

Care-Seeking Behaviour of Caregivers for Common Childhood Illnesses in Lagos Island Local Government Area, Nigeria

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ABSTRACT

Background: The objectives were to estimate a 2-week prevalence for common childhood illnesses targeted by the National Integrated Management of Childhood Illness (IMCI) Initiative and to determine care-seeking behaviour of mothers/caregivers for these illnesses.

Methods: A cross-sectional community survey was conducted in the Lagos Island Local Government Area of Lagos State. Eligible children aged 0-5 years and their mothers/caregivers were recruited into the study by cluster-sampling technique.

Results: Four hundred and ninety-five children of 450 mothers were identified. Of these, 426 (86.1%) children belonging to 390 mothers/caregivers had symptoms suggestive of malaria, acute respiratory infections, diarrhoea and measles. Care was sought outside the home at the onset of symptoms for 280 (65.7%) while 146 (34.3%) were treated at home. Of the 280 who were taken for care outside, 23 (8.2%) were taken for care at the onset of illness while the others were taken for care after an attempt at self-treatment (68.6%), use of traditional medicines (12.5%) and provision of traditional home care (10.7%). Only 65 (23.2%) of the children were taken for care within 24 hours of perceived onset of the illness.

Conclusion: IMCI targeted childhood illnesses were prevalent and poor maternal response that could contribute to complicated outcome was identified.

KEY WORDS: Care-seeking behaviour; Caregiver; Childhood illness; Integrated Management of Childhood Illness; Under-five; Nigeria.

Paper accepted for publication 8th September 2004.

INTRODUCTION

High under-five mortality rate (U5MR) experienced in developing countries has been a matter of global concern. The World Health Organisation (WHO) estimated that annually some 12 million children die before they attain their fifth birthday in developing countries; and that, many of the deaths occur during their first year of life. It is also estimated that about seven in ten of the deaths were due to acute respiratory infections (ARI), malaria, diarrhoea, measles, and malnutrition or to a combination of the five conditions. These 5 conditions are also responsible for three out of every four episodes of childhood illness in developing countries¹.

Although high U5MR experienced in developing countries is a consequence of interplay of social, economic, cultural, environmental and political factors, inappropriate response of mothers/caregivers to episodes of childhood illnesses is also an important determinant of outcome. For example, a report from Morogoro, Tanzania revealed that about 80% of deaths in children under the age of five years occurred at home². Similarly, a study of care-seeking for fatal illnesses in young children in Indramayu, West Java, Indonesia reported that no treatment was sought for 22% of children who died from natural causes; while for another 42%, only traditional or other sources of non-western medical advice was consulted³. Furthermore, in a pathway study of 271 childhood deaths that occurred in Bolivia, most were attributable to inappropriate care-seeking behaviour⁴.

This study, therefore, estimated a 2-week prevalence for common childhood illnesses (those targeted by the national Integrated Management of Childhood Illnesses Initiative) and determined care-seeking behaviour of mothers/caregivers in the Lagos Island Local Government area of Lagos State, Nigeria.

MATERIALS AND METHODS

Lagos Island Local Government Area (LILGA) is an entirely urban local government area in Lagos State, Nigeria. The land area that now constitutes the LILGA was part of Lagos Town Council area that was established in 1917, long before Nigeria got her independence. As a result, the area has a well-established historical and cultural background. In deed, today, it is the fountain of business and commercial life of Nigeria.

Consequent upon the booming commercial and corporate activities, the area that was originally a fishing island has been transformed to a booming corporate and trading centre in the heart of Lagos. The area has thus attracted settlers of diverse cultures and religions. But, the main inhabitants remained the Yorubas, the original indigenous inhabitants. The mass influx of people has resulted in rapid urbanisation. With a population of 208,000 people (1991 national population census), the LGA is densely populated with most of the inhabitants living under very poor housing and sanitary conditions. Presently, the LGA is sub-divided into 7 districts.

The Local Government authority provides preventive and promotive health care services through many health centres. These health centres provide maternal and child health and other primary health care services. There are 3 main secondary (specialists) health care facilities to cater for the secondary health care needs of children, women and the entire population. There is a good physical access to these government health facilities as the entire population, within 15 minutes at the most, can get to any of the facilities. In addition, there are many private orthodox and traditional health facilities. Private pharmacies and patent medicine stores also provide health care.

The study was a cross-sectional survey that targeted mothers/caregivers of children aged 0-59 months residing in the study area. (A caregiver was defined for the purpose of the study as any person who was primarily responsible for looking after a child. It thus included natural parents, foster parents or other relations who took decision on how a child is looked after). Selection of subjects for

the study was by means of cluster sampling technique recommended by the World Health Organisation (WHO) for Expanded Programme on Immunisation (EPI) household surveys⁵.

Sample size was determined using the EPI-INFO version 6 statistical software. Accepting a confidence level of 95%, a prevalence rate for use of orthodox facilities by mothers/caregivers of 50%, an error margin of 5% and a cluster correction factor of 10%, a minimum sample size of 442 mothers/caregivers was determined. This figure was however increased to 450. Prior to data collection, the 7 districts were sub-divided into 128 easily identifiable clusters of roughly equal sizes (about 50 to 60 buildings per cluster) with the assistance of appropriate LGA officials. For statistical reliability and constraints of logistics, 30 clusters were systematically selected for the study and from each cluster, 15 eligible mothers were recruited serially using the method described by WHO⁵.

Information was collected from recruited mothers/caregivers with a modified WHO questionnaire for multi-country evaluation of IMCI6 that was adapted to suit the aims and objectives of the survey. Local terminologies for the targeted childhood illnesses as well as for the relevant signs and symptoms were obtained from the national training materials on Integrated Management of Childhood Illnesses (IMCI). Thus, the questionnaire sought information on the social and demographic characteristics of the mothers/caregivers and obtained additional information about their children. Specific information was obtained about the occurrence of symptoms/signs of any of the targeted illnesses in the 2 weeks preceding the survey day and on action taken by the mothers/caregivers in respect of the last episode that the eligible child had. Information was also sought on the available sources of health care in the LGA, particularly in the vicinity of the mothers/caregivers' residence.

RESULTS

Four hundred and ninety-five (495) eligible children of 450 mothers/caregivers were identified during the survey. Of these, 426 (86.1%) belonging to 390 mothers/caregivers had malaria (fever), ARI, diarrhoea or measles during the 2-week period preceding the day of

the survey; none reported malnutrition. All identified caregivers were females.

Table I shows the social and demographic characteristics of the mothers/caregivers that indicated that most, 267 (68.4%) were aged between 25 and 44 years. Almost all, 361 (92.6%), had some formal education but 92 (23.6%) were not married, all had had children and 304 (77.9%) estimated that they earned less than 36,000 naira (thirty six thousand naira or approximately 360 US\$) per annum, the legal minimum wage for the country at the time of the study. Concerning the age and the sex distribution of the 426 children whose mothers/caregivers reported symptoms or signs of the targeted illnesses, 294 (69.0%) were aged 1 year or above, 112 (26.3%) were aged 2 months to less than 1 year while 20 (4.7%) were less than 2 months old. Both sexes were equally represented: males (52.1%) and females (47.9%). Care was sought outside the homes for 280 (65.7%) while 146 (34.3%) were treated at home.

Table II shows the first action taken by the mothers/caregivers to restore the child's health by type of illness. Self-treatment (treatment with drugs purchased from local patent medicine stores/pharmacies) was the most frequent first action undertaken by mothers/caregivers in an effort to restore the children's health (68.6%) and it was more frequently done for fever (75.2%), cough (65.5%), measles (63.3%) and diarrhea (56.3%). Only 23 (8.2%) of the children were taken for care outside home as a first action. None of the children with measles was taken for care outside the home as a first action.

Table III shows the duration of illness before care was sought. Essentially, less than a quarter (23.4%) of the sick children were taken for care within 24 hours of the onset of illness. Care was more frequently sought within 24 hours for cough or difficult breathing and fever compared with diarrhoea and measles.

Table IV shows mothers/caregivers' choice of health care providers when care was sought from outside home. About three-fifth (60.7%) of mothers/caregivers sought care for their sick children from government health facilities while one-tenth sought care from private health facilities. Fever was the most important symptom prompting care seeking

outside the homes. When mothers/caregivers did not seek care, the reasons more frequently volunteered for not seeking care include: "illness episodes not serious" 113 (77.4%) and lack of money 14 (9.6%). Action taken for such children include, self-treatment for 114 (78.1%), prayers 3 (2.1%) and traditional home care for one (0.7%). Twenty-eight (19.2%) did not respond to the question.

In general, mothers/caregivers in the study area demonstrated poor knowledge of signs of severe illness for children with diarrhoea, ARI and measles (Table V). Among reasons volunteered by mothers/caregivers as constraints to the use of government health facilities in the study area include: non-availability of drugs (60%), high cost of services (55.1%), poor attitude of staff (35.1%), long waiting period (32.6) and poor facilities and equipment (20.0%).

Table VI shows the association between some characteristics of mothers/caregivers, their children and care-seeking outside the homes. Parity and maternal education were the only factors that were statistically significantly associated with care-seeking outside the homes.

Table I. Social and demographic characteristics of mothers/caretakers

Characteristics	Number	%
(n=390)		
Age (years)		
15-24	107	27.4
25-34	208	53.3
35-44	59	15.1
45-55	8	2.1
55 and above	1	0.3
No response	7	1.8
Level of education		
No formal education	27	6.9
Primary	148	37.9
Secondary	201	51.5
Post-Secondary	12	3.1
No response	2	0.5
Marital Status		
Single	92	23.6
Married/living with spouse	265	67.9
Divorced/separated/widowed	30	7.7
No response	3	0.8

Parity			Mothers/Caregivers estimated monthly income (Naira)		
1	140	35.9	Less than 3,000	304	77.9
2-4	205	52.6	3,000-4,999	53	13.6
5 and above	45	11.5	5,000-9,999	4	1.0
Religion			10,000 and above	2	0.5
Christianity	107	27.4	No response	27	6.9
Islam	271	69.5			
Traditional	9	2.3			
No response	3	0.8			

Table II. First action undertaken by mothers/caregivers to restore child's health by type illness

Illness	First action Frequency (%)				Total
	Self treatment	Traditional medicine	Traditional home care	Sought orthodox care	
Cough or difficult breathing	97 (65.5)	17 (11.5)	18 (12.2)	16 (10.8)	148 (100)
Fever	79 (75.2)	14 (13.3)	5 (4.8)	7 (6.7)	105 (100)
Diarrhoea	9 (56.3)	2 (12.5)	5 (31.3)	0 (0.0)	16 (100)
Measles	7 (63.6)	2 (18.2)	2 (18.2)	0 (0.0)	11 (100)
Total	192 (68.6)	35 (12.5)	30 (10.7)	23 (8.2)	280 (100)

Table III. Duration of illness before care was sought

Illness	Duration Frequency (%)					Total
	< 24 hrs	1-2 days	3-4 days	> 4 days	No response	
Cough or difficult breathing	35 (23.6)	38 (25.7)	37 (25.0)	27 (18.2)	11 (7.4)	148
Fever	28 (26.7)	23 (21.9)	30 (28.6)	17 (16.2)	7 (6.7)	105
Diarrhoea	2 (12.5)	6 (37.5)	3 (18.8)	5 (31.3)	0 (0.0)	16
Measles	0 (0.0)	0 (0.0)	7 (63.6)	2 (18.2)	2 (18.2)	11
Total	65 (23.2)	67 (23.9)	77 (27.5)	51 (18.2)	20 (7.1)	280

Table IV. Mothers/caregivers' choice of health care facility

Health Facility	Number	%
Government hospital	91	32.5
Government health centre	79	28.2
Private health facility	30	10.7
Private pharmacy/	13	7.6
Patent medicine stores		
Traditional/herbal home	9	3.2
Private nursing homes	4	1.4
Religious leaders	2	0.7
No response	52	18.6
Total	280	100.0

Table V. Mother'/caregivers' knowledge of signs of severe illness in children with ARI, diarrhea and measles

Signs	Number of correct responses (n=390)	
ARI		
Child becomes sicker	97	24.9
Fever	80	20.5
Difficult breathing	79	20.3
Fast breathing	42	10.8
Diarrhoea	181	46.4
Child becomes sicker	139	35.6
Drinking poorly	96	24.6
Many more watery stools	57	14.6

No improvement after 3 days	57	14.6	Not able to drink	65	16.7
Fever	52	13.3	Child becomes sicker	63	16.2
Blood in stool	11	2.8	Breathing becomes difficult	26	6.7
Measles			Eye problem	18	4.6
Persistent fever	196	50.3	Fast breathing	11	2.8

Table VI. Socio-demographic factors associated with care-seeking outside home

Factor	Test	Value	Df	P	Remark
Age of mother (yrs) Less than 30 vs 30 or older	χ^2	0.22	1	0.63	NS
Marital status Single vs Married	χ^2	0.11	1	0.75	NS
Parity One vs Two or more	χ^2	0.38	1	0.02	S
Education Nil/Primary vs Secondary/Tertiary	χ^2	4.03	1	0.045	S
Age of child (yrs) Less than 1 vs 1 or older	χ^2	2.21	1	0.14	NS
Sex of child	χ^2	2.10	1	0.14	NS
Birth order First vs Higher birth order	χ^2	2.0	1	0.16	NS

DISCUSSION

This study estimated a 2-week prevalence for ARI, diarrhoea, malaria malnutrition and measles and ascertained care-seeking behaviour of mothers/caregivers in Lagos Island Local Government area of Nigeria for these conditions. In developing countries, ARI, diarrhoea, malaria, malnutrition and measles account for significant morbidity and mortality. In the 2-week period of this study, mothers/caregivers of 9 of every 10 children enlisted into the study reported episodes of symptoms of these conditions and this essentially agrees with the report of the WHO that at least 3 out of 4 episodes of childhood illnesses are due to these conditions¹.

Studies have linked both mortality and development of long term complications from common childhood illnesses to delay in care seeking or care seeking from inappropriate health care providers²⁻⁴. A study of home

management of malaria reported a pattern of sequential resort in which parents first self-medicated before seeking care outside home when the effort had evidently become unsuccessful⁷. Similarly, another study of care-seeking behaviour for diarrhoeal diseases in Cameroon described treatment for diarrhoeal diseases that occurred at 3 levels with mothers seeking help from the biomedical sector as a last resort when the illness persisted and had become severe⁸. In agreement with these studies, self-treatment was the most frequent first action taken by mothers/caregivers although it was usually undertaken within the first 24 hours of onset of illness. Thus, when mothers/caregivers eventually sought care outside their homes, this was very often delayed for over 24 hours. Less than a quarter of the sick children were taken for care within 24 hours of onset and this proportion was lowest for measles (0%) and diarrhoea (12.5%). While delay in care seeking for

diarrhoea may reflect promotion of use of oral re-hydration to treat diarrhoea at home, that of measles may probably still reflect the widely held belief that western medicine is ineffective for the treatment of measles.

Self-treatment as a first or sometimes the only resort in home management of childhood illnesses is common in developing countries⁹⁻¹¹. A review of health services' utilisation for childhood illnesses from 6 African countries reported that 23-68% of sick children were not taken for medical visit¹². Similarly, a study of health care seeking for childhood illnesses in Guatemala concluded that despite improvement in coverage of rural areas with health centres, utilisation of public health services for childhood illnesses remained low. Mothers in that study relied on self-care for 34-83% of reported episodes of childhood illness¹³. A third (34.3%) of the sick children identified during this study were not taken for medical care. Mothers/caregivers of many of these children claimed that the children got better with self-treatment.

Culturally defined notions about severity of an illness have been observed to be critical to caregivers' response to illness. The importance of this as a predictor of health service utilisation has been documented^{14,15}. Probably, one important factor for ensuring prompt care seeking from appropriate provider is improved recognition of signs of severe or potentially severe illness by mothers. For example, poor maternal recognition of rapid breathing, a most sensitive predictor of pneumonia in young children was observed in Ile-Ife, Nigeria¹⁶. Such poor recognition or interpretation of important symptoms/signs of illness often leads to delay in care seeking. Mothers in this study similarly demonstrated poor knowledge of signs of potentially severe illness in children with ARI and diarrhoea as have been reported by other studies^{17,18}. Although fever is a common reason for mothers to seek care, yet fever may be absent in the presence of a severe illness and especially in situation where analgesics are frequently used as part of self treatment efforts. While it may be over-ambitious to expect that children in developing countries will be taken for medical care for every episode of illness, teaching mothers/caregivers to recognise signs

of serious illnesses can certainly assist them in making better decision concerning self-treatment and thus promote timely care-seeking. Moreover, strengthening mothers' competence to recognise and manage frequent illnesses and problems of their children has been advocated as part of the "Shared care" concept¹⁹.

Another factor affecting care seeking or utilisation of health services is the client's perception of the quality of services. Studies have reported that non-availability of drugs and long waiting time before treatment is received are perceived as indicators of poor quality of service²⁰. It has similarly been reported that even when mothers had been convinced of the potency of orthodox medicine, they still utilised self-medication or consulted quacks to avoid these difficulties²¹. In the current study, despite very good physical access of the populace to government health facilities, non availability of drugs, high cost of service, poor attitude of staff and long waiting time were identified by mothers as important constraining factors to the use of government health facilities. Notwithstanding the foregoing, government health facilities remained the most popular when a need to seek care became apparent.

In essence, the findings of this study underscore the need for adoption and concurrent promotion of the 3 components of IMCI. IMCI's first component through improvement of the case management skills of first level health care providers and emphasis on one-to-one communication and purposeful counselling of mothers/caregivers seeks to improve maternal recognition and interpretation of important symptoms and signs of illnesses and ensure that sick children are appropriately managed at first health care level. Similarly, the second component seeks to improve health systems to ensure constant availability of relevant drugs and equipment to ensure that sick children are looked after effectively. The role of the third component towards ensuring improvement in family and community practices to ensure that children are adequately cared for at home while sick ones are taken promptly for care need not be emphasized.

It is concluded that IMCI targeted childhood illnesses are prevalent in the study

area and although the population have good physical access to government and private health facilities, deficiencies in care-seeking behaviour of mothers/caregivers that could contribute to fatal or complicated outcome were identified. Respondents attributed some of these deficiencies to problems with the formal health system. Promotion of the three components of IMCI to maximise its potentials is imperative.

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