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Original Research Article

Health-Seeking Behaviours of Mothers of Under-Five Children in Calabar South Local Government Area, Cross River State, Nigeria

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ABSTRACT

Introduction: The importance of good health-seeking behaviours for infant and young children cannot be overemphasized, as it is vital for the reduction of childhood morbidity and mortality from diseases. This study focused on the health-seeking behaviours of mothers of under-five children in Calabar South Local Government Area, Cross River State, Nigeria.
Method: The study was descriptive cross sectional, conducted among 326 mother-child pairs. A validated interviewer-administered questionnaire was used to collect information from mothers of children 6-23 months of age.
Results: The prevalence of illness of the children showed that majority of the children suffered respiratory illness such as cough (34.1%), and 4.5% were reported to have difficulty breathing, while 29.5% were reported to a fever and 33.3% had diarrhoea; 17.1% of the children were still experiencing some form of illness at the time of data collection. Care seeking for child during sickness showed that 42.2% of the mothers consulted drug vendors commonly called chemists; 34.9% and 19.3% consulted government hospitals and health centres, respectively. Many mothers (54.0%) delayed till the child got more ill before taking the child to hospital. Overall health-seeking behaviour of the mothers was seen to be inappropriate by 65.3%. Inappropriate health-seeking rate was significantly higher among children who were still ill.
Conclusion: There were inappropriate health-seeking behaviours for children in the area, and therefore, there is a need to train mothers to seek prompt and appropriate treatment for their children in order to prevent death from preventable diseases and maintain a healthy population.

Keywords: Health-seeking behaviours, Diarrhoea, Childhood morbidity and mortality, Nigeria, Respiratory illness, Care.

INTRODUCTION

Care is defined as the behaviours and practices of caregivers to provide the basic needs such as adequate food and healthcare that are necessary for children's healthy survival, growth, and development. [(1)] The development and growth of infants and young children depends not only on enough and available food in the household, but also on health services that are available and appropriate healthcare-seeking behaviours of their caregivers. [(2)] Healthcare-seeking behaviour is any set of actions taken by an individual in response to a health problem or ill-state in order to find an appropriate evaluation by a health provider. [(3)] Consequently, the World Health Organization (WHO) and United Nations

Children's Fund (UNICEF) have recognized the importance of seeking early care which led to the development of the strategy, Integrated Management of Childhood Illness (IMCI). It lays emphases on appropriate health behaviours as crucial for improving the health status of children and decreasing childhood mortality in the majority of developing countries. [4]

The two leading killers of under-five children are respiratory diseases especially pneumonia and diarrhoeal diseases. [5,6] Despite diarrhoea being a disease that is easy to prevent and treat, it causes about 1.5 million under-five deaths every year, and worse still, it is said to cause more child deaths than malaria, measles and AIDS combined. [7] In 2012, approximately 6.6 million children under the age of five died worldwide and 33% of these deaths were as a result of the diseases such as pneumonia, diarrhoea, and malaria. [8] Africa and South Asia together are home to about 90% of all deaths due to pneumonia and diarrhea. [9] Furthermore, sub-Sahara Africa remains the region with the highest under-five mortality rate in all regions in the world, with 1 child in 12 dying before his or her fifth birthday which is far higher than the average ratio of 1 in 147 in developed countries. [10] In Nigeria, the prevalence of the killer diseases greatly contributes to child mortality which results in reducing life expectancy in Nigeria. Nigeria is the second largest contributor worldwide to the under-five mortality rate. [11] Estimates in 2015 indicated infant mortality rate of 69 per 1000 live births, and an under-five mortality rate of 750 deaths per 1000 live births. [10]

While prompt and appropriate healthcare-seeking is one of the ways that can prevent many of these deaths, where simple and inexpensive treatments are available for each of the illnesses, too few children receive appropriate and timely care. The public health segment include the Primary Health Centers (PHC), secondary and tertiary hospitals while that of the private sector include a wide range of registered and unregistered health providers such as private hospitals, pharmacies, patent medicine dealers, and spiritual traditional healers with patent medicine dealers accounting for more than half of all providers. [12] Nigerians seek care from the public and private health providers since both levels can diagnose and treat illnesses whether appropriate or not, as there are also Nigerians who do not seek any. Certain factors have however, been identified to influence health-seeking behaviours; these include insufficient supply of high quality health commodities and trained health workers; perception of illness; poor geographic access to services; severity of illness; poor quality of care, as well as user-related financial and non-financial barriers. [13,14] Studies have shown that practicing appropriate healthcare-seeking has great prospects of reducing morbidity and mortality due to childhood illnesses. [15] For instance, [1] showed that caregiver's decisions on childcare practices regarding breastfeeding practices, hygiene and treatment during illness of the child had a positive association to child nutritional status. Thus, given the high infant and child mortality rates in Nigeria, there is a patent need to assess the current health-seeking behaviours, with a view to identifying intervention that may ultimately lead to the reduction of infant and child mortality. Further investigation of health-seeking behaviours among primary caregivers is considered necessary to further optimize future strategies within integrated approaches to prevent and treat childhood illnesses.

Purpose of study

The main purpose of this study was to assess the health-seeking behaviours of mothers of under-five children in Calabar South LGA, Cross River State, Nigeria.

Specific objectives

I. To assess the sociodemographic and health related characteristics of the respondents.
II. To assess the health-seeking behaviours of the mothers.

III. To identify the sociodemographic and health-related characteristics associated with health-seeking behaviours.

Significance of study

The present study is of importance to Nigeria as she seeks to provide a better and working healthcare system. The study will contribute knowledge to policy makers for developing strategies for improvement of healthcare delivery in the country. In addition, factual evidence of the incidence of childhood killer diseases in the communities is needed in order to raise awareness of the health problems and the extent of the problems, define policy and promote programmes as may be required which will in turn improve childcare practices at the family and community level.

MATERIALS AND METHODS

Study design

The study design was a descriptive cross-sectional survey.

Study area

This survey was conducted in Calabar South Local Government Area of Cross River State. It is located in South-South Nigeria. Calabar South has an area of 264 km² with a density of 725.4inh/km^2 and a population of 191,630. [16] It is an urban area and consists of 12 wards and the people are predominantly traders, fishermen and civil servants.

Sample population

The sample population was women of childbearing age and their children (6-23 months) residing in study area.

Sample size

The sample size was 326 mother-child pairs.

Sampling procedure

A multi-stage sampling procedure was adopted in selecting respondents for this study. The sampling procedure involved a three stage sampling process. The study area is composed of 12 wards and each ward has between 3 and 13 communities. In the first stage; four wards were selected out of the 12 wards by balloting. Next, from each of the wards, two communities were selected by simple random sampling making a total of eight communities selected. Finally, from each of the communities, 41 households were selected by simple random sampling making a total of the sample population needed for the study. From each household, only one mother-child pair was selected for the study.

Ethical approval/ informed consent

Ethical clearance was obtained from the Ethics Committee of the University of Calabar Teaching Hospital, Calabar. Informed consent of mothers was obtained, requesting their voluntary consent orally.

Data collection: Information was collected from respondents using a content validated interviewer-administered questionnaire.

Measure

Health-seeking behaviours of mothers was assessed by asking the mothers seven questions about their child care-related practices (see Table 3); for each of the question, appropriate practice(s) reported by the mothers were grouped together, and given a score of '1', while inappropriate practices were grouped and given a score of '0' (missing values were also coded '0'); finally, all the questions were summed to create an overall health-seeking behaviour variable, and a cut-off of ≥4 set, to classify behaviour as appropriate.

Statistical analysis

Data generated from this study were coded, entered and summarized using IBM SPSS version 20.0 software for the analysis. The data obtained were analysed using descriptive statistics. Association between independent variables and the dependent variables, health-seeking behaviour, was determined using Chi-square test. Significant level for all associations was set at $p<0.05$.

RESULTS

Maternal characteristics and health related characteristics of the children in the study are shown in Table 1 and 2. Mean age of mothers was 25.6±4.16 years. Majority (39.0%) were aged 20-24 years, followed by

those who were aged 25-29 years (33.1%), about 5.8% were less than 20 years, while only 1.8% were 35 years and above. Most of the mothers (91.1%) were married, while 8.3% were single mothers; separated mothers were 0.3% and widowed mothers were 0.3%. More than half of the mothers (59.5%) had a secondary education as their highest level of education followed by mothers who had primary education (17.8%) and only 1.2% of the mothers had no formal education. Half of the children 164 (50.3%) were males and the rest were females. Two-fifth of the children was infants aged 6-11 months (38.0%), followed by another 35.0% of children who were between the ages 18-23 months, while the rest of the children were aged 12-17 months. All children in the study had been vaccinated. Among these children, majority had completed their immunisation (71.2%), while the remaining population of children (28.8%) had only partially received their immunisation. The proportion of children who were sick within the two weeks prior to the survey was 37.7%. Majority of the children were reported to suffer respiratory illness such as cough (34.1%), and 4.5% were reported to have difficulty breathing, while 29.5% were reported to have had a fever. Diarrhoea episode within two weeks prior to the study was reported among 33.3% of the children, while most of the children (66.7%) did not encounter any diarrhoea. Only 17.1% of the children were still experiencing some form of illness by the time of data collection.

The health-seeking behaviour of mothers is presented in Table 3. Less than half (43.9%) of the infants were delivered in government established hospitals or health centres; 40.2% were delivered in homes; while 12.6% were delivered in private hospitals. The frequency of breastfeeding and complementary feeding of the children at normal times and was reported to be same for 53.8% of the mothers while, 43.1% reported a lesser frequency of breastfeeding during child's illness. Likewise, 79.0% of mothers reported complementary feeding to be less than the usual frequency when child was ill. On care seeking for child during sickness, 42.2% of the mothers consulted drug vendors commonly called "Chemists"; about 34.9% and 19.3% consulted government hospitals and health centres, respectively. The most common symptoms mothers reported, which warranted taking a child to hospital was when the child illness got severe (54.0%), while, 31.3% said they would take their child to hospital immediately the child becomes ill. Mothers were the main decision makers as to where care for the child during illness was sought (65.9%). Mothers' source of information on child health was mainly received from a health care provider (38.8%), family members or friend (23.9%), while some mothers (21.7%) provided care based on previous experiences they have had on childcare. On the whole, 37% of the mothers had appropriate health-seeking behaviours.

Table 1: Sociodemographic characteristics of the study participants.

Characteristics	N	%
Mother's age		
<20	19	5.8
20-24	127	39.0
25-29	108	33.1
30-34	66	20.2
35>	6	1.8
Marital status		
Single	27	8.3
Married	297	91.1
Separated	1	0.3
Widowed	1	0.3
Maternal educational level		
None	4	1.2
Primary	58	17.8
Secondary	194	59.5
Diploma, NCE, TTC	18	5.5
Degree and above	52	16.0
Maternal monthly income (Naira)		
<10,000	59	32.6
10,000-20,000	69	38.1
20,001-30,000	16	8.8
30,0001-40,000	21	11.6
>40,001	16	8.8
Child's sex		
Male	164	50.3
Female	162	49.3
Child's age (Months)		
6-11	124	38.0
12-17	88	27.0
18-23	114	35.0

Table 2: Health related characteristics of the study participants.

Characteristics	N	%
Child ever received vaccines		
Yes	326	100
No	0	0.0
Immunisation status		
Partly immunized	94	28.8
Fully immunized	232	71.2
Child sick in the previous two weeks		
Yes	123	37.7
No	203	62.3
Type of sickness		
Cough	30	34.1
Difficulty breathing	4	4.5
Fever	20	29.5
Other	28	31.8
Diarrhoea in the previous two weeks		
Yes	41	33.3
No	82	66.7
Child still ill		
Yes	21	17.1
No	102	82.9

Chi-square analysis was performed to determine the factors that are associated with health seeking behaviour and the results are presented in Table 4. There was a statistically significant ($p<0.05$) association between health-seeking and maternal age, as a preponderance of inappropriate health-seeking was observed more among women from twenty years and above, with lower rates seen among younger mothers less than 20 years. Inappropriate health seeking was more predominant among married mothers than single mothers or separated mothers, although this did not show a statistical significance ($p>0.05$). The distributions of inappropriate health-seeking by employment status and by monthly earnings were not markedly different. With respect to child's gender and age, inappropriate health seeking was also not markedly distributed. There were also no marked distributions in inappropriate health-seeking by child's ill health and diarrhoea in the previous two weeks to the study. However, analysis showed that inappropriate health seeking rate was significantly higher among children who were still ill at the time of data collection.

Table 3: Health-seeking behaviours of the mothers.

Characteristics	N	%
***Where child was delivered**		
Government hospital/Health centre+	143	43.9
Private hospital+	41	12.6
Home delivery	131	40.2
Others	11	3.4
***Breastfeeding frequency during sickness**		
Less than usual	28	43.1
About the same+	35	53.8
More than usual +	2	3.1
***Complementary feeding frequency during sickness**		
Less than usual	94	79.0
About the same+	25	21.0
***Treatment for child's illness sought outside home**		
Yes+	82	66.7
No	41	33.3
***Where care was sought**		
Government hospital+	29	34.9
Health centre+	16	19.3
Chemist	35	42.2
Pharmacy	2	2.4
Relative/friend	1	1.2
***ORS offered**		
Yes+	9	2.8
No	314	97.2
***Symptoms to take child to hospital during illness**		
Once child is sick+	98	34.6
Child not able to breastfeed, eat/drink poorly	29	10.2
Child becomes more sick	138	48.8
Child develops serious fever	6	2.1
Others	12	4.2
Who decided where care was sought		
Mother	54	65.9
Husband	22	26.8
Others	6	7.3
Overall health-seeking behaviour		
Appropriate	113	34.7
Inappropriate	213	65.3

* Items used to assess overall health-seeking behaviour,
+ Options grouped as appropriate practice among mothers

Table 4: Health-seeking behaviour according to sociodemographic characteristics of study participants.

Characteristics	Health-seeking behaviour			
	Inappropriate n (%)	Appropriate n (%)	X^2	*P*
Mother's age				
<20	6 (31.6)	13 (68.4)	15.334	0.004
20-24	91 (71.7)	36 (28.3)		
25-29	68 (63.0)	40 (37.0)		
30-34	42 (63.6)	24 (36.4)		
35>	6 (100)	0 (0)		
Marital status				
Single	13 (48.1)	14 (51.9)	6.302	0.098
Married	199 (67.0)	98 (33.0)		
Separated	0 (0.0)	1 (100)		
Widowed	1 (100)	0 (0)		
Maternal educational level				
None	1(25.0)	3 (75.0)	8.894	0.064
Primary	36 (62.1)	22 (37.9)		
Secondary	136 (70.1)	58 (29.9)		
Diploma, NCE, TTC	8 (44.4)	10 (55.6)		
Degree and above	32 (61.5)	20 (38.5)		
Maternal monthly income (Naira)				
≤20,000	87 (68.0)	41 (32.0)	1.484	0.223
>20,000	31 (58.5)	22 (41.5)		
Child's sex				
Male	112 (68.3)	52 (31.7)	1.273	0.259
Female	101 (62.3)	61 (37.7)		
Child's age (Months)				
6-11	78 (62.9)	46 (37.1)	2.582	0.275
12-17	54 (61.4)	34 (38.6)		
18-23	81 (71.1)	33 (28.9)		

Table 5: Health-seeking behaviour according to health-related characteristics of study participants.

Characteristics	Health-seeking behaviour			
	Inappropriate n (%)	Appropriate n (%)	X^2	*P*
Immunisation status				
Partly immunized	57 (60.6)	37 (39.4)	1.288	0.256
Fully immunized	156 (67.2)	76 (32.8)		
Child sick in the previous two weeks				
Yes	113 (91.1)	10 (8.1)	5.564	0.092
No	40 (81.2)	100 (18.8)		
Diarrhoea in the previous two weeks				
Yes	3 (6.3)	41 (93.2)	0.895	0.344
No	10 (12.2)	72 (87.8)		
Child still ill				
Yes	19 (90.5)	2 (9.5)	10.066	0.047
No	8 (7.8)	94 (92.2)		

DISCUSSION

Health-seeking behaviours are dependent on a host of factors especially in developing countries like Nigeria where there is less widespread of health insurance. As seen in the study area, the vaccination of all the children may be as a result of increased knowledge of the importance of immunization, in addition to the intensive and free vaccination exercise carried out by the Cross River State government. In fact, immunization was the only health intervention among children that was being focused on in the study location according to a UNICEF report in 2012. [(17)] the most prevalent illnesses amongst the children which were cough and diarrhoea are regarded as childhood diseases. In the UNICEF [(17)] study in Cross River State, Nigeria, it was revealed that diarrhoea was often times regarded as a 'normal' condition for infants especially those that are teething and young children. The mothers believe that all children are born with it and so consider it a normal state. However, it was still seen to be a debilitating condition. Thus, there is need to raise the awareness of these diseases and devote more resources particularly in relation to reducing childhood morbidity and mortality rate.

Although there were a high percentage of mothers who delivered their child in government hospital, home delivery by Traditional birth Attendants (TBAs) was still a common practice which may be due to low education, less ability to pay high hospital bills, fear of caesarean delivery at the hospital and poor infrastructure and communication. [18,19] The implication of this practice has to be taken into consideration. The majority of maternal and newborn deaths occur in regions where most births occur outside facilities and without skilled childbirth care. UNICEF [11] noted that attempts to reduce mortality from complications of pregnancy and childbirth have been less successful. The effectiveness of birth attendants such as TBAs could be enhanced through programmes that should be part of a country's national strategy for improving reproductive health.

During illness, an important factor whether an illness becomes life threatening to the child is the caretaker's knowledge of appropriate care. Similar to the findings in this study, during the illness of the child, Abhay *et al.* [20] reported less breastfeeding and complementary feeding frequency by most of the mothers. Appropriate feeding during and after illness is important to avoid weight loss and other signs of nutrient deficiencies. Children's fluid needs increase because of fluid loss from continuous watery stools during diarrhoea related illnesses. There is decrease in appetite, thus, food intake reduces, however, at the same time, energy needs are greatly increased. In order to meet these increased requirements; children's fluid and food intake should be increased during illness. Further, continued breastfeeding prevents dehydration and provides important micronutrients that assist in recovery from infections.

The high patronage of Chemists by the mothers in preference to a health facility deserves attention. This could be attributed to easy access to healthcare in terms of closeness to home and easy access to the provider, the willingness of the Chemist to prescribe according to their means and provide credit facilities. [17,21] However, this has its demerits too, as the challenges associated with seeking treatment from inappropriate facilities include concerns over self-medication and wrong dose of medications. [22,23] Since the Chemists and other patent medicine vendors are an important source for healthcare even in the urban areas through training and policy changes, the Chemists and other patent medicine vendors could be standardized, but further research is needed to establish the implications of such position as they have come to stay.

The aspect of most mothers waiting till the child is more ill before they take their children to hospital could be because the mothers do not recognise the early signs of disease while some due to their low income are reluctant to take their children to hospitals. The practice of patronising patent medicine vendors can lead to wrong dose that can result in severity of illness. Consequently, the mother will have no option but to seek treatment in a better health establishment; this could lead to waste of scarce resources as well as increasing the risk of the child dying as a result of delay in obtaining appropriate treatment. Severity of the illness has been shown to be a predictor of health care seeking, where caregivers tend to seek better care or at least seek care for an illness that they perceive to be "very severe." [24] Seeking appropriate healthcare can prevent a high number of complications due to ill health and infant and child deaths. [25] D' Souza [26] revealed that delay in seeking appropriate healthcare and not seeking any better care contributes to the large number of child deaths. Consequently, improving mothers' care-seeking behaviour can contribute in reducing child morbidity and mortality in developing countries. [25]

Mothers decided where care will be sought for the sick child as opposed to other studies, [27,28] where the authors showed that the decision to seek treatment was basically made by the father. Also, influences from others such as the relations, neighbours and

self-experience were among the major factors which shaped the course of action taken for mothers health-seeking for the child. The source of information on child feeding and health which was mainly the health worker who is the healthcare professional means that that strengthening this means of providing information can help to increase the prevalence rate of good child health and nutrition and at a significant level. Though this study showed only a sociodemographic factor to be significantly associated with health-seeking behaviours, other studies have shown differently. Sociodemographic factors such as age, marital status, education and income were seen to be significantly associated with health seeking behaviour. [17,29] It is important to understand the limitations of this study. There was a possibility of inaccurate responses regarding the characteristics of the illnesses as this largely depends on recall. The present study did not address in depth of the illness of the children. Also, self-reported answers were relied on, which may be subject to recall and reporting bias.

CONCLUSION

There was still a wide margin in terms of inappropriate and appropriate behaviour. Majority of the mothers did not seek appropriate care for childhood illness and most often; care was sought from Chemists instead of from qualified medical practitioners. The mothers tended to seek appropriate care more often when they perceived the illness as serious. Considerable attention should be given to social interactions that encourage concern for the health of children. Mothers should be counseled to bring children to health facilities. For proper dissemination of health knowledge of childhood diseases, health education programs at household or community level should be implemented.

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