

**WORK-RELATED STRESS AMONG CHOMA KARA
COUNSELLING HOME-BASED CARE WORKERS OF AIDS**

PATIENTS

By

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**A dissertation submitted to the University of Zambia in partial
fulfilment of the requirements for the degree of Master of Public Health**

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DECLARATION


I, **Maurice Musheke**, hereby declare that the work presented in this dissertation for the award of Master of Public Health at the University of Zambia is wholly mine and has not been presented either wholly or in part for any other Master of Public Health. Neither is the work being currently submitted for any other degree.

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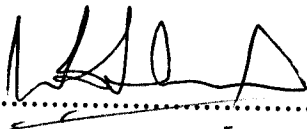
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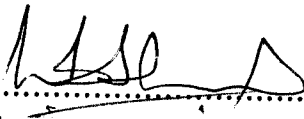
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CERTIFICATE OF APPROVAL

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ABSTRACT

Infections caused by the human immunodeficiency virus (HIV) constitute the greatest global public health challenge today, particularly in sub-Saharan Africa (SSA), which has been worst hit by the pandemic. This has created pressure on the capacity for health care institutions and health workers to respond effectively to the challenges imposed by the disease. Consequently, home-based care (HBC) of people suffering from the Acquired Immune Deficiency Syndrome (AIDS) has emerged as another fundamental response to the AIDS pandemic. While extensive studies have been undertaken on stress in medical practice, not much is known about work-related stress among home-based care workers of AIDS patients.

The aim of the study was to explore work-related stress among Choma Kara counselling home-based care workers of AIDS patients.

Methodology

A cross sectional study design was used. Simple random sampling was used to randomly select fourteen (14) zones from the existing thirty (30) zones. Personal interviews were conducted with one hundred and thirty-five (135) home-based caregivers. The self-reporting questionnaire (SRQ-20) was used to identify cases of stress. The cut-off point was set at 4. Additional information that was collected included socio-demographic information, home-based care tasks and coping mechanisms in home-based care for AIDS patients. Data was entered into, and analysed using, the statistical package for

social sciences (SPSS version 13). Data analysis included descriptive statistics, Chi-square test and binary logistical regression to establish relationship between independent variables and the dependent variable. The level of statistical significance was set at the $p=0.05$ level.

Findings of the Study

Cleaning the house and surrounding (81.5%); food preparation for, and feeding of, AIDS patients (48.9% and 43.0% respectively), drawing water and fetching firewood (48.1%), washing clothes and bed linen of AIDS patients (74.1%), bathing and cleaning AIDS patients (78.5%), and health education (62.2%) were found to be the physical tasks conducted by caregivers. The psychosocial tasks performed were the counselling of AIDS patients (33.3%), counselling of families of AIDS patients (71.9%) and community members (18.5%), and the provision of spiritual and emotional support to AIDS patients and their families (75.6%). Hundred and twenty-three (123) caregivers (91.3%) were trained in home-based care, out of which forty-one (41) caregivers (33.3%) reported that the training was not adequate for them to effectively perform their work.

The prevalence of stress was found to be 35.6%. After adjusting for age and other socio-demographic characteristics, only stigma and discrimination of AIDS patients (OR, 4.38; 95% CI, 1.74-11.02); lack of/inadequate training in HBC (OR, 0.20; 95% CI, 0.49-0.83); and short duration of practice as caregiver (OR, 2.50; 95% CI, 1.05-6.00) were found to be independently associated with stress.

To cope with stress, caregivers simply accepted the situation and continued life as normal (98%), took a bath and or rest (58.0 %), spent time with friends and family members (49.0 %), and engaged in household activities (30.0%). The least coping mechanisms adopted were reading the bible (11%) and taking painkillers (12%).

Conclusions and Recommendations

The study found high levels of stress among home-based caregivers. Stigma and discrimination of AIDS patients; lack of/inadequate training in HBC; and low duration of practice as caregiver were independently associated with stress. Accepting the situation and taking a bath and/or resting were found to be the major coping strategies.

Interventions to address stress among home-based caregivers should mainly focus on addressing stigma and discrimination of AIDS patients; and providing caregivers with on-going training in order to strengthen and reinforce their skills. Kara counselling should consider providing monetary incentives to caregivers not only to motivate them but also to compensate them for the opportunity cost of foregoing their own income generation activities.

DEDICATION

This report is dedicated to all home based caregivers who work under the auspices of Choma Kara Counselling, who, day by day, endure the many challenges of providing care and support to AIDS victims and their families.

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ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
DFID	Department for International Development
GDP	Gross Domestic Product
GP	General Practitioner
HBC	Home-based Care
HIV	Human Immunodeficiency Virus
PLWAs	People Living with AIDS
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
STDs	Sexually Transmitted Diseases
UK	United Kingdom
UNAIDS	Joint United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
UTH	University Teaching Hospital
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Infections caused by the human immunodeficiency virus (HIV) constitute the greatest global public health challenge today. Particularly in sub-Saharan Africa (SSA) where the majority of HIV and AIDS cases are concentrated, the pandemic continues to have a domino effect: children are orphaned, communities destroyed, formal health care services overwhelmed and economic development arrested. Globally, an estimated 34 to 46 million people are living with HIV and AIDS. Already, more than 20 million people have died from AIDS, 3 million in 2003 alone; 4 million children have been infected since the virus first appeared. Of the five million people who became infected with the virus in 2003, 700,000 were children (WHO, 2004). Africa, which constitutes 10 per cent of the world's total population, is believed to be home to two-thirds (25 million) of the world's people living with HIV and AIDS. Of these, 16.4 million have died from the disease. Estimates indicate that about one in 12 African adults is living with HIV and AIDS. The other biggest tragedy associated with the disease is the number of children orphaned. Current statistics estimate the number of orphans at 13.2 million worldwide of which 12.1 million are in Africa (WHO, 2004).

At national level, Zambia has an adult HIV prevalence of 16 per cent, about 1 million people are living with HIV/AIDS and around 200, 000 are in urgent need of anti-retroviral treatment (WHO, 2004). On average, one in every five adults is infected with

HIV. Eighty-four per cent (84%) of Zambians diagnosed as having HIV were aged between 20-39 years; most of these are enormously productive with families to look after. The peak age for HIV among females was 20 to 29 years while that for males was 30 to 39 years (NAC Strategic Plan, 2002-2005).

The HIV and AIDS pandemic has exerted a lot of pressure on the health care institutions in the country and this is happening at a time when the country is facing a critical shortage of health care staff and reduced budgetary allocation to the health sector due to the unfavourable economic situation (Appendix 4).

Due to the challenges imposed by HIV and AIDS, home-based care (HBC) has emerged as a crucial response to the pandemic. As in any other potentially life-threatening condition, people living with AIDS (PLWAs) may place considerable physical, social and psychological demands on those who care for them as well as on those with whom they have close social and economic ties. This has led to the emergence of work-related stress imposed by HIV and AIDS on home-based care workers who care for and manage AIDS patients in their respective communities.

1.2 Statement of the Problem

Work-related stress has been a well-known problem in health care provision. A number of researches have indicated that stress is mentally and physically debilitating for workers, costly to institutions and agencies and harmful to clients (Cherniss, 1980;

Edelwich and Brodsky, 1980; Farber, 1983; Maslach, 1982; Maslach and Schaufelli, 1993; Piness, Aronson and Kafri, 1981; Rogers, 1987). In the United Kingdom, reports indicate that a quarter to a half of the National Health Service (NHS) staff report distress, which may be a higher rate than that of comparable occupations (Williams et al. 1998; Wall et al. 1997).

1.2.1 Causes of Stress in Health care

In many different studies, increased psychological distress in health care practice has been closely associated with heavy workloads and its effect on home life, pressure of work, complaints from patients and relatives, risk of violence, poor management style, inadequate resources, insufficient training, lack of control over work, low participation in decision making, low job satisfaction and harassment (Williams et al. 1998). Lack of rewards also contributes towards work-related stress. Rewards include praise, feelings of satisfaction, high self-esteem and working bonuses. When an individual feels that he/she is not getting adequate reward for the effort put in, one is more likely to experience stress.

1.2.2 Signs and Symptoms of stress

There are many different signs and symptoms of stress. These include the following:

Physical: These include headaches, grinding of teeth, clenched jaws, chest pain, shortness of breath, increased heart beat, high blood pressure, muscle aches, indigestion,

constipation or diarrhoea, increased perspiration, fatigue, insomnia and frequent illness (Menon et al., undated).

Psychosocial: These include anxiety, irritability, sadness, defensiveness, anger, mood swings, hypersensitivity, apathy, depression, slow thinking or racing thoughts, feelings of helplessness and hopelessness (Menon et al. undated).

Behavioural: These include overeating or loss of appetite, impatience, quickness to argue, procrastination, increased use of drugs or alcohol, increased smoking, withdrawal or isolation from others, neglect of responsibility, poor job performance, poor personal hygiene, change in religious practice, and change in close family relationships (Menon et al. undated).

1.2.3 Effects of Stress

Stress plays an important role in several types of health problems especially cardiovascular disease, musculoskeletal disorders, and psychological disorders. Psychologically demanding jobs that allow employees little control over the work process increase cardiovascular disease. More so, job stress increases the risk for development of back and upper-extremity musculoskeletal disorders. Workplace injuries have also been strongly associated with stressful working conditions, lowered morale and poor work performance (Menon et al. undated).

1.2.4 Home-Based Care of AIDS Patients

Home-based care for AIDS patients has crucially emerged as another intervention of managing the AIDS pandemic. Home-based care is based on the following crucial assumptions:

- The family and the community is the most effective mechanism for supporting AIDS patients and assisting the formal health care institutions in providing clinical and psychosocial support;
- As the incidence of HIV infection and AIDS increase, the decentralisation of case management is the most economic and effective way of providing care to AIDS patients;
- Taking health care into the community has an educational and counselling effect that extends beyond the AIDS patient and family members;
- Terminally ill patients may have a preference of dying at home.

Volunteer workers, social workers and community health workers mainly provide home-based care of AIDS patients. Home-based care is regarded as crucial in decongesting health care institutions given the long admission days of patients with HIV and HIV related ailments. More so, the involvement of community members in home-based care is also regarded as crucial in redressing the twin problem of stigma and discrimination associated with HIV and AIDS. The preference for utilising home-based care for AIDS patients *ipso facto* means that home-based care givers are daily coping with the burden of caring for and managing AIDS patients.

While studies elsewhere have examined stress experiences of medical workers, there has been, particularly in Zambia, little focus on work-related stress among home-based caregivers of AIDS patients. Due to the unique practical conditions of home-based care for AIDS patients, there is likelihood that these home-based caregivers are particularly at risk of being stressed. Consequently, more research was needed in order to better understand the prevalence and determinants of stress among, and coping mechanisms adopted by, home-based caregivers resulting from the care and management of AIDS patients in their respective communities.

Against this background, this study sought to investigate work-related stress among home-based care workers of AIDS patients with specific focus on Choma Kara counselling home-based care workers of AIDS patients.

1.2.5 Research Questions

The study was guided by the following broad research questions:

- What is the proportion of home-based caregivers of AIDS patients experiencing work-related stress and what are the predictors of stress?
- How do home-based caregivers cope with work-related stress of AIDS care?

1.2.6 Definitions of Key Terms

Within the context of this study, the key concepts in this study were defined as below:

1. **Stress:** A condition in which there is a marked discrepancy between the demands made on the individual and the individual's ability to respond to these demands resulting in poor psychological wellbeing affecting a person's thoughts, feelings, behaviour and functioning. It entails a state of physical and emotional depletion and frustration as a result of the conditions of work (Kaplan et.al. 1993)
2. **Home-based Care:** A system of providing prevention, care and support services beyond the clinical walls to meet the overall needs of people suffering from prolonged/chronic illness and their families, within the home environment of the affected (USAID, 2004).
3. **Home-based care workers:** Non-professional community members engaged to provide a variety of health care and social welfare services to AIDS patients in their respective communities.
4. **AIDS patients:** Individuals with the human immunodeficiency virus (HIV) and are showing signs and symptoms of the acquired immune deficiency syndrome (AIDS).
5. **Psycho-social support:** Provision and receipt of psychological and social support services and benefits (such as encouragement and reassurance) in the

context of formal and informal relationships (for instance, family, friends, co-workers and organizational staff).

6. **Stigma and discrimination:** This refers to the labelling and subsequent disqualification of an individual from full social acceptance due to one's status such as being an AIDS patient.

CHAPTER TWO

2.0 LITERATURE REVIEW

Since the advent of HIV and AIDS, there have been an increase in studies focusing on the ravaging effects of AIDS, including its impact on health care professionals who have had to endure the growing burden of caring for and managing AIDS patients. On possible psychological stressors in medical practice, studies have found heavy workloads, time pressures, facing patients and their families with poor prognoses or incurable diseases and shortage of resources to achieve professional goals as some of the causes of stress among health care professionals (Bennett et al., 1996).

2.1 Prevalence of Stress among health care workers

The potential for stress and burnout in health care practice has been well documented. For instance, Farber and Heifetz (1982) investigated prevalence of stress and burnout in mental health professionals. These researchers found burnout in 71 per cent of psychologists, 43 per cent of the psychiatrists, and 73 per cent of the social workers. A similar study by Farber (1985) discovered that 36 per cent of the sample of mental health professionals reported moderate levels of burnout, and only 6.3 per cent indicated a high degree of burnout. Ackerley et al. (1988) examined the level of burn out in a national sample of licensed psychologists. It was discovered that more than a third of the psychologists reported experiencing high levels of both emotional exhaustion and

depersonalisation; 21 per cent of the psychologists indicated that they would choose a career other than psychology if given the opportunity.

Horstman and McKusick (1986) also studied the effects of AIDS on health care staff. One hundred and fifty (150) San Francisco Bay area physicians from a range of specialties who treated patients with AIDS were posted a questionnaire of whom 82 (55 per cent) of the physicians responded. Personal interviews were also conducted with forty (40) of these physicians. Over half reported being stressed.

In a survey of mainly nurses and paramedical staff in two major teaching hospitals in Australia, Ross and Seeger (1988) reported that up to 40 per cent of staff experienced significant distress in dealing with AIDS related issues. A survey of general practitioners' (GP) retirement in the United Kingdom found that a quarter of professionals planned to retire before the age of 60 with "health, including stress" contributing to 36 per cent of these decisions. Another study conducted in 2001 found that 33 per cent of doctors who retired due to ill health did so due to psychiatric illness. Around half of the general practitioners scored as being "stressed" a similar rate as for hospital consultants and hospital managers, and roughly twice that of the general public (Menon et.al, 2003).

A national survey of general practitioners' opinion conducted in 2001 by the British Medical Association (to which 23,521 General Practitioners responded), found that emergency medical doctors came top of those that were stressed, with around double the reported stress levels of other doctors. Almost 45 per cent scored highly for stress. This

compares with scores of between 21 and 28 per cent for studies of other UK consultants, and 18 per cent for the general work population. Almost one in five (18 per cent) had symptoms of depression, with nearly one in ten (10 per cent) entertaining thoughts of suicide.

2.2 Factors Associated with Stress

The study by Horstman and McKusick (1986) revealed that although length of experience in AIDS care was not related to distress, the amount of contact with patients was directly correlated with psychological distress. It seemed that concentrated exposure to patients, rather than years of exposure, was a critical factor in emotional reactions to the work. The study further found that despite these findings, over 40 per cent of the physicians reported that involvement in AIDS care had given them greater intellectual and career satisfaction. Ross and Seeger (1988) in their study in two major teaching hospitals in Australia found that sources of greatest difficulty for staff were the young age of patients, neurological aspects of the infection and management of dying patients. In addition, one in five staff reported persistent fears about acquiring infection despite a median time of working with AIDS patients of 18 months and a median number of AIDS-related patients of 40. Clearly, experience with patients does little to reduce fear of contamination in a significant proportion of staff and may be a chronic source of stress.

Bennett et al. (1991) conducted a controlled investigation of work-related stress in nurses in which they compared registered nurses working with AIDS with those working in an

oncology service in two large Sydney hospitals. A 95 per cent response rate was obtained, resulting in 32 nurses in AIDS and 32 nurses in oncology. The respondents completed a questionnaire concerning emotional exhaustion, depersonalisation and personal accomplishment in relation to their work. The study found that, although subjects working in the AIDS field did not suffer emotional exhaustion as often as in the oncology service, when it occurred, the emotional exhaustion was more tense. There were important hospital differences, which implied better staff-patient ratios, opportunities for career advancement or management of stress in one than the other. Work-related stress was also not related to the experience of the nurse but rather to their age and amount of time spent in the unit. The older the nurse, and the less time working in the unit, the less the stress. Although no sex differences in prevalence of stress were found, only 3 of the 32 oncology nurses were male compared with 18 of the 32 AIDS nurses.

Studies on work related stress in health care practice in Zambia are rare. One exception was the study conducted by Menon et.al (2003) on stress among doctors at the University Teaching Hospital (UTH). The study set out to identify stressful aspects of the medical doctors' job and how doctors coped with workplace stress. The aspects of the doctor's job identified as most stressful were: lack of resources to carry out the job; heavy workload; poor rewards; long working hours; giving bad news to patients; and relationship with superiors. The other but less stressful aspects were: expectations from patients, lack of opportunities for advancement, lack of time to spend on self, treating

emotional patients, work-related responsibilities, keeping to schedule, carrying out procedures and relationship with co-workers.

2.3 Mechanisms of Coping with Stress

There have been extensive studies on reactions to stress. However, most of these examinations have been done on doctors than any other professional. Suicide attempts have been identified as one of the reactions to stress. For instance, studies have revealed that rates of suicide for doctors are approximately two to three times that of comparable social class (Richings et al. 1986; Ross and Rosow, 1973). Also, substance abuse may be up to 30 times more common among doctors than in the general population with estimates that up to 1 per cent of all American physicians may be dependent on drugs (Rucinski and Cybulska, 1985; Waring, 1974). Rates of admission for alcoholism among doctors in the United Kingdom exceed those of people of similar social class (Murray, 1976).

In a longitudinal study spanning 30 years of adult life, Vaillant, Sobowale and McArthur (1972) reported that doctors had poor marriages, were more likely to abuse alcohol and use sedatives, tranquillisers or stimulants than those in other professions. They were also more likely to have sought psychotherapy. More so, doctors may be reluctant to admit to problems (particularly substance abuse) and studies have been hampered by methodological problems (Waring, 1974). Most common means of coping with stress were sharing experiences with colleagues; not discussing the problems at home;

maintaining active interests outside work; and provision of peer support group (King, 1994).

In their study on the effects of AIDS on health staff, Horstman and Mckusick (1986) found that the principal methods of coping with stress were talking to friends, partners or family members. Use of medication or alcohol was much less likely. Although about half relied on colleagues for support, few expressed a desire for support groups of doctors meeting to discuss work-related stress.

In Zambia, the study conducted by Menon et.al (2003) identified the following major strategies adopted by doctors to cope with stress: acceptance of the situation and carrying on with work, sleep/rest and social support. The less common coping strategies were found to be: drinking alcohol, listening to music, religious observance (resting on prayer days).

In spite of the importance of home-based care in responding to the challenges of AIDS and the needs of AIDS patients in particular, few studies have been done on the impact of caring for AIDS patients on home-based care workers. As already indicated in the literature reviewed, studies have concentrated on the impact of caring for and managing AIDS patients on health care workers in health institutions. Consequently, very little is known about work-related stress among home-based care workers involved in caring for and managing AIDS patients in their respective communities. For instance, not much is known about the prevalence of work-related stress among home-based caregivers; the

determinants of stress in home based care giving; the tasks performed; and, coping mechanisms adopted in response to the stress factors of home-based care giving. These issues needed to be investigated.

2.4 Problem Analysis of Work-Related Stress in AIDS Care

From the foregoing literature, work-related stress has long been recognized in health care provision. The emergence of HIV and AIDS has exacerbated the situation. The picture is even gloomy in developing countries, which are characterized by inadequate funding for health care, lack adequate health care kit, antiquated equipment and a critical shortage of qualified health personnel. Factors that contribute towards stress include dealing with families' worries, fears and concerns with the death of AIDS patients on a daily basis, poor prognosis of AIDS patients, fear that little is being achieved despite their best efforts, fear of own risk of infection, poor work incentives/benefits, long working hours and heavy workload. More so, home-based care workers themselves may feel stigmatised and discriminated against for merely caring for and managing AIDS patients. This level of stress could be exacerbated in instances where the caregivers themselves are sero-positive.

Work-related stress in home-based care giving is confounded by other factors. First, home-based care workers work as volunteers. Consequently, most of the time, they have to engage in livelihood activities to sustain their lives and those of their families. As a result, home-based caregivers could be stressed-up even before they embark on home-

based care giving activities. Secondly, due to their poor health to actively engage in socio-economic activities, AIDS patients' socio-economic status tends to be low. Consequently, they may not only rely on their families, but also on home-based care workers for socio-economic support. Under the current economic distress prevailing in the country, the provision of socio-economic support to AIDS patients places additional burden on the already economically distressed home-based caregivers.

2.5 Aim of the Study

To explore work-related stressful aspects of home-based care giving of AIDS patients and identify how home-based care workers coped with home-based care related stress.

2.6 Objective of the Study

- To determine the proportion of home-based care workers experiencing psychosocial stress as a result of caring for and managing AIDS patients in the communities;
- To conduct task analysis of the activities carried out by home-based care workers;
- To find out the determinants of work related stress among home-based care workers of AIDS patients;
- To identify the coping mechanisms adopted by home-based care workers in response to stress associated with the care and management of AIDS patients;
- To recommend, in the light of the findings, measures to address stress factors among home-based care workers engaged in the care and management of AIDS patients.

CHAPTER THREE

3.1 RESEARCH METHODOLOGY

3.2 Study Design

A cross sectional study design was used.

3.3 Research Setting

The study was conducted in Choma district among Choma Kara Counselling home-based caregivers of AIDS patients. Choma district is located in Southern province of Zambia. Kara counselling is one of the pioneers in the provision of home-based care and counselling services in Zambia, particularly targeting people infected and affected by the HIV and AIDS pandemic.

Choma district was Kara counselling's first step outside Lusaka (capital city of Zambia) and provides an integrated service package consisting of voluntary counselling and testing (VCT), general counselling, training in counselling, outreach activities, a 12-bed hospice and home-based care for AIDS patients. Choma Kara counselling programme also runs an active post-test club and supports a 'Positive and Living Squad' (PALS) group with training and income generation schemes. It also works with street children' and widows' groups. At the time of the study, the catchment area of Choma district covered about 30 zones scattered across the district. Pemba and Maamba districts also contained catchment areas (zones) in which Kara counselling was operational. Data was also collected in selected zones of these 2 districts.

3.4 Study Population and Sample Size

At the time of the study, Choma Kara Counselling had about 209 active home-based care workers based in 30 operational zones. The sample size was calculated using the Epi Info 2000 software. Utilizing an expected frequency of 50 per cent and worst acceptable frequency of 45 per cent, and a confidence level of 95 per cent, the study sample size adopted was 135.

3.5 Sampling Design

At the time of the study, Choma Kara Counselling had 209 active caregivers located in all the 30 zones and this number constituted the population of the study. Simple random sampling was used in which 14 zones were sampled (Appendix 5b). Caregivers in these zones were interviewed until the sample size target of 135 was reached.

3.6 Data Collection Methods

Personal interviews were conducted with individual home-based caregivers using a semi-structured questionnaire (Appendix 1). The self-reporting questionnaire (SRQ-20) was used to identify cases of stress feelings among the home-based care workers. The self-reporting questionnaire (SRQ-20) is one of the widely used questionnaires in identifying cases of stress. It was developed by the World Health Organisation (WHO) as an instrument to screen for psychological distress. It is used as a first-stage screening

instrument for the second stage-clinical interview. The SRQ-20 consists of 20 questions, which have to be answered by “Yes” or “No” (Appendix 1, Section C). It is used either as a self-administered or as an interviewer-administered questionnaire. In this study, the instrument was used not to diagnose mental morbidity, but rather to identify signs of mental stress.

Various additional semi-structured questions were used to collect additional data such as demographic data; the tasks performed by home-based caregivers; the determinants of stress in home-based care; the coping mechanisms adopted by home-based care workers as well as the exploration and collection of other in-depth information related to home-based care of AIDS patients. The respondents were the individual home-based care workers who offer care and support to AIDS patients. The interviews were informal and voluntary. Personal interview instead of self-administration of the research instrument was used because of the low literacy levels of home-based care workers. In order to keep the results comparable within the study, the SRQ-20 was used as an interviewer-administered questionnaire for all the respondents. To ensure uniform interpretation of the questions, two research assistants were engaged and trained to administer the research instruments. The interviews were conducted in English as it was discovered that most caregivers had attained secondary level of education and hence were comfortable with, and able to understand, English.

3.6.1 Scoring using the SRQ-20

Each of the 20 items was scored 0 or 1. A score of 1 indicated that the symptom of stress was present during the past month while a score of 0 indicated that the symptom was absent. The maximum score is therefore 20 (WHO, 1994).

3.6.2 SRQ-20 as a Screening Instrument

While the SRQ-20 was designed to cover “mental distress”, it should be stressed that the SRQ-20 in general and this study in particular, was not intended to be either a substitute for, or equivalent to, a clinical diagnosis. As already alluded to, the World Health Organisation (WHO) developed the SRQ-20 research instrument as a first-stage screening instrument in a two-stage mental health detection procedure. The first stage refers to the use of a screening test so that probable cases of mental distress are detected, and in the second stage a clinical diagnosis is made. In this study therefore, the SRQ-20 was used in order to detect cases of psychosocial distress among the home-based caregivers.

3.7 Data Analysis

The data was computer coded and analysed using the statistical package for social sciences (SPSS version 13) for windows. The cut-off point was set at 4. Home-based care workers who gave 4 or more positive responses to the SRQ-20 were categorised as

having mental distress in this study. The selection of the cut-off point was based on the following grounds.

First, there is no prescribed cut-off point for the SRQ-20 as a screening instrument (WHO, 1994). In this study, the cut-off point was set relatively lower to ensure that it was inclusive, that is, accept the risk of having more false positives rather than exclude false negatives. Since the SRQ-20 is a screening test, it is preferable not to lose probable cases during the first stage of the study, since the majority of those classified as non-cases by the screening tests are not followed up (WHO, 1994).

Secondly, no study had been done in Zambia to validate and establish the cut-off point particularly on community related studies. This study, with a relatively low cut-off point was therefore, aimed at providing some insights into the possible prevalence of stress among the caregivers, which ultimately has implications on the quality of home-based care provided to AIDS patients.

Descriptive analysis included running frequencies and graphs. Descriptive statistics of such factors as task analysis of home-based care; socio-demographic characteristics of caregivers; motivation for, and barriers to, home-based care; and coping mechanisms was undertaken.

The Chi-square tests and logistic regression analysis were used to determine associations between variables. Where more than 20% of the cells had an expected frequency of less

than 5 in contingency tables higher than 2 x 2, categories that were similar were combined in order to get valid results. Age was reduced to three categories: (20-39 years; 40-49 years; >50 years); marital status was reduced to two categories: married and unmarried; level of education was reduced to four categories: primary, secondary, post-secondary and never been to school; religious affiliation was reduced to two categories: catholic and non-catholic (none of the respondents did not belong to any Christian denomination); main source of livelihood was reduced to three categories: paid work, unpaid work and not working; while duration of work as caregiver was reduced to two categories: up to 2 years and over 2 years.

Since the dependent variable (stress) was binary, logistic regression analysis was used to assess which variables were independently associated with stress. The socio-demographic variables included as independent variables were age, marital status and level of education. Chi square tests were conducted to establish the relationship between socio-demographic variables and the dependent variable, stress. Other variables that were included as independent variables were workload of AIDS care, patient load, patient attitude towards counselling, patient attitude towards medication, distance to the homes of AIDS patients, training in home-based care, stigma and discrimination of AIDS patients, and duration of practice as caregiver.

The internal consistency of the SRQ-20 assessed by the Cronbach's Alpha was 0.72 and thus was reliable. According to Julie Pallant (2005), the scale is reliable if the Cronbach's Alpha coefficient is at least 0.7.

3.8 Ethical Consideration

First, the Research Ethics Committee of the University of Zambia approved the study on 2nd August 2005. The approval reference number is IRB00001131 of IORG0000774 (Appendix 3a). Second, approval was given by management of Kara Counselling both in Lusaka (Head Office) and Choma (Regional Office) since the home-based care workers to be interviewed fell under the jurisdiction of Choma Kara Counselling (Appendix 3b). Third, the study strictly adhered to confidentiality and informed consent. Participation in the study was secured after Choma Kara Counselling informed home-based caregivers (through their zone leaders) about the study and the need for their participation. No financial or material incentives were given to the participants as a basis for their participation.

Written disclosure of the research outputs was limited to the researcher and the supervisor. Furthermore, the study did not involve any injurious or painful procedures to the participants, as any drawing of specimens from participants was not done. The study only involved the administration of a questionnaire.

CHAPTER FOUR

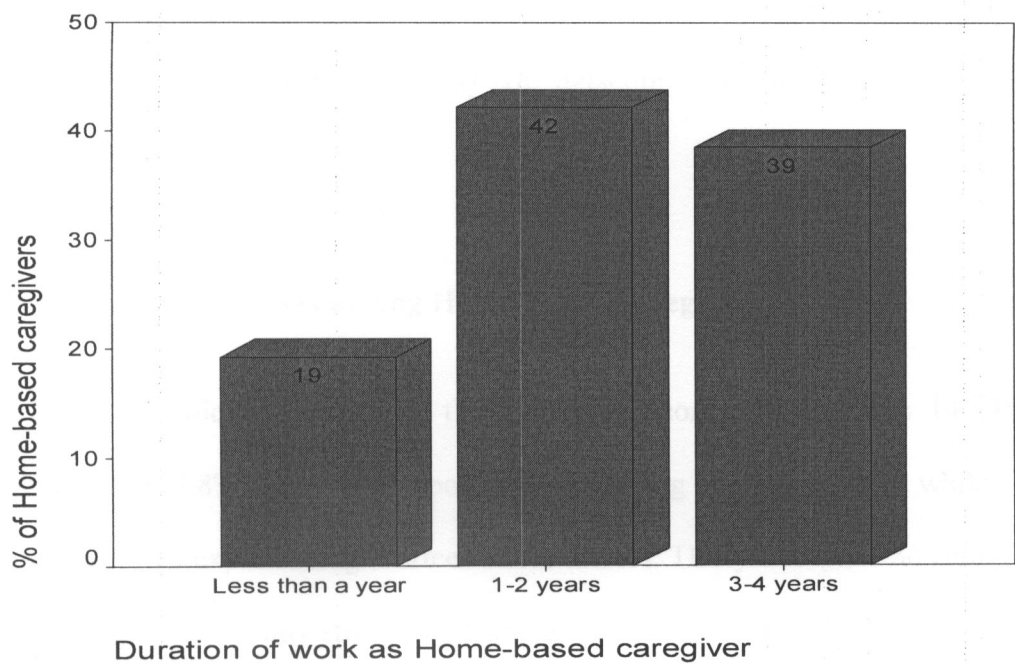
4.0 FINDINGS OF THE STUDY

4.1 Socio-Demographic Characteristics of Home-Based Caregivers

Of the 135 caregivers interviewed, 38 (28.1%) were males; 59 (43.7%) were aged between 40-50 years; 98 (72.6%) were married; 101 (74.8%) had secondary level of education. In terms of the main livelihood activities, the study found that 71 (52.6%) of the caregivers were engaged in unpaid work. These livelihood activities were mainly selling second-hand clothes (*salaula*), foodstuffs as well as seasonal small-scale farming.

In terms of work experience as home-based caregiver, 83 (61.5%) had less than 2 years of work experience. As indicated in figure 1, a significant proportion of home-based caregivers, 57 (42.2%) had worked for the period 1-2 years; Only 26 caregivers (19.3%) had worked for less than 1 year. Out of the 135 home-based caregivers interviewed, 123 (91.1%) had been trained in home-based caring of AIDS patients.

Figure 1: Number of Years Worked as Home-Based Caregiver of AIDS Patients



The main provider of training was Kara Counselling. Other training organisations were the Churches Health Association of Zambia (CHAZ), and the Roman Catholic Church. The home-based care training mainly focused on basic facts about HIV and AIDS; nursing, care and basic treatment of AIDS patients; precautions in the care and management of AIDS patients; and psychosocial counselling of both AIDS patients and family members.

The study found that one of the responsibilities of home-based caregivers was to identify, recruit and link AIDS patients to health care providers. However, the stigma and discrimination attached to HIV and AIDS in the communities made it difficult for caregivers to identify, recruit and link AIDS patients to healthcare institutions. Home-based caregivers reported that some families even went to the extent of hiding their

relatives who were suffering from AIDS. Where AIDS patients were identified and recruited family members of AIDS patients often left the burden of caring for AIDS patients on the caregivers as a way of detaching themselves from stigma and discrimination.

4.2 Prevalence of Stress among Home-based Caregivers

Out of the 20 indicators of stress, the maximum score recorded was 14 (Table 1). Altogether, 24 (17.8%) caregivers reported experiencing one stress factor while 1 (0.7%) caregiver reported experiencing fourteen stress factors. Thirty-two (23.7%) caregivers did not report experiencing any stress. Utilising a cut-off point of 4, the study revealed that 48 (35.6%) caregivers could be classified as stressed.

Table 1: Number of Cases of Stress Factors per Home-based Caregiver

Number of Stress Factors	Proportion of Caregivers	%	Cumulative (%)
0	32	23.7	23.7
1	24	17.8	41.5
2	16	11.9	53.4
3	15	11.1	64.5
4	20	14.8	79.3
5	10	7.4	86.7
6	6	4.4	91.1
7	4	3.0	94.1
8	4	3.0	97.1
9	2	1.5	98.6
10	1	0.7	99.3
14	1	0.7	100
Total	135	100.00	

In terms of the symptoms of stress as assessed by the SRQ-20, headache (35.6%); feeling nervous, tense or worried (28.1%); feeling unhappy (30.4%); feeling tired all the time (30.4%) and being easily tired (25.2%) were found to be the most common among the home-based caregivers. Table 2 outlines the prevalence of various symptoms of stress among the caregivers.

Table 2: Proportion of Stress Symptoms by SRQ-20 Characteristic

No.	SRQ-20 Question	Yes		No	
		Count	%	Count	%
1.	Do you often have headaches?	48	35.6	87	64.4
2.	Is your appetite poor?	26	19.3	109	80.7
3.	Do you sleep badly?	16	11.9	119	88.1
4.	Are you easily frightened?	10	7.4	125	92.6
5.	Do your hands shake?	5	3.7	130	96.3
6.	Do you feel nervous, tense or worried?	38	28.1	97	71.9
7.	Is your digestion poor?	4	3.0	131	97.0
8.	Do you have trouble thinking clearly?	10	7.4	125	92.6
9.	Do you feel unhappy?	41	30.4	94	69.6
10.	Do you cry more than usual?	8	5.9	127	94.1
11.	Do you find it difficult to enjoy your daily activities?	14	10.4	121	89.6
12.	Do you find it difficult to make decision?	13	9.6	122	90.4
13.	Is your daily work suffering?	27	20.0	108	80.0
14.	Are you unable to play a useful part in life?	10	7.4	125	92.6
15.	Have you lost interest in things?	5	3.7	130	96.3
16.	Do you feel that you are a worthless person?	6	4.4	129	95.6
17.	Has the thought of ending your life been on your mind?	3	2.2	132	97.8
18.	Do you feel tired all the time?	41	30.4	94	69.6
19.	Do you have uncomfortable feelings in your stomach?	11	8.1	124	91.9
20.	Are you easily tired?	34	25.2	101	74.8

4.3 Determinants of stress among Home-based Caregivers

The study further sought, as among its objectives, to investigate the predictors of stress among home-based caregivers of AIDS patients. The logistic regression model results showed that the ‘goodness of fit’ test (Ominibus Test of Model Coefficients) on the determinants of stress among home-based caregivers was significant (Chi-square value was 13.68 with 13 degrees of freedom, $p = 0.003$). The model explained 28.7% (Nagelkerke R Square) of variability in the dependent variable (stress).

Out of the socio-demographic factors considered in table 3, only socio-economic status was significantly associated with stress. The study found that respondents who were not in paid work (those engaged in unpaid work and those not working for other reasons) were more likely to be stressed.

Table 3: Socio-demographic Predictors of Stress

Predictor Variable	Stressed		p-value
	Yes No. (%)	No No. (%)	
Sex			
Male	15 (31.3)	23 (26.4)	0.693
Female	33 (68.7)	64 (73.6)	
Age			
20-39	16 (33.3)	30 (34.5)	0.423
40-50	24 (50)	35 (44.2)	
>50	8 (16.7)	22 (22.3)	

Marital Status			
Married	39 (81.3)	59 (67.8)	0.141
Not married	9 (18.7)	28 (32.2)	
Level of Education			
Primary	8 (16.7)	21 (24.1)	0.340
Secondary	37 (77.1)	64 (73.6)	
Post-secondary	3 (6.2)	2 (2.3)	
Socio-economic status			
Paid work	14 (29.2)	26 (29.9)	0.028
Unpaid work	20 (41.6)	51 (58.6)	
Not working for other reasons	14 (29.2)	10 (11.5)	

Out of the work-related factors considered in table 3, lack of/inadequate training in home-based care; short duration of practice as caregiver, stigma and discrimination of AIDS patients in their respective communities; negative attitude towards counselling by AIDS patients and AIDS patients' disillusionment with disease were found to be significant independent pre-determinants of stress.

Table 4: Work-related Predictors of Stress

Predictor Variable	Stressed		p-value
	Yes No. (%)	No No. (%)	
Lack of/inadequate training in HBC			
Yes	8(16.7)	4(4.6)	0.041
No	40(83.3)	83(95.4)	

Duration of practice as Caregiver			
≥ 2 years	26 (54.2)	26 (29.9)	0.010
Less than 2 year	22 (45.8)	61 (70.1)	
Long distance to homes of AIDS patients			
Yes	18(37.5)	24(27.6)	0.141
No	30(62.5)	63(72.4)	
High load of AIDS patients			
Yes	7(14.6)	9 (10.3)	0.652
No	41(85.4)	78(89.7)	
Heavy workload Of AIDS care			
Yes	15 (31.3)	17 (19.5)	0.187
No	33 (68.7)	70 (80.5)	
Stigma and discrimination of AIDS Patients			
Yes	29(60.4)	22(25.3)	<0.001
No	19(39.6)	65(74.7)	
Lack of access to medication by AIDS patients			
Yes	30 (62.5)	42(48.3)	0.160
No	18 (37.5)	45(51.7)	
Negative attitude towards treatment by AIDS patients			
Yes	25(52.1)	31(35.6)	0.094
No	23(47.9)	56(64.4)	
Negative attitude towards counselling by AIDS patients			
Yes	21 (43.8)	18 (20.7)	0.009
No	27(56.2)	69 (79.3)	
AIDS patient disillusionment with disease			
Yes	13 (27.1)	6 (6.9)	0.003
No	35 (72.9)	81 (93.1)	

After adjusting for age, sex, marital status, educational level and socio-economic status, only stigma and discrimination of AIDS patients (OR, 4.38; 95% CI, 1.74-11.02); Lack of/inadequate training in HBC (OR, 0.20; 95% CI, 0.49-0.83); and short duration of practice as caregiver (OR, 2.50; 95% CI 1.05-6.00) were found to be significantly associated with stress. Table 5 summarises the findings of the independent predictors of stress.

Table 5: Summary Findings of the Logistic Regression Analysis of Predictors of Stress

Predictor Variable	Odds Ratio (95% CI)*	p -value
Stigma and discrimination of AIDS patients	4.38 (1.74-11.02)	0.002
Lack of/inadequate training in HBC	0.20 (0.49-0.83)	0.026
Short duration of practice as caregiver	2.50 (1.05-6.00)	0.041

* Adjusted for age, sex, marital status and educational level

4.4 TASKS ANALYSIS OF HOME-BASED CARE FOR AIDS PATIENTS

4.4.1 Physical tasks of Home-based Care for AIDS Patients

A task analysis of the physical activities performed by HBC givers revealed that cleaning the house and surrounding was the most widely performed HBC activity. Hundred and ten (81.5%) of caregivers indicated performing this activity while the least performed activity was that of feeding AIDS patients, which was performed by 58 (43%) caregivers. Similarly, 66 (48.9%) caregivers were involved in food preparation for AIDS patients.

Additionally, 65 (48.1%) were engaged in drawing water and fetching firewood; 100 (74.1%) washed clothes and bed linen. Furthermore, 106 (78.5%) were involved in bathing and cleaning AIDS patients while 84 (62.2%) were involved in health education.

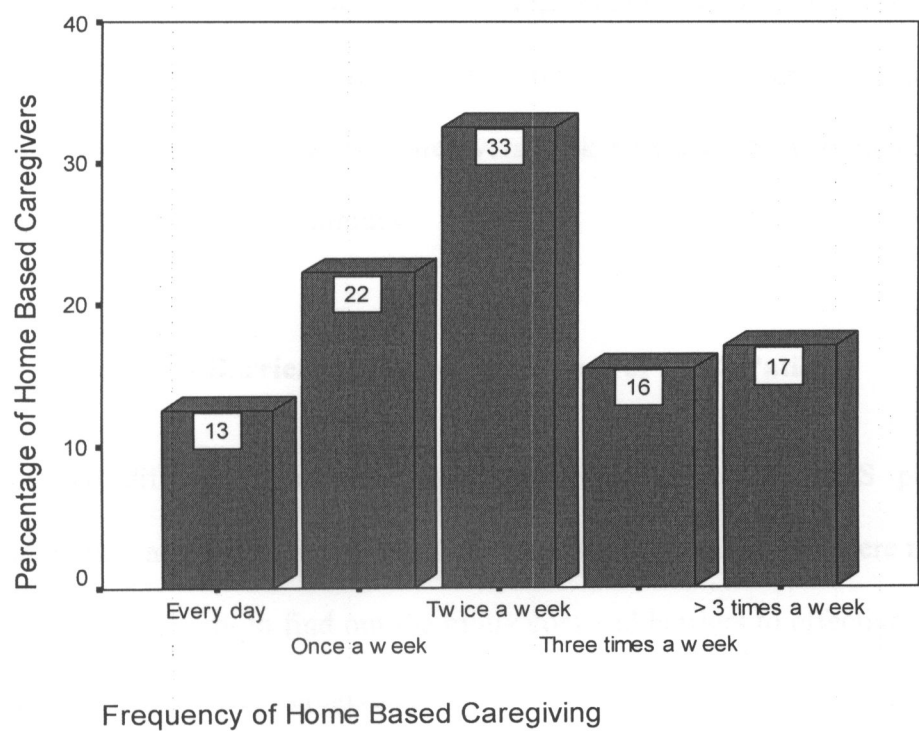
About 79 (58.5%) of HBC givers did not use any healthcare kit in the care and management of AIDS patients. For those that used healthcare kit, 120 (88.9%) reported that the kit was not adequate to enable them effectively nurse and manage AIDS patients. Consequently, 41 (30.4%) caregivers expressed fear of contracting the HIV virus and other infectious diseases from their patients.

4.4.2 Psychosocial Tasks of HBC performed by Home-based Caregivers

Ninety-seven (73.3%) provided counselling to families of AIDS patients; 25 (18.5%) provided counselling to community members; 102 (75.6%) offered spiritual and emotional support to patients and their families and 23 (17%) conducted community sensitisation on HIV and AIDS.

In terms of frequency of conducting home-based care, the study found that most home-based caregivers conducted home-based care twice a week (33%) and very few conducted home-based care every day (13%). Figure 2 summarises the frequency of home-based caring of AIDS patients.

Figure 2: Frequency of Home-Based Caring of AIDS Patients



Relatedly, in terms of the number of hours spent caring for AIDS patients, the study found that 72 (53.3%) caregivers spent between 1-3 hours; 16(11.9%) caregivers spent between 3-5 hours while 17 (12.6%) caregivers spent over 5 hours. In terms of the kind of patients cared for, 78 (57.8%) looked after healthy looking but ill patients; 31 (23%) caregivers looked after very ill and bed-ridden AIDS patients while only 26 (19.3%) caregivers looked after moderately ill patients.

In terms of the mode of transport used to travel to the homes of AIDS patients, 118 (87.4%) caregivers travelled on foot, 14 (10.4%) caregivers used bicycles while only 3 (2.2%) caregivers used a motor vehicle. The use of the motor vehicle was done each time Kara counselling staff and selected caregivers made joint trips in the field. Given that

most caregivers either travelled on foot or used bicycles, the study found that to reach the farthest home of an AIDS patient, most caregivers took a long time. The study found that 42 (31.1%) caregivers took more than 1 hour; 38 (28.1%) caregivers took between 30 minutes to 1 hour; 36 (26.7%) caregivers took between 15-30 minutes while only 19 (14.1%) took less than 15 minutes.

4.4.3 Drivers and Barriers to Home-based Care of AIDS Patients

Given the difficult conditions associated with caring for AIDS patients in their communities, and taking into account the fact that these caregivers were not remunerated, the study also sought to find out the motivators and barriers to effective caring for AIDS patients by home-based caregivers.

4.4.3.1 Motivation to start work as a Home-based Caregiver of AIDS Patients

About eighty-two per cent (81.5%) of the caregivers reported being motivated by the desire to help AIDS patients. The caregivers felt that most of the AIDS patients were either neglected within their own communities, (even by their own relatives) or did not have relatives to look after them. The study found also that 40.1 per cent of the caregivers regarded caregiving as a Christian responsibility; 45.2 per cent were motivated by personal interest in AIDS care; 33 per cent began work because of their personal relationship with AIDS patients (AIDS patients were either their friends, close family members or close community members); while 31.1 per cent were motivated by their own personal experience with AIDS in the family (had family members who were either

infected with the virus or lost a family member to AIDS). Only 2.2 per cent reported being motivated by the expectation of material and financial benefits.

4.4.3.2 Barriers to Effective Care of AIDS Patients

The study also sought to identify factors that constrain home based caregivers in the discharge of their responsibilities. The barriers to successful provision of AIDS care are outlined in table 6.

Table 6: Barriers to the Effective Care of AIDS Patients

Barrier Factor	Proportion of Caregivers	%
AIDS patients' disillusionment with disease	19	14.1
Failure by AIDS patients to access treatment due to distance and costs associated with accessing treatment	72	53.3
Rejection, discrimination and stigmatisation of AIDS patients	54	40.0
Negative attitude towards counselling by AIDS patients	39	28.9
Negative attitude towards medication by patients	56	41.5
Patient's resignation with death	20	14.8
Patients' worries about future of family after patient's death	27	20.0
Family worry about imminent death of AIDS patient	37	27.4
Food insecurity among AIDS patients' households	114	84.4

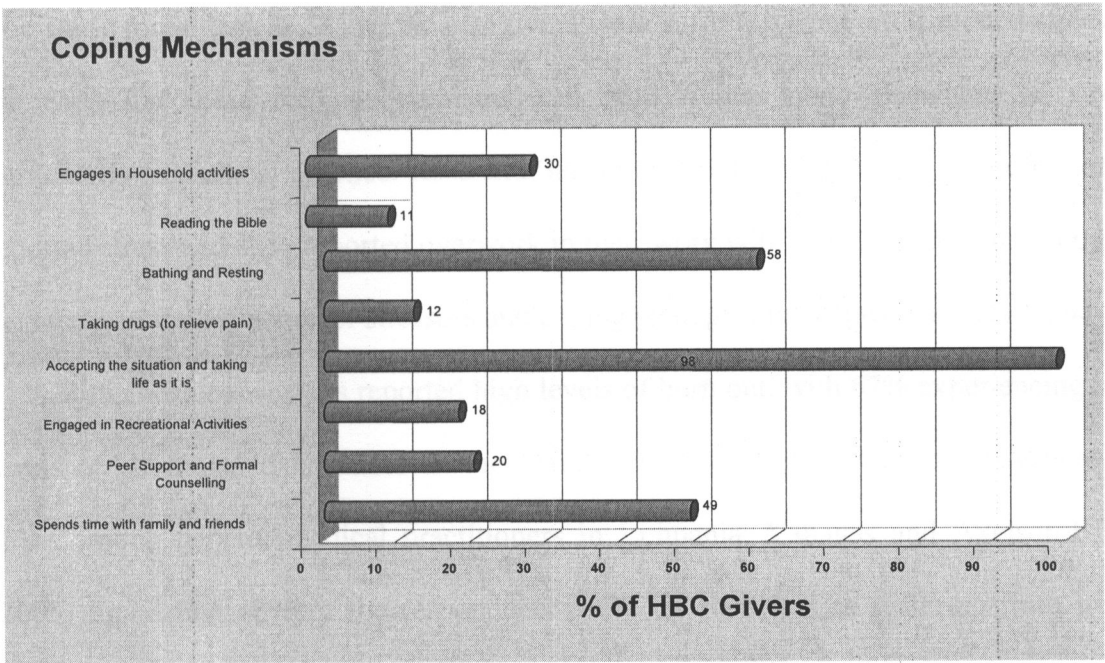
As table 5 indicates, the problem of hunger/food insecurity by AIDS patients and their families (84.4%), the negative attitude towards medication by patients (41.5%), the failure to access treatment, both for AIDS and other opportunistic infections (53.3%) and the rejection, stigmatisation and discrimination of AIDS patients (40%), were identified as major hindrances to the effective provision of home-based care. The study also found

that home-based caregivers, in some instances, had to support their clients (AIDS patients) with food supplements from their own homes. The negative attitude towards medication by AIDS patients (53.3%) was mainly attributed to food insecurity faced by most households of AIDS patients as treatment especially tuberculosis (TB) treatment required regular and adequate food supply.

4.4.4 Coping Mechanisms in Home-based care

As outlined in figure 3, most (98%) caregivers accepted the situation and continued their lives as normal; 58 % simply took a bath; 49 % spent time with friends and family members; 30 % engaged in household activities. The least coping mechanisms adopted were reading the bible (11%) and taking drugs (painkillers), 12%.

Figure 3: Coping Mechanisms of home-based caregivers of AIDS Patients



CHAPTER FIVE

5.0 DISCUSSION OF THE FINDINGS

Home-based caregivers play an inordinate role in helping AIDS patients and their families in coping with the disease and their changed health status. Consequently, they are required to have more competence in managing AIDS patients. This responsibility is unique given the nature of the disease itself and this may mean increased responsibilities, which ultimately, may contribute to stress among the home-based caregivers. This chapter discusses the findings of the study. The discussion has been structured in line with the objectives of the study.

5.1 Prevalence of Stress

The study found that 35.6% of the caregivers were suffering from work-related stress by the SRQ-20. These findings compare well with studies done elsewhere on stress, particularly in medical practice. Ross and Seeger (1988) found that 34% of professionals reported stress and 43% reported overwork in their work with AIDS. Sardiwalla (2004) in her study on the influence of stressors and coping strategies in hospice workers found that 43% of the hospice workers reported high levels of burn out, with 67% experiencing high levels of emotional exhaustion. In their study of factors associated with psychosocial stress among general medical practitioners in Lithuania, Vanagas and Axelson-Bihari (2005) found that 48% of the respondents could be classified as suffering from work-

related stress by the Reeder Scale. A study on mental health, burn out and job satisfaction among mental health social workers in England and Wales found that 47% of respondents scored 4 or above on the General Health Questionnaire (GHQ-12), indicating a potential psychological disorder. In Zambia, a case study on stress in doctors at the University Teaching Hospital (UTH) found that stress was high at 26.1% (Menon et.al. 2003).

It is worth mentioning that because of the paucity of empirical evidence on stress among volunteer home-based caregivers of AIDS patients, comparable findings were drawn mainly from full time professional healthcare work settings. Because of differences in work environment, levels of stress could also be different.

5.2 Determinants of Stress in Home-based Care

Our study found stigma and discrimination of AIDS patients at household and community levels; short duration of practice as caregiver; and lack of/inadequate training in home-based care as independent factors associated with stress among the caregivers. The stigma and discrimination was also related to the strong perception that many AIDS patients had contracted the disease through promiscuous behaviour. Our findings compare well with the findings of Mungherera et.al. (1997) who found that the stigma attached to the disease had a negative impact on the behaviour and workload of nurses of AIDS patients. The study found that nearly half (49.2%) of nurses believed that there was stigma attached to HIV and AIDS in their work environment. The stigma attached to the

disease in the communities led to an influx of very ill patients. Consequently, people infected with HIV and those suffering from AIDS feared isolation and rejection if they made their status known and only availed themselves for care and treatment when they could no longer take care of themselves. Relatedly, family members tended to “dump” their ill relatives at hospitals for fear of stigmatisation, infection as well as lack of resources (due to poverty) and the absence of alternative types of care. Caregivers also reported that families “dumped” AIDS patients on caregivers for support and care.

5.2.1 Workload of AIDS Care

Numerous studies have found workload of AIDS care and high load of AIDS patients to be significant stressors in AIDS care. This was mainly because of many other opportunistic infections that had to be dealt with, the comprehensive time consuming care that was needed by many patients, among other demands. According to Mungherera et al. (1997), caring for AIDS patients was found to be demanding and time consuming because of factors such as longer recovery times of AIDS patients and a lack of support from families of patients. Bellani et al. (1996); and Gueritault-Chavin et al. (2000) also found that perceived workload would significantly predict burnout in AIDS caregivers. In contrast to these findings, our study did not find workload of AIDS care and load of AIDS patients to be significant predictors of stress. This could mainly be attributed to two reasons. First, the intensity and frequency of contact with AIDS patients was found to be low. A third of the caregivers conducted home-based care visits three times or more in a week while a quarter reported spending more than three hours attending to

AIDS patients. Secondly, the load of AIDS patient was found to be low. Out of the 14 zones where data was gathered, only 5 zones had 5 or more patients per caregiver.

Despite the failure by patients to access treatment and the negative attitude towards medication by AIDS patients (mainly due to lack of food to accompany medication) being found to be major barriers to effective home-based care of AIDS patients, these factors were not found to be significant predictors of stress. Failure to access treatment was mainly attributed to the poor socio-economic status of AIDS patients as many had either no support from relatives or were too ill to engage in income generation activities.

5.2.2 Training in Home-based care and Duration of Practice as Home-based Caregiver

Our study found that caregivers who were not trained in home-based care or who reported that the training was not adequate for them to meet the demands of home-based care were more likely to be stressed than those that had undergone training. In our study, 123 (91.1%) of the caregivers reported being trained in home-based care out of which forty-one (41) caregivers (33.3%) reported that the training was not adequate for them to perform their work effectively. Our finding is supported by evidence elsewhere that indicated that caregivers who did not feel mastery over their jobs were at increased risk for burn out (Bellani et al. 2001). The high number of caregivers that reported that the training received in home-based care was not adequate to meet the demands of their work signifies the urgent need for continuous training for caregivers for them to gain mastery over their work.

Younger health care workers caring for AIDS patients were also more likely to experience burn out than were old workers (Gueritault-Chavin et al. 1991; Bennett and Michie, 1991; Bellani et.al. 1996). This was attributed to their lack of experience as well as being over-involved in their jobs. Older caregivers were more likely to feel that they had personal control over their work place stress and that they were more likely to use effective coping strategies. In our study however, no significant association was found between age and stress. This was attributed in part, to the fact that caregivers always conducted home-based care visits and worked in teams comprising both young and old caregivers. It was therefore likely that younger caregivers would feel secure and masterly over their work because of the presence and support of the old and often more experienced caregivers.

5.3 Task Analysis of Home-Based Care

Home-based caregivers mainly performed physical and counselling activities. The main ones were cleaning of household surrounding; food preparation and feeding patients; washing and feeding patients; washing clothes and bed linen of patients as well as provision of counselling to the AIDS patients and their families. Studies elsewhere also found that these were the core activities that were performed in home-based care of AIDS patients (Nsutebu et al. 2001). While these tasks are part of home-based care training, home-based caregivers performed these physical tasks because of the neglect of most AIDS patients by their relatives.

Lack of transport facilities had a negative impact on caregivers. The study found that 98 (72.6%) caregivers reported finding the long distances energy-sapping. Another obstacle to effective work of caregivers was the problem of inadequate and often erratic supply of home-based care kit. The high number of caregivers without or with inadequate healthcare kit (58.0% and 88.9% respectively) raises concern about the quality of care provided especially that 23.0 % of caregivers looked after ill and bed-ridden patients. The problem of lack of/or inadequate kit could be responsible for the high number of caregivers (30.4%) that expressed fear of contracting infectious diseases from AIDS patients. Home-based caregivers reported using ordinary plastics such as shopping bags to protect themselves when cleaning/washing AIDS patients.

The lack of adequate healthcare kit, which gives rise to the fear of contagion, was also likely to result in dissatisfaction among home-based caregivers with work, as well as, mastery over the tasks they were required to perform. Studies have revealed high scores of stress among those who experience fear of contagion (Bellani et al. 1996). In addition, lack of healthcare kit results in caregivers developing professional detachment (Dane, and Miller 1992); avoidance and negative attitude towards patients (Taerk et al. 1993; Shil et al. 1994; Maslach and Ozer 1995); perception of patients as different from themselves to avoid thinking about their own vulnerability to infection (Davidson and Foster 1995; Taerk et al. 1993). All these factors can negatively affect the provision of adequate and quality healthcare to AIDS patients.

needed to be encouraged especially that home-based care was identified by many respondents as a Christian responsibility. Studies support the idea that those with greater religious beliefs experience less death anxiety, death depression and death distress and reveal positive attitudes towards death (Yang and Meilfattrick, 2001). In addition to the above, it is also imperative that caregivers should not believe that they cannot, and should not, be counselled. They should not adopt the idea that 'the caregiver can not be counselled.' This, as Kasuya et al. (2000) have pointed out, leads to more ineffective coping strategies to deal with the challenges of work.

Another common strategy for managing stress in AIDS care is the formation and provision of support groups. Findings on the effectiveness of support groups are varied. While support groups are helpful in encouraging participants to share their emotional reactions to their work, identify sources of stress in their work and discuss ways of coping with these stressors, stress prevention interventions should be tailored towards individual needs and focus on enhancing personal coping resources (Gueritault-Chalvin et.al. 2000). The formation of support groups as a coping mechanism can only be done if there will be more support from the organisation (Kara Counselling) to the home-based caregivers. As Wakefield (2000) found out, support groups formed by those affected may serve only to give vent to their feelings, another emotionally focussed strategy that can sometimes help, but only if supplemented with proactive coping strategies to find solutions to the problems being expressed.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The study sought to investigate work-related stress among Choma Kara Counselling home-based caregivers of AIDS patients.

Using the SRQ-20 with 4 as the cut-off point, the prevalence of stress was found to be 35.6%. After adjusting for age and other socio-demographic characteristics, only stigma and discrimination of AIDS patients; lack of mastery over work; and, low duration of practice as caregiver were found to be independently associated with stress.

Food preparation for and feeding of AIDS patients; drawing water and fetching firewood; washing clothes and bed linen of AIDS patients; bathing and cleaning AIDS patients; and health education were found to be the physical tasks conducted by caregivers. The psychosocial tasks performed were counselling of AIDS patients; counselling of families of AIDS patients and community members; and the provision of spiritual and emotional support to AIDS patients and their families.

Accepted the situation and continuing life as normal; taking a bath and or rest; spending time with friends and family members; and engaging in household activities were found

to be the major coping mechanisms. The least coping mechanisms adopted were: accessing peer support and formal counselling; engaging in recreational activities; and reading the Bible/reliance on spiritual faith.

6.2 Recommendations

In view of the discussed findings of the study, the following recommendations are advanced:

6.2.1 Home-based care should include increased community sensitisation to address stigma and discrimination of AIDS patients

The study found that stigma, discrimination of AIDS patients was rife, and this was found to be the most significant predictor of stress among home-based caregivers. It is therefore important that community sensitisation on AIDS become an integral and significant part of home-based care.

6.2.2 Need to provide adequate home-based care healthcare kit

The study revealed that the provision of healthcare kit was not only inadequate but was also erratic. Consequently, some home-based caregivers reported using ordinary plastics such as shopping bags to protect themselves when cleaning AIDS patients. This was found to be demoralising on the part of caregivers, and a possible source of stress.

Undoubtedly, the provision of adequate home-based care kit is crucial in not only motivating home-based caregivers, ensuring their protection, but also in making their work easy. It is therefore recommended that Kara Counselling Training Trust should adequately equip caregivers with healthcare kit to ensure smooth implementation of HBC activities.

6.2.3 Provide Formal Counselling to Caregivers and Stress Management Training

Working with HIV/AIDS infected and affected people is not easy, even for the most dedicated and trained volunteers. Many of the volunteers develop strong emotional ties with AIDS patients they look after. Therefore, the death of an AIDS patient has a devastating emotional effect on home-based caregivers too, and could lead to a sense of despair. Kara Counselling and other training institutions should therefore ensure that they regularly provide formal counselling services to caregivers to enable them perform their duties effectively. This is particularly important given that caregivers could have their own peculiar personal and family problems. It is cardinal to include stress issues and coping mechanisms in the training curriculum of home-based care. This would help caregivers to identify stressors and the most appropriate coping strategies for use with specific stressors.

6.2.4 Reduce the Size of the Zones or increase the Number of Caregivers per Zone

The study found that caregivers traversed long distances to offer care and support to their clients. The zones assigned to volunteers, usually covered several houses and villages, and were found to be too large for caregivers to cover adequately, mostly on foot. As the study has revealed, long distances to the homes of AIDS patients were reported to be physically demanding on caregivers. It is therefore important for Kara Counselling to consider re-demarcating the zones to reduce the distance covered by caregivers.

6.2.5 Need to step up Field Visits and Evaluate the Quality of Home-Based Care

There is need for Kara counselling staff to step up field visits in order to motivate and obtain hands-on information on the challenges experienced by home-based caregivers. Frequent field visits can serve as an important support mechanism that can motivate caregivers to continue providing care to AIDS patients. Relatedly, given the low frequency of conducting home-based care, and considering that home-based caregivers work on a voluntary basis, there is need for Kara Counselling to consider undertaking a study to evaluate the impact of home-based care provided to AIDS patients.

6.2.6 Need for Refresher Training for Caregivers

Although most of the caregivers were trained in HBC, there is need for continuous effort to provide them with on-going training in order to strengthen and reinforce their skills.

This is important in order to ensure that home-based care fieldwork experience feeds back into, and fine-tunes the home-based care training curriculum of the organisation. This is equally important given the availability of free antiretroviral therapy (ART) for AIDS patients.

6.2.7 Provision of Transport Facilities

Our study found that caregivers traversed long distances to the homes of AIDS patients. While Kara Counselling had provided bicycles to caregivers, these bicycles had proved to be inadequate. In addition, most of the bicycles have since broken down. Therefore, there is need to provide an adequate supply of bicycles to caregivers to ease their transport problems as well as ensure regular maintenance of these bicycles.

6.2.8 Provide monetary incentives to caregivers

Home-based caregivers' economic needs and responsibilities constrained their use of time for caregiving to AIDS patients. As shown in the study, most caregivers were engaged in economically insecure livelihood activities characterised by long hours, poor income and few or no benefits to engender commitment to care giving. As a result, home-based care giving was done irregularly. For women caregivers, the long hours added to their already large burden of domestic work-cleaning the surrounding, processing and cooking food and fetching water and firewood to mention but a few traditionally gender stereotyped activities. Taking time-off to engage in caregiving to AIDS patients was

particularly difficult. Furthermore, lack of incentives de-motivated caregivers to continue providing care giving to AIDS patients. The possibility of losing their insecure and small income, which in many instances was nevertheless critical to the family's survival, made the opportunity cost of missing income-generating activities inordinately huge for caregivers. It is therefore important for Kara counselling to consider providing monetary incentives to caregivers not only to motivate them but also to compensate them for the opportunity cost of foregoing their own income generation activities.

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Appendix 1

RESEARCH QUESTIONNAIRE

on

WORK-RELATED STRESS AMONG CHOMA KARA COUNSELLING HOME-
BASED CARE WORKERS OF AIDS PATIENTS

ID No.....Interviewer.....Date of interview.....

SECTION A – BACKGROUND INFORMATION

(Instructions: Fill in the blank space and cycle appropriate answer)

No.	Question Description	Coding Classification	Skip To
1.	Age last birthday	21-24 years.....1 25-29 years.....2 30-34 years.....3 30-39 years.....4 40-44 years.....5 45-49 years.....6 > 50 years.....7	
2.	Sex	Male1 Female.....2	
3.	Marital status	Married1 Widowed.....2 Divorced.....3 Separated.....4 Never married.....5 Living together/cohabiting.....6	

4.	Highest level of education attained	Junior Primary.....1 Senior Primary.....2 Junior Secondary.....3 Senior Secondary.....4 College.....5 University.....6 Never been to school.....96	
5.	Religious affiliation	Pentecostal.....1 Roman Catholic.....2 New Apostolic Church.....3 Seventh Day Adventist.....4 United Church of Zambia.....5 Reformed Church in Zambia.....6 Jehovah's Witness.....7 Wesleyan Presbyterian.....8 Baptist Church.....9 Other.....10 None.....11	
6.	Which tribe do you belong to?	Bemba.....1 Kaonde.....2 Lozi.....3 Lunda.....4 Luvale.....5 Nyanja.....6 Tonga.....7 Other (specify).....8	
7.	What do you do for your living?	Non-seasonal paid work.....1 Non-seasonal unpaid work.....2 Paid seasonal work.....3 Unpaid seasonal work.....4	

	Unemployed and seeking work.....5	
	Not seeking work but available for work.....6	
	Full-time housewife/homemaker.....7	
	Not available for work for other reasons.....8	

SECTION B – TASKS OF HOME BASE CARING OF AIDS PATIENTS

(Instructions: Fill in the blanks, cycle the right answer and for the multiple responses, read out the responses and cycle those that apply)

NO.	QUESTION DESCRIPTION	RESPONSE CATEGORY	CODE
8.	What physical home based care tasks do you perform? (Circle all those that apply)	Food preparation.....1 Cleaning the house and surrounding.....2 Fetching water and firewood.....3 Washing bed linen and clothes.....4 Cleaning and washing of AIDS patient.....5 Feeding AIDS patients.....6 Health education on hygiene and nutrition.....7	
9.	What psychosocial home based care tasks do you perform? (Circle all those that apply)	Counselling of AIDS patients1 Counselling of patient's family members.....2 Counselling of community members.....3 Community sensitisation on HIV and AIDS.....4 Spiritual and emotional support.....5	
10.	Did you undergo any HIV/AIDS training before being involved as a community home based caregiver?	Yes1 No.....2	If not, skip to QN 12
11(a)	If Yes, who provided	Kara Counselling.....1 Zambia Red Cross.....2 Church Health Association of Zambia.....3	

	the HBC training?	Roman Catholic Church.....4 Other.....5	
11(b)	What was the focus of the training? (Circle all those that apply)	Basic facts about HIV and AIDS (transmission and prevention).....1 Nutrition and hygiene.....2 Nursing and care3 Precautions in the care and management of AIDS patients.....4 Psychosocial counselling.....5	
11(c)	Was the training adequate to meet the challenges of home-based caring of AIDS Patients?	Yes.....1 No.....2	
12.	For how long have you worked as a home-based care worker?	Less than a year.....1 1 – 2 years2 2 – 3 years.....3 3 – 4 years4 More than 4 years.....5	

SECTION C: SYMPTOMS OF WORK-RELATED STRESS

(Self-Reporting Questionnaire - SRQ 20)

I will now proceed to ask you questions about your psychosocial problems over the last few weeks particularly in relation to your feelings about home-based care giving of AIDS patients. I would like to know about present and recent complaints, not those you had in the past.

NO.	QUESTION DESCRIPTION	RESPONSE CATEGORY	CODE
13.	Do you often have headaches?	Yes.....1 No.....2	

14.	Is your appetite poor?	Yes1 No2	
15.	Do you sleep badly?	Yes.....1 No.....2	
16.	Are you easily frightened?	Yes.....1 No.....2	
17.	Do your hands shake?	Yes.....1 No.....2	
18.	Do you feel nervous, tense or worried?	Yes1 No.....2	
19.	Is your digestion poor?	Yes.....1 No.....2	
20.	Do you have trouble thinking clearly?	Yes.....1 No.....2	
21.	Do you feel unhappy?	Yes.....1 No.....2	
22.	Do you cry more than usual?	Yes.....1 No2	
23.	Do you find it difficult to enjoy your daily activities?	Yes.....1 No2	
24.	Do you find it difficult to make decision?	Yes.....1 No2	
25.	Is your daily work suffering?	Yes.....1 No2	
26.	Are you unable to play a useful part in life?	Yes.....1 No2	

27.	Have you lost interest in things?	Yes.....1 No2	
28.	Do you feel that you are a worthless person?	Yes.....1 No2	
29.	Has the thought of ending your life been on your mind?	Yes.....1 No2	
30.	Do you feel tired all the time?	Yes.....1 No2	
31.	Do you have uncomfortable feelings in your stomach?	Yes.....1 No2	
32.	Are you easily tired?	Yes.....1 No2	

SECTION D: STRESS FACTORS, WORK MOTIVATION AND COPING MECHANISM

(Instructions: For multiple responses, read out the responses and tick as appropriate)

I will now proceed to ask you about factors you find stressful in home based caring of AIDS patients, how you cope with stress and what motivates you to continue providing home based care.

NO.	QUESTION DESCRIPTION	RESPONSE CATEGORY	CODE
33	What motivated you to work as a home-based care provider to AIDS patients? (Circle all those that apply)	Material/financial benefits.....1 Personal interest in AIDS care.....2 Christian responsibility.....3 Desire to help HIV/AIDS patients.....4 Personal relationship with AIDS patients.....5 Personal experience with AIDS.....6	
34.	What problems outside home-based care do you find stressful?	Lack of family support.....1 Ill health and death of family members due to AIDS..... 2 Failure to have time to perform family responsibilities.....3	

	(Circle all those that apply)	Failure to meet the family's socio-economic needs.....4 Lack of time for self/family.....5 Community stigmatisation and discrimination of AIDS patients.....6	
35.	What problems of AIDS patients do you find stressing? (Circle all those that apply)	AIDS patients' disillusionment with disease.....1 Failure by patients to access treatment.....2 Family rejection of AIDS patients.....3 Patients' negative attitude towards counselling.....4 Patients negative attitude towards medication.....5 Patients resignation with death.....6 Patients worries about future of family after patient's death.....7 Lack of food by AIDS patients.....8	
36.	Do you find home-based care stressful?	Yes.....1 No2	If Not go to QN 38
37.	If yes, what do you find stressing about home-based care giving? (Circle all those that apply)	Heavy workload of home-based care1 High load of AIDS patients under care.....2 Long time spent caring for AIDS patients.....3 Distance to the homes of AIDS patients.....4	
38.	How often do you conduct home-based care giving?	Everyday1 Once a week.....2 Twice a week3 Three times a week.....4 More than three times a week.....5	
39.	On average, how many hours do you spend on an AIDS patient?	Less than an hour.....1 1 - 3 hours.....2 3 - 5 hours.....3 > 5 hours4	
40.	What kind of AIDS patients do you look after? (Circle all those that apply)	Very ill and bed-ridden patients.....1 Moderately ill patients.....2 Both very ill patients and moderately ill patients.....3	

41.	How often do you deal with the fears, worries and concerns of the families of AIDS patients?	Very often.....1 Often.....2 Not often.....3 Not at all.....4	
42.	Do you use any health care kit in the care and management of AIDS patients?	Yes.....1 No.....2	If Not, go to QN 44
43.	If Yes, is the health care kit adequate for you to nurse AIDS patients?	Yes.....1 No.....2	
44.	Are you scared of contracting HIV from AIDS patients under your care?	Yes.....1 No.....2	
45.	How do you travel to the homes of AIDS patients?	Walks on foot.....1 Uses bicycles.....2 By motor cycle.....3 By motor vehicle.....4	
46.	How long does it take you to reach farthest home of an AIDS patients?	Less than 15 minutes.....1 15 – 30 minutes.....2 30 – 1 hour.....3 More than 1 hour.....4	
47.	Do you find distance to the homes of AIDS patients tiresome?	Yes.....1 No.....2	
48.	How do you cope with stress associated with home-based caring of AIDS patients? (Circle all those that apply)	Spends time with family members.....1 Peer support and formal counselling.....2 Engaged in recreational activities.....3 Accepting the situation and taking life as it is4 Taking drugs to relieve pain.....5 Bathing and Resting.....6 Reading the word of God.....7	
49.	What motivates you to continue	Material benefits.....1 Personal interest in AIDS care.....2	

	providing home-based care to AIDS patients? (Circle all those that apply)	Christian responsibility.....3 Desire to help HIV/AIDS patients.....4 Personal relationship with AIDS patients.....5	
50.	What should be done to improve home-based care of AIDS patients?	

We have come to the end of our interview. Thank you very much for your participation.

Appendix 2a: Interview Information Sheet for Research Participants

WORK-RELATED STRESS AMONG CHOMA KARA COUNSELLING HOME BASED CARE WORKERS OF AIDS PATIENTS

My name is Maurice Musheke. I am a post-graduate student of Public Health at the University of Zambia, School of Medicine. I am here to conduct a study on **work-related stress among home based care workers of AIDS patients** with specific focus on Choma Kara Counselling home based care workers of AIDS patients. While there will be no direct financial and material benefits that will accrue to you as individuals in the course of the study, the study will, however, contribute towards understanding stress in home based care giving and ultimately contribute towards strengthening home based care provision.

The study will involve conducting personal interviews with you as home based caregivers of AIDS patients. As a result, the study will not involve any physical risk on your part as a respondent. The information collected will be treated with the strictest confidentiality. Participation in this study is voluntary. As a respondent, you are at liberty not to answer certain questions that will be posed to you. You also have the right to withdraw from the study at any time. During your participation as a respondent, if you have any questions and/or queries, do not hesitate to ask, or to get in touch with me, the researcher supervisor or the Chairman of the Research Ethics Committee on the addresses and contact phone numbers below:

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LUSAKA

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Appendix 2b. Research Participant Interview Consent Form

Contact of Principal Investigator: **Maurice Musheke**
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LUSAKA
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Email: mushekem@yahoo.com

[PLEASE CROSS OUT AS APPROPRIATE]

THE PURPOSE OF THIS STUDY WAS CLEARLY EXPLAINED TO ME
YES/NO

I AGREE TO BE INTERVIEWED
YES / NO

I DO/ DO NOT AGREE TO ANY QUOTATIONS OR ANY RESULTS ARISING FROM MY PARTICIPATION IN THE STUDY BEING INCLUDED ANONYMOUSLY IN ANY REPORT RESULTING FROM IT.

“I have understood the verbal explanation concerning this study and I understand what will be required of me and what will happen to me if I take part in it. My questions concerning this study have been answered by the researcher. I understand that at any time I may withdraw from this study without giving a reason. I agree to take part in this study.”

Name (not compulsory):.....

Signature/Thumb Print.....Date:.....

Position of the Interviewer.....

Signature of Interviewer:.....



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2 August, 2005
Ref.: 007-06-05

Mr Maurice Musheke, BA Social Work
Department of Community Medicine
School of Medicine
University of Zambia
LUSAKA

Dear Mr Musheke,

RE: SUBMITTED RESEARCH PROPOSAL

The following research proposal was presented to the Research Ethics Committee meeting held on 7 July, 2005 where changes were recommended. We would like to acknowledge receipt of the corrected version with clarifications. The proposal has now been approved. Congratulations!

Title of proposal: "Work-related stress among Choma Kara Counselling home-based care workers of AIDS patients "

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.

Yours sincerely,

Prof. J. T. Karashani, MB, ChB, PhD
CHAIRMAN
RESEARCH ETHICS COMMITTEE

Date of approval: 2 August, 2005

Date of expiry: 1 August, 2006

KARA COUNSELLING

POSITIVE AND FULLY ALIVE ✓

KARA HOUSE
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P.O. Box 37559
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Phone: 229847/222776
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e-mail kara@zamnet.zm

KARA HOUSE
Plot 252
Kalimā Street
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CHOMA, ZAMBIA
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Fax: 032-20724
e-mail mukasa@z

10th August, 2005.

Mr. Maurice Musheke,
C/O Department of Community Medicine,
School of Medicine,
University of Zambia,
P. O. Box 50110,
LUSAKA

Dear Sir,

REF: REQUEST TO CONDUCT RESEARCH AT KARA CHOMA

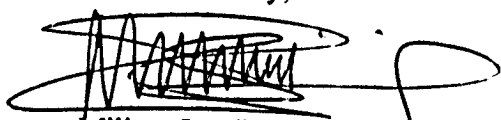
Reference is made to your letter dated 4th August, 2005 in which you requested permission to conduct your research with Kara Counselling – Choma Branch on 'Work related stress among Choma – Kara Counselling Home Based Caregivers of AIDS patients'.

I wish to inform you that permission has been granted for you to conduct the said research.

While your research will be done purely for academic purpose, we also look forward to the findings so that we can strengthen our Home Based Care program.

I wish you all the best during the period of your research.

Yours faithfully,



Milimo Ian (Mr.)
PROGRAMMES MANAGER

Appendix 4: Global estimates of AIDS; Ratio of Health Personnel to Population in Zambia; and Trends in Government Expenditure on Health in Zambia

Table 1: Global estimates of HIV and AIDS by end of 2003

Region	Estimates (Range)	%
North America	1 000 000 (520 000 – 1 600 000)	2.7
Western Europe	58 000 (460 000 – 730 000)	0.2
Eastern Europe & Central Asia	1 300 000 (860 000 – 1 900 000)	3.5
Caribbean	430 000 (270 000 – 760 000)	1.2
North Africa & Middle East	480 000 (200 000 – 1 400 000)	1.3
East Asia	900 000 (450 000 – 1 500 000)	2.4
Latin America	1 600 000 (1 200 000 – 2 100 000)	4.3
Sub-Saharan Africa	25 000 000 (23.1 – 27.9 million)	67.0
South & South-East Asia	6 500 000 (4 100 000 – 9 600 000)	17.4
Oceania	32 000 (21 000 – 46 000)	0.1
Total	37 300 000 (34 – 46 million)	100.0

Source: UNAIDS (2004) Report on the Global AIDS Epidemic. New York, UNAIDS pp.10

Table 2: Ratio of Health Personnel to Population in Zambia

Province	Population Per Doctor	Population Per Nurse
Central	4161	769
Copperbelt	7247	511
Eastern	38501	1575
Luapula	35053	1060
Lusaka	6004	617
Northern	36852	2730
North-western	26881	1485
Southern	18565	857
Western	21997	1482

Source: Adapted from Venkatesh Seshamani, Chris N. Mwikisa and Knut Odegaard (eds), Zambia's Health Reforms Selected Papers 1995-2000: 34.

Table 3: Total Government Expenditure on Health

Year	Expenditure As % of GDP	General Government Expenditure as % of Total Government Expenditure
1997	6	13.1
1998	6	12.5
1999	5.7	13.7
2000	5.5	13.6
2001	5.7	13.5

Source: WHO, 2004. The World Health Report: Changing History. Geneva, WHO.

Appendix 5b: Patient Load in Selected Zones

No.	Name of Zone	Number of Active Caregivers	Estimated Number of AIDS Patients	Patient Load Per Caregiver
1.	Mwapona	8	42	5.3
2.	Macha road	6	19	3.2
3.	Kamuza	5	25	5
4.	Shempande A & B	14	32	2.3
5.	Mochipapa	5	24	4.8
6.	Shempande C/ Site and Service	5	20	4
7.	Mapanza	3	23	7.7
8.	Chilalatambo	13	32	2.5
9.	Jembo	8	23	2.9
10.	Riverside	10	15	1.5
11.	Sibanyati	2	23	11.5
12.	Riverside	10	15	1.5
14.	Sinazeze	4	32	8

Appendix 5a: Choma Kara Counselling Operational Zones

No.	Name Of Zone	District in which Zone is Located
1	Macha road	Choma
2	Riverside/Town center	Choma
3	Mwapona	Choma
4	Mochipapa road	Choma
5	Police/Chandamali	Choma
6	Kamuza	Choma
7	Shampande A/B	Choma
8	Shampande C	Choma
9	Sibanyati	Choma
10	Tara	Choma
11	Kalonda	Choma
12	Muzoka	Pemba
13	Zambia compound	Choma
14	Maamba	Maamba
15	Sikalongo	Choma
16	Mpangwe	Choma
17	Mochipapa Forest	Choma
18	Singani	Choma
19	Ushimba	Choma
20	Siamaluba	Choma
21	Chilalantambo	Choma
22	Mapanza	Choma
23	Pemba	Pemba
24	Jembo	Pemba
25	Kasiya	Pemba
26	Showgrounds	Choma
27	Siankompe	Choma
28	Sinazeze	Sinazeze
29	Batoka	Choma
30	Siamuleya	Choma

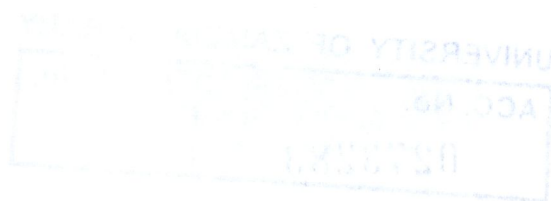
Appendix 6: Pictures from the Field-Choma



Home-based caregivers displaying their certificates upon completion of their training



A 12-bed Hospice run by Kara Counselling Choma Office





Home-based caregivers clad in raincoat attire and carrying bags containing basic home care kit.



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