is worth noting that simply knowing pregnancy risks and danger signs will not be sufficient to overcome the formidable barriers posed by large geographic distances and limited means of transport particularly in context where the limited availability and quality of basic obstetric care at primary health care facilities result in the practice of "bypassing" local health facilities because of the poor quality of care available [43].

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