

*Full Length Research Paper*

# 750 cases of home delivery and its outcomes in Koohdasht-Iran

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In 1986, World Health Organization (WHO) suggested the home as a suitable place for delivery process of pregnant women. Home delivery (HD) has been considered less or not at all in developing countries. Based on official reports the rate of HD in Iran 2000 was 5.2% for urban areas. This study reports the reasons and outcomes of HD in 750 pregnant women of Koohdasht- Iran. All the women who resided in Koohdasht and had experienced HD during the study period were enrolled. The data were gathered through a questionnaire that filled in by the researcher while interviewing these women or their relatives. Seven hundred and fifty cases of HD were detected during the study period. The mean age of women was  $28 \pm 0.7$  years. Financial problems, personal willingness, and previous history of HD were the most common reasons for HD. The majority of unpleasant outcomes of HD were precocious bleeding after HD, looseness of womb, and precocious rupture of sack which occurred in cases who were conducted by a local uneducated midwife and among the mothers who had their first delivery. Screening and selection of the pregnant women at low risk for HD can reduce the unpleasant outcomes. It is suggested to arrange some training program about HD for uneducated lay midwives and to the family planning units to emphasize the training mothers about the delivery process. Relevance to clinical practice: HD can be noted as an alternative choice for pregnant women.

**Key words:** Home delivery, home birth, out of hospital birth, Iran, Koohdasht.

## INTRODUCTION

In 1986, World Health Organization (WHO) suggested the home as a suitable place for delivery process of pregnant women. The strategies focus on promoting birth in "first- level" care settings, such as birthing centers and primary level health facilities (Campbell and Graham, 2006). Nowadays, Home delivery (HD) is common throughout the world, as 30.4% of the deliveries in the eastern region of the Netherlands are being managed at home (Tromp et al., 2009). The rate of HD in Australia is high and approximately 1% of American women give birth at home (Patri-cia et al., 2002; Boucher et al., 2009). There are various reasons for HD all over the world. While in developed countries the most frequent rationales for HD are possible choice of delivery agent, husband's presence and mi-

nimal unnecessary interventions; in developing countries it is done due to such reasons as: having a fast delivery and financial problems (Chipfakacha, 1994). In the United States the most common reasons for preference to have birth at home were safety, avoidance of unnecessary medical interventions common in hospital births, previous negative hospital experience, more control, and comfortable familiar environment (Boucher et al., 2009). In contrast, in urban women of western Nepal, precipitate labor, lack of transportation and lack of escort during labor were cited for the unplanned HD (Sreeramareddy et al., 2006). HD has been considered less or not at all in developing countries. It may be due to the fact that the people believe that lack of proper safety, medical facilities and expert people, and also not having close observation and nursing for mothers make HD dangerous. However, there is no clue to suggest that unnecessary facilities and advanced technology have any important effects on the nor-

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**Table 1.** Reasons of home delivery in Koohdasht\_Iran.

%	Number	Reasons of HD
39.9	299	Financial Problems
37.2	279	Having willingness
35.1	268	Having previous HD experience
32	240	Having fast delivery
21.3	160	Fear of caesarian section
20.5	154	Having difficulties in transferring to the hospital
19.9	149	Husband's absence
19.2	144	Fear of hospital atmosphere
16	120	Being in a pleasant status while delivery
15.5	116	Being in an acquainted environment during delivery
13.9	104	Having observation over the home and family
11.2	84	Having the possible choice of delivery agent
18.8	81	Fear of medical intervention
8.7	65	Avoiding the hospital infections
6.3	47	Being encumbered by the customs
3.2	24	Having control over situation
7.2	20	Husband's presence in the delivery environment
3.2	17	Having an unpleasant experience of hospital
0	0	Lack of acceptance in hospital

mal delivery process and its safety (Farin, 2002). In countries such as Australia, Canada and England, where HD is considered highly, the rate of neonatal and mother's mortality and still birth has had a remarkable decline (Patricia et al., 2002). It can be attributed to home atmosphere which promote natural process in delivery and reduces the unnatural interventions (Bortin et al., 19948). Based on official reports the rate of HD in Iran 2000 was 5.2% for urban areas (Population and health in the Islamic Republic of Iran, 2000). This rate was about 9.3% in Lorestan province and 32% in Koohdasht. Therefore, the present study aims to get through the reasons for HD and respective outcomes in this area.

## MATERIALS AND METHODS

In this descriptive study, all the women who resided in Koohdasht and had experienced HD within May, 2002 - 2003 were studied.

The data in this survey were gathered through a questionnaire including 74 questions. The first 24 questions were about background information of the women under study. The remaining questions were about the reasons and unpleasant outcomes of HD, 20 questions about the reasons that should be answered by "Yes" or "No" and 30 questions about outcomes of HD, which itself had two parts: 21 questions in part "A" about outcomes of HD for mothers, and 9 questions in part "B" about unpleasant outcomes of HD for baby. The researcher referred to the addresses of the women who had experienced HD or their relatives when the mother had died (These addresses were given by the identification registry office in Koohdasht). The questionnaires were filled in by the researcher while interviewing these women or their relatives.

## RESULTS

Seven hundred and fifty cases of HD were detected dur-

ing the study period (86.9% householder and 51.7% uneducated). The mean age of women was  $28 \pm 0.7$  years. About 9.9% of the samples were primipara. Only 35% of HDs were conducted under supervision of experts and 13.5% of the cases were done without any help. History of still birth was detected in 7.9% of the women under study. Table 1 shows that financial problems, personal willingness, pervious history of HD experience, preference to have fast delivery and fear of caesarian were the major reasons of HD. The majority of unpleasant outcomes of HD were: precocious bleeding after HD, looseness of womb, precocious rapture of sack, perineal laceration (rapture), post delivery infection, urinary retention, constipation, transferring mother to hospital, no baby cry just after birth when the midwife was not educated experienced. The unpleasant outcomes among the mothers who had their first delivery were more common comparing with others ( $p < 0.05$ , Chi squared test). However none of the unpleasant outcomes such as: womb prolapse, placenta retention, late bleeding after delivery, mother's mortality, inability to lactate in the first 24 h and activity intolerance after 2 week of delivery were detected, Table 2. In this study; there was not any report of still birth, funicular infection and baby transfer to hospital and the only neonatal unpleasant result was that the baby didn't cry immediately after the birth.

## DISCUSSION

Most of the deliveries in developed countries are being managed in hospitals. There is no evidence to support the claim that the safest policy for all women is to give birth in hospital (Campbell and Macfarlane, 1987). Before

**Table2.** Maternal unpleasant outcomes of home delivery in Koohdasht\_Iran.

<b>%</b>	<b>Number</b>	<b>Maternal unpleasant outcomes of HD</b>
10.9	82	Precocious rupture of sack
8.3	62	Constipation
5.2	39	Urinary retention
3.6	27	Precocious bleeding after delivery
3.2	24	Transferring mother to the hospital
2.8	21	Unhealthy perineal
2.5	19	Perineal laceration (Rapture)
1.2	9	Looseness of womb
0.3	2	Episiotomy
0.1	1	Post delivery infection
0	0	Womb prolepses
0	0	Placenta retention
0	0	Late bleeding after delivery
0	0	Activity intolerance after 2 weeks of delivery
0	0	Inability to lactate in the first 24 h

the mid-20th century, most American women gave birth at home under the care of midwives (Cassidy, 2006). In 2005, National figures show that, 24,468 infants were born at home in the United States (Martin et al., 2005). Being next to the baby and husband after delivery are of the most important reasons of home delivery in developed countries (Ackermann-Liebrich et al., 1996). Studies about home deliveries in urban and periurban areas of Kathmandu have reported poor maternal education, multiparity and low socioeconomic status as the predictors of home deliveries (Wagle et al., 2004). Within recent years, the rate of hospital delivery has reached to 98% in Iran as well. Koohdash is a moderate city of Lorestan province in western Iran with about 30000 peoples. In spite of the existence of well-equipped and active maternity hospital in Koohdasht, about 33% of the deliveries are being managed at home. In developing countries, a remarkable percentage of HDs are managed by uneducated midwives (Patricia et al., 2002). Maternal and neonatal outcomes of planned home birth receiving first-level care were favorable when compared to planned hospital or birth center births (Fullerton et al., 2007). The findings of this study indicate that about 19.1% of the home deliveries in this area are done by educated midwives, while 51.6% are done by local uneducated ones. Educated midwives do not put their shoulder to the wheel of HD due to the legal problems. The financial problem was the most significant reasons of HD in this area. It can be said that during the recent years the self-controlled plans for hospitals has been implemented in a wrong and unrealistic way, which has resulted just in the increase of hospital service costs and consequently reduction in patients' referrals to the hospitals. The cost for hospital delivery in this area is about 350 - 400 US dollars which most of the inhabitant can not afford. Also, the high number of caesarian sections has resulted in the reduction of people's

preference to have hospital delivery, due to the fear of caesarian (21.3%). About 32% of women had HD in order to have a fast delivery. This finding necessitates a sufficient training for women about the delivery process and especially perinatal care. The other reasons of HD in this area were the fear of hospital atmosphere (19.21%), being in an acquainted environment during labor period (15.51%) and difficulties in transferring to the hospital (20.5%). It was revealed that the majority of the unpleasant outcomes were in cases which HD was done by a local uneducated midwife and among the mothers who had their first delivery ( $p < 0.05$ ). Screening and selection of the pregnant women at low risk for HD reduces the unpleasant outcomes (Gavin Young, 2000). Mothers having their first delivery should be informed about the HD consequences and HD should be considered just for those mothers who have had a previous delivery experience. Therefore, it is suggested to the family planning units to emphasize the training mothers about the delivery process and organize some tours for mothers in the last month of pregnancy (in antenatal checkups) to visit the hospital with health supervisors and get acquainted with the hospital atmosphere and its staff. Also, it is recommended to consider some especial units for transferring mothers in delivering condition to the hospital as the ones for medical urgency in transferring patients with heart problem. Training local uneducated midwives should be taken in to consideration and we should let HD get organized.

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