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Original Research Article

Why women choose to deliver at home in Omdurman, Sudan 2013

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Abstract

Increasing access to good quality hospital care during labour and delivery has been identified as a key strategy in increasing maternal and infant survival, inspite of that many pregnant women prefer to deliver at home. A study done in Omdurman, at Omdurman Maternity Hospital (OMH) and health centers to assess socio-economic factors affecting place of childbirth and hospital delivery during 2013. A descriptive study conducted at OMH and health center level, carried out to assess factors affecting place of childbirth and barriers against hospital delivery. A random sample was selected from patients who delivered at OMH and a similar sample from patients attending antenatal care (ANC) at health centers and decided not to deliver in hospital provided they have no complication requiring hospital delivery. Data was collected by trained registrars after an informed consent and analyzed using SPSS version 18. Financial problems and cost of hospital services was the main reason for choosing home delivery; 2074 (86.8%), followed by lack of privacy at hospital 1740 (72.5%), easy previous delivery at home 1579 (65.8%) and fear of hospital atmosphere 1548 (64.5%). Low level of education and illiteracy associated with home delivery (P < 0.05), while high education, university or post graduate, influences hospital delivery (P < 0.05). Young women, less than 20 years, preferred to deliver in hospital (P < 0.05), while elder clients of forty years or more choose to deliver to home (P < 0.05). Women of middle age, 20-39 years, have no difference between their places of birth. Socio-cultural issues, financial problems, inaccessibility of health services and lack of privacy at hospital are main reasons for choosing home for childbirth and adversely affecting hospital delivery

Keywords: Childbirth, Place of birth, Sudan

INTRODUCTION

Pregnancy and childbirth are physiological and natural process, carrying potential risks leading to complications, during labuor, delivery and puerperium (Brena and Jarman, 2006). The place of delivery is an important decision to be taken during pregnancy based on information given to the mother influencing her right to choose between home and hospital delivery. Home childbirth is an attended or unattended delivery in non-medical setting, usually in a residence rather than a hospital and may be attended by a midwife or a traditional birth attendant (TBA). Childbirth at home was the main place of birth until 1920, however, after 1940 hospital has been considered to be the safest place of delivery (Tewm, 1994). In some countries almost all childbirths take place in hospital, while in others home delivery was considered the first available choice

Table 1. Age distribution of women according to place of childbirth in Omdurman 2011

Age	Hospital del. N= 2378	Home del. N = 2400	Chi square	P value
< 20	0302	OO76	149.001	< 0.05
	12.7%	03.1%		
20-29	1058	1118	NS	
	44.5%	46.6%		
30-39	0814	0856	NS	
	34.2%	35.7%		
40 or more	0204	0350	42.016	< 0.01
	08.6%	14.6%		
Total	2378	2400		
	100.0%	100.0%		

(Janssen et al., 2009). During ANC, low risk patients should be offered the option of choosing place of birth after being well informed about the potential risks and benefits of each birth setting. Home delivery does not offer access to pharmaceutical pain relief or acceleration of labour by oxytocin and when complications occur, transfer may be difficult or late with poor outcome to the mother or her baby (Ron et al., 2008; Wax et al., 2010).

Although the evidence has shown that hospital delivery is safer for both mother and baby, still there are socio-demographic factors that prevent women to choose hospital delivery (Hansan and Persson, 2009). Women with access to ANC may choose to deliver at home for various reasons including; home intimacy with familiar and comfortable environment, to avoid unnecessary medical interventions with hospital setting and strangers. They may have previous negative hospital experience and the hospital may not be accessible or affordable (Debora et al., 2009). The high incidence of perinatal and maternal morbidity and mortality in developing countries correlates with low hospital delivery rate or late hospital arrival (Thaddeus and Maine, 1994). In Sudan home delivery is still high, 83% (Department of Statistics, 1989-1990). This study aims at assessing factors affecting choosing place of childbirth in Omdurman and determine factors preventing women to utilize hospital facilities for childbirth in order to reduce maternal and perinatal mortality and morbidity.

METHODOLOGY

Omdurman is the largest town in Khartoum state. It has the biggest number of population; there are two specialized maternity hospital, three general hospitals with departments of obstetrics and gynecology and fifty eight health centers. These health centers provide basic antenatal services, the medical staff ranging from consultants, medical officer to certified midwives. Three centers were selected randomly from each locality. All pregnant ladies attending antenatal clinics in the selected health centers during the period of the study were included after an informed consent. A similar sample was selected from clients who delivered at OMH. Data was collected by trained registrars and analyzed using SPSS version 18.

RESULT AND DISCUSSION

Total number of women participated in this study was 4778, 2400 choose to deliver at home and 2378 delivered at OMH, 3258 (68.2%) delivered in hospital or had previous history of hospital delivery. Of them: 2176 (45.5%) their age between 20-29 years, 1670 (35.0%) between 30-39 years. There is no difference between these two groups and their place of childbirth. Only 378 (7.9%) were less than 20 years old, most of them delivered in hospital with significant difference ($P < 0.05$), from those who choose to deliver at home. Women elder than 40 years were 554 (11.6%), those who choose to deliver at home were more compared to those delivered in hospital (Table 1). Most of study population 4180 (87.5%) were urban citizen, the rest 598 (12.5%) were living in rural areas. No difference between the two groups on place of childbirth and their residency, parity and occupation of clients or their husbands.

In this study, women who completed their primary school were 1647(34.5%), majority of them choose to deliver at home. Those completed secondary school were 1438 (30.1%), there was no difference between the two groups in their place of childbirth. University students or graduates were 832 (17.4%), most of them delivered in hospital. Illiterate clients were 862 (18.0%); the majority of them choose to deliver at home (Table 2). Illiteracy and primary school associated with home delivery, ($P < 0.05$), while higher education associated with hospital delivery, ($P < 0.05$).

Major barriers against hospital delivery were; financial problems, fear of noisy and crowded hospital atmosphere, relatives do not like hospital delivery or they are not allowed to attend delivery, lack of transport,

Table 2. Distribution of women educational level according to place of childbirth in Omdurman 2011

Educational level	Hospital del. N= 2378	Home del. N = 2400	Chi square	P value
Illiterate	248 10.4%	0613 25.5%	184.671	< 0.05
Primary school	0568 23.9%	1079 45.0%	234.817	< 0.05
Secondary school	0742 31.2%	0696 29.0%	NS	
University and Post graduate	0820 34.5%	0012 00.5%	685.360	< 0.05
Total	2378 100.0and	2400 100.0%		

Table 3. Reasons for choosing hospital delivery in Omdurman 2011

Reason	Number N= 2378	%
Better maternal and fetal care	1992	83.8%
Availability of doctors	1302	54.8%
Healthy environment- sterile instrument	1022	43.0%
Availability of drugs	0622	26.2%
Avoid attendance of relatives during lab.	0510	21.4%

Table 4. Barriers against hospital delivery and reasons for choosing home delivery in Omdurman 2011

Reason	Number N= 2400	%
Financial problems	2074	86.4%
Good privacy at home	1740	72.5%
Easy previous delivery at home	1579	65.8%
Fear of hospital atmosphere	1548	64.5%
Hospital is noisy	1392	58.0%
Hospital is crowded	1334	55.6%
Relatives dislike hospital delivery	1303	54.3%
To look after children at home	1084	45.2%
Lack of transport	1072	44.7%
Relatives not allowed to attend delivery	0888	37.0%
Repeated vaginal exam.	0682	28.4%
Bad experience with hospital delivery	0619	25.8%
Bad behavior of MW	0504	21.0%
Phobia from C/S or instrumental delivery	0483	20.1%
Use of oxytocin	0326	13.6%

phobia from repeated vaginal examination, instrumental delivery and C/S, with bad experience of hospital delivery, including fetal and maternal complications, bad behavior of midwives and use of oxytocin. Hospital delivery was influenced by better maternal and fetal care, availability of doctors and drugs, healthy environment with sterile instruments and avoidance of attendance of relatives during labour (Table 3). Home delivery was influenced by financial problems; lack of transport, good privacy at home, easy previous home delivery and women would like to look after their children, (Table 4).

The place of delivery is of crucial importance, despite of that many pregnant women prefer to deliver at home, where delivery is associated with high maternal and perinatal morbidity and mortality (Brena and Jarman, 2006). In many developed countries, home delivery declined rapidly over the twentieth century. In United states of America (USA), from 50% to less than one percent during 1938- 1955, in United Kingdom (UK) from 80% to one percent during 1920- 1991 and in Japan from 95% to 1.2% during 1950-1975 (Cassidy, 2006). Usually a combination of factors prevent women from

delivering in hospital, particularly lack of family support, previous bad hospital experience, poor quality of care and patient's dissatisfaction.

In this study, 68.2% of clients delivered in hospital or had history of hospital delivery. This is low compared to 99.5% in USA, 97.3% in UK, 95% in Srilanka, 86% in India and 71% in Ethiopia (Wax et al., 2010; (Lukumar and Pathmeswaran, 2002; Sushmita et al., 2010; Gaber and Laid, 2004). However, it is higher than that found in Nepal, national Sudan and Kenya, where hospital delivery is 7%, 17% and 50% respectively (Rajendra et al., 2004; Department of Statistics, 1989-1990; Walraven et al., 2008). Many socio-economic factors influence choosing delivery at home in this study, particularly hospital cost which is the main barrier against hospital delivery. This had been reported in the literature as an important barrier, affecting utilization of hospital facilities (Debora et al., 2009). In developed countries, home birth declined due to expansion of health insurance coverage, changes in polices, regarding place of birth, increased accessibility to hospital and population migration from rural to urban (Final draft of guidelines on intra-partum care, 2007). Access to hospital can be increased by providing free hospital delivery or reduced delivery fees, free accommodation for patients and their relatives, availing transport and easy transfer, community mobilization through women groups and sustained increased training of Village Midwives (VMW) to encourage hospital delivery. Usually laboring women need someone's psychological support, relatives not allowed to attend delivery in this study affect choosing hospital delivery. This is also had been reported in literature, as an important factor adversely affecting hospital delivery (Thaddeus and Maine, 1994).

Age of participants affects place of childbirth in this study, where women, less than twenty years old tend to choose hospital for their childbirth, while elder women more than forty years preferred to deliver at home. This is comparable to what have been reported in literature, where in Iraq, 56.9% of young women choose to deliver in hospital (Mahdi and Habib, 2010). The same was reported in Malawi and Tanzania (Bashour et al., 2008). Women's education also affects the place of childbirth, where illitrate and primary school women tend to choose home delivery, while higher education, choose to deliver in hospital. This is also reported in Syria by H. Bashour 2008, Malawi, Burkina Faso, Tanzania and Kenya, where maternal education increased utilization of health services (Bashour et al., 2008; Robs et al., 2006).

Poor communication skills and bad attitude of hospital staff affect passively the rate of hospital delivery, where bad experience is considered as an important barrier against hospital delivery. Bad experience with health facility include: lack of freedom to move around, eat or drink, to deliver in the position of their choice or not to have their family support, all affect choosing hospital delivery. In this study relatives dislike hospital delivery and consider hospital only if complications occur during labor and this leads to late hospital arrival with serious complications, as have been reported in a study done in Nepal (Juma, 2005).

CONCLUSION

Socio-cultural issues, financial problems, inaccessibility of health services, and lack of privacy at hospital are main reasons for choosing home delivery and adversely affects hospital delivery.

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