



Chapter -8

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The basic objective of this study was to see maternal health status of women, to understand income is a major determinant of health.. Apart from the two objectives stated above children health and education was also looked upon which is quite related to the above mentioned objectives. In the present study an effort has been made to study the socio-economic status of the slums households, work participation rate and maternal and child health status of women and children in slums of Delhi. The specific objectives of the study are as follows

- To study Socio-Economic status of households in slums.
- To find out various problems related to female work participation in slums of Delhi.
- To investigate health and educational status of children in slums of Delhi.
- To investigate maternal health status of women in slums of Delhi.

Methodology

The database of the study is drawn from the survey carried out on 400 households in seven slum clusters in Delhi in the year 2013-2014 over a period of six months. In order to select sample households, two stage of stratified random sampling framework was used based on the DDA list, which gave complete details of all non-notified slums in Delhi. In the first step, Delhi was divided into seven zones on the basis of the 70 constituencies given in the Delhi Development Authority list. However, it may be noted that this list dates back to 1994 and over the years various clusters have either been removed or rehabilitated. In the second stage of the sampling process out of seven zones four zones were selected that is North, South, East and West and separate list of slums following within each zone was prepared.

Once the specific cluster from all four zones were identified on the basis of the random Sampling, the number of sample households was distributed using the

proportion of the number of household in each cluster to the total number of household in all four clusters as weights, thus arriving at 400 households across four zones. In all 1007 males and 990 females were surveyed within different age groups. For Women, weight and height measurements can be used to assess health risks. A widely used indicator of nutritional status is body mass index (BMI), which is defined as the weight in Kilograms divided by the height in metres squared (kg/m^2). However, there are commonly two approaches to assess the nutritional status of children one based on food intake and another based on anthropometric measurement. In both the approaches, an important and much debated issue is the norm or reference standard of Nutritional status. We have fixed international norm based on healthy population as recommended by the World Health Organization.

Research Design: Descriptive and Exploratory

Hypothesis

- Empirical Hypothesis: There is strong interrelationship between seasonal work deprivation and income of women on one hand and nutritional status of women and children on the other hand.
- Empirical Hypothesis: There is strong interrelationship between government waiving of fees and retention and completion of schooling for slum children.
Empirical
- Empirical Hypothesis: There is strong interrelationship between routine antenatal care and associated morbidity and mortality among women and children.

Tools for Data Collection

The purpose of making interview schedule was due to the fact that all the respondents were illiterate, and the data was required on many aspects relating to their economy and employment details. Since, the respondents were scattered in a wide geographic area and also the number of respondents were more, so the interview schedule method was considered most suitable. Further, the interview schedule was divided into four parts. Part I dealt with demographic variable,

part II meant for work force participation, part III for seeing the maternal health condition in slums of Delhi and part IV for child health issues.

Pre-testing of the Questionnaire

The questionnaire thus prepared was pre-tested with 75 samples from notified and non notified slums. In the light of experience gained in the pre-testing, suitable modifications were made before finalizing the actual instrument and then the final questionnaire was finalized.

Administration of the Questionnaire

As the respondents were illiterate the questions were asked to the respondents in hindi and the interview schedule was administered to female member of the family if not present then similar questions were asked to the male members of the family. The data thus collected from the sample respondents were coded, tabulated, analysed and presented in the form of tables. The findings emerged from the analysis of data were suitably interpreted and necessary conclusions and inferences were drawn. Statistical tools used for analysis of data includes frequency and percentages, arithmetic mean, standard deviation (SD), correlation coefficient, odds ratio, and conditional probability.

Salient Findings of the Study

- The number of male and female in slums declines drastically after age group of 40 to 49 from 19 to 9 %. For the age category between 50 to 59 years, it was 2.8% of the total samples. There was no person above the age group of 60 in the slums.
- The religion-wise distribution of population shows that almost 90% of the dwellers were Hindus and the rest were Muslims.
- An interesting correlation between family size and caste that exists is that irrespective of the caste categories, the general category has large household size (41.3%) as compared to SC and OBC.

- Most of the houses in both Non-notified and Notified slums around 78% and 70.5% fall in Katcha category while 21.5% and 6.5% belong to semi-pucca category.
- There are three typologies of card holding within the slum dwellers,, these cards are red, yellow and white, where the red card holders get 20 kg of wheat at Rs. 3 per kg, 10 kg rice at Rs. 4 per kg and 5 kg sugar at Rs 14 per kg. But for the yellow and white cardholders the scenario was quite different, where the ration given to these families depends on number of members in the family. The yellow and white cardholders get wheat and rice at Rs. 3 and Rs. 4 per kg per number of persons in the family.
- The condition of sanitation appears to be worst when it comes to access to certain basic amenities as only 28.8 % have toilet facilities within the premises of the house. Around 33.5% have community toilets, which are constructed by urban local bodies. Around 36.8% have shared toilet facilities.
- Around 58.05% of slum dwellers do not get water supply within their household premises while 41.93% of notified residents get their water supply within their household premises.
- It is important to note that around 50% of slum dwellers in Notified slums are non migrants while for Non-notified slums the figure is just 2%.
- Analysis shows that the probability of female being educated is .984 times less likely than males. This shows that female education over the years has increased.
- More than 47.8% women workers were employed in personal services followed by sales (13%), manufacturing (11.9%) and construction (11.9). However, for males the employment varied from sales (23.3%), construction (21.7%) and transport (14.3%) seem to be dominant occupations
- We infer that 80% of income is spent on food, expenditure on health is less than 8% and education is even less than 5% because their income from all sources is so less that the entire money is spent on food.

- It is very clearly evident that most of the families in Non-notified slums around 63.5% lie in low middle standard of living while only 3.5% live in high standard of living. However, in Notified slums around 51% of families live in low middle standard of living while 17.5% live in high standard of living.
- The relative odd shows that females have only .603 times probability of being employed while men have double probability than females of being employed due to household compulsions, seasonal availability of work which forces them to take work within vicinity.
- It is very much evident that men do travel long distances than females for getting wider opportunities of work. Among occupational category commercial services and activities (20 %), transport (40 %), tailoring and knitting (10 %), and construction sector (30 %) have maximum mobility up to 15 kilometres as these activities cannot be segmented to particular area or locality.
- It is clear from the data set, that most of the women do not participate in the labour market as they do not have enough skills, training, education and moreover household compulsions, which do not facilitate their entry into the labour.
- Across all nature of employment, we see immediate relatives (80%) and self mechanism (84.6 %) seemed to have played major role in finding job for males in slums while for females self mechanism is the only source of finding employment which also proves the fact that males do not support females working outside home.
- Seasonality was yet another important factor that affects women work and income quite sharply where certain period of the year was without any available work. Around 93% of women said that seasonality does affect income which has significant impact on the health status of women and children.
- Both the counterpart's male (10.26 %) and female (5.4 %) have low levels of skills while around (89.73 %) are employed in non-skilled activities.

- Another interesting point to note here is that around 22.7% of children had never attended schools. Even among the currently attending children, over-age is common phenomena.
- The relative probability of females to be educated shows that the probability of female being educated is .984 times likely to be educated when compared with males. This shows that female education status within 14 years of age group has improved over the years.
- Among females there are various kinds of communicable disease such as tuberculosis (11.3 %) and cough and cold (5.6 %) are mostly rampant. While among non-communicable disease various kinds of diseases Dengue (11.3 %), Malaria (16.9 %), Vision Problem (11.3 %).
- Among males the only kind of communicable disease tuberculosis (14.6 %) while among non-communicable diseases pneumonia (21.9 %), kidney problem (14.6 %), dengue (19.5 %) while other problem which are prevalent among female are vision problem (2.4 %), ENT Problem (4.80 %), stomach pain (2.4 %), epilepsy(2.4 %), heart problem (2.4 %), respiratory problem (4.8 %), brain problem (2.4%).
- Among one day mortality pneumonia (32.3 %) and prematurely (29 %) were major reason for the death of children. Among one week and one month mortality pneumonia seems to be silent killer among small children which reflects that proper care of the neonate did not take place after birth.
- Most of the children in slums are stunted, wasted and underweight which is prevalent in both male and female.
- There is positive correlation between per-capita income and nutritional status of women and children.
- While in slums 37.5 % of families exclusively breastfed their children. The exclusive breastfeeding here means non use of complementary food but not water. Only 24.8% of women gave colostrums to their newborn babies as there is misconception among mothers the first milk from the breast should not be give to the children as it is not good for the newborns.

- Out of 400 mothers only 60 % of mothers have breastfed their children once in six months. Around 50.3% of mothers said that they are comfortable with dais as they handle case more efficient than the trained doctors. Around 52.5% of mothers said that they have used sarso oil for removal of vernix caseosa which should not be removed immediately after birth but traditional birth attendants do that immediately after birth. Only 44.75 % of women said they have given their feed to children immediately after birth. Practice of giving first bath within 6 hours is significantly high as around 37.5 % of women said their newborn were given bath after birth.
- Out of 155 women in 20-29 age group category 27.1% have completed their third pregnancy. Out of 139 women in 30-39 age group 23.7% of women have completed their fourth pregnancy which means women in slums conceives at very early age and the parity between the children is very less. Lack of spacing between the children also results in poor health status of women in slums of Delhi.
- Out of 400 women interviewed only 75 women responded when asked about antenatal care services. Out of 75 women only 69.3 % of women have measured their weight during last pregnancy while 24% of women who made partial visit to facility have measure their weight and 6.7% of women did not pay a single visit to facility.
- Complications such as night blindness, blurred vision, swelling on legs and face, excessive fatigue and anaemia together amounted to 52.25% of complications which women faced during their last pregnancy.
- Majority of women reported complication such as excessive blood clots, foul smelling discharge and pain in lower abdomen as major complications during the postpartum period.
- Around 11.7% of women within different age group found to be underweight. While around 7% of women within different age group are severely underweight. Many of the women suffer deficiency in necessary vitamins and micronutrients to be found in fruits, vegetables, and dairy products.

Conclusion

The basic objectives of this study is to examine the socio-economic status of slum dwellers, maternal health status of women in slums, workforce participation rate, health and education status of children. The specific objectives of the study are listed as follows.

- To study socio-economic status of households in slums.
- To find out various problems related to female work participation in slums of Delhi.
- To investigate health and educational status of children in slums of Delhi.
- To investigate maternal health status of women in slums of Delhi.

The result of this study is rather interesting but unexpected as the socio-economic parameters shows sex ratio in slum is better than the national average that is 983/1000. The child sex ratio also shows that female child ratio is much better that is 1059/1000. Sanitation, drinking water and toilets are still major issues in slums of Delhi. According to this study, people that live in these slums are living in a 2/3 space with kutchha and dirty floors and poor ventilation as compared to the rural and urban population of the country, such living place is far from the concept of calling a place home. Another very important issue is related with sanitation, here there is no access to basic facilities such as toilets for females, they only have an option of common toilet in the vicinity which they reported that was always crowded with miscreants and such elements outside the toilets and hence they face lot of problem even in having right to use the existing toilets due to eve-teasing, stalking, starrng and many more kind of gestures by these elements. The other important issue that is associated with sanitation is drinking water facility. Though most of the slums receive water from municipality the timing and the quantity of water supply is still an issues. The pressure of water in most of these areas is very less which does not meet their total water requirementthus makes the life of the people more uncomfortable due to long queues to get water. The total water availability per households in these slums is just 2-3 buckets per household which is much below the water availability in any colonies in urban areas.

Another important issue facing these slum dwellers relates to the issue of water borne diseases and other related ailments. Some of the diseases that is related to poor sanitation are: Diarrhea, water diseases, parasitic worms/infestation and fecal oral diseases. Children are the most affected ones and because of these epidemics, there is a huge mortality rate of children. Poor sanitation has also led the children to get parasitic worms.

This study also concludes that the irregularity in women employment tends to make them more susceptible to vulnerability. A limited opportunity of work in a year leads to variation in income which in turn has severe health consequences not only for women but also their children. The nutritional status which is measured in terms of Body Mass Index for women and similarly for children in terms of stunted, wasted and underweight shows they are significantly associated with income. Income level has significant impact on access to health care. The poor often have little affordable health care. This paper put forward the view that no employment on regular basis makes their condition more vulnerable which has adverse effect on the health status of women and children. However, it can be said that people with higher income tend to enjoy better health facilities and their accessibility to health facilities increases. The study has also analyzed the employment issues of the women from slum clusters, which suggest that women earn less than men and their jobs were low paid jobs. They also get a lower wages practically in every occupation in the city; the women in slums do not have access to employment on regular basis which makes their condition even shoddier. The woman workers in low income households have also limited access to work, job market, and good working conditions. Thus, due to limited opportunities of work round the year they are forced to take up a variety of occupation whatever was available in the vicinity, which further makes them less specialized and without any skills.

It is noted that the structure of school education in Delhi is 5 years primary, 3 years upper primary, and 2 years secondary within the national framework of 10-year education. Age of admission is officially 5 years old. For example only 29.2% of children in standard 1 are 5 years old who are admitted at right age in the school while almost 71 % are over age for standard 1. During the course of survey it was not possible to obtain the date of birth of children which would have been the exact

criteria for the over age of children. However, the official age of admission has been taken to measure this overage issue.

Based on the household survey, there are few reasons put forward for the late admissions of children in slums of Delhi. Firstly, the administration related factors where parents are not aware of the formalities and admission procedures in the government schools because they themselves are illiterate. Secondly, most of the slum dwellers do migrate back to their native place along with the family, under compelling circumstances only the head of the family comes back to the city. Thus migration would prevent their family from obtaining either birth certificate or transfer certificate at the time of migration. One of the earlier such studies by Tsujita (2009) in slums pointed out that migration is likely to prevent children from continuously attending school due to occasional long visits to place of origin, and from understanding the language used at school.

Health problems and nutritional deficiencies among women and children are prevalent in most of the society in some or the other form. However, the problem becomes more sensitive and glaring when it comes to low income households especially slums. Women in urban slums are subjected to unhygienic conditions and impoverished situations which makes their life more challenging and problematic. In case of available services for low income household, it was found that when a service is perceived beneficial, families within the study area avail themselves of it, even though if it was against their tradition and beliefs. Routine antenatal care is generally not accepted with partial visit to the facility is widespread among females. However, non-institutional births remain the norm and routine postpartum care is hardly ever sought. The impediments to seeking care are cost including hidden cost of payment for supposedly free service, lack of education, problem of time and distance, perceptions of severity and the culturally unexpected ambience of nearby facilities. Thus, there is a clear mandate for improvement of series of procedures which women have to go through to access services but also interpersonal relations between women, their families and service providers in the slums. Another important factor which affect the health and nutritional status of women in slums of Delhi is put forth as follows women in order to cope from fluctuations of income within their household take up variety

of jobs which includes long working hours in often precarious conditions for low wage has become important phenomenon. Jobs tend to be irregular and tenure is insecure. The urban poor may work in factories settled nearby slums or work at home for piece-wage-rate, operate small shops or seek day work in construction. So, this study concludes that no employment on regular basis makes their condition more vulnerable which has adverse effect on the nutritional status of women and children. Women and their children nutritional status depend upon income which is affected by seasonality as there is no employment on regular basis. If these issues are addressed at the local level this would make momentous impact on the life of these slum dwellers. Women with employment and how well they are in terms of their nutrition when compared to women who are in adversity in terms of employment opportunities. Thus, it can be argued if women in slums are provided with opportunities of work round the year it will have a positive impact on health status of not only women but also their children.

Major recommendations of the study with suggested plan of action

- The condition of sanitation appears to be worst when it comes to access to certain basic amenities as only 28.8 % have toilet facilities within the premises of the house. Around 33.5% have community toilets, these toilets are constructed by urban local bodies. Around 36.8% have shared toilet facilities. We have divided total number of cluster population with the number of cluster in each specific area. This again is divided by the number of available toilets in particular cluster which have been surveyed to get per jhuggi ratio. The per jhuggi ratio is multiplied with average household size to get per toilet seat ratio. The Census standard says one toilet for five persons to maintain the hygiene condition. So, the per seat ratio was again divided by 5 in order find the exact shortage. Thus, there is urgent need for providing more toilets in slums Bardarpur (34), Wazirpur (34), Seelampur (48) and Motinagar (21).
- National Commission on Urbanization recommends distribution of 100 lpcd (litre per capita daily to the slums dwellers. The average household size of the studied slums is 4.9 and hence the total water requirement per household is 490

lpcd where as, the per day water supply is only 50 lpcd hence, there is a deficit of almost 300 lpcd daily per household per day. The study recommends that the deficit may be fulfilled on urgent basis.

- Migration and lack of birth certificates of children within families especially emerged out to be one of the most prominent reasons for school dropout. Many families were not traceable due to frequent migration to their native place. Around 15.5% of children in slums have ever attended schools and around 22.7 have never attended schools. Hence, the admission process for government schools for slums should take cognizance of this matter and liberalise the admission process for such groups. Hence, this study recommends that for these kinds of school drop outs there is need for skill training and vocational facilities. This will lead to enhance their capabilities for more employment opportunities.
- Women play a decisive role in not only maintaining nutritional balance within the household but also act as the major determinant of nutritional status within household for all members of the family and especially small children. Around 93% of women said that seasonality does affect income which has significant impact on the health status of women and children. There are two arguments within this. First, work is available within seasons and even within seasons it is not available throughout the year. This leads to variation in income which increases the vulnerability of women and children in slums as it impacts their health directly. This study suggests that NGO's and other civil society bodies should intervene in order to provide similar opportunities round the year for women.
- Out of 400 women 113 women did not made any OPD visit in 3 months preceding the survey even if reported problem during pregnancy.

Hence, all stakeholders working to help improve antenatal care for such areas should focus on such less privileged places like slums to teach mothers about antenatal, intrapartum period and post partum period services because most of them are ignorant about these services. There is urgent need for counseling

among women for undertaking different care during the conception period to avoid future complications.

- Analysis shows that the probability of female being educated is .984 times less likely than males. This shows that female education over the years has increased but the data shows that there is urgent need for providing more incentives for females as after 15 years of age group they are dropping out of schools. There is need on the part of the government to increase more scholarships for female children so that their enrollment increases after 15.
- One of the greatest problems for India is under nutrition among children. The country is still struggling with this problem. Malnutrition, the condition resulting from faulty nutrition, weakens the immune system and causes significant growth and cognitive delay. Growth assessment is the measurement that best defines the health and nutritional status of children, while also providing an indirect measurement of well-being for the entire population. This study indicates apart from females, male are also found to be stunted ,wasted and underweight so focus should also go on males folk in terms of nutrition.
- Women in slums do not register themselves for antenatal services as the result of which they lack kind of care that is provided to the pregnant women during the initial phase so that the rest of pregnancy is without any complications very few of them register themselves for the said services thus inviting complications for them. This results in worsening of health and nutrition status of women as 7% of women who are underweight around 36.38% of women are obese as they lack essential care during pregnancy.