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Barriers to Health Care Facility Utilization & its Management in Women Giving Birth in Urban Muzaffarnagar, India

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ABSTRACT

The Sub Saharan African countries constitutes nearly half of maternal deaths, and Southern Asian countries ranks as second of the total 85% death which occurs all over the world. Despite the fact there is rapid enhancement in the number of skilled health workers. There been a sharp increase of 53% in 1990 and 61% in 2007 in TBA utilization shows that the attention is being paid towards the management of labor services. But surprisingly, still the births take place without the assistance of trained health personnel in Southern Asian countries and in Sub-Saharan Africa. The objective of this study is toward the assessment on barrier to health care facility utilization and its management concerning to labor problems in urban Muzaffarnagar, India. The factor analysis was implied for the interpretation and analysis of the data. It was found the inadequacies in services as well as unawareness of services in almost all urban areas among the pregnant women. Monumental rise in the cost of services and corrupt behavior among the services provider rampantly found in the urban locations, inaccessibility of proper means of communication and also economic backwardness and low literacy became the impediment in the utilization of maternal healthcare services in Muzaffar Nagar, India.

Keywords: Unavailability of Services, Unawareness of Services, High cost of Services, Inaccessibility of Services and Corruption in Services

Most of the developing countries found it hard to meet the goal of the Millennium Development Goal 5 (MDG5), which was an attempt to reduce the maternal mortality at global level from high level MMR to low (WHO, 2010), most of the deaths can be prevented if predicted on time (WHO, 2010 & Ordonez E., 2008). More than 500,000 women every year die due to complications of pregnancy and labor and developing countries comprises of a whopping 99% of these deaths unfortunately. Almost 50% of these deaths occur in sub-Saharan Africa and around 35% in Southern Asia and as a result 85% in both regions. The pitiable situation around those areas is very alarming concerning to maternal deaths, and this phenomena may be a big threat around the world over. In developing countries although the rate of births attended by skilled birth attendant has been increase during 1990 to 2007 being 53% to 61% but unfortunately more than 50% births in South Asian and Sub-Saharan African countries still not attendant by a skilled birth attendant which is a big drawback in achieving the Millennium Development Goals (United Nations, 2010).

According to WHO, 2010 report the teenager maternal deaths between age 15 to 19 years girls toll to more than 70,000 due to early pregnancy in their life which also

leads the worry that around 60% of infant are at the risk of death because of the age of the mother is below 18 as compared to the infant if the mother's age is above 18 (WHO, 2010).

The maternal mortality ratio (MMR) in India is on a high side counting 136,000 maternal deaths estimated (UNICEF and UNFPA; 2004). The main causes of barriers to utilization of maternal healthcare services in India are cost of services, availability of services, awareness of services & corruption in services (Sample Registration System, Govt. of India, 2003). MMR for India was 254 by Sample registration system (SRS) 2006 estimate and came down to 212 per 100,000 live births by SRS 2009 estimate. Going by this pace we would achieve the MMR of 167 by the year 2013 and of 100 by 2017, far from the NRHM goal of 100 per 100,000 live births by 2012 or Millennium Development Goal of 109 per 100,000 live births by 2015 (SRS, Govt. of India, 2003). Mostly maternal deaths are recognized due to complications during labor and due to lack of prediction of the complications. If regular antenatal checkups, proper diagnosis, and management of labor complications are done on time most of the deaths can be prevented (Begum S. *et al.* 2013).

This study is an attempt to find out the barriers to utilization of maternal healthcare services and their management in Muzaffarnagar District of Uttar Pradesh, India. These issues can be sorted out by reducing corruption in services, availability of services, accessibility of services, by reducing the cost of services and freedom of making decision on time.

LITERATURE REVIEW

Lindsey Ann Lubbock and Rob B. Stephenson (2008) in their study tried to better understand the individual and community factors and perceptions that influence women's health care–seeking behaviours during pregnancy in order to increase women's utilization of maternal health services. This study investigates the logistical and sociocultural barriers influencing women's utilization of maternal health services through 37 semi-structured in-depth interviews with women from the department of Matagalpa, Nicaragua. Results reveal that delays in seeking health care during pregnancy are influenced not only by poor access to care and economic barriers but also by individual and community knowledge and acceptance of maternal health services. Partner support, previous maternal health care experiences, and the degree of communication with other women and health workers affect women's decisions to seek care. Evidence suggests that in order to improve maternal health outcomes in this region, interventions must be targeted at a hierarchy of levels: individual, household, and community.

Z. Khan *et al.* (2009) in their study found that pregnant women living in urban slums are a vulnerable group having limited access to urban healthcare facilities. Slums in the same city may differ from each other in their characteristics and health indicators. Hazardous maternal health practices are also common in the slums. Barriers to avail of healthcare services are well documented. This cross-sectional study was carried out in two urban slums of Aligarh to determine the existing maternal healthcare practices during pregnancy and childbirth and barriers to avail of these services. A house-to-house survey was conducted and 200 mothers having live births in the study period were interviewed. The main outcomes measured were intake of ante-natal care, natal care and post-natal care. Rates of hazardous health practices and reasons for these practices were elicited. Hazardous maternal health practices were found to be common in the slums. At least one ante-natal visit was accepted by a little more than half of the mothers but delivery was predominantly home-based in hazardous conditions. Important barriers to avail of the healthcare facilities included family tradition, financial constraints and rude behaviour of healthcare personnel in hospitals. Significant differences existed between the two slums. Barriers to utilization of health care services and facilities at the local level must be identified and addressed in district- level planning for health.

Chifa Chiang *et al.* (2013) in their cross-sectional study examined potential demand-side barriers to women's use of basic health services in rural southern Egypt (Upper Egypt). Face-to-face interviews with a structured questionnaire were carried out on 205 currently-married women, inquiring about their use of health facilities: regular antenatal care (ANC) during the last pregnancy and medical treatment services when they suffered

from common illness. Questions about their perceptions of barriers to the use of health services were categorized into three primary dimensions: structural, financial, and personal/cultural barriers. Distance and transportation to health facilities (structural barriers) prevented about 30 % of the women from seeing a doctor. Forty-two percent of them felt the difficulty paying for health services (financial barriers). Approximately a quarter of women answered that gaining family permission, allocating time to go to health facilities, or concern about lack of female physicians (personal/cultural barriers) was a big problem for them. After controlling for potential confounding factors, structural barriers showed an inverse association with the use of health services. Financial barriers indicated a strong association (OR=0.18, $P<0.001$) with the use of curative services (medical treatment), but not with the use of preventive services (regular ANC). Contrary to our expectation, personal/cultural barriers had no statistical significance with women's use of health services. Although the Egyptian government had successfully extended basic health service delivery networks throughout the country, women in rural Upper Egypt were still facing various barriers to the use of the services, especially structural and financial barriers.

Neelanjana Pandey (2013) in her study tried to explain the individual and community based factors that are the barriers for utilization of maternal and child healthcare services provided by government. A SWOT analysis to ensure the utilization of MCH care services was done to find out these barriers in selected villages of Lucknow district, Uttar Pradesh, India. Women change their decision on utilization of healthcare services due to the non supportive nature of husband and parents in law, bad experience with past health facility and social tradition in the village.

Onasoga A. Olayinka (2013) in his research explained that Nigeria is on the verge of not meeting the fifth millennium development goals of improving maternal health due to a high maternal mortality rate which is estimated to be 630 women per 100,000 live births and lack of utilization of maternal health care services is a major contributing factor. Hence, the study was designed to explore awareness and barriers to the utilization of maternal health care services among reproductive women (15 to 45 years) in Amassoma community, Bayelsa State, Nigeria. The study population consists of women of reproductive age (15 to 45 years). A purposive sampling technique was used to select the sample size of 192. Data were collected using a questionnaire and descriptive and inferential statistics were used to analyze the data generated. The study revealed that the majority of the respondents [182 (94.8%)] have heard of maternal health services but only few actually knew the main services rendered at maternal health care services. Regression coefficient showed significant association between educational status and utilization of maternal health care services (MHCS) among the respondents ($beta = 0.47$, $p = 0.000$); parity and utilization of MHCS ($beta = - 0.14$, $p = 0.016$); and age and utilization of MHCS ($beta = -0.19$, $p = 0.001$). The major variables associated with barriers to utilization of maternal health services among respondents were poor knowledge of the existing services, previous bad obstetric history; attitude of the health care provider, availability, accessibility and husband's acceptance of the maternal healthcare services. It is recommended that Government should subsidize maternal health services in order to make it affordable, acceptable and available to women. Also nurses should encourage women of reproductive age to utilize maternal health by providing a welcoming and supportive attitude at all contacts.

I.S. Yar'zever and I.Y. Said (2013) in their research paper stated that the use of maternal health care in most African countries has been associated with several socioeconomic, cultural and demographic factors, although contextual analyses of the latter have been few. Similar previous study in Kano showed that 64% of women with severe obstetric morbidity identified at different hospitals in Kano state Nigeria were in critical conditions upon arrival, underscoring the significance of pre-hospital barriers in this setting with free and accessible maternal health care. This cross-sectional descriptive study explored knowledge and Utilization of maternal health services among Urban and Rural reproductive women. The views of (n=1000) married women within the age group of 14 to 49 years were selected randomly both in urban and rural areas. In a two

point scale (good, poor), Knowledge of maternal health facilities and services generally show that urban and rural had extremely good knowledge of maternal health service and programs provided by the government with 99.0% of urban and 82.4% of rural. While overall, only 63.4% and 51.4% both urban and rural utilize health facilities and its programs. There was a statistically significant association between the respondents' level of education, income, age and their knowledge score ($p = 0.005$) for both urban and rural: knowledge of maternal health facilities was higher among those with formal education, high income and younger respondents.

Lama S & Krishna AKI's (2014) in their study aimed to explore the barriers in utilization of maternal health care services in eastern Nepal specifically to explore the reasons for not availing the services and to assess the indigenous practices regarding maternal health. An exploratory study design was adopted to elicit the information from the selected respondents from different villages. Focus group discussions and in-depth interviews were conducted. Data was transcribed and analyzed manually to identify themes. The barriers to maternal health care service utilization were identified as social factors like family pressure, superstition, shyness, misconception, negligence, illiteracy, alcoholism. Likewise, large family size, jobless, unnecessary expenditure on health services was identified as economic barrier. Some cultural practices were also found as barrier for not availing the health services. The study explored factors that are contributing in not availing the maternal health care services. The elimination of these barriers will facilitate quality of care and health outcomes. Therefore, the interventions should be developed and implemented to improve the health status of women and children. The result of this study can be utilized to draw the attention of local government, in strategic planning related to maternal health interventions.

Samira Saedi *et al.* (2015) said that despite the importance and value of the pharmaceutical market, significant portions of procurement spending including pharmaceuticals are lost. Coupling poor and reactive management practices with the inevitable national drug shortages, leads to lack of medicines causing patient suffering and direct life or death consequences. In this paper, they proposed a stochastic model to find the optimal inventory policy for a healthcare facility to proactively minimize the effect of drug shortages in the presence of uncertain disruptions and demand.

Stella O. Babalola (2014) in her study tried to assess factors associated with utilization of maternal health services (MHS) among women giving birth in Haiti from 2007–2012. Multilevel analytic methods are used to assess factors associated with use of antenatal services and skilled birth attendance (SBA). The strongest adjusted predictors include child's birth rank, household poverty, and community media saturation. The odds of obtaining four antenatal care visits decrease by 53% (odds ratio (OR) = 0.47; 95% confidence interval (CI): 0.37-0.57) with high birth rank and by 37% (OR = 0.63; 95% CI: 0.51-0.78) with household poverty, and increase by 38% (OR = 1.38; 95% CI: 1.01-1.88) with high community media saturation. The odds of using SBA at delivery decrease by 72% (OR = 0.28; 95% CI: 0.22-0.34) with high birth rank and by 42% (OR = 0.58; 95% CI: 0.46-0.73) with household poverty, and increase by 92% (OR = 1.92; 95% CI: 1.41-2.61) with high community media saturation. Use of antenatal services is strongly associated with SBA (OR = 2.20; 95% CI: 1.85-2.61). Significant clustering of use of MHS exists at the community level. Factors associated with use of MHS operate at multiple levels. Efforts to promote such services should identify and pay special attention to the needs of multifarious and uneducated women, address the distance-decay phenomenon, and improve access for the poor. Community mobilization efforts designed to change norms hindering the use of MHS are also relevant.

Krishna Kumar Deo *et al.* (2015) in their report explained that World Health Organization recommends at least four pregnancy check-ups for normal pregnancies. Ministry of Health and Population Nepal has introduced various strategies to promote prenatal care and institutional delivery to reduce maternal and child deaths. However, maternal health service utilization is low in some selected socio-economic and ethnic groups. Hence, this study aims to assess barriers to the recommended four antenatal care (4ANC) visits in eastern Nepal. A cross-sectional quantitative study was conducted in Sunsari

district. A total of 372 randomly selected women who delivered in the last year preceding the survey were interviewed using a semi-structured questionnaire. Bivariate and multivariate logistic regression analysis was carried out to identify barriers associated with 4ANC visits. More than two-third women (69%) attended at least 4ANC visits. The study revealed that women exposed to media had higher chance of receiving four or more ANC visits with an adjusted odds ratio (aOR = 3.5, 95% CI: 1.2–10.1) in comparison to women who did not. Women from an advantaged ethnic group had more chance of having 4ANC visits than respondents from a disadvantaged ethnic group (aOR = 2.4, 95% CI: 2.1–6.9). Similarly, women having a higher level of autonomy were nearly three times more likely (aOR = 2.9, 95% CI: 1.5–5.6) and richer women were twice (aOR = 2.3, 95% CI: 1.1–5.3) as likely to have at least 4ANC visits compared to women who had a lower level of autonomy and were economically poor. Being from disadvantaged ethnicity, lower women's autonomy, poor knowledge of maternal health service and incentive upon completion of ANC, less media exposure related to maternal health service, and lower wealth rank were significantly associated with fewer than the recommended 4ANC visits. Thus, maternal health programs need to address such socio-cultural barriers for effective health care utilization.

Meerambika Mahapatro (2015) in her research found that inequity in the use of health care services is an important factor affecting the maternal and child survival. In southern Odisha, India, the health indicators remained below compared to the state and national average. Her study identified various equity issues at individual and community levels that influence women's choice affecting the utilization of maternal health services in a district in southern Odisha. A qualitative study was carried out in Ganjam district, rural region of south Odisha. Ten in-depth interviews were carried out till data saturation with women having less than one year child and 10 focus group discussions with the average eight women in each group having less than five year old child, community and health care providers separately. A total of 120 respondents were included in the study using in-depth interview and focus group discussions. The important determinants in utilization of health care services by women emerging from the study were transportation and financial constraints. In addition, it was found that divergent etiological concepts and low perceived hospital benefits of the women and community were equally important determinants. Further, community had different perceptions and interpretations of danger signs influencing the risk approach and health care seeking behaviour. Findings show that to increase the utilization of health care services, the grass root health workers should be made aware of specific social determinants of risk, perceptions and preferences. More attention should be given to the transportation system, and its operational feasibility. The husband of the women and the elders of the family should be considered as an important unit of interjection. A more individualized antenatal consultation could be provided by taking into account women's perception of risk and their explanatory models.

RESEARCH GAP

Most of the deaths occur due to barriers and most of the barriers are due to lack of knowledge. Researchers have found many issues related to barriers in utilization of healthcare services but still we feel that many issues need to be addressed with lack of support from government at many levels. This study is a good piece of art which can highlight such issues.

OBJECTIVE

To assess the barriers to Health Care Facility Utilization in urban Muzaffarnagar.

RESEARCH METHODOLOGY

Sample Design

- A sample of "300" women has been taken for the purpose of study and analysis.
- Convenience sampling method has been used.

Data Collection Strategy

Data has been collected through:

(A) The personal interviews with mothers.

(B) Information gathered from Gynaecologists and Hospitals.

Tools

Factor Analysis has been used in the present study for analysing the data. According to Department of Information and Computing Sciences, Faculty of Science, Utrecht University (2010), Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables. Factor analysis can also be used to generate hypotheses regarding causal mechanisms or to screen variables for subsequent analysis (for example, to identify collinearity prior to performing a linear regression analysis).

Variables

The variables used in the present study are:

Table 1: List of Variables

Variables
Nurses Asking For Bribes, Registration Officers Asking For Bribes, Fear Disrespect From Nurses
Opinion of Natal Family, Opinion of Friends, Opinion of Community
Opinion of Husband, Opinion of Family In Law
Cleanness Facility, Availability of Nurse, Availability of Facilities
Understanding Where to Go, Time Lost in Waiting
Cost of Health Care, Additional Medicine Cost, Travel Cost to Facility, Time Lost in Travel
Availability of Transport, Availability of Doctors

ANALYSIS & INTERPRETATION OF DATA

Descriptive Statistics

Age at Pregnancy	<21 = 105	>21 = 195
Religion	Hindu = 90	Muslims = 210
Cast	Lower = 269	Upper = 31
Income	Low = 146	High = 154
Education	Low = 258	High = 42

Factor Analysis

There were a lot of variables which were responsible for inaccessibility and non utilization of many healthcare services. In this research 24 variables were used for the survey. Few variables had no impact on current research such as opening hours of facility, doctors asking for bribe, understanding compensation schemes and fear disrespect from doctors and quality treatment. Table 2 is an outcome of factor analysis using SPSS.

Table 2 shows 7 components with 19 variables which were responsible for the lack of utilization of maternal healthcare services in Muzaffarnagar. A corruption was found in the facilities because there nurses and registration officers asked for bribes. Women faced fear and disrespect from nurses. Opinion of husband, natal family, family in law, friends and community also was a barrier for the non utilization of healthcare facilities. There was lack of availability of services also as cleanness of facilities was not proper, nurses were not available and healthcare facilities were also not available sometimes. Due to lack of education pregnant mothers had lack of awareness that is why they did not know where to go after registration and wasted lot of time in waiting also. Cost of services was also a big barrier to utilization because some were not able to pay for health care services, additional medicine cost, travel cost to facility and time lost in travel also affected the healthcare utilization. Accessibility of transport to reach the facility and after reaching there the unavailability of doctors also jolts the access of maternal healthcare utilization.

RESULTS & DISCUSSION

The 300 women taken for survey were from different background, religion and educational standard ranging from 5th standard to graduate. Questions were asked from every woman and few of men and all were married. Followings facts were the findings of the study:

(i) Corruption in Services

At some level the patients face corruption in healthcare facilities like nurses asking for bribes, registration officers asking for bribes and they fear disrespect from nurses. Due to all these barriers women mostly hesitate to go to the facilities and prefer to utilize services at a very low basis.

Table 2: Barriers to Health Care Facility Utilization

Components	Variables			
Corruption in Services	Nurses Asking For Bribes (0.276596545)	Registration Officers Asking for Bribes (0.29969638)	Fear Disrespect From Nurses (0.298634338)	
Opinion of Others	Opinion of Natal Family (0.318399659	Opinion of Friends (0.318399659)	Opinion of Community (0.318399659)	
Opinion of Family	Opinion of Husband (0.270376148)	Opinion of Family in Law (0.30914951)		
Availability of Services	Cleanness Facility (0.309184538)	Availability of Nurse (0.303205958)	Availability of Facilities (0.406056469)	
Awareness of Services	Understanding Where to Go (0.454212963)	Time Lost in Waiting (0.557301551)		
Cost of Services	Cost of Health Care (0.564664692)	Additional Medicine Cost (0.280250323)	Travel Cost to Facility (0.168517109)	Time Lost in Travel (0.258798066)
Accessibility of Services	Availability of Transport (0.260657093)	Availability of Doctors (0.841712851)		

(ii) Hegemony of male in decision-making

Hegemony can't be said only by male but others too like parents in law, friends and false religious beliefs which prevent women in decision making by their own and utilizing the healthcare services adequately and on time on a regular basis. The decision making by other than women is a big barrier in utilising the healthcare services.

(iii) Availability Of Services

This is also found in the study that when the patients reached on the hospital they did not find the doctors or nurses on time even the healthcare facilities were not open on time on many occasions. The essential medicines given after delivery were also not found within the premises of the healthcare facilities so the attendants of the patients had to go out to purchase the medicines at a higher price.

(iv) Awareness of Services

Most of the men and women in the district of Muzaffarnagar are not highly educated that's why they are not generally aware of the services required during pregnancy. Due to lack of awareness of services many pregnant mothers were unable to visit healthcare facilities for ANC checkups.

(v) Cost of Services

At private healthcare facilities the services are out of reach of the low class families but at the government healthcare facilities the services are not up to the mark. At the government facilities the government is paying INR 1500 for rural and INR 1000 for urban patients who give birth at government health facilities but at private facilities nothing is paid and expensive treatment is advised. While the Indian government has announced INR 6000 for giving birth at government health facilities.

(vi) Accessibility of Services

The roads are not very good in the nearby towns so it takes long time to reach in the District hospital for ANC checkups. The cost of ambulance is also out of reach at many places and even it does not reach on time due to bad roads. Due to these issues most of the pregnant women travel in public transport which is very dangerous for the pregnant mother and the baby inside their womb. Most of the births take place without trained birth attendants because of the shortage of medical staff at the healthcare facilities.

CONCLUSION & SUGGESTIONS

The present study have found a lot of barriers like, corruption in services, hegemony of husband and others,

unavailability of services, unawareness of services, cost of services, inaccessibility of services should be removed from the system. First of all to reduce the corruption at different level like nurses asking for bribe or patient fear disrespectful behaviour due to non payment of bribes the ministry of health should send their people to check the condition of the hospitals time to time by surprise visits which will make a fear in the entire system of the hospitals. Other thing which is found is that women are not mostly free to make the decisions about when to go for the visit to the hospital or other healthcare facility without the permission of the husband of their in laws, to overcome this issue it is required that the Anganwadi or ANM workers provide basic knowledge to the families and community about the pregnancy related treatments and the importance of ANC visits on time without any hesitation. The men also should be provided knowledge of the healthcare facility utilization on time by giving mock drills or seminars by their related PHCs. Certain standards of cleanness are made by the NRHM at the healthcare facilities but due to lack of cleaning staff it's not up to the mark, so to overcome this issue more sweepers or cleaning staff should be appointed. The number of doctors or nurses are not as much as required that's why people are unable to get the service on time, to overcome this issue the government should increase the number of seats in medical college so that Indian healthcare industry particularly government sector may get more specialist doctors. Till the numbers of specialised doctors and nurses are not match the BUMS also should be given more chances at the healthcare facilities as government gave chances to BAMS. At most of the healthcare facilities the doctors prescribe private treatment at their clinics and prescribe medicines and pathological treatment at private pharmacy and laboratories and prescribe tens of medicines which are not required to the patients and it just make commission for the doctors, to overcome this issue a team of consulting doctors should be sent on PHCs time to time to check what kind of reports of the doctors and nurses are giving from the health facilities from their areas and if any corruption is found the Medical Council of India (MCI) should cancel the licences of such doctors. It is also found that mostly people are not much aware of where to go for certain treatment or what are the policies of the health facility, to overcome this issue the government should appoint more patient care officers under the RCH program, who can help the pregnant mothers in the health facilities and tell them things they did not know while they are waiting for their term to come, also try to reduce the waiting time for the patients which will only happen if the hospital have more number of doctors and nurses. The roads in the district are not very good and if the ambulance do not reach on time the pregnant women need to travel by public transport to reach to the health facility which is very risky, to overcome this issue the ministry of health, government of India should provide better service of ambulance with low cost because the private ambulances charges too much which is out of reach of the patients most of the times.

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