

“I thought it was only ordinary fever!” cultural knowledge and the micropolitics of therapy seeking for childhood febrile illness in Tanzania

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Available online 5 January 2006

Abstract

Economic considerations are often cited as important determinants of health-seeking behavior. This paper describes a situation in peri-urban Tanzania where user fees do not constitute the primary reason why mothers delay seeking prompt treatment at a public health facility for their young, febrile children. Mothers commonly believe that they are dealing with an ordinary fever and not malaria or any other serious illness complicated by fever. Hence, they engage in extended home-based treatment. Drawing upon an ethnographic study, this paper illustrates how cultural knowledge about disease symptomatology, cultural meanings associated with febrile illness, gender relations, and patterns of communication between health care providers and mothers significantly influence outcomes for childhood febrile illnesses. It is argued that an overemphasis on the correlation between user fees and treatment delays with regard to childhood illnesses tends to divert attention from other significant cultural factors and existing structural constraints that influence the dynamics of health care seeking and health outcomes. At a time when calls to implement artemisinin-based combination therapy as one of the front-line strategies in Tanzania are increasingly frequent, there is a need to pay closer attention to the contextual factors and socio-cultural dynamics that influence patterns of treatment-seeking for childhood malaria.

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Keywords: Malaria; Treatment-seeking; Illness narratives; Misdiagnosis; New antimalarials; Tanzania

Introduction

Even a few hours of delay in seeking appropriate medical treatment for childhood *Plasmodium falciparum* malaria can result in severe complications, if not death (cf. Baume, Helitzer, & Kachur, 2000; Maitland & Marsh, 2004; Makemba et al., 1996; Mwenesi, Harpman, & Snow, 1995; Winch et al., 1996). As a result, the World Health Organization

has reemphasized the importance of early diagnosis and effective biomedical treatment as one of the key factors in preventing high levels of malaria-related deaths in Sub-Saharan Africa (WHO, 2005). Those involved in the planning and implementation of malaria control programs in East Africa and elsewhere continue to ask, why do some mothers and caretakers delay in seeking help, while others take their sick children to a biomedical health facility promptly—often within 24 h after the onset of fever? (Amin, Marsh, Noor, Ochola, & Snow, 2003). These questions are being raised with an

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added sense of urgency along with calls to replace inefficacious, monotherapy antimalarials with artemisinin-based combination therapy (ACT) (cf. Bloland, Ettling, & Meek, 2000; D'Alessandro, Talisuna, & Boelaert, 2005; Kachur et al., 2004; Nosten & Brasseur, 2002).

Economic considerations are often cited as important determinants of health care decision making in poor communities (cf. Mathews & Hill, 1990; Oths, 1994; Weller, Ruebush, & Klein, 1997; Young, 1981).¹ Within poor communities, the anticipated high cost of treatment is often perceived as the cause for treatment delays. In the Tanzanian context, some scholars have argued that user fees introduced as part of cost recovery programs deter—if not prevent—the local indigent populations from attending government health facilities (Tibandebage & Mackintosh, 2005). Indeed, several scholars have argued that user fees have led to increasing levels of morbidity and mortality, especially among women and young children in Africa (cf. Lugalla, 1995; Turshen, 1999). Therefore, on the grounds of health inequities, there are calls to discontinue the practice of charging patients user fees as this practice tends to hurt patients who are at greatest risk for disabling and fatal illnesses (cf. Creese, 1997; Gilson, 1997; Russell & Gilson, 1997).

This paper examines the complexities surrounding the process of treatment-seeking for acute febrile illness among children under the age of five in a peri-urban village in Dar es Salaam, Tanzania. This paper draws on data from a larger ethnographic study of the impact of health sector privatization on health care seeking in post-socialist Tanzania (Kamat, 2004). By drawing upon ethnographic examples, excerpts from illness narratives, case materials and quantitative data, I make a case for addressing issues that go beyond the user fees debate, and provide a more textured understanding of why some mothers and caretakers delay in seeking early diagnosis and treatment at government health facilities for their young, febrile children. I discuss the data under specific themes: (a) local cultural models of fever and treatment delays; (b) strategic symptom reporting by mothers; (c) lay cost reckoning and treatment delays; and (d)

misdiagnosis and subsequent treatment delays. I also present two case studies to draw attention to the difficulties that mothers face in their search for therapy for their young, febrile children. Through these case studies I seek to highlight how health-care-seeking surrounding childhood febrile illnesses is often mediated by a multiplicity of factors—cultural meanings, perceived severity and past experience, structural disadvantages affecting women's access to societal resources, contingent circumstances, and, above all, the patterns of communication between patients/caretakers and health care providers in government health facilities.

Research setting

I carried out fieldwork between May 2000 and September 2001 in a village I will call Mdafu. Mdafu has a population of about 5500 people and is located on the periphery of Temeke District, Dar es Salaam. The village does not have electricity and has only recently benefited from a safe drinking water project. Ninety-five percent of the local residents are Muslim, and 40% of these residents identify themselves as Zaramo—the original inhabitants of Dar es Salaam. The economic base for the majority of the local people is subsistence-oriented farming. A small proportion of villagers engage in petty business, such as the selling of peanuts, bread, tea, fruits and vegetables in the marketplace. For the majority of the local people, cash income is scarce—the average per capita, per month cash income is approximately Tshillings (Tsh.) 1475 (\$2). In everyday conversations about the government's decision to “free the market” as part of neo-liberal economic reforms, one hears the common refrain: *Maisha maumu!* (“Life is hard!”).

The local health arena is pluralistic, as villagers have access to Swahili medicine, biomedicine and pharmaceuticals. A municipal dispensary, originally built in 1976 and refurbished in 1997, is located 5 min from the marketplace. The dispensary is staffed by a doctor, three nurses, two of whom are mother and child health (MCH) specialists, and a trainee nurse. The facility relies mostly on donor-funded drug supplies provided by the Urban Health Project, Dar es Salaam. Although user fees (*kuchangia* or “contribution”) are collected from all patients, they are not required to be paid immediately. Patients are charged a nominal Tsh. 100 for syringes (*bomba*). This amount is less than the minimum fare (Tsh. 150) charged by local

¹The anthropological literature on medical decision making is voluminous. Due to space limitation, I have not presented a review of the literature in this paper. For an excellent review and analysis of the theoretical and methodological literature on medical decision making, see Garro (1998).

daladala buses in Dar es Salaam. Services are often provided on credit (*deni*). This cultural practice is underscored by the local socio-cultural dynamics of deferred payment and trust that has developed between the dispensary staff and the clientele over an extended period of time. Patients, especially children, are rarely refused treatment if they are unable to pay the required fees. Although the dispensary is well equipped, it does not have any field extension services, and the staff are not trained in the Integrated Management of Childhood Illnesses (IMCI). Patients are occasionally referred to the district hospital, some 20 km from Mdafu. However, patients usually receive at least some medical attention at the dispensary first.

Mdafu has three privately owned pharmacies (*duka la dawa*), all of which are operated by unqualified pharmacists. The pharmacies offer a range of over-the-counter medications. There are four known traditional healers who reside in the village as well. Only one of them, who is in his mid-80s, practices on a full-time basis. He attends to about eight patients per week, most of whom come from distant places. This pattern has been well documented in recent ethnographies of cross-cultural healing in the East African context (see Rekdal, 1999; Sanders, 2001; Whyte, 1997). Mdafu also has nine trained birth attendants (TBAs) who offer midwifery services. However, they are rarely consulted as most local people seek birthing assistance at the municipal dispensary and/or the district hospital.

Methods

Data for the larger ethnographic study were gathered using a combination of methods: participant observation, key informant interviewing, oral life history, illness narrative interviews, a household census and a household socioeconomic survey ($n = 116$). This paper, however, draws primarily on (a) participant observation data gathered at the local municipal dispensary, which included engagement in informal conversations with more than 150 mothers/caretakers and the documentation of many interactions between the doctor/nurses and mothers, and (b) detailed follow-up ethnographic interviews with a sample of 45 mothers over an 8-month period who had come to the dispensary with a febrile child under 5 years. These ethnographic interviews were comprised mainly of life histories and interview-elicited narratives which documented the practical

details and the extended case studies of illnesses. In their narrative accounts of care seeking, mothers described the symptoms they had noticed, the steps they had taken to deal with the illness, whom they had consulted, the treatments they had tried, their evaluation of the treatments, how they interpreted the illness in the context of their social and economic position in the community, and what their next step would be in terms of treatment follow-up and prevention.

To delimit the sample size to a manageable number, I established a set of parameters when recruiting mothers at the dispensary. Those parameters specified that (a) the child patient had to be under age 5; (b) the person bringing the patient to the clinic had to be the child's mother and not a caretaker such as the grandmother; (c) the child had to have a high-grade fever (an axillary temperature of 103 Fahrenheit was used as the cutoff point); (d) the child had to be diagnosed with and treated for malaria at the dispensary; and (e) the mother had to have been advised by the doctor or one of the nurses to sponge the child with a wet cloth before giving any medicines.

Due to these limiting parameters, the 45 mothers who fulfilled the criteria for the study comprised about 10% of the mothers who came to the dispensary during the data collection period. While a total of 800 fever cases were treated at the dispensary during this period, several of them were cases of reinfection and relapse. I included in the sample several mothers who had arrived at the dispensary believing that their child had "ordinary fever" (*homa ya kawaida*), only to be subsequently told by the doctor or a nurse that the child had a fever that necessitated sponging with tepid water and a chloroquine injection. All in-depth interviews were conducted in Kiswahili in the homes of the 45 mothers. These interviews, which lasted between 50 and 90 min, were audio-taped and later transcribed for analysis. At least half of these mothers were interviewed again in detail to elicit their life histories.

The study has a number of limitations that should be considered. First, the data are derived from a single village and mainly from a single health facility, albeit over several months. Second, a sample size of 45 subjects is not large enough to make definitive generalizations that go beyond the research site. Third, there is a selection bias in the sampling strategy due to the fact that mothers included in the study were recruited at the

dispensary and not from the larger community. Even so, the use of a combination of ethnographic methods, including participant observation, and the strategy of conducting all follow-up interviews in the homes of the mothers over several months allowed for the interpretation of the data within the larger context of the everyday lives of the people of Mdafu.

Study participants' socio-demographic background

The basic socio-demographic characteristics of the 45 mothers and background information on the patients are presented in Tables 1 and 2. Of the mothers who were interviewed for the study, 93% were familiar with the practice of bringing a sick child to the dispensary for treatment. In other words, they were familiar with the routine of medical consultation, and the expectations and everyday practices of the dispensary staff. Mothers commonly expressed their familiarity with the dispensary by referring to it as *hospitali ya yetu*, i.e., “our hospital.”

Cultural models of fever and treatment delays

The majority of the 45 mothers had delayed in bringing their children to the dispensary by at least 48 h after the onset of fever (see Fig. 1). Eighteen percent of the mothers had waited for nearly a week before deciding to bring their feverish child to the dispensary. In response to questions about delays in treatment seeking, two-thirds of the mothers spontaneously replied: “I thought it was only ordinary fever!” Many mothers were surprised when they found out what they thought as ordinary fever (*homa ya kawaida*) had suddenly turned into a strong fever (*homa kali*) or malaria (*homa ya malaria*). In a small number of cases, *homa kali* had suddenly turned into *degedege*: the indigenous name for a life-threatening illness. *Degedege* is commonly believed to be caused by a coastal spirit that takes the form of a bird and casts its shadow on vulnerable children on moonlit nights. Children who come under the bird's shadow become ill, subsequently develop convulsions, and in many cases, succumb to the illness and die (Kamat, 2005; see also Comoro, Nsimba, Warsame, & Tomson, 2003; Hausmann-Muela & Ribera, 2003; Hausmann-Muela, Ribera, Mushi, & Tanner, 2002; Hausmann-Muela, Ribera, & Tanner, 1998; Makemba et al., 1996; Tarimo, Lwihula, Minjas, &

Table 1
Socio-demographic characteristics of 45 mothers

Participants	N	%
<i>Age</i>		
18–22	16	35.6
23–27	15	33.3
28–32	8	17.8
33–40+	6	13.3
<i>Ethnicity (Kabila)</i>		
Makonde	3	6.7
Matumbi	3	6.7
Mgindo	3	6.7
Mwera	5	11.1
Mzaramo	9	20.0
Mzigua	4	8.9
Ndengereko	9	20.0
Others	9	20.0
<i>Religion</i>		
Muslim	40	89
Christian	5	11
<i>Education</i>		
None	14	31.1
Some primary school (3–5 years of schooling)	8	17.8
Completed primary school (7 years of schooling)	23	51.1
<i>Marital status</i>		
Married	26	57.8
Unmarried	16	35.5
Divorced	3	6.7
<i>Household size (# of members in the household)</i>		
3–5	25	55.6
6–8	14	31.1
9–15+	6	13.3
<i># of children born to mother and currently alive</i>		
1	22	49.0
2	10	22.2
3	6	13.3
4+	7	15.5
<i>Household monthly income (cash only in Tshillings)</i>		
2000–8000	5	11.1
12,000–20,000	15	33.3
25,000–40,000	11	24.5
50,000–60,000+	14	31.1
<i>Primary occupation of head of household</i>		
Agriculture (<i>mkulima</i>)	19	42.2
Artisan (<i>fundu</i>)	4	8.9
Petty Business (<i>biashara ndogo</i>)	16	35.6
Others	6	13.3

Bygbjerg, 2000; Tarimo, Urassa, & Msamanga, 1998; Winch et al., 1996).

In the local cultural model of fever, if *homa ya kawaida* is left untreated, it may lead to *homa kali*, which in turn, if untreated, may lead to *homa ya*

Table 2
Background information on child-patient ($n = 45$)

Patient	<i>N</i>	%
<i>Patient's Age</i>		
<1 year	15	33.3
1–2 years	17	37.7
2.1–3 years	9	20.0
3.1–4~5 years	4	8.8
<i>Sex</i>		
Male	26	57.8
Female	19	42.2
<i>Number of siblings</i>		
None	14	31.1
1	9	20.0
2	9	20.0
3	7	15.6
4+	6	13.3
<i>Birth order of the patient</i>		
1st child	16	35.6
2nd	8	17.8
3rd	6	13.3
4th and above	15	33.3
<i>Time lapsed since onset of fever</i>		
24 h or less	9	20.0
48 h	10	22.0
72 h	16	36.0
72+ h	10	22.0

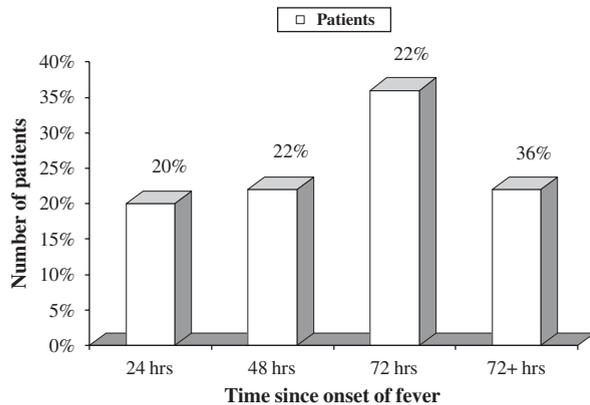


Fig. 1. Time lag since onset of fever ($n = 45$ cases).

malaria. Finally, if malarial fever is not successfully treated, it may lead to *degedege*. While most mothers shared the cultural understandings of the etiology of *degedege*, there was considerable variability and flexibility in how they interpreted the taxonomy of fevers and the trajectory of the illness or the “ultimate” cause of the illness: 36% of the mothers had never witnessed a child suffering from

degedege and only 31% of the mothers reported they had dealt with *degedege* in the past when the illness had affected their own child. Many mothers spoke of *degedege* in terms of what they had gleaned through word of mouth. They used phrases such as “I’ve heard from others that *degedege* is a dangerous illness...people say that it can strike any child...I haven’t seen it or experienced it myself, but I know what it is.” Yet, 80% of the mothers were confident that if they were presented with a situation of fever-inducing illnesses, they would certainly be able to distinguish *degedege* from other conditions. Despite this assuredness, many mothers in Mdafu had gained information about *degedege* in the form of second-hand episodes without having personally experienced the event (Price, 1987).

In other cases, while the illness label remained unchanged (e.g., *homa kali*), changes in perception of severity, through visible symptoms or based on the failure of a home-based treatment, greatly influenced the mothers’ health care response. Perceived severity of the symptoms was one of the key factors in the mother’s decision to bring the child to the dispensary. Just as the way an illness is understood may change through time, the subsequent treatment options that are pursued also change. Diagnoses and interpretations change in response to different outcomes of a range of attempts at treatment—either simultaneously or sequentially (see Hausmann-Muela et al., 1998; Hunt, Jordan, & Irwin, 1989; Nyamongo, 2002).

How do the dispensary staff and parents negotiate the identity of the child’s illness? During the consultations at the dispensary, only 30% of the 45 mothers were specifically told either by the doctor or one of the nurses that their child was suffering from malaria or *homa ya malaria*. Another 22% were told that their child was suffering from *homa* and 18% were told that their child had *homa kali*. Importantly, while only one mother was told that her child was suffering from *degedege*, in 28% of cases, neither the doctor nor the nurse gave the mother a specific diagnosis (*ugonjwa gani*). Despite the fact that all 45 children were treated with an antimalarial, follow-up interviews with their mothers revealed that at least one-third of them were not aware of their child’s condition as identified by the dispensary staff. Why do the dispensary staff seldom verbalize their diagnosis to mothers? Why they do not tell the mothers openly that their child is specifically suffering from “malaria” or “*homa ya malaria*” instead of generalizing the

diagnosis as “*ana homa*” or “*ana homa kali*” (i.e., a fever or high fever)? In the local context, the term *homa* is often used interchangeably to refer to ordinary fever, malarial fever, and a range of other fevers. The dispensary staff believe that since most mothers are dealing with malarial episodes regularly, they would read their verbalization of the term *homa* or *homa kali* as synonymous with *homa ya malaria*. However, as Whyte (1997, p. 213) has noted:

This may partly reflect an assumption on the part of health workers that patients are not interested in or able to understand biomedical diagnoses ...the lack of communication about diagnosis may also be associated with the fact that the health workers themselves are unsure of what they are treating.²

The implications of this ambiguous style of communication in government health facilities are significant in regard to treatment-seeking behavior for childhood fevers in places like Mdafu. Clearly, the dispensary staff has a responsibility to make sure that mothers become more sensitive to recognizing early signs of malaria. This is based on the assumption that by educating mothers about the symptoms of malaria, the dispensary staff can alert them to the severity of the illness. This in turn would result in a more timely diagnosis and treatment of the illness. In other words, mothers would start bringing their sick children to a biomedical health facility more promptly than before and this would lead to a drop in fatalities. In the present case, by using the relatively “mild” terms *homa* or *homa kali*, when in fact the child had been clinically diagnosed with malaria, the dispensary staff were not helping mothers to seek prompt treatment for their children during subsequent fever episodes.

The various symptoms reported by the 45 mothers are presented in Table 3. In 64% of the cases, the symptoms that mothers recalled were also noticed by other family members. In most cases it was the husband or the *fiancé* who also noticed the symptoms. However, key decisions were made by the patient’s mother and not a “therapy manage-

Table 3
Symptoms recognized and reported by mothers

Symptoms	N	%
Fever of varying intensity (<i>homa, homa kali</i>)	45	100.00
Diarrhea (loose motions) (<i>kuharisha</i>)	11	24.4
Inactive (<i>kukaa kimya</i>)	11	24.4
Crying (<i>kulia</i>)	23	51.1
Shivering and sweating (<i>kutetemka na kutoka jasho</i>)	15	33.3
Difficulty in breathing (<i>kushindwa kupumua vizuri</i>)	3	6.7
Convulsions (<i>homa za kitoto/degedege</i>)	4	8.9
Skin color turning yellowish (<i>mkojo kubadilika kuwa njano</i>)	12	26.7
Vomiting (<i>kutapika</i>)	23	51.1
Other symptoms (<i>dalili zingine</i>) ^a	30	66.66

^aNo appetite/would not suckle (*alikata chakula*), constipated (*hapati choo*), *kifua, kohoa, mafua*, no blood/anemic (*damu hana*).

ment group”—classically defined as the family members who get involved in the “diagnosis and the negotiation of illness identities, the selection and evaluation of therapeutic options, and the lending of support to the afflicted” (Janzen, 1978, pp. 7–8). The absence of a therapy management group can be partly explained by the fact that mothers believed that they were dealing with a non-life-threatening, recurring ordinary fever. The mothers believed that the treatment was known, and therefore their response was routine. Concerned others were involved only in cases where the illness was recognized as being serious and potentially life-threatening, especially following a drastic change in the visible symptoms.

Strategic symptom reporting

Interactions between the dispensary staff and the patients/mothers were routine, predictable and uneventful. Occasionally, the scene at the dispensary became a bit unsettled, when, for example, a nurse advised one of the mothers to begin sponging her feverish child so as to lower the child’s body temperature. Typically, the mother followed suit, sat on the floor, and started sponging her child with a wet cloth. In nearly all the cases, sponging had a positive effect by lowering a feverish child’s body temperature. However, the process was lengthy, and often took between 30 min and 4 h. Importantly,

²The symptomatology of malaria is ambiguous and diffuse, making a differential diagnosis based on the clinical presentation difficult. In clinical settings, malarial symptoms are often conflated with pneumonia (cf. Kallander, Nsungwa-Sabiiti, & Peterson, 2004).

most of the mothers were not told to sponge their child. This is because the majority of the children had a fever of less than 39 °C—a level of fever deemed by the dispensary staff as “not very serious.” Most of the mothers who were recruited for this study had witnessed other mothers sponging their feverish child, or they had been advised to do so themselves during previous consultations at the dispensary. About 56% of the mothers had sponged their febrile child prior to bringing him/her to the dispensary. However, another 20% said that they were simply too scared to do anything by themselves and thought it would be better if they brought their child to the dispensary to see what the doctor or the nurse had to say. About 13% of the mothers said that they had not resorted to sponging because they were not aware of this practice. Another 7% said that when they found that their child had high fever, their “mind stopped working” (*akili yangu sio nzuri*). Other mothers explained that when they had made the decision to bring their sick child to the dispensary, the child’s body temperature was “still okay” and therefore they assumed it was only ordinary fever. However, upon arrival at the dispensary, the child’s temperature shot up. At this point, it was necessary for the mother to follow the nurse’s advice to resort to sponging the child. Why do many mothers refrain from sponging their feverish child prior to bringing him/her to the dispensary?

Follow-up interviews with mothers and discussions with the dispensary staff revealed that many mothers tend not to sponge their child prior to bringing him/her to the dispensary visit for fear of masking the symptoms. Arguably, past experiences had guided many mothers into believing that if they arrived at the dispensary with a child whose temperature had been lowered by sponging, the doctor/nurses would not believe that the child was really sick. As a result, the mothers believed that the child would not get the necessary level of attention and the right medicine. They also believed that the child would be given aspirin instead of an anti-malarial injection. Mothers were being strategic in the presentation of their child’s illness in order to authenticate it, even if it meant that they were inadvertently putting the child at risk of developing serious complications. Indeed, it was practical logic that was at the heart of how mothers presented their child’s illness to the dispensary staff. This strategy was utilized so that the dispensary staff would take the illness seriously and invoke the best treatment

possible. In this case, strategic symptom reporting did not denote irrational health behavior or lack of faith in biomedicine, but rather indicated a manipulation of the system toward felt needs (Nichter, 1996, pp. 120–121). In contexts of limited, accessible health care options, mothers may put their children “at risk” albeit inadvertently, in the hope that the dispensary staff would take their child’s illness seriously. A proactive approach on the part of health workers based on a demonstrated willingness and responsibility to treat all febrile children seriously, would be a first step in convincing mothers that they need not refrain from sponging their febrile children. This would lead to better treatment outcomes. As noted earlier, none of the dispensary staff had received IMCI training—training that would have prepared them to assume a proactive disposition toward their patients.

Narrative accounts of care seeking

As will be illustrated through the following case studies, while the identity of the illness had remained the same, the perceptions of the severity of the symptoms had changed. In other cases, the identity of the illness was revised (e.g., *homa ya kawaida* to *homa ya kali*) following the failure of a previous treatment, a form of “diagnosis by treatment.” Illness identities were subject to constant revision and reinterpretation with the presentation of a new diagnosis, including the recognition of a new set of symptoms, or through new information provided by family members and health workers.

The following case illustrates the travails of a mother who had delayed seeking treatment for her child’s recurrent febrile illness at the local dispensary due to her concerns regarding the efficacy of the medicines prescribed there.

Case I, Halima

Halima, a 26-year-old Ndengereko woman, resides in Mdafu with her husband, her 1-year old son Salim, a co-wife, and the co-wife’s 3-year old son. Halima has had 7 years of formal schooling and further training as a tailor. Her social support network is extensive as several of her relatives, including her two sisters and an uncle, live in Mdafu. On one occasion, Halima arrived at the dispensary with Salim who was very sick. Halima was grimfaced with worry. That morning, the

doctor and all three nurses were in the dispensary. Salim had been sick for one full week. He had experienced bouts of fever, and it was only today that Halima had decided to bring him to the dispensary. His fever had shot up and would not subside despite the aspirin and chloroquine syrup she had given him periodically. As Halima lived very close to the dispensary and was married to a relatively wealthy Zaramo cashew trader, I naturally asked her why she had delayed in bringing Salim to the dispensary one full week after she had noticed that he had developed a fever. She spontaneously replied:

I thought it was only ordinary fever! It wasn't all that strong so I kept giving him aspirin. Later, I gave him chloroquine that his father had bought just before he left on his business trip to Tanga, but to no avail. So today I decided that I'd better get some advice from the dispensary doctor. I thought, perhaps he will prescribe some medicine other than chloroquine or refer Salim to the district hospital.

While Halima was in the middle of her narrative, the trainee nurse took Salim's axillary temperature, which was a little over 40 °C. The nurse clinically diagnosed Salim's condition as malaria and advised Halima to go ahead with sponging Salim with tepid water. Halima acted upon the nurse's advice. She later mentioned to the nurse that she had already given aspirin and chloroquine to Salim. The nurse responded with a casual "okay." Two hours later, when Salim's temperature had come down to almost normal, the nurse gave Salim a shot of chloroquine, and suggested that Halima return with Salim later for three more follow-up injections. Although Halima was visibly disappointed with the nurse's casual advice, she did not contest it. Two weeks later, in a detailed follow-up interview, Halima explained:

You know, at the dispensary, they don't do any blood test. I thought the doctor would prescribe a different medicine [other than chloroquine] but he did not. Instead, Salim was given four injections of chloroquine, and his fever did not go away. So, on the fifth day, I rushed him to a private clinic in Mbagala because he was convulsing...The doctor examined Salim and said that he had a different kind of malaria. He prescribed four injections of quinine. Luckily, the

quinine injections worked and as of today Salim is felling well.

Halima had delayed in bringing Salim to the dispensary because: (a) initially she believed that Salim's fever was an 'ordinary fever', and (b) when she realized that it might be malaria, she decided to administer chloroquine on her own because she was familiar with it. At this point, she believed that it would be futile to take Salim to the dispensary for she knew that the dispensary staff would only hand out aspirin and chloroquine, duplicating her own unsuccessful efforts. Finally, after a one-week "wait and watch" period, Halima decided to take her child to the dispensary not to get medication, but to get a prescription for a different medicine and/or a referral slip to go to the district hospital. Halima's fears were confirmed, as the dispensary staff had nothing else to offer Salim but chloroquine injections. Disappointed with the treatment, Halima decided to take her son to a private practitioner. Despite the considerable expenses, she was satisfied with the outcome as her child no longer had fever. Ultimately, Halima's decision to delay in seeking treatment was not because of the user fees charged at the dispensary, but mainly because of her lack of faith in the efficacy of the medicines (especially chloroquine) prescribed at the dispensary and the poor advice given there.

During the course of my fieldwork, I documented the sentiments and experiences of several mothers with regard to treatment failure at the dispensary. Yet, unlike Halima, very few mothers in the study sample had the resources to take a sick child to a private health facility for treatment. The cost of doing so is five to ten times that of seeking treatment at the local dispensary; the higher fees and transportation costs are a significant obstacle.

Lay cost reckoning and treatment delays

For the majority of the 45 mothers, the anticipated cost of treatment was not the dissuading factor in their decision to seek treatment for their sick child at the dispensary. Even in the context of poverty, 78% of the 45 mothers said that they were willing to pay the nominal Tsh. 100 charged at the dispensary, provided that they received satisfactory treatment for their sick children. This is not to discount the fact that in Mdafu I interacted with scores of people who were in desperate need of basic

medical attention. In my overall findings, many of these people, especially the elderly, remained sick and did not go to a health facility, stating that they did not have the money to pay for the diagnosis and prescribed medication. Indeed, during a recall period of 2–3 weeks, in 40% of the 116 survey households, there was at least one person who had still not recovered from his/her illness. This was due to the fact that the treatment was still in progress and/or because the patient's family did not have enough money to pay for treatment. However, the correlation between user fees and treatment delay for childhood illnesses was not clear-cut in all cases that I followed during my fieldwork. Overall, while user fees deterred adult patients from seeking prompt treatment for their illnesses at a government health facility, the same was not the case with young children.

How much does it cost to treat a single episode of childhood malaria? While 64% of the mothers had initially spent only Tsh. 100 on the treatment that their child had received at the dispensary, 24% had spent between Tsh. 200–500 and the remaining 12% had spent between Tsh. 600–1000 in total. Interestingly, 60% of the mothers said they paid the exact amount they had come prepared to pay at the dispensary, which was based on past experience. However, 20% ended up spending a lot more than they had been prepared to spend. As for the total expenses incurred on the index illness episode that was treated at the dispensary (including expenses incurred before and after treatment at the dispensary), while 44% had spent only Tsh. 100, 22% had spent 200–500; 16% had spent 600–1000, 11% had spent 1100–2000, and the remaining 7% had spent Tsh. 5000–7000 in dealing with one malarial episode.

More than 75% of the 45 mothers stated that they were not particularly concerned about the Tsh. 100 they had to pay at the dispensary, for they regarded it as their 'contribution.' Nevertheless, I hasten to add that about a quarter of the 45 mothers did express concern that if they were to bring their sick child to the dispensary and he/she was diagnosed with a serious illness, then the total cost of the treatment, including follow-up visits, would escalate beyond their means. This negative aspect of having to make multiple follow-up visits is compounded by the inconvenience of long distance travel by foot, the indefinite waiting period at the dispensary, the discovery that the dispensary is understaffed, the non-availability of the doctor, and the ineffective

nature of the prescribed medicine. The reason so many mothers actually bring their feverish children to the dispensary is because they believe that their child may not be suffering from a serious illness, and that the treatment cost would not exceed the nominal Tsh. 100. Concurrently, one of the reasons—along with strategic illness presentation—that some mothers do avoid seeking prompt treatment for their febrile children at the local dispensary is because of their concern that once they have taken their child to a government health facility, he/she might be diagnosed with a more serious condition than ordinary fever, warranting extended treatment, and extra costs. These mothers maximize home-based treatment as a cost-saving measure (see [McCombie, 2002](#)).

Misdiagnosis and treatment delays

As noted earlier, this research was conducted at a time when the clinical efficacy of chloroquine in Tanzania was under question ([Premji, Makwaya, & Minjas, 1999](#)). However, in Mdafu, the perceived efficacy of chloroquine among mothers for the treatment of their febrile children was notably high. Nearly two-thirds of the mothers mentioned that the chloroquine given at the dispensary for malaria was effective. This could be due to the fact that chloroquine has both antipyretic and antiparasitic properties. However, 20% of the mothers were skeptical. During follow-up interviews, they commented that it had been more than a week since their child was treated at the dispensary, and yet their infant/toddler was still sick. For them, the dispensary medicine had not been effective. Ten percent of the mothers were unsure as it was still too early for them to confirm whether or not their child had completely recovered. How long are the mothers willing to wait before concluding that the treatment has or has not proven to be effective, before seeking out an alternative course of action? For want of an alternative affordable health care option, most mothers would wait for as long as they could—usually up to a week—before returning to the dispensary to start the process all over again. In the context of poverty, for most mothers, the local dispensary was still the cheapest option regardless of the fact that they were required to pay user fees.

Even so, several of the illness narratives I documented in this study are replete with the frustrations experienced by mothers regarding the

dispensary staff's inability to make an accurate diagnosis of their child's illness and to prescribe effective medicines. As noted above, all fever cases at the dispensary are clinically diagnosed. Despite the fact that the dispensary was equipped with a microscope, the patient's blood smears were rarely taken for microscopic examination. In addition, a significant proportion of mothers did not know the identity of their child's illness as determined by the dispensary staff. In a number of cases, patients diagnosed at the dispensary with malaria were later treated for typhoid or pneumonia elsewhere. In 8 out of the 45 cases, the child was eventually taken to a private health facility or to the district hospital or to the Muhimbili national hospital for further medical attention. This put the child, the mother and other family members through additional anxiety and suffering as the condition of the child subsequently had escalated. These successive actions involved additional expenses, inconvenience, aggravation of the illness, and a loss of precious time, all of which could have been avoided if the dispensary staff had made a more accurate diagnosis and referred the child immediately to the district hospital. Mothers often waited for another 3–5 days before the realization set in that the treatment had failed. I will elaborate this point with a case study that exemplifies the troubles that a mother had to go through due to the failure on the part of the dispensary staff to make an accurate diagnosis and to communicate well with the mother.

Case 2, Zaina

Zaina, a 34-year-old mother of five children, two of whom are twins, is a Zaramo and a native of Mdafu. Zaina has had 7 years of schooling. Her husband is a subsistence farmer. On one occasion, Zaina had come to the dispensary with her 4-month old twin sons, Kulwa and Doto, both of whom were treated for high fever. Three months later, Zaina's personal life and economic situation had worsened considerably. Her husband had deserted her for the third time and was living with another woman in a neighboring village. In an interview about Kulwa's and Doto's illness, she asserted that the twins were born healthy and that they did not have any health problems. It was only when Kulwa had turned 4 months old that he started having intermittent fevers. This went on for more than a month. Then Doto started having fevers as well. Meanwhile,

Kulwa developed a large bump (*wimbe*) on his head. Zaina explained:

My first thoughts were that he might have fallen and hurt his head. I noticed that he had high fever then, but he was playing as usual. Then his fever shot up during the night, but during the day time, and afternoon, his body would be just warm. Then again his fever would disappear and return after two or three days, and this went on for quite some time.

Zaina took Kulwa to the dispensary where after the sponging routine, he was given a procaine penicillin fortified (PPF) injection. She had to take Kulwa every day to the dispensary for a PPF injection over the next 4 days, but the swelling did not disappear. All through this episode Kulwa had high fever. Subsequently, one of the nurses advised Zaina to take the twins to the district hospital, which she did. At the district hospital, Kulwa's swelling on the head was diagnosed as a sign of severe malarial infection. One of the doctors told Zaina: "the fever was so high that it had resulted in the swelling of the brain/head (*kichwani*); it's because of the malaria parasites (*vidudu*) in the body." Zaina was advised to admit Kulwa into the children's ward, where he would be given three injections, costing Tsh. 300. Zaina was confused because she did not know why Kulwa had to be given three injections simultaneously. No one offered to explain the reasoning behind this, and Zaina did not attempt to ask anyone about the logic of the treatment. Besides, Zaina did not have the money to pay for the injections. She also had another pressing concern; she had to take care of Doto, and there was no one around to help her with that. When she brought the latter issue up with the doctor, he promptly told her about the hospital's policy of only admitting sick patients. It was clear that Doto could not stay at the hospital while Kulwa was admitted for treatment. Zaina was faced with the dilemma of having to admit Kulwa, and at the same time having to send Doto back home. Her therapy-seeking had become all the more complicated in that it was not only about Kulwa's illness, but also about her inability to mind two children in two different places at the same time. Most poignantly, she could not rely on her husband. She made a decision to return home with both Kulwa and Doto, in the hope that she could leave Doto with her younger sister and return again later with Kulwa to the district hospital. However, upon

returning home, she found out that her sister was not in a position to help her as she was preoccupied with her own four children. Her sister had also just delivered a baby boy and was busy nursing him. None of her neighbors came forward to offer help. Expressing how she dealt with the “twin trouble” (*matatizo ya mapacha*), Zaina said:

I said to myself—“what do I do?” The doctor at Temeke hospital had said that he would not allow Doto to be in the same room while Kulwa was hospitalized. I realized that I wasn’t going to be able to return to the hospital again with both Kulwa and Doto ... I decided to again go to the dispensary in Mdafu instead. The doctor was away so I explained the situation to the nurse who gave Kulwa some chloroquine tablets. Within the next five days, he was all right. His fever was gone, and so also the swelling on his head. And so far he has had no problem.

Zaina’s case may be interpreted in several ways as it sheds light on the “micropolitics of the social relations of therapy management” (Nichter, 2002) in the context of poverty and a rapidly changing health and social environment. On a more applied note, some key issues clearly emerge from her narrative. If the dispensary doctor had immediately diagnosed the condition of the twins as indicative of malaria, Zaina could have avoided the trip to the district hospital and the ensuing hardship and anxieties. Furthermore, her journey was made all the more difficult by having to take care of the twins all by herself. Eventually, Kulwa was treated for malaria at the dispensary and he was cured free-of-cost.

Zaina’s case underscores the complex socio-cultural dynamics that underscore therapy seeking for childhood febrile illness in the context of poverty. Her husband’s decision to abandon her along with the children had put her in a precarious social and economic position. She was left to her own devices when it came to dealing with Kulwa and Doto’s sickness. Her immediate relatives who would have normally constituted her “therapy management group” (Janzen, 1978) did not come forward to help her. They were preoccupied with their own subsistence needs. Zaina’s decision to take her sick children to the dispensary was highly individualized in that she had acted on her own. The misdiagnosis that ensued only increased her difficulties. However, in terms of a successful end result, her decision to return to the dispensary with

her children out of desperation paid off. Zaina’s case is similar to five other cases I documented where mothers with very sick children had little or no timely help from family members and friends.

During informal conversations as well as in audio-taped interviews, mothers commonly spoke of “having to go it alone” when it came to dealing with sickness in the family. In fact 84% of the mothers in the study sample arrived at the dispensary with their sick child without the accompaniment of a family member, friend, or a neighbor. Treatment-seeking for children at the dispensary was highly gendered in this respect as it was up to the mothers alone to deal with their child’s illness. In a small number of cases, very young mothers were accompanied by their mothers or by a friend. Males involved in the mother’s life were rarely seen at the dispensary. During the 8 months of participant observation at the dispensary, I observed fewer than 10 male partners bringing their sick child to the dispensary. As already noted in Table 1, more than one-third of the 45 mothers were unmarried or did not have a male partner living with them on a regular basis. This factor would at least partially explain the absence of male partners at the dispensary.

The general pervasiveness of fevers among children, and the fact that most mothers believed that they were dealing with an ordinary fever, did not necessitate any elaborate consultation with friends, neighbors or the participation of the therapy management group. In essence, the data suggest that for illnesses such as “ordinary fever” among young children, the therapy management group plays a minimal role. The primary decision-maker is the child’s mother. The treatment-seeking process is largely gendered and individualized. It is the “ordinary” nature of recurring fevers that leads mothers to be self-reliant in making treatment decisions. This observation has a critical bearing on the potential success of recent initiatives in home-based management of malaria (cf. D’Alessandro et al., 2005). The need to pay attention to mothers’ everyday concerns, their access to social resources, and their sensitivity to malarial symptoms, is critical.

Discussion

Proponents of “free market medicine” have argued that charging user fees in public health facilities has an efficiency-enhancing effect because

it rationalizes attendance, discourages frivolous consultations, and forces patients to use the referral system for specialized care. However, critics have pointed out that the privatization of health care, characterized most evidently by user fees, has a devastating effect on the health of the poor, and the sick, especially women and young children (cf. Mwabu, 2001; Mwabu, Mwanzia, & Liambia, 1995; Turshen, 1999). In the context of a peri-urban village in Dar es Salaam, however, this case study suggests that while most children with a febrile illness are brought to a biomedical health facility 48 h after the onset of fever, this delay is not primarily due to the user fees charged at public health facilities. In other words, user fees alone do not deter the indigent, especially mothers, from making their preliminary contact with the dispensary. In the present case, what led most mothers to prolong their wait and watch period and to extend their practice of diagnosis by treatment was their belief that they are dealing with an ordinary fever, and not a potentially life-threatening illness such as *P. falciparum* malaria. Alternatively, they practiced strategic symptom reporting to ensure quality diagnosis and treatment.

As most of the encounters between the dispensary staff and mothers are characterized by patterns of communication that are vague and inconclusive, repeated encounters between the two parties neither help to heighten the sensitivity of mothers to malarial symptoms nor to lower their threshold of tolerance for fever recognition during subsequent episodes. In addition, some mothers also delay in establishing contact with the local dispensary because of their concern that upon arrival at the dispensary, their child might be diagnosed with an illness that is more serious than they had originally expected. As illustrated by Halima's case, mothers are also apprehensive about the availability of appropriate diagnostic facilities and medications at the dispensary. While economic considerations are certainly important in treatment decision-making, they are mediated by several other crucial factors: cultural knowledge, past experience with the illness, perceived severity of the illness, perceived efficacy of the medications offered at government health facilities, and the micropolitics of communication about illness diagnosis and therapy management at government health facilities. The extent to which the trends revealed by this single-village case study can be extrapolated to other geographical areas and social contexts is a methodological and an ethno-

graphic question that needs to be addressed though further comparative research.

Inaccurate diagnosis and associated treatment failure also contribute to delays in treatment seeking during subsequent malarial episodes. In Mdadu, nearly all fever cases at the dispensary were clinically and inadequately diagnosed. This often resulted in exasperating outcomes for many mothers and their sick children. For example, in Zaina's case, she could have avoided taking her twins to the district hospital if the dispensary doctor had initially diagnosed the swelling on her son's head as a symptom of severe malaria. The obvious question is whether the recommendation of a blood smear test (microscopy) for every case of suspected malaria would significantly improve the accuracy of the diagnosis and lead to better treatment adherence, prognosis, and prompt treatment-seeking during subsequent episodes. Providing an answer to this query would require additional research, as numerous researchers have recently documented the complex problems associated with differentiating malaria from other febrile illnesses (cf. Chandramohan, Jaffar, & Greenwood, 2002; Font et al., 2001; Hausmann-Muela et al., 1998; Mwangi, Mohammed, Dayo, Snow, & Marsh, 2005).

In places like Mdadu, an accurate diagnosis aided by rapid diagnostic tests (RDTs) would be a useful first step. However, without ready access to an effective, inexpensive antimalarial, RDTs would serve only to fuel frustration among the mothers and the dispensary staff as well.³ What is more, on any given day, the dispensary may not be fully staffed. To suggest that all fever cases be subjected to a blood smear test or RDTs is neither practical nor will it automatically solve the problem of misdiagnosis and all the difficulties that surround it. Far more is at stake in the diagnosis and treatment of childhood febrile illnesses than a more regular use of diagnostic tests. A large part of the problem of misdiagnosis is at once rooted in the problem of drug-resistant malaria, the social relations of medical decision making within households, and the micropolitics of communication at government health facilities.

³The clinical and perceived efficacy of sulfadoxine and pyrimethamine (SP), which is currently the first line antimalarial in Tanzania has already been brought into doubt (Bell & Winstanley, 2004). While ACT holds some promise, those who are most severely affected by malaria cannot pay for this expensive therapy (Bloland et al., 2000).

Even if these expensive but more efficacious antimalarials were to be made available in places like Mdafu, there is a strong possibility that many mothers, as mentioned earlier, will continue to delay in bringing their feverish children to a public health facility. Until the dispensary staff are trained to proactively and effectively communicate the severity of the symptoms of malaria, mothers will continue to delay in bringing their sick children to the local dispensary because they believe that they are dealing with an “ordinary” illness. Many poor patients in due course will turn to private pharmacies to purchase antimalarials that are less expensive, but of comparatively questionable efficacy (Goodman et al., 2004). The problem is further complicated by the fact that many private pharmacies in Tanzania are unlicensed and managed by unqualified or poorly trained pharmacists. There is also the risk that patients will consume their medications in inappropriate dosages and thus compromise the clinical efficacy of the drugs. Unless carefully planned community-based health interventions that address issues of inequity and injustice are implemented, the poor will continue to experience high levels of malaria-related morbidities and mortalities.

Conclusion

This paper has argued that economic considerations do not constitute the primary reason why mothers in peri-urban Tanzania delay seeking prompt treatment at a government health facility for their young, febrile children. Mothers commonly believe that they are dealing with an ordinary fever and not malaria or any other serious illness complicated by fever. Hence they extend their “wait and watch” period. Poor communication patterns between health care providers and mothers regarding the symptoms of malaria and its diagnosis exacerbate treatment delays during subsequent malarial episodes. The illustrative case studies examined in this paper demonstrate that therapy seeking in regard to childhood febrile illnesses is complex and context dependent. Just as poverty alone cannot explain high morbidity and mortality rates, economic considerations alone do not determine the kinds of decisions parents make about their child’s sickness. Illness and care-seeking are socially and culturally embedded (Garro, 1998, p. 330). Cultural knowledge, gender and power relations within households, the everyday practices at health care facilities, perceived quality of care, styles

of communication between health care providers and patients, and past experiences with misdiagnosis and treatment failures also influence treatment seeking behaviors and outcome. At a time when calls to implement ACT as one of the front-line strategies in malaria control are increasingly frequent, there is a need to pay closer attention to the contextual factors and socio-cultural dynamics that influence patterns of treatment seeking for childhood malaria.

Acknowledgements

Research on which this paper is based was generously supported by the National Science Foundation Doctoral Dissertation Research Improvement Program (Grant no. BCS-9904347), the Wenner Gren Foundation for Anthropological Research (Grant no. 6645:2000), Fund for Internationalization, Dissertation Research Award (May 1999), and the Institute of African Studies, Emory University. I gratefully acknowledge their generous support. Permission to carry out this research in Tanzania was made possible by the kind permission of the Tanzania Commission for Science and Technology (COSTECH—Permit No. 2000-111-NA-99-100). I am grateful to M.K. Leshabari, Japhet Minjas, Peter Brown, Marcia Inhorn, Randall Packard, Ivan Karp and Dan Sellen for their wholehearted support during fieldwork and write-up. I would also like to acknowledge the constructive comments given by Bill Mckellin, Gaston Gordillo, Nicola Szibbo and three anonymous reviewers on an earlier draft of this paper. However, I alone take full responsibility for the information and interpretation presented here.

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