

**MEDICAL INTERVENTIONAL STUDY  
OF WAR AFFECTED GULU  
DISTRICT, UGANDA**

**AN ISIS-WICCE REPORT**

**KAMPALA, UGANDA**

**JULY, 2001**

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# **MEDICAL INTERVENTIONAL STUDY OF WAR AFFECTED GULU DISTRICT, UGANDA**

## **AN ISIS-WICCE REPORT**

IN COLLABORATION WITH

**AFRICAN PSYCARE  
RESEARCH ORGANIZATION (APRO)**

**ASSOCIATION OF  
OBSTETRICIANS AND GYNAECOLOGISTS  
OF UGANDA (AOGU)**

**DEPARTMENT OF ORTHOPAEDICS,  
MAKERERE UNIVERSITY**

WITH FINANCIAL SUPPORT FROM

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## TABLE OF CONTENTS

Acknowledgement & Authorship .....	ii
The Gulu Resident Team .....	iii
Executive Summary .....	1
Chapter One: Background .....	6
Chapter Two :Socio-Economic Effects of War on Women .....	13
Chapter Three: War-Traumatisation and its Psychological Consequences on Women .....	26
Chapter Four: Gynaecological Consequences .....	46
Chapter Five: Orthopaedic/Surgical War-related Complications on Women .....	53
Chapter Six: Conclusions and Recommendations .....	61
References .....	63



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# EXECUTIVE SUMMARY

## Background

Gulu District in Northern Uganda has gone through and continues to experience the longest civil conflict in the history of Uganda (1986-todate) (Isis-WICCE, 2000). This conflict has had a devastating effect on the lifestyle of the people of this district. There has been torture including robbery, rape, gunshots, landmines, bombs, harassment, maiming, and killing of people, massive abductions of the youth and displacement of entire communities into camps (Isis-WICCE, 2000; Panos Institute, (1995); UNICEF/World Vision (1997); Amnesty International (1999).

A head count in November 2000 indicated a total of 346512 people lived in 22 of the more than 30 camps in Gulu northern Uganda resulting from the 15-year insurgency.

Two studies were carried out with the support of ISIS-WICCE in 1999 and 2001. The first was carried out in 1999/2000. This was an in-depth study of Women's experiences in the war situation that has characterised northern Uganda for the last one and a half decades. The study was aimed at providing a basis for future interventions with regard to facilitating the women with coping, providing an advocacy and lobbying tool for law reform, and the enforcement of the existing laws related to human rights violations, and sensitising the public, women's NGOs, the Uganda Government and the community about the consequences of armed conflict on women.

A dissemination of findings workshop was held in October 2000 in Gulu. In May 2001, a short term medical intervention was organised by Isis-WICCE in collaboration with the Gynaecological Association of Uganda, The African Psycare Research Organisation (APRO) and the Department of Orthopaedics Makerere University. The objectives of the medical intervention study was threefold:

- (i) To document the physical and mental health problems of the women in the war affected district of Gulu;
- (ii) To effect an intervention to alleviate the health plight of the population with particular emphasis on addressing women's health problems; and
- (iii) To document the results of the medical intervention in the war affected district as an advocacy tool for wide scale intervention in this field by government and other partners.

## Intervention Design

A multi stage cross sectional descriptive study was undertaken to document the gynaecological, orthopaedic, general surgical problems as well as psychotraumatic experiences and their psychiatric sequelae in Awer camp of internally displaced persons in Gulu District, Uganda. Under the auspices of ISIS-WICCE, a multi-discipline team including Gynecologists, Psychiatrists and Surgeons was assembled for the medical intervention and documentation in Awer Internally Displaced People's Camp and her satellites of Olwal, Pagak, Kaladima and Parabongo all in Lamogi sub-county in Kilak County of Gulu District. The choice of health specialties reflected the health problems identified in an earlier study.

The intervention employed a primary health care approach to the alleviation of the most serious health problems of the people in the IDPs through the use of community participation and existing health care structures in the districts. The intervention also aimed at building local capacity through training, supply of drugs (to a limited extent) and equipment and provision of specialised supervision from the National referral hospital. Health staff and local leadership at all levels within the district were used to ensure sustainability of the service through community and district health service participation.

## **Methodology**

The team trained camp volunteer counselors (CVCs) who were used to screen the population and refer those with problems to the health centers. Four semi-structured questionnaires (a general camp screening questionnaire, and one for each of the three medical interventions namely; gynaecological, psychological and surgical screening) were designed and pre-tested.

The CVCs documented the problems identified using semi-structured interview schedules and carried out counseling where necessary. The specialists from the referral hospital also trained eight medical staff at Gulu district Hospital and from some health centers on the screening and management of the simpler problems. The trained medical staff referred the more advanced/complicated cases to the specialists. Training was also offered in documenting all the cases managed and those referred for specialist care. During the last week of the intervention, the team of specialists performed a wide range of surgery on complicated cases of patients screened earlier. The less complicated cases were scheduled for operation by the local Gulu-based team.

## **Results**

The results of this interventional study relate to the the different specific areas of intervention as per the assessment that was carried out prior to the intervention.

### ***Socio-economic Effects of war***

In the documentation of women's experiences in situations of war, it was revealed that as a result of the war, the average number of children and particularly male adults declined due to deaths, abductions, emigration or departure for military service. The absence of men in the homes in particular increased women's responsibilities.

The population have been exposed to traumatic experiences including captivity/arrests, forced torture and killing of others, intimidation, walking long distances without food or walking bare footed in thorns and bushes and extreme humiliation especially for women. Other health problems include untreated fevers, STIs including HIV/AIDS, maiming, broken and severed limbs and a host of other ailments. Psychosocial problems were the most numerous.

There were numerous marital break-ups, forced early marriages multiple and homosexual rapes, and unwanted pregnancies. While the responsibilities of women increased their status was not improved and women's education in particular suffered.

The prolonged insecurity has disrupted farming, trade and farm based marketing activities leaving a highly depressed economy in Gulu.

Women household heads, particularly widows and single mothers were most negatively affected by the war.

### ***Psychological effects of war***

Most of the respondents, had experienced at least one torture event. The commonly reported physical torture experiences included; beating and kicking, forced hard labour deprivation of food, water and medicine and tying (Kandoya).

The psychological methods of torture reported included: verbal threats; killing of relatives, detention and sleeping in the bush/swamps. Among women sexual abuse was predominant with rape, attempted rape and forced marriage being common.

The government army (NRA/UPDF) accounted for a quarter of all torture cases, and the rebel army LRA (Kony) for 70% of all torture cases meted out to the respondents. Torture usually took place at home affecting significantly more females than males. Psychiatric disorders were diagnosed included post traumatic stress disorder, depression, alcohol abuse disorder, generalised anxiety disorder, panic anxiety disorder, Agoraphobia, social phobia, somatoform disorder, and suicidal thoughts. In addition impaired function was reported in work, family relationships and sexual function. Six percent of the respondents had homicidal thoughts.

### ***Gynaecological Effects of War***

The gynecological effects related to war ranged from urinary fistulae, infertility, chronic pelvic pain, sexually transmitted infections, vaginal tears and laxity. The study revealed that only a quarter (24%) of the women had accessed a qualified health worker for their problems. Sexual function was adversely affected, 22% had unstable or broken marriages and 32% were not able to work. Only fourteen (10%) patients with most serious complications were operated upon during the intervention.

### ***Orthopaedic and Surgical effects of War***

Of the 1,077 screened patients seen in the camps 758 (70%) had Orthopaedic/surgical complaints. Most of the respondents with orthopaedic/surgical complaints were in the 31-60 years age range.

The orthopaedic cases included recurrent back pain. There were significantly more females than males complaining of recurrent and mechanical low back pain. Likewise more females had septic arthritis than males. Soft tissue injuries and neglected fractures were more common in male patients.

Most patients with low back pain not associated with leg pain, fever, cough or abdominal pain most often improved with rest. They were treated with analgesics, counseling and health education on causes of low back pain. Patients with soft tissue injuries had cut wounds, bruises, skin lacerations at various sites on the body especially the limbs, face and trunk caused by gunshots, beatings and cuts by sharp objects such as knives and machettes. These injuries were often complicated

by infection, scarring and contraction deformities. Many of these patients had debridement surgery and antibiotics treatment. Contractures were treated by soft tissue release operations.

Many patients presented with untreated or poorly treated fractures some closed while others were open or compound fractures that were often painful, with pus from secondary infection and leading to loss of function of the affected part of the body. They were treated with antibiotics and proper reduction and immobilisation of the fractures.

Septic arthritis (painful joint swellings associated with fever at the onset) was common especially in children. Pain led to failure to use the limb and subsequent complications of joint stiffness and deformity. They were given antibiotics and some had arthrotomy surgery done. Likewise Chronic Osteomyelitis (chronic pus -discharging sinuses from swollen limbs) was commonly found in children. These were treated surgically and given antibiotics.

T.B. Spine was common among children who had constant back pain often associated with cough, weight loss and presence of a back deformity (Gibbus). Sometimes T.B. was associated with weakness in the legs and inability to control urine(urinary incontinence). They were treated with anti-T.B. drugs.

Burn contractures patients as a result of open fires, petrol and or hot water scalding often suffered acute skin loss with associated infection, scarring and total disfigurement of part of their body such as the face, neck and other areas of the body. Their contractures were released surgically while some required skin grafting.

Other Orthopaedic condition identified were congenitally deformed limbs especially in the Region of knee joint (Genu valgus deformities) and the feet – (congenital Talipes Equino-varus or club foot). Painful amputation stump due to Neuroma formation were also seen and treated.

Hernias were common in the groin area and abdomen and most could reduce with pressure. Most of the hernia patients had history of chronic cough and constipation or difficulty in passing urine. All the hernias were operated upon. Benign tumors such as lipomas, testicular masses or malignant tumours for example cancer of the breast. Surgical emergencies such as intestinal obstruction were also treated.

## **Conclusion**

The long standing war in Northern Uganda has resulted in serious social, economic and health problems for the people of Gulu District in Northern Uganda. Insecurity is high, very little production is taking place, the infrastructure is destroyed and the economy is depressed. There are hardly any community social services.

Practically the whole population has been affected by the war with massive displacements. People live in protected Internally Displaced Peoples' camps where life is very difficult. Health is poor. Diseases are rampant. Men folk are few and decreasing in numbers. Women and children are overburdened with daily struggle

to survive. This has caused numerous physical, psychological and social problems. Hardly any schooling is taking place - the girl child is getting increasingly marginalised.

The District of Gulu has experienced and continues to experience severe war traumatisation. This has led to a population with severe gynaecological and orthopaedic complications as well as psychiatric problems including suicidal ideation and even feelings of homicide.

The war has resulted in much suffering to the civilian population and the women in particular. Many women have contracted gynecological problems as a result of sexual abuse and due to the absence of health facilities. They are confined to camps and lack access to qualified health workers, who in turn do not visit the camps out of fear.

## **Recommendations**

- There is need to stop the war raging in the district and Uganda as a whole. This will mean marshalling up civil society in Uganda and the international community to bring this war to end. This will pave the way for social, economic and medical rehabilitation of the tortured survivors. Gender sensitivities, should be considered in any of the initiatives as well as the needs of families and children.
- In the meantime, humanitarian organizations should urgently come to the aid of the civilian population and give whatever little care they can offer.
- There are special medical problems in Northern Uganda attributable to the prolonged war-situation and there are gender differences in these problems. There is a need for the government to recognise these unique problems which call for special health care packages and programmes which are gender sensitive.
- Resources should be dedicated by the ministries of Health and Rehabilitation towards facilitating sustained medical interventions programs similar to this one in the war torn areas of Uganda, especially Northern Uganda's Gulu and Kitgum districts.
- A public health model for the trauma rehabilitation needs to be adopted for implementation in this region. Such as approach must address the physical, psychological and social needs of the victims especially women and children.
- Lastly Ugandan media and civil society needs to engage itself in debating forms of governance that will be preventive of war. There is a need to conscientize the populace, politicians, soldiers, local administrators and all leaders in the need for universal respect to Human Rights. Uganda must build institutions and a culture that is sensitive to and respectful of Universal Human Rights for all in accordance to the UN Charter. This will enhance peace, early conflict resolution and promote conflict prevention.

# CHAPTER ONE

## BACKGROUND

### 1.1 Introduction

The worst and longest civil war in the history of Uganda has been fought and continues to rage in northern Uganda and especially the sister districts of Gulu, Kitgum and Pader, which make up Acholi. As expected the war has had devastating effects on the social, economic and health of the entire population. What has compounded the problem for the people of the three districts and especially Gulu is that the population were, in the mid-1990s, forced from their land and hence production support systems to Internally Displaced People's (IDP) camps. There are over 30 camps in Gulu alone. By June 2000, the UN Office for the Coordination of Humanitarian Affairs (OCHA) reported an estimated 370,000 internally displaced persons in Gulu (IRIN, July 2000). In neighbouring Kitgum, there were some 82,000 IDPs in government camps and an estimated 10-20,000 in transient or unofficial camps.

**Table 1.1: Population Distribution in some of the IDP camps of Gulu District (as of Dec. 2000)<sup>1</sup>**

Name of Camp	Male	Female	% female
Parabongo*	4485	4460	49.9
Labongogali	2778	3248	53.9
Bibia	1928	2758	58.9
Pagak*	5901	6344	51.8
Kachongoma	6295	6089	49.2
Awer*	5561	5808	51.1
Patiko Ajulu	5543	5548	50.0
Paicho	5911	5552	48.4
Teyaphadola	3615	3941	52.2
Anaka	17708	16094	47.6
Atiak	9151	10075	52.4
Olwal*	7769	9048	53.8
Alero	7611	7412	49.3
Pabbo	22521	24193	51.8
Awach	7773	8408	52.0
Acet	10190	10025	49.6
Opit	9245	8440	47.7
Amuru	17962	17473	49.3
Palaro/Oroko	6088	9133	60.0
Larogi	9199	9137	49.8
Gunguma	1989	2061	50.9
Kaladima*	1012	1030	50.4
Total	170235	176277	50.9

Table 1.1 indicates there were 346512 people in internally displaced people's camps in 22 of the more than 30 camps in Gulu alone. Of these 51% of the population were female.

<sup>1</sup> The star (\*) indicates camps, which participated in the medical intervention.



As a consequence, the district has experienced declining health indicators; life expectancy is 37 years for men and 44 for women against a national average of 45.7 years for men and 50.5 years for women. Maternal mortality rate in Gulu is estimated at 700/100,000 (national average - 506/100,000). Gulu generally experiences; a high burden of disease such as infant malnutrition, malaria, diarrhoeas, respiratory tract infections, and HIV/AIDS and all sexually transmitted diseases (Ministry of Health/Uganda Government (2000), Republic of Uganda (1995)).

## **1.2 Documentation of Women's Experience of Armed Conflict**

In line with the organization's mission of ensuring a world where women's status and achievements are well documented and valued, Isis-WICCE carried out a documentation of Women's Experiences in Armed Conflict in Gulu for the period 1986-1999 (Isis-WICCE, 2000). Findings of the initial documentation exercise confirmed related findings of near collapse of the local economy and destruction of social services including health (Ministry of Health/Uganda Government (2000), Uganda Government/UNICEF (1998), Republic of Uganda (1995)). Many people were found to have suffered physical injuries with extensive maiming. The Gulu Rehabilitation Unit in 1996 registered a total of 628 children, 386 women and 147 men who had been physically disabled by bullets, landmines, brutal macheting, burning and various other forms of physical cruelty (Isis-WICCE, 2000).

## **1.3 The Medical Intervention Study**

Upon finalization of the report and presentation of results in September 2000, a workshop was organised in Gulu. Later it was resolved that some limited medical intervention should be carried out to address some of the more urgent health problems of women, an area which had received least attention from organizations operating in the region. Isis-WICCE undertook to coordinate the exercise and, in line with her principles, document the whole process.

Following the completion of a report entitled a *Documentation of Women's Experiences in Armed Conflict in Gulu* (Isis-WICCE, 2000), Isis-WICCE contacted professional medical organizations with a view to elicit their support towards alleviating the plight of the suffering population in the internally displaced people's camps of Gulu. Similar earlier initiatives in Luweero district had had very positive outcomes (Isis-WICCE, 1999; Segane-Musisi et. al. 2000). Thus during the months of April and May 2001, a team of psychiatrists, gynaecologists and surgeons belonging to three professional organisations based in Uganda<sup>2</sup>, under the coordination of Isis-WICCE, carried out a minimum intervention in Awer camp, Lamogi Division, Kilak County of Gulu District.

The aim of the intervention was to provide basic but comprehensive health service to the war affected people in the area with a specific focus on women. The objectives were to assess the socio-demographic characteristics of the population and document the traumatic experiences including physical, gynaecological and mental health problems of the population particularly the women. The intervention also set out to provide a package of specialised medical services to alleviate the plight of the suffering war ravaged survivors and document the results of the short-term intervention in war affected Gulu district.

### 1.3.1 Design and Methodology

The design of the intervention was based on the use of a primary health care approach with as much community participation as possible. Existing health care structures in the districts (community, health centre, district hospital) were utilised to deliver the intervention. Specialised supervision was provided and the local capacity of health and non-health personnel in the district was enhanced through training and participation. To a limited extent drugs and equipment were also supplied.

The medical intervention was carried out in Awer Internally Displaced Person's (IDP) camp. Awer is located in Lamogi sub-county, Kilak County, 10 miles out of Gulu Municipality. The camp and its five satellites of Awer, Olwal, Pagak, Kaladima and Parabongo are occupied by approximately 53,418 people. The inhabitants of this camp were thought to be representative of the population of internally displaced person in the districts of Gulu and Kitgum.



*Dr. Kinyanda (L), overall coordinator handing over drugs and equipment to Dr. Felix Kaducu (C), the Medical Superintendent Gulu Hospital*

### 1.3.2 Medical Intervention Phases

The interventional study involved three phases namely:

- Training and Medical Screening in the camps
- Second stage medical interventions at Awer Health Centre, and
- Tertiary medical interventions at Gulu Hospital.

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<sup>2</sup> The Gynaecological Association of Uganda, the African Psycare Research Organisation (APRO) and the Department of Orthopedics Makerere University

## ***Phase I: Training and Screening Interviews in the Camp***

Fourteen persons selected from the 5 satellite camps and Awer by the community leaders were taken through a one-week orientation-training workshop. At this training workshop, they were equipped with skills of identifying war traumatisation and its medical and socio-economic consequences and the recognition of the medical complications of war traumatisation. They were also equipped with simple counseling skills and trained in the administrations of a screening questionnaires.

At the completion of this course this cadre of persons were deployed as camp volunteer counselors (CVC). They undertook screening interviews of persons from their respective camps. The intervention was publicised throughout the camp using the local community leaders. The CVCs screened 1,077 persons over a 10-day period, clients who had minor psychological problems were given brief supportive counseling while clients with more severe psychological, gynaecological, surgical complications and other medical problems were referred to the health centre at Awer.

## ***Phase II: Medical Interventions at the Health Centre in Awer***

The Camp Volunteer Counselors (CVC) referred clients from the five satellite camps to any of the three medical teams namely:

### *(i) The Mental Health Team*

This team consisted of a general medical doctor, a psychiatric clinical officer, a general nurse (with training in counseling war trauma victims) and counselors with the Peoples Voice for Peace, a locally based non-governmental organisation.

### *(ii) The Gynaecological Team*

This team consisted of a gynaecologist, a midwife and a general nurse.

### *(iii) The Surgical Team*

The surgical team had a general medical doctor, a clinical officer, a technician from the orthopaedic workshop in Gulu and a general nurse.

The referral clients could attend more than one team depending on the presented conditions. For referral purposes in this intervention a clearly labelled form had been designed.

The different health teams at the health centre in Awer undertook detailed clinical assessment of all referred clients. Data from the assessment was recorded with the help of semi-structured interview schedules. Medical treatment including psychiatric services and referral to Gulu Hospital were offered where necessary.

All the health professionals involved in these exercises were either based at the health centre at Awer or came from Gulu Hospital. In total 503 clients were treated at the health centre including 215 cases seen by the mental health team (200 adults and 15 children), 150 gynaecological cases, and 138 surgical cases.

### **Phase III: Tertiary level intervention at Gulu Hospital**

Clients in need of surgery for either gynaecological, general surgical conditions or orthopaedic disorders were referred to Gulu hospital. Clients with severe mental health problems were also referred to the mental health clinic at Gulu Hospital. Here, specialised teams one for the gynaecological and the other for the surgical/orthopaedic side were assembled from professionals based at Gulu Hospital, Lacor Hospital and Mulago National Referral Hospital. They undertook operations over a two-week period. Overall, 68 emergency operations (36 general surgical cases, 14 gynaecological cases and 18 orthopaedic cases) were carried out. Specific treatment data on the referrals to the mental health clinic was extensive and spread over a long period of time, and could not be summarily collected over the short study period. The rest of the cases identified that required surgery were to be followed-up by Gulu medical team.

#### **1.3.2 Measurements**

Three research protocols were compiled, pre-tested and used to collect data at each of the three different phases. The different interviewers had earlier on received training in the administration of these interview schedules.

##### **(i) Camp Screening Questionnaire**

This questionnaire was administered by trained Camp Volunteer Counselors (CVCs). It contained the following variables: Socio-demographics, questions on the war experience, physical and psychological war traumatisation, psychological distress assessment questionnaire<sup>3</sup> gynaecological screening questions, surgical/orthopaedic screening questions.

Brief supportive counseling and, where appropriate, referral to the health centre was provided to all clients interviewed by the Camp Volunteer Counselors (CVC).

##### **(ii) Health Centre Questionnaires**

These were divided into three sections according to the three specialties of the medical teams. They included:

###### *The Gynaecological Questionnaire*

This questionnaire was administered by members of the gynaecological team at the Health Centre at Awer. It contained the following: Socio-demographic variables, questions on the obstetric history, questions on modern use of contraceptives, gynaecological disorders, previous health seeking behaviour for these problems, level of function and referral status.

###### *The Mental Health Questionnaire*

This was administered by members of the mental health team at the health centre at Awer and contained; socio-demographic variables, ICD-10 PCP diagnostic criteria for

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<sup>3</sup> The modified World Health Organization Self-Report Questionnaire (WHO, 1994) was used.

depression, anxiety disorders, somatoform disorders, CAGE screening questionnaire for alcohol abuse and DSM IV diagnostic criteria for post traumatic stress disorder. Previous health seeking behavior for these problems and level of function were also assessed and documented.

### *The Surgical Questionnaire*

This questionnaire was administered by the surgical team at the Awer health centre. It contained the following variables; socio-demographics, questions on the signs and symptoms of surgical and orthopaedic disorders, previous health seeking behaviour and referral status.

### *The Hospital Questionnaire*

This questionnaire was completed for each of the clients who underwent an operation following referral from Awer Health Centre. The questionnaire contained the name of the client, camp of origin, sex, age, diagnosis and surgical procedure carried-out.

### **1.3.3 Ethical Consideration**

Permission to undertake this study was sought and granted by the Uganda National Council for Science and Technology and the District Director of Health Services of Gulu. Informed consent was obtained from all camp and Health centre respondents before administering the questionnaire after explaining the study objectives.

Respondents were informed that refusal to participate in the research would in no way deny them access to treatment at the health centre and hospital during the study time.

Consent was also obtained from clients who were to undergo surgical gynaecological and orthopaedic operations at Gulu Hospital after adequate explanation of the indication, nature, benefits and possible complications of the operation to be undertaken. Continued counseling in the post-operative period was organised through surgical and gynaecological ward staff and the counselors based in the hospital.

Personal identifiers were removed from the data at entry and subsequent utilisation of the data. The questionnaires were handled with utmost confidentiality.

### **1.3.4 Service Provision**

Besides the screening and referral services given at all the levels of intervention during this exercise, the Health centre at Awer camp was equipped with some drugs including antibiotics, anti-malarials, analgesics, anti-inflammatory agents, antihelminthics, anticonvulsant, vitamin supplements, anti-depressants, anxiolytics and neuroleptics to treat the common physical and mental disorders suffered by the camp residents. Treatment was offered to the camp residents during the intervention period and thereafter.

Surgical operations in the gynaecological, general surgical and orthopaedics specialities were done at Gulu Hospital. Drugs and limited equipment were also provided to the hospital. Further psychiatric follow-up was organised through the Gulu mental health clinic, which was provided with some drugs by the project. The Camp

Volunteer Counsellors are expected to continue using their newly acquired counselling skills and knowledge to help the communities in which they are residents.

### **1.3.5 Data Entry and Analysis**

Completed questionnaires were cleaned and entered into the computer using the epidemiological package Epi-info version 6.0. The data were thereafter converted to the Statistical Package for Social Scientists SPSS. For each of the four data sets (Camp Screening, Gynaecological, Surgical, Psychiatric Analysis Questionnaires), a different data entry screen was designed. A unique identification number was given to each case enabling easy tracing of clients from the camp screening to the different medical interventions where necessary.

Frequencies and frequency tables were generated and cross tabulation of study outcomes against the independent variables undertaken on all the four data sets. For most of the diagnosis, a number of different variables including symptomatic amalgamation proved necessary before case diagnosis could be carried out. For this the excel package proved handy.

The findings are presented in form of frequency, cross-tabulation and means tables. For the socio-economic Effects of War on Women Chapter Two it became necessary to carry out a re-analysis of the *Documentation of Women's Experiences in Armed Conflict in Gulu for the period 1986-1999* (Isis-WICCE, 2000) data set.

# CHAPTER TWO

## SOCIO-ECONOMIC EFFECTS OF WAR ON WOMEN<sup>1</sup>

### 2.1 Introduction

The documentation of Women's Experiences in Armed Conflict in Gulu carried out in 1999 (Isis-WICCE (2000) revealed that as a result of the war, the average number of children and particularly male adults declined due to deaths, abductions, emigration or departure for military service. The absence of men in the homes in particular increased women's responsibilities.

The population have been exposed to traumatic experiences including captivity/arrests, forced torture and killing of others, intimidation, walking long distances without food or walking bare footed in thorns and bushes and extreme humiliation especially for women. Other health problems include untreated fevers, STIs including HIV/AIDS, maiming, broken and severed limbs and a host of other ailments. Psychosocial problems were the most numerous.

There were numerous marital break-ups, forced early marriages multiple and homosexual rapes, and unwanted pregnancies. While the responsibilities of women increased, culturally their status was further reduced by the fact that bride price could no longer be paid in cows but goats and pigs. Therefore bad as it were that the women's value was prior to the war equated to bridewealth in form of cows, the war made it worse as the cultural institution preferred to maintain the system of bridewealth, while substituting the near depleted cows for less expensive animals (goats and pigs).

Fear of abduction and rape, inadequate access to schools, destruction of buildings, the un-conducive school environment and increased opportunity cost of schooling due to shifting gender roles caused by war all have negatively impacted on women's education in particular, further depressing the status of women.

The prolonged insecurity has disrupted farming, trade and farm based marketing activities leaving a highly depressed economy in Gulu. War not only resulted in massive dispossession of the study population (mainly women) but also reduced the volume of property owned considerably. The mass displacement of the rural population into over-crowded "protected villages" had significant impact on family means of livelihood and usual coping mechanisms. In late 1996 severe malnutrition among encamped population in Gulu District was as high as 70%, before emergency food and seeds were distributed by NGOs and agencies like ACORD, World Vision and ICRC. This situation was further compounded by natural calamities such as the drought in 1997.

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<sup>4</sup> A collaborative effort between ISIS-WICCE and the Institute of Statistics and Applied Economics, (ISAE) Makerere University. This Chapter was compiled by **Tumushabe Joseph** - B.A (Makerere University); M.A Population Studies (Legon, Ghana)

The poorest women were household heads, particularly widows and single mothers. Those who fled to town had to adjust to the new environment, an environment in which there was high competition for resources (food, water and fuel).

This Chapter presents a summary of the findings of the social and economic effects of war on the population as presented in the earlier report entitled: *A documentation of Women's Experiences in Armed Conflict in Uganda: The Case of Gulu District, 1986 – 1999*. A brief report of the social and demographic background of the population in Awer and her satellite camps as interviewed during the medical interventional study is also presented in the Chapter.<sup>2</sup>

## **2.2 Review of Literature**

There are currently an estimated 25 million internally displaced persons worldwide, an increase of 9 million since 1990. Of these approximately 16 million live in Africa. (US Committee for Refugees, 1993). According to Mephram D, (1998) the relationship between conflict and development is two-way: violent conflict is profoundly damaging to development, whilst underdevelopment and poverty can substantially increase the risk of war with armed conflict breaking out. Armed conflict can destroy development advances built up over generations and retard economic and social progress for decades to come.

It is important to note however that it is not only physical war trauma, which can cause destruction of social services. Forced removals and relocations of peoples have the same effects. In South Africa over 3 million black people were forcibly relocated during the years of apartheid. They were found to suffer similar consequences (Anthony Zwi *et. al.*, 1989)

The most obvious and tragic cost is the loss of human life. Between 1960 and 1995, an estimated 3.6 million people died in conflict worldwide, up to 90 percent of them were civilians.

The cost to the economy and the environment resulting from war is enormous. This can include destruction of physical and social infrastructure such as roads, railways, health centres, schools; the loss of trade, investment and commercial links damage to the environment and the contamination of agricultural land, particularly by anti-personnel landmines (Mephram, D., 1998). In many of the countries where there has been prolonged armed conflict, the countries are facing near economic collapse. The World Bank notes that 15 of the 20 poorest countries in the world have experienced significant violent conflict in the past 15 years, (World Bank, 1997). UNCTAD notes that "the civil war in Liberia reduced that country's GDP by more than 75 per cent between 1989 and 1993, while the conflict in neighbouring Sierra Leone caused GDP to decline by a half between 1991 and 1993" (UNCTAD, 1987).

While armed conflict obviously results in societal impoverishment, there is increasing evidence that poverty may be the cause of conflict or the perpetuation of civil

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<sup>5</sup> The intervention and data collected in the second round was only done for six of the over 30 camps in Gulu. Details of findings of the medical aspects of the intervention are presented in Chapters Three to Five.



war. A report of the Carnegie Commission on Preventing Deadly Conflict noted that societies in which large sections of the community are excluded from the formal economy are particularly susceptible to violence (Carnegie Commission, 1997). The risks of violence may be increased further if a minority of people within a country are becoming very rich very quickly especially if through rapid but uneven economic development. This is particularly the case when one ethnic, cultural or religious group is getting richer, while other groups are standing still or getting poorer. This compounds the sense of grievance felt by those who continue to live in extreme deprivation, and can heighten ethnic and communal tensions (Mephram, 1997).

### 2.3 Study Population: insights from the Medical Intervention Study

In the medical intervention in Awer camp and its 5 satellites, a total of 677 females and 400 males presented with various complaints and were interviewed using a camp-screening questionnaire. The questionnaire had background information, psychological, gynaecological and surgical complaints' sections. Table 2.1 shows the distribution of the population in both studies according to basic socio-economic characteristics.

**Table 2.1: Characteristics of the study population**

Characteristics		Women's experiences Study (1999/2000) (n=82)	Medical Intervention (Camp Data - 2001) (n=1077)
Sex	Male	17.3%	37.1%
	Female	37.8%	62.9%
Religion	Catholic	79.1%	79.5%
	Church of Uganda	19.0%	18.5%
	Muslim	2.6%	.1%
	Traditional	-	.7%
	Pentecostal	-	.7%
	Others specify	-	.6%
Tribe	Acholi	95%	98.8%
	Lango		.2%
	West Nile		.9%
	Others specify	5%	.1%
Marital Status	Never married	37.3%	11.1%
	Married/cohabiting	38.8%	66.5%
	Separated/divorced	6.0%	5.4%
	Widow/widower	17.9%	12.1%
	Single mother/father	-	4.9%
Educ. Level	P1 - P7	18.5%	59.0%
	S1 - S6	37.0%	6.6%
	Post sec.	33.3%	3.3%
	No. Formal education	11.1%	31.1%
Employment	Unemployed/housewife, student	26.2%	52.2%
	Employed/paid job	26.6%	1.8%
	Retired	-	1.7%
	Self employed	-	1.9%
	Peasant farmer	19.7%	41.5%
	Trade/business	8.2%	-
	Others incl. student	13.1%	.8%

It is important to note that though generally the samples in this study refer to the same district, the differences in sample size and sampling techniques, as well as the time period between the two studies generally adversely affected resultant variables.

## **2.4 War effect on Household composition**

The first major effect of the war was on household composition. Households in Gulu have traditionally been relatively big with an average of nearly 11 members (Isis-WICCE, 2000). However as a result of the war, the average number of children and particularly male adults declined as a result of deaths, abductions, emigration or departure for military service with either the rebels or government forces. All households had lost at least two persons during the war on average.

The absence of men in the homes in particular increased women's responsibilities and this led to an increase in their burden of work. This continued even during the period of relative peace. The male; female ratio in Awer IDP camp and its satellites is 1:5 compared to the national one of 1:1 (Republic of Uganda, 1995). Such a wide gender difference is likely to lead to significant psychosocial implications..

## **2.5 Abduction and brutality to the population**

Joseph Kony's Lord's Resistance Army started abductions in 1988 as a way of swelling their numbers, using them as a human shield against government attacks and to intimidate the local population into supporting them. An estimated 10,000 children were abducted from 1988 to 1999 and many have not returned (Isis-WICCE, 2000). Some of these became sex slaves to the rebels. The rest of the population were constantly exposed to the risk of death, maiming, property loss, destruction of shelter and food granaries. The elderly and disabled were even more vulnerable to death from starvation or killing since they could not easily flee and were deemed useless to the belligerents.

Reports from respondents indicate that government forces also participated in excesses against the population especially with regard to harassment and torture of women, girls, boys and men by soldiers. Most of the men and youth were suspected by Government forces to be "rebels" and badly mistreated, killed or arrested. Nearly all the population have been exposed to traumatic experiences including captivity/arrests, forced torture and killing of others, intimidation, walking long distances without food or walking bare footed in thorns and bushes and extreme humiliation especially for women.

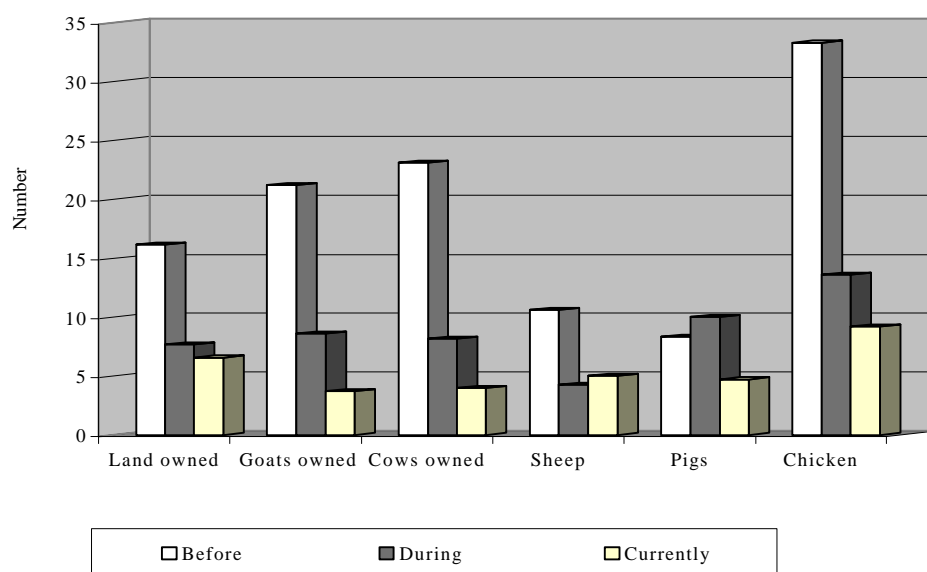
## **2.6 Sexual Abuse**

Many marriages broke-up. Many women (and some men) have been raped leading to unwanted rape pregnancies and births among females and emotional stress within the population generally. Girls have been forced to marry early as a safety mechanism against pre-marital rape or to seek protection/shelter. This has increased the marginalisation of girls from equal opportunity for education with boys. This has possible inter-generational consequences on the future and status of women in the region. Sexually traumatised women are stigmatised and shunned in marriage.

## 2.7 Household Economy and Women’s Livelihood and Land use

Many people were de-linked from farming as their main source of livelihood owing to their alienation from the land, as a result of fleeing from war, rebel atrocities or forced migration into IDPs by government forces. Only half of the population who managed land before the war was at the time of survey carrying out agricultural production.

**Figure 1: Property ownership before, during and after the war**



The mean land managed by the households also declined considerably with the average acreage being 16 per household before the war and less than seven acres at the time of study. Livestock cattle, goats, sheep and chicken all were almost depleted due to looting by rebels and government troops (Table 2.2). An estimated 98% of the Acholi cattle were rustled in the late 1980s (Isis-WICCE, 2000).

**Table 2.2: Socio-economic indicators before, during the war and at the time of survey**

Household Property ownership	Before	During	Currently
Land managed	16.15	7.67	6.57
Goats owned	21.19	8.60	3.73
Cows owned	23.11	8.17	4.00
Sheep	10.63	4.25	5.00
Pigs	8.33	10.0	4.7
Chicken	33.3	13.6	9.2

The loss of livestock entailed loss of wealth invested in for years. Household ability to sell cattle and other livestock to meet family needs in education, shelter, clothing and medical bills was curtailed.

Since the primary contribution to household welfare - animal rearing - was no longer feasible, men's contribution towards household welfare was reduced and the women's burden was increased. Moreover, culturally, since women could no longer be paid for with cattle (the cattle had all largely been looted) bride price was paid in form of goats and pigs, the status of women declined and their security in marriage was threatened as it became easier for men to divorce and re-marry.

The main effect of war on farming was the disruption of the farming patterns and reduction of the size of the fields. Cash crops in form of cotton, rice, groundnuts, simsim, and sunflower have dwindled. Similarly the production of cassava, sweet potatoes, millet, beans, sorghum and pigeon peas as the main food crops also has declined considerably. Alienation from most farmland has effectively changed any form of farm production to only subsistence crops.

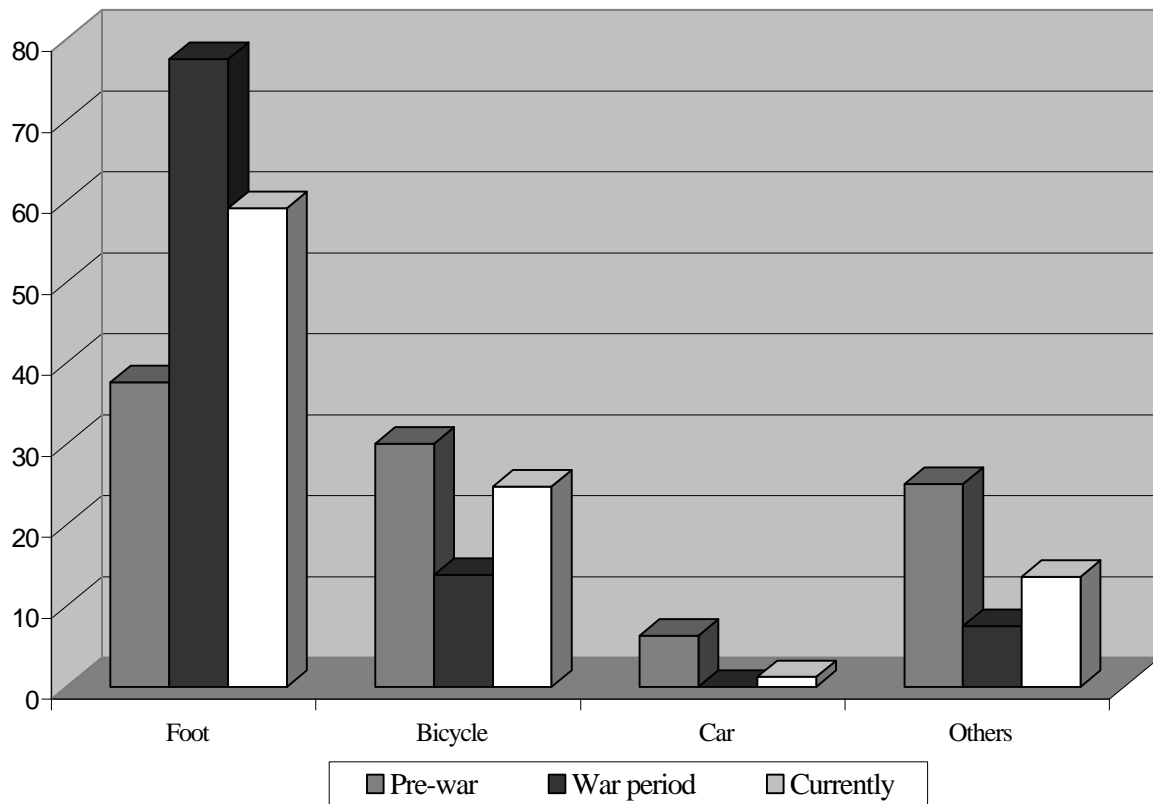


*The production of food crops has declined*

The war increased the proportion of unemployed women and housewives. Many of the women suffer from permanent deformations and chronic ill health, which make it difficult for them to carry out "normal" work as they used to do and provide for their families. As a consequence many of them have become destitute depending on hand outs. Several husbands have also abandoned their wives. Many women have also lost employment and their source of income. Many have been forced to take-on casual labour for food.

The bicycle as the household basic means of transport reduced from 30% to 14% (Figure 2) due to looting by government soldiers and rebels. There was also the rebel injunction against use of roads by the civilian population. Looting of bicycles by the FEDEMO and NRA soldiers as well as rebels also contributed to their decline in numbers. Use of cars, on roads is often marred by rebel ambushes leaving only military convoys to use the road.

**Figure 2: Best Household means of transport before/during the war and Current**



In conclusion, the prolonged insecurity in Gulu district has disrupted farming, trade and farm based marketing activities leaving a highly depressed economy in Gulu. War not only resulted in massive dispossession of the study population (mainly women) but also reduced the volume of property owned considerably. The mass displacement of the rural population into over-crowded “protected villages” had significant impact on the culture, family lives and means of livelihood including their usual coping mechanisms.

## **2.8 War effects on women’s migration, housing and survival roles**

Displacement of the population was universal to all rural dwellers in Gulu. There is practically none of the respondents who did not report shifting locations many times during the war. Some people got displaced to Gulu town while others hid in shelters called “Alup” built deep in the bush. Some stayed in “protected camps” or “protected villages”. The geographical extent to which somebody got displaced depended on status, the number of people somebody was moving with and capacity. The distance covered varied but for poor people it was limited to the distance they could cover on foot, carrying the material fragments of their homes and lives. Some capable people managed to leave the district altogether and are currently residing in other parts of Uganda such as Masindi, Kampala, Jinja and Entebbe. Women ran with a number of family members including dependants (brothers, sisters, and mothers). Some of them initially left young children behind.



*Overcrowded “protected villages” which are not at all that safe*

## **2.9 Effect of War on Girls’ Education**

The wanton destruction of schools in the district by the war has reduced the capacity of the district to provide education to its population. There are some schools in the camps but they lack adequate infrastructure and teachers. Established schools, are scantily attended for fear of abduction. Therefore, few children, especially girls, in Gulu attend school.

Projections of the population and education in Gulu district indicate that 53% of school-age children have not been attending school and the area is losing out on the benefits of the Universal Primary Education (UPE) programme of Government. The closure of almost all rural schools during the war, abduction and killing of teachers, and the state of war which kept people always on the move from one place to another, in addition to abject poverty, remain major barriers to education of children in Gulu. In the so called “protected villages” the conditions of schooling are too harsh preventing many from attending.

However, more than anything else the danger of abduction and sexual abuse by rebels has kept most of the girls in Gulu District out of school throughout the last 15 years. As early as 1988 the Lord’s Resistance Army rebels targeted schools as recruiting grounds to swell rebel ranks and as a source of girls for sex.

Those who had been abducted and later returned could not go back to school due to high level of trauma resulting from their experiences during captivity while others felt too “big” to go back to lower Primary. Yet others came back pregnant or with unwanted babies. Moreover, sexually abused girls were stigmatised and shunned.

Even where access to schools was possible the opportunity costs of girls’ schooling was enhanced by the war. This was because war, high mortality of men and the shifting gender roles in the provision of economic needs for the family meant those

mothers increasingly called on their daughter's labour to obtain the household basic needs. The demand for girls' labour in the fields, at home and in the search for *food-for-labour* made girls' school attendance an untenable luxury in many situations.

## **2.10 Effect of war on Marriage and Family Life**

In Gulu the age at marriage for girls has largely gone down over the war period due to:

- Closure of schools.
- The desire for parents to protect their daughters from abduction by marrying them-off early.

There was a realisation by desperate parents and the girls' themselves that if one's daughters got married to soldiers they would provide some safety -net to the parent and the family. This would be through household acquisition of a possible source of food from their soldier in-laws. As a result parents pressured their daughters to get married to soldiers and other well-off men on whom they could depend for food provision and protection. This would sometimes be in polygamous unions.

When many men were abducted or forced into exile in other district control on the behaviour of children in particular their girl children was totally lost. This lack of control and guidance coupled with the physical pressures of adolescence has often led to early marriage/sex often with disastrous consequences.

Owing to fear of rebels many girls and women have been reported to have followed the phenomenon known as "camp following" which has made many of them concubines of soldiers in exchange for protection and some food.

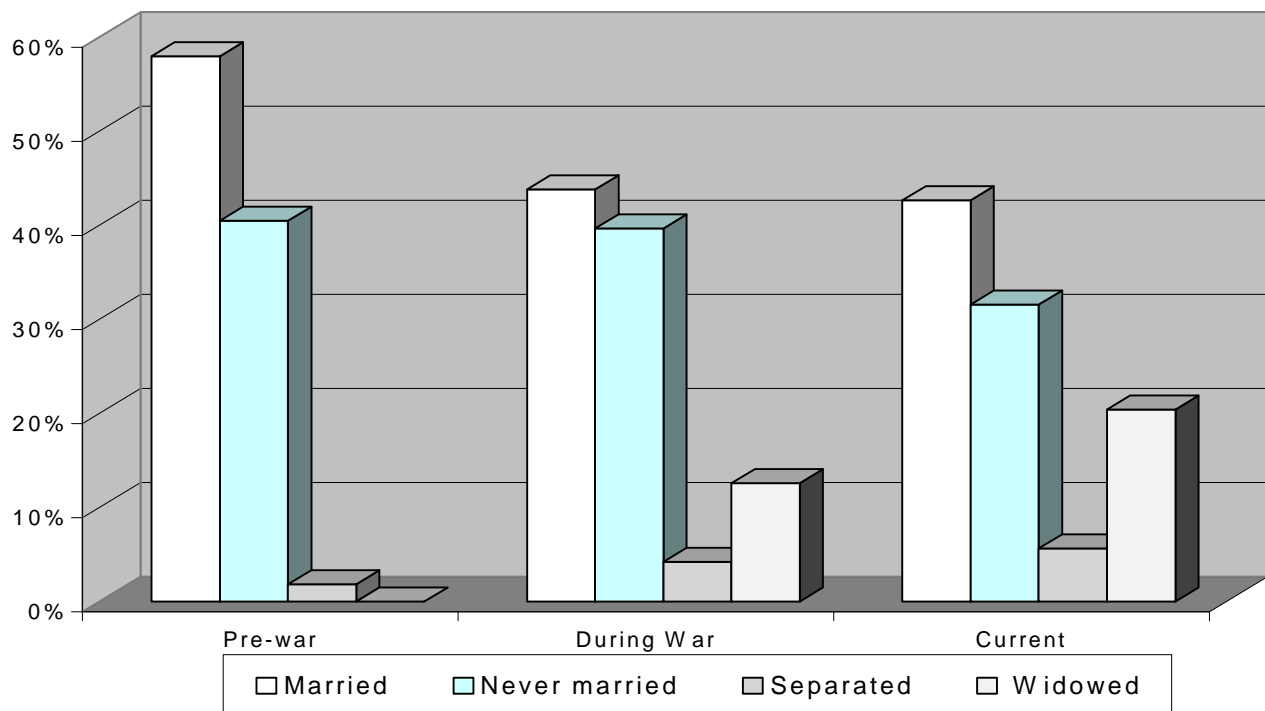
For the abducted girls, forced marriages to rebels was a must and has been a very traumatic experience that has resulted in life-long psychological scars.

Forced marriage was reported to have occurred as a result of war. Fourteen percent (8/58) of the female respondents reported they had been forced into marriage. As a result, a number of girls became pregnant and many of those who became "wives" of soldiers contracted STD/HIV/AIDS as reported by the leadership in the IDPs and in the focus group discussions with men and women (Isis-WICCE, 2000). The search for safety during the war was one factor that led to forced marriages. Since girls, in particular, were vulnerable to sexual abuse, some of the children were forced to separate from their parents to live with relatives in town or other safer places. In several cases, these relatives tended to overwork the children leading some into getting into early marriage as an escape from the child labour and abuses by relatives. In other instances, some girls were lured to accept sexual relationship with well to do men, who would give money to the relatives with whom the young girls were staying. Some of these relationships became more permanent, but certainly less empowering to the affected girls.

There is a mass of qualitative information, which implies that the need for protection from rape by rebels and government soldiers is widely blamed for marital instability in Gulu District. Of the 36 People’s Voice of Peace (PVP) supported women at the time of survey, 30 or 83 percent reported their husbands and/or relatives had rejected them as a result of being raped by rebels and/or government soldiers. The few who have not been directly chased away from their marital homes have lost support from spouses. The men have expressed fears that the raped wives could have been infected with HIV/AIDS.

War has also led to an increase in marital dissolution due to separation, and widowhood. Figure 3 indicates that there was a progressive decline in the number of married women and a sharp rise among those widowed and separated. At the time of the survey, the proportion of women who were widowed had increased to nearly a quarter and some eight percent of the men reported they were widowed. This implies a higher mortality rate for men as a result of the war compared to women. However it may also imply that men are more likely to remarry quickly after loss of spouse.

**Figure 3: Changes in Marital status of women in Gulu over the war period**



Another way in which the war affected marriage was in its impact on the ability of potential marriage partners to contract unions. Many men have been greatly affected. For the female respondents who had been married before the war, 40 percent had acquired new partners during and after the war. This reflected a relatively high rate of partner change in this war-affected population. Even among 17 female respondents who had not re-married during or after the war, five (29%) had had more than one partner. This has implications for the spread of STDs including HIV/AIDS.



**Table 2.3: Changes in Marriage partnerships by Sex of Respondent**

	<b>Sex of Respondent</b>		<b>Total</b>
	<b>Female</b>	<b>Male</b>	
	Number %	Number %	Number %
Pre-war partner	23 60.5	1 25.0	24 57.1
New partner	15 39.5	3 75.0	18 42.9
Total	38 100	4 100.0	42 100.0

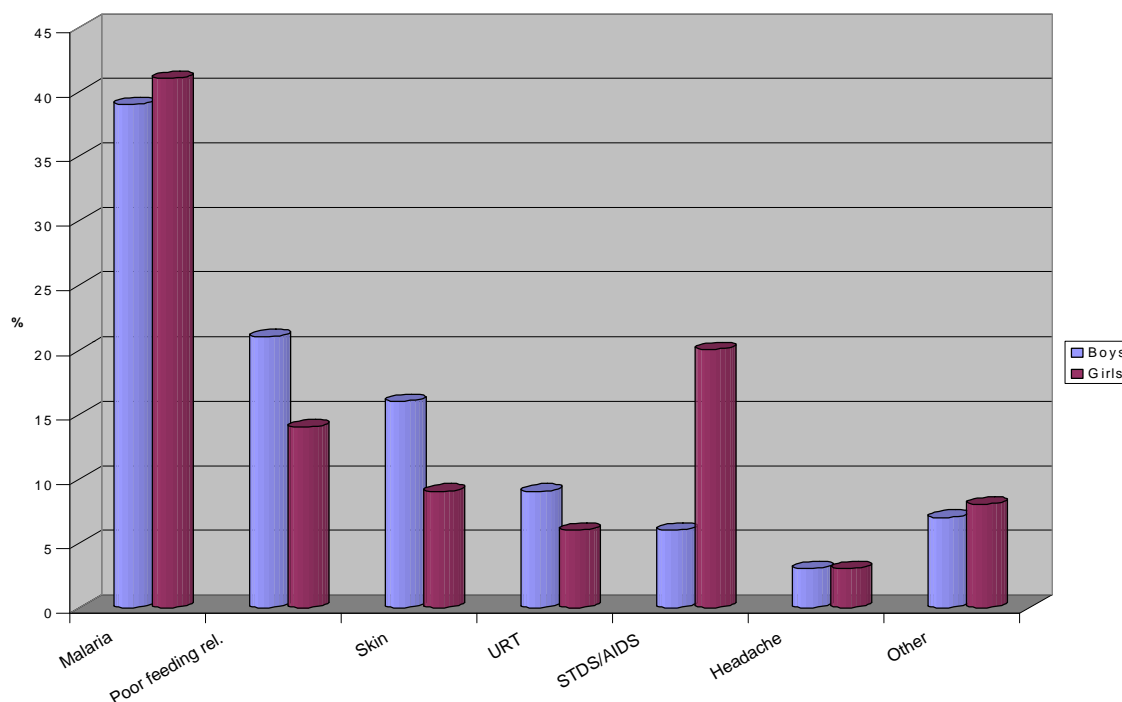
War induced marital breakdowns were frequently reported. The breaking of marriages has been confirmed through close interviews with the supported women victims.

### **2.11 Impact of war on health**

The displacement of people from their homes, the long distances that had to be walked, lack of adequate feeding, hiding in the bush and destruction of health infrastructure all took their toll on the health of the population especially among the women and children.

During the war, the leading cause of ill health among the respondents and their spouses was malaria (Figure 4). The respondents also reported relatively high prevalence of upper respiratory tract infections (URT) (19%), skin diseases and body pains for self and spouse. The leading cause of ill health among boys and girls living with the respondents were malaria followed by abdominal pain and skin diseases. Among the girls sexually transmitted diseases were reportedly equally common.

**Figure 4: Types of illness suffered by boys and girls during the war**



### 2.11.1 Source of medical care

Only slightly more than half (53%) of the respondents reported their households obtained treatment from hospital, 13% got treatment from local medicines while a third reported their household members received no treatment at all (Table 2.4).

**Table 2.4: Most recent source of medical care**

<b>Source of treatment</b>	<b>Frequency</b>	<b>Percent</b>
Taken to hospital	41	52.6
Local medicines	10	12.8
No treatment	26	33.3
Other	1	01.3
Total	78	100.0

### 2.11.2 Maiming and disability

The war increased disability of children, women and men. By 1996 the Gulu Rehabilitation Unit had registered a total of 628 children, 386 women and 147 men children as disabled by bullets, landmines, brutal macheting, burning and other forms of cruelty.

A significant number of disabilities have been registered among the Uganda abducted returnees from the Sudan. These originally abducted women and children, who either escaped or have been exchanged after negotiations between the belligerents, returned with a lot of complications. Some remain with swollen feet

and bodies, some have gunshot wounds, cuts by machete (panga) or beatings. Some have been blinded or made deaf. Many suffer various body aches, pains and general body weakness which they all attribute to war-related traumatisations.

## **2.12 Conclusions**

As a result of armed conflict in Gulu and indeed the whole of Northern Uganda the family structure has been disrupted leaving women with a lot of responsibilities and limited means with which to meet these responsibilities. The cultural well-being of the population, marriage patterns, social and economic infrastructure were all negatively affected by war. The population have been exposed to traumatic experiences, many health social and economic problems.

The prolonged insecurity has disrupted farming, trade and farm based marketing activities leaving a highly depressed economy . The population have been dispossessed. But it was the herding of the population into IDPs with its attendant food insecurity that is most resented by the people of Gulu. It has made the population desparate despite the fact that the camps are themselves not impervious to rebel attacks. In all this the poorest women were household heads, particularly widows and single mothers.

## CHAPTER THREE

# WAR TRAUMATISATION AND ITS PSYCHOLOGICAL CONSEQUENCES ON WOMEN OF GULU DISTRICT <sup>6</sup>

### 3.1 Background

The World Medical Association's Tokyo Declaration of 1975, defined Torture as "*the deliberate systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession or for any other reason*" (IRCT/RRCTV, 1995) By definition therefore, what the people of Gulu have gone through constitutes torture in a setting of war.

In earlier times the main purpose of torture was to get information or a confession, to punish or to terrorise (IRCT/RRCTV, 1995). Today particularly in Third World countries including sub-Saharan Africa, the purpose of torture is political, to destroy the individual or to break them spiritually and then use the broken person to spread terror throughout the rest of the community (Zwi A., Ugakde A., (1989) and IRCT/RRCTV, 1995). This observation is borne out by two studies that were carried out among women war survivors in Luwero by Isis-WICCE and a review of patients' records at the African Centre for Treatment of Torture Victims (A.C.T.V.) in Kampala, where political reasons for torture were reported in 100% and 80.4% respectively among the respondents (Musisi S. et. al. (1999), and (2000). Other reasons given for torture in the A.C.T.V. study included; criminal investigations, mistaken identity and extortion of money by criminal rackets (Musisi S. et. al. (2000) .

The methods of torture are either physical or psychological. It is however, worth noting that the physical methods of torture often times lead to psychological sequelae. The methods of torture are predominantly similar the world over though with some regional differences. The physical methods include systematic beating and kicking, rape, burning, bayonet injuries, forced hard labour, deprivation of food, water and medicine (Musisi S. et. al. (1999), and (2000). The psychological methods of torture are primarily aimed at the mind of the victim and include verbal threats, attempted rape, interrogations, mock executions, detention, being forced to flee and live in the bush or in displacement, false accusation, abductions, forced to witness the killing or torture of others and destruction and or stealing of property (Musisi S. et. al. (1999), and (2000).

In Uganda the regional specific methods of torture include a severe form of tying called the "Kandoya" which is used in the Great Lakes Region (Musisi S. et. al., (2000), and Kinyanda E., et. al., 2000). In the "Kandoya" method of tying, the arms are flexed at the elbow, are tied behind the victims' back with the ropes going

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<sup>6</sup> A collaborative Intervention by ISIS-WICCE and African Psycare Research Organisation (APRO). The Chapter was compiled by **Kinyanda Eugene** M.B Ch.B; M.Med (Psych); Psychiatrist and **Seggane Musisi** M.B ch.B; Dip. Psch. FRCP(C); Consultant Psychiatrist.

through the mid arm section and tightened until the elbows meet. This physical form of torture results in neuromuscular damage of the arms, anterior chest wall, and forearms with victim later unable to use their hands (Musisi S. et. al. (2000), and Kinyanda E., et. al., 2000).



*Women were subjected to the worst forms of torture*

### **3.2 Psychological Sequelae of Torture**

Torture leads to psychological and physical disorders( UNICEF/ Government of Uganda (1998), Musisi S. et. al. (1999), Skylv G (1992); McNally R., J., (1992), Kadenic M (1998). The most commonly recognised psychological disorder of torture is the post traumatic stress disorder (P.T.S.D) (Tomb D (Ed) (1994) and American Psychiatric Association (1994). P.T.S.D. follows a traumatic event that is characterised by actual or threatened death or serious injury or a threat to the physical integrity of self or others (Tomb D (Ed) (1994) and American Psychiatric Association (1994). The person's response to this traumatic event usually involves intense fear, helplessness or horror (American Psychiatric Association (1994).

#### **3.2.1 Post traumatic stress disorder**

Post traumatic stress disorder is characterised by three clusters of symptoms namely:

- Symptoms of persistently **re-experiencing** of the traumatic event in form of flashbacks, (film of the event), recurrent distressing dreams of the event (nightmares) and psychological distress at reminders of the trauma (e.g. soldier's uniform)
- The second cluster of symptoms are persistent **avoidance** of stimuli associated with those of the trauma. This may take the form of avoidance of thoughts, places and activities that are reminders of the traumatic event.

- Lastly there is the cluster of symptoms of persistently **increased physiological arousal**, which may take the form of difficulty falling asleep, irritability or outbursts of anger, difficulty concentrating, exaggerated startle response and hypervigilance (Tomb D (Ed) (1994) and American Psychiatric Association (1994).

Like many psychiatric disorders post traumatic stress disorder commonly presents in conjunction with other disorders (McNally R., J., 1992) . The most common comorbid psychiatric disorders associated with P.T.S.D. are; depression, the anxiety disorders, alcohol abuse, somatoform disorder and personality changes (Musisi S. et. al., 1999, and Kinyanda E., et. al., 2000, McNally R., J., 1992) and Tomb D (Ed) 1994). The features associated with these common comorbid psychiatric disorders are now described.

### **3.2.2 Depression**

Depression is a psychiatric disorder that is characterised by the following symptoms: sad mood, reduced interest in formerly pleasurable activities, poor sleep, loss of energy, feelings of worthlessness, feeling excessively or inappropriately guilty, poor concentration, recurrent thoughts of death or suicidal plans or even suicidal attempts (American Psychiatric Association, 1994). In the Luwero study among women war victims depression was reported in 12.5% of the respondents (Musisi S. et. al., 1999).

### **3.2.3 Anxiety Disorders**

This is a group of disorders that are characterised by symptoms of excessive apprehensive expectation, worry - with person's experiencing difficulty controlling the worry, symptoms of restlessness, feeling on the edge, being easily fatigued, difficulty in concentrating, being irritable, muscle tension and sleep disturbance. The anxiety disorders include generalised anxiety disorder, panic disorder, social phobia, and agoraphobia (American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999).

#### ***Generalised Anxiety Disorder***

In generalised anxiety disorder, the above symptoms are persistently experienced. Experiencing these symptoms is not restricted to particular social events or environments(American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999).

#### ***Panic Disorder***

In panic anxiety disorder the individual experiences the above anxiety symptoms in attacks. The anxiety symptoms in panic anxiety build up quickly and suddenly in the individual creating a fear of a catastrophic outcome. The patient gets rapid over breathing resulting in dizziness, ringing sounds in the ear, headaches, feeling weak and tingling sensation in the feet and arms and discomfort in the heart region of the chest. The individual usually interprets the later sign as an impending "heart attack". These symptoms usually resolve much more slowly within an hour with the individual being symptom free in between attacks (American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999).

## ***Social Phobia***

In this disorder, anxiety symptoms are experienced in situations in which a person may be observed and criticized such as going to restaurants, parties and community meeting. Social phobic people tend to avoid such situations with anticipation of going to such places capable of provoking anxiety symptoms (American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999).

## ***Agoraphobia***

Persons with this disorder experience anxiety symptoms when they are away from home, in crowds or in situations in which they can not easily leave. Such anxiety provoking situations include being on buses, trains, places that cannot be left suddenly such as crowded markets, and supermarkets. In these circumstances, the symptoms experienced are similar to those of other anxiety disorders. As this condition progresses, the individual become confined to their homes and become house bound (American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999). In the Luwero study 20.8% of the war women respondents suffered from anxiety disorders (Musisi S. et. al., 1999) .

### **3.2.5 Somatoform Disorder**

This disorder is characterised by multiple physical complaints suggesting a physical disorder but for which there is no demonstrable organic basis. For example, a person who was subject to multiple rapes by her torturers may report continuous lower abdominal pain despite not having any evidence of any gynaecological problem. The underlying problem in somatoform disorder is psychological. The somatoform symptoms reported in the A.C.T.V. study included; chronic headaches, musculo-skeletal aches, pains and fatigue, recurrent "fever" complaints, chronic lower abdominal pain (Musisi S. et. al. , 2000).

### **3.2.5 Alcohol Abuse**

This refers to any mental, physical or social harm resulting from excessive alcohol consumption. The physical problems that may result from alcohol abuse include liver disease such as cirrhosis, cardiac disease and diseases of the nerves. The mental illnesses that may result from excessive alcohol consumption include psychosis (madness) delirium and amnesia (black outs). Excessive alcohol abuse may also result in social problems such as - neglect of family, impaired occupational functioning and domestic violence (American Psychiatric Association, 1994 and United Nation High Commissioner for Human Rights, 1999). Alcohol abuse disorders are known to be associated with post traumatic stress disorder (McNally R. J., 1992).



*Excessive alcohol abuse by men leading to neglect of their social roles*

### **3.3 Gender and the Psychological sequelae of torture**

Gender has an important bearing on torture phenomenology. The female gender appears to determine the methods of torture used and later the psychological complications experienced by the victims of torture (Paker M., Paker O., Yuksel S., 1992; and Allodi F., Stiasny S.,1990). Physical torture in women is frequently directed at their sexuality in form of rape (Paker M., Paker O., Yuksel S., 1992; Allodi F., Stiasny S.,1990). Women also tend to be subjected to the more psychological methods of torture as compared to men (Paker M., Paker O., Yuksel S., 1992; and Allodi F., Stiasny S.,1990). The psychological methods of torture to which women are subject to often take the form of sexual humiliation and abuse - short of rape per se (IRCT/RRCTV (1995).

The psychological complications reported by women also differ from those reported by men, with women suffering from a wider range of psychosomatic problems (somatisations) and sexual dysfunction (Paker M., Paker O., Yuksel S., 1992; and Allodi F., Stiasny S.,1990).

The comorbid psychiatric disorder associated with post-traumatic stress disorder also differ between the sexes (McNally R. J., 1992 and Paker M., Paker O., Yuksel S., 1992). In women, the most common psychiatric disorders are depression, generalised anxiety disorder, alcohol abuse and panic disorder, (McNally R. J., 1992). In men the most common comorbid disorders are alcohol abuse depression and generalised anxiety disorder and antisocial personality disorder. (McNally R. J., 1992).



The other factors that have a bearing on the torture experience and psychological sequelae include; one's age, firmness of political belief system, cultural background, previous psychological function, duration of torture, level of education and presence of physical sequelae of torture (McNally R. J., 1992).

### **3.4 Treatment of Torture Victims**

The psychological effects of war torture if not recognised and treated run a chronic course as illustrated by the Luwero Isis-WICCE study (Segane-Musisi S. et. al., 1999). In that study, 54.2% of the war traumatised women still reported features of post traumatic stress disorder with 72.9% of them having impaired occupational functioning, 14 years after the war had ended (Musisi S. et. al., 1999). There is however, overwhelming evidence that the psychological sequelae of torture are amendable to treatment (Musisi S. et. al. , 2000, Tomb D (Ed) 1994, Paker M., Paker O., Yuksel S., 1992 and Keane T. M., Albano A.M. Dudley D., B., 1992).

In conclusion the report presented here will document the trauma experiences of the people of Gulu and the associated psychological sequelae in an effort to galvanise Ugandan society and the world community in general to stop this war and to marshal up a plan to rehabilitate the shattered lives of these people.

### **3.5 The Medical Interventional Study**

During the 10-day screening period at camp level described in Chapter One, a total of 1077 clients were seen of whom, 1018 were 15 years and above. For purposes of the psychological study, only clients 15 years were enrolled because the psychological screening instruments used were only valid for this age group. Clients with minor psychological problems were given simple supportive counseling by the CVC's while those with severer forms of psychological distress and those with physical problems were referred to the Health centre at Awer camp for second stage interventions.

At the Health centre at Awer camp, clients referred by the CVC's with psychological problems were seen by the mental health team. This mental health team consisted of a general doctor (who runs the mental health clinic at Gulu Hospital), a psychiatric clinical officer, a senior Nursing Officer (who had received training in war trauma counseling) and counselors from a locally based non-governmental organisation the - People's Voice for Peace.

A total of 213 clients were seen (198 adults and 15 children) with only the adult clients being included in the study.

Those clients sent to the health centre for psychological problems underwent further psychological assessment using a structured questionnaire. They were then offered drug treatments (if indicated), supportive counseling or referred to Gulu hospital for further management depending on the assessed need.

Clients in need of specialised psychiatric assessment and treatment were referred to the Mental Health Clinic at Gulu Hospital. The results of the psychiatric interventions at Gulu Hospital are not given in this report due to the extended and in-

depth nature of the required interventions. These clients are still receiving ongoing treatment and counselling.

### 3.5.1 Measurements

The camp screening protocol contained socio-demographic variables, questions on the trauma experiences, a psychological distress assessment questionnaire, the modified WHO self-reporting questionnaire - WHO-SRQ-25 (WHO, 1994). A case on the modified WHO-SRQ-25 screening instrument was defined as a respondent who scored at least 6 on the non-psychotic symptoms or a score of at least 2 on the psychotic symptoms (WHO, 1994). This cut-off point has been established in validation studies undertaken in Ethiopia in conditions similar to those prevailing in Gulu (WHO, 1994, Kebede D., and Alem A., 1999). Gynaecological assessment questions orthopedic and general surgical assessment questions as well as questions on referrals were also included in the questionnaire.

### 3.5.2 Health centre psychological assessment protocol

The assessment protocol that was used at the health centre contained socio-demographic variables, ICD-10 PCP checklists for depression, anxiety disorders, somatoform disorder, (WHO, 1992). The C.A.G.E. questions for assessment of alcohol abuse were used with the following questions:

- (i) Have you ever felt that you should **CUT DOWN** on your drinking?
- (ii) Have people **ANNOYED** you by criticizing your drinking?;
- (iii) Have you ever had an **EARLY** morning (**EYE OPENER**) drink as a first thing in the morning to steady your nerves or to get rid of a hangover?
- (iv) Have you ever felt **GUILTY** about your drinking?

These four questions are known as C.A.G.E. from the initial letters of the words, cut, annoyed, guilty and early eye opener. A respondent with at least 2 positive answers is considered to have an alcohol abuse problem. This instrument has been used widely to screen for alcohol problem (Kebede D., and Alem A., 1999). Finally, the protocol also contained DSM IV PTSD screening questions (American Psychiatric Association, 1994).

## 3.6 Results

### 3.6.1 Results from the camp intervention

In the screening interviews carried out at Awer camp, 1077 respondents were interviewed of which 1042 (96.7%) were aged 15 years and above. Twenty four 24 (2.3%) respondents of these had incomplete data sets and were excluded from analysis leaving 1018 completed records. For purposes of this psychiatric report, it's only the results of those who were 15 years and above that will be reported. Table 3.1 below, shows the demographic variables of the camp respondents.

**Table 3.1: Camp of Residence, Gender and Age of Respondents**

<b>Camp of Residence</b>	<b>Number</b>	<b>Percentage (%)</b>
Awer	204	20.1
Olwal	174	17.2
Pagak	289	28.6
Kaladima	157	15.5
Parabongo	188	18.6
<b>Gender</b>		
Male	372	36.6
Female	646	63.4
<b>Sex Ratio:</b> Male:Female = 1: 1.7 (1:2)		
Age: Range 15 – 89, Mean 39.3, Standard deviation 2.83		
<b>Educational status (n=918)</b>		
No formal education	293	31.9
Primary level	533	58.1
Secondary level	60	6.5
Post secondary level	32	3.5
<b>Marital status (n=948)</b>		
Never married	89	9.4
Married/cohabiting	641	67.6
Separated/divorced	51	5.4
Widow/Widower	120	12.7
Single mother/father	47	5.0

From Table 3.1, the respondents were more or less evenly distributed in all the 5 satellite camps of Awer namely: Awer, Olwal, Pagak, Kaladima and Parabongo. The male to female ratio was 1:1.7. They ranged between 15-89 years of age with a mean of 39.3 years (S.D= 2.83). Most of the respondents 826 (90.0%) had no formal education or only a primary level education with 32 (3.5%) having a post secondary education. The majority of respondents 641 (67.6%) were either married or cohabiting with 120 (12.7%) widowed mainly as a result of war. Fifty one (5.4%) of respondents were separated or divorced with 47(5.0%) living as single mothers or fathers.

Table 3.2 summarises the torture experiences they suffered analysed by Gender.

**Table 3.2: Distribution of torture experiences according to Gender**

Variable	Total N=1018		Gender				Chi square P-value
			Male(n=372)		Female(n=646)		
		%	Number	%	Number	%	
<b>Experienced at least one torture event**</b>	905	88.9	346	93.0	559	86.5	<0.00*
<b>Physical torture**</b>							
Beating and Kicking	445	43.7	216	58.1	229	35.4	<0.00*
Bayonet injuries	56	5.5	45	12.1	11	1.7	<0.00*
Forced to perform hard labour	173	17.0	104	28.0	69	10.7	<0.00*
Tying (Kandoya)	128	12.6	102	27.4	26	4.0	<0.00*
Deprivation of food, water and medicine	195	19.2	99	26.6	96	14.9	<0.00*
Gunshot injuries	60	5.9	39	10.5	21	3.3	<0.00*
Burning	22	2.2	11	3.0	11	1.7	<0.19
<b>Sexual Torture</b>	134	13.1	24	6.4	110	17.0	<0.00*
Completed Rape	49	4.8	6	1.6	43	6.7	<0.00*
Attempted Rape	50	4.9	9	2.4	41	6.3	0.01*
Forced Marriage	35	3.4	9	2.4	26	4.0	0.18
<b>Relative killed in war**</b>	612	60.1	262	70.4	350	54.2	
Spouse	61	6.0	15	4.0	46	7.1	
Children	144	14.1	59	15.9	85	13.2	<0.00*
Others (aunt, uncle, Grand parent)	407	40.0	188	50.5	219	33.9	
<b>Psychological Torture**</b>							
Verbal threats	472	46.4	192	51.6	280	43.3	<0.01*
Interrogations	112	11.0	76	20.4	36	5.6	<0.00*
Military detention	226	22.2	112	30.1	114	17.6	<0.00*
Sleeping in bush/swamp	629	61.8	238	64.0	391	60.5	<0.28
Abduction	339	33.3	159	42.7	180	27.9	<0.00*
Destruction/looting of family property/livestock	528	51.9	231	62.1	297	46.0	0.00*
Forced to fight in war	50	4.9	40	10.8	10	1.5	<0.00*
Forced to Kill	25	2.5	19	5.1	6	0.9	<0.00*

**Key:** \* Statistically significant associations

\*\*Some respondents reported more than one torture event

Most of the respondents 905 (88.9%) reported having suffered at least one war-related torture experience with more males 346 (93.0%) reporting having experienced more torture events than females 559 (86.5%). This difference between the sexes was statically significant ( $p < 0.00$ ). However, virtually all the sexual torture was meted out to women ( $p < 0.00$ ) with 110 (17%) of the women reporting rape or attempted rape or forced marriage.

The most reported forms of physical torture included, beating and kicking 445 (43.7%), followed by forced hard labour 173 (17.0%) and deprivation of food, water and medicine 195 (19.2%).



*Young mothers were not spared the maiming of limbs*

The other methods of physical torture reported included bayonet injuries 56 (5.5%), tying (Kandoya) 128 (12.6%), gunshot injuries 60 (5.9%) and burning 22 (2.2%).

Most of the respondents reported a relative having been killed in war 612 (60.1%). In 61 (60%) of the cases, this was a spouse, 144 (14.1%) a child/ren and in 407 (40.0%) was other relative. Other methods of psychological torture commonly reported included; verbal threats 472 (46.4%), sleeping in the bush/swamp 629 (61.8%), abductions 339 (33.3%) and destruction/looting of family property and livestock 528 (51.9%), interrogations 112 (11.0%), being forcibly recruited to fight in war 50 (4.9%), and forced to kill 25 (2.5%).

All methods of physical and psychological torture were reported by both sexes but there were proportional differences among the male and females on certain methods of torture. Male respondents reported being proportionally subject to more of the following physical methods of torture, beating and kicking ( $p < 0.00$ ), bayonet injuries ( $p < 0.00$ ) hard labour ( $p < 0.00$ ), tying (Kandoya) ( $p < 0.00$ ), deprivation of food, water and medicine ( $p < 0.00$ ) and gunshot injuries ( $p < 0.00$ ). Women respondents reported proportionally being subject to more of the sexual torture ( $p < 0.000$ ) e.g. rape ( $p < 0.00$ ), attempted rape ( $p = 0.01$ ) or forced marriage of ( $p = 0.18$ ) although the later relationship did not attain statistical significance.

Looking at the psychologically methods of torture, males were proportionally subject to more of it, killing of their relatives ( $p<0.00$ ), verbal threats ( $p<0.00$ ), interrogations ( $p<0.00$ ), military detention ( $p<0.00$ ), abductions ( $p<0.00$ ), destruction/looting of family property/livestock ( $p<0.00$ ), forced to fight in war ( $p<0.00$ ) and forced to kill ( $p<0.00$ ).

Most abducted women were sexually abused whereas the abducted men were forced to fight and kill. Table 3.3: Shows the period (years) when the torture took place, the reasons for the torture as given by the respondents and the perpetrators.

**Table 3.3: The timing, reasons and perpetrators of the torture Experiences**

Variable	Total	
	Number	%
<b>Period of Torture* (n=679)</b>		
1971 - 1979 (2 periods)	88	1.2
1980 - 1985 (1 period)	11	1.6
1986 - 2001 (3 periods)	660	97.5
<b>Reason for Torture*(n=664)</b>		
Political	409	61.6
Religious	11	1.6
Criminal	112	16.9
Mistaken identity	132	19.9
<b>Perpetrators of Torture* (n=702)</b>		
Police Officers	6	0.9
Prison Officers	9	1.3
Local defense Personnel	10	1.4
Army	178	25.4
Uganda Army	4	2.3
UNLA	4	2.3
NRA/UPDF	170	24.3
Rebel Army	488	69.5
UPDA	21	4.4
LRA (Kony)	342	48.5
Holy Spirit Lakwena	125	18.0
<b>Environment torture took place* (n=712)</b>		
Home	537	75.4
Work place (garden)	32	4.5
Prison	5	0.7
Rebel camp	37	5.2
Refugee Camp	14	2.0
Road blocks	17	2.4
Military barracks	42	5.9
Others	87	12.2

Key: \*Some of the respondents gave more than one response to these variables.

The period when torture took place was mainly the 1986 to 2001 a 15-year period as reported by 660 (97.5%) of the respondents. The main reason that was reported by the respondents for torture was political 409 (61.6%) with other reasons reported including religion 11 (1.6%), criminal 112 (16.9%) and mistaken identity 132 (19.9%). The main perpetrators of torture were the rebel armies, 488 (69.5%) mainly the Lord's Resistance Army of Kony 342 (48.5%) and previously Lakwena's Holy Spirit army 125 (18.0%). This was followed by the national army, NRA/UPDF, 178 (25.4%).

Torture among most respondents took place at home 534 (75.4%). Other places where torture took place included; the workplace (shamba) 32 (4.5%), rebel camp 37 (5.2%), refugee camp 14 (2.0%), roadblock 17 (2.4%) and military barracks 42 (5.9%).

**Table 3.4: Psychological distress, substance use and homicidal thoughts by Gender**

Variable	Total (n=1018)		Gender				Chi Square p-value
			Male (n=372)		Female (n=646)		
	No.	%	No.	%	No.	%	
<b>Psychological Distress*</b>							
Cases	815	80.1	286	76.9	529	81.9	0.05*
<b>Use of substances of abuse**</b>							
Cigarettes	178	17.5	137	36.8	41	6.3	<0.00*
Alcohol	404	39.4	183	49.2	221	34.2	<0.00*
Marijuana	2	0.2	1	0.3	1	0.2	NS
<b>Having Homicidal thoughts</b>							
Positive	65	6.04	22	5.5	43	6.4	0.57

Key: NS = not specified

*Psychological distress was measured using the WHO-SRQ-25 instrument. A case was defined having at least a score of 6 on the non-psychotic symptoms or a score of at least 2 on the psychotic symptoms of the modified WHO-SRQ-25.*

Most of the respondents screened at the camp had significant psychological distress 815 (80.1%). Substance use was mainly alcohol 404 (39.4%), followed by cigarettes 178 (17.5%) and marijuana 2 (0.2%). Abuse of substances was proportionally more by males than females ( $p < 0.00$ ). No respondents reported sniffing petrol, nor use of khat (mairungi). Sixty-five (6.04%) respondents reported having homi-

cidal thoughts (thoughts of killing others). Both females 43 (6.4%) and males 22 (5.5%) reported these feelings in similar percentage and the gender difference did not attain statistical significance ( $p=0.57$ ). Factors found on the WHO-SRQ-25 instrument to be associated with psychological distress at univariant analysis are summarised in Table 3.5.

**Table 3.5: Univariant Analysis of Factors associated with psychological distress on the WHO-SRQ-25 Scale.**

Variable	Cases of Psychological distress		Chi square P-value
	Number	%	
<b>Gender (n=815)</b>			
Male	286	76.9	0.05*
Female	529	81.9	
<b>Camp of Residence (n=809)</b>			
Awer	113	55.4	
Olwal	118	68.2	<0.00*
Pagak	277	95.8	
Kaladima	153	97.5	
Parabongo	148	79.1	
<b>Educational Status (n=815)</b>			
No formal education	215	73.6	
Primary level	437	82.0	0.01*
Secondary/post secondary level	77	82.7	
<b>Marital Status (n=815)</b>			
Never married	117	73.6	
Married/cohabiting	527	82.2	0.03*
Separated/divorced	38	74.5	
Widow/widower	102	85.0	
Single mother/father	31	65.0	
<b>Having child/ren (n=815)</b>			
Present	605	84.6	<0.00*
Not present	210	69.3	
<b>Experience a torture event (n=815)</b>			
Positive	757	83.6	<0.00*
Negative	58	51.3	
<b>Having gynaecological Complaints (n=815)</b>			
Present	445	85.6	<0.00*
Not present	370	74.3	

\*Statistically significant associations



The factors that were significant associated with psychological distress as measured by the WHO-SRQ-25 at univariant analysis were; gender with the proportion of cases among females 529 (81.9%) more than among males 286 (76.9%) (p=0.05); camp of residence with Pagak and Kaladima having proportionally more cases (95.8% and (97.5%) respectively than the other camps (p<0.00); education status, with respondents with formal educational having proportionally more cases than those with no formal education (p=0.01); marital status, with the married and the widower/widow having proportionally more cases than the single, separated/divorced and single parents (p=0.03).

The other factors that were significantly associated with psychological distress included; having children, with 605 cases (84.6%) compared to those without children 210 (69.3%) (p<0.00); a history of experiencing a torture event, with 757 cases (83.6%) compared to those with no history of torture 58 (51.3%) (p<0.00); and having gynaecological complaints, with 445 cases (85.6%) compared to those without gynaecological complaints 370 (74.3%) (p<0.00).

Age group, religion, employment status, use of substance of abuse and having surgical complaints was not significantly associated with psychological distress at univariant analysis.

### 3.6.2 Psychiatric intervention at the Health centre Level

The mental health team interviewed 215 CVC - referred respondents at Awer Health Centre of which 198 (92.1%) were 15 years and above.

All the 5 satellite camps were represented among the respondents. The male to female ratio was 1:2 with the mean age of 37.8 (standard deviation 14.8) and an age range of 15 to 80 years.

**Table 3.6: Psychiatric disorders as seen by the mental health team at Awer Camp by Gender.**

Variable	Total (N=198)		Male (n=66)		Female (n=132)		Chi square P-value
	No.	%	No.	%	No.	%	
<b>Disorder**</b>							
Post Traumatic Stress Disorder (PTSD)	79	39.9	26	39.4	53	40.2	0.92
Depression	104	52.5	35	53.0	69	52.3	0.92
Alcohol abuse Disorder	36	18.2	17	25.8	19	14.4	0.05*
Generalised Anxiety Disorder	9	4.5	4	6.1	5	3.8	0.47
Panic Disorder	120	60.6	36	54.5	84	63.6	0.22
Agoraphobia	80	40.4	17	25.8	63	47.7	<0.00*
Social phobia	40	20.2	18	27.3	22	16.7	0.08
Somatoform Disorder	144	72.7	44	66.7	100	75.8	0.18
Having Suicidal thoughts	45	22.7	16	24.2	29	22.0	0.75

Key: \* *stastically significant associations*

\*\**Some respondents had more than one psychological disorder.*

Post traumatic stress disorder was present in 79 (39.9%) of respondents seen at the health centre by the mental health team. Other psychiatric disorders reported included; depression 104 (52.5%) and alcohol abuse disorder 36 (18.2%). Anxiety disorders were common with generalised anxiety disorder at 9 cases (4.5%), panic disorder at 120 cases (60.6%), agoraphobia at 80 cases (40.4%) and social phobia at 40 cases (20.2%). Somatoform disorder with 144 cases (72.7%) was the most common psychiatric disorder found. Forty-five (22.7%) of the respondents also reported suicidal thoughts and 65 (33%) reported homicidal thoughts.

All the above psychiatric disorders were reported in the two sexes. However alcohol abuse disorder was proportionally reported more among males 17 (25.8%) than among females 19 (14.4%) ( $p=0.05$ ) and agoraphobia proportionally more among females 63 (47.7%) than among males 17 (25.8%) ( $p<0.00$ ). Social phobia was proportionally reported more among males 18 (27.3%) than female 22 (16.7%) but this difference was not statistically significant ( $p=0.08$ ). Both males and females reported equally high rates of depression, anxiety disorders, PTSD, somatoform disorder and suicidal thoughts.

The presence of psychiatric disorder was associated with significant psychosocial dysfunction amongst the affected respondents. This dysfunction was investigated using a simple subjective self reporting scale. Comparisons were then made looking at frequencies. Table 3.7 summarises the findings.

**Table 3.7: Effect of Psychiatric Disorder on Function, Psycho-social health seeking behaviour and referral to Hospital.**

Variable	Total (N=198)		Male (n=66)		Female (n=132)	
	No.	%	No.	%	No.	%
<b>Work Function</b>						
Good	155	78.3	47	71.2	108	81.8
Moderately impaired	31	15.7	12	18.2	19	14.4
Unable to work	12	6.1	7	10.6	5	3.8
<b>Family Relationships</b>						
Good	173	87.4	56	84.8	117	88.6
Moderately impaired	11	5.6	6	9.1	5	3.8
Severed/ Separated/Divorced	14	7.1	4	6.1	10	7.6
<b>Sexual function</b>						
Good	167	84.3	56	84.8	111	84.1
Moderately impaired	14	7.1	10	15.2	4	3.0
Stopped/discontinued	17	8.6	0	0	17	12.9
<b>Health seeking behaviour</b>						
Visit to Traditional healer	192	97.0	64	97.0	128	64.6
Visit to Medical Clinic	58	29.3	21	31.8	37	18.7
Visit to a Hospital	31	15.7	8	12.1	23	11.6
<b>Referrals to Hospital</b>						
<b>Mental Health Clinic</b>						
Counseling	6	3.0	2	3.0	4	3.0
Psychiatric medication	35	17.7	14	21.2	21	15.9
<b>Other Specialists</b>						
Gynaecologist	7	3.5	0	0.0	7	5.3
Physicians	2	1.0	1	1.5	1	0.8
Surgeons	8	2.5	5	7.6	3	2.3
<b>Special Investigations</b>						
Lacor Hospital	7	3.5	4	6.1	3	2.3
Gulu Hospital	1	0.5	0	0.0	1	0.8

Most the respondents reported good work function 155 (78.3%), good family relationships 173 (87.4%) and good sexual function 167 (84.3%). However a significant number reported work impairments 43 (21.7%) despite the hardships of war impaired family relationships 25 (12.7%) with 14 (7.1%) having separated/divorce. Thirty one (15.7%) of respondents had impaired sexual function with more female respondents 17 (12.9%) reporting stopped or discontinued sexual function as compared to males with no reports of discontinuation.

Previous health seeking behaviour for mental illness included visiting; a traditional healer 192 (97.2%), visiting a medical clinic 58 (29.3%) and visiting a hospital 31 (15.7%).

During the medical intervention the camp volunteer counselors offered supportive counseling to those with mild degrees of psychological distress and referred those with severer forms of psychological distress to the health centre of Awer. Those referred with psychological problems to the health centre at Awer were seen by the mental health team at the clinic. The referred patients were further assessed and given drug treatments, supportive counseling or referred to Gulu Hospital for more in-depth assessment and treatment.

The referrals to Gulu Hospital attended the mental health clinic there for counseling 6 (3.0%) and psychiatric medications 35 (17.7%). Referrals were also made to other specialties including gynaecology 7 (3.5%), internal medicine 2 (1.0%), and surgery 8 (2.5%). Some respondents were sent for special laboratory investigations at Lacor Hospital 7 (3.5%) and Gulu Hospital 1 (0.5%).

### **3.7 Discussion**

Torture whether in war or peace is prohibited Internationally (UN Convention Against Torture) regionally (African Banjul Charter of Human and People's Rights) and by various chapters and articles in the Ugandan constitution (1995 Uganda Constitution chapter 4 article 24). However, war-related torture is still widespread in the Northern District of Gulu (Isis-WICCE, 2000; Constitution of the Republic of Uganda, 1995; United Nation High Commissioner for Human Rights, 1999; Amnesty International, 1999; Amnesty International, 1999).

Most of the respondents (88.9%) interviewed from Awer camp of internally displaced persons reported having experienced at least one war-related torture event. Both physical and psychological methods of torture were reported. The most commonly reported physical torture methods included beating and kicking (43.7%), being forced to perform hard labour (17.0%) and being deprived of food, water and medicine (19.6%).

The most reported psychological methods of torture included having relatives killed in the war (60.1%), verbal threats (46.4%), sleeping in the bush/swamp (61.8%), abductions (33.3%) and destruction/looting of family property and livestock (51.9%). The pattern of physical and psychological methods of torture reported is similar to that reported in earlier studies of war traumatised victims in the central district of Luwero (Segane-Musisi S. et. al., 2000, 1999).

Men in this conflict in Gulu appear to be particularly targeted for torture with more men (93.0%) proportionally reporting exposure to a torture event than women (86.5%) ( $p < 0.00$ ). Contrary to some studies which report that men tend to be more exposed to physical methods of torture while the women are more exposed to psychological methods of torture, the men in Gulu appeared to be exposed to both methods of torture proportionally more than the women (11,15,16). Male respondents were proportionally subject to more of the following physical methods of torture than women namely beating and kicking ( $p < 0.00$ ), bayonet injuries ( $p < 0.00$ ), forced to perform hard labour ( $p < 0.00$ ), tying (Kandoya) ( $p < 0.00$ ) deprivation of food, water and medicine ( $p < 0.00$ ) and gunshot injuries ( $p < 0.00$ ).

Male respondents were also proportionally subject to more of the following psychological methods of torture, killing of a relative as a result of war ( $p < 0.00$ ), verbal threats ( $p = 0.01$ ), interrogations ( $p < 0.00$ ) military detention ( $p < 0.00$ ), abductions ( $p < 0.00$ ) forced to fight in war ( $p < 0.00$ ) and forced to kill ( $p < 0.00$ ). Sexual torture was predominantly reported by women. This was in conformity with the literature from elsewhere showing that women were subjected more to methods of torture that were directed at their sexuality than men namely; rape, ( $p < 0.00$ ), attempted rape ( $p = 0.01$ ) and being forced into marriage ( $p = 0.18$ ) (IRCT/RRCTV, 1995; Paker M., Paker O., Yuksel S., 1992; Allodi F., Stiasny S., 1990). Most abducted women were subjected to sexual abuse whereas most abducted men were forced to fight. Sexual torture of women as a weapon of war has been frequently reported in the literature including recently in Rwanda and Yugoslavia (Skylv G., 1992; McNally R., J., 1992; Paker M., Paker O., Yuksel S., 1992; Allodi F., Stiasny S., 1990).

The period of torture was mainly the 1986 to 2001 period (97.5%), a time when the district has been and continues to experience civil conflict. The main reasons for torture was reported as being political (61.6%) a finding similar to that reported in other studies done in the central district of Luwero (8,7)

The main perpetrators of torture were the rebel army of the Lord's Resistance Army (69.5%) followed by the National Army - NRA (UPDF) (25.4%). Most of the respondents (75.4%) were tortured at home as they went about their daily life and most were local people of low or no education (64.7%)..

Significant psychological distress was reported in 80.1% of respondents a rate higher than the usual 12% commonly reported at primary health care clinics (19). This is not surprising given the high levels of physical and psychological torture they have experienced.

Female respondents (81.9%) proportionally reported more cases of psychological distress than men (76.9%) ( $p = 0.05$ ). This was associated with other gender-related factors that significantly affected women namely: marital status ( $p = 0.03$ ), having children ( $p < 0.00$ ), and having gynaecological complaints ( $p < 0.00$ ). These factors predominantly affect women in their social roles as a mothers, wives and providers for food for the family and children.

Other factors that were significantly associated with psychological distress included the camp of residence ( $p < 0.00$ ), pointing to differences in the level of available amenities and sense of security in the different camps. Indeed during the medical intervention Pagak satellite camp reported frequent visitations by the rebel soldiers. Experiencing a torture event was also significantly associated with psychological distress ( $p < 0.00$ ).

In terms of the psychiatric disorders suffered post traumatic stress disorder (39.9%), depression (52.5%), alcohol abuse disorder (18.2%) and the anxiety disorders - panic anxiety disorders (60.6%), agoraphobia (40.4%), social phobia (20.2%) and somatoform disorder (72.7%) were commonly present among respondents who were referred to the mental health team at Awer camp. This is in conformity with studies done both locally among traumatised war victims of Luwero and elsewhere in the world where post traumatic stress disorder and its other comorbid psychiatric dis-

orders have been consistently associated with torture (Segane-Musisi S. et. al., 2000, 1999, McNally R. J., 1992 Skylv G.,1992; Paker M., Paker O., Yuksel S., 1992; Allodi F., Stiasny S., 1990). Again in conformity with studies done elsewhere cases with alcohol abuse disorder were proportionally more represented among male respondents (25.8%) as compared to female respondents (14.4%) ( $p=0.05$ ) (McNally R. J., (1992) .

Anxiety disorders such as agoraphobia,panic disorder,social phobia and the generalised anxiety were very common in both sexes such high rates of anxiety seem to be part of the psychological distress of perpetually living in a war-situation. Cases with the anxiety disorder - agoraphobia were proportionally more represented among females (47.7%) as compared to males (25.8%) ( $p<0.00$ ).This is unlike other studies which have reported the anxiety disorder - generalised anxiety disorder to be more prevalent among women than men an observation not made in this study (McNally R. J., 1992) .

Most of the respondents from the health centre reported good work function (78.3%), good family relationships (87.4%) and good sexual function (84.3%). But a sizeable proportional of the respondents reported work impairment (21.7%), impaired family relationships (12.6%) and poor sexual function (15.7%) as result of the psychological problems they were having. This is in conformity with the literature, which has consistently shown that moderate to severe psychiatric sequelae of torture is associated with impaired psychosocial function (United Nation High Commissioner for Human Rights, 1999; Segane-Musisi S. et. al., 1999). Studies in Luwero district yielded similar results (Segane-Musisi S. et. al., 2000, 1999).

Somatoform disorders were the most common psychiatric disorder found. Somatisation as a communication of psychological distress has been commonly reported in African settings and especially in association with PTSD (Segane-Musisi S. et. al., 2000, 1999). Indeed previous studies done in Luwero district had similar finding (Segane-Musisi S. et. al., 2000, 1999). Such somatisation often leads to misdiagnosis and poor treatment.

Most of the respondents had previously sought treatment for their psychiatric problem from the traditional healers (97.2%) with only (15.7%) having attended the only mental health clinic at Gulu Hospital. This calls for the redesign of mental health service provision in this district given the enormity of the problem of psychological war traumatisation and the few mental health workers in the district . Gulu District presently has only one Psychiatric clinical officer and six psychiatric nurses for a population of approximately 400,000.

### **3.8 Limitations of the Study**

- The camp sample was not drawn up by a random probability method. Therefore, community prevalence rates of torture experiences and psychological disorders could not be calculated.

- Data from Gulu Mental Health Clinic could not be reported upon in this study due to the short study period.
- Some of the referrals from the camp to the health centre at Awer did not turn up within the study period and were therefore, lost to the study.

### **3.9 Conclusion**

In conclusion the District of Gulu has experienced and continues to experience severe war traumatisation as a result of the civil war still raging there. This state of war has created a massive population of people with severe war-related psychiatric sequelae which are currently not being addressed.

Given the extent of war traumatisation in this district, there is need to have public health interventions for torture rehabilitation. A primary health care model could be most effective as illustrated by the Isis-WICCE short term medical intervention, where the few district health professionals and community resource persons such as traditional healers and Camp Volunteer Counselors could effectively be trained and utilised.

That 65 (6.04%) of the respondents from the camp had homicidal thoughts and ideas appears to feed into the cycle of violence that has engulfed the Great Lakes Region and Uganda in particular. There is therefore added urgency to have psychological interventions for this population for the future stability of this country and the region as a whole.

# CHAPTER FOUR

## GYNAECOLOGICAL EFFECTS OF THE ARMED CONFLICT<sup>7</sup>

### 4.1 Introduction

It is an established fact that sexual abuse is widespread in war situations and women bear the brunt. Historically from the medieval past, to the inter-tribal wars and even in the current era as occurred in Bosnia Herzegovina, women have been raped, sexually assaulted and taken as sexual slaves in war situations. The female sex often are unable to avoid antagonists from either side of the conflicts from attacking them. (Musisi et al 2000, Jasenka Grujic-Koracin). The accompanying displacement and breakdown of the social and physical infrastructure further predisposes war survivors to harrowing medical experiences and deprivation of medical care (Toole MJ et al.1993, Zwi A., and Ugalde 1989, Isis-WICCE and AOGU, 1998). There is no official documentation of these atrocities apart from the media reports. Health providers have a big role to document and care for the survivors of such war situations (Geiger et al 1993). It has therefore, been long overdue for such an effort to be made in Northern Uganda.

The history of mankind has always been characterized by wars for different reasons. Presumably, wars will continue to be fought until the end of humanity. In all wars, among the civilian population, the women and children bear the brunt and are always at the mercy of the protagonists (Jasenka Grujic-Koracin. , Segane-Musisi et. al. 2000). Sexual abuse of the women of the vanquished has been the norm in many wars (Segane-Musisi et. al. 2000). The war in Northern Uganda has been the most brutal and dehumanizing in Uganda as far as the civilian population is concerned. The rebels, who would be expected to woo the local population, have instead terrorized them and the methods were unheard of compared to other war experiences. These are aimed at subduing the people into supporting the rebels or joining them and not to report them to the government forces. Unfortunately, there are testimonies implicating even the government soldiers in the sexual abuse of women.

Awer camp, the setting of the intervention, was a unique environment. It reflected all the conditions of social deprivation. All the basic needs of life were lacking. Except for the crowded temporary shelters, there were no other facilities and the people were not free to move far for fear of the rebels. The government soldiers would not allow them anyway. The small health unit near the camp was poorly

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<sup>7</sup> A collaborative Intervention by ISIS-WICCE and the Association of Obstetricians and Gynecologists of Uganda (AOGU). The Chapter was compiled by **Mirembe F. M.** MHCHM; M.Med (Obs); PhD (Reproductive Physiology) (M.U.K); Head of Dept Obs/Gyn, Makerere University, Mulago Hospital; **Biryabarema C.** MB CHB; Dip. Obs; M Med. (Obs/Gyn); MSc (Bond); Consultant Obstetrician/Gynecologist, Mulago Hospital; **Mutyaba T.** M.Med (Obs/Gyn); M.B.CH.B; Gynaecologist/Obstetrician, Mulago Hospital, **Otim T.** Obstetrician/Gynecologist, Gulu Hospital; and **Okello M.** MB Ch.B; M. Med (Anaesthesia); H. Dip (Health Services Management); Consultant Anaesthesiologist, Mulago Hospital



equipped to cater for the health needs of the inhabitants of the camp.



*The small and ill-equipped health unit at Awer Camp is unable to cope with overwhelming demands*

The objectives of the gynaecological interventional study was to:

- Determine the magnitude of gynecological complications related to the insurgency.
- Describe the health seeking behavior of the women victims of war
- Document the types of gynecological conditions which they have and treat the emerging cases over the time when the team was in the district.
- Determine the effect of the gynaecological complications on sexuality, family and economic productivity.

## **4.2 Results**

The gynaecological findings and treatments given are summarised in Tables 4.1 to 4.5 below. Table 4.1 gives the reproductive profiles of the 150 women who had gynecological problems.

**Table 4.1: Reproductive Profiles of the screened women**

<i>VARIABLE</i>	<i>FREQUENCY</i>	<i>PERCENTAGE</i>
<b>A. Live Births</b>		
0	21	14
1-3	3	24.7
4-6	33	22
7-9	28	18.7
10-12	10	6.6
>14 and above	1	0.1
<b>B. Still Births</b>		
0	122	81.2
1-2	22	14.7
3-4	3	2.0
5-6	2	1.4
> 7	1	0.7
<b>C. Miscarriages</b>		
0	94	62.7
1-2	46	30.7
3-4	7	4.7
5-6	3	2.0

A good number though not indicated had a problem of infertility. The major cause was tubal blockage, which is known to result from untreated sexually transmitted infections. These are quite common in war situations (Jasenka Grujic-Koracin, 1998). Women are often raped by the male protagonists in war, and acquire sexually transmitted infections. With the breakdown in the social services, no appropriate treatment is given resulting in chronic pelvic disease and often infertility due to tubal blockage.

**Table 4.2: Patterns of Contraceptive Use**

<b><i>CONTRACEPTIVE USE</i></b> <b><i>(N=150)</i></b>	<b><i>FREQUENCY</i></b>	<b><i>PERCENTAGE</i></b>
Ever Used	19	12.7
Never Used	129	86.0
No answer	2	1.3
<b>Reasons for Non-use*(n=129)</b>		
Menopause	27	19
Need more children	63	48.8
Family Planning not available	3	2.1
Husband refusal	4	2.8
No Knowledge	17	12.2
Side effects	6	4.3
Children dying	3	2.1
Pregnant	5	3.6
Others	3	2.1
No answer	8	5.7

\* Some women had more than one reason

Eleven women were current users of contraception, a rate of 7.9%.

The most frequent reason for non-use of modern family planning methods as shown in Table 3.2 was the need for more children. Recent reports from the Ministry of Health put the national contraceptive prevalence rate close to 20%. The rate of 7.9 % among these women we saw in Awer camp might not be the best estimate for the district, but still gave an insight that contraceptive use in Gulu was definitely much lower than the national average. Most women needed more children and three gave the reason that the children were dying. This could be an important factor. A study needs to be done to determine the perinatal mortality and infant mortality in the District. The loss of young boys and girls abducted by the rebels has been reported extensively in the media. These in reality are also just children. All these factors when combined render contraceptive usage redundant.

The women had a wide range of gynecological complaints as shown in the following Table 4.3. Some of the women had more than one complaint or condition.

**Table 4.3: The Women's Gynecological Problems / Experiences**

<b>COMPLAINT/CONDITION</b>	frequency	%
Vaginal tear	5	3.3
Urinary Fistula (Leaking Urine)	10	6.6
Fecal Fistula (Leaking feaces)	10	6.6.
Infertility	19	13.0
Chronic pelvic pain	13	8.6
Swellings in the abdomen	6	4
Genital sores	46	31
Genital laxity / Prolapse	55	37
Unwanted pregnancy	13	8.6
Painful intercourse	18	12
Other problems	7	4.7
Normal sexual function	125	83.3

A good number of the women were unable to work because of the different conditions they had which are illustrated in Table 3.3 above. A look at the different conditions listed in Table 3.3 shows that most are chronic conditions which if treated earlier need not interfere with ones work. The effects on sexual function and family stability as reflected in Table 3.4 below are expected in these women with gynecological problems.

The different reasons given for inability to work were - fear of bleeding, fear of

**Table 4.4: Gynaecological war effects on the Women's function**

<b>A. Effect On Marriage</b>			
Marriage condition	frequency	Percentage	
Stable	98	65.3	
Unstable	22	14.7	
Broken	11	7.3	
Not Applicable	19	12.7	
<b>B. Effect on Economic Productivity</b>			
Ability to work	frequency	percentage	
Able	90	60	
Unable	48	32	
No answer	12	8	
<b>C. Health Seeking Behavior</b>			
<b>HEALTH SOUGHT</b>	<b>CARE</b>	frequency	percentage
Nothing done		42	28
Self medication		22	14.7
Traditional healer		50	33.3
Qualified health worker		36	24

leaking urine, pain, weakness and others.

The health-seeking behavior shown in Table 4.4 above, reflected a people with limited options, a situation directly attributable to the war condition. Only 24% had had a chance of being seen by a qualified health worker. It is only in the past 2 years that Gulu has had a Gynecologist. It is therefore likely that even the few women who managed to see qualified health workers could not get appropriate care for their problems. The tragedy however was reflected by the 76% who resorted to traditional methods or could do nothing about their problems.

These are reflected in the health-seeking behavior of the 150 women who reported gynecological problems as shown in Table 4.3. Of these, 87.3% had not sought medical care from a qualified medical worker due to social factors. The war is directly responsible for the situation seen. The movement of the population is grossly limited by the fear of the rebels. Health workers who would visit these camps also fear for their lives and would rather remain in the relatively safer town center. The few health centers around the camps are so poorly equipped that it is almost useless to go to them for medical care. All these factors combined to explain the health-seeking behavior of the camp people.

Key: D & C = Dilation and Curretage

**Table 4.5: Summary of Gynecological Surgery Performed**

<b>Name</b>	<b>AGE</b>	<b>Diagnosis</b>	<b>Operation</b>
A.S.	40	Uterine Fibroids	Hysterectomy
K.J.	42	Missed Abortion	D&C
A.K.	50	Cervical Cancer	E U A, Staging&Biopsy
A.J.	20	Infertility (Tubal)	Salpingolysis
A.M.D.	42	Infertility (Tubal)	Salpingolysis
A.D.	26	Infertility (Tubal)	Salpingolysis
A.G.	20	Cystocele	Anterior Colporraphy
L.R.	48	Ovarian Cancer	Extended Hysterectomy
L.C.	30	Uterine Fibroids	Myomectomy
A.B.	28	Infertility (Tubal)	Salpingolysis
A.K. - 2	24	Infertility (Tubal)	Salpingolysis
A.P.	42	Vesico vaginal fistula/Colostomy	E U A
A.P. - 2	43	Vesical vaginal Fistula	Repair
A.P. - 3	34	Cervical Cancer & VVF	E U A, Staging & Biopsy

EUA = Examination Under Anaesthesia

Fourteen patients got surgical intervention over a two day period representing an estimated small fraction of all those who required the service. The gynaecological team were assisted by one anesthesiologist and two assistants. Besides manpower constraints, equipment in Gulu Hospital was inadequate and all the resources had to be shared with two other teams namely the orthopaedic and the general surgery teams.



*Dr. Biryabarema (L) , Dr. Mutyaba (2<sup>nd</sup> R) and Gulu based gynaecologists in the theatre.*

### **4.3 Conclusion**

A prolonged war background explains the nature of the gynaecological problems that were found to prevail in the women population of Gulu District. All could be attributed to two categories namely:

- The direct war injuries resulting from sexual abuse
- Those resulting from the war-related breakdown of infrastructure and social services.

# CHAPTER FIVE

## ORTHOPAEDIC/SURGICAL WAR RELATED COMPLICATIONS OF WOMEN AND MEN <sup>8</sup>

### 5.1 Background

Besides killings and the other medical, social and economic effects of war in northern Uganda, the region has experienced extensive maiming of limbs and injuries to body limbs among the population. The Gulu Rehabilitation Unit in 1996 alone registering a total of 628 children, 386 women and 147 men who had been physically disabled by bullets, landmines, brutal macheting, burning and various other forms of cruelty (Isis-WICCE, 2000).

This medical intervention was undertaken by the department of Orthopaedics Makerere University in collaboration with Isis-WICCE to document the orthopaedic and surgical consequences of war traumatisation on the people of Gulu District, and where possible to treat the identified victims.



*Many deformities had to wait for the medical intervention*

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<sup>1</sup> A collaborative Intervention by ISIS-WICCE and Department of Orthopaedics Makerere University. The Chapter was compiled by **Beyeza Titus** MB chB; M.MED Ortho Surg (P.R.C); Orthopaedic Surgeon, **Naddumba E.K** MB chB, MED Surg. (M.U.K); Senior Consultant, Orthopaedic Surgeon; and **Kakande Buwembo** MB chB, (M.U.K)

As indicated in Chapter One, 14 persons nominated by the satellite camp leaders were trained in the identification of torture and its surgical and orthopaedic consequences and in the administration of the screening questionnaire that contained orthopaedic and surgical questions.

At the Health centre at Awer camp, clients who had been referred by Camp Volunteer Counsellors (CVC) with orthopaedic and surgical complaints were further assessed by a team consisting of a general medical doctor, a clinical officer, an orthopaedic technician from the orthopaedic workshop in Gulu and a general nurse. The screening team also filled out a detailed orthopaedic/surgical assessment protocol. They also referred patients to Gulu Hospital for subsequent surgery.

Patients referred from Awer Camp to Gulu Hospital for orthopaedic and general surgical conditions were assessed and operated by a combined surgical team from Gulu Hospital and the Orthopaedic Department of Makerere University.



*Dr. Beyeza (L) and Gulu based Surgical and Orthopaedic team in the theatre.*



## 5.2 Results

The Camp Volunteer Counselors (CVC,s) screened 1077 respondents of whom 758 (70.4%) had surgical and orthopaedic complaints.

**Table 5.1: Patients with Orthopaedic/Surgical complaints by Gender**

Name of Camp	Patients seen		
	Male	Female	Total
1. Awer camp	63	101	164
2. Olwal camp	82	55	137
3. Parabongo camp	60	87	147
4. Pagak camp	45	128	173
5. Kaladima camp	56	72	128
6. Guniguru camp	8	1	9
Total	314	444	758

Source: Isis-WICCE, Camp data set

Pagak camp had the highest number of patients with Orthopaedic/surgical complaints totaling 173 (22.8%). A few patients from Guniguru camp, 9 of them (1.2%), which was outside the study area were also seen.

**Table 5.2: Age Range of all patients seen at Camp level**

Age Range	No. of patients	Male	Female	Percentage
Children 0 - 14 years	21	5	10	02.0%
Youth 15-30 years	228	110	118	30.8%
Adults 31-60 years	450	154	296	60.4%
Elderly above 60 years	59	29	30	08.0%
Total	758	298	456	100%

Most of the respondents with orthopaedic/surgical complaints were in the 31-60 years age range, 296 (60.4%).

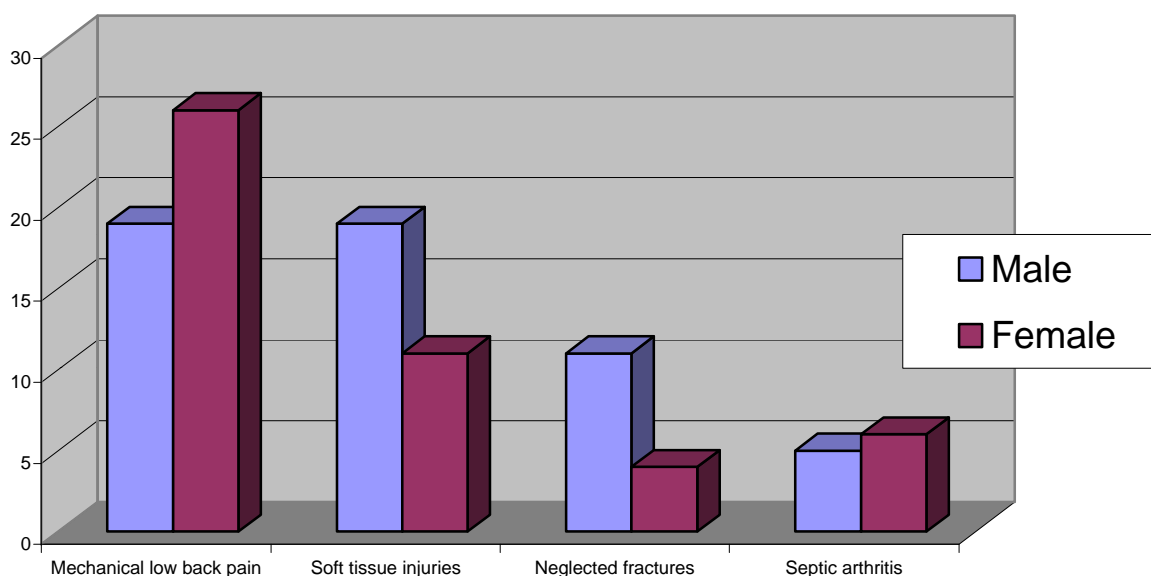
**Table 5.3: Main complaints of all Orthopaedic/Surgical patients**

Complaint	Males	Females	Total	%	P =level
Recurrent back pain	230	348	578	53.7	0.053
Discharging wounds	33	14	47	4.4	0.000*
Leg ulcer	29	17	46	4.3	0.000
Painful swollen joints	87	160	247	22.9	0.47
Fractured limb	38	30	68	6.3	0.001
Burn contractures	11	15	26	2.4	0.58
Gun shot injuries	41	13	54	5	0.000
Painful body swelling	65	99	164	15	0.327
Body swelling	31	32	63	5.8	0.05
<b>Total</b>	<b>308</b>	<b>450</b>	<b>758</b>	<b>100</b>	<b>0.000</b>

Recurrent back pain was the most common Orthopaedic/surgical complaint with more than half of all Orthopaedic/surgical patients seen complaining of low back pain. Proportionally, there were more female 348 (60.0%) than males 230 (40.0%) complaining of recurrent back pain, 578 (53.7%) and this difference tended to be significant ( $p=0.053$ ).

Although a large number of patients were screened within the satellite camps and referred to Awer health centre, less than half complied with the referral. Only 138 (18.2%) patients of the 758 patients seen in the camps did go to the health centre at Awer.

**Figure 5.1: Number of patients of the four top Orthopaedic disease conditions treated at the Health centre level**



There were significantly more female patients with mechanical low back pain than men ( $p=0.013$ ). Likewise, there were more females with septic arthritis though this was not statistically significant. Soft tissue injuries and neglected fractures were more common in male patients.

**Table 5.4: The major Orthopaedic/Surgical disease conditions seen and treated at the health centre level**

<b>Condition</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>%</b>
Mechanical low back pain	19	26	45	35%
Soft tissue injuries	19	11	30	16%
Neglected fractures	11	4	15	8.3%
Septic arthritis	5	6	11	7.9%
Hernias	8	2	10	7.2%
Chronic Osteomyelitis	3	3	6	4.3%
Prolapsed intervertebral disc	2	3	5	3.6%
T.B. Spine	2	2	4	2.9%
Burn contractures	2	1	3	2.2%
Cancer of the Breast	0	2	2	1.4%
Others	5	2	5	5%
<b>Total</b>	<b>76</b>	<b>62</b>	<b>138</b>	<b>100%</b>

The following is the description of the surgical/Orthopaedic conditions seen at the health centre - which were diagnosed and treated:

### ***Mechanical Low back pain***

These patients had low back pain, which most often improved with rest. Their back pain was not associated with leg pain, fever, cough or abdominal pain. They were treated with analgesics, counseling and health education on causes of low back pain.

### ***Soft tissue injuries***

These patients had cut wounds, bruises, skin lacerations at various sites on the body especially the limbs, face and trunk. These injuries were often complicated by infection, scarring and contraction deformities.

The main causes of these injuries were gunshots, beatings and cuts by sharp objects e.g. knives and machettes. Several patients had debridement surgery and antibiotics treatment. Contractures were treated by soft tissue release operations.

### ***Neglected fractures (untreated Broken Bones)***

Many untreated or poorly treated fracture patients were seen and treated. Some were closed fractures while others were open or compound fractures (whereby the fractured bone communicated with outside of the body. Most were painful and leading to loss of function of the affected part of the body). Some of the open fractures had pus discharge from secondary infection. They were treated with antibiotics and proper Reduction and immobilisation of the fractures.

## ***Septic arthritis***

This condition of painful joint swellings associated with fever at the onset were common especially in children. Pain led to failure to use the limb and subsequent complications of joint stiffness and deformity. They were given antibiotics and some had athrotomy surgery done.

## ***Chronic Osteomyelitis***

Again this was commonly found in children who had chronic pus -discharging sinuses from swollen limbs. The onset of the disease had fever and acute pain at onset. They were treated surgically and given antibiotics.

## ***T.B. Spine***

This was common among children who had constant back pain often associated with cough, weight loss and presence of a back deformity (Gibbus). Sometimes T.B. was associated with weakness in the legs and inability to control urine(urinary incontinence). They were treated with anti-T.B. drugs.

## ***Burn contractures***

These patients had, in the past, suffered burns from either open fires, petrol and or hot water scalding. They suffered acute skin loss with associated infection, scarring and total disfigurement of part of their body such as the face, neck and other areas of the body. Their contractures were released surgically. Some will require skin grafting.



*Medical specialists are rare. Dr. Margaret Okello the consultant anaesthesiologist, Mulago Hospital giving support in Gulu*

Other Orthopaedic condition identified were congenitally deformed limbs especially in the Region of knee joint (Genu valgus deformities) and the feet – (congenital Talipes Equino-varus or club foot). Painful amputation stump due to Neuroma formation were also seen and treated.

### **General Surgical Condition**

Of the General Surgical conditions, Hernias were the most common condition. The hernia swellings were common in the groin area and abdomen and most could reduce with pressure. Most of the hernia patients had history of chronic cough and constipation or difficulty in passing urine. All the hernias were successfully operated upon.

Other General surgical conditions seen included benign tumors such as lipomas, testicular masses or malignant tumours for example cancer of the breast.

Surgical emergencies such as intestinal obstruction were also treated.

### **5.3 Discussion**

Uganda has experienced significant social strife for more than 30 Years of insurgencies, political instability, population displacement and family disruption (Kasozi A.B.K. (1994) and Clapham. C., (1998). Armed insurgencies and forced abductions continue to plague the Northern and Western parts of the country.

The majority of patients seen in this study with Orthopaedic/Trauma conditions were in the adult age brackets of 31 to 60 years (60.4%). As seen from Table 5.4,



*Dr. Kakande (R) with assistance from theatre staff handling a surgical case.*

most patients complained of chronic low back pain not associated with fever or cough, which was diagnosed as mechanical low back pain. It was more common in females than males (Female 26, Male 19 patients) with a Male: Female ratio of 3:4. This could be attributed to the strenuous activities these female patients perform in the camp such as carrying heavy loads over a long distance and the daily chores in the camps. In addition, a similarly high number of male patients complained of chronic low back pain which can also be explained by the hard conditions in the camp including poor housing, poor diet, poor health facilities and sleeping on the cold hard floor instead of normal bed.

Next on the list of the most common conditions identified were soft tissue injuries. These were more common in the males compared to females with a Male: Female ratio of 2:1. This can easily be explained by the fact that males are more engaged in battles than females in a war situation.

Many patients were found with neglected fractures, and these were mainly male patients. Their fractures were mostly closed fractures which would have healed well if treated early. But this is a situation where there are no qualified medical staff nor adequate facilities to handle specialities such as trauma.

## **5.4 Achievements**

The patients who were treated in this programme and the entire population of Gulu district were grateful to ISIS-WICCE and the medical staff for this exercise. Quoting the words of Bishop of Northern Uganda, the Right Rev. Onon Onweng and the Resident District Commissioner for the area, *“this medical interventional exercise in Gulu district after a long difficult time of war meant a lot to the people of Gulu ..... they now believe they are not completely forgotten .... that someone or some people still care for the suffering masses of northern Uganda go through.”*

The patients with surgical emergencies such as intestinal obstruction and others could probably have died without the timely intervention to get them operated. Most patients had given up any hope for treatment and correction of their deformities. They were living painful miserable lives.

## **5.5 Limitations**

This exercise was carried out in only 6 of the 20 camps for the internally displaced people of Gulu District. Needless to mention, similar camps exist in Kitgum district and they have similar problems. This means that very few patients and population of Northern Uganda benefited from the exercise. The main limiting factors were insecurity in the area and limited financial resources.

Some patients who required specialist attention such as Neuro surgery, implant surgery, hand surgery etc were referred to Mulago Hospital. But due to financial and other constraints these patients did not come for treatment.

There were inadequate laboratory and radiology services making it difficult to make proper patient investigation in all cases.

## **CHAPTER SIX**

# **RECOMMENDATIONS**

The healing process in this war will be long and may take several generations. However the following needs to be done by all stakeholders in the well being of Gulu District:

- No effort should be spared to end this war even if it means sacrificing of some principles on the part of government or the rebels. This calls for renewed effort on the part of the civil society in Uganda and the international community in general to bring the war in Northern Uganda and other parts of the country to a stop.
- The full stock of the war must be taken and this should be structured according to the different population sub-groups i.e women, girls, boys, men and the elderly to ensure the healing process does not omit effective strategies for some population sub-groups.
- A Truth Commission about the brutal acts that were meted out to the population in this region will be required to re-assure the population of Gulu and neighboring districts like Kitgum that there is a rule of law that applies to all equally.
- The government needs to carry-out internal checks on the army to ensure the return of faith in the population towards this important institution charged with the responsibility of protecting the lives and property of the citizenry of this country.
- There is a need for a well thought through “*Marshall Plan*” for the economic and social rehabilitation of Gulu and other war affected districts of Uganda. Such a plan should involve the population especially women in Gulu, the government, donors and NGOs. Without such a plan the post-war effect will affect the entire population of Uganda. Organizations which have proved effective in empowering poor communities such as Isis-WICCE, GUSCO, AVIS, People’s Voice for Peace, ACCORD, World Vision, etc, should be given all the necessary support at all levels to provide guidance to the rebuilding process. The role of private initiative in all these aspects should not be ignored. After all the last one and a half decade is adequate proof that the population have the means to survive on their own with little or no governance.
- There are a few positive aspects emerging out of this war such as the increased realization of the need to empower women economically to sustain society through difficult times. Such aspects need to be built on in all future plans of resolving the effects of this war.

- The unique manifestations of torture and its psychological and physical sequelae on women calls for a psychotraumatic rehabilitation programme that is gender sensitive to be initiated in Gulu district.
- The main reason given for torture in this study which was also reported in the Luwero study is political. The solution to the war in Gulu is therefore political and lies in evolving modes of governance that are locally appropriate but not in a military solution.
- The women in war ravaged Northern Uganda have special medical problems attributed to a prolonged war-situation. Government needs to recognize this and make an effort for special health care packages for these victims. More resources should be dedicated by Ministry of Health and the entire government towards facilitating continuous similar medical interventional programme to the war ravaged districts of Uganda.
- Other special arrangements that need to be made urgently include assembling many health workers working hand in hand with other humanitarian organizations going out and effecting mass treatment of patients. With the co-operation of government forces to provide security, this is possible as ISIS-WICCE and the intervention team demonstrated during this intervention.



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