



FREQUENCY OF HOME DELIVERIES AMONG MULTIPAROUS WOMEN VISITING GYNECOLOGY OUTPATIENT DEPARTMENT OF A TERTIARY CARE HOSPITAL IN A DEVELOPING COUNTRY

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ABSTRACT

Introduction: Home deliveries are a natural way to give birth at home by assistance of skilled and unskilled birth attendants. Maternal, infant mortality and complications associated are significantly higher in home birth settings. In view of the risk factors associated with maternal mortality, international effort has been focused on the need for proper deliveries at institutional places or deliveries by trained birth attendants at home. The determinants for choosing home births include the hospital distance, transport unavailability, financial pressure, negative hospital experiences, cost effectiveness of home delivery, child birth order number is another determinant in developing countries. **Objectives:**

- To find the proportion of women who are undergoing home deliveries.
- To find the frequency of complications associated with mother and neonate by delivery at home.

Study design: Case series study was conducted from September 1, 2019 to October 1, 2019.

Study settings: Gynecology Outpatient department of Services Hospital Lahore.

Subjects: Multiparous women visiting Gynecology Outpatient department of Services hospital Lahore. **Methods:** Multiparous women visiting Gynecology Outpatient Department of Services Hospital, were enrolled and interviewed. Socio-demographic characteristics, knowledge and attitudes were compared using Chi square test and independent t tests among those who delivered at home and those who did not. **Results:** 92 women were interviewed from September 1, 2019 to October 1, 2019 in ante-natal settings, 25.6% of women had home deliveries and 74.3% women had hospital deliveries. Complications caused by children to mothers during pregnancy at home, during birth at home and after at home was found out to be 10.1%, 4.2% and 2.4% respectively. Similarly, complications associated with children during pregnancy, during birth at home and after birth at home was found out to be 7%, 2.4%, 0.35% respectively. The percentage of stillborn births was 1.4%. It shows that out of total 285 births 207 were done by doctors which is 72.6%. Trained birth attendant or Dai delivered 22.1% babies. Similarly Lady health visitor and Lady health worker delivered 2.4% and 1.7% respectively, birth by others like in emergency cases were 1.0%. The home births were more in illiterate women of rural areas. The two most important factors for choosing home births were safe home environment(26.1%) prevalent and distant hospital(16.5%). **Conclusion:** Several factors were identified for women who were not undergoing home delivery, among which the most important were unavailability of skilled birth attendants, and increased incidence of maternal and neonatal mortality associated with deliveries at home by Dai's or Traditional birth attendants. The burden on hospitals can be reduced if we emphasize the importance of skilled birth attendants for safe deliveries at home with the reduction of maternal and neonatal morbidity and mortality.

KEYWORDS: Multiparous, case series study.

INTRODUCTION

A woman having borne more than one child is known as multiparous.^[1] Maternal mortality rate (MMR) in Pakistan is 276 deaths per 100,000 live births.^[2] Pakistan is the fifth-largest contributor to the maternal mortality, and six percent of the world's maternal deaths occur in Pakistan.^[3] Only in 2013, around 289,000 women died due to pregnancy-related complications in Pakistan. In view of the risk factors involved in maternal mortality, international effort has focused on increasing the share of births at the proper health facilities (institutional deliveries) or the births attended by skilled birth attendants.^[4] About 50 per cent of births in Pakistan take place at home, mainly with the help of untrained birth attendants.^[5] The major reason for the home deliveries in Pakistan is found to be the limited role of women in decision-making at household level as well as their lower educational status and smaller control over the resources.^[6] Some other determinants of the choice of place of delivery are distance to health care facility, transportation facility, cost of institutional delivery, trust in health attendants and exposure to mass media.^[7-9] It is also found that women's preference for home deliveries is also shaped by their past experience of poor health system which includes poor availability of drugs, incompetent health workers, lack of privacy and rude attitudes of health attendants.^[10] A home birth in developed countries is an attended or an unattended childbirth in a non-clinical setting, typically using natural childbirth methods, that takes place in a residence rather than in a hospital or a birth center, and usually attended by a midwife or lay attendant with experience in managing home births. Home birth was, until the advent of modern medicine, the *de facto* method of delivery. Since the beginning of the 20th century, home birth rates have drastically fallen in most developed countries, generally to less than 1% of all births. Infant and mother mortality rates have also dropped drastically over the same time period.^[11] In a study published in the *Journal of Midwifery and Women's Health*, women were asked, Why did you choose a home birth? The top five reasons given were safety, avoidance of unnecessary medical interventions common in hospital births, previous negative hospital experiences, more control, and a comfortable and familiar environment.^[12] Child's birth order also determines the likelihood of the institutional delivery. As the number of children increase, more mothers are likely to deliver at home. Many women choose home birth because delivering a baby in familiar surroundings is important to them.^[12] Others choose home birth because they dislike a hospital or birthing center environment, do not like a medically centered birthing experience, are concerned about exposing the infant to hospital-borne pathogens, or dislike the presence of strangers at the birth. Others prefer home birth because they feel it is more natural and less stressful.^[13] Worldwide, an estimated 529,000 maternal deaths occur every year, almost all of them in developing countries. There is an inverse relationship between the

proportion of deliveries assisted by a skilled attendant and the maternal mortality ratio in these countries.^[14]

According to WHO, immediate and effective professional care at the time of delivery can make the difference between life and death for both women and their newborns.^[15]

TBAs (whether trained or not) have not been included among the skilled birth attendants by the WHO since their training has not shown any reduction in maternal mortality. However, it has been suggested that TBAs could perform the role of the skilled attendant, where required, with some training as they may be the only source of care for some women.^[16] Home deliveries by traditional birth attendants (TBAs/dais) are a cultural norm in Pakistan. This is true both for rural areas as well as the urban slums. It's a common traditional belief that childbirth is a natural process which does not require any medical attention and should be conducted at home by the family 'dai' who is a well-known and trusted figure for the family, is easily available and is not very expensive. According to the latest Pakistan Demographic and Health Survey (PDHS) 2007, the maternal mortality ratio of Pakistan is 276/100,000 live births and the three major killers are postpartum hemorrhage, puerperal sepsis and eclampsia.⁵ This survey, the largest household survey ever conducted in Pakistan, also showed that 65 % of deliveries are conducted at home. Traditional birth attendants assisted almost 79% of home deliveries followed by relatives or friends in 11%.⁵ According to this survey, the most frequent reason (stated by 57% of women) for not delivering in a facility, was the belief that it was not necessary. The next most common reason (stated by 38% of women) was that it costs too much. The fact that nearly 80% of home deliveries are conducted by TBAs, may be responsible for an increased risk of maternal and perinatal mortality as the TBAs are illiterate and not trained in preventing or recognizing complications and for promptly referring the patient to an appropriate facility for emergency obstetric care.^[17] Furthermore, a study in Pakistan found that mother's and father's education has significant impact on the decision about place of delivery.^[18]

The role of wealth status is also crucial in the choice of institutional delivery. In the recent survey 2012-13, the probability that a woman in the highest wealth quintile would go for institutional delivery than the women with low wealth quintile. This should be a serious concern because the poorest women are more vulnerable to birth related complications. Some earlier studies also show that the mothers in the poorer wealth quintiles generally lack access to the institutional delivery,^[4,8] while some studies show a positive relationship between the higher wealth status and institutional deliveries.^[19]

In 2006, there were 38,568 out-of-hospital births in the United States, including 24,970 home births and 10,781 births occurring in a freestanding birthing center. After a

gradual decline from 1990 to 2004, the percentage of out-of-hospital births increased by 3% from 0.87% in 2004 to 0.90% in 2005 and 2006. A similar pattern was found for home births. After a gradual decline from 1990 to 2004, the percentage of home births increased by 5% from 0.59% in 2005 and remained steady in 2006. Since the second half of the 20th century, the majority of births in the western world have taken place in hospital. However, this move from home to hospital birth for most women was not based on evidence. Compared with the U.S. average, home birth rates were higher for non-Hispanic white women, married women, women aged 25 and over, and women with several previous children. Home births were less likely than hospital births to be preterm, low birth weight, or multiple deliveries. The percentage of home births was 74% higher in rural counties of less than 100,000 population than in counties with a population size of 100,000 or more. The percentage of home births also varied widely by state; in Vermont and Montana more than 2% of births in 2005-2006 were home births, compared with less than 0.2% in Louisiana and Nebraska. About 61% of home births were delivered by midwives. Among midwife-delivered home births, one-fourth (27%) were delivered by certified nurse midwives, and nearly three-fourths (73%) were delivered by other midwives.^[20]

The study shows that there was almost 50% increment in institutional delivery over the past ten years. The percentage of last birth delivered in health institution has increased from 33.7% before 10 years to 63.8% in the past 5 years. However, the place of delivery varied according to residence. In urban area, most women 72.3% delivered in health institutions while only 35% women in rural and 17.5% in remote parts delivered in health institutions. The key socio-demographic factors influencing choice of place of delivery included multiparity, teen-age pregnancy, less or no antenatal visits.^[21]

In Pakistan according to demographic survey 2012-13, child births taking place in home are 51.6% while that in public and private hospitals are 14.6% and 33.6% respectively and others 0.2% are unknown.^[22]

Home deliveries are a natural way to give birth at home by the assistance of skilled and un-skilled birth attendants. Currently World Health Organization has favored the deliveries at home due to the reduction of infections and safe environment at home. They have promoted the presence of skilled birth attendants rather than traditional birth attendants. This can help us reduce the burden on hospitals by shifting the focus from hospital deliveries to home deliveries. There is no duplication of this research but a similar research has been conducted in Nepal in the year of 2006. I want to do this research to see the latest trends in the home deliveries in Lahore, Punjab Pakistan. This is the first ever research on this topic in Services hospital. The results will help us find the latest trends in home deliveries and allocate proper resources for the education

of women to shift the focus from hospitals to home births with the special training of skilled birth attendants, this can prevent the burden on hospitals.

Literature Review

Health and well-being of women everywhere is very important for it is a key to the health and well-being of their families and societies. This is true due to their roles in the health of members of their families. They also need good basic care during pregnancy, at birth and after delivery by having access to safe facilities that can provide the service which are available to health units.^[23]

In the wake of the importance of the health and well-being of women, various initiatives have been established in the world to save mothers' and infants' lives. For example, worldwide, the Safe Motherhood Initiatives started in 1987 to improve maternity services and to protect the health of mother and infants.^[24] An economic analysis found that an uncomplicated vaginal birth in hospital cost on average three times as much as a similar birth at home with a midwife in an environment where management of birth has become an economic, medical, and industrial enterprise. The fact that wealth status is an important predictor of the choice of institutional delivery is a sad reminder that the poor women are more vulnerable to the obstetric complications at the time of birth. The difference in the odd ratios of institutional delivery between the poorest and richest quintiles may also be symptomatic of the fact that institutional delivery is not affordable for many poor people. The odds that a woman in the richest wealth quintile will have institutional delivery are likely to be seven times higher than that of the woman in the poorest wealth quintile in 2012-13, while in 1990-91, it was likely to be 20 times. The gap points to a failure of the public policy to narrow down the disparities in the provision of essential public health services to the masses, especially in rural areas.

The rich people can afford to buy services in the private sector, which are limited in the public sector and may be inaccessible to a large population in rural areas due to relatively low purchasing power. Our results corroborate a number of previous studies on the role of wealth status in the choice of place of delivery.^[19,25] The strong negative association between the order of birth and the institutional delivery may be explained by the general attitude in Pakistani society. It is generally believed that the birth of first child is more likely to be institutional because it is considered more difficult or a high social value is placed on the first pregnancy,^[26] while the births of subsequent children show falling odds of institutional birth.^[8]

Mothers' education is an important predictor of the decision of institutional delivery.⁷ In 1990-91, a woman with higher education was 20 times more likely to deliver in the health facility compared with the women with no education, but in 2012-13, these women are only

5 times more likely to deliver in the health facility. Again, this could be attributable to the higher availability of health care facilities and change in attitudes in the less educated women thanks to the relatively more candid discussion of female health issues in the electronic and social media. This result is consistent with previous studies.^[28]

OBJECTIVES

- To find the proportion of women who are undergoing home deliveries.
- To find the frequency of complications associated with the mother and neonate by delivery at home.

METHODOLOGY

Study design

It was a case series study.

Study setting

This study was conducted in the gynecology Outpatient department of Services hospital, Lahore.

Study duration

Study duration was of one month.

Study population

Multiparous women visiting Gynecology Outpatient Department of Services Hospital, Lahore.

Sample size

Sample size is estimated by using WHO statistical software S- size. By using the formula of estimating a population proportion with specified relative precision. At confidence level of 95% anticipated population proportion of 65% and relative precision (relative error) of 15%, minimum sample size of 92 patients was taken.

Sampling technique

Non-probability, convenient sampling technique was applied.

Inclusion criterion

Women who visited Gynecology Outpatient department and had more than one child.

Data collection procedure

Detailed structured questionnaire and check list was used to collect data. A face to face interview was also conducted. The questionnaire was translated to local language. The questionnaire was pretested in different settings. Closed ended questions with multiple options were used. All data was collected by research group. Questionnaire was rechecked by its researchers for its completeness.

Data analysis plan

The software version SPSS version 22.0 was used for the data entry, statistical calculations, tabulations and interpretation plus recording of the final results. Descriptive stats were applied on variables and their

frequencies were calculated. Means and modes of quantitative variables were also calculated using SPSS v 22. Chi square tests were applied to test the significance. Relevant charts and tables were used in this final report of the study.

OPERATIONAL DEFINITIONS

Home delivery/Birth

It is defined as a childbirth which is taking place in a non clinical setting using natural birth methods by skilled or unskilled attendants.

Multiparous

Woman who has given births to more than one child.

RESULTS

Proportion of home deliveries in multiparous women: Home births were reported as to be 73 out of total 285 children in the sample of 92 women who were interviewed. The proportion was found out to be 0.25.

Table No. 1: Frequency distribution of mothers according to occupation.

Occupational status	Frequency	Percentage
House wife	81	88.0
Working	11	12.0
Total	92	100.0

Inference: This table shows the frequency distribution of mothers according to their occupation and based on this research conducted, it is estimated that most of the women who were interviewed were house wives. Out of 92 women 81 were house wives.

Table No. 2: Frequency distribution of mothers according to educational status.

Educational status	Frequency	Percentage
Illiterate	14	15.2
Primary	10	10.9
Middle	15	16.3
Matric	30	32.6
Intermediate	15	16.3
Higher education	8	8.7
Total	92	100.0

Inference: This table shows the frequency distribution of mothers who were interviewed. Most of the women were educated up to matriculation level with the percentage of 32.6%. Out of 92 women 30 were educated up to Matriculation level.

Table No. 3: Number of children delivered at home and hospital.

Gestational age	Frequency	Percentage
Normal	263	92.2
Abnormal	23	8.0

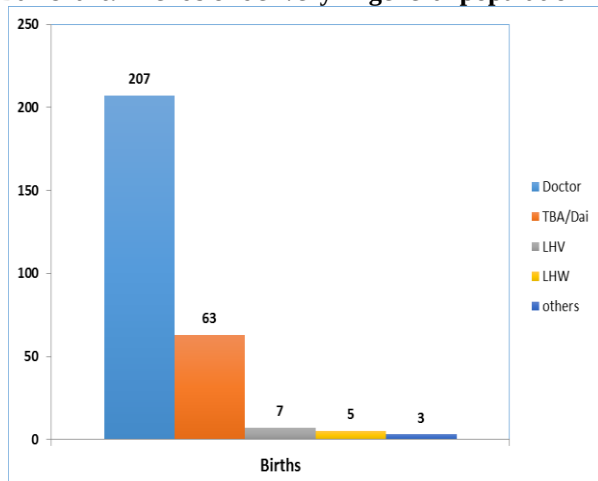
Inference: This table shows the frequency distribution of children who were delivered at home which was found out to be 73 out of total 285 children from the sample of 92 women who were interviewed, which is 25.6%, and the frequency distribution of number of children who were delivered at hospital was found out to be 212, which is 74.3%.

Table No. 4: Frequency Distribution of Children With Normal And Abnormal Gestational Age.

Frequency	Place of birth	Percentage
73	Home	25.6
212	Hospital	74.3

Inference: This table shows the frequency distribution of children who were born with normal gestational age is 263 out of total 285 children from the sample of 92 women who were interviewed. It is 92.2%. The frequency distribution of children who were born with abnormal gestational age is 23 out of total 285 children from the sample of 92 women who were interviewed. It is 8.0%. Most of the children were born with normal gestational age.

Bar chart: Trends of delivery in general population



Inference: This bar chart shows the trends of general population in their delivery methods by different medical personals. It shows that out of total 285 births 207 were done by doctors which is 72.6%. Trained birth attendant or Dai delivered 22.1% babies. Similarly Lady health visitor and Lady health worker delivered 2.4% and 1.7% respectively, birth by others like in emergency cases were 1.0%. So by this research we concluded that the trends of delivery were mostly shifted in the direction of hospital and doctor births.

Table no. 5: Relationship between educational status and place of birth.

Educational status	Place of birth		Total
	Home	Hospital	
Illiterate	14	04	14
Literate	10	64	78
Total	24	68	92

Inference: This table shows that according to educational status, illiterate women had more home deliveries than literate women. P value is 17.606 and it is insignificant.

Table No. 6: Relationship between complications in mother and place of birth.

Complications	Birth place		Total
	Home	Hospital	
Yes	9	4	13
No	15	64	79
Tota	24	68	92

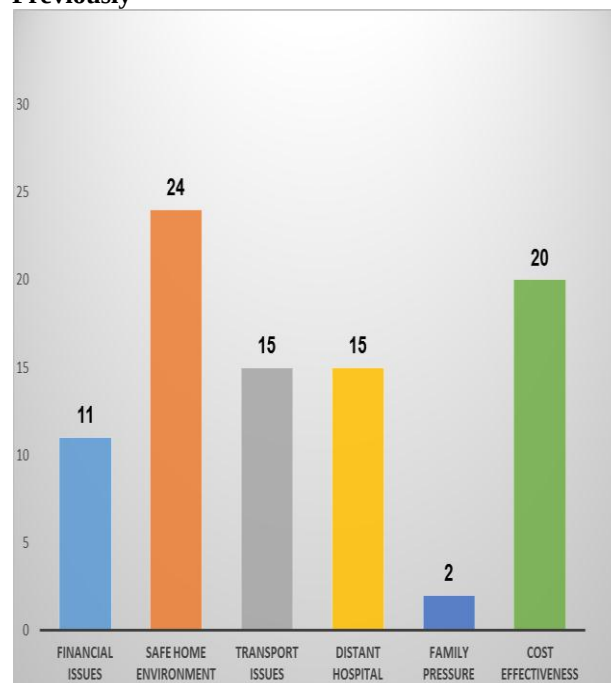
Inference: This table shows that the frequency of complications were greater at home as compared to hospital. P value is 14.615 and it is insignificant.

Table No. 7: Number of stillborn births at home.

Serial No.	Frequency	Percentage
1	4	100.0

Inference: This table shows the frequency distribution of stillborn births in multiparous women who were interviewed. The percentage is 1.4%.

Bar Chart: Factors For Choosing Home Birth Previously



Inference: This pie chart shows the frequency distribution of factors that lead to home delivery, among these factors Financial issues were 12.1%, safe home environment factor was 26.1% prevalent, similarly, Transport issues to reach hospital were 16.3%, distant hospital is another factor which was 16.5%, Family pressure was negligible as it is 2.2%.

Table No. 8: Hospital delivery advice.

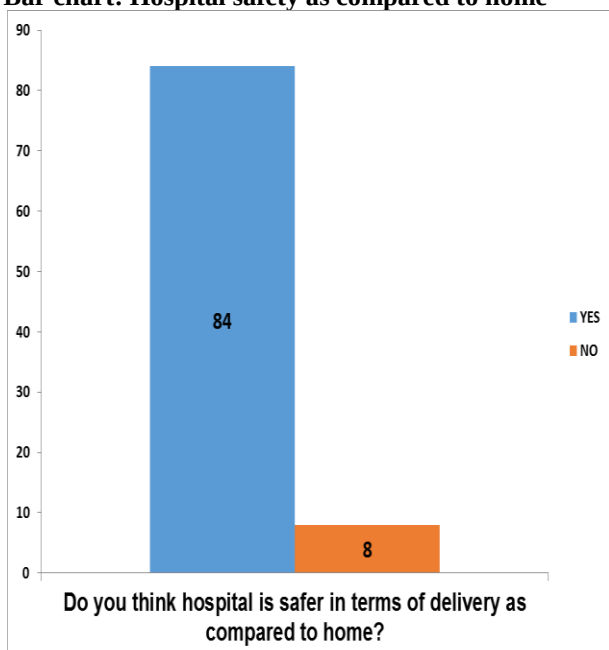
Hospital delivery advice	Frequency	Percentage
Friends	9	9.8
Family	66	71.7
LHV	11	12.0
LHW	2	2.2
Home births	4	4.3
Total	92	100.0

Inference: This table shows the frequency distribution of trends among our local population for hospital delivery based on the advises they take in their social circle and how much people are aware about the pros and cons of hospital delivery as compared to home delivery. This table shows that most women who went hospital delivery were advised from their family followed by lady health worker.

Table No. 9: Who referred you for hospital delivery?

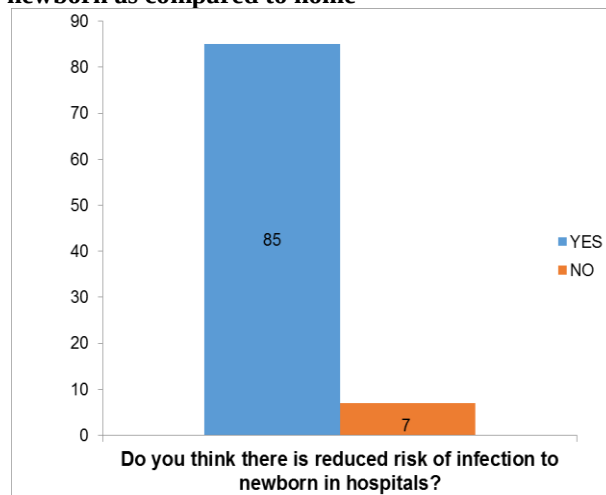
Hospital delivery reference	Frequency	Percentage
Doctor	63	68.5
LHV	15	16.3
TBA	3	3.3
LHW	7	7.6
Home births	4	4.3
Total	92	100.0

Inference: Frequency distribution of references for hospital delivery by multiparous women, this table shows that most women were referred from their gynecologist for their hospital delivery.

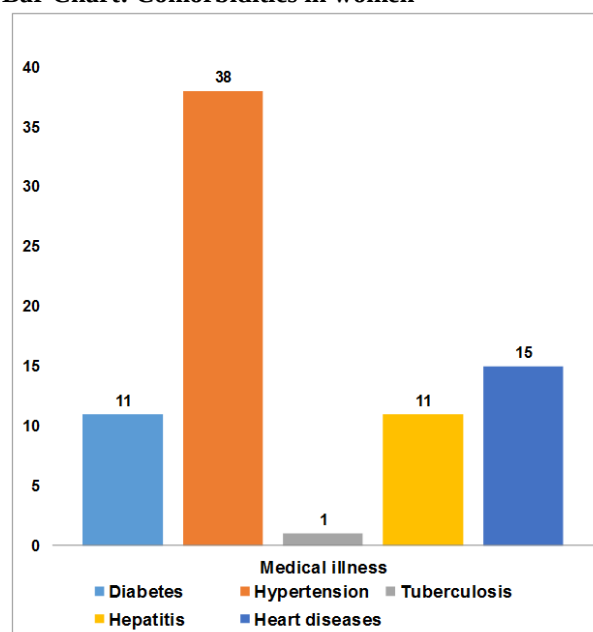
Bar chart: Hospital safety as compared to home

Inference: This bar chart shows the frequency distribution of hospital safety level as compared to home

for child deliveries, it shows that 84(91.3%) women out of 92 who were visiting outpatient department of gynecology ward preferred hospital as safer place for child delivery as compared to home.

Bar chart: Reduced risk of infections in hospital to newborn as compared to home

Inference: This bar chart shows that 85(92.4%) women out of 92 who were visiting gynecology Outpatient department thought that there is reduced risk of infection to newborn in hospital delivery as compared to home delivery.

Bar Chart: Comorbidities in women

Inference: This bar chart shows the frequency distribution of medical illnesses in multiparous women who were visiting gynecology Outpatient department. 11 out of 92 patients had diabetes which is 12%. Likewise, hypertensive patients were 41.3%, Tuberculosis patients were 1.1%, patients suffering from heart diseases were 16.3%, patients with hepatitis positive were 12%. 76

patients out of 92 had co morbid conditions as shown in the bar chart which is 82.0%.

DISCUSSION

In our group research conducted in the gynecology Outpatient department of Services Hospital Lahore, the frequency distribution of children who were delivered at home was found out to be 73 out of total 285 children from the sample of 92 women who were interviewed, which is 25.6%. It shows that out of total 285 births 207 were done by doctors which is 72.6%. Trained birth attendant or Dai delivered 22.1% babies. Similarly Lady Health visitor and Lady Health workers delivered 2.4% and 1.7% respectively, birth by others like in emergency cases were 1.0%. So by this research we concluded that the trends of delivery were mostly shifted in the direction of hospital. Various factors that lead to home delivery were: Financial issues (12.1%), safe home environment factor (26.1%), transport issues to reach hospital (16.3%), distant hospital (16.5%), Family pressure was negligible (2.2%).

A study has used Pakistan Demographic and Health Survey (PDHS) data collected by the National Institute of Population Studies (NIPS), Islamabad, Pakistan. Home-based delivery was over 4 times higher in 1990-91 compared with institutional delivery 5,465 (85.3%) vs. 852 (13.3%), and around 2 times higher in 2006-07 5,900 (64.7%) vs. 3,128 (34.3%). However, in 2012-13, the share of women delivering at home or health facility was roughly the same, i.e. 6,180 (51.6%) at home and 5,773 (48.2%) at health facility.

A household survey conducted in 20 union councils of Jhang in 2009 showed that 41% of women delivered in a health facility. The survey showed that differentials in institutional delivery were substantial: 61% of women in the first (wealthiest) quintile delivered in a health facility compared to 29% of women in the fifth (poorest) quintile. Further analysis showed that these wealth-based differentials remained significant even after controlling for mother's education and a range of other variables. These findings were consistent with Pakistani women's reports of the lack of affordability being one of the two main reasons for not delivering in a health facility.

Despite the existing intensive efforts to improve maternal health, the proportion of birth delivered at home remains high and is still the top priority in the rural areas. Not only individual characteristics of women, but also community-level factors determine women's decision to deliver at home and lower educational levels of mothers and their partners were positively associated with home delivery.

These reasons for home delivery are different for different individuals and community-level characteristics determine women's decision to deliver at home. At the individual-level, lower status of women and partners' education, making no or only a limited number of

hospital visits, higher parity, and inaccessibility of health facility in terms of distance are positively associated with home delivery. At the community-level, women living in rural areas, communities with higher poverty levels, and communities where distance to a health facility is big problem are more likely to give birth at home.

In our group research conducted in the gynecology outpatient department of Services Hospital Lahore it was found out that 212 children out of total 285 children from the sample of 92 women who were interviewed were born in hospital. It is 74.3%. In the research, the frequency distribution of mothers is according to their occupation, it is estimated that most of the women who were interviewed were house wives and most of the women were educated up to matriculation level with the percentage of 32.6%. The frequency distribution of children who were born with normal gestational age is 263 out of total 285 children from the sample of 92 women who were interviewed. It is 92.2%. The frequency distribution of children who were born with abnormal gestational age is 23 out of total 285 children from the sample of 92 women who were interviewed. It is 8.0%. Most of the children were born with normal gestational age.

Home delivery is associated with a very high risk of maternal mortality. Family tradition and poor socioeconomic condition of the family appear to be the main reasons for choosing to deliver at home. It is recommended that in order to make home deliveries safer, they should be conducted by trained midwives, who can conduct delivery in a clean and hygienic manner.

In the group research conducted by us, it was concluded that the number of children causing complications to mother during pregnancy out of 285 children was only 29. It is 10.1%. Most pregnancies were without complications and the frequency distribution of children who caused complications to mothers during their birth, out of 285 children only 12 caused complications during birth. It is 4.2%.

The awareness of the patient for hospital delivery among our local population for hospital delivery was based on the advice they take in their social circle and how much people are aware about the pros and cons of hospital delivery as compared to home delivery. This table shows that most women who went for hospital delivery were advised from their family followed by lady health worker.

In the group research the frequency distribution of children who had complications after birth, only one case was reported. It is 0.35%. The days and weeks following childbirth – the postnatal period – is a critical phase in the lives of mothers and newborn babies. Most maternal and infant deaths occur during this time. Yet, this is the most neglected period for the provision of quality care.

Poverty is the most frequently cited reason for preferring home delivery with a TBA. Other major reasons include; traditional views, religious fallacy, poor road conditions, limited access of women to decision making in the family, lack of transportation to reach the nearest health facility. Apart from these, community people also prefer home delivery due to lack of knowledge and awareness about service delivery points, fear of increased chance of having a caesarean delivery at hospital, and lack of female doctors in the health care facilities.^[29]

Our group research shows that 84(91.3%) women out of 92 who were visiting outpatient department of gynecology ward preferred hospital as safer place for child delivery as compared to home as a hospital is safer in terms of reduced risk of infections to a newborn as compared to home. Our research shows that 85(92.4%) women out of 92 who were visiting gynecology Outpatient department thought that there is reduced risk of infection to newborn in hospital delivery as compared to home delivery.

Various diseases are associated with pregnancy. In our research we focused on hypertension, tuberculosis, hepatitis and heart disease. The research data analyzed shows the frequency distribution of medical illnesses in multiparous women who were visiting gynecology Outpatient department. 11 out of 92 patients had diabetes which is 12%. Likewise, hypertensive patients were 41.3%, Tuberculosis patients were 1.1%, patients suffering from heart diseases were 16.3%, and patients who were hepatitis positive were 12%.

CONCLUSION

Several factors were identified for women who were not undergoing home delivery, among which the most important were unavailability of skilled birth attendants, and increased incidence of maternal and neonatal mortality associated with deliveries at home by Dai's or Traditional birth attendants. The burden on hospitals can be reduced if we emphasize the importance of skilled birth attendants for safe deliveries at home with the reduction of maternal and neonatal morbidity and mortality.

RECOMMENDATIONS

- The burden on hospitals can be reduced if we ensure the development of basic health units and rural health centers for the availability of skilled birth attendants so the focus from hospital delivery shifts towards home deliveries.
- Awareness programs for the benefits of home deliveries over hospital deliveries.
- It must be ensured that skilled birth attendants get induction training and periodic training sessions.
- Expansion of tertiary care hospitals to prevent burden of hospital deliveries.
- Training programs for women on basic health units and rural health centers for the course of lady health worker and lady health visitor.

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