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An Eco-Health Study in Urban Slums of Delhi

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ABSTRACT The present paper outlines a study carried out in two different slum areas of Delhi to understand the impact of changing environment on human health. Here environment is taken to mean that which is ecological, economic, social and cultural. The focus of this paper is to examine the conditions in two slum areas and to assess its impact on the health and well-being of slum dwellers of both the areas, with particular reference to women. Both quantitative and qualitative approaches have been used in the study. The study indicates that health situation of any population is profoundly influenced by an interplay of environmental, social, economic, and cultural factors.

INTRODUCTION

The close interaction between the environment and human health, is an important arena for research. This approach helps us in understanding the impact of the changing environment on human health. Health situation of any population is a reflection of the socio-economic condition and the associated environment in which they live in. It is, therefore, necessary to study in-depth the social, economic, cultural as well as the physical environment in which people live in to understand how these factors determine the health of people. Eco-health research is particularly important in developing nations moving rapidly towards industrialisation and urbanisation.

Slums have been the corollaries of urbanisation in nearly all societies going through the transition from an agrarian civilization to an industrial one (Bijilani and Roy, 1991). Slums have come to be accepted as a living reality in all countries, developed or developing. The problem of slum in south and South-east Asia is one of high degree of urban congestion, specially in the big cities, with more than five lakh population. The explosive growth of big cities has bred slum conditions which may be found in 'Chinatown' of Singapore, Bangkok, Jakarta; Indian quarters of Rangoon; bomb-damaged areas of Manilla; and around foreign bases in cities of Thailand, Philippines and South Vietnam (Desai and Pillai, 1972).

Rapid growth of slums in urban centres of India has become a matter of grave concern. India's population has grown from 44 million in 1941 to 160 million in 1981 and is at present standing at 217.18 million (Census, 1991). Urban problems in India appear to be reaching more and more alarming proportions because of the rapid growth of Class I cities (population of 100,000 or more) while small-sized towns continue to decline over time. These cities are known to harbour veritable and huge slums (Patil, 1993). The inadequate public facilities and the unhygienic conditions of the slum environment have severe consquences on the overall health of the community. Available data from India's major cities, though scarce, clearly indicate that the most common illnesses in slums are respiratory disease gastro-intestinal disorders, skin diseases, worm infections, and tuberculosis (Bhatnagar and Kapoor, 1986; Biswas, 1995). These health problems of slum dwellers are directiy related to their poverty, the polluted and stressful urban environment and their social instability (NIUA,1991).

Environmental health research has been conducted in relation to industralisation or infrastructural development. Scant attention has been paid to the effect of environment on the plight of the urban poor. Although, many studies have been caried out on urban slums but there is a paucity of comprehensive information on women's perception and felt needs in the slum and impact of deplorable conditions on health and well being of slum dwellers, with special reference to women.

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Pushta slum dwellers were found to be living in deplorable environmental conditions. Stagnant, open drains with breeding mosquitoes and insects, absence of sanitary landfills, inadequate drainage system, very few municipal taps and public washrooms, had led to the prevalence of unhygienic conditions in the locality. A significant percentage of the population depended solely on shallow handpumps for drinking water, being most unhygienic in nature due to posible contamination with sub soil water. Moreover, residents in majority were found to wash dirty utensils, clothes and clean themselves near these handpumps. Municipal taps were very few in number, distantly located and drinking water was available only for a short duration. In addition to this, the public washrooms were found to be quite close to the source of drinking water, thus enhancing the risks of contamination. It was observed that the pushta population was frequently affected by gastroenteritis (38.80%), followed by skin disease (16.42%) and tuberculosis (17.92%) (see Table 1). Infant mortality rate was found to be quite high (135.92) when compared to the national average (79) and urban average (53; RGI, 1992).

Majority of slum dwellers were found to be using kerosene oil and wood as a main source of fuel for cooking. Thus the chances of internal pollution were definitely increased as most of the residents cook inside their own living quarters, with hardly any space for a separate kitchen. About 54 per cent of Pushta males in the study consumed liquor and smoked indigenous tobacco (bidi) quite frequently (see Table 2). These types of addictions compounded with malnutrition, poverty, congestion and poorly ventilated living conditions as well as the prevalence of unhygienic conditons aggravated the already poor health status of the Pushta slum dwellers. Further, a lot of waste gets accumulated inside the hutments because of the nature of the occupational work done by women such as extracting electrical wire from cables, preparation of incense sticks, etc. Therfore, a deplorable environmental condition existed within the huts too, adversely affecting the health and well being of women and childeren who spent greater part of their time inside the hutments. Apart from their general susceptibility to illness caused by malunt- rition and poverty, certain posture-related occupational health problems like backaches and severe joint pains were commonly reported by Pushta women.

Nehru Vihar resettlement colony presents a slightly different scenario. The colony was fairly large, consisting opf 2370 houses, a public ground, 12 parks, temples, two primary and two middle level schools. There were no government hospitals or clinics, no post offices or banks. However, there was a private clinic, a nursing home, and a homeopathic doctor, as well as six registered medical practitioners practising in the area. The population of the colony comprised of Hindus, Sikhs, Christians and Muslims (belonging to different states like Uttar Pradesh, Madhya Pradesh, West Bengal, Punjab, Bihar), living in properly constructed houses, built on 25 sq yards of land, without any adequate cross-ventilation system. The houses had been provided with electricity and water supply by the municipality. By profession, Nehru Vihar residents were autorickshaw drivers, small businessmen, shopkeepers, tailors, and service men in Delhi Transport Corporation. Very few women shared the economic burden of the family. About 51 per cent of the families earned more than rupees 2500/- per month. Literacy rate was found to be low (22.32%) but females were more literate (12.79%) than males (9.53%).

The resettlement colony had relatively adequate facilities for drinking water, public washrooms, garbage disposal. However, the residents complained about the inadequate drainage system and their poor maintenance by the municipal staff. The dirty ponds of industrial waste

Table 1 : Frequency distribution of major diseases affecting residents of Pushta and Nehru Vihar colonies

Disease	*Individuals affected*	
	Pushta	*Nehru Vihar*
Gastroenteritis	34 (38.64%)	6 (20.69%)
Tuberculosis	16 (18.18%)	
Typhoid	12 (13.64%)	
Respiratory Disorders	3 (3.41%)	4 (13.79%)
Cardiac Problem		2 (6.90%)
Urinary Tract Disorder (UTD)		3 (10.34%)
Skin Disease	14 (15.91%)	5 (17.24%)
Mental Disorder		2 (6.90%)
Hypertension		1 (3.45%)
Malaria	9 (10.22%)	5 (17.24%)
Paralysis		1 (3.45%)
Total	88 (100.00)	29 (100.00)

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Table 2 : Frequency of various types of addiction among residents of Pushta and Nehru Vihar colonies

Addictions	*Percentage of Individuals Affected*	
	Pushta (Males)	*Nehru Vihar (Males)*
Alcohol	14.28	9.27
Cigarette	5.00	0.52
Bidi	27.85	4.31
Zarda Pan	6.42	0.39
Tobacco	0.70	0.26
Total Addiction	54.25	14.75

coming out from a nearby industry posed a serious health hazard for the residents. The population of the area were found to be frequently affected by skin diseases (18.18%), followed by respiratory disorders (13.64%). Cardiac problems, gastroentritis and malaria were also present (see Table 1), while infant mortality was found to be 133.30. Around 14 per cent of males in the study sample were found to be smoking and drinking alcohol (see Table 2). Further, lack of proper ventilation system in the houses created smoke hazards for the inmates. Residents were also found to give less importance to health and hygiene.

Case Studies

The case study findings (20 from Pushta and 20 from Nehru Vihar) revealed differences in the perception, attitude and felt needs of women living in typical slum environment and those staying in better environment of resettlement colony. In the Pushta slum, the urgency voiced was for adequate sanitation and availability of safe drinking water It was felt that loans from the government could help them build permanent housing sturctures. The colony could also benefit from a small hospital or a mobile dispensary, a teaching insititute for females on health and hygiene. Further, a school with free education and recreation facilities for children would greatly enhance the quality of life in this slum colony. While reviewing the felt/perceived needs of the inhabitiants of Nehru Vihar resettlement colony, it was observed that the needs were slightly different. Drinking water and community latrines were not the priority problems for Nehru Vihar inhabitants as observed among Pushta slum dwellers. Nehru Vihar residents stressed on the needs of a government health centre or hospital, a public school, post office and bank as well as sprucing up the general sanitary conditions.

The women from the two study groups also differed in their perception and understanding of health and disease. The women in the Nehru Vihar colony were mostly literate and came from higher socio-economic status. Thus, they were more knowledgeable about health, hygiene, and sanitary aspects. They promptly availed the services of private medical doctor, hakim, vaid, whenever the situation demanded. They regularly went for ante-natal check ups and for immunisation of their children. However, they felt the need for a government hospital or health clinic in the locality especially for child delivery problems. Due to better economic condition, Nehru Vihar women did not have to undergo straineous occupational work load of 5-7 hours and the consequent health problems, as observed among Pushta women. Health was not a priority for Pushta slum women. They worked and suffered in the confines of their home, unattended and unheard. In the existing socio-economic reality Pushta women neglected their health and consulted doctor of ASHA only in case of serious illnesses. They mostly could never afford the services of a private doctor. Poor economic conditions and malnutrition or undernutrition contributed greatly to lower immunity and made them vulnerable to diseases. Regarding status and role of women, hardly any differnece was observed between Pushta slum women and Nehru Vihar women. Some of the salient findings of the study in this regard were that women were not allowed to take any independent decisions, women were paid less than men for the same work, and women were severely disadvantaged and encountered cultural, social, legal and economic obstacles. Abuse towards women. particularly widows and aged women, and wife beating were found to be common. Thus, it was observed that the inferior status of women was ingrained in the socialization process of family, where role stereotyped values were infused by the parents and discrimination was imprinted in the minds of boys and girls regarding their role and functions.

CONCLUSION

The inhabitants of both Pushta and Nehru

Vihar slums were found to be ethnically comparable, being low-income migrants from similar states of India. The present study indicated that health problems of any population is profoundly influenced by an interplay of environmental, social, economic and cultural factors. The common health problems reported by residents of Pushta and Nehru Vihar slum areas could be directly related to their physical environment. The observation that Pushta slum dwellers suffered more frequently from gastroenteritis, tuberculosis, typhoid etc. than the Nehru Vihar residents clearly indicates their harsh environmental conditions.

While the physical environment becomes a direct determinant of the health situation of a population, the socio-economic and cultural environment plays an indirect though significant role. Many physical ailments are the direct result of adjusting to a new social evironment. Individuals who have been raised in village or small towns and according to their local customs, get suddenly uprooted and exposed to dehumanised conditions of the urban slum areas. While this could be the case for inhabitants of both Pushta J.J. cluster and Nehru Vihar resettlement colony, it particularly holds true in case of former where slum dwellers have to encounter great difficulties for fulfilling even the basic needs. This gets reflected further in the felt needs of both study groups—Pushta slum dwellers demanding basic amenties while Nehru Vihar residents stress on the fulfillment of their secondary needs.

Low literacy rates and poor economic status also have an adverse impact on health of a population, especially on women. Pushta women, because of poverty, had to suffer from occupation related health problems, while women of resettlement colony were able to avoid these health complications, having relatively better economic privileges. However, the present study observed that in both the colonies, women were not encourged to play an active role in the decision-making process in the existing socio-cultural setup. Even decisions concerning when a women should consult a doctor for her health problems and when she should take her sick child to the health centre were taken by males, reflecting the poor status of women in the family and society.

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