Abstract—This research has explored the health status of women from the slums of Chennai city Tamil Nadu State. In fact, most of the slums in the city of Chennai in general do not have proper sanitation facilities. Therefore, they attend the call of nature by going behind the bushes situated alongside railway tracks. Women prefer to go for open defecation under cover of darkness, either late in the evening or early morning. Environmental scenario in slums is usually unsafe and therefore, it is a matter of concern as it poses serious threat to the health and wellbeing of slum dwellers in general and pregnant women and lactating mothers in particular. The study brings out the reasons for the rising health problems faced by women in slums due to general environmental condition, lack of potable water supply, sanitation system and poor nutrition (Panda 1993). The study analyses various other reasons associated with poor living condition of the women and its impact on the health of the slum population. Interview Schedule was used to elicit the primary data from 80 women from 4 informal settlements in Pudupet area of Egmore. This study adopted descriptive research design to understand the general health conditions of women and also explain their health status and health seeking behaviour. The unhygienic environment of the slums and lack of basic amenities affect the health and wellbeing of the slum dwellers in general and women and children in particular. Normally, women do not take healthy diet as they have to take care of their family members, particularly their children. Lack of healthy diet and nutritional foods greatly affect their health. It is due to poverty, women take rice mostly obtained from the ration shops. This study clearly reveals that women’s poor health status is mainly because of early marriage, early pregnancy and improper pregnancy spacing. Moreover, the study discloses that more than 36% of women have more than three children. A whopping 87% of the women delivered their first child before the age of 21. As women are less educated, their level of awareness on health and wellbeing is also very low. Therefore, findings of the study suggest that the problem of the poor living conditions of women have to be addressed by the health departments, government agencies, Chennai corporations and slum clearance board.

**Key words:** Slums, Health Status, Sanitation, Unhygienic Environment, Wellbeing, Pregnancy Spacing, Primary Health Care Centres

I. INTRODUCTION AND CONTEXTUAL ANALYSIS

People who have been residing and still continue to take their shelter in slums in India is mainly because of below the poverty line (Srinivasan, 2007). According to the government sources, the slum population of India exceeds the population of Britain (Population Census of India 2011). It is obvious that increase of population has resulted in the growth of slums in all the major metropolises of India (Jha, 1995). Though India is said to be one of the fast developing countries, it suffers from the problems of increase in slums and the poor health of slum dwellers (UN-HABITAT, 2006). Migrants from rural areas do continue to come to city every year in search of jobs, leaving their old parents and children in their native places (ESCAP, 2007). Such people who come to Chennai city to eke out their livelihood are forced to live in crowded places near railway tracks, under the flyovers and along the banks of the Cooum River (Gulis, Mulumba et al. 2004).

While the migration from the rural districts happens due to failure of monsoonal rains, those from the other states are drawn to the higher wages paid in the city (Hossain et al, 2003b). The spread of slums is also due to unchecked, unplanned and haphazard growth of industries giving way to creation of concrete jungles in the urban areas. The rapid urbanization in the entire metropolis of India also resulted in the rapid growth of slums. (Latif Fauzi, 2007).The slums have thus become an integral factor that affects the environmental structure of Indian cities. (TCPD, 2006).It is common that slums named Thideer Nagars are found in multiple places in the city of Chennai. Therefore, most the slums of such name are located on the banks of the Cooum River, around the bus stand, near and also alongside railway tracks, or underneath flyovers.

**Environmental conditions as well as socio-economic backwardness are increasingly becoming responsible for the poor condition of health among slum dwellers (Taru and WEDC, 2005) in Chennai city.** It is commonly observed that the health status of the people in slums is below par, particularly that of women and children as they are the most vulnerable sections of the society (Ameratunga, Hijar et al, 2006). Most often, men in the slums are not interested in the health of their women or their children. Men show little attention on the health status of their family members. Therefore Lack of ‘family planning’ combined with illiteracy has only made matters worse. It is observed that most of the families have more than two children. Not all children are sent to school. The vast majority of the children drop their school education before completing grade XII. Therefore it is very essential to analyse in detail the factors leading to the low health status of women living in slums.

II. OBJECTIVES

1) To identify the important responsible factors for the poor socio-economic condition of women in the informal settlements of Chennai city.
2) To analyse the various factors affecting the low health of women living in the informal settlements.
3) To highlight the pertinent threats to the health status of slum women during the antenatal and postnatal periods.
III. HYPOTHESIS

1) Low educational level of women in slums is closely associated with their low socio-economic and poor health status.

2) Heath status of women is positively associated with the availability and utilizations of health care facilities.

IV. RATIONALE OF THE STUDY

With the expanding population in Chennai city, the impact of urban living on human health is now a growing concern. The rapid growth of slum populations in Chennai is an increasing challenge for local health authorities and therefore it deserves an intensive investigation. Slums have often been observed to be areas of concentrated poverty, which comprise a social cluster that engenders a distinct set of health problems. So, it is of utmost importance to ensure health services for these growing numbers of city dwellers, especially the women residing in the slum of Chennai city which is the fourth major metropolis in India. The neglected slum population has become a major reservoir for a wide spectrum of health issues that endangers the health of women. People residing in informal settlements face numerous problems such as: improper sanitation, unhygienic environmental conditions, social neglect, economic deprivation, poor health, educational backwardness and prevailing cultural problems and many more. The basic problems inherent in slums are mainly the health hazards. Lack of basic amenities such as: safe drinking water, proper housing, drainage, and sewerage disposal services puts the slum populations as more vulnerable to infections. Poor sanitary conditions and poor quality of water lead to illnesses like diarrhea and other water borne diseases, affecting their health to a very greater extent (Dziuban, Liang et al, 2010, and (Graf, Meierhofer et al. 2008). In dense, overcrowded urban conditions it is often difficult for people to find space to build latrines. Many have to defecate in the open space or share whatever limited facilities are available which tend to offer no privacy, safety or hygiene. Human waste and refuse deposited in stagnant pools spread disease and contaminates water sources. This problem is made worse during the rainy season.

V. METHODS AND MATERIALS

The researcher has come across from the field survey that not only health departments of Chennai city, but also articles published so far and so forth highlighting the health status of women in the informal settlements in the city of Chennai do not have any authentic data. Therefore, this study documents the findings based on the primary data. The researcher used the descriptive research design to document right from the age of marriage of women to pre and post natal care of women. Also, this study is descriptive in nature, as it reveals the important information on the health awareness of women. Using the non-probability sampling, the researcher applied the convenient sampling in four informal settlements namely Goyyathoppu Housing Board, Koyyathoppu Street and Aiyasamy Street of Padupet area and Varadharajapuram of Egmore area in Chennai city. The primary data was collected from 175 married women in the age group of 19 to 40 during the month of January, February and March 2015.

The tool for the data collection was mainly the interview method.

VI. PROFILE OF THE RESPONDENTS

Socio-economic condition of a society, generally, decides the health status of the people. The study reveals that the vast majority of the participants (95%) are literate but their educational status is dismal. Among the literates, 22 per cent of the women had completed III grade and 14 per cent of the women had completed V grade. Most of the respondents (31%) had only completed VIII grade, 15 per cent of the respondents had passed XII grade and only 7 per cent of the respondents (13%) had completed X grade. Of the total interviewed, only 52 per cent of the women are going for a work and others are at home, doing household chores in their home itself, taking care of elders in the family and upbringing their children. Of the total women employed, it was found that 24 per cent of women are employed as cooks in others’ households, earning a monthly salary in the range of Rs.5,000 to 6,000 and the remaining 28 per cent of the women are employed as housemaid or domestic servants, doing the work of cleaning vessels, mopping houses and washing clothes in apartments and these women are earning a monthly salary of Rs.4,000 to Rs.5,000. Hence, the study reveals clearly that the social and health status of the people in slums mainly revolves around their economic conditions of the family in which they live. Documenting the life style of women in the informal settlements, this study reveals the truth that women have to toil hard for long hours to earn money mainly by doing household chores and again take up their normal course of work in their own houses. Finally, the women who are employed expressed their feeling that in spite of working for very long hours, their remuneration is very low.

VII. ASSESSMENT OF HEALTH STATUS AMONG THE SLUM WOMEN

Based on the 10 years work experience of the researcher in slums in the city of Chennai, the researcher studied the impact on health aspects of women in the areas of age of marriage, age at first birth, spacing between pregnancies, number of children, the place of delivery, pre and post natal care, food habits, sources and usage of drinking water, types of infections, the level of health awareness and health seeking behaviours.

A. Age of Marriage

The age of marriage for the women residing in the informal settlements of Chennai city is a key factor in understanding their health status. This study reports that only 9 per cent of the women had married before 18 years of age and 17 per cent of the women had married after 21 years of age. About three fourth of the women (74%) had married between 18 - 21 years of age. During the survey and also a discussion with elders in the informal settlements, the researcher learned that ‘a lot of young girls are influenced by films etc and therefore they either elope and get married very early or under pressure from elders, agree to early marriages, so that parents can be relieved. Very little encouragement is given for education of girls, even if they are interested. Boys on the other hand are pampered and most of them become loafers due to lack of education. This itself is a vicious
circle, because it is these boys who determine the fate and well-being of their future wives”.

B. Age at the time of First Birth

It is medically proven that pregnancy at early age is detrimental for the health of mother and child. Despite the fact that government disseminates awareness programmes for the prevention of early marriage and also avoiding pregnancy before the age of 19, the scenario among the poorer sections of people in the informal settlements has not changed much even today. It is terrible to learn that most of the mothers (83%) delivered their first child before the age of 21. The relationship between the level of education and the age of mother at the time of birth is positively related. The women who completed their education between X and XII (28%) grades, got married after 21 years of their age and delivered their first child relatively at a more mature age. The illiterate women (5%) did not have good health as they appeared very weak and fragile. Therefore, it is obvious that the health of the women is dependent on their education.

C. Spacing between Pregnancies

The physicians say that there must be minimum three years’ gap for the second child to be born not only for good health and mental stability of the new born but also for a mother to actively take care of the child in a healthy atmosphere. Here in the study area, more than half of the mothers (53%) have more than two children and this indicates clearly that the spacing between pregnancies is comparatively lower in this age group. Therefore, it is shocking to find that 53 per cent of the mothers have two children who were born in less than two years’ space. More than quarter of the respondents (29%), have given birth to their second child after 2 – 4 years’ space. Finally, only 18 per cent of the mothers have given birth to their children leaving 4 years’ space. Therefore, this study reports clearly that more than half of the mothers (53%) from the study areas had low pregnancy spacing of less than two years and this in turn has adversely affected their health conditions.

The study reveals that poor economic condition and extremely low level of literacy played a significant influence on parents to give birth to more than 2 children. The expectation for a boy child is a primary motivating factor for parents of girl children to continue to have more issues. Parents falsely believe that their sons will take care of them in their old age. Having this kind of mentality is very common in all strata of society in India and this creates anxiety and stress for the women if they give birth to girl children. Increasing level of literacy and consciousness would reduce such kinds of stress and anxieties. 27 per cent of the women expressed that the reason for having more than three children was mainly because of the expectation of a boy child. The remaining, 73 per cent of the women hesitantly revealed that most of the time, a husband desired sex and therefore being a woman, she could hardly say no to the desire of the husband. If she does not give cooperation for sexual pleasure or desire of her husband for whatsoever reason, there will be a torture for a woman and therefore, she had to silently accept in the bedroom.

This is the direct result of the low level of literacy among the men folk and their patriarchal mindset. As a result of which women had to bear more children, without spacing. This indicates that women are lacking the awareness about family planning and also do not have reproductive rights. In general, the data reveals undoubtedly that slum women are mostly exploited by their husbands for satisfying their sexual desires while some of these men do not even contribute to the financial needs of the family. On the contrary, they even expect the woman to provide them with pocket money, so that they can get drunk at the Tasmac bars. As a consequence, many slum women end up as the sole bread-winners of their families. Finally, the women say that they would rather tolerate the torture of their useless husbands than seek a divorce, because they find it very difficult to live alone.

D. Place of Delivery

One of the very important indicators for the health awareness of people is the place of delivery. It is good to note that the vast majority of the respondents (84%) chose the government hospital as their place of delivery, due to poor economic status. Only 16 per cent of the respondents preferred the private nursing home as their place of delivery, with an idea of obtaining quality health care and good treatment.

E. Pre and Post Natal Care of Women

Health of the mothers is enhanced quickly due to regular intake of calorie rich food and also pre and post natal care of women on a regular basis. More than half of the respondents (58%) from the study areas said that they did not have sufficient food during the time of their pregnancy and the survey shows that the pregnant women just had meals only three times a day. Among these women, the data reveals that less than quarter (18%) of the respondents had only single cup of tea and biscuits as their breakfast. Therefore, the study discloses the fact that women had always given priority to their husband and children without minding themselves of the quality and calorie rich food. Thus, these women could not get the required amount of nutrition they supposed to intake to maintain good health and wellbeing.

Only 28 per cent of the women had food four times a day at the time of their pregnancy. Therefore, it is more important to focus on the number of times a day than the quality of the food intake.

It is hardly encouraging to learn that less than quarter of the pregnant women (18%) had lunch and dinner sufficiently but they did not get proper breakfast and rarely got Tiffin in the evening. But the percentage of food intake was high in case of lunch and dinner which was not always food of high nutritional value. These women could not consume proper food mainly due to poverty and physical inability.

It is obvious from the study areas that more than quarter of the respondents (32%) had fish or chicken or beef once a week. Only 48 per cent of the respondents’ families (46%) had fish once a week. It is sad to note that about quarter of the respondents (24%), who are below the poverty line, stayed in a rented building had either fish or chicken on a fortnightly basis. The negligible per cent of the respondents (6%) had the opportunity to have either fish, or chicken or beef twice a week. Most of the times, it is awful to say that the women did not receive a balanced diet and therefore, they had to eat unhygienic food which is also one of the main reasons for the poor health conditions. Hence
anemia and low blood pressure among the women during their pregnancy is a common fact.

The study illustrates clearly that 17 per cent of the respondents who were working in others’ households the jobs such as washing clothes, mopping the floors, cleaning vessels and cooking in the apartments and in rich people’s houses lost their earnings because of their pregnancy. During this time, the husbands of these pregnant women (17%), who were earning a decent living, had not given them sufficient money for domestic expenses. Therefore, it is highly irresponsible on the part of men folk to want more children. All those women, who availed leave for delivery, did not get proper rest after their delivery, as they had to resume work after three months to retain their much-needed jobs. It is sad to note that 35 per cent of the women had to resume their work just after one month duration of their delivery and these mothers could not get sufficient time and facility for the regular health check up too.

F. Sources of Drinking Water

Every family has an easy access to drinking water facility in the place where they have been living. The study reveals that the informal settlements in Chennai city had the regular drinking water supply by the corporation of Chennai through hand pumps. Where there is no facility of hand pumps in the informal settlements in the city of Chennai, the drinking water is provided to their places through tanks or metro water supply in a tanker lorry.

G. Types of Diseases

Most of diseases that affect the slum population are mainly water borne in nature and also due to unhygienic environment in which they have been living. The diseases mentioned by all three slum dwellers were headache, fever, cough and cold. In the study areas, mainly during the rainy seasons, increased number of women and children acquired common diseases like diarrhea, typhoid, dengue and dysentery.

H. Health Awareness

Generally, health awareness, health consciousness and health seeking behaviour among the slum dwellers is very low as they take it easy to be alright just by taking tablets directly through pharmacy shops without consulting the doctor. It was observed from the study area that slum people simply throw wastes in the street and surrounding areas. Half of the people do not have the habit of disposing the waste into the dustbins kept by the corporation of Chennai. More than two thirds of the respondents (78%) said that they did not have toilets in their house. Therefore, they are using the public toilets which are often maintained in unhygienic manner and through this the people are easily affected by sickness. It is commonly reported that nobody uses soap for cleaning their hands after using the toilets. This clearly indicates that use of soap among slum population is not at all an important matter. Women are using the public toilets only for privacy reasons. It is found that children mainly use the drains as open lavatories. The men folk from whose houses there is no toilets, half of the respondents attend to their nature of call in the public toilets and the remaining men folk go to the banks of the Cooum River and behind the bushes alongside of the railway tracks for open defecation. This habit poses a grave concern and big threat to health of the slum dwellers. Just quarter of the respondents’ (26%) family is using mosquito nets and others (74%) are using mosquito repellents to ward off the mosquitoes.

VIII. LIMITATIONS AND FUTURE DIRECTIONS

As the slum population keeps on increasing every year, the corporation of Chennai should ensure regular door to door health services in the informal settlements. Chennai Corporation, health departments and Tamil Nadu slum clearance board should have a close tie-up with Non-governmental organisations and private health care service providers to ensure the quality health of slum dwellers.

1) Doctors and health service providers’ behavior needs to be more cordial towards slum women.
2) The price of essential medicines should be reduced to make them more affordable for slum dwellers to keep their health unhealthy and fit.
3) Quality of sanitation facilities need to be improved by all means. The cleanliness of public toilets should be checked by the corporation authorities.
4) Through health nurses and health care personnel, the government should distribute free iron tablets and vitamin tablets to slum dwellers on a regular basis if their health is found to be weak and fragile.
5) It should be the regular duty and responsibility of Government and non-government organizations to work towards increasing awareness on different health issues and problem through advertisements, issue of pamphlets, leaflets and display of short films.
6) It is always better if female doctors are appointed in the maternal child health centers.
7) There should be regular spraying to control the mosquito menace and proper garbage clearance facility by Chennai Corporation.

IX. CONCLUSION

This study on the health status of women in slums in the corporation of Chennai reveals that the poor socio economic conditions of families adversely affect women’s health. It is still a practice in slums for the women to take food after the male members of their families. This kind of structural gender imbalances does exist almost in every strata of society in India. When we analyse it deeply, it is obvious that this is more of a cultural phenomenon which is fast vanishing in the upper strata of society. Therefore, there should not be an expectation in the society in future to continue the same in the lower strata.

In fact, the health of women in the study areas was found to be affected due to want of proper food, working long hours without proper rest, not getting enough nutritious food during breastfeeding phase and lack of balanced diet in general. The health of women is also affected due to the practice of marrying off the girls at the completion of 18 years of age, and also due to the resultant early age pregnancies. The spacing between pregnancies is very low which too led to their declining health. The lack of sanitation facilities and unhygienic environment plays devastating effects on their health and well being (Panda 1993). Poor sanitation hugely affects pregnant women's health and their dignity (Bandyopadhyay and Agrawal 2013). Therefore, the government has to take several steps
to improve the health status of women in slums and provide basic necessities in the slums. The health nurses should play a pivotal role in bringing health care to the doorsteps of the slum women in the areas of fertility reduction, immunization, child care and malnutrition control. Media and NGOs also should play a pro-active role in disseminating information to increase the health awareness of people in the slums. These efforts could go a long way in alleviating their health needs and providing them an improved quality of life.

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