Journal of Advances in Medicine and Medical Research

27(12): 1-12, 2018; Article no.JAMMR.44904
ISSN: 2456-8899
(Past name: British Journal of Medicine and Medical Research, Past ISSN: 2231-0614, NLM ID: 101570965)

Caregivers' Perception and Practice of Self-medication for Fevers in Under-five Children: A Cross-sectional Study in a Rural Community, South-East Nigeria

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Authors' contributions

This work was carried out in collaboration between all authors. Author VUM performed the conceptualisation and design of the study, Data collection and revision of manuscript and writing of the manuscript. Author AFU managed the analyses and interpretation of the study. Author CM wrote the protocol, data collection and revision of the manuscript. Author CBE performed the conceptualisation of the study, data collection and revision of the manuscript. Authors OCI, VCA and CSN performed the data collection, writing and revision of the manuscript while Author DIN managed the literature searches, data analysis and revision of the manuscript. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JAMMR/2018/44904
Editor(s):
(1) Dr. Toru Watanabe, Department of Pediatrics, Niigata City General Hospital, Japan.
Reviewers:
(1) Tebit Kwenti, University of Buea, Cameroon.
(2) Denise Bueno, School of Pharmacy and Professor in post Graduate Program in Pharmaceutical Care and Program Health Education, Universidade Federal do Rio Grande do Sul (UFRGS), Brazil.
Complete Peer review History: http://www.sciencedomain.org/review-history/27216

Original Research Article

Received 02 September 2018
Accepted 05 November 2018
Published 14 November 2018

ABSTRACT

Background: Self-medication for febrile illnesses in children is a common practice among caregivers particularly in resource limited settings where over-the-counter medications and prescription-only medications are easily accessible. The most often used drugs in these settings include: anti-malaria, analgesics, antibiotics, anti-helminetics local herbs and home-made remedies. The drugs mostly used by caregivers include: Anti-malaria, Local Herbs, Home-made remedies, Analgesics, Antibiotics and anti-helminthics. Mis- diagnosis and inappropriate use of medications as well as delay in seeking appropriate healthcare could lead to complications including mortality.

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Aim: The aim of the study was to determine the perception and practice of caregivers on self-medications for febrile illnesses in their under-five children.
Methods: This was a cross-sectional study conducted in a rural community over a 6-month period (June –December 2016). Respondents were selected by systematic random sampling upon their informed written consent. Relevant caregiver and child related information was obtained using a semi-structured questionnaire.
Data was analyzed using SPSS software package version 20.0 (IBM SPSS), and results presented as percentages, proportions, and inferential statistics. The differences in proportions were tested for statistical significance using the Pearson chi-square test while p value < 0.05 was adopted as the level of statistical significance.
Results: Two hundred and twenty one respondents were studied of which 199 (90%) practiced self-medication for different cause of febrile illnesses in their children. Caregivers educational status (p = 0.001) was significantly associated with their perception and practice of self-medication among their children with febrile illness.
The major reasons for self-medication were high cost of hospital treatment, long waiting hours, possession of previous prescriptions and the belief on self-experience.
Conclusion: Self-medication is highly practiced among caregivers of under-five children with fever in the study population. Respondents were influenced in this practice by their educational status.

Keywords: Caregivers; perception; practice; self-medication; under-five; febrile; children.

1. INTRODUCTION

Fever is one of the commonest symptoms of childhood diseases which occurs when various infectious and non-infectious processes interact with the host's defence mechanism [1]. It can result from identifiable microbiologic agents, exposure to extreme environmental heat or heavy physical activity [1,2].

Fever is a common reason why parents seek medical attention for their children since they believe the condition is a disease rather than a symptom or a sign of an illness [3-6]. The parental fear and anxiety about fever has been labeled as 'fever phobia' based on the wrongful belief that fever may result in the death of a child [3-6].

Malaria is a common cause of fever among children in Nigeria and accounts for over 60% of outpatient visits [7-9]. It is a known leading cause of mortality in children under–five years of age in sub-Saharan Africa, accounting for up to 85% of childhood deaths [7-9]. In most sub-Saharan African countries, an initial presumptive diagnosis of uncomplicated malaria is frequently made with history of fever in a sick child" [10].

Given that malaria often presents with fever, many childhood febrile illnesses are presumed by parents/caregivers to be malaria. This therefore explains why anti-malarial drugs were the most frequently used pre-hospital treatment for fever in children in Nigeria and other Sub-Saharan Africa countries such as Togo where 80% of children with fever are first treated at home with anti-malarial drugs prior to presentation at health facilities [11]. Usually these anti-malarials and anti-pyretics are purchased over sellers without prescription and administered in inappropriate doses. This action often results in poor quality of care and fosters the development of drug resistance which eventually forces them to seek formal medical care. [12]

Though the practice of self-medication should not be encouraged, it has however been shown to facilitate the care of minor ailments using simple and effective antidotes which have been adopted globally [13].

Self-medication is commonly practiced worldwide particularly in developing countries where households have been reported to initiate treatment for febrile illnesses at home without prescription by a skilled health worker [14,15]. Studies have shown that it is considered an alternative way for people who cannot afford the cost of orthodox health care services, [16] even as it has proven to be an important concern for health authorities at all levels of care because of lack of appropriate clinical evaluation and guidance by skilled health workers [17]. A number of sequel could arise and include misdiagnosis, incorrect choices of drugs, delays in seeking appropriate treatments, use of excessive drugs or lower dosage and prolonged duration of use [18]. Others are development of adverse drug reactions, dangerous drug interactions, masking of a severe disease and

most importantly, development of resistant pathogens [18].

Unregulated use of antibiotics and anti-malarial drugs without doctor's prescription, for example, have been associated with antimicrobial resistance and parasite resistance respectively [18-20].

With respect to childhood fever, caregivers' perception of symptom, aetiology and its severity, duration of sickness, accessibility and the anticipated cost of treatment, appear to be some of the determinants of home treatment of fevers in children under-five years [21,22]. Most caregivers from previous studies seem to prefer treating their children with fever at home first and later proceed for proper treatment at health facilities where their own management fails [21,22].

Based on the WHO 2000 guidelines on the regulatory assessment of medicinal products for use in self-medication, health-care practitioners have been advised to involve household members in focused awareness on self-medication and its negative implications [23]. It is believed that this will encourage them to serve as change agents, as well as serve in designing interventions and policies that will result in enduring healthcare programmes when they are implemented [23]. Furthermore, by getting them involved in the management of febrile children, it helps in ascertaining the level of knowledge and practice of the caregivers [23].

The present study was initiated in a rural south-east Nigerian community to understand the perception of fever among the caregivers, their treatment-seeking behaviours as well as factors which influence this perception. It also sought to determine the reasons for / factors associated with the practice of self medication and know the drugs that are commonly used in this practice. It was equally pertinent to find out if the caregivers would still want to engage in the practice of self medication in the future even when all the enabling factors of self-medication are removed.

2. SUBJECTS AND METHODS

The study was conducted in Mgbabor Echara village in Nkaleke Echara, a small Community in Ebonyi Local Government Area, Ebonyi State: southeast of Nigeria. Ebonyi Local Government where the study site is located according to the 2006 census has an estimated population of 168,300 people while the study area has no documented population estimation as at the time of this study. Hence, an estimation of the population was calculated to be approximately 4,522 consisting of about 251 households [24].

About 75% of this population who reside in the village are mostly engaged in civil service, trading and other forms of formal employment while the remaining 25% of the population is made up of peasant farmers who engage in subsistence agriculture. The community has one poorly equipped and poorly staffed health centre and is relatively close to a missionary hospital which is located about 5-10 kilometers away.

Overall literacy rate in Ebonyi is quite high ranging from 96.1% among the youths and 72.2% in the adults. This was observed in the study area among the youths but lower among women in the reproductive age bracket (15-49 years) [25].

The study site was chosen because of paucity of hospitals in and around the area.

2.1 Study Sample Size Determination

The sample size for the study was calculated using the formula below [26].

Prevalence of self medication among caregivers of children under-five was 83.7% [12].

Using the Cochrane formula for sample size estimation

$$N = Z^2 p(1-p)/d^2$$
$$N = 1.96^2 \times 0.84\ (1-0.84)/0.05$$
$$= 1.96^2 \times 0.84 \times 0.16/0.05$$
$$= 206$$

Attrition rate of 10% when added gave an estimated sample size of 221(226.7)

2.2 Study Procedure

This descriptive and cross-sectional study was carried out over a 6-month period (June 2016 to December 2016) with selection carried out by systematic random sampling using a multi-stage sampling technique.

Caregiver in this context was defined as parents, guardian or relation who takes care of a child and self-medication was defined as the administration of medicines without aid of medical advice or administration of any medicine at home for the purpose of curing an existing or perceived fever.

Febrile illness was defined as body temperature above 37.5°c in a currently ill under-five child or in any under-five child who had had similar temperatures or had a history of fever (not measured with a thermometer) in the past and who had undergone self-medication by their caregivers.

2.2.1 Procedure for field work

The team of investigators included the Paediatricians and 4 research assistants (the intern doctors) who underwent training for the study over two consecutive days on how to administer and fill the questionnaires. A standardised questionnaire previously used by Kumar et al. [14] was modified and adapted for this study. Selected community was visited on 2 consequent days for the purpose of familiarisation and education on fever, subsequently, households with children under five years were identified from a community census and their respective household heads selected. The objective of the study was explained and a signed consent extracted from the selected household heads. The village hall was designated as the meeting place while the days for filling the semi-structured questionnaire by the selected caregivers were mapped out.

Children who had had a past history of fever or having fever during the course of the study were enrolled. The latter group was given appropriate treatment on site while the more serious ones were referred to the Federal Teaching Hospital Abakaliki for a comprehensive management.

2.3 Study Population

A total of 221 caregivers (women, men, and young adults) from a sampling frame of 251 households were selected using a systematic random sampling method after correcting for attrition of 10%.

2.4 Data Collection

A semi-structured questionnaire which was in three parts and contained 30 open -and close-ended questions was administered to the selected caregivers under the supervision and guidance of the investigators.

The first part sought information on the demographic characteristics of the participants such as sex, age, highest level of education, marital status and employment status.

The 2nd part consisted of a 10-item question, which enquired about the caregivers' perception of self-medication and home management of fever in children under-five years of age while the 3rd part also consisting of a 10-item question explored caregivers' practice of self-medication and home management of fever in children under-five years.

The 20-item questions in both sections altogether had 5-9 options attached to them for which the respondents were to select from. Similar options selected by different caregivers for each item, were grouped together and recorded.

The data collected were entered into the data editor of SPSS software package version 20 (IBM SPSS). Results were expressed in proportions and percentages, and illustrated with charts and tables. The influence of sex and age of respondents, educational level, age, mother's parity, number of children in the household, marital status, sex and age of the index child on the perception of caregivers towards self-medication and their influence on the practice of self-medication for febrile children under 5were assessed. Proportions were compared.

The differences in proportions were evaluated for statistical significance using the Chi-square test. Statistical significance was based on $p<0.05$.

Ethical approval was also obtained from the Research and Ethics Committee of FETHA.

The Board of Management of Federal Teaching Hospital, Abakaliki (FETHA).

3. RESULTS

3.1 Demographics

In this study, about 221 respondents from the selected 250 households who gave their consent were selected and fully enrolled. Majority of the children who were involved in self medication by their caregivers were males 56.6% (125/221) with a male: female ratio of 1.3: 1.0.

As shown on table 1, caregivers who were aged 20 -30 years constituted half 108 (48.9%) of the adult respondents while those whose age was greater than 50 years were least in number 2 (0.9%). There were more female caregivers 199 (89.6%) than male 23 (10.4%). Literacy was high among the caregivers as only 12 (5.4%) had no formal education. Majority of them 105 (47.5%)

ended their educational career at secondary. Only 8 (3.6%) caregivers were not married and 148 (67.0%) were employed. As much as 198 (88.7%) of the care givers were not the heads of the household from which participants were drawn. Households having 1-3 children aged under 5 years was greatest in proportion 140 (63.3%). Most of the children 90 (40.7%), were aged 21 -30 months and those who were above 50 months were least in number 12 (5.4%). Fifty seven percent of the children were males.

3.2 Perception of Self-medication and Home Treatment of Fever in Children under-5 years

Table 2 revealed that as much as 199 (92.0%) of the caregivers affirmed that self medication for feverish conditions in children who were below 5 years was necessary. Thirty two percent also said that management of fever with drugs never prescribed by a doctor was inevitable and necessary. While 157 (71.0%) caregivers reported that they do not usually consult doctors for prescription of drug for management of feverish conditions of children below 5 years of age at all times, as much 189 (85.5%) caregivers mentioned that they used drugs previously prescribed for fever in managing the children. Anti-malaria and herbs usage were the commonest self medication practices among the caregivers as 201 (91.0%), indulge in such respectively. One hundred and eight (48.9%) caregivers affirmed that self medication for fever lasted as long as the patent medicine/traditional healer recommended. Another 100 (45.2%) of them asserted that such treatment would continue until the child was no longer sick. four (1.8%) caregivers would continue giving the medicine as far as it was available.

3.3 Reasons for Practice of Self-medication and Reasons for Future Practice of Self-medication among Caregivers of Children under-five Years of Age with Fever

In Table 3, various reasons were given by the care givers for their practices of self medication when managing fever in children below 5 years of age. Majority 211 (95.5%) claimed that the reason for indulging in self medication was because it saved time while 202 (91.4%) were of the view that it saved money. 57 (25.8%) caregivers resorted to the practice based on previous prescription and availability of the drug and because hospital services were expensive respectively.

Family members 100 (45.2%) and friends 84 (38.0%) of the caregivers influenced the decisions to practice self medication. The media had the least influence 13 (5.9%) on such decision making.

All the caregivers insisted that the long waiting time in health facilities would make them still resort to self medication in future. Respectively, 7 (3.2%) would do same in future for various reasons such as: if the child's sickness is not severe; if there is financial constraint; attitude of health workers, and if the child needs urgent care. Only 2 (0.9%) would continue to practice self medication for the child below 5 years if there is no means of transportation to the health facility or based on prior experience of self medication when the child develops fever.

Table 4 shows the test of association between perception of self mediation and some other variation. Out of the 108 caregivers aged 20 - 30 years, 93 (86.1%) asserted that self medication for feverish conditions in children who were below 5 years was necessary. Twenty one (91.3%) out of the 23 male caregivers affirmed that it was necessary to practice self medication.

All the caregivers 12 (100%) who had no formal education were comfortable practicing self medication while 100 (95.2%) of those who had secondary school certificate and 12 (48.0%), primary school leavers were of the same view respectively.

All 8 (100.0%) caregivers who were not married believed self medication was necessary while 191 (89.7%) of the married ones shared the same perspective as their married counterparts. In households with 1 -3 children below 5 years, 129 (92.1%) were of the belief that self medication was necessary. Similar views were held in households with 4-6 children and above. Except for children above 50 months of age in which 8 (66.7%), practiced self medication, caregivers of other age groups of children below 5 years (> 80%) of them indulge in the same practice. Caregivers' perception of self medication being necessary or otherwise, had a statistical significant association with their educational status and age of the under 5 children ($p < 0.05$). There were no such significant association between age of caregivers, marital status, employment status,

headship of household and number of children per household ($p > 0.05$).

4. DISCUSSION

Self-medication among caregivers of children particularly in sub-Saharan Africa, is a known and well-accepted common practice particularly inchildren under-five years of age that present with fever among other ailments [13].

The high prevalence rate of 97% of such self-medication obtained in this study is similar to 96%, 83% and77.25% prevalence rates reported in Togo [11] France [27] and Pakistan [28] respectively,but contrasts with 25.2%, 27.6%, 43% and 53.4% from Germany, [29] Ethiopia, [13] Lagos [30] and Ibadan [22] Nigeria respectively. High cost of hospital treatment has been elucidated as a prime reason for indulging in self-medication by most of the respondents in these studies, hence, the high prevalence rates.

The high rate obtained in the index study may have resulted from the fact that the Health Insurance policy in Nigeria is generally not fully developed and operational especially in the less developed states of the country such as Ebonyi State. Hence, parents and other caregivers are forced to practice “out of pocket” payment for health services rendered. In addition, there is no strict law promulgated towards protection of irrational drug dispensation in most regions/states in the country such that most drugs are easily purchased from the counter without needing any prescription from a doctor.

Table 1. Sociodemographic characteristics of care givers and children

Variable		Frequency (N =221)	%
Age group of caregivers(years)			
	20 – 30	108	48.9
	31 -40	79	35.7
	40 – 50	32	14.5
	> 50	2	0.9
Gender of caregivers			
	Male	23	10.4
	Female	198	89.6
Educational status of caregiver			
	Primary school	25	11.3
	Secondary school	105	47.5
	Tertiary	79	35.7
	No formal education	12	5.4
Marital status of caregiver			
	Married	213	96.4
	Not married	8	3.6
Employement status			
	Employed	148	67.0
	Not employed	73	33.0
Head of household			
	Caregiver	25	11.3
	Not care giver	198	88.7
Number of children in the household			
	1 – 3	140	63.3
	4 – 6	58	26.2
	>6	23	10.4
Age of child in months			
	10 -20	35	15.8
	21 – 30	90	40.7
	31 – 40	53	24.0
	41 – 50	31	14.0
	>50	12	5.4
Gender of child			
	Male	125	56.6
	Female	96	43.4

Table 2. Caregivers' perception and practice of fever self medication for children under-5, commonly used drugs and duration of treatment.

Variable	Frequency (N =221)	Percentage
I indulge in Self medication for fever	199	92.0
Use of unprescribed drug for fever management is necessary	71	32.1
Not consulting a doctor for fever prescription at all times	157	71.0
Prefer to use previously prescribed drugs for fever	189	85.5
Drugs commonly used for fever self mediction		
Anti-malaria	201	91.0
Local Herbs	201	91.0
Home-made remedies	100	45.2
Analgesics	96	43.4
Antibiotics	50	22.6
Anti-helminetics	23	10.4
Duration of self medication		
As recommended by the chemist/traditional healer	108	48.9
As long as the was sick	100	45.2
As was given during previous illness	18	8.1
As long as the medicine is available	4	1.8

Table 3. Reasons for fever self medication practices, major factors influencing decision for fever self medication and reasons for future practice of fever self medication

Variable	Frequency (N =221)	Percentage
Reasons for fever self medication practices (Multiple responses)		
Self medication for fever saves time	211	95.5
Self medication for fever saves money	202	91.4
Based on previous prescription and availability of drug	57	25.8
Hospital services are expensive	57	25.8
Child was suddenly sick	29	13.1
Care giver is a health worker	11	5.0
Non availability of health workers	2	0.9
Factors influencing decision for fever self medication		
Family members	100	45.2
Friends	84	38.0
Peers	15	6.8
Media	13	5.9
Reason for future practices of fever self medication (Multiple responses)		
Long waiting time in health facility	221	100.0
If sickness is not severe	7	3.2
Urgency of care	7	3.2
Financial constraint	7	3.2
Attitude of health workers	7	3.2
No means of transportation to health facility	2	0.9
Prior experience	2	0.9

Self-medication appeared to occur more (48.9%) among caregivers in the 20-30 years age group which is comparable to that seen in the Ethiopian [13] and Pakistanian [28] studies where 56.9% and 50% of the study population belonged to the same age-group respectively. Farooq et al. [28] believed that this result was true probably because he felt that the participants appeared to be more proactive as well as showed more concerns in getting information and knowledge about recovering back their child's good health.

Table 4. Association between perception of self-medication and socio-demographic characteristics of caregivers/under -5 children

Variable	Perception of self medication N (%)		X2 (*P*-value)
	Self medication necessary	Self medication unnecessary	
Age group of caregivers (years)			
20 -30	93 (86.1)	15 (13.9)	4.23 (0.25)*
31 – 40	75 (94.9)	4 (5.1)	
40 - 50	29 (90.6)	3 (9.4)	
>50	2 (100)	0 (0.0)	
Gender of care givers			
Male	21 (91.3)	2 (8.7)	0.05 (1.00)
Female	178 (89.9)	20 (10.1)	
Caregivers' educational status			
Priamry school	12 (48.0)	13 (52.0)	34.67 (<0.001)*
Secondary	100 (95.2)	5 (4.8)	
Tertiary	75 (94.0)	4 (5.1)	
No formal education	12 (100.0)	0 (0.0)	
Marrital status of caregivers			
Married	191 (89.7)	22 (10.3)	0.92 (0.61)
Not married	8 (100.0)	0 (0.0)	
Employment status of caregiveers			
Employed	135 (91.2)	13 (8.8)	0,69 (0.48)
Not employed	64 (87.7)	9 (12.3)	
Household headship			
Self	23 (92.0)	2 (8.0)	0.21 (1.00)
Not self	176 (89.8)	20 (10.2)	
Number of children in the household			
1 -3	129 (92.1)	11 (7.9)	2.21 (0.32)*
4 – 6	50 (86.2)	8 (13.8)	
>6	20 (87.0)	3 (13.0)	
Age of children in months			
10 – 20	31 (88.6)	4 (11.4)	15.64 (0.002)*
21 30	88 (97.8)	2 (2.2)	
31 – 40	46 (86.6)	7 (13 2)	
41 – 50	26 (83.9)	5 (16.1)	
>50	8 (66.7)	4 (33.3)	

- *Fisher's exact test*

Education which is often described as a domain part of quality of life and usually providing avery important yardstick for determining household socio-economic status has also been shown to affect mothers' knowledge about self-medication [29-33]. Knopf et al. noted that the higher the socioeconomic status of the children's family, or the higher the educational level of the children's mother/caregiver, the more Over The Counter (OTC) medications the children were likely to receive [29]. They attributed this to the fact that most caregivers particularly well-educated mothers often believe they have enough medical knowledge to self-medicate their children especially in conditions that are not immediately life-threatening [29]. This trend was again demonstrated in our present study as well as in the Ibadan [22] and Pakistanian [28] studies, where self-medication appeared to occur more among caregivers who had received formal

education up to secondary school level and above.

On the contrary, the Pakistanian study observed that even though this practice tended to occur more among parents/caregivers with formal education, it was noted to also occur more among low to moderate monthly income earners. This was attributed to the high consultation fee of physicians which they felt was not affordable at their level in addition to the fact that they had more family responsibilities to cater for from the same monthly earning [28].

Majority 199(92%) of the caregivers believe in and practice self medication for their febrile under-five children, for which they now substitute appropriate medical consultation for self-medication [22,31,32]. Majority prefer to use previously prescribed medications when similar symptoms reappeared (that is use old prescription to get new drugs). This was equally observed in our study where more than 70% of the caregivers failed to consult a doctor as soon as they observed that their children had a fever but preferred to treat the children themselves. Several reasons were advanced which ranged from high consultation fee at health facilities to possession of previous prescription, belief in their experience (especially among those with more than 3 children in the household) to the fact that the child was too sick and needed an emergency treatment etc. These reasons are comparable with the ones given by other studies which also included lack of time and inaccessibility of nearby health facilities [22,28-30,33,34]. The lack of time given by a majority of the caregivers was linked to the working status of both parents which did not afford them enough time to visit the physician/health care facility. This act actually raises concerns of misdiagnosis, possibilities of drug interaction and reactions as majority of parents have little or no knowledge of proper storage and stability of the drugs to be used and more importantly the disease condition for which they were going to use the previous medication.

Gohar et al. [33] and Ottosson et al. [34] in addition to the already mentioned reasons for self-medication observed that the perception of the illness by the caregivers equally contributed immensely to the reasons given for this practice as was observed in our study.

In most communities in sub-Saharan Africa, parents of sick children tend to seek advice from other people around them especially family members and friends [22,35]. In our study, the choice to self-medication was influenced mainly by family members, friends, media and peers in that order which is in keeping with other similar studies [28,30]. In addition to these sources, it is common practice in our community to directly purchase all medicines from nearby medical store /pharmacy by narrating the symptoms of the ailment to the patent medicine dealer. This practice with the encouragement from the medicine vendor who is more concerned about selling off his wares and making more money pushes the caregivers to purchase as much as they desire or have the means to do without knowing the difference between generic and branded medications. This may result in the caregivers wrongly administering both together for the same ailment with consequent serious complications. This was demonstrated by a study in France where 21% of parents combined and administered 2 brands of paracetamol purchased over the counter at the same time [27].

Caregivers are also able to obtain more information about the medications by reading the medicine information leaflets, going on internet/ social media etc in addition to the one obtained from family, friends, medicine vendors etc [27].

Anti-pyretic, anti-malarial, analgesic and anti-helminthic were the common drugs usually self-administered to the children in this study. This collaborates with the finding in a similar study whereby malaria was most often the commonest diagnosis made especially among children below the age of 5yrs who manifest with fever [12]. Hence, making anti-malarial a common drug for self-medication [12,30]. Other commonly used drugs include anti-pyretic (94%), cough and cold preparations (60%), anti-microbials (34%) and anti-emetics (32%) [28]. In contrast, Oshikoya et al. in their study [31] noted that cough mixture, ascorbic acid and cotrimoxazole were the most frequently administered self-medications by parents while ascorbic acid, iron combinations, cough mixture and paracetamol were the ones commonly kept at home by the mothers. Knopf et al. demonstrated that the use of vitamin and mineral tablets was a very common finding in Germany [29].

All (100%) of the caregivers confirmed that they were going to continue self-medication in the future unless there was improved (reduced) clinic waiting time while others had other reasons ranging from affordable treatment cost at the hospital, or that the case was severe and

required urgent/emergency care. This finding is comparable with the observation of Kumar et al. who noted that 50% of the participants (medical students in India) confessed that they would still continue with self-medication with 33% ever ready to introduce self-medication to their friends [14].

Approximately 10% of the caregivers in our study who never practiced self-medication confirmed that they may probably resort to it in the future if they have enough knowledge to handle the illness or can no longer afford transportation to the health facility or if the attitude of health workers did not improve.

5. CONCLUSION

From our study, we found out that there is high prevalence of self-medication for fevers in children less than five years by the caregivers. Antimalarial and analgesics were the most commonly used as well as Native herbs and homemade remedies. A number of reasons advanced for this practice included high cost of hospital treatment, possession of previous prescription, care givers experience and severity of the sickness. The few respondents not practicing self-medication confirmed that they would probably consider it in future if the sickness is non-severe, waiting time at health facilities is not significantly reduced, attitude of the health workers does not improve and there were financial constraints.

6. LIMITATIONS TO THE STUDY

There is no recent or known documented population estimation of the study area. The figure used was extrapolated from the population estimation for Ebonyi Local Government Area taken from the 2006 census figures.

CONSENT

Signed consent extracted from the selected household heads.

The data that support the findings of this study are available from the corresponding author upon reasonable request

ETHICAL APPROVAL

Ethical approval was also obtained from the Research and Ethics Committee of Federal Teaching Hospital Abakaliki.

COMPETING INTEREST

The authors declare that they have no competing interests.

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Peer-review history:
The peer review history for this paper can be accessed here:
http://www.sciencedomain.org/review-history/27216