

ORIGINAL RESEARCH

Health seeking behaviour among caregivers of under-five children in Edo State, Nigeria

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Abstract

Aim: Timely and appropriate healthcare seeking behaviours if practiced by caregivers of under-five children can have a significant impact on child survival. This study assessed the knowledge of, and general health seeking practices among mothers of under-five children in Nigeria.

Methods: This descriptive cross-sectional study was carried out among caregivers of under-five children in Edo State, Nigeria, in 2013. A multi-staged sampling technique was used to recruit respondents. Data collection was done by means of a structured interviewer-administered questionnaire adapted from UNICEF/IMCI household baseline survey questionnaire.

Results: A total of 370 caregivers (mean age: 31.1±5.9 years) participated in the study. Almost all of them were females 368 (99.5%), 234 (63.2%) had secondary education and 283 (76.5%) were in the unskilled social class. Over 70%, 76%, 72%, 76% and 82% of participants did not know that being unable to eat/drink, fast breathing, blood in stool and convulsion, respectively, were symptoms of a child not feeling well. The place of primary care of children by caregivers was at home 142 (38.4%), chemist shop 91 (24.6%) and health facility 80 (21.6%). Cost and long waiting time were major reasons for not seeking care in health facilities.

Conclusion: This study showed poor health seeking practices among caregivers of under-five children in Edo State, Nigeria. There should be continuous education of caregivers on recognition of danger signs in children and the need to seek appropriate medical care in health facilities.

Keywords: caregivers, health seeking behaviour, Nigeria, under-five children.

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Conflicts of interest: None.

Introduction

Nigeria is facing huge challenges in meeting the Millennium Development Goal (MDG) 4 (1), due to high morbidity and mortality rates among under-five year old children. Although households and communities have a major responsibility in recognizing when children need treatment outside the home, a recent national survey found that this has not been the case due to poor health seeking knowledge and practices in households (2).

Generally, the poor health seeking practices among caregivers of under-five children, which is a consequence of poor knowledge among other factors such as poverty, lack of family support and competing work demands of carers, is one of the leading causes of the high infant and under-five mortality rates of 69/1,000 live births and 128/1000 live births respectively (2). In Edo State, Nigeria, infant and under-five mortality rates are reported to be higher (at 100/1000 and 191/1000 live births respectively) (3). The major causes of under-five morbidity and mortality in Nigeria are diseases like malaria (24%), pneumonia (20%), diarrhoea (16%), measles (6%), HIV (5%), neonatal conditions (26%), malnutrition and injuries (4,5). Diseases and deaths due to these causes are preventable through application of community-oriented cost-effective interventions in the households/communities, such as the UNICEF/WHO key household practices (1,4). In Nigeria, according to the National Demographic and Health Survey (NDHS) of 2013, slightly more than one-third (35%) of children with symptoms of acute respiratory infections (ARI) were taken for treatment to 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 (ORT) (2). The Edo State Strategic Health Plan assessment found that only 2% owned Insecticide Treated Nets (ITNs), only 6% of children under-five slept under a mosquito net and only 13% of children aged 12-23 months had received the recommended course of immunization (3). The Nigerian experience is part of wider problem, with a majority of child deaths in (developing countries) continuing to occur at home, often with no contact with a health care facility (6). It has been documented in some sub-Saharan Africa countries that factors such as lack of money, distance to health facility and perception of the illness not being serious were the major reasons why mothers and caregivers of under-five children do not seek care for their ill children (6,7).

Studies from India and Mexico have reported poor knowledge and practice of health seeking among mothers and caregivers of children less than five years mainly due to caregivers and not recognizing signs of childhood illness for seeking care immediately for common childhood diseases such as diarrhoea, respiratory tract infections and fevers (8,9). A study in Guatemala revealed that 63%-83% of mothers relied on home care the last time their children under the age of five suffered from diarrhoea, fever, cough, and the use of health services (western or traditional) was consistently low among them (10). The resultant effect of this is an increased morbidity and mortality among under-five children.

However, a qualitative study carried out in Germany among 11 mothers with Turkish background and nine mothers with German background showed that mothers had good knowledge of childhood fever and good practice of seeking care for their children's fever. The mothers perceive their child's fever not merely as elevated temperature, but as a potentially dangerous event. A deeply rooted urge to protect the child from harm was central to all participants' experience (11). This good knowledge and practice will make room for prompt and appropriate action thus reducing complications and mortality.

Studies have shown that timely and appropriate healthcare seeking behaviours can have a significant impact on child survival, if practiced by the majority of caregivers of children less than five years of age (2,3,6).

In this framework, our study sought to assess the knowledge of, and general health care seeking practice among mothers of under-five children in Edo State, Nigeria, with the aim of improving their health practices through the design of appropriate interventions.

Methods

Study design

A descriptive cross-sectional study using a questionnaire survey method was done.

Setting

The study was carried out in Edo State, Nigeria, in July 2013. Edo State, which is made up of 18 local government areas, is located in the heart of the tropical rain forest and it lies between longitudes 5° E and 6° 42" E and Latitudes 5° 45" N and 7° 35" N of the equator (12). The state has a total population of 3,233,366 with 1,633,946 males and 1,599,420 females, and a total land area of 19,819,277 square kilometres (13).

Study population

The study population consisted of caregivers of under-five children in Edo State, Nigeria.

Inclusion criteria: caregivers of under-five children who were presently caring for an under-five child (the biological parents, or the primary caregivers).

Sampling method: a multi-staged sampling technique was used in selecting the respondents for this study:

- *Stage one:* three Local Government Areas was selected by balloting from the three senatorial districts in Edo State.
- *Stage two:* From the three selected Local Government Areas, one ward in each was selected by simple random sampling using a table of random numbers from a list of all the wards in the selected Local Government Areas.
- *Stage three:* From the wards selected, one community in each was selected by simple random sampling using a table of random numbers from a list of all the communities in the selected wards.
- *Stage four:* In the three selected communities, a systematic sampling method was then used to select the houses corresponding to the total number of respondents allocated to the respective communities. The sampling interval was determined by dividing the total number of houses in the community with the sample size allocated to the community. The starting point was chosen by simple random sampling of the houses within the sampling interval starting for the house of the community head. The study unit was households with the informant being the primary caregiver. Where there was more than one household in a house, a single household was selected by simple random sampling. Where a caregiver was responsible for more than one under-five child, the youngest was selected as the index child for the study.

Sample size calculation: the sample size for this survey was calculated using the Cochran's formula (14) for sample size determination in a cross-sectional study ($n = z^2 pq / d^2$). Using a prevalence of 68% (0.68) being the percentage of caregivers with poor knowledge of schedules of childhood immunization and diseases preventable by vaccines given to children in Kano state, Nigeria (15), and accounting for a 10% non response, the calculated sample size for this study was 370. The sample size was proportionately allocated to the three selected Local Government Areas according to their respective sizes.

Data collection

A structured interviewer-administered questionnaire adapted from UNICEF/IMCI household baseline survey questionnaire (16) and the IMCI Pictorial Counselling and Community Practices for Maternal, Newborn and Child Health booklet (17) were used for data collection. The questionnaire covered caregivers' general knowledge and practice of health seeking including recognition of a sick child, symptoms of illness in a child, recognition of when a child needs treatment outside the home and the primary care services for a sick child.

Ethical considerations: ethical approval was obtained from the Research Ethics Committee of the University Teaching Hospital of Benin. Permission was also sought from the administrators of the three selected Local Government Areas and the traditional heads. Confidentiality and privacy of the respondents was assured and respected during the interviews. A written informed consent was obtained from each respondent before conducting the questionnaire interviews. Health education on the various components of the key household practices was carried out at the end of the study.

Data analysis

The questionnaires were screened for completeness by the researcher, coded and entered into the Statistical Package for Social Sciences, version 16.0 (SPSS Inc. Chicago, Illinois, USA). Categorical data such as occupational and educational statuses were presented as percentages.

Results

A total of 370 respondents participated in the study. All the eligible respondents selected consented to the interview giving a response rate of 100%. Majority of the respondents (230, or 62%) were in the age-group of 25-34 years. Mean age of the respondents was 31.1±5.9 years. Almost all the respondents were females 368 (99.5%). Greater than four-fifths of the respondents (325, or 88%) were married, 38 (10%) were cohabiting, while 2 (0.5%) were single. Majority 338 (91%) of the respondents were Christians and 32 (9%) were Muslims. A greater proportion 234 (63%) had secondary education, 76 (21%) had primary education, 55 (15%) had tertiary education, while 5 (1%) had no education (data not shown in the tables). Over three quarters (283, or 77%) of the respondents were in the unskilled social class, 79 (21%) were in the middle level social class and 8 (2%) were in the professional social class. Respondents of Esan, Afemai and Benin ethnicity made up 109 (29%), 92 (25%) and 76 (21%), respectively. More than a third 137 (37%) of children were in the age-group 12-23 months, followed by 88 (24%) in the 0-11 age-group. Mean age of the children was 21.8±1.5 months. More than half (209, or 57%) of the children were boys and 161 (43%) were girls. Over 70%, 76%, 72%, 76% and 82% of respondents did not know that being unable to eat/drink, fast breathing, blood in stool and convulsion, respectively, were symptoms of a child not feeling well (Table 1).

Table 1. Respondents' correct knowledge of symptoms of illness in children

Symptoms	Number (N= 370)	Percent
Not playing normally	269	72.7
Fever for more than 24 hours	170	45.9
Vomiting	147	39.7
Fast breathing	103	27.8
Blood in stool	90	24.3
Unable to eat or drink	89	24.1
Convulsion	68	18.4
Drinks poorly	63	17.0

Over three quarters of the respondents (279, or 75%) were aware of the importance of consultation of medical personnel for advice for a sick child. Health personnel known to respondents that can be consulted were patent medicine dealer (115, or 41%), nurses (71, or 26%), and doctors (22, or 8%). A little below one third of the respondents (109, or 29%) knew the recommended distance to the nearest health facilities of less than 5 km (Table 2).

Table 2. Knowledge of primary care services among respondents

Variables	Number	Percent
Aware of the importance of consulting the health personnel (N=370):		
Yes	279	75.4
No	91	24.6
Categories of health personnel that can be consulted (N=279):		
Patent medicine dealer	115	41.2
Nurses	71	25.5
Community health workers	60	21.5
Doctors	22	7.9
Traditional birth attendants	11	3.9
Knowledge of the recommended distance to the nearest health facility (N=370):		
<5 km	109	29.4
5-10 km	28	7.6
>10 km	5	1.4
Do not know	228	61.6

Almost all of the respondents (354, or 96%) had heard of antenatal care. Respondents' major sources of information about antenatal care were from hospital/health workers (304, or 86%), television (31, or 9%), and from relatives (10, or 3%). The majority of the respondents (335, or 95%) knew the meaning of antenatal care and 19 (5%) reported that it was the use of concoctions and herbs during pregnancy. Over four-fifths (66%) of respondents who had heard of antenatal care were of the opinion that antenatal visits should take place as many times as possible, while only 28 (8%) of the respondents knew that antenatal care visits should be 3-4 times, and further 38 (11%) individuals did not know.

The major symptoms that prompt immediate treatment among respondents were vomiting 279 (75%), frequent stooling 261 (71%), fever 252 (68%), while fast breathing came forth with a little above half (189 or, 51% of respondents). Major reasons by respondents for not seeking treatment for children were child's condition not being serious (184, or 50%) and cost of treatment (154, or 41%) (Table 3).

The place of primary care by more than a third of the respondents (142, or 38%) was at home, followed by the chemist shop (91, or 25%), whereas the use of health facility was reported by less than a quarter of the respondents (80, or 22%). Sixty nine (86%) of the respondents did not carry out instructions of the health workers and the major reasons for caregivers not complying with instructions of health workers were the cost of treatment (53, or 77% of respondents) and the distance to the health facility (42, or 61% of participants) (Table 4).

Table 3. Symptoms that prompt care seeking and reasons for not seeking immediate treatment among respondents

Variables	Number (N=370)	Percent
Symptoms of ill health in a child that will prompt immediate treatment* :		
Drinks poorly	74	20.0
Fever	252	68.1
Vomiting	279	75.4
Frequent stooling	261	70.5
Fast breathing	101	27.3
Skin rashes	11	3.0
Playing	5	1.4
Poor oral hygiene	9	2.4
Scalp infection	7	1.9
Not eating well	4	1.1
Reasons for not seeking immediate treatment* :		
Condition not serious	184	49.7
Unavailability of nearby health provider	74	20.0
Cost	154	41.4
Long waiting time	18	4.9
Long distance	16	4.3
Dissatisfaction with medical care	6	1.6
Discouragement by family member	5	1.4
Competing domestic duties	5	1.4
Social traditions and values	2	0.5

* Multiple responses.

Table 4. Health seeking practices among respondents

Variables	Number	Percent
Respondents place of first treatment when child is ill (N=370):		
Home	142	38.4
Chemist shop	91	24.6
Health facility	80	21.6
Health care provider	53	14.3
Church	3	0.8
Traditional birth attendant (TBA)	1	0.3
Compliance to health workers instructions (N=80):		
Yes	11	13.8
No	69	86.2
Reasons for non compliance of health workers instructions* (N=69):		
Cost	53	76.8
Distance	42	60.8
Fear of bigger hospitals	26	37.7
Not sure of the health workers	7	10.1

* Multiple responses.

Discussion

In this study, there was poor knowledge of caregivers concerning recognition of children who were ill and when to seek medical care. Health personnel most known to caregivers that could be consulted were patent medicine dealers, whereas the major reasons by caregivers for not seeking treatment for ill children were child's condition not being serious, cost of treatment and long waiting time.

In our study, over two third of the respondents were in their mid twenties to early thirties, this is within the reproductive age group for women. The act of care giving for children is mainly the responsibility of females in Nigeria and other sub-Saharan African countries. Hence, it was not surprising that almost all the under-five caregivers in this study were females. A greater proportion of the caregivers had a secondary level of education, which is consistent with findings from the 2013 NDHS where a greater proportion of the respondents from Edo State had secondary education (2). This information will be helpful when it comes to health education of caregivers in order to improve their health care seeking knowledge and practice.

The finding of poor knowledge of caregivers concerning recognition of children who were ill was surprising. They could recognise vomiting and fever but could hardly recognise fast breathing and drinking poorly as symptoms for which to seek immediate medical care for their children. This is probably due to the fact that caregivers' knowledge of symptoms of danger sign for the different diseases differed, but it is expected that fast breathing in a child should be of great concern to a mother. Another possible reason could be that health care workers pay more attention to diseases like malaria and diarrhoea at the clinics during routine antenatal attendance since the major source of information for the caregivers was from the health care workers and the health centres. Therefore, healthcare professional need to pay more attention to other life threatening childhood conditions such as febrile convulsion and pneumonias in the health facilities during health education.

This finding of poor knowledge on recognition of disease symptoms by the respondents was similar to findings from studies carried out in Mexico (9) and in Nigeria (18-20), and also consistent with findings from the Multiple Indicator Cluster Survey (MICS) (21), in which only 10% of women knew of the two danger signs of pneumonia (fast and difficult breathing) that could prompt them seeking immediate care for their children. Appropriate knowledge and recognition of danger signs and symptoms in ill children by caregivers is necessary in seeking immediate and an appropriate management of disease conditions, thereby reducing complications and deaths in these children.

In our study, the health seeking practices of the caregivers with regards to using identified symptoms was also poor. The most commonly identified symptoms for taking a child to a health facility/health care provider were vomiting, fever and frequent stooling, whereas drinking poorly and fast breathing were less common. This finding is in agreement with the health seeking practice found in the MICS in which fever was the most commonly identified symptom for taking children to health facility by their caregivers and only 19% and 23% of mothers identified fast breathing and difficult breathing respectively as symptoms for taking children immediately to a health care provider (21). This could be a result of poor knowledge of the caregivers with regards to recognizing the dangers signs of ill health in these children and also taking for granted that these symptoms were not serious enough to warrant immediate treatment or intervention. This may also explain the reason why the first place of treatment by a greater proportion of the caregivers was at home and patent medicine stores rather than the hospitals/health facilities. Mothers' knowledge of the danger signs is an important determinant of care seeking behaviour and the secondary level of education of most of the caregivers in the study can be exploited to improve their health seeking practices.

Although majority of the respondents were aware of the importance of consulting medical personnel when their children were ill, only 14.3% of them consulted a health care provider for an ill child. The poor knowledge danger signs in a child that should necessitate health care seeking demonstrated by caregivers in this study may have contributed to this practice. This poor health seeking practice could also be due in part to the poor economic situation in Nigeria and by extension Edo State and the long waiting time in health facilities.

The main reason for not seeking immediate treatment by a greater proportion of respondents in this study was that the condition was not serious, followed by cost of treatment and unavailability of nearby health provider. This was compounded by the fact that most of the respondents who visited the health facilities do not carry out the instructions of the healthcare providers. This poor health seeking behaviour by the respondents will result in delays in obtaining proper treatment for the children and an increase in cases of complications from different disease conditions that are preventable. This ultimately will result in morbidities and mortality in the children, thereby hindering the attainment of MDG 4.

This poor health seeking behaviour is consistent with findings from a study in Anyigba, North-Central, Nigeria where the major reason for the delay in seeking treatment by more than half of respondents was the thought that they would get over the ailment without treatment, about a quarter of respondents delayed because of lack of money for treatment, while about one fifth of the respondents delayed seeking treatment due to the far distance to the health facility (18). It, however, contrasted the findings from a study in Igbeagu community in South-East Nigeria where the health centre was the most preferred choice for treatment (19). Good health seeking behaviour will reduce complications, morbidities and mortality in the households and promote family health especially maternal and child health.

In conclusion, this study showed poor health seeking practices among caregivers of under-five children in Edo State, Nigeria. The major factors associated with this poor health seeking behaviour were: poor recognition of danger signs, cost of treatment, and long waiting time in the health facilities. Appropriate knowledge of danger signs and symptoms of ill health in a child and prompt and proper treatment by caregivers is necessary to reduce morbidity and mortality among under-five children. Therefore, there should be continuous education of caregivers on recognition of danger signs in children and the need to seek appropriate medical care in health facilities.

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