

7-23-2013

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### Recommended Citation

Walton, L. M., & Schbley, B. (2013). Maternal Healthcare in Bangladesh and Gender Equity: A Review Article. *Journal of Health Ethics*, 9(1). <http://dx.doi.org/10.18785/ojhe.0901.08>

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## MATERNAL HEALTHCARE IN BANGLADESH AND GENDER EQUITY: A REVIEW ARTICLE

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### Abstract

**Objective:** To outline the specific gender equity and socio-economic barriers to maternal health faced by Bangladeshi women.

**Background:** Bangladesh is a country with over one third of the population living in poverty and another one third living just above poverty level. The World Health Organization (2010) indicates that Bangladesh has poor prenatal and postpartum care, nutritional deficiencies, and the second highest maternal mortality and morbidity rates next to sub-Saharan Africa. Women living in Bangladesh are at high risk for maternal mortality and morbidity in the postpartum period directly related to socio-economic status.

**Methods:** This is a systematic review and analysis of the literature regarding gender equity and socio-economic barriers to maternal health for women living in Bangladesh.

**Conclusion:** The need for socio-economic relief for women living in rural Bangladesh remains one of the core issues that need addressed. Poverty is one of the root causes that have led to high maternal mortality and morbidities faced by Bangladeshi women in the prenatal and postpartum period and remains a serious barrier to gender equity and equality.

**Key Words:** Gender Equity, Maternal Health, Bangladesh, Postpartum, Prenatal, Socio-Economic Barriers, Health Care Access

# MATERNAL HEALTHCARE IN BANGLADESH

## INTRODUCTION

Bangladesh is a country in Southeast Asia sharing borders with India and Burma (Myanmar), with a population of over 142 million people. The majority of the population is Muslim (89.5%), with Hindus making up 9.6% of the population, followed by a marginal 1-2% Christian population. Bangladesh is a developing country with a poverty level of 33% and another one third of the population just above poverty level. Bangladesh also has a low per capita expenditure on health care at GDP 3.35%, which places particularly vulnerable populations such as women and children at high risk for health and quality of life problems (World Bank Report, 2010).

The United Nations Millennium Development Goal (MDG5) for 2015 focuses on improving maternal health by improving Quality of Life (QOL) for women in developing countries, including Bangladesh (World Health Organization, 2010). One of the MDG5 strategic goals is to improve access to prenatal and postpartum programs that effectively reduce the morbidities associated with postpartum maternal health. However, there is currently no information on the specific religious, cultural and socio-economic barriers experienced by women living in Bangladesh that may limit access to these programs. Bangladeshi women are already at high risk for post-partum disorders such as infection, hemorrhaging, urologic dysfunction and pelvic pain. Without this information, Bangladeshi women may be at an even higher risk for postpartum problems.

To determine the specific needs of this community, it is important to understand the medical needs, local practices, and perceptions of pregnancy, birth, and the postpartum period and how they are affected by culture and religious beliefs. Gender-equity theories propose that

## MATERNAL HEALTHCARE IN BANGLADESH

empowerment for women began with access to social, health and nutrition services, which provided more economic opportunities for women (Gill, Pande, & Malhotra, 2007). However, in Bangladesh, social, health, nutrition, and economic opportunities are severely diminished for many women (Iyenger, 2012).

Apart from the cultural and gender barriers for women living in rural impoverished regions, women who are at or below poverty level who need obstetric services have limited access to resources because of extended travel time to the nearest hospital (Paul & Rumsey, 2002). Therefore, research is needed to determine the specific pregnancy-related health care needs of women living in Bangladesh.

The purpose of this paper is to shed light upon the theory of gender equity as it relates to the specific cultural and socio-economic risk factors for postpartum mortality and morbidity of Bangladeshi women. This is essential to developing future programs developed by governmental and non-governmental organizations (NGOs), physicians, physical therapists, and other health care practitioners in Bangladesh.

### **DECREASING THE MATERNAL MORTALITY AND MORBIDITY RATES**

A systematic review of the literature specifies that the maternal mortality rate in Bangladesh is defined as the “death of a woman during pregnancy, childbirth, or within 42 days after delivery” (Hogan, Foreman, & Naghavi, 2008). Women living in rural Bangladesh are vulnerable to complications (morbidity) during pregnancy and postpartum with over half of women reporting one or more complications, including: preeclampsia, urinary incontinence (UI), urinary tract infection (UTI), and other infections according to a research study utilizing three related

## MATERNAL HEALTHCARE IN BANGLADESH

questionnaires with two stage sampling approach to both rural and urban areas in Bangladesh and over 103,000 women (Koenig, Jamil, & Streatfield, 2007).

In Bangladesh, women's skilled prenatal and postpartum care is focused on those living in urban areas and in the upper wealth quintile (Anwar, Sami, & Akhtar, 2008). Skilled birth attendants are mostly unavailable in rural areas with the majority of births taking place at home in the presence of a family member or other unskilled birth attendants (Paul et al, 2002). Untrained family members and friends provided 75% of birth and immediate postpartum care and did not involve the services needed for safe, effective, and efficient care. Only 22% of rural Bangladeshi women and 27% of urban Bangladeshi women in the lowest wealth quartile reported having medically attended care, with the high cost of care being the most commonly cited reason for lack of skilled care. This lack of basic skilled care places women at high risk for prenatal, delivery, and postpartum risk of complications. Studies have been performed on nutrition, cost, education of skilled birth attendants, and prenatal programs, but little has been done to complete the spectrum of reproductive care by addressing women in the extended postpartum period (Iyengar, 2012; Faruque, Ahmed, & Ahmed, 2008).

Maternal deaths are associated with infection, pregnancy induced hypertension (preeclampsia), septic abortion, urinary dysfunction, and hemorrhaging with over 80% occurring during the postpartum period (Li, Fortney, & Kotelchuck, 2006; Islam, Chowdhury, & Chakraborty, 2004). Skilled prenatal and postpartum education has been linked to improved outcomes and decrease in maternal morbidity and mortality in several studies (Lester & Benfield, 2010; Lieu, Wikler, & Capra, 1998). One retrospective study on the maternal mortality in the United States compared to developing nations, recommended skilled prenatal and postpartum education and care as

## MATERNAL HEALTHCARE IN BANGLADESH

integral to reducing the risk factors for infection, pregnancy induced hypertension, hemorrhaging, incontinence, pain, and long term pelvic disorders (Li, et al, 2006). However, skilled birth attendants are mostly unavailable in rural areas where the majority of births take place in the home in the presence of a *dais*, a traditional birth attendant with no medical training (Paul et al, 2002).

One method to improve maternal health care is the adoption of prenatal and postpartum education and care specific to the needs of women living in Bangladesh. In a study by Kalim et al (2009) on the exploration of postpartum complaints most often reported by Bangladeshi women, pain, prolapse, prolonged labor, placental tears, hemorrhage, and eclampsia were among the top complications reported in the postpartum period, all of which directly relate to a decrease in quality of life for women and place them at risk for other maternal morbidities. While skilled birthing attendants may be sufficient to provide safe birthing methods for women living in Bangladesh, they lack the resources and knowledge to evaluate the physical problems commonly associated with the postpartum period.

## **GENDER EQUITY THEORY AND MATERNAL HEALTHCARE**

Gender equity theories are rooted in the pursuit of justice and equality between genders, in health, social, nutrition, economic, and power relationships between males and females (Afsana et al, 2007; Gill et al, 2007). The concept of equality is divided into formal (*de jure*) equality and substantive (*de facto*) equality, which is grounded in the law. *De jure* equality has roots in John Locke's philosophy of liberal individualism and may provide "gender-neutrality" and "sameness of diagnosis and treatment" (Fineman, 2008). However, it does not take into consideration that discrimination may still occur based upon the substantive or *de facto* equality

## MATERNAL HEALTHCARE IN BANGLADESH

notions and does little to address the social and economic disparities among vulnerable populations, which are linked to allocations of resources and power (Fineman, 2008). Substantive equality is result-oriented and identifies and considers circumstances, need and disadvantaged groups (Fineman, 2008). For instance, women bear children, have different social norms and roles in current society, which may influence the substantive “equality” that women need to promote gender equity. In Bangladesh, gender inequality has a significant role in the development and accessibility of maternal health care (Afsana et al, 2007; Schuler, Bates, & Islam, 2002)

The Convention on the Elimination of all forms of Discrimination against Women (CEDAW), an “International United Nations Human Rights Treaty that guarantees substantive equality and non-discrimination for women”, has set out two approaches to equality including: equality of opportunity and equality of results (CEDAW, 1981). “Equality of opportunity” refers to the rights of women to access resources within a country with laws to protect this equal access. “Equality of results” refers to the real change that is recorded that pertains to access and opportunity for women (CEDAW, 1981). While the term “gender inequality” describes the differences between genders with respect to health, “gender inequity” describes those differences that are deemed unjust and are the focus of this review. In working with vulnerable populations, Fineman (2008) suggests being concerned with privilege and favor as well as discrimination issues.

In Bangladesh, gender roles influence reproductive and maternal health seeking behaviors because of paternalistic cultural influences (Moran, Winch, Sultana, Kalim, Afzal, & Koblinsky, 2007). It has been suggested that intimate partner violence in women from the Subcontinent

## MATERNAL HEALTHCARE IN BANGLADESH

plays a role in lessening a woman's ability to seek any healthcare, including prenatal and postpartum care (McCloskey, Williams, Lichter, Gerber, Ganz, and Sege, 2007). Attitudes of women themselves have often become a barrier to obtaining gender equity, with reports from the International Institute for Population Sciences and Macro International (2007), showing 54% of married women in India "believe it is acceptable for a husband to beat his wife". Women's empowerment and autonomy, two provisions of gender equity, includes health care decision and autonomy (Sudha & Morrisson, 2011). However, access to resources, gender norms, and values and gender-based violence are barriers to maternal health in Bangladesh (Afsana, 2007).

One of the barriers to empowerment and autonomy in women resides in the social role they assume within the marriage relationship. In Bangladesh, it is common for women to concede power to the husband and his family with respect to her own life choices. Furthermore, paternalism attitudes within the marriage relationship have been directly related to maternal health seeking behaviors (Rashid, 2006). One study of 153 women living in Dhaka slums found that 84% of them felt pressured with reproductive and maternal health care choices because of their marriage partner (Rashid et al, 2006). In one qualitative study of 420 Bangladeshi women and men, the men were "unwilling to allocate family resources to health care for their wives unless she was unable to work or unable to serve her husband's sexual needs" (Schuler et al, 2002). In the same study, one Bangladeshi woman who was interviewed stated, "I know that if my health fails my husband will not arrange treatment for me. I have to manage it myself, maybe by secretly taking something from the house and selling it to pay for the treatment." (Schuler et al, 2002).

## MATERNAL HEALTHCARE IN BANGLADESH

Health equity has been an ongoing goal for several decades within developing countries (Ostlin, Sen, and George, 2004). Although there has been some growth in the social, educational, and health sector regarding gender equity in Bangladesh, there continues to be a large health disparity, particularly with maternal health and particularly among the rural and poor communities (Sidney, 2002). This failure to grow, despite goals, has been linked to poor dissemination of results, lack of follow up policies and programs linked to reducing health care disparities (Ostlin et al, 2004). Often, research in the poorest countries goes unpublished, while the majority of research publications are focused on the developed nations (Horton et al, 2003). The Global Forum for Health Research (2002) and the World Health Organization Report (2004), showed that only 10% of the research funding is spent on 90% of the disease and global burden found in developing nations, such as Bangladesh. This lack of research interest, funding, and focus is, in itself, a form of gender inequity, in light of the reports of the primary health problems in Bangladesh which include poor maternal health care, and one of the highest maternal mortality and morbidity rates (WHO, 2010). Furthermore, sex and gender have been ignored in biomedical and health research for many decades, while the ideal “male model” has been employed and utilized as the fundamental subject for research advancements, results have been overgeneralized, insensitive to gender, and have been considered “emotional, hormonal, or psychological issues” as stated in a derogatory fashion by health care providers and researchers, when women’s health issues are addressed (Nieuwenhoven & Kling, 2010; Keitt, 2003; Lippman, 2006; Nechas & Foley, 1994).

## MATERNAL HEALTHCARE IN BANGLADESH

### **ACCESS TO PRENATAL AND POSTPARTUM CARE**

In rural areas of Bangladesh, many women that are living in poverty are unable to afford medical care and most do not have access to any skilled postpartum care (Christian & Parul, 2002). Furthermore, physicians in Bangladesh elect C-section births more often than the recommended “safe rate” of less than 5%, as shown in the overall increase in C-section rates reported by the World Health Organization from 2.5% in 2004 to between 15-25% in 2010. In a retrospective study by Koenig et al (2007), it was reported that 48% of the 103,000 Bangladeshi female subjects studied did not receive any type of prenatal or postpartum care. Rural areas provide several barriers to patients that prevent women from receiving prenatal and postpartum care compared to their urban counterparts. Distance, quality, and cost are a few of the most prominent barriers that have exhibited a direct negative impact on maternal morbidities and mortality for patients in developing countries (Islam et al, 2004).

Non-skilled birth attendants are the only option for many women living in rural regions who are forced to give birth at home because of cultural, monetary, or social expectations. The risk of postpartum morbidities increases because of implementation of the risky birth practices of non-skilled birth attendants. Examples of these practices include: multiple vaginal examinations, practice of “forced gagging to expel the placenta” coupled with heavy pressure (the attendant’s knee or full arm with body weight) on the abdomen or utilizing an object, internal version to change the placement of the baby during delivery, pulling on the umbilical cord, and manual removal of the placenta (Fronczak, Arifeen, & Moran, 2007). These practices cause unnecessary trauma potentially creating postpartum complications such as damage to the perineum, urinary tract, uterus, and other internal visceral structures with an increased risk of infection (Fronczak et al, 2007; Anwar et al, 2008).

## MATERNAL HEALTHCARE IN BANGLADESH

### **SOCIO-ECONOMIC STATUS & GEOGRAPHICAL LOCATION**

Rural areas provide several barriers to patients that prevent women from receiving prenatal and postpartum care compared to their urban counterparts. Distance to health care facilities, quality of services available in local rural health facilities, and cost of prenatal and postpartum care are a few of the most prominent barriers that have exhibited direct negative impacts on maternal morbidities and mortality for patients in developing countries (Thaddeus & Maine, 2002).

Socio-economic factors play an important role in birth mode choice by physicians and patients living in Bangladesh. In a retrospective study of 20,000 births in several developing countries, including Bangladesh, women in the wealthiest quintile who had access to prenatal care were more likely to undergo a C-section. Another study of 2,164 women regarding inequity in maternal health services in Bangladesh, showed a substantial difference between women according to socio-economic status when considering skilled birth attendance, C-section as mode of birth delivery, and receipt of postpartum care (Parkhurst & Rahman, 2008; Ronsmans, Holtz, & Stanton, 2006).

The National Institute of Population Research and Training (NIPORT) reported that 60% of Bangladeshi women complained of complications related to pregnancy and childbirth (NIPORT, 2008). The large number of complications reported by women living in Bangladesh and the rise of C-section deliveries may be directly linked to the consistent rise in the maternal mortality rate (WHO, 2010).

The MDG5 proposes a decrease in maternal mortality ratio by increasing C-sections by the year 2015 (WHO, 2010). However, because of the deep socio-economic inequalities that exist within Bangladesh, this goal may disproportionately target the wealthiest socio-economic quintile,

## MATERNAL HEALTHCARE IN BANGLADESH

which is able to pay for private hospital care where the majority of C-sections are performed. The poor and undereducated tend to be much less affected (Ronsmans et al, 2006).

In Bangladesh, choice of C-section in Matlab, a region with over 21% CSD in 2001, were more likely to be wealthier women with higher education, with a history of high number of prenatal visits, who did not necessarily have a medical need and may lose value in attempts to address the maternal mortality and morbidity rates (Chowdhury, Botlero, Koblinsky, Saha, Dieltiens, & Ronsmans, 2007). This relationship of increased C-section with prenatal care in Matlab may indicate an indirect emphasis of the prenatal programs in teaching the benefits of C-section compared to normal vaginal delivery by physicians and organizations that aim to fulfill the goals of improving maternal care by providing antenatal programs for women.

### **COST COMPARISONS BY BIRTH MODE**

Cost of care is another prohibitive factor, especially in the rural areas where transportation to a healthcare facility may be several hours by rickshaw or cost of care at the hospital may exceed the family's yearly income of \$590 (Ronsmans et al, 2006). Real solutions need to be explored for these women to be able to set a standard of care that will be cost effective, culturally accepted, practical, efficient and effective. However, there remains a need to explore the actual problems that exist in the postpartum period for women outside of nutritional deficiencies, which have been thoroughly explored, as compared to the effects of mode of birth delivery among cesarean section and vaginal birth delivery on quality of life for Bangladeshi women living in rural areas.

## MATERNAL HEALTHCARE IN BANGLADESH

The literature suggests that socio-economic factors also play an important role in determining access to surgical options such as C-section. Wealth, defined by the National Demographic Health Survey, is based upon household assets and divided into three quintiles: poor quintile, middle quintile, and wealthiest quintile. Only women in the upper wealth quintile have access to C-section services in most regions. This leaves those in the poor and middle quintiles without access to C-sections when indicated, and places them at high risk for mortality and morbidities during delivery and in the postpartum period.

The cost of postpartum care following C-section has been studied in the context of linked postpartum visits with type of birth mode, with results indicating an increase in postpartum visits by 7% and increase in total cost of postpartum care when C-section is performed compared to normal or assisted vaginal delivery modes. Cost analysis of a sample in Madagascar showed that a C-section was cost prohibitive and although reduced maternal mortality rate overall, it increased infant mortality rate by 18% (Robitail, Gorde, & Barrau, 2004).

Studies from various developing countries have also shown a substantial burden to families when C-section is considered from a cost perspective. For example, one study of 133 post-partum women living in Islamabad, Pakistan estimated the average monthly household income for families was equivalent to \$149 USD (10,000 rupees at the time of publication) and the average cost of C-section was equivalent to \$161 USD (10,868 rupees) compared to vaginal delivery cost of \$79 USD (5,278 rupees) (Khan & Zaman, 2010). In another study of 438 women living in Kathmandu, the willingness of women to pay for a C-section (\$157 for normal vaginal delivery and \$171 for C-section pre-delivery and \$71 for NVD and \$236 for CS post-delivery) compared with a vaginal delivery was studied pre and post birth, with resulting increase in reports of

## MATERNAL HEALTHCARE IN BANGLADESH

willingness to pay for C-section births post-delivery by women indicating a perceived increased value of C-section by the women immediately after birth (Gartoulla, Liabsuetrakul, & Pradhan, 2010).

Cost is a major prohibitive factor in delivery options and postpartum care for women living in Bangladesh. If postpartum care can be disseminated within the home environment or local district region, cost effective programs may be established. This can be accomplished with reduction in transportation costs for the patients and creating preventive health prenatal and postpartum programs.

### **CONCLUSION**

Women living in Bangladesh are at a high risk for maternal mortality and morbidity in the postpartum period because of socio-economic and cultural barriers, some of which are related to gender inequity and inequality. Gender equity theory maintains that problems such as malnourishment, anemia, poverty, and limited prenatal and postpartum care are results of discriminatory health practices that create vulnerability for women living in Bangladesh. Substantive equity theories propose specific needs of disadvantaged populations be addressed through result-oriented solutions. Overall, there remains a need for evaluation of cultural barriers that negatively impact maternal health and socio-economic relief in the form of policy changes to specifically address gender inequity for women living in Bangladesh.

## MATERNAL HEALTHCARE IN BANGLADESH

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