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Safe Delivery Posts: An intervention to provide equitable childbirth care services to vulnerable groups in Zahedan, Iran

Zahra Moudi, MS, MScIH, PhD (Assistant Professor of Reproductive Health)[a,*], Mahmood Ghazi Tabatabaie, PhD (Assistant Professor of Sociology and Social Demography of Health)[b], Seyed Mahdi Tabatabaei, PhD (Assistant Professor of Epidemiology)[c], AbouAli Vedadhir, PhD (Assistant Professor of Anthropology)[d]

[a] Pregnancy Health Research Center, Zahedan University of Medical Science, Midwifery Department, Nursing and Midwifery School, Mashahir Square, Zahedan, Iran
[b] Department of Demography & Population Studies, Faculty of Social Science, University of Tehran, Tehran 14395-773, Iran
[c] Department of Statistic and Epidemiology, Zahedan University of Medical Science, Iran
[d] Department of Anthropology, Faculty of Social Science, University of Tehran, Tehran, Iran

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ABSTRACT

Background: recently, there has been a shift towards alternative childbirth services to increase access to skilled care during childbirth.
Objective: this study aims to assess the past 10 years of experience of the first Safe Delivery Posts (SDPs) established in Zahedan, Iran to determine the number of deliveries and the intrapartum transfer rates, and to examine the reasons why women choose to give birth at a Safe Delivery Post and not in one of the four large hospitals in Zahedan.
Design: a mixed-methods research strategy was used for this study. In the quantitative phase, an analysis was performed on the existing data that are routinely collected in the health-care sector. In the qualitative phase, a grounded theory approach was used to collect and analyse narrative data from in-depth interviews with women who had given birth to their children at the Safe Delivery Posts.
Setting: women were selected from two Safe Delivery Posts in Zahedan city in southeast Iran.
Participants: nineteen mothers who had given birth in the Safe Delivery Posts were interviewed.
Findings: during the 10-year period, 22,753 low-risk women gave birth in the Safe Delivery Posts, according to the records. Of all the women who were admitted to the Safe Delivery Posts, on average 2.1% were transferred to the hospital during labour or the postpartum period. Three key categories emerged from the analysis: barriers to hospital use, opposition to home birth and finally, reasons for choosing the childbirth care provided by the SDPs.
Key conclusion and implications for practice: implementing a model of midwifery care that offers the benefits of modern medical care and meets the needs of the local population is feasible and sustainable. This model of care reduces the cost of giving birth and ensures equitable access to care among vulnerable groups in Zahedan.

Introduction

Because complications in childbirth are not predictable, all women need access to skilled care and appropriate emergency care facilities during childbirth. Timely management during this critical period can make the difference between life and death (Donnay, 2000; WHO, 2005; Murray and Pearson, 2006; Kruk et al., 2007). Nevertheless, the evidence shows that poor and marginalised segments of society have the worst health status and the most difficulty accessing health care (Gwatkin et al., 2004; Houwelling et al., 2007; Zere et al., 2010). There is evidence that maternal death is linked to poverty both among and within countries (Graham et al., 2004; Chowdhury et al., 2006; Freedman et al., 2007). Consequently, it will be difficult to achieve the Millennium Development Goals (i.e., 'decreasing the maternal mortality ratio') without monitoring equity and ensuring that key health interventions are available to the poor and vulnerable groups at higher risk for maternal and child mortality (Zere et al., 2010; Limwattananon et al., 2010). However, while the availability of care is essential, it is insufficient; many women around the world face barriers to accessing maternal care. Many do not receive care because they cannot afford it or because the quality of care is poor (Woodward, 2000; Raven et al., 2011). In addition, care that is provided in

* Corresponding author at: Midwifery Department, Nursing and Midwifery School, Mashahir Square, Zahedan, Sistan and Baluchesatn Province, Iran.
E-mail addresses: moudi@zaums.ac.ir, zz_moudi@yahoo.com (Z. Moudi).

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accordance with the needs and beliefs of majority groups might not align with the beliefs, values and financial resources of minority groups, and consequently, it might be inappropriate for them (Kruske et al., 2006; Ghazi Tabatabaie et al., 2012; Abed Saeedi et al., 2013). Because women are not a homogenous group with the same desires, the services that are available are expected to benefit some women and exclude others (Spangler and Bloom, 2010).

In recent years, there has been a shift towards alternative childbirth options, offering greater variety in terms of the place of birth and improving economic and social access (Henderson and Petrou, 2008; Spangler and Bloom, 2010). Birth centres, a middle option between home and hospital, are either located within a maternity hospital or operated as freestanding facilities (Walsh, 2006). A birth centre is 'a midwifery-managed unit independent from a labour ward offering both antenatal care and care during birth to women at a low risk of medical complications' that is also linked to a referral service (Dahlen et al., 2010). It has also been reported that freestanding birth centres may be effective in decreasing the costs of services (Henderson and Petrou, 2008) and, accordingly, in providing services to large groups of uninsured women. Likewise, they are more committed to patient-centred care (Khoury et al., 1997).

The setting

Government policies in Iran are aimed at encouraging hospital delivery with the intent of reducing infantile and maternal mortality in the country. The high percentage of births that take place in public and private hospitals (95.33%) demonstrates that this policy has been mostly successful (MOHME, 2012). Despite the policy of the Iranian Ministry of Health and Medical Education (MOHME), however, Sistan and Balochestan Province has a very high rate of home delivery (32.42%), whereas the average rate for the entire country is only 4.67% (MOHME, 2012). Sistan and Balochestan Province, which is located in southeast Iran, borders Pakistan and Afghanistan and is among the most deprived provinces in the country. Zahedan, the setting for this study, is the capital and the most populous city in the province (population: 613,572 in 2009). The population in Sistan and Balochestan consists primarily of two ethno-linguistic groups: Baloch and Sistani. Baloch people are in the majority in Zahedan and are typically Sunni Muslim, whereas the non-Baloch inhabitants of the province are Shiite or Shia. Although Baloch people are the majority in Zahedan city as well as in the province, they are a religious minority in the country; Iran is characteristically a Shiite society. According to official reports, 25% of women between the ages of 14 and 44 in the province are illiterate (Iranian Statistical Center, 2006).

In 2010, the population growth rate and the total fertility rate in Zahedan were 2.7% and 4%, respectively, for each woman of reproductive age compared with 1.4% and 2%, respectively, for the entire country (Maternal Health Office, 2012). Childbirth services in Zahedan include four comprehensive essential obstetric care facilities (EmOCs) and two Safe Delivery Posts (SDPs). Despite the availability of four EmOCs, 12% of women still choose to give birth at delivery facilities in the countryside or in two Safe Delivery Posts, and 14% of deliveries take place at home (Maternal Health Office, 2012).

Historical development of SDPs in Zahedan

The United Nations Fund Population Agency (UNFPA) and the Health Centre of Sistan and Balochestan Province established two SDPs in two health-care centres in a suburb of Zahedan in 2002. The SDPs were intended to provide maternal services for disadvantaged women living in the suburb of the city, which was inaccessible to the majority of immigrant Afghan mothers. Each of these SDPs has one delivery room with two beds, one room with three beds for labour and postpartum recovery, and one room for midwives and crews. The SPDs were supervised by the UNFPA in their first three years of operation. They were initially staffed by four midwives (three with associate's degrees and one with a bachelor's degree), and there are now six midwives who alternate between 24-hour shifts of work and 48 hours off. Each SPD operates seven days per week, three shifts per day.

The SDPs were established in response to consumer demands and aimed at improving childbirth services and making birthing services accessible to the local community. Consequently, they hoped to increase the number of deliveries performed by midwives with biomedical training and to increase the number of timely referrals to the hospital when complications arise. Women who intend to have a planned birth in the SDPs must be healthy, with no medical or obstetric complications. Therefore, mothers must have at least 5 antenatal visits to receive screening for risk factors (i.e., sonography, routine laboratory tests and physical examinations). Women are selected to deliver at SDPs at two different times. First, during pregnancy, low-risk women whose pregnancies progress normally complete a form (in the 38th gestational week) and receive a referral to the SDPs from a midwife at the health centre. Second, at the time of admission to the SDPs, a second risk assessment is conducted by a midwife (in accordance with a book of guidelines published by the Iranian Ministry of Health and Medical Education). As a result, women who have any pathological antenatal or intrapartum conditions are not eligible for admission to the SDPs and will be transferred to hospital.

The cost of delivery is 70,000 IRR ($9.58) for mothers who are referred by health centres or Médecins Sans Frontières (MSF) (Doctors without Borders) and 150,000 IRR ($20.54) for mothers who were not referred by these organisations. Médecins Sans Frontières (MSF) centres pay the delivery costs and the cost of hospitalisation for legal immigrant Afghan women who experience complications. Patients are transferred to hospital at no cost by the ambulances of the Zahedan Emergency Centre. Until 2005, the cost of travel, food, and personnel salaries were paid by the United Nations Fund Population Agency. After 2005, when Afghan refugees began to go back to their country, UNFPA's support was discontinued, and these centres were run autonomously. Because the delivery fees were not enough to pay for the personnel (midwives' and crew's salaries and midwives' insurance), the delivery fees were raised to 150,000 IRR for mothers referred by health centres and 300,000 IRR for mothers who are not referred. Currently, patients are transferred freely to hospital when complications occur, but the patients are responsible for paying all of the hospitalisation costs. The fixed costs (building, equipment, maintenance and transportation of the personnel to the centres) and the variable costs (medications, cleaning expenses, water, electricity, and telephone service) were paid by the other divisions of the Zahedan Health Center. After approximately three years of activity, these centres were closed in 2008. After the centres closed, two mothers died in childbirth at home because they did not go to hospital in a timely manner. After these events, the centres opened again under the supervision of the Developing Centers of the Ministry of Health and Medical Education of Iran. These facilities have been providing services for mothers since 2002.

The aim of this study is to assess a decade of experience with the first SDPs established in Zahedan, Iran. This study also aims to describe the reasons why women choose to give birth in an SDP and not in one of the four large hospitals in Zahedan city.

Methods

The methodology of this study is based on a mixed methods (MM) strategy. In this methodology, 'rather than being wed to a particular theoretical style…one might instead combine methods