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UTILIZATION OF MATERNAL CARE SERVICES IN URBAN AREA: STILL AN ISSUE OF MODERN WORLD

Neha Bavarva[1], Prakash Patel[2], R K Bansal[3]

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Author's Affiliation: [1]Post graduate student, [2]Assistant Professor, [3]Professor & Head, Dept. of Community Medicine, SMIMER, Surat

Correspondence:
Dr. Neha Bavarva
E-mail: nehabavarva@gmail.com

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ABSTRACT

Introduction: Inspite of ongoing efforts of the government, home deliveries are still reported in urban area where finance and distance play minor role. The aim is to study the reasons regarding the barriers of health facility delivery system in Surat city of India.

Methodology: Out of 1004 community based service providing centre of Surat 30 centres were selected by using cluster sampling design. In selected 30 Maternal and Child Day Care Centres, Second phase of sampling was done where household was sampling unit. A household survey was conducted to assess maternal and child healthcare status.

Results: Among 322 surveyed mothers, 42 mothers delivered at home. Among the home delivered mother 93% was registered for antenatal care, however only 68% had completed 3 Ante natal visits. The most common reason cited by mothers for home delivery was lack of time (45%) followed by family pressure or social custom; unfelt need for hospital delivery and lack of faith in hospital.

Conclusion: Though the overall rate of home delivery was less, most of the reasons cited for the home delivery are avoidable, especially when most mothers came into contact of health care system at least once.

Key words: Maternal care, JSY, urban, obstetric services, home delivery

INTRODUCTION

More than 0.35 million annual maternal deaths[1], almost all in developing countries[2-4] and mostly due to preventable causes[4-5] reiterate the importance of institutional delivery. Preference for institutional delivery has direct strong relation with quality of care obtained during antenatal period.[6-8] In spite of constant efforts to promote institutional delivery in developing countries like India, home deliveries continue to occur. [9-11]

Due to absence of skilled health professionals in case of home deliveries if there is any complication, intervention is usually late.[12,13] This directly leads to poor maternal and infant outcomes.[14-18] During past decade interest has developed in examining influences on health care-seeking behaviour. According to "three delays" model, there are three main inhibitors to health care service utilisation. First is the delay in deciding to seek care for obstetric emergency, second is the delay in reaching an appropriate health care facility and third is the delay in receiving adequate care on reaching facility.[19]The first delay may be due to family pressure or social custom, family didn't feel need for hospital delivery, a lack of

understanding of danger signs, the absence of the decision maker from the household, cost, didn't have faith in delivering at any hospital set up, previous unsatisfactory experience with the health care system and perceived low quality of care[20]. Second delay may be due to they don't have enough time to reach the health facility, distance from health facility, lack of transportation and the high cost of travel.[19]

Availability of obstetric services and transportation are main key challenges that are addressed by an ongoing project named as Janani Shuraksha Yojana.[21] Home deliveries are still reported even after implementation of Janani Shuraksha Yojana where finance and distance play minor role.[22]

With this context this study was planned to explore service utilization by home delivered mothers and barriers in health facility delivery system that directly or indirectly motivates the urban pregnant women for home delivery.

METHODOLOGY

Large scale study was conducted in the area where reproductive and child health services are provided by Health Department of Surat Municipal Corporation (SMC) to estimate number of indicators on situation of maternal and child health services during December 2013 to January 2014. This study was a part of this large scale study. This survey followed 30 cluster design of Expanded Programme on Immunization Coverage Survey Manual (WHO/EPI/MLM/91.10).[23]

The "Maternal and Child Day Care Centre" (commonly known as "Anganwadi") of Surat city were the main sampling domain. Maternal and Child Day Care Centre was sampling unit in the first phase and list of Maternal and Child Day Care Centre was used as sampling frame which was provided by the SMC officials to draw samples. In this study, 3 Maternal and Child Day Care Centres near to our institute were visited to calculate the sample size and 70% (21 out of 28 children aged 1 to 2 year) found fully immunized. Formula of sample size $n = Z^2_{\alpha/2}pq/E^2$ ($Z_{\alpha/2}$=1.96 (at 5% level of significance), p=prevalence, q=(1-p) and E=allowable error,10%) was used with 70% rate and result was 165. Now, the sample size was multiply by design effect of 2 because of cluster sampling. So the final calculated sample was 330. These samples were divided into 30 clusters so 11 mothers were taken from each cluster.

Among 1004 Maternal and Child Day Care Centre in Surat city, sampling interval was identified by dividing them with 30. All Maternal and Child Day Care Centres were arranged according to their name in alphabetical order. Computer generated random number table was used for selection of first cluster which became starting point for selection of Maternal and Child Day Care Centre. By adding sampling interval to first selected Maternal and Child Day Care Centre subsequent Maternal and Child Day Care Centres were selected.

In selected 30 Maternal and Child Day Care Centres, the second phase of sampling was done. In this phase of sampling, a household was sampling unit. A household was selected randomly to initiate the survey in the selected Maternal and Child Day Care Centre. Then survey team moved on the left hand side of first household and visited further household till desired sample size of 11 mothers delivered during 1st December 2012 to 30th November 2013 was achieved. In case of joint family if more than 1 eligible mother was found, only one mother was included in the study because socio-cultural environment and health seeking behaviour would be almost similar. The women were interviewed about their ante-natal care, place of delivery and in case of home delivery reasons for the same.

Informed written consent was taken from all the participants after explaining the details of the study to the mother. Strict confidentiality of the data is maintained.

RESULTS

The survey could able to cover 322 mothers, among them 40(12.42%) were delivered at home. Among the 40 home delivered mothers, only 2(5%) mothers didn't attend any health facility and among 38 who attended ANC (Ante Natal Care) clinic ever 26(68.4%) mothers had undertaken more than 3 visits (Table 1).

Among home delivered mothers 16 had taken ANC at the private or trust either allopathic or AAYUSH clinics (42%) followed by 10(26.32%) had taken ANC at MAMTA day in PHC/UHC, while 7(18.42%) of mothers had taken ANC at Government Hospital other than PHC whereas 5(13.16%) mothers attended ANC check-up at other places like homeopathic clinics or non-medical persons.

Table 1: Ante natal visits and its details in home delivered mothers

Ante natal care services indicator	Mothers (%)
Visited health care facility(N=40)	38 (95)
More than 3 ante natal visits (n=38)	26 (68.4)
Ante natal visits at non-government hospital (n=38)	21 (55.26)
Ante natal visits at government hospital (n=38)	17 (44.7)
Examination for weight (n=38)	38 (100)
Examination for blood pressure measurement (n=38)	38 (100)
Examination for per abdominal examination (n=38)	38 (100)
Received at least one dose of Tetanus toxoid (n=38)	37 (97.36)
Received Iron folic acid tablets (n=38)	38 (100)
Counselled for importance of weight gain (n=38)	11 (29%)
Counselled for balanced diet (n=38)*	11 (29%)
Counselled for taking iron folic acid tablets (n=38)	16 (42%)
Family counselled for institutional delivery (n=38)	8 (21%)

Table 2: Reasons for non-institutional deliveries

Reasons for non-institutional deliveries	Frequency (%)
Don't have enough time to reach the health facility	18(45%)
Family pressure or social custom	8(20%)
Family didn't feel need for hospital delivery	7(17.5%)
Mothers didn't have faith in delivering at any hospital set up	3(7.5%)
No reason for delivering at home	4(10%)

All the 38 women who attended the ANC clinic were examined for weight, blood pressure measurement and per abdominal examination at least once during their ANC visit. During ante natal visits, along with the weight measurement, it is very important to counsel the mother about importance of weight gain and ways to improve it. However, when we asked mother about the same it was found that only 11(29%) mothers were counselled for nutrition, weight gain and balance diet during the antenatal visits.

Almost all mothers had got the TT vaccine and Iron folic acid tablets. Among the women who visited health facility, 10 women got less than 60 tablets in her Ante natal period. It is also equally important to counsel mother about dose of tablets, side effects, importance of taking tablets. When we asked about the same total 16(42%) mothers were counselled for taking iron folic acid tablets.

Many factors influence the decision of institutional delivery. Attitude of mother in law and father in law also influences the place of delivery which can be changed by counselling them. When mothers were asked about the same, only 8(21%) mothers were given family counselling for institutional delivery.

The most common reason for non-institutional deliveries (total 40 home deliveries) was they don't have enough time to reach the health facility 18(45%) while family pressure or social custom was responsible for home delivery in 8(20%) mothers (Table 2).

DISCUSSION

In this study, all factors from maternal care to delivery of foetus are covered to know the exact situation and real reasons hidden behind home deliveries. Findings suggest very good coverage and good quality of ante natal care. Most the population who attended ante natal care clinic were properly examined in terms of weight, abdominal examination and blood pressure according data except few patients which suggests still there is space for improvement. Higher percentage of population attended private clinics which indirectly suggest private hospitals give better attention and treatment to patients. So there is also a need for improvement in providing services at government hospitals. Coverage of tetanus toxoid injection is outstanding suggests that both private and public sector very conscious about the tetanus prophylaxis. Around 74% population got proper amount of Iron folic acid tablets. Other 26% had less supply of iron and folic acid tablets which can be due to loss to fol-

low up or inadequate supply of tablets at government set up either at mamata day or higher centres. In both the cases there is need for improvement because it's very much known that anaemia invites many complication during pregnancy, intra partum and post partum.

During ante natal visits counselling about health improvement and institutional delivery was overall poor which can be due to poorly trained staff, poorly motivated staff, high workload and language barrier.

There is high rate of home delivery even among those who has taken ante natal visits at any type of health facility. Similar results have been found another study done in Tanzania[24] and Malawi[25].This attitude of people can be explained by two ways. One is dissatisfaction with health facilities during their visits. Dissatisfaction can be due to long waiting periods before check up, rude behaviour of staff, insufficient attention to patients, lack of privacy while check up or presence of male health staff which might have demotivated them to visit the health facility for another time or forced them to choose for home delivery.7.9% population which had only one health visit and 13.2% population which had only two health visits must have faced negative environment at health facilities. This missed population can be considered as fault of health staff because it is not excusable when people are aware and come to health facility and they get a reason for not returning back. If the population is not reached or not aware then it is still excusable to some extent that there was lack of knowledge or transportation or willingness but the population who has attended clinic once and never returned back was a complete fault of health system. Another reason can be, patient has preset mind for home delivery and just goes to health facilities to confirm that the situation of mother and child both are well so that they can go for home delivery without any complication.

In this study major reason was patient didn't have enough time to reach to hospital and second major reason was social custom or in other words family pressure. In contrast, similar study done in Tanzania, suggested the reason for home delivery is convenience at home and distant location with poor transport system[24].Similar study done in Euthopia[26] suggests no necessity as a major reason in contrast didn't have enough time in this study. All reasons covered for home delivery are almost same but in Euthopian[26] study transportation, cost and availability of service cumulatively plays major role and family and husband's allowance is minor factor where as in this study customs plays a major role and other factors takes back seat maybe due to implementation of various health programmes and easy and nearby availability round the clock health services. In this study far distance cannot be a valid reason because data is collected from Surat city only. And health facility cannot be too far away in any area of Surat city so indirectly people saying didn't have enough time is in reality concealing the truth. That reason can be again social or economical. There are chances that they didn't have enough money to go to health facility and they believe that there will be much more expenditure in hospitals which also indirectly suggest that they didn't have enough awareness about government scheme of free delivery (Janani Shuraksha yojana) at government hospitals and also economical assistance (chiranjeevi yojana) in case of private sector delivery and not having nearby government hospital. Study of Amoako JF et al[27]and Bharati Sharma et al[28]also supported that wealth is also a reason for choosing a home or a facility birth. So the "reason didn't have enough time" can also spilt into again didn't feel need, no faith, family pressure and any other reason which we are not aware of and that need to be further explored. Most of reasons are modifiable and need proper awareness among people. To establish faith in government health facility is of prime importance and most difficult task. The reason for no faith can be previous bad experience with government institute. Study of Amoako JF et al also suggests that previous negative experiences with health facility are also a one of the major reason for not utilizing health services[27]. It can be due to bad outcome of illness of known or irresponsible behaviour of health workers or long waiting period before the access of treatment. Study done in Tanzania also supports the long waiting period adversely affect behaviour of patients towards health facility[24]. Such issues are difficult to solve because it is not in power of any single person. It is a fault of system and to change behaviour of all health servants can't be guaranteed.

CONCLUSIONS

Existing coverage of ante natal services was very good. Though the overall rate of home delivery was less, most of the reasons cited for the home delivery are avoidable, especially when most mothers came into contact of health care system at least once.

RECOMMENDATIONS

Along with infrastructure and qualified man-power, quality of services needs to be focused to increase our service utilization. Intensive tracking of Ante natal women required to decrease home deliveries. Whole family including mother-in-law and father-in-law should be included in counseling for institutional delivery as they are the decision maker in the family.

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