Gastrointestinal Disorders amongst Children in Urban Slums of Lucknow

KEYWORDS
Health, Gastrointestinal Disorders, Children, Slums, Diarrhoea, Hepatomegaly

ABSTRACT
Introduction: The urban population is rapidly expanding because of large-scale migration to cities for a possible better life. The cities and towns are also expanding but the sheer volume of people compromises the ability of the city to meet their basic needs. A large proportion of this migrating population ends up residing in slums in inhuman conditions. As a result, urban poverty and hunger are increasing in many developing countries.

Aims and Objectives: To Study the various Gastrointestinal disorders amongst children in Urban slums of Lucknow and various factors affecting them.

Materials and Methods: A cross sectional study carried out amongst children of 5-15 years of age group in urban slums of Lucknow. Over all 256 families could be studied. In these families a total of 524 children were studied who belong to the age group between 5-14 years. Two different types of schedules-family interview schedule and Individual Interview schedule were used after pre-testing. Data was collected by door-to-door home visit. The information so collected was analyzed and tabulated using SPSS 17.0 Version.

Results: In present study a total of 524 children were studied. Present study showed that 11.25% children of slum areas were suffering from gastrointestinal disorders. Diarrhoea was present in 5.6 % children. In present study It was found that 83 children (15.8%) out of 524 showed infestation with round worm, 11.8% with Amebiasis , 9.7% showed hookworm infestation and 6.3% had giardiasis. Out of major illnesses detected at the time of examination nutritional deficiencies contributed to 18.1%, diseases of respiratory tract 16.98% and diseases of G. I. tract 11.25%.

Conclusion: This study demonstrated a continuing high burden of childhood illnesses among urban slum dwellers in northern India. The high percentages of Gastrointestinal Disorders and parasitic infestations shows the poor personal hygiene and poor sanitation and water supply of the urban slums. Attention therefore directed towards improving the water supply and sanitation and sanitary conditions in general as well as health education of both children and adults.

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School age children (5-15 years) have not received as much attention from health providers/planners as the under fives. In an international workshop at Kentucky, USA in 1994, it was agreed that there was a dearth of information on the health status of school age children from developing countries particularly at the community level (1). In India, several studies have been carried out on the health status of school age children from developing countries particularly at the community level. In India, several studies have been carried out on the health status of school age children from developing countries particularly at the community level. In India, several studies have been carried out on the health status of school age children from developing countries particularly at the community level.

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Materials and Methods: A cross sectional study carried out amongst children of 5-15 years of age group in urban slums of Lucknow. There are approximately 530 slums in Lucknow city of these two were chosen at random which were representative of the slum population. One Mewa Nursery situated in Trans Gomti Area and the other Bevindriya Tola situated in Gomti area. Out of a total of 367 families residing in these slums, 136 were in the former slum and 231 were in the latter. Over all 256 families could be studied. In these families a total of 524 children were studied who belong to the age group between 5-14 years. The family was the unit of sampling. Two different types of schedules-family interview schedule and Individual Interview schedule were used after pre-testing.Data was collected by door-to-door home visit. The information so collected was analyzed and tabulated using SPSS 17.0 Version.

Results: In present study a total of 524 children were studied. In this study only those children were included in whom there was a gastrointestinal problem or any other problem related with gastrointestinal tract. Percentages were calculated from total of 524 children.

Present study showed that 11.25% children of slum areas were suffering from gastrointestinal disorders. Diarrhea was present in 5.6 % children. We also observed that 3.05% children had hepatomegaly and splenic enlargement was seen in 0.38% children (Table: 1).

In present study It was found that 83 children (15.8%) out of 524 showed infestation with round worm, 11.8% with Amebiasis, 9.7% showed hookworm infestation and 6.3% had giardiasis. In another study in urban slums of Karachi the prevalence of Intestinal Parasitic Infections was estimated to be 52.8% and such high prevalence has been consistently reported by a number of studies conducted in similar populations. In the study in urban slums of Karachi, the intestinal parasites namely Giardia lamblia, Ascaris lumbricoides, Blastocystis hominis, Hymenolepis nana, Endolimax nana, and Iodoameba coli and Iodoameba butschili were identified from the stool samples. No hookworm was identified in our study which is consistent with results obtained in studies conducted in urban localities.

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Table 1: Distribution of various GIT Disorders (N=524)

| Disorders | No. | Percentagel(|
|-----------|-----|---------------|
| Diseases of GI tract | 59 | 11.25 |
| Diarrhoea | 27 | 5.60 |
| Stomatitis | 14 | 2.70 |
| Liver Enlargement | 16 | 3.75 |
| Spleenomegaly | 2 | 0.38 |

Table 2: Distribution of Parasitic infestation among slum Children (N=524)

| Parasitic infestation | No. of Children | Percentage( |
|-----------------------|----------------|------------|
| Ascariasis | 83 | 15.8 |
| Ancylostomiasis | 51 | 9.7 |
| Amebiasis | 62 | 11.8 |
| Giardiasis | 33 | 6.3 |
| Others | 11 | 2.1 |

Table 3: Prevalence of various Morbidities among Slum Children (N=524)

| Morbidity | No. of Children | Percentage |
|-----------|----------------|------------|
| Nutritional deficiencies | 95 | 18.1 |
| Diseases of GI tract | 59 | 11.25 |
| Diseases of Respiratory Tract | 89 | 16.98 |

REFERENCE

1. National Family Health Survey (NFHS-2), India, 1998-99. Mumbai: International Institute for Population Sciences and ORC Macro; 2000.
2. Gopalan C. The Urban Challenge-Health/Nutrition Implications. In: NFI-Archive. Available from: URL: http://www.nutritionfoundationofindia.org/REFERENCES/ APR92-A. HTM. Accessed November 20, 2003.
3. Rama B, Varu Sage Publications Pvt. Ltd; 2008. School Health Services in India: The social and economic context, pp. 1-2. 4. School water supply, Sanitation and hygiene education: India Technical Note Series, Ministry of Human Resource Development: Government of India. 2004.
5. S. Nokes C, Grantham-McGregor SM, Sawyer AW, Cooper ES, Bundy DA. Parasitic helminthes infection and cognitive function in schoolchildren. Proc Biol Sci. 1992;247:77-81.
6. J. Stevenson LS. Helminth-parasites, a major factor in malnutrition. World Health Forum 1994; 15: 169-72.
7. J. Vibram Mehraj, Juanita Hatcher, Saeed Akhtar, Ghazala Rafique, Mohammad Asim Beg mail: Prevalence and Factors Associated with Intestinal Parasitic Infection among Children in an Urban Slum of Karachi; 2008.
8. 9. Tahir Z (2002) Comparison of prevalence of intestinal parasited in children and adult population. Biomedicala 18: 74–75.
9. Siddiqui Mi, Bilqees FM, Ilyas M, Paveen S (2000) Prevalence of parasitic infections in a rural area of Karachi, Pakistan. J Pak Med Assoc 52: 315–320.
10. N. S. Mathew, J. Williams GM (2004) Prevalence, intensity and risk factors for soil-transmitted helminth infection in a South Indian fishing village. Acta Trop 91: 177–187.
11. Kaur R, Rawat D, Kakkar M, Uppal B, Sharma VK (2002) Intestinal parasites in children with diarrhea in Delhi, India. Southeast Asian J Trop Med Public Health 33: 725–729.
12. Waqar S, Hussain H, Khan R, Khawas A, Majid H, et al. (2003) Intestinal parasitic infections in children from the Abbottabad, Pakistan. Infect Dis J Pak. 12: 73–77.
13. Ahmed K, Malik B, Shaheen Y, Aslam AS, Beg mail: Prevalence and Factors Associated with Intestinal Parasitic Infection among Children in an Urban Slum of Karachi; 2008.
14. Gladstone BP, Das AR, Rehman AM, Jaffar S, Estes MK, Muliyil J, Kang G, Bose A. Burden of illness in the first 3 years of life in an Indian community. Proc Biol Sci. 1992;247:77–81.
15. Bundy DAP et al. Evaluating measures to control intestinal parasitic infections. World Health Statistics Quarterly 1992;45(3):168-79.
16. Soares AM, Fonseca W, Rey LC, Guerrant RL, Lima AA: Common infectious diseases and skin test anergy in children from an urban slum in northeast Brazil. Braz J Infect Dis 2003, 7(6):387-394.
17. Hussain A, Ali SM, Kvale G: Determinants of mortality among children in the urban slums of Dhaka city, Bangladesh. Trop Med Int Health 1999, 4(1):758-764.