

# Health-Seeking Behaviour for Infants by Caregivers in a Semi-Urban Area of Lagos State, Nigeria

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## ABSTRACT

**Background and Objective:** Nigeria was unable to meet the Millennium Development Goal target for child mortality. Progress has been hampered by a host of factors which include poor maternal response to childhood illness and inappropriate health-seeking behaviours. This study was done to assess the health-seeking behaviours for infants by caregivers in Orile Agege Area.

**Materials and Methods:** A community-based, descriptive, cross-sectional study using an interviewer-administered questionnaire was done among the caregivers of infants in Orile Agege Local Council Development Area. Three hundred and two caregivers were recruited using a multistaged sampling method. Analysis was done using SPSS. *T*-test and Chi-square were used to test for association among variables.

**Results:** About half of the caregivers who said their infants had been sick in the study took the child for treatment within 24 h of the onset of the illness, most (40%) of them sought treatment from a health facility. The barriers to seeking healthcare at health facility that was mostly mentioned in this study were financial constraints (15.1%) and poor service (5.7%).

**Conclusion:** Most of the caregivers in the area sought treatment outside the home for their infants when they were sick and they mostly patronised health facilities and health workers. About half of the respondents promptly sought healthcare for their infants in the case of their illness.

**Key words:** Community, general paediatrics, infectious diseases

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## INTRODUCTION

Child mortality is a fundamental measurement of a country's level of socioeconomic development as well as the quality of life, about half of the child mortality in the world occurs in Africa.<sup>1</sup> In nearly all populations, deaths before age 1 comprise the majority of deaths in children <5 years of age.<sup>2</sup> Despite the progress recorded in infant mortality worldwide, there is a concern about the pace of improvement recorded in the Sub-Saharan Africa region, the region still has the highest level of infant mortality rate standing at about 90.1/1000 live births.<sup>3</sup>

Worldwide, over 34% of deaths in children under the age of 5 are due to pneumonia, measles, malaria and diarrhoea which are the most common infectious causes of illnesses.<sup>4</sup> These diseases are preventable and treatable if they are

noticed early, and the child is taken to the appropriate health facility early enough. The importance of caregivers' ability to recognise and seek appropriate care for their children is also one of the recommended key activities in the WHO's and UNICEF's Global Action Plan for the Control of Pneumonia and Diarrhoea.<sup>5</sup>

In Nigeria, according to the National Demographic and Health Survey (NDHS) of 2013, about 35% of children with symptoms of acute respiratory infections were taken for the treatment at a health facility, 29% of children with diarrhoea were taken to a health facility, whereas 38% of the children with diarrhoea were treated with oral rehydration therapy.<sup>6</sup> Another study done in Lagos Island showed that only 23.2% of the children were taken for care within 24 h of perceived onset of the illness and just 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

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traditional medicines (12.5%) and provision of traditional home care (10.7%).<sup>7</sup>

Despite the success recorded in child health in Nigeria evidenced by 26% decline in infant mortality over the last 15 years and 31% decline in under-five mortality over the same period,<sup>6</sup> the levels are far below the targets set by the WHO. Progress has been hampered by a host of factors which include poor maternal response to childhood illness<sup>7</sup> and inappropriate treatment practices.<sup>8</sup> Quick treatment of illnesses in children depends on the adequacy of mothers' knowledge and recognition of the signs and symptoms, also very important is the ability of caregivers to seek the appropriate care for the sick child.

This study is being done to assess how and where caregivers seek healthcare for infants, what factors influence their choices and decisions and their perception of the benefits of seeking healthcare at a health facility. The outcome of this study will benefit health service providers working towards improving their services and user confidence in their facilities. It will also guide policymakers on how best to ensure that caregivers seek healthcare at the appropriate facility for their infants in cases of illness.

## MATERIALS AND METHODS

### Study design

This was a community-based, descriptive, cross-sectional study using quantitative data collection approach. The study was conducted over 6 weeks.

### Study area

The study was carried out in Orile Agege Local Council Development Area (LCDA), which is one of the 57 local governing councils in Lagos state. Lagos is the most populous state in Nigeria with population of over 15 million people. There are six political wards in the area, namely Orile, Papa-Ashafa, Oke-Koto, Oyewole, Powerline and Isale Odo with 35 community development areas. The population of the area is approximately 650,000. The predominant tribe in the area is Yoruba, and the predominant occupation is trading. The area has a general hospital, 2 primary healthcare centres and about 37 private health facilities.

### Study population

The study participants were caregivers of children below the age of 12 months who were residing in Orile-Agege LCDA. Caregivers whose children were 12 months old and below and who had been resident in the area for at least a year were included in the study, while caregivers who were <15 years of age were excluded from this study.

### Sample size determination

The sample size was calculated using the Fisher's statistical formula ( $N = \frac{Z^2 pq}{d^2}$ ). Using a prevalence of 77% (0.77), being the percentage of caregivers who did not comply with health

worker's instruction because of the cost of treatment in Edo State,<sup>9</sup> and accounting for a 10% non-response rate, the sample size was calculated to be 302.

### Sampling method

Multistage sampling method was used in selecting respondents. The LCDA was purposively selected among the LCDAs in Lagos State.

- Stage 1 – Selection of wards: Simple random sampling was used to select 3 out of the 6 wards in the LCDA using balloting method
- Stage 2 – Selection of streets: The streets in each ward were enumerated and 20 streets were selected using systematic sampling method, each of the ward had an average of 60 streets, the sampling interval was calculated by dividing the total number of streets per ward by the targeted number of streets for inclusion which gave a sampling interval of 3
- Stage 3 – Selection of houses: The number of houses in each of the streets ranged from 25 to 35 in number. Five houses were selected per street using systematic sampling method. The sampling interval was calculated by dividing the total number of houses per streets by the targeted number of houses for inclusion which gave a sampling interval of 6. A simple random method of balloting was used to select the first house
- Stage 4 – Selection of households: In each of the selected houses, the first household to the left in the apartments was used, when the house was a block of flats, the first household on the ground floor was used, in houses that contained just one household, the household was selected. In selected households that had no infant that met the inclusion criteria, the next household was used.

### Data collection tools and techniques

Information was obtained with the aid of pre-tested, structured, interviewer-administered questionnaires, which was adapted from a UNICEF IMCI survey instrument.<sup>10</sup> Data were collected on Monday through Saturday between the hours of 10 am and 5 pm. The questionnaire was translated to Yoruba for ease of administration to respondents who were not literate.

### Data management and analysis

All questionnaires were given a unique identification number that was recorded on the questionnaire. Statistical analysis of data obtained was performed using SPSS program version 21 (IBM Corporation. Released 2012. Armonk, NY) for Windows. Descriptive statistics including mean, standard deviations, cross-tabulation and frequencies was performed. Pearson's Chi-square and *t*-test were used to test for association and relationship of selected factors with caregiver's healthcare-seeking behaviour.

### Ethical consideration

Ethical clearance was obtained from the University of Lagos Teaching Hospital Health Research Ethics Committee.

Approval to conduct the study was given verbally by the authorities of the Local Council Development Authority in Orile Agege.

## RESULTS

Most (90%) of the respondents were mothers of the infants, followed by grandmothers (5.3%). Mean age of the respondents was  $30.88 \pm 8.28$  and most of them (63%) were between 25 and 34 years of age, with most of them being Yoruba (69%) and married (90.8%). The family size ranged from 3 to 8, the mean family size was  $4.27 \pm 1.12$ . The respondents mostly (61.7%) had up to secondary school education and were also mostly (69.6%) self-employed.

The infants of the caregivers enrolled in the study were mostly 12 months old (21.1%) and 1 month old (14.2%), 51.5% were male while 48.5% were female. The infants were mostly given birth to in private hospitals (58.7%). The birth positions ranged from 1 to 6 with a mean of  $2.25 \pm 4.1$ .

Variable	Response	Frequency (%)
Sought treatment outside the home ( <i>n</i> =133) <sup>†</sup>	Yes	120 (90.2)
	No	13 (9.8)
Total		133 (100.0)
Where ( <i>n</i> =120) <sup>†</sup>	Government hospital	11 (9.2)
	Government health centre	48 (40.0)
	Private physician	19 (15.8)
	Pharmacy	6 (5.0)
	Shop or stall	1 (0.8)
	Drug seller	7 (5.8)
	Religious leader	2 (1.7)
	Relative, friend or elder (outside household)	23 (19.2)
	Traditional healer	1 (0.8)
	Nurse	2 (1.7)
Total		120 (100.0)
Used a second provider ( <i>n</i> =120) <sup>†</sup>	Yes	24 (20.0)
	No	96 (80.0)
Total		120 (100.0)
Reason for using another provider ( <i>n</i> =26) <sup>†</sup>	Child was not cured	16 (61.5)
	Advised by health facility/doctor to do so	2 (7.7)
	Medication was too expensive	5 (19.2)
	Instructions for treatment were too difficult to follow	1 (3.8)
	Advised by friend/relative/ neighbour	1 (3.8)
	Poor service	1 (3.8)
Total		26 (100.0)
Time ( <i>n</i> =140) <sup>†</sup>	Within a day	69 (49.3)
	After a day	71 (50.7)
Total		140 (100.0)

<sup>†</sup>Multiple responses were allowed

## Health-seeking behaviour of caregiver for infants

Almost all (90.2%) the caregivers whose infants were sick in the past 2 weeks [Table I] sought advice or treatment outside the home. Most of them sought treatment or health advice from government health centre (40%), relatives, friends or elders (19.2%) and private physician (15.8%). Eighty percent of the people in this category consulted another provider while 20% did not, among those who consulted another health provider 61.5% said it was because the child was not cured, while 19.2% mentioned too expensive medication as the reason.

Caregivers were also asked how much time passed between when the illness was recognised and when healthcare was sought [Table I], 49.3% of them did so within a day while 50.7% did so after a day.

## Factors affecting health-seeking behaviour

In this study, healthcare decisions were in most cases (63%) jointly made by the father and the mother of the infants when they were sick, but it was mostly (93%) the mother who took the child to the health facility to access healthcare. About 84.3% of the respondents accessed healthcare facility within a 5 km distance of where they stayed. The barriers to seeking

Variable	Response	Frequency (%)
Decision maker ( <i>n</i> =291) <sup>†</sup>	Mother	32 (11.0)
	Father	13 (4.5)
	Mother and father	184 (63.2)
	Relative	11 (3.8)
	Doctor	33 (11.3)
	Nurse	18 (6.2)
Total		291 (100.0)
Child was taken by ( <i>n</i> =299) <sup>†</sup>	Mother	278 (93.0)
	Father	12 (4.0)
	Relative	9 (3.0)
Total		299 (100.0)
Distance to health facility ( <i>n</i> =280) <sup>†</sup>	<5 km (1 h walk)	236 (84.3)
	5-10 km (1-2 h walk)	37 (13.2)
	>10 km. (>2 h walk)	7 (2.5)
Total		280 (100.0)
Barriers to using health facility ( <i>n</i> =317) <sup>†</sup>	Financial costs	48 (15.1)
	Easy access to drugs outside of the health facility	12 (3.8)
	Quality of care is less than satisfactory	15 (4.7)
	Distance	5 (1.6)
	Time away from work	1 (0.3)
	Time away from other children	2 (0.6)
	Lack of decision-making capacity with regard to taking an ill child to a health facility	3 (0.9)
	Health worker attitude	9 (2.8)
	Poor service	18 (5.7)
	Perception of modern drugs	1 (0.3)
None	203 (64.0)	
Total		317 (100.0)

<sup>†</sup>Multiple responses were allowed

healthcare at health facility that was mostly mentioned were financial constraints (15.1%), poor service (5.7%) and the unsatisfactory quality of care (4.7%) as shown in Table II.

### Association of selected sociodemographics with knowledge, attitude and health seeking

Chi-square analysis conducted on age, level of education, place of delivery and birth position [Tables III and IV] against

the time taken to seek healthcare and where healthcare was sought were found not to be statistically significant association at  $P < 0.05$ .

## DISCUSSION

Among the respondents who mentioned that their infants had been sick in the past 2 weeks, 90.2% of them sought treatment

**Table III: Association of selected factors with time taken to seek healthcare for infant**

Variable	Time taken, <i>n</i> (%)		Total	<i>t</i>	<i>P</i> *
	Within a day	After a day			
Age					
15-24	9 (40.9)	13 (59.1)	22 (100.0)	-0.538	0.592
25-34	45 (52.3)	41 (47.7)	86 (100.0)		
35 and above	15 (46.9)	17 (53.1)	32 (100.0)		
Variable	Time taken, <i>n</i> (%)		Total	$\chi^2$	<i>P</i> *
	Within a day	After a day			
Highest level of education					
Primary and below	5 (41.7)	7 (58.3)	12 (100.0)	1.227	0.571
Secondary	42 (47.2)	47 (52.8)	89 (100.0)		
Tertiary and above	22 (56.4)	17 (43.6)	39 (100.0)		
Place of delivery					
Health facility	58 (49.6)	59 (50.4)	117 (100.0)	0.023	0.878
Outside health facility	11 (47.8)	12 (52.2)	23 (100.0)		
Birth position					
1	19 (57.6)	14 (42.4)	33 (100.0)	1.893	0.595
2	25 (48.1)	27 (51.9)	52 (100.0)		
3	16 (50.0)	16 (50.0)	32 (100.0)		
4 and above	9 (39.1)	14 (60.9)	23 (100.0)		

\*Significance level= $P < 0.05$

**Table IV: Association of selected factors with where healthcare was sought**

Variable	Health seeking, <i>n</i> (%)		Total	<i>t</i>	<i>P</i> *
	Health facility/personnel	Non-health facility/personnel			
Age group					
15-24	8 (53.3)	7 (46.7)	15 (100)	2.49	0.288
25-34	56 (73.7)	20 (26.3)	76 (100)		
35 and above	20 (69.0)	9 (31.0)	29 (100)		
Variable	Health seeking, <i>n</i> (%)		Total	$\chi^2$	<i>P</i> *
	Health facility/personnel	Non-health facility/personnel			
Education level					
Primary and below	8 (72.7)	3 (27.3)	11 (100)	1.25	0.535
Secondary	47 (66.2)	24 (33.8)	71 (100)		
Tertiary and above	29 (76.3)	9 (23.7)	38 (100)		
Place of delivery of child					
Health facility	69 (71.9)	27 (28.1)	96 (100)	0.80	0.37
Non-health facility	15 (62.5)	9 (37.5)	24 (100)		
Birth position					
1	19 (70.4)	8 (29.6)	27 (100)	0.10	0.992
2	35 (68.6)	16 (31.4)	51 (100)		
3	17 (70.8)	7 (29.2)	24 (100)		
4 and above	13 (72.2)	5 (27.8)	18 (100)		

\*Significance level= $P < 0.05$

for their sick infants outside the home; this can be explained by the fact that there is free healthcare in the government health centres in Lagos State and the preponderance of private hospitals in the area. Similar findings were observed in studies done in Enugu and Dhaka, Bangladesh,<sup>11,12</sup> but contrast with the results gotten from the NDHS survey and studies done in Edo and Enugu state.<sup>6,9,13</sup>

Among the respondents who sought healthcare for their infants most of them went to a government health centre, followed by people who sought healthcare at a private health facility and with friends and relatives outside the household; this can be explained by the fact the health centre in the area are affordable and offer free treatments for childhood illnesses. This result is different from those obtained in Bangladesh, Enugu and Edo state, where drug sellers were the most patronised,<sup>9,12,13</sup> but it is similar to results obtained in India, Pakistan and Kenya.<sup>14-16</sup>

In this study, 49.3% of the sick infants were taken to a health facility within 24 h of the onset of the illness, this result is similar to what was obtained in the study done in Equatorial Guinea where almost the same percentage of children were taken for healthcare within a day of the occurrence of the illness<sup>17</sup> but is slightly different from what was obtained in two different facility-based and community-based study done in Nigeria.<sup>11,18</sup>

In this study, the most common factors that respondents signified will discourage them from seeking healthcare for their infants at a health facility were inadequate finance, poor service at the health facility, unsatisfactory quality of care, easy access to drugs outside the health facility and health worker attitude. These reasons are similar to those adduced in a study done in Port Harcourt, Nigeria.<sup>19</sup>

No statistically significant association was found between the health-seeking behaviour of the caregivers and any of the sociodemographics of the caregiver and the child; this is similar to the community-based study done in Enugu and a health facility-based study done in Tanzania.<sup>11,20</sup>

## CONCLUSION

This study showed that most of the caregivers in the area sought treatment outside the home for their infants when they were sick and they mostly patronised health facilities and health workers as the case may be. About half of the respondents promptly sought healthcare for their infants in the case of their illness.

Inadequate finance, poor service at the health facility, unsatisfactory quality of care, easy access to drugs outside the health facility and health worker attitude were the factors that acted as barriers to seeking healthcare at a health facility by caregivers for their infants. No statistically significant association was found between the sociodemographics of the caregiver and the health-seeking behaviour of the caregivers.

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## Conflicts of interest

There are no conflicts of interest.

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