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Research Article

Prevalence of mal- nutrition among street children in selected areas of Pune city

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Abstract

Children are the backbone of the country. They are the future men and women who will try to fulfil the cherish goals of happy and rich life. Street children are not only homeless but also poor. Poverty dumps a crowd of problems onto a child. Without these skills the child will, as an adult, remain at the bottom of the economic cheap. **Aim:** To assess the health status of the street children from selected areas of Pune city. Health status was assessed on the basis of nutritional assessment. **Methods :** A total of 100 samples, from children of age between 6-12 years were selected by using non probability convenient sampling technique. The developmental tool comprises of first demographic data to collect the baseline information which consists of age, gender, area, education, habits, occupation and income of parents. Second is physical examination like anthropometric measurement like pulse rate, respiration rate, temperature, blood pressure, height, weight, systematic assessment of physical parameters. And third, nutritional assessment. **Results:** The findings of the study revealed 33 % of street children consumed tobacco. The most common diseases affecting the street children were acute Respiratory Infections (ARI) (47%). In addition, 22.7% and 18.4% of them suffered from diarrhoea and skin diseases respectively. The study also revealed Upper Respiratory Tract Infection (URTI) was one of the commonest problem, skin diseases was 23%. However, there were fewer gastrointestinal problems. The study findings also revealed that there was a prevalence of stunted, underweight and wasted children. Out of 31% stunted growth, 04% of street children are severely wasted and 20% of street children are wasted. 7% of the street children are severely underweight and 28% of the street children are underweight.

Key Words: Waste disposal, Management, Slum Areas, attitude and knowledge

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1. Introduction

Children are the backbone of the country. They are the future men and women who will try to fulfill the cherish goals of happy and rich life. The late Prime Minister Mr. Jawaharlal Nehru said that— Children are the wealth of tomorrow– take care of them if you wish to have a strong India. While children are loved and liked by one and all. India is home to 1, 26,843 thousand children (UNICEF 2009); the largest for any country in the world. This cast a great responsibility on the nation to bring up these children, who form about 40% of the country‘s population [1]. The Indian Constitution enjoins the state to provide facilities for healthy development of children [39(f)]. Our national policies have moved progressively in the direction of Child Rights Convention (CRC) ratified by India [2]. In 1989, UNICEF estimated 100 million children were growing up on urban streets around the world.14 years later, UNICEF

reported: The latest estimates put the numbers of these children as high as 100 million [3].In 1999, R. Agrawal estimated that India was home to about 20 million street children. It means approximately 7% of the total child population. Big cities drawn in larger numbers of street children [4].And even more recently: The exact number of street children is impossible to quantify, but the figure almost certainly runs into tens of millions across the world. It is likely that the numbers are increasing [5].The 100 million figures are still commonly cited, but have no basis in fact [6].Similarly, it is debatable whether the numbers of street children are growing globally or whether it is the awareness of street children within societies which has grown. While there are understandable pressures for policies to be informed by aggregate numbers, estimates of street child populations, even at city levels, are often hotly disputed and can distract rather than inform policy makers [7]. A recent publication has reported 47 million homeless and runaway adolescents roaming on the streets of our country [8].The recent estimates of street children in metros shows a rise in numbers; in Delhi there are 100,000—500,000. Street children, Calcutta has 200,000 and Mumbai has between 100,000- 250, 000. UNICEF's estimate of 11 million street children in India is considered to be a conservative figure. The Indian Embassy has estimated that there are 314,700 street children in metros such as Bombay, Calcutta, Madras, and Kanpur, Bangalore and Hyderabad and around 100,000 in Delhi [9].Street children in India, generally live in locations including streets, pavements, under and over the bridges, railway platforms, rooftops, sheds, booths, alcoves, beaches, markets, trains and places of worship. Street children live in physical surroundings that are unhygienic. Majority of them do not have access to bathing and clean sanitation. They are constantly exposed to sun; rain, cold, dirt, and smoke, harmful waste other environmental hazards [10].Though a section of street children live with their families, their essential needs are not met mainly due to extreme conditions of poverty and neglect. These family environments are functionally inadequate and therefore the children are functionally homeless [11]. Street children are generally viewed as criminals, victims, or as feed spirits. In truth, they struggle hard to survive. They are found in a variety of jobs, including rag picking, scavenging, begging, hawking, loading and unloading at railway stations, bus depots and market places, bootlegging, prostitution, drug trafficking and theft [12].

General health problems of street children

Street children experience high rates of physical, mental and emotional health problems. It is generally reported that street children are susceptible to cuts, injuries, dog and rat bites, skin infections, malnutrition, fevers, respiratory problems, and other infections [13].Mental health problems literature indicates that street children are generally found to be more vulnerable to impaired psychological health than any other group of youths. One of the study done in London on homeless children reported behavioral problems in 49% of these children [14].

Need for nutrition: Nutrition is the foundation for health and development. Better nutrition means stronger immune system, less illness and better health for people of all ages. Healthy children learn better, healthy people are stronger, more productive, and better able to break cycles of poverty and realize their full potentials [15]. Nutrition and health is the most important contributory factors for human resource development in the country [16].

Social environment

Closely related to the community social environment are those to the individual patient that is, physical environment such as clean air and water and proper sewage. The patient's total environment not only includes the patient's home or hospital room but the total community influencing that specific environment [17].

2. Materials and methods

A total of 100 samples, from children of age between 6-12 years were selected by using non probability convenient sampling technique. The children were selected from areas of Pune city. The areas were a shelter in Kondhava, footpaths nearby Pune railway station, traffic signal areas like Hadapsar, Swargate (Jedhe Chauk), Nal stop, Shivajinagar. The children were from mixed community comprising of all castes and cultures. The children selected for this study were those who are begging, selling something like balloons, flowers, toys on street and living on the streets. The developmental tool comprises of first demographic data to collect the baseline information which consists of age, gender, area, education, habits, occupation and income of parents. Second is physical examination like anthropometric measurement like pulse rate, respiration rate, temperature, blood pressure, height, weight, systematic assessment of physical parameters and third, nutritional assessment. The tool was validated [18] by total twenty one experts out of which fifteen (15) experts were from community health Nursing, three (3)were from community medicine, two(2) were from paediatric Health Nursing and one (1) from Biostatistics department.

To test the reliability of the tool [18] the method of rational equivalence'has been used. **Method used:** Following formula gives coefficients of reliability. Also data is collected by one person so, gives the exact error in the reliability scores.

$$r_{11} = \frac{n}{(n-1)} \frac{\sigma_t^2 - \sum pq}{\sigma_t^2}$$

Where,

r11 = reliability coefficient of the whole test.
n = number of items in the test.
σt= the S.D. of the test scores.
P = the proportion of group answering a question to each choice.
q = (1-p) = the proportion of group not answering a question to each choice.
n = 10

If value of r11 is greater than 0.80 then test is reliable. As value of *r* 11 0.8318 (83.18%). As the result, the test for practices is reliable. Hence the tool was found to be reliable. Samples of 10 street children from Nal-stop signal from Kothrud area were selected. To assess the feasibility of the study and to decide the plan for data analysis [18].

3. Results

Analysis of the data

Demographic data of the street children

Figure 1: Distribution of street children according to their age :(N= 100)

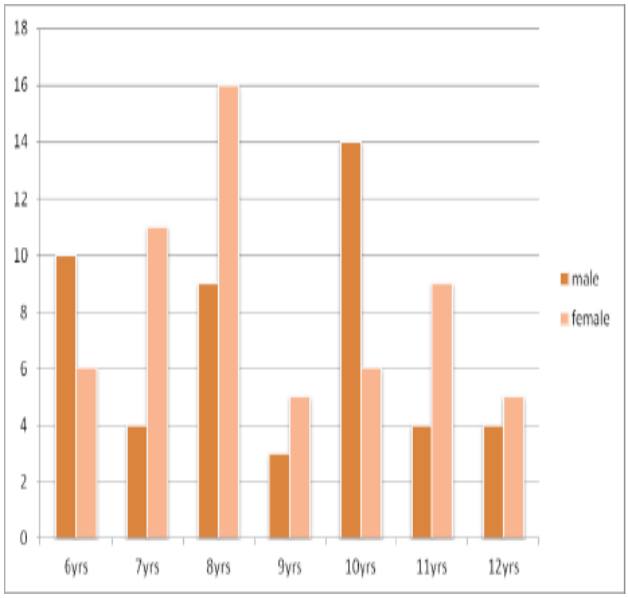


Figure 1: Shows that there were 52% females and 48% males. Here 6%female and 10%male children are in the age group of 6years.11%females and 4% male children are in 7years age group.10% and 9% female and male children belongs to 8years age group respectively. 5% and 3% female and male children respectively were 9years old. 6% female and 14% male children are in the age group of 10 years. In the age group 11years there are 9% female and 4% male children. 5% female and 4% male children are in the age group of 12 years.

Figure 2: Distribution of street children according to their gender :(N = 100)

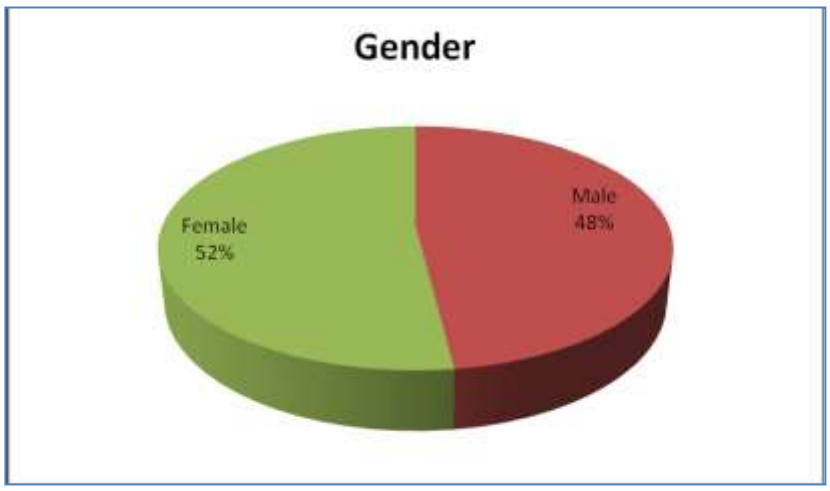


Figure 2: Shows that 52% children are females and 48% street children are males

Figure 3: Distribution of street children according to their education: (N = 100)

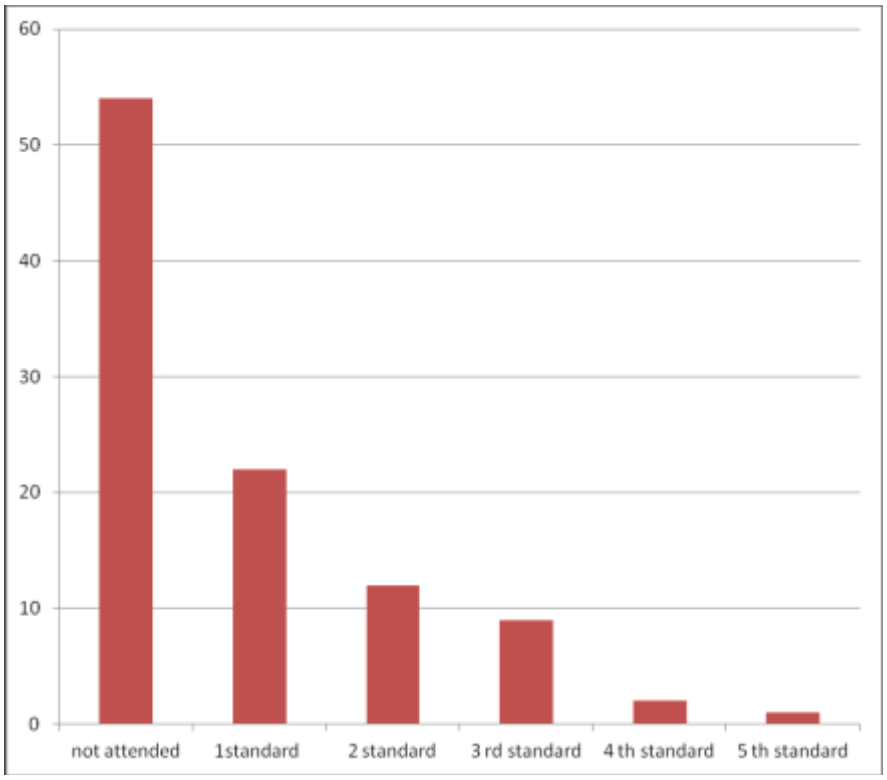


Figure 3: Shows 31% female street children and 23% male street children are not educated.9% female and 13% male street children are educated up to only up-to 1st standard,6% female and 5% male up-to 2nd standard, 4% female and 5%male up to 3rd standard, 1% female and 2% male up to 4th standard education. Only one (1%) female child is educated up to 5^{th} standard education.

Figure 4: Distribution of street children according to their addictions: (N = 100)

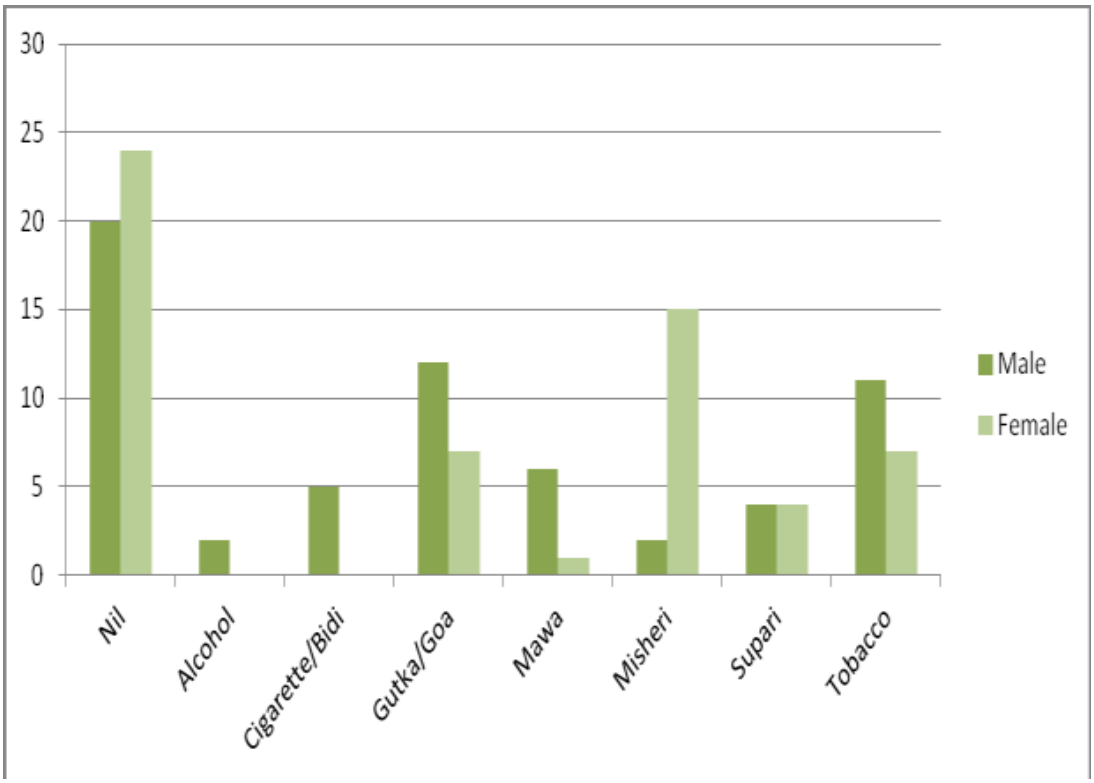


Figure 4: Shows those 44% children do not have any addiction. In male children 12% children are consuming Gutka and Goa, 11% are consuming tobacco, 6% male children are consuming mawa, 5% are smoking, 4% were chewing Supari, 2% are taking alcohol and Misheri each, and 20% street male children have no additions. In female children 15% children are taking Misheri, 7% are consuming Gutka and Goa and tobacco each, 4% are chewing Supari and 1% are consuming mawa , 24% female street children have no addition.

Figure 5: Distribution of street children according to their previous illness (N = 100)

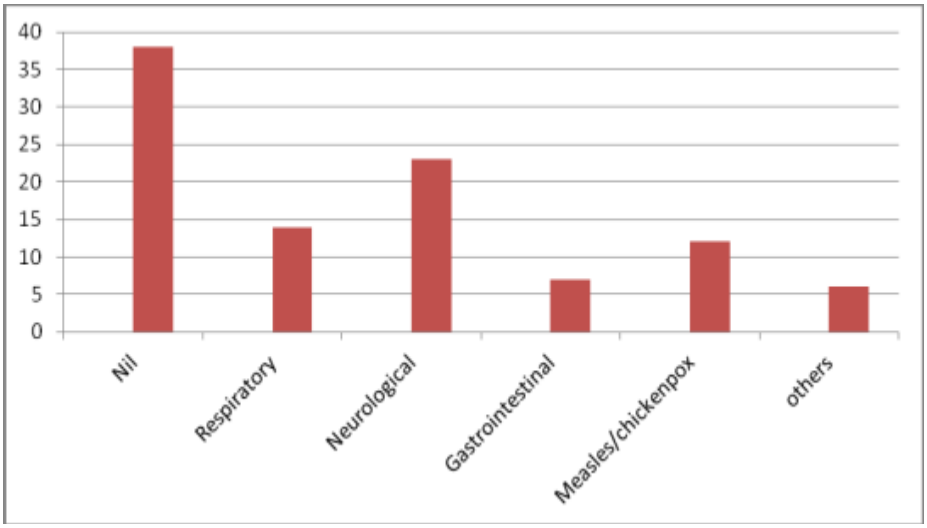


Figure 5: Shows those 38% street children did not have any history of previous history of illness. 14% have respiratory illness, 23% have neurological illness, and 7% have gastrointestinal illness. As reported by parents, 12% were having had a history of measles and chicken pox in childhood. 6% have a history of others illnesses like fever, vomiting etc.

Figure 6: Distribution of street children according to their immunization status: (N = 100)

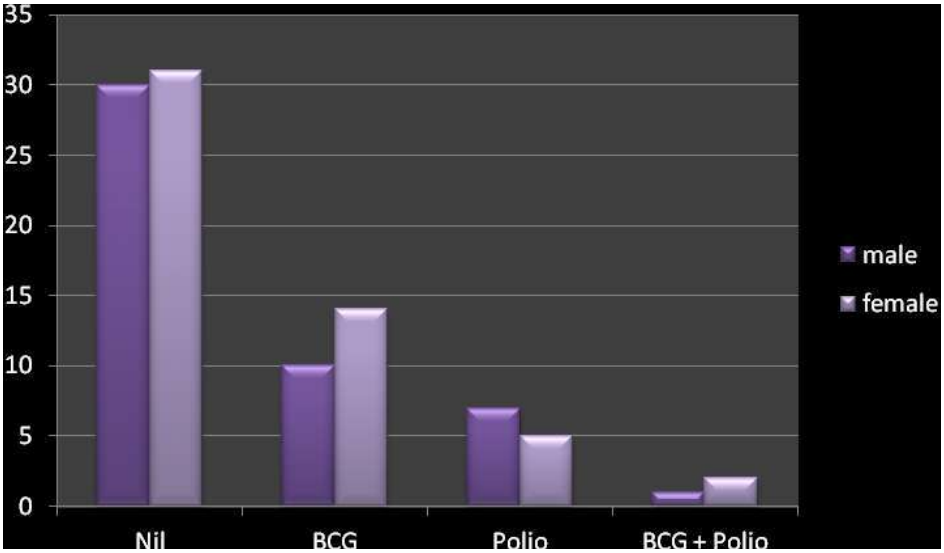


Figure 6: Shows that in female street children 31% and in male 30% male children did not receive any immunization. In male 10% received only BCG, 7% received only polio, 1% BCG and polio. In female, 14% only BCG, 5% received only polio and 2% received polio and BCG.

Figure 7: Distribution of street children according to their shelter. (N = 100)

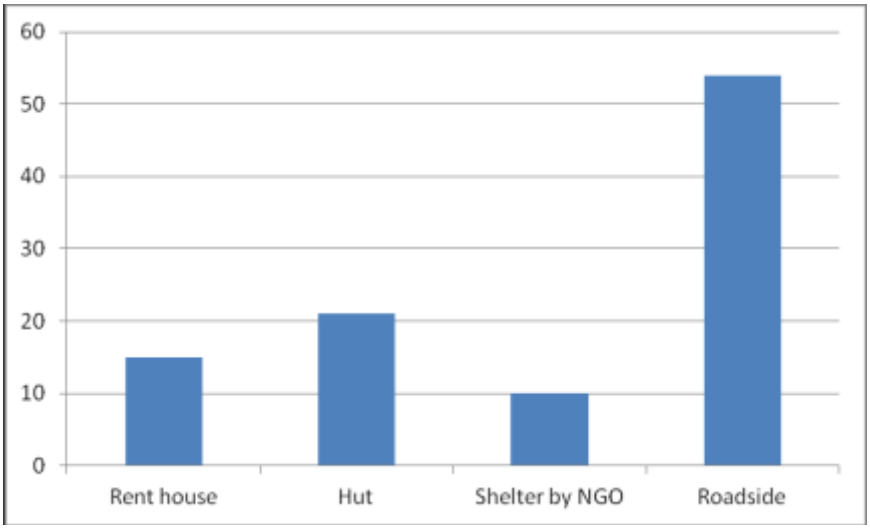


Figure 7: Shows distribution of street children according to their shelter. Majority 54% children reside on the road side. Remaining reside 15% in rented houses, 21% in a hut and 10% in a the shelter provided by NGOs.

Figure 8: Distribution of street children according to their family income (N = 100)

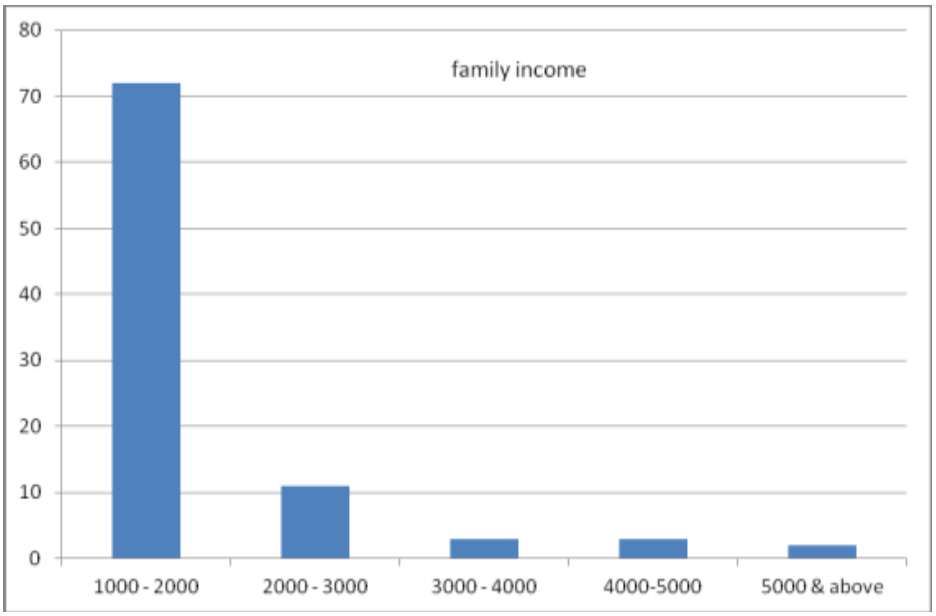


Figure 8: Shows the distribution of street children according to their parent‘s income. Majority children‘s parents income ranged between Rs 1000-2000/per month.11% had an income of Rs 2000-3000/ per month.3% had an income of 3000-4000/per month. 3% had an income of Rs 4000-5000/month. Only 2% had an income of Rs 5000 and above. 9% children do not have any family income as both the parents have expired and the children live alone on road and fulfilling their needs on their own.

Figure 9: Distribution of street children according to their utilization of health services. (N = 100)

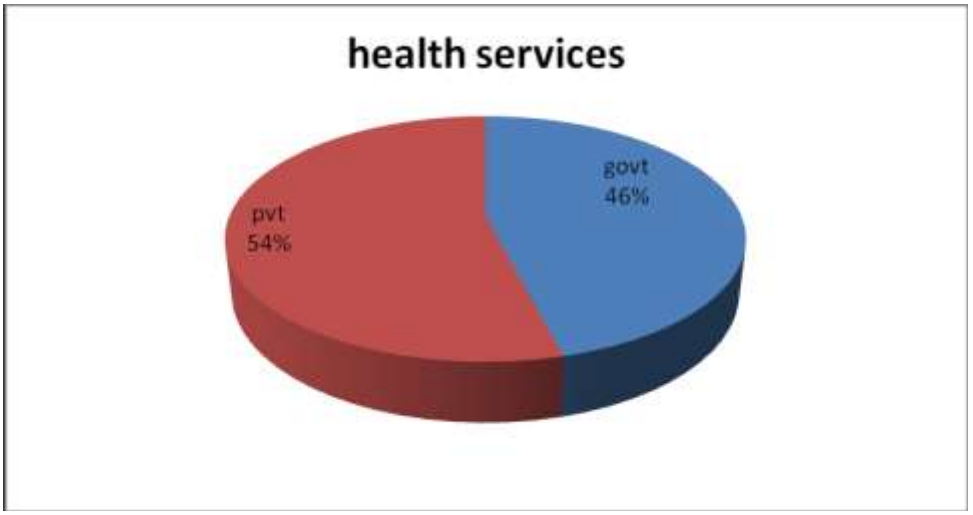


Figure 9: Shows distribution of street children according to utilization of health services. The majority i.e. 54% street children use private health care services.46% street children use Government services.

Figure 10: Distribution of street children according to their parent's occupation. (N = 100)

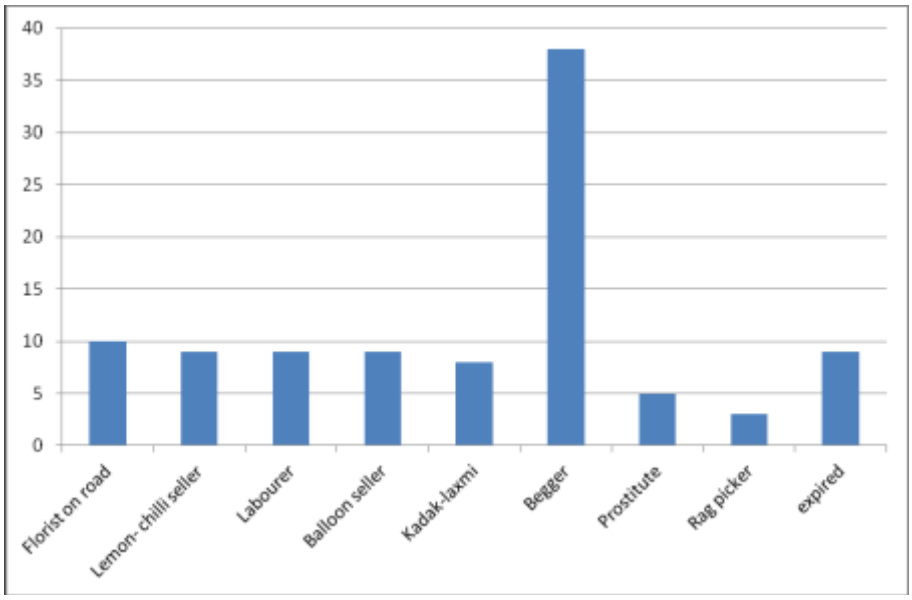
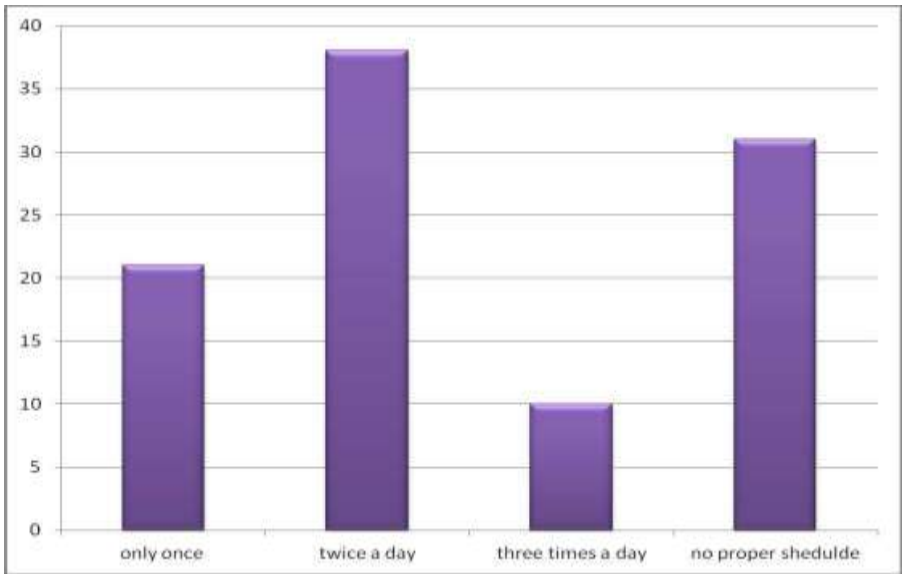


Figure 10: Shows a distribution of children according to their parent's occupation. It shows majority i.e. 38% children's parents occupation is begging. 10% are florist on road, 9% are lemon – chilli seller, laborer, balloon seller, and 9% have no parents.8% children's parent occupation are Kadak- laxmi,5% are prostitutes and 3% are Rag Picker.

Figure 11: Distribution of street children according to their dietary pattern. (N = 100)



The Figure 11: Shows the distribution of street children according to their dietary patterns. This study shows majority (38%) of the children have a diet intake of twice a day. 31% children were not following proper schedule of diet. The diet intake of 21% children is only once a day. Only 10% children have the diet intake of twice a day. They are the ones who are staying in shelters provided by NGOs.

4. Discussion

Demographic data

The data presented in the table no 1 show that majority participants were in the age of 6, 7 and 10 years of age. The data presented in the table no 2 shows that the total numbers of female participants (52%) were more than the male (48%) participants. The data presented in the table no 3 shows that the 31% female children were educated and 23% were not educated. Majority children were educated up to 1st standard and only 1% female child could complete actually primary education. The data presented in table no 4 shows that 44% children did not have any addiction. Only 2% consume alcohol. 33% of total children have chewable tobacco addiction.

The data presented in the table no 5 shows majority children (38%) did not any previous history of illness. And Respiratory (14%), Neurological (23%), and communicable diseases like measles/chickenpox (12%) were the major previous illness the children suffered. The data presented in table no 6 shows that 30% children did not received any immunization. The data presented in table No 7 shows that 54% children live on the roadside without any shelter. The data presented in table no 8 shows that 72% had monthly income less than Rs. 2000 per month and another 11% had less than Rs.3000 per month. The data presented in the table no 9 shows that 54% children depend on private practitioners. The data presented in table no 10 shows that main occupation of the parents continued to be begging, (38%) followed by flower seller on road at the traffic signal. The data presented in the table no 11 shows that dietary pattern of the children. 38% children had twice food twice in a day. 31% did not follow any proper dietary pattern.

Conclusion

The present study shows that the public health system in Pune city has fallen short to ensure access and availability of adequate health services to street children. Thus, it can be seen that the —right to health —as far as street children are concerned has not been achieved. Health education and awareness by means of street play, health campaign, health camp for street children is an important aspect to reduce the child morbidity and mortality.

Also there is an urgent need to assess the exact number and location of these children staying on the streets in Pune, since a healthy street child could contribute to a healthier, cleaner and prosperous Pune.

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