Wartime children's suffering and quests for therapy in northern Uganda

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Chapter Five

Malaria

Introduction

Children stated having had malaria, malaria *madongo* (severe malaria)*, koyo ki lyeto* (coldness and high body temperature), and *abaa wic* (headache) within a one month recall. These illness experiences were ultimately coded as malaria, principally because the children self-diagnosed these illness experiences as such, but also because when children inquired about what medicines to buy for their symptoms in drug shops, clinics, and grocery shops, they were advised to purchase antimalarials. Further, in health centres where participant observation exercises were conducted, these complaints were diagnosed as malaria. Malaria is therefore presented as the first illness category for in depth analysis because a substantial proportion of children readily shared their experiences with health complaints which were ultimately diagnosed as malaria. The general statistics drawn from the overview above also suggest a higher prevalence of self-diagnosed malaria compared to other illnesses which the children identified, and furthermore, qualitative findings suggest that children ranked malaria as a severe and frequently experienced illness.

After presenting both quantitative and qualitative data signifying children's and key informants' viewpoints about malaria, I will discuss this data in relation to (1) how children rank the severity of malaria, (2) the prevalence of malaria and medicine use, (3) the idea that a high count of antimalarial use within a one month recall suggests that children were pragmatists in their quests for therapy, and (4) the idea that a high count of pharmaceuticals could suggest a *pharmaceuticalisation* or over-use of pharmaceuticals for common febrile illnesses and complex forms of suffering in situations of armed conflict. Based on empirical evidence, a suggestion is made regarding the need to address wider socio-economic and political inequalities in the effective prevention and control of malaria in holoendemic regions (i.e. areas of high transmission), including northern Uganda.

5. Findings

5.1. Quantitative findings: Prevalence of, and medicine use for, episodes of malaria from children's perspectives

Table 5.1: Prevalence of malaria within a one month recall (N=165)

Illness	Boys	Girls	Total	P-values
Lyeto (fever)	35	24	59	0.25
Malaria	20	21	41	0.50
Koyo (coldness)	13	12	25	0.88
Abaa wic (headache)	11	14	25	0.31
Malaria madongo	5	3	8	0.59
Total for malaria	**84**	**74**	**158**	**0.84**

Although data was gender disaggregated, there was no statistically significant difference between boys' and girls' self-reported experiences with malaria within a one month recall (P=0.84).

5.1.2. Medicines used in the management of malaria within a one month recall

As shown in Table 5.2 below, various medicines – antimalarials and antipyretics – were used by children for their cases of malaria. These medicines were either advised by workers at drugstores or by healthcare providers. Children were also observed making specific requests for antimalarials and various antipyretics.

Table 5.2: Medicines used in the management of malaria within a one month recall (N=165)

Medicines	Boys	Girls	Total	P-values
Chloroquine	78	71	149	0.44
Fansidar (sulfadoxin / pyrimethamine)	32	23	55	0.39
Quinine	16	6	22	0.05
Antimalarials	126	100	226	
Panadol (paracetamol)	85	71	156	0.22
Action (paracetamol / acetyl salicylic acid / caffeine)	43	46	89	0.18
Antipyretics	128	117	245	

In general, and as shown in the chi-square tests determining whether there is a difference between boys' and girls' use of medicines; and as in P-values in Table 5.2 above, apart from a statistically significant difference between boys' and girls' use of quinine (P=0.05), there were no other observed statistically significant relationships in using antimalarials and antipyretics for malaria. These pharmaceuticals could be obtained from clinics, pharmacies, drug shops, and grocery shops, and at these various medicine distribution points prescription-only medicines, including medicines for malaria, were also readily accessed without prior consultation with professional healthcare providers. What is more, through personal experience with such a highly prevalent infection, many people, including children, knew what pharmaceuticals to buy for self-diagnosed malaria. Antipyretics were regarded as necessary by many, especially for the headaches and fever associated with malaria. However, during workshops in 2004 for community based health workers, the prescribing of antimalarials together with antipyretics was frequently discouraged, much as this practice was still observed in the local management of malaria episodes in Gulu district in 2007.

5.2. Qualitative findings: Prevalence, symptoms, severity, and management of malaria

A similar pattern of results concerning the high prevalence of malaria and antimalarial/antipyretic medicine use was obtained through qualitative data collection techniques. Additional data obtained concerned the experiential severity of malaria and children's use of sub-clinical doses in their management of it. Further, I was faced with dilemmas concerning whether complaints which were ultimately regarded as self-diagnosed episodes of malaria could in fact be obscuring more complex forms of suffering.

5.2.1. Exemplary narratives of experiences with malaria within a one month recall

Below I give two exemplary narratives signifying children's experiences with malaria. In this particular exercise over four hundred children, in the first and second phase of the study, wrote about or narrated their experiences with malaria within a one month recall. I present here the exemplary narratives of Ojok and Acan to represent symptoms leading to self-diagnosis, experiential severity, and the differential quality and quantity of medicines children accessed for malaria.

This is how Ojok, a fourteen year old boy, wrote about his experience with malaria:

> I used to go and do *leja leja* quite far from home during school holidays. One day I was coming back to Kirombe from Lacor, where I had gone to dig. It rained on me. By the time I reached home, I had *abaa wic* (headache) and *koyo* (was feeling very cold). I lit a fire and sat as close to it as possible but I was still cold. I bathed with warm water but the *koyo* (coldness) did not stop. I went to sleep. By the morning time I was still feeling cold even though I had covered myself with two blankets and was sitting under the sun. I used the money I had earned to go and buy medicines from a clinic in Kirombe. After swallowing the chloroquine and Action tablets I vomited them. Even the next day I vomited the medicines. I could not drink or eat anything, not even cold water. I was drinking only warm water. I bought two more chloroquine and Panadol. The landlady instructed me to use warm water to drink them. After two days I started feeling better though I was still very weak and dizzy. I had a slight headache and by the end of the week I had recovered completely. I have not fallen sick again for one month now.

Acan, a ten year old girl, also shared her experience as follows:

> It started by feeling *koyo* (coldness/shivering or fever) and later with *ngok* (vomiting), and I had *abaa wic* (headache). I did not come to school that Tuesday. My older sister [thirteen years old] told me to bathe and go and buy medicines for malaria. She gave me one hundred Shillings [0.04 Euro] for chloroquine and fifty Shillings [0.02 Euro] for Panadol. I brought two tablets of Chloroquine and two Panadol. I took them but the next day my body started itching. My sister bathed and took me to Gulu Hospital. By that time I could not talk and was told to get ten injections at the hospital. After three days I started feeling better and decided to go to the well to fetch water, but when I came back, I was feeling cold, had a stomach ache and started vomiting again. I also had diarrhoea. I was taken back to the hospital by my grandmother. That time I was given Fansidar and Panadol and yat acholi (herbal medicines or Acholi medicines) from home – it was *kor muyeme* (mango tree stems) and *lace* (not identified species) for malaria. Then I started feeling better. I was also given orange and passion fruit juice to drink.

One of the main findings from these narratives is that children self-medicated their malaria episodes with sub-clinical doses. At the time of this study, it was recommended that children of school going age take four tablets of chloroquine on the first day of diagnosis, and subsequently two tablets on the second and third day of treatment (i.e. a regimen of 4:2:2). In a more scientific approach, a patient's weight is determined before an appropriate prescription – how many tablets s/he should take and at what frequency – can be recommended. The prescription should also be preceded by a laboratory examination of the patient's blood samples for malaria parasites. In northern Uganda *Plasmodium falciparum* parasites are the major malaria transmitting agents. However, during the fieldwork period these scientific procedures were not carried out due to poor healthcare facilities and inadequate staffing.

Another dimension of the children's self-medicating for malaria is a sense of pragmatism in their quests for therapy in the popular sector. Recovery and wellbeing

are defined on the patients' own terms, and are not based on theoretical knowledge that specific dosages should be completed after determining the disease aetiology. For instance, like ten year old Acan above, other children often bought far less medicine than what would be scientifically recommended for a complete dose, perhaps because this was all they could afford. They also indicated feeling better after such haphazard management of episodes of self-diagnosed or clinically-diagnosed malaria. I will return to this point, particularly in connection with the complexity of the various dimensions of healing and recovery.

Itching – as mentioned by Acan – is one of the most common side effects of chloroquine, and a substantial number of children indicated experiencing this. Although one nurse at GRRH suggested that such children should take Piriton or other anti-allergic tablets in addition to the antimalarials, no child did so. Neither were such additional tablets given to people who exhibited allergic reactions to the free antimalarials in state aided hospitals. An alternative would be to take other types of antimalarials such as Fansidar, quinine, Artenam, and Coartem, but these are often more expensive than chloroquine, and therefore few children could afford them.

5.2.2. Prevalence, symptoms, and management of malaria

The twenty-four children who participated extensively in the ethnography each had an average of three episodes of either clinically- or self-diagnosed malaria during a six month follow-up period in 2005. Further, at the displaced schools hardly a day passed without seeing a child who had *koyo* and wanted to stay under the sun all the time. Such a child would complain also of feeling weak and of having a headache. Other children mentioned *lyeto* (high body temperature) as a symptom for malaria. Thus for this study, whenever a child complained of the three symptoms – *koyo* (coldness), *abaa wic* (headache), and *lyeto* (fever/high temperature) – it was deduced that the child had self-diagnosed malaria. Other commonly mentioned symptoms included *me kume leb leb* (weakness), vomiting, desire to stay under the sun all the time, inability to stand straight, and lack of appetite.

When the following vignette featuring an episode of a febrile illness was read to different groups of between seven and twelve children, they identified the condition as *malaria*, *lyeto, koyo*, or *malaria madongo*.

> One of the children we found in Unyama camp was called Komakech. He was eleven years old. One Saturday when we went to visit him we found that Komakech was sick. He was sleeping

> under the sun, yet it was about 2:00 o'clock in the afternoon. He said he was feeling very cold. Meanwhile everyone around him was sweating and other children were playing in the shade. The sun was very hot. Komakech also vomited everything he was given. We bought for him a bottle of soda, but he said he did not want to eat or drink anything. His forehead was very hot and he told us that he had headache. When he was told to get up, he could not manage. He said he had no energy.

Subsequently, each child who participated in the discussions narrated his or her similar experiences. The management by individual children of malarial episodes was, however, slightly different, with individual experiences mediated by their place of residence, whether they had an adult caretaker, how much money they had at that time, and the severity of symptoms. For example, thirteen year old Aol indicated that she had bought only two tablets of chloroquine and two tablets of Panadol when she had malaria; she recovered after two days. In the prologue presented at the beginning of this thesis, Ojok and his three siblings indicated having had malaria within the past month; for each of their malaria illness episodes, Ojok had bought chloroquine from a grocery shop at one hundred Shillings (0.043 Euro). One weekend I organised a workshop for the twenty-four children selected for extensive study. One of these children, Omony, did not turn up; he was sick. He had woken up *me kume leb leb* (feeling very weak), and had *abaa wic* (headache). He narrated later how he had borrowed money from his landlady and bought Action tablets for headache and chloroquine for malaria. Although he was still feeling weak on Monday, he indicated that he was already feeling much better.

I found diagnoses of malaria in approximately seventy out of one hundred medical records of children aged eight to sixteen years which I examined at the out patient units at GRRH, Laliya, Layibi, and Laroo health centres in September and October 2005. During a one day participant observation exercise at GRRH's outpatient unit in November 2005, all fifty-six school age children (five to sixteen years) who were examined were clinically diagnosed with malaria [45]. Some received all the medicines prescribed, but this was an exception rather than the norm. Seventeen of the fifty six children on this particular day were advised to purchase medicines elsewhere since the unit had exhausted its day's pharmaceutical reserve.

[45] By observation at the outpatient unit at Gulu Regional Referral Hospital, the issuing of numbers to clients in order to be seen by 'daktars' would end at 10:00 o'clock. If you were lucky enough to be among the first people to be examined, you were likely to receive some pharmaceuticals before they were 'distributed out'.

At five private clinics and eight drug shops children were observed making specific requests for recommended pharmaceuticals for malaria, fever, cough, headache, and diarrhoea, or sometimes asking the drug shop owner or shop keeper for advice about which medicines to buy. The most recommended pharmaceuticals were chloroquine, Panadol, Action, and Hedex, and depending on whether a client had more money, one drug shop owner frequently advised buying stronger medicines like Fansidar, or opting for quinine injections which he could administer. One fourteen year old girl from Laliya, however, had a bad experience in August 2004 when she developed an abscess due to a locally administered quinine injection from a drug shop. In general, however, a substantial proportion of observed children purchased sub-clinical doses of chloroquine and Panadol due to the small amount of money they had.

One fourteen year old boy wrote about his experience with malaria and his subsequent purchase of chloroquine and Panadol in this way:

> I had malaria last week because of many mosquitoes at the shelter [Noah's Ark]. I knew it was malaria because I had headache, dizziness, coldness, and I wanted to be under the sun all the time. I went to the drug store near home and I bought chloroquine and Panadol for one hundred Shillings each.

Another boy, Okello, narrated his experience as follows:

> When I had malaria, I bought Panadol and Fansidar from a shop near home. I first went to the hospital alone but I found that the medicines were finished. I went to another hospital but they were asking for a lot of money. I did not have a lot of money.

In addition to the use of pharmaceuticals, in their illness narratives and during interviews children indicated using herbal remedies including *lace* (not identified species), *laburi* (*Vernonia amydalina*), and *labika* (*Comellina banglesis*), among other herbal remedies.

5.2.3. Severity of malaria

One child, at the time of writing his composition, had a cough and other acute respiratory symptoms indicative of influenza, yet he still wrote about malaria. Such selective writing about illness experiences provides insight into how particular illnesses were prioritised, and their severity conceptualised. For example, if the child suffering from cough and flu, who is asked to narrate an illness experience in the last month, writes about malaria, then it becomes evident that malaria is accorded a certain priority and severity in the child's mind.

Children listed and ranked diseases like malaria, diarrhoea, cough and flu, and scabies as severe and commonly occurring illnesses. In ranking illnesses by severity, a substantial proportion of the extensively followed children – twenty out of the twenty-four – regarded malaria as the most severe disease they commonly experienced. Of the 120 children at Noah's Ark night commuters' shelter who listed and ranked common illnesses by severity, all named malaria as the most severe and common illness. One fourteen year old girl described malaria to me as a deathful disease, and a fifteen year old girl concluded her composition by writing, "I have written about three diseases [eye infection, scabies, and malaria], but the most painful was malaria". In diagrammatic representations of illness episodes, the severity of malaria was most often portrayed as a child fully covered and sleeping under the sun, with chloroquine, Panadol, or Fansidar tablets drawn adjacent to the individual. Some children, however, drew a person being carried to *ot yat adit* (GRRH), or a child being admitted to hospital and administered quinine injections.

An exception to this general pattern was observed among child caretakers to people with HIV/AIDS, who were registered with the President's Emergency Fund for AIDS Relief (PEPFAR) at Lacor hospital and the World Vision Antiretroviral Therapy (ART) programme. Such children – eight of whom participated extensively in this study – frequently named and ranked HIV/AIDS as the most severe illness.

When children were specifically asked to compare their experiences of malaria with other episodes involving sadness, witnessing or hearing about extreme events, loss of a close relative, or their hut being burnt down in the camps, a substantial proportion of displaced children still placed emphasis on the severity and acuteness of malaria. For example Kidega, a thirteen year old boy, stated:

> I could move around even when my father had been killed by the rebels. But with malaria I feel very weak, and it is painful all over my body. I will have no appetite in such times and even if I use two blankets I will be feeling a lot of *koyo.*

Further, in one focus group discussion, ten to fifteen year old children in Gulu were asked whether malaria was more severe than any of the other illnesses which humanitarian agencies mainly focus on as commonly experienced by boys and girls during armed conflict; the children responded as follows:

> *Two tam* (illness of the mind or trauma) does not make you weak like malaria. You can walk around, even if you have *two tam*, but with malaria you feel generally weak and have pain all

> over the body so you cannot even move about. Malaria makes you dizzy and you cannot walk, unlike *two tam* where you can still walk freely.

The displaced children did not deny or dismiss their experiences of emotional suffering. However, in prioritising and making explicit their healthcare needs, they named malaria as a high priority illness. I will come back to this issue in subsequent chapters, and as part of my analysis of the major areas of focus for contemporary interventions in wartime.

Malaria madongo (severe malaria)

Beyond the experience of common malaria, children also named *malaria madongo* (severe malaria). Apiyo's mother became *dano me wiye obaale* (mentally ill) due to *malaria madongo*, perhaps a result of the fact that no one was able to buy medicines for her; since that episode her mother has not regained her sanity. Prompted by an inquiry into the most severe experience children had confronted in the recent past, a thirteen year old girl and her three siblings provided another example of *malaria madongo* which took more than two weeks to treat. The four siblings mentioned that it was only after neighbours had taken their then very sick sister to the GRRH for admission, where she was given strong medicines and injections, that she recovered. In their discussion the siblings disclosed how all their attempts prior to admission to administer chloroquine, Panadol, Hedex, Action, and also Fansidar, had proved fruitless. This finding could be linked to an increase in emerging cases of drug resistant malaria-causing parasites.

5.3. Healthcare providers' perspectives on the diagnosis and prevalence of malaria among children, and on healthcare priorities

In five interviews with clinical officers working at GRRH and Laroo Health Centre, I posed a question regarding the frequency of diagnoses of malaria. Here is an account from one clinical officer:

> With this war, people are staying in camps or in over crowded places like Pece, Kirombe, and Kanyagoga. Such an environment provides opportunistic conditions and therefore people are easily predisposed to malaria infections. So the first diagnosis I always indicate when people complain of symptoms including headache, fever, and lack of appetite is that of malaria.

In another interview I presented the case of one of the extensively followed children who frequently complained of persistent headaches. Each of his attempts to find a cure in health centres like Layibi and GRRH ended with a diagnosis of malaria. This was the

case despite his making it clear at Layibi that he did not think his persistent headaches were due to malaria. The interviewed clinical officer defended the consistent diagnoses of malaria as follows:

> You see how ill-equipped our health centre is. We basically rely on the symptoms the patients tell us, and maybe the knowledge about diseases we obtained from school. One of the symptoms of malaria is headache. Therefore, since we are not able to do a blood smear, we often give a diagnosis of malaria for such patients.

When the coordinator for the Child Health Unit at the Gulu District Directorate of Health Services was interviewed about the high prevalence of malaria in children of primary school age, she elaborated:

> With the war, not only are children above five years exposed to malaria infection, but also the general population. The target risk group are always children below five and pregnant mothers. But that is a narrow approach. All people are vulnerable since there are no preventive measures against infection. The people living in camps are also highly exposed since they live in poor living conditions, which are overcrowded, and mosquitoes can easily transmit malaria-causing parasites to many people in resource poor, overcrowded living conditions.

The District Director of Health Services (DDHS) replied to a question concerning asymmetrical efforts to save under fives and pregnant mothers from malaria as follows:

> In annual budgets for district healthcare planning, we align expenditure with areas of emphasis by the Ministry of Health (MOH). Presently, efforts are towards reducing morbidity and mortality due to malaria of the vulnerable groups, who are the under fives and pregnant mothers. That is why, even in camps, when there are mosquito nets to be distributed, only households with pregnant mothers and children below five years of age will receive such donations. Of course, malaria affects everybody in the community, but policy objectives help us to streamline our interventions. The other groups benefit from awareness messages on how to prevent infections.

5.4. Discussion of results

Malaria is highly endemic in most parts of Uganda, with 63% of the 26.9 million Ugandans exposed to high malaria transmission levels and 25% to moderate levels, while only 12% live in areas with low or unstable rates of transmission (MOH 2005). Malaria contributes to a big share of the disease burden in the country, accounting for 39% of outpatient visits and 35% of inpatient admissions (MOH 2005:1). A report by the Health Management Information System (HMIS) for the government, and another report by NGO facilities, show an increase in clinically diagnosed malaria cases, from five million cases in 1997 to 16.5 million in 2003 (MOH 2005; Ouma 2006:21), and a recent report by Roll Back Malaria (RBM) and The Joint Medical Store (JMS) (2006:21) estimates the number of malaria deaths at between 70,000 and 110,000 every year in Uganda.

Northern Uganda is considered to be a holoendemic region for malaria – i.e. an area with high transmission – and therefore malaria contributes substantially to morbidity and mortality rates for the region. Empirical evidence suggests higher prevalence of malaria in the war affected districts of Gulu, Kitgum, and Pader than national statistics indicate (DDHS-Gulu 2005; MOH 2005), for as I show in this chapter, a relatively low percentage of cases are actually presented for outpatient treatment because cases are largely self-diagnosed and self-managed. This phenomenon is facilitated by the easy access of prescription only pharmaceuticals in the popular healthcare sector without prior consultation with health professionals, linked to the dilapidation of the formal health sector and the privatisation and commoditisation of healthcare. Further, it appears that people – including children – depend on previous experiential knowledge in order to self-diagnose and self-medicate when they feel malaria associated symptoms.

There is, however, a further dimension to the assessment of the prevalence of malaria, which is that it could in fact be much lower than the current national figures and the number of self-diagnosed malaria episodes suggest. It is possible that among the cases of malaria upon which figures are based, a number are false positive diagnoses since blood smears are rarely done, and/or because national disease surveillance records rely on figures produced from district hospitals and health units which are not well equipped to register and follow up malaria cases or perform assessments about the prevalence of malaria. Further, the widespread use of antimalarials might point to the neglect of other febrile illnesses and emotional suffering, which are incorrectly diagnosed and treated as malaria. It is also likely that with symptom based purchases of pharmaceuticals, there is a process of medicalisation and pharmaceuticalisation of other complex socio-economic and political issues in wartime; an issue which need redressing. I will analyse this issue in detail in subsequent chapters.

5.4.1. Prevalence of malaria

Empirical evidence, based on self- and clinically-diagnosed cases, suggests a high prevalence rate of malaria among displaced children of primary school age. Statistics indicate that 19% of children in the survey mentioned experiences with malaria within a one month recall. MSF-Holland (2004a) however reports a higher percentage of 47% for a reported morbidity due to malaria/fever. The high figure reported by MSF-Holland (2004) could be because the survey covered the entire population including children

aged below five who are more vulnerable to malaria. Data obtained through qualitative techniques further show a high prevalence of malaria.

One reason for a high prevalence of malaria could be due to high rates of infection and re-infection with malaria causing parasites. High infection rates among displaced children are linked to the fact that no child practiced preventive measures against mosquito bites, such as using treated (or not treated) mosquito nets. Data also suggests numerous opportunistic conditions predisposing people in conflict stricken northern Uganda to infection. The DDHS and coordinator of the Child Health Unit in Gulu named, for example, overcrowding, living in poor conditions in camps, and limited practices of preventive measures. At Noah's Ark, the surrounding environment offered a breeding ground for mosquitoes since it was a wetland area with stagnant water. If one child in this environment became infected with malaria parasites, the chances of malaria pathogens being transmitted to other children would be higher due to the presence of female Anopheles mosquitoes which are vectors for transmission of malaria parasites, and this is confounded by the lack of preventive measures. Further, poor management of previous malaria episodes could contribute to the constant presence and source of malaria causing parasites, hence facilitating both infection and high re-infection rates for children who had already experienced and managed their malaria episodes.

Closely connected to the above point is the idea that the various symptoms associated with a diagnosis of malaria could also indicate that children were suffering from different febrile illnesses. This finding is similar to that produced from research by Reyburn et al. (2004:1212-1214), who suggest that over-diagnosis of malaria and the consequent neglect of febrile illnesses could lead to avoidable morbidity and mortality.

In addition, over-diagnosis burdens health services and individuals with costs they can ill afford. In this study, over-self-diagnosis of malaria presents a significant financial burden for children who self-medicate through purchases of various types of pharmaceuticals, without prior consultation with professional healthcare workers. And with the increase of drug resistance, it means that there is a need to try considerably more expensive drugs.

It can also be argued that high prevalence of malaria are directly linked with poor management of malaria episodes. Proponents of this logic assert that poor use of pharmaceuticals, under dosages, the existence of drug-resistant strains of malaria-causing parasites, and the presence of non-effective pharmaceuticals in the market, are responsible

for a high prevalence of malaria (see Kamya et al. 2007:8; Premji et al. 1993:48; Staedke et al. 2004:1951). It is likely that the children in this study experienced drug-resistant episodes of malaria. For example, the above narrative of *malaria madongo*, in which the thirteen year old girl and her three siblings discussed using different antimalarials, including chloroquine and Fansidar, with limited success, could indicate an episode of drug-resistant malaria. It was only after the administering of quinine injections at GRRH that the sick child recovered. Another issue at stake here is that the medicines which people buy from shopkeepers, drug peddlers, and in unlicensed drug shops are of various qualities. Reports suggest that most pharmaceuticals from such sources have expired and are often administered in incorrect doses, since it is the amount of money which a client can raise which is the major determinant of quality and quantity of what is accessed (MOH 1999b, 2002). Other press reports reveal that counterfeit medicines were sold by different pharmaceutical companies in Uganda. The search supported by the World Health Organisation (WHO hereon) found that counterfeit medicines sold to unsuspecting clients had known trade marks but the drugs were not genuine and tested for absence of any active ingredients (See Kajoba 2008:4). Further, the poor use of pharmaceuticals could be linked to the fact that antimalarials may be frequently used to manage health complaints mis-diagnosed as malaria, but which could actually signify other forms of suffering.

In connection to the foregoing complexities, it has been proposed by the Ministry of Health that communities should be sensitised about the correct use of antimalarials. At policy level, proponents of this advocate passing a directive reccomending that communities resort to combined treatments – i.e. prescribing and using both chloroquine and Fansidar for non-complicated episodes of malaria*,* and using second line antimalarials for more complicated cases. For instance, press reports suggest that due to the increased resistance of malaria parasites to chloroquine and Sulfadoxine/Pyrimethamine, a new and highly effective drug – Artemether/Lumefantrine (Coartem) – had been introduced as the first line treatment for uncomplicated malaria, and Artesunate/Amodiaquine combination (ACT) as the alternative (Roll Back Malaria & Joint Medical Stores 2006:21; Ouma 2006:21). In northern Uganda, a WHO intervention in Gulu in 2005 'donated' a one-time package of Coartem, an effective antimalarial for non-complicated *Plasmodium falciparum*, to combat such high a prevalence of malaria. I highlight donations here since it was likely that WHO were utilising global funds meant for malaria control in Uganda in order to buy the Coartem. However, as findings in this study suggest, it is

unlikely that displaced children will actually practice combined treatments, especially if it requires purchasing both chloroquine and Fansidar for each episode of malaria, let alone purchasing Coartem. Such children rarely had sufficient funds to purchase even a complete dose of the cheapest antimalarials such as chloroquine (at a relatively low price of 200 Shillings (0.087 Euro)), not to mention Fansidar (which cost 600 Shillings (0.26 Euro)). An average market price for Coartem at the time of the study was estimated at between 18,000 and 24,000 Shillings (7.83 to 10.43 Euros), and no child in war-torn Uganda could afford that, even if they truly wanted to alleviate their suffering, for given the average basic wage of 1,500 Shillings (0.65 Euro) for a hard day's labour, most children would need to work for a month to afford a dose of Coartem.

Most importantly, and as argued in this study, owing to the challenges in accessing Coartem, its high cost, and the fact that Gulu district is an area of high malaria transmission, it might be appropriate to implement more aggressive approaches to malaria control. Such approaches must go beyond curative measures to include malaria control measures such as the provision of insecticide treated nets (ITNs) and the use of indoor residual spraying. These combined approaches are likely to decrease the malaria burden and reduce drug pressure due to repeated use of modern Artemisinin Combination Therapies (ACTs) (see Kamya et al. 2007:8). More concretely, however, there is a need for a more concerted approach which addresses wider socio-economic and political factors which create opportunistic conditions for the transmission of malaria. Such interventions could focus on living conditions such as overcrowding and living in camps, as these factors offer opportunistic conditions for the parasites and the vectors which transmit them. Improving people's abilities to practice preventive measures as opposed to curative approaches could constitute the most effective intervention.

I however, recognise the financial difficulties such aggressive approaches in control of malaria might face. On the one hand the target community including wartime children are resource poor and the context of armed conflict and displacement from their livelihoods influenced their approaches to minimising their suffering; on the other hand, Gulu district is a holendemic region for malaria. Findings show how children mainly resorted to short term curative approaches through use of pharmaceuticals in case of malaria. Given the context in which children lived in, I propose that despite their frequent exposure to malaria parasites, it was fitting for them to engage in the curative ways as

opposed to effective preventive approaches in managing malaria.

Another dimension to the foregoing analysis is that child patients frequently presented complex emotional forms of suffering such as living in misery, worrying, bitterness, and unsuccessful mourning, in somatic idioms. Supportive data and detailed analysis of the preceding insight will be analysed in Chapter Eleven. Since malaria, other types of infections, and various forms of emotional suffering present with similar symptoms, distinguishing when an ill child might be presenting with an illness caused by emotional distress, which therefore requires a non-pharmaceutical intervention, was problematic. Subsequently, the limited focus on prescribing pharmaceuticals for all self-reported illnesses led to the pharmaceuticalisation – i.e. a phenomenon where pharmaceuticals are prescribed and perceived as a cure for every illness or health complaint – of emotional suffering. In particular, it appears that children purchased and used pharmaceuticals for somatic and/or psychosomatic complaints[46]. One example of such a somatic symptom is persistent headaches, but these were frequently diagnosed as malaria. Thereby the practice of frequent diagnosis of malaria not only suggests its possible high prevalence, but also suggests the medicalisation and pharmaceuticalisation of complex forms of emotional suffering.

5.4.2. Management of malaria in the context of medical pluralism

Children used a wide range of pharmaceuticals and herbal remedies in the management of malaria. In particular, children mentioned using chloroquine, Panadol, Hedex, Action, Fansidar, and quinine. In some instances *lace, laburi,* and *neem* tree leaves were also used in the treatment of malaria. Pharmaceuticals were readily accessible over the counter without prior consultation with professional healthcare workers. Such findings have implications for emergency aid intervention and priority setting in healthcare.

Although children readily accessed pharmaceuticals, including prescription only medicines, over the counter from clinics, drug shops, health centres, and market vendors, it appears that pharmaceuticals may not actually be magic bullets for alleviating children's suffering. Symptom based management of malaria episodes might lead to the abuse of

[46] Somatic symptoms are emotional aches which children presented as body aches, while psychosomatic symptoms are physical and/or emotional problems which cause genuine physical suffering.

medicines, for instance by buying various medicines to treat one symptom; one child purchased Panadol and Hedex for pain relief, both of which are analgesics and therefore made of the same active ingredients. Subsequently, it appears that children often used more pharmaceuticals than necessary.

The market orientedness of healthcare, where even pharmaceuticals are a commodity, reinforces self-medication and over use of pharmaceuticals. A wide range of advertisements for pharmaceuticals – stating which ones provide effective relief, fast cure, and other appealing qualities – which appear in print and in audio and visual media, were a common phenomenon in Gulu at the time of this study. These advertisements were vital in disseminating knowledge about pharmaceuticals and informing people on how to manage common symptoms themselves. It was therefore only the amount of money which an individual had that determined the quality and quantity of pharmaceuticals accessed. The proliferation of pharmaceutical companies, and the subsequent unregulated import of such pharmaceutical commodities to Uganda facilitated easy access to various types of medication, including those which are prescription only, over the counter and for a fee. Moreover, with the adoption of structural adjustment policies since the 1980s and subsequent privatisation of healthcare and liberalisation of the markets, Uganda has witnessed an increase in imports of pharmaceuticals of varying qualities, which explains the presence of, for instance, Hedex, Panadol, Action, and Painex, to mention only a few examples for headache relief.

In the management of self-diagnosed malaria, it appears that children were pragmatists in alleviating their suffering. In their quests for therapy, children not only engaged in practices to find a cure, but they also went beyond acceptable rationalities and norms in their own life world in these attempts. For instance, children frequently discouraged the mixing of pharmaceuticals and herbal remedies for illnesses. In their own narratives they disclosured such practices, for example having mixed or used chloroquine with *kor muyeme, lace*, and *laburi* for an episode of self-diagnosed malaria. Further, children indicated trying out other pharmaceuticals, to see if they offered a solution to their symptoms, if the previous one was not effective. In general however, children had trust in the healing properties of pharmaceuticals.

Conclusion

Malaria was a common illness experienced by displaced children of primary school age. Children self-diagnosed malaria and subsequently managed it with both pharmaceuticals and herbal remedies. The fact that displaced children readily discussed their experiences with clinically- and self-diagnosed malaria points to its acuteness, severity, and high prevalence. The latter demonstrates that malaria is a priority and an immediate healthcare need. In analyses of empirical data I have propositioned that children ranked malaria as a severe illness which commonly affected them, and also that the high prevalence of malaria could account for the substantial use of antimalarials. The high count of antimalarials used within a one month recall suggests not only that children were pragmatists in their quests for therapy (or opted for short term curative approaches in the management of malaria), but also that the high prevalence of self-diagnosed (and even clinically-diagnosed) malaria might reflect a neglect or mis-diagnosis of other febrile illnesses. This highlights the need for blood smears in order to confirm whether the prevalence of malaria is in fact as high as the number of self- and clinically-diagnosed cases indeed suggest. Further, a high count of pharmaceutical and herbal medicine use could suggest the *pharmaceuticalisation* and *herbalisation* of complex forms of suffering in situations of armed conflict.

Based on empirical evidence which signifies a high prevalence of malaria, and the contemporary emphases on curative approaches including the introduction of artemisinin combination therapies as a first line drug, I propose that there is instead a need to address wider socio-economic and political inequalities in the management of malaria. I suggest that effective strategies in prevention and control in areas of high transmission, including northern Uganda, need to go beyond curative approaches to encompass preventive approaches. However, given the dire context in which children who participated in this study lived, I propose that it is appropriate for them to engage in short term curative approaches in management of malaria. I propose the latter while recognising that the effective approach in malaria control lies in preventive measures which wartime children could not practice because of poverty, lack, poor living conditions and displacement from their livelihood.