ORIGINAL ARTICLE

Pattern Of Morbidity Among Pre-School Children Attending The Children's Outpatient Clinic Of Federal Medical Centre Owerri, Nigeria

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ABSTRACT

Background: *Several interventional programmes which sought broadly to promote the health of the child and also prevent diseases were introduced globally in the latter period of the last century. This study set to describe the pattern of morbidity among pre-school children attending the children's outpatient clinic of the Federal Medical Centre, Owerri.*

Method: *The case records of pre- school children who presented at the clinic between January and April 2004 were collected and entered into a spread sheet. The age, sex and diagnosis made were extracted from the records. In cases where more than two diagnoses were made, the most likely two following a review of presenting complaints and findings on examination were chosen.*

Result: *Eight hundred and twenty nine patients consisting of 468(56.2%) males and 361(43.5%) females met the inclusion criteria. Patients aged 0-11months constituted 47.8% while those between 48 and 59 months accounted for 1%. The five commonest causes of morbidity were malaria (60.7%), acute respiratory infection (35.8%), diarrhoeal disease (7.4%), skin infection (6.8%) and urinary tract infection (3.6%). The prevalence of malaria and acute respiratory disease were highest in patients aged between 12 - 23 months while diarrhoea was highest in the group 0 - 11months. The prevalence of Vaccine preventable diseases such as measles and tuberculosis were low accounting for 1.1% and 1% of morbidity respectively.*

Conclusion: *This study shows that morbidity from vaccine preventable diseases is low, which is likely a reflection of the increased emphasis on immunization programmes. The major causes of morbidity in pre school children in Owerri are still common diseases that have been around for a while and are basically preventable.*

KEY WORDS: *Pattern; Morbidity; Preschool children; Owerri.*

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INTRODUCTION

The burden of disease in sub-Saharan Africa is largely borne by children and those under five years of age are most vulnerable. Earlier studies have shown that morbidity and mortality amongst children in the tropics were not due to rare tropical diseases but were caused by preventable illnesses. Protein energy malnutrition, respiratory infections, diarrhoea, malaria and vaccine preventable diseases were reported to have accounted for a significant number of paediatric admissions in hospitals[1-3]. With the increasing availability and use of vaccines more recent reports indicate a reduction in morbidity by vaccine preventable diseases and the increasing importance of malaria, respiratory infections and diarrhoea as causes of morbidity and mortality in children[4-6].

Towards the end of the last century several programs including the Baby Friendly Hospital Initiative (BFHI) and the Integrated Management of Childhood Illnesses (IMCI) were introduced. These interventional programmes sought broadly to promote the health of the child and also prevent diseases. They are mainly targeted at the under fives who are the most vulnerable.

This study aims to describe the pattern of morbidity among pre-school children attending the children's outpatient clinic of the Federal Medical centre, Owerri in South eastern Nigeria.

MATERIALS AND METHODS

This study was carried out between January and April 2004 in the Children's outpatient clinic of Federal Medical Centre, Owerri. The Federal Medical Centre, Owerri is a tertiary care health facility. It acts as a referral centre for Imo state and the surrounding states of Abia and Anambra in South Eastern Nigeria. The clinic runs during working hours from Monday to Friday excluding public holidays. The medical staff on each clinic day during the period of the study usually included a consultant Paediatrician, at least one Registrar and between three to four House officers.

The case records of under fives presenting at the clinic each day were collected and entered into a spread sheet. The age, sex and diagnosis made were extracted from the records. In cases where more than two diagnoses were made, the most likely two following a review of presenting complaints and findings on examination were chosen. Data analysis was done using SPSS Version 10.

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RESULTS

The medical records of 829 patients who the met inclusion criteria were reviewed and entered into the spreadsheet during the study period. There were 468(56.2%) males and 361(43.5%) females giving a male: female ratio of 1.3:1.Those aged 0 - 24months accounted for 73.5% of patients while those between 49 and 59months accounted for 1% (Table I). The three commonest causes of morbidity were malaria (60.7%), acute respiratory infection (35.8%) and diarrhoeal disease (7.4%) (Table II).

The prevalence of malaria ranged between 56% and 68.1% in the different age groups with the highest prevalence in patients between 12 - 23 months. The prevalence of acute respiratory infections was highest in the age group 12 - 23 months while that of diarrhoea was highest in the youngest group (Table III).

Table I. Age distribution of under fives seen at the children's Out patient clinic of Federal medical centre, Owerri

Age (Months)	Total	Percentage (%)
0-12	396	47.8
13-24	213	25.7
25 -36	126	15.2
37-48	85	10.3
49 - 59	9	1

Table II. Frequency distribution of cases seen at the children's outpatient clinic of Federal medical centre, Owerri

Diagnosis	No of Patients	Percentage (%)
Malaria	503	60.7
Acute Respiratory Infection	297	35.8
Diarrhoeal disease	61	7.4
Skin infection	58	6.8
Urinary Tract Infection	30	3.6
Conjunctivitis	21	2.5
Congenital malformations	17	2.1
Furunculosis	17	2.1
Trauma	13	1.6
Atopy	13	1.6
Hyperactive airway disease	11	1.3
Measles	9	1.1
Dog bite	9	1.1
Protein energy malnutrition	9	1.1
Tuberculosis	8	1
Seizure disorder	7	0.8
Cerebral palsy	7	0.8
Helminthiasis	6	0.7
Hernia	6	0.7
Otitis media	6	0.7

Table III. The three most common causes of morbidity by age distribution of patients seen at the children's outpatient clinic of Federal medical centre, Owerri

Age in Months.	Malaria	Acute Respiratory Infection.	Diarrhoea
0 -11	26(57.1%)	153(36.6%)	39(9.8%)
12 -23	145(68.1%)	85(39.9%)	11(5.2%)
24 -35	74 (58.7%)	38 (30.2%)	7(5.6%)
36 -47	54 (63.5%)	24 (28.2%)	4(4.7%)
48 -59	5 (55.6%)	1(11.1%)	0(0.0%)

DISCUSSION

This study shows that the three commonest causes of morbidity amongst under fives presenting at the Children's outpatient are malaria, acute respiratory infection and diarrhoea. Even in the early years of the twenty-first century this morbidity pattern still reflects those earlier reported in the terminal years of the last century[6].

A diagnosis of malaria was made in more than half of the patients in this study. This is not unexpected given that the study area is holoendemic for malaria and that the under fives are especially at risk for even the severe forms of malaria. Important though is the fact that this is purely a clinic diagnosis made from the presenting complaints and findings on clinical examination. While the absence of a blood smear for malaria parasite increases the risk of over diagnosis, fever has been reported in several studies to be a significant presumptive sign for diagnosis of malaria in malaria endemic areas[7]. The high prevalence of acute respiratory infection in this age group is in keeping with results from several other studies[3, 4, 8, 9]. In this study diarrhoea was the third most common diagnosis and accounted for 7.4% of total diagnosis. In several earlier studies it was the commonest diagnosis. Possible explanations could include the impact of exclusive breastfeeding program and the availability of treated pipe borne water in Owerri.

The diagnosis of malaria and acute respiratory infection were highest in patients aged between 12 months and 23 months while that of diarrhoea was highest in those between 0 and 11months. All three conditions were lowest in the age group 48 months to 59 months. It would appear that susceptibility to these diseases decreased as the child's immunity increased with increasing age.

Of the six common vaccine preventable diseases i.e. tetanus, measles, pertusis, diphtheria, poliomyelitis and tuberculosis only two were seen.

measles and tuberculosis accounted for only 2.1% of diagnoses. With increasing availability of vaccines and increasing immunization rates[6, 10] it is expected that morbidity from vaccine preventable diseases would further reduce.

Trauma, which was mainly from home accidents, accounted for 1.6% of diagnoses while dog bite accounted for 1.1%. While most home accidents are unintentional, the attending physicians should endeavour to look out for subtle signs that would suggest child abuse. The incidence of dog bite could rise as a result of increasing number of stray dogs whose immunization status are uncertain. This for certain will have public health implication from the probable increased risk of rabies.

This study has largely shown that the major causes of morbidity in pre school children are not only preventable but are also amenable to cost effective and simple treatment.

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