



FACTORS AFFECTING PRENATAL HEALTH CARE: A STUDY IN AN URBAN VILLAGE IN DELHI

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Abstract:

Maternal health care and its related statistics are not yet satisfactory in India contributing 25% of the total maternal mortality rate in the world. Only half of the women population in the developing nation receives the World Health Organization's (WHO) prescribed antenatal check-ups. Various factors such as autonomy of women, education, occupation and the level of awareness are responsible in conceptualizing the attitude towards seeking prenatal health care. The objective of this study is identification of women education and its relation to the level of health seeking behaviour. It also tries to examine the occupation of the women whether it creates awareness or grants them freedom of making decisions of their life. Methodologically, it is a combination of qualitative and quantitative methods of data collection. The study area of the research is New Chandrawal village located near Jawahar Nagar, New Delhi. Semi-structured interview schedules were used along with in-depth case studies. All the respondents (15) were pregnant and aged between 19-34 years. Education, occupation and attitude and extent of usage of prenatal care were recorded. Information was also captured from the medical service providers which included the doctors and the Anganwadi workers and ANM's/ASHAs to understand the doctor-patient relationship. Major percentage of the population in the village lives below poverty line (BPL) and are not the native of Delhi. Education level is low and so is the awareness level. Regular visits to their native villages make it difficult for the service providers to keep a track on the high-risk pregnant women patients. The education level of women is directly proportional to the attitude of seeking prenatal health care. Since all the respondents were housewives; so, the relation between occupation and health care seeking behaviour could not be established. Various governmental policies have been activated in the area but still the traditional beliefs of childbirth persist making the maternal mortality ratio into a large figure. There is a need to understand the gap between what's been given and what is being received.

Key Words: Prenatal Care, Trimester, Doctor-patient relationship, Education, Occupation

I. INTRODUCTION

Maternal health has always been a topic of concern for countries like India whose population is also increasing day by day. It is the fifth goal of the eight millennium development goals designed by United Nations. Globally maternal mortality has declined by nearly half since 1990, but still falls far short of the MDG target (United Nations, 2013). World Health Organization (WHO) reports the global maternal mortality to be 536000 each year, in which India contributes more than 25%, attributing to the failure in proper maternal and prenatal care. The International Conference on Population and Development (ICDP) held in Cairo, 1994 was the turning point of the reproductive health and maternal care where, 180 participant countries demand highest quality reproductive health postulating reduction in child and maternal mortality along with universal access to reproductive health services (Srinivasa, Shekhar and Arokiasamy 2007).

It is often considered that delivery is an important process in maternal health, but many ignored the steps that lead to safe delivery. Essential prenatal or antenatal care includes regular visits to the health centre during the 9 months before delivery and initial interventions for optimum bodyweight of the mother. Regular checking of mother's blood pressure, haemoglobin and provision for multivitamins and foliate supplements, tetanus toxoid (TT) immunization are the basic tests. According to the Millenium Development Goals Report (2013), half of the pregnant women in the developing region received minimum prenatal care from the four-visit model developed by the WHO.

This four-visit model by WHO was designed to fulfil the most important and crucial interventions during pregnancy. The four visits mentioned by WHO (2002) are given below:

First Visit

Once the pregnancy is confirmed, personal details of the patient are enlisted which comprises of age, marital status, education, working condition, economic status, house, sanitation, tobacco and alcohol consumption, etc. After this the medical history is checked which includes any specific diseases and conditions such as tuberculosis, heart disease, renal disease etc. Sexually transmitted diseases and HIV status are also checked along with the blood group. Next step deals with the obstetric history which confirms about the previous pregnancies, abortions, stillbirths, pre term births and complications which are important to be kept in mind before advising anything to the patient. Next step is the physical examination of the patient which includes body weight, signs of anaemia, blood pressure, measurement of uterine height and vaginal examination if required. Various tests are also performed such as urine test to diagnose bacteriuria and proteinuria, blood tests for syphilis and blood group typing for ABO and Rhesus factor. Haemoglobin level is also checked in case of severe anaemia. All these examinations are followed by the foliate and iron supplements. First dose of tetanus toxoid is to be injected to the patient. All these steps which are extremely important are subjected in the first visit of the patient. Besides this another important step in the process is counselling. Counselling regarding safe sex during pregnancy, fatal consequences of alcohol and tobacco, breast feeding and also mental, social and physical support to the pregnant lady by the partner and family members.

Second visit

The second visit is around 24-26 week in the second trimester. It starts with the physical examination which includes body weight and blood pressure. Tests are performed to diagnose haemoglobin level, uterine height, growth of the foetus and the movement of the foetus if felt. Symptoms such as vaginal bleeding, pain and vaginal discharge is to be observed and intervened. Tests conducted in the first visit with positive results are to be conducted again. Check on the consumption of foliate and iron tablets should be done and should be continued. Second dose of tetanus toxoid injection is to be given in the second visit. Smoking and alcohol habits are also to be kept under check. All the advices and counselling should be conducted again. Information regarding healthy diet and safe pregnancy should be given to the pregnant lady and the family members. In case of any complication or abnormality, the case should be immediately transferred to the hospital and should be treated.

Third visit

The third visit should be around 32 weeks in the third trimester. It also starts with the physical examination. The body weight should increase as directed by the doctor, if not should be considered abnormal and can lead to malnutrition mother and child. Blood pressure examination and haemoglobin should be checked if the symptoms direct towards anaemia. Test for proteinuria is conducted for those with a history of hypertension, pre-eclampsia. Uterine height is observed and other symptoms are diagnosed which indicates proper growth of the foetus, for example high haemoglobin ($Hb > 130g/l$) in absence of other symptoms may mean poor foetal growth. Identification of twins with proper positioning is also observed. In the third visit itself women are counselled to deal with the situation of labour pain and leakage of amniotic fluid. Women are also ensured to have a skilled attendant at the time of birth.

Fourth visit

The fourth visit takes place between 36-38 weeks of pregnancy. It again starts with the basic observation such as body weight, blood pressure, haemoglobin count and uterine height. Chances of vaginal or caesarean delivery are also looked upon and accordingly the advice is given. Specific symptoms associated with the delivery are also observed such as pre term pain, contraction or any kind of bleeding. It is expected that a women would deliver the baby latest by 41st week; in case of any delay artificial pains are to be induced. Counselling is most important during this visit in order to provide awareness to the woman along with the family members about the contraction pains and leakage of amniotic fluid. Other topics being discussed are about the postpartum, lactation, care of the newborn and the importance of breast feeding. Discussion regarding family planning and spacing between children is also conducted in this visit in order to spread awareness about the less talked issues.

Maternal health is not limited to biological health and well-being. Various factors are responsible in conceptualizing the attitude towards seeking prenatal health care. According to Leisinger (2008), a society faces insufficient medical care or health condition if there is a disconnect of the society with the 5'A model of availability, affordability, accessibility, adequacy and acceptability. The role of family plays an important role in dealing with maternal health care (Bang, 2010). Autonomy of women is the most important factor of prenatal health care, a woman who is accessible to information or resources, able to take decisions generally fare in determining better care. Women education, occupation and the level of awareness represents their degree of autonomy and its relation to health care as a priority.

There is a significant association between formal educational and individual health outcomes and risks such as mortality, smoking, drug abuse and accidents, (Baker et.al 2011). Education plays significant role in decision making, cause of diseases and curative measures, health seeking behaviour, better communication with the care providers (Elo, 1992), awareness about hygiene (Bhatia and Cleland, 1995), prenatal care (Tsegay et al, 2013). Occupation of women has a positive correlation between the socio-economic status and health seeking behaviour (Elo, 1992). It has significant association with the use of prenatal care and the place of delivery (Matsumura and Gubhaju, 2001). A study in Bangladesh shows that women who earned in cash chose qualified medical personnel when comparing with housewife (Chakraborty et.al 2003). The occupation of husbands also determines the degree of use of prenatal care, in an Ethiopian study man with non-farming sector tend to utilize more of prenatal care (Tsegay et al, 2013).

In India, there are three-tier rural health care infrastructure system. They are Sub-centres (SC), primary health care (PHC) and community health centres (CHC). The sub-centres are equipped with ANMs and Male Health Worker. Sub-centres are the first contact point with basic drugs and health check up facilities. The facility of a medical officer, staff members, beds, pharmacy, ANMs to provide preventive and curative health care is available at the PHCs. More facilities with intensive care support including critical illnesses treatment are available in the CHCs (MHFW, 2011).

In Delhi, currently there are 41 SCs, 8PHCs and no functional CHCs (Dhingra and Dutta, 2011). There are various programmes of Maternal and child health care such as Reproductive and Child Health (RCH 1997-2004; 2005); Janani Suraksha Yojna (JSY 2005), financial assistance of Rs.500/- per birth upto two live births to the pregnant BPL women who have attained 19 years; Janani Shishu Suraksha Karyakram (JSSK 2011), a scheme to reduce the out of pocket expenses related to childbirth; Community Health Workers (CHW), to involve local people who lives and closely work with the community on health issues, e.g. ASHA (Accredited Social Health Activist) workers.

II. PURPOSE OF THE STUDY AND ITS SIGNIFICANCE

The main purpose of the study was to capture the maternal health care scenario in the context of prenatal health care. Delhi, being the capital city of India becomes a vantage point for us to understand and examine the prenatal or antenatal care (ANC) reason being that accessibility might be more feasible than other villages or localities in other states. However, we need to engage with the real-life experiences faced by the people living in the urban villages. In our present study, we took an urban village in Delhi questioning on the socio-economic conditions and other social factors for the utilization of prenatal care services. It is significant as we also know that majority of the urban villages are also occupied by lower/middle income population or people coming from different states of India. Some of the queries are like what experiences do women of low

socio-economic status have, living in the urban slums of Delhi, with respect to accessing and utilizing maternal health care services especially during prenatal phase of pregnancy, and what are the factors influencing a good, bad or no utilization of prenatal health care services. What factors are mainly responsible for the accessibility and utilization of the ANC in Chandrawal? How is education and occupation in Chandrawal village related to the utilization of ANC? What are the government policies available with respect to ANC? Studying with some of the queries mentioned above will help us in gaining an overview of the utilization of prenatal care among the urban villagers and their major challenges and issues in dealing the prenatal care related services.

III. STUDY AREA

Chandrawal is a very good example of an urban slum. This part of Delhi clearly shows a disconnect between the developed part of urban Delhi and less developed parts of urban slums. With approximately 6000 households, this area holds the massive population of the immigrants coming from the neighbouring states majorly Uttar Pradesh, Bihar and Punjab. As a result, there are more people living on rent than as the house owners in this particular area. This village is majorly occupied by the low socioeconomic population living below poverty line (BPL). They are mainly employed as daily wage laborers, drivers, tailors, vegetable vendors etc. Those who own houses are dominantly from Delhi in origin and maintain a better living condition. They own their business as shopkeeper or small factory units majorly related to stationary products as the locality is also mainly occupied by the students from Delhi University. The price of rent varies from Rs. 1500 to Rs. 7500/-

Health care system in Chandrawal area consists of both private and government sectors. There are *six Aanganwadis* present in this locality each looking after about a thousand households. There were staffs of Aanganwadi and the *ANM's* working there. There is one maternity clinic named as *Jawahar Nagar Prasuti Griha* which is operating in the locality and exercising the policies framed by the government. They deal all the cases related to maternal and child healthcare but the complicated cases are again referred to a bigger government hospital particularly, *Hindurao* hospital. During the study, a total of 170 pregnant women are reported. There are few other private clinics located on the outskirts of the village; the area which is present at the border dividing the village from the Kamla Nagar area. Those who can bear the cost of private health care facilities visit the private clinics but none of them had the provision of delivery. The clinics present were for consultations along with tests, ultrasounds and other obstetric interventions.

IV. METHODOLOGY

The methods of data collection used is a combination of qualitative and quantitative data. A semi-structured interview schedule was used for the main data collection process while in-depth case studies were also conducted as per the readiness of the respondents. Some of the respondents were studied using revisiting methods for probing into the further details of the previous sets of conversation. The sampling method used for this study is purposive sampling as interviews were mainly conducted based on their availability in Anganwadi centres and those who were ready to respond in their respective houses for in-depth interviews. The total sample size of pregnant women interviewed is 15 ranging from 19-34 years. One gynaecologist (CMO) working in Jawahar Nagar Prasuti Griha was also interviewed. Anganwadi workers and ANMs were also interviewed. The data collection process for this study took place in three months duration from February to April, 2014. The interview was conducted focusing on four sections. The first section dealt with the general information of the respondents which included age, age at marriage, total number of pregnancies till date and number of pregnancy loss either due to abortion or miscarriage. It also gathered household information such as the total number of family members, earning members and dependents or liabilities involved. The BPL status could be checked through the card they had. Since the area consisted of population outside Delhi, the details of information such as house owning status either as own or rent was collected along with details of native place for those who are the migrants in the Chandrawal village, Delhi. The second section dealt with education, awareness level of the prenatal care. Education of a pregnant lady as well as her husband could provide the level of earning as well as decision making process, the level of hygiene maintenance and the outlook towards the traditional method of childbirth and the modern health care facilities. The third section probes further to the details of occupation and its implication on the family income, health and well-being. The fourth section focuses on the prenatal or antenatal care including the total number of visits, specific cases of complications encountered, the management of complex situations. It also captured the obstetric history including the type of delivery, vaginal or caesarean in the hospital by the attendant or the traditional dais, any

complication experienced during the previous childbirth. The shift in the way delivery practices is happened from the traditional means to the modern health care facilities and the reason for this change was also recorded. Quantitative data-based interviews helped in generating the correlations between the education/occupation and seeking prenatal health.

V. RESULTS AND DISCUSSION

5.1 Education and use of PNC among the Pregnant women of the Chandrawal Village, Delhi

Below are the details of the women respondents about their origin of place where 13.4% (pie chart) were from Delhi while the rest were from outside Delhi. The place of stay during the pregnancy and their origin of place become significant in this study as doctors opined that most of the pregnant ladies coming from outside Delhi ignored prenatal care due to their shift to the native places, most of the women were sent back to their respective villages from where they originally belong. Many of them missed the PNC and then following the traditional means of delivery causes maternal as well as child mortality or gives rise to complications. Another frequently observed scenario was that the wife permanently puts up in the village and comes to Delhi only for delivery. In the absence of PNC completely, these patients are flagged as high-risk patients who add on to the MMR of Delhi.

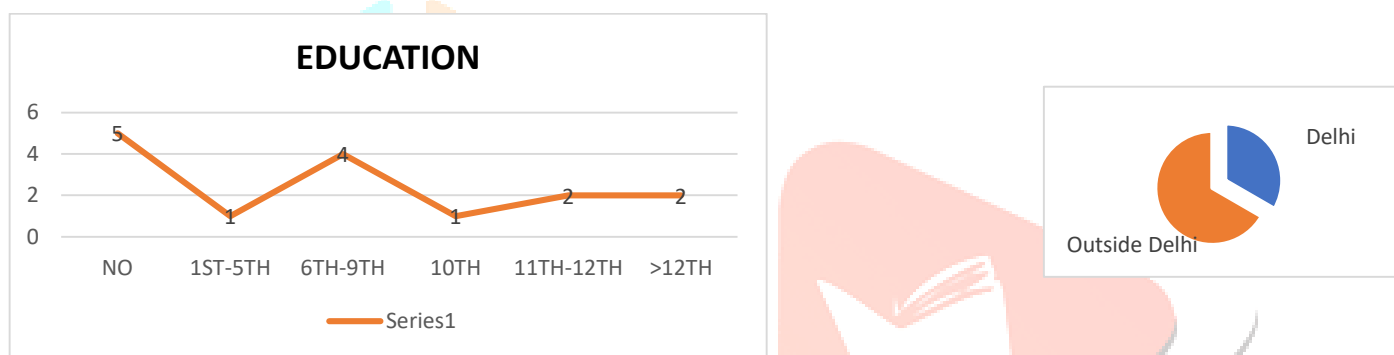


Figure 1: Education and Place of Origin of the respondents

Education is a very essential factor for the awareness of our health issues and the importance of the healthcare system. It gives us a modern outlook towards the matters which has always been looked as a matter of traditional process. From the above figure, it is known that **34% of the respondents have never received any kind of formal education**. Awareness was missing amongst the respondents which lead to chain reactions. The following figure shows a chain reaction to Maternal Mortality Rate (MMR) where education is one of the root factors to resolve the issue of MMR.

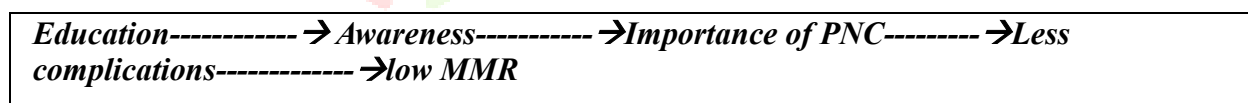


Figure 2: Flowchart showing relationship between education and MMR

There was generally an ignorant attitude towards the PNC. There was no change in the food diet after the onset of pregnancy. Late initiation of PNC lead to the late consumption of the folic acid tablets which are extremely important for the development of the foetus. Late realizations of abnormalities have led to unwanted abortions, blood loss and abnormality in development of the child.

5.2 Occupation and its relation to the use of PNC among the Pregnant women in Chandrawal, Delhi

Since the family selected for interview belonged to the BPL, most of the respondents are housewives. **94%** of the respondent population were housewife working the normal chores of house which wasn't that strenuous as they had very small place to live. Only **6%** of the respondents were found working as house help with very less amount of Rs. 1000/-or below per month. From the total household sample, **87%** of the families or households were below poverty line striving hard for the livelihood. Low standard of living was due to many reasons. Some of the major reason for them to economically challenging is due to large size of family composition with very few earning hands; major share goes in paying the house rent; lack of family planning etc. 74% of the respondents live on rent and rest owns house thereby providing little scope to manage other amenities from the meagre earnings the families made. From this study we know that there were no proper linkages that could be established between occupation of women and seeking PNC, however husband's occupation and income has a relation to the number of visits for seeking PNC.

5.3 Doctor-Patient Relationship

There was a gynaecologist working in Jawahar Nagar Prasuti Griha as Chief Medical Officer. According to her, all the pregnant women are initially identified in the area assigned to the individual Anganwadi. Then, allotment of Mother Child Tracking System (MCTS) number is used to track any of the pregnant women and if any one misses out the date of immunization or required visit, the hospital staff along with the ANM's tries to establish contact with the patients to remind them about the missed treatments. However, when a woman goes back to her native place, the efforts made meaningless. They tried counselling to unsure that the pregnant ladies stay back and complete the PNC treatment, however it was not helpful in majority of the situations as decision making lies at the hands of other members either the husband or father-in-law. Free medicine and tests facilities are the major reasons for the people attracted not the awareness to PNC (prenatal care). According to the doctor, she felt that hospital doctor and staff members' attitude should be empathetic and deal the vulnerable with care. Such care is more appropriate to those who comes during the delivery without going through proper prenatal care but by spending all her 9 months at her native village. They are usually shy, unaware of risks, no prenatal care was given and hence there is high risk associated during the delivery. If the doctors are indifferent to them, they might not turn again. A very frequent behaviour observed amongst the people of Chandrawal is the late initiation of the prenatal care (PNC). Only 33% of the studied population make their antenatal/prenatal visit within the first trimester, but a majority of 60% respondents make their first antenatal visit in late second trimester. There were 7% of the respondents making their first antenatal care almost by the end of third trimester.

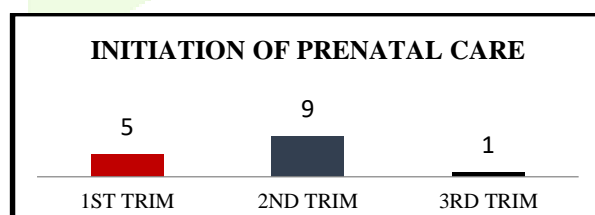


Figure 3: Duration of beginning the use of Prenatal Care

This result can be totally attributed to the unawareness amongst the population and the priorities in their life. Inclination towards the traditional methods is also one of the major reasons behind this. "Home remedies are the best" is the basic thought behind this entire process. This attitude aggravates the gap between the population and the modern methods of health care system. Availability and accessibility are not a problem here, the problem is *Awareness*.

5.4 Policies and Programmes available to Mothers

There are two main policies available for a healthy maternal care in the studied area. They are Janani Shishu Suraksha karyakram (JSSK) and Janani Suraksha Yojna (JSY). Both the policies are free services given to the pregnant ladies. JSSK mainly provides awareness, immunization programmes While JSY allows ambulance service to pick the patient and also drops back post-delivery. Free food and medicine is provided. JSY is exclusive to the fulfilment of one of the five criteria given by the government. They are age of the mother is 19 or above 19 years, the woman from SC/ST/OBC category, the woman from BPL, 1st or 2nd pregnancy, delivery in government hospital. All the available information about the existing programmes is provided by the Anganwadi workers or the ANMs. They work in the close network with the population of the Chandrawal village and the government maternity home. Their main work is to keep a track of the problems faced by the expecting women and new births and make them aware about all the policies and services provided by the government along with the information regarding family planning and the importance of PNC and proper deliveries. The ASHA workers expressed their challenges about people not following the instructions and advise given to them. The ASHA workers were simply considered as the medicine provider, not as a counsellor which they are actually meant to be. The workers age and caste matter a lot to the people. Since the community is not a fixed one and people keep moving in and out, it's difficult to work on with them. Womenfolk are hesitant sharing their details of pregnancy and family planning. Respondents were not happy with the work of the ASHAs. The respondents perceived the ASHA workers as inexperienced and non-available at times of need. Some of them complaint about indifferent attitudes of the ASHA workers to the Delhi and outside Delhi people. We therefore observed a gap between the health care provider and the receivers in the study at local level.

5.5 Statistical Data Analysis

All the quantitative data and its analysis took place with the use of SPSS 16 software for citing the Pearson's correlation. Education and utilization of prenatal care did not have any logical level of correlation of 0.327. Since only one out of 15 respondents was working, hence the occupation of women and its effect on the utilisation of prenatal care does not work in this particular study site. There was a positive correlation observed between age of the respondent and total number of pregnancies, value being 0.607. Economic status of the respondent had correlation with many variables. There was a positive correlation between the respondents and belonging to other states and BPL along with ownership of house, value being 0.510. A strong positive correlation was cited between the respondents from other states and owning a house, value being 0.853. There was a negative correlation found between the level of formal education of women and following traditional methods during the prenatal care, value being -0.592. This means more is the level of education less you follow the traditional means and use more of modern methods. Husband's occupation also had a positive correlation on the initiation of the prenatal care and total number of visits, value being 0.518 and 0.671 respectively.

Table 1: Pearson Corelation Statistics

N2 N1	Total no. of pregnancies	Initiation of PNC	Total no. of visits	Native of Delhi	Traditional Methods
Age	0.607				
Education		0.329			-0.592
BPL				-0.853	
Own House				0.650	
Husband's Occupation		0.518	0.671		

VI. CONCLUSION

Despite various advancement in medical sciences in India and Delhi in particular, there is lack of utilization of maternal health care services. Primary health care is interconnected with various factors affecting people with different socio-economic condition particularly the one belongs to BPL as the worse. In this study, availability of services does not remain as an issue but the awareness and networking felt to be the major concern. Education level is low and so is the awareness level. Regular visits to their native villages make it difficult for the service providers to keep a track on the high-risk pregnant women patients. The education level of women is directly proportional to the attitude of seeking prenatal health care. Since all the respondents were housewives; so, the relation between occupation and health care seeking behaviour could not be established. There is a need to train the community workers particularly on the sensitization of the identity and cultural background of the people coming outside Delhi. Free services provided are giving a helping hand to this village, however proper management is required through counselling and quality training of both the providers and receivers. In this study, the most important gap between the people and the safe motherhood is the lack of awareness and the ignorant attitude towards the importance of PNC. This leads to risks to both the child and mother. More awareness programs are required in order to make them understand the importance of prenatal care. Only by getting the delivery done in presence of attendants cannot curb the loss of lives due to ignored antenatal or prenatal health care and neither can we attain the target set by Millennium Development Goals.

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