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WHY HOMEBIRTH? RURAL SOCIETY'S PARADIGM OF THE DELIVERY

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ABSTRACT

Introduction: Pakistan is a country where home delivery is a cultural norm despite of high Maternal mortality ratio (MMR) of 178 per 100 000 live births (lb) (WHO, 2015).¹ These statistics become more worrisome when the disproportion between the rural and urban areas is compared. The rural areas have higher rate of home birth. The aim of this study was to explore in depth the prime rationale for home delivery norm in rural area of Sindh, Pakistan.

Material & Methods: A cross sectional study was carried out in 2015 in District Khairpur Mirs, Sindh, Pakistan. Trained interviewers used a semi-structured questionnaire to interview 439 women of child bearing age (18-45 years) selected through random sampling. The data were analyzed using SPSS version 20 and Microsoft excel.

Results: The mean age of the sample was 29.6± 6.9 years. Three forth (64.7%) of the respondents had no formal education, with half of the sample (51%) an agricultural background for earning. Two third (70%) sample had home delivery for their last baby. For almost half (53%) cases, place of delivery was a husband dominated decision, while prime reason behind was the trust on dais (70%) for their privacy, 64% distance from health care facility, half (49%) of the sample's reason was cost of hospitalization, (3%) following traditional values, and (12%) of them thought place of delivery is not important.

Conclusion: Home delivery choice was prevalent among 70% of the women of child bearing age (18-45 years), in District Khairpur Mirs, Sindh, Pakistan. Most of the reasons identified through our study, were cultural values, financial unaffordability and accessibility. Among these reasons culture bound impediments were sizable which included trust on dais (unskilled traditional birth attendants), husband dominated decision and family tradition. The distance from hospital was physical accessibility constraint while financial issue was also one of the leading causes for home birth preference. The findings of the present study cannot be generalized due to the limited sample. Still, the study provides evidence of paradigm related factors, being the main constraint of the cycle. Future research is needed to formulate compelling public health interventions to create awareness for paradigm shift to reduce high MMR in the low and middle income countries like Pakistan.

Key Words: Homebirth, Rural society's paradigm, Delivery

INTRODUCTION

An estimated 529,000 maternal deaths occur every year worldwide, almost all of them in developing countries.⁵ 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.¹ The high level of maternal mortality in developing countries has been attributed partly to the non-availability of services and partly to the poor utilization of these services when they are available. The immediate medical causes of maternal deaths are similar for women all over the world: postpartum hemorrhage, infection, toxemia, obstructed labor and septic abortions.² Ac-

cess to quality care during pregnancy and especially at delivery seems to be the crucial factor in explaining the disparity in maternal mortality and morbidity between the developing and the industrialized world. An estimated 90% of maternal deaths could be avoided, if adequate care was provided.³

According to the latest WHO survey 2015, the maternal mortality ratio of Pakistan is 178/100,000 live births. 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

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family 'dai' who is a well-known and trusted figure for the family, is easily available and is not very expensive.^{4,5} Child-birth is a risk-producing incident, which can be minimized through well timed and appropriate health care for women who experience obstetric complications.⁶ However, for effective interventions, it is important to identify the risk factors, which leads to home delivery especially in rural areas of Pakistan where most of the maternal mortality and morbidity is mediated through the place of delivery. Hence we are reporting the factors affecting the choice between home and hospital deliveries through our study. The current study was conducted at District. Khairpur Mirs Sindh, Pakistan, which mainly comprises of rural areas. Total population of the district is 2.32 million. Comprising 1.11 million (52%) of male population and 1.02 million (48%) females. Total child bearing age (CBA) in female population is 383,857.⁷ We selected two union councils of Taluka Thari Mirwah namely Baqi Khan and Tando Mir Ali, where population mainly depends on farming and labor for their livelihood.

SUBJECTS & METHODS

A descriptive cross-sectional study was carried out in 2015 (June 2015 to August 2015) on 439 women of child bearing age (18-45 years) living in District Khairpur Mirs, Sindh, Pakistan. The study sample was randomly selected from the area.

WHO sample size calculation software was used to calculate the required sample size. A minimum sample size (n) of 439 was required while taking 4.5% (b) bound on error of estimation, 95% confidence level (1-a), and assuming 65% prevalence (P) of home birth in rural areas of Pakistan. Therefore, a total of 439 women were recruited for the study. All females of age between 18 to 45 years of age, living in District Khairpur Mirs and willing to participate in the study were eligible for the study.

Data was collected through a semi-structured questionnaire developed through literature review. The data were entered and analyzed using Microsoft Excel and IBM SPSS version for Windows 20.0 software. Mean with standard deviation was calculated for age (in years) while frequency with percentages was calculated for qualitative scale variables.

ETHICAL CONSIDERATIONS

Informed verbal consent was obtained and all of the participants were informed about the nature of the study and use of the data prior to the interview. The participation of the women was voluntary in the data collection process. Participants were also ensured of confidentiality.

RESULTS

A total of 439 women of child bearing age (18-45 years) fulfilled the inclusion criteria and consented for the study after assurance of confidentiality of data. The investigators endeavored hard to complete the target sample because most participants were fretful of counter-accusation despite of anonymity assurance.

Socio-demographic variables including age, education, income and husbands' source of income have a significant influence on person's choice for place of delivery. The mean age of the sample was 29.6 ± 6.9 years. Table 1 shows, 207 (47.2%) of the participants had age between 27 to 35 years of age followed by 163 (37.1%) of the participants between 18 to 26 years.

Table 1 reveals 284 (64.7%) of the subjects had no formal education, while 20.27% completed their primary, 9.11% secondary, 3.19% intermediate and only 2.73% were graduate among them. All of them were unemployed and dependent on their husbands for finances. Regarding profession of their husband, half of the sample 225 (52%) had agricultural background for their earning, while 14.8% were Govt. Employee, 23% were Labourer and 9.95% were related to other occupations. About 200 (45.6%) of them had income less than Rs. 5000 per month. (see table 1) while 32.42% had Rs.5000-10000 per month and 21.92% had Rs.>10000 per month.

The data discloses that majority 308 (70%) of the births were at home (see Chart 1). Two hundred thirty four 234 (53%) participants' husbands decided where to deliver the baby and for 25.9% other family members decided. Only for 20.7% cases, women herself was the decision maker (see Chart 2).

Surprisingly enough accessibility was not a problem for almost one third, 157 (35.8%) of the subjects as they were residing at a distance between 1 to 6 km from health care facility but for two third 64% had accessibility issue as compiled in table 1. Cost of hospitalization was unaffordable for 215 (49%) (see Chart 3) and for 3% traditional and cultural values were the reason while for 12% believed place of delivery makes no difference in care, in table 1. Three hundred (68%) of the respondents delivered their babies by unskilled traditional birth attendants (Dais). However, 323 (73.6%) of the participants intended to have future delivery in a nearby health care facility.

DISCUSSION

The present study was designed to explore the rationale for home delivery norm in rural area among women of child bearing age of Sindh, Pakistan. Despite extensive efforts made over the past years to improve the maternal and newborn morbidity and mortality in the country, we found inadequate utilization of maternity homes and hospitals for delivery. Our study showed a very high frequency (70%) of

home deliveries among of the women of child bearing age (18-45 years) and 68% of them were attended by un skilled attendants, in province of Sindh which is in agreement with findings of a study conducted by Gani N in 2013, in the Khyber Agency, FATA, Pakistan, where even higher frequency (82.7%) of deliveries were at subject's home, and 7.1% at TBA's home.⁸ One of the study done in 2015 by Shamsa Zafar in which nationally, 29% of respondents expressed a preference for home deliveries (Sindh, Punjab, Balochistan and KPK).⁹ Our findings are also consistent with the studies conducted in Oromia region in Dodota district and in Ethiopia in which 81.8% and 79.4% of women gave birth at home respectively.¹⁰

As far as the rationale for preference to home birth is concerned, the situation analysis necessitates discerning it from two perspectives; Subjective and objective. Subjective reasons were stated by the women themselves and the objective assessment from the demographic and other factors. Subjective discloser by the patients pointed to two main factors; family tradition and unaffordability. The family tradition was testified by their trust on dais (unskilled traditional birth attendants), husband dominated decision and no importance of place of delivery. Unaffordable cost of hospitalization was due to low income and lower rated occupations of their husband. Our objective analysis of socio-demographic factors revealed that 94% of women were either illiterate or had primary schooling only. Studies from Sri Lanka and Bangladesh have also reported poor maternal education to be important risk factors for home delivery.^{11,12} Lack of affordability, and illiteracy can all be attributed to poor socioeconomic status. Studies from Nepal and Nigeria have also shown a significant relationship between the socioeconomic condition of a family and the place of delivery.^{13,14}

In our study, among other factors indicative of low socioeconomic, one was the distance to the maternity hospital as having a causal role for place of delivery. The most of respondents were of the view that health care facilities are at distance from their residence but the interesting thing to note was that even the one third of the respondents who had maternity hospital within their vicinity, were reluctant to utilize the services by giving an excuse of inaccessibility. Apart from this, for two third of the sample the accessibility was a genuine issue. Long distance from the maternity hospital was found to be significantly associated with home delivery and a linear trend could be seen.¹⁵ In Kenya, the most significant predictors of choosing home delivery (an informal delivery setting) are the distance from the household to the nearest maternity bed.¹⁶ Le Bacq, & Rietsema reported that hospital delivery in Kasama, Zambia seemed generally to be possible only for mothers living within walking distance of that institution, and that a dose-response relationship between distance and maternal mortality existed.¹⁷ By inquiring about resources and stress, Yantzi, Rosenberg, Burke, & Harrison studied the impacts of the distance to the hospital on families with a child suffering from a chronic medical condition.¹⁸

CONCLUSION

Home delivery choice was prevalent among 70% of the women of child bearing age (18-45 years), in District Khairpur Mirs, Sindh, Pakistan. Home delivery choice was prevalent among 70% of the women of child bearing age (18-45 years), in District Khairpur Mirs, Sindh, Pakistan. Most of the reasons identified through our study, were cultural values, financial unaffordability and accessibility. Among these reasons culture bound impediments were sizable which included trust on dais (unskilled traditional birth attendants), husband dominated decision and family tradition. The distance from hospital was physical accessibility constraint while financial issue was also one of the leading causes for home birth preference. The findings of the present study cannot be generalized due to the limited sample. Still, the study provides evidence of paradigm related factors, being the main constraint of the cycle. Future research is needed to formulate compelling public health interventions to create awareness for paradigm shift to reduce high MMR in the low and middle income countries like Pakistan.

RECOMMENDATIONS

1. Future researches are needed on this important issue for a paradigm shift.
2. Setting up of a well-organized awareness program for the women of child bearing age is recommended.
3. Guidance and counselling through Mass media should be provided.

LIMITATION OF STUDY

The participation in the study was voluntary so the data gathered for this study may not be generalized.

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CONFLICT OF INTEREST

We have no pecuniary or other personal interest, direct or indirect, in any matter that raises or may raise a conflict with our duties as researchers.

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Table 1: Demographic Characteristics of the Participants (n=439)

Variable	Category	%
Age (years)	18-26 Yrs	37.10
	27-35 Yrs	47.20
	>36 Yrs	15.70
Education level	Uneducated	64.69%
	Primary	20.27%
	Secondary	9.11%
	Intermediate	3.19%
	Graduate	2.73%
Husband's Occupation	Agriculture	52.08
	Govt. Employee	14.81
	Labourer	23.15
	Other	9.95

Table 1: (Continued)

Variable	Category	%
Distance from Health Care Facility	1-6 km	35.80
	7-12km	28.90
	13-17km	14.60
	18-23km	9.60
	>24km	11.20
Household Income/month*	Rs.<5000	45.66
	Rs.5000-10000	32.42
	Rs.>10000	21.92

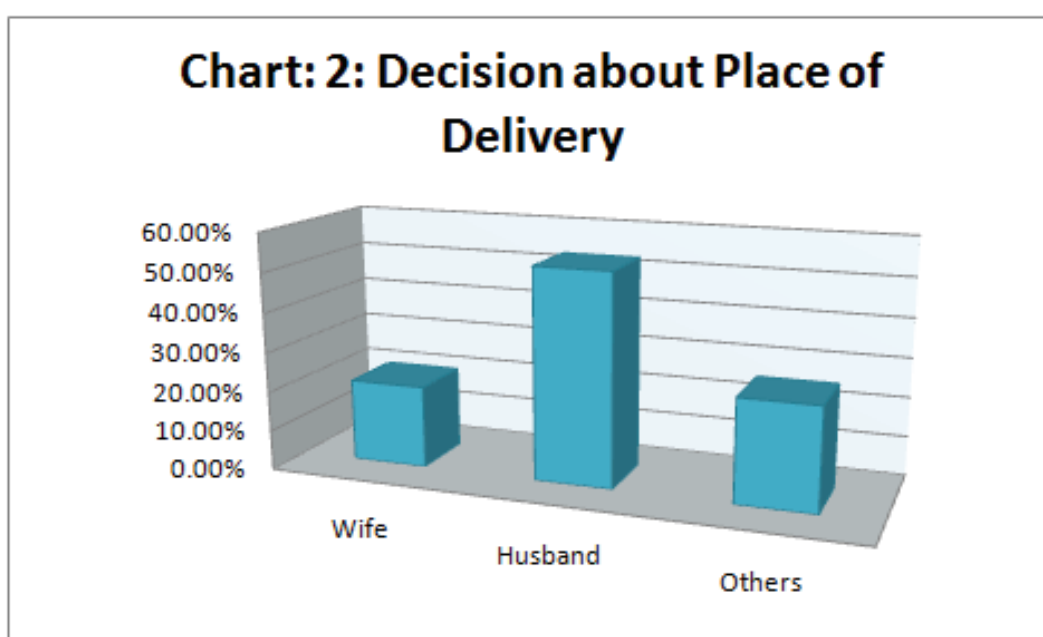
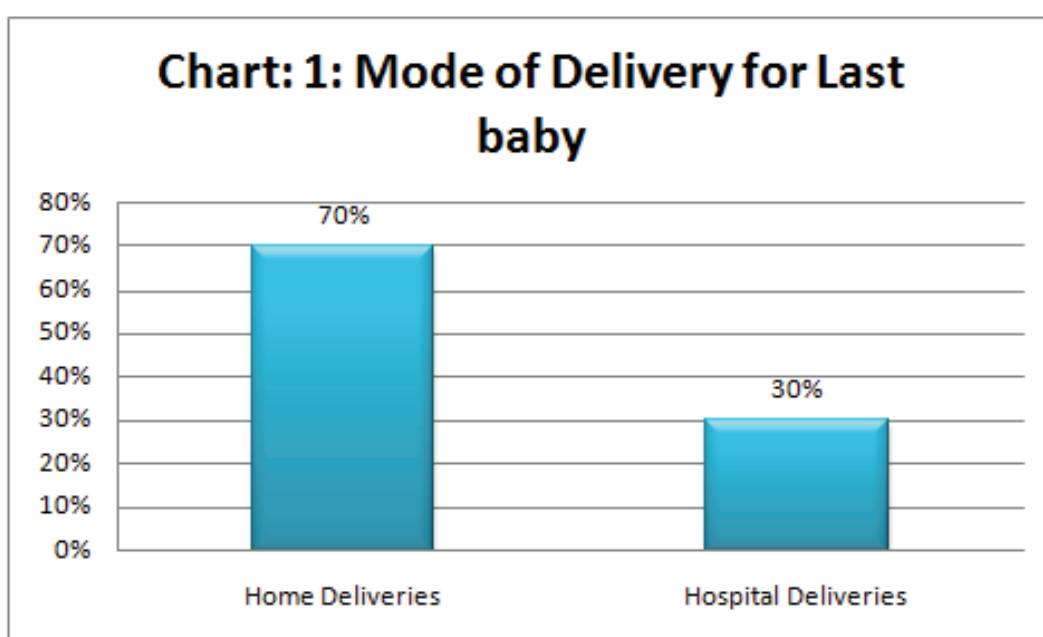


Chart: 3: Factors responsible for Home Delivery

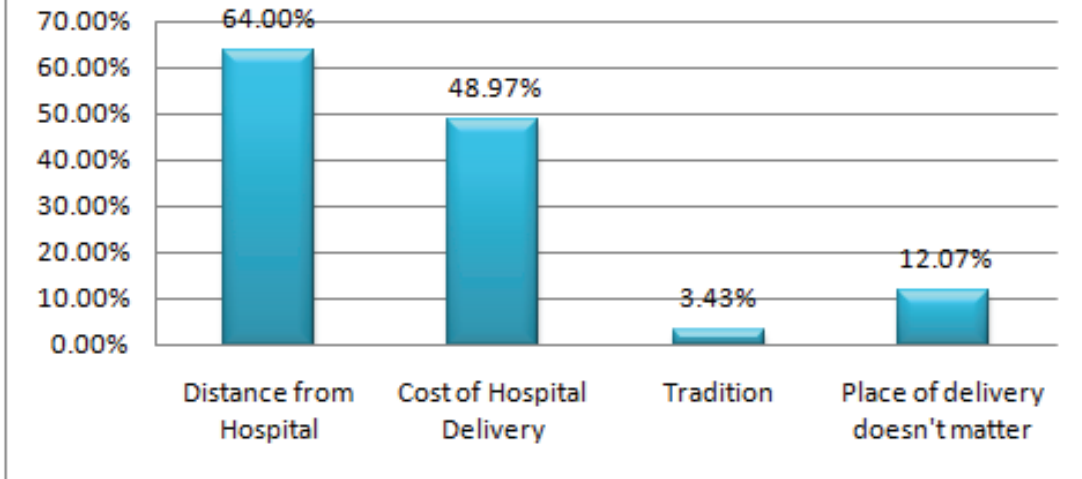


Chart: 4: Trusted Personel for Delivery

