INVESTIGATING THE INFLUENCE OF DISASTER EFFECTS ON SUICIDE. A CASE STUDY OF OKAKARARA COMMUNITY IN NAMIBIA

by

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DECLARATION OF ORIGINALITY

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Investigating the influence of disaster effects on suicide: A case study of the Okakarara community, Namibia.

ABSTRACT

Suicide has reached alarming levels in Namibia at a rate of 22 per 100 000 since 2007 (WHO 2008). The same WHO (2008) report states that the global average rate of suicide is 16 per 100 000 people per year. Suicide in Namibia is thus far above the global average rate.

As this disturbing trend is gaining ground, natural phenomena in the form of disasters are equally gaining momentum in Namibia due to climatic change experienced globally. The most common disastrous hazards in the study area are drought, floods and the Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) epidemic. The coincidence of the two phenomena (suicide and disasters) happening simultaneously, posits a casual-effect relationship between the two. This study was meant to ascertain this hypothesis. In particular, the study focused on investigating the influence of disaster effects on suicide in the Okakarara community in Namibia.

Two models, namely the Integrated Stress and Coping model and the Disaster Continuum were employed to conceptualise the psychological factors of disasters that influence suicide ideation.

Convenience and snowball sampling were the methods used to sample the target group which was the para-suicide cases. The questionnaire method of data collection was also used to obtain data from the seventy-eight participants that were interviewed. In this study, data was analysed using the Statistical Package for Social Scientists (SPSS).

The finding of this study revealed a casual-effect relation between suicide and disasters in Okakarara. Most of the predisposing factors to suicide ideation emanated from the people's vulnerability to the three disasters of drought, floods and the HIV/AIDS pandemic. Therefore any sustainable strategy to address suicide in Okakarara should not be divorced from reducing people's vulnerability to these disasters.

DEDICATION

Otilia Majoni, the late Luckson Gumbo Chatikobo

and

Sam Chatikobo.

To all those affected by disasters and suicide in any form – may this make some contribution to addressing the challenge.

Investigating the influence of disaster effects on suicide: A case study of the Okakarara community, Namibia.

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I can do all this through Him who gives me strength

(Philippians 4:13: New International Version)

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
DEM	Directorate of Emergency Management
DHS	Demographic Health Survey
DMC	Disaster Management Continuum
DRR	Disaster Risk Reduction
EMU	Emergency Management Unit
HBC	Home Based Care
HIV	Human Immunodeficiency Virus
IAC	Impact Assessment Committee
IEC	Information, Education and Communication
IGP	Income Generating Projects
MoHSS	Ministry of Health and Social Services
MoSS	Ministry of Safety and Security
MRLGHRD	Ministry of Regional Local Government Housing and Rural Development
NDMF	National Disaster Management Framework
OPM	Office of the Prime Minister
OVC	Orphans and Vulnerable Children
PLWHA	People Living With HIV/AIDS
PTSD	Post Trauma Stress Disorder
SME	Small and Medium Enterprises
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNSO	United Nations Statistics Office
USA	United States of America

VCT	Voluntary Counselling and Testing
WATSAN	Water and Sanitation
WCPC	Women and Child Protection Unit
WDR	World Disaster Report
WHO	World Health Organisation

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ELUCIDATION OF TERMS

Complete suicide is the successful act of suicide relentless.

Para-suicide is the attempted act of suicide.

Post-trauma stress disorders a condition where survivors of a severe traumatic event experience challenges in coping with life in the aftermath of a disaster.

Disaster means a progressive or sudden, widespread or localized, natural or human-caused occurrence which:

a) Causes or threatens to cause
   i. Death, injury or diseases
   ii. Damage to property, infrastructure or the environment
   iii. Disruption of the life of a community.

b) Is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources (South Africa 2002).

Disaster impacts are the effects that are brought about by the occurrence of a disaster. They can be physical, emotional, social or economic.

Vulnerable refers to characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner including through the preservation and restoration of its essential basic structures and functions

CHAPTER 1

INTRODUCTION

1. Introduction

In Namibia natural disasters of floods and drought are on the increase as the world is experiencing climate change. The Ministry of Health and Social Services (MoHSS 2009) asserts that Namibia is hit by floods on a yearly basis. On the other hand, Devereux and Neraa (1996) point out that Namibia experiences five-year drought intervals. In face of these trends, Namibia has, since 2007, recorded a suicide rate of not less than 22 per 100 000 persons per year (WHO 2008). These developments have influenced the need to closely examine the indirect influence of disaster effects on suicide with specific attention to Okakarara, a community in Namibia.

According to Powell (1990) the traceable link between disasters and depression and that of depression and suicide makes it natural to expect a correlation between disasters and suicide. However, such a relationship cannot just be generalized because of the dynamic communities of this age. Communities differ in their culture-socio-economic milieu and this is very important in determining casual-effect relationship of disasters and suicide. To be able to determine the link between suicide and disaster in Okakarara, seventy-eight suicide attempters were interviewed to assesses their circumstances *vis-a-vis* the effects of disasters on them for the period between 2005 and 2009.

In Okakarara, the effects of drought and floods are exacerbated by the devastating effects of HIV/AIDS. In 2006 the government of Namibia declared HIV/AIDS a national disaster after it had hit an adult (15-49) prevalence rate of 21.3 (MoHSS 2008). As a cross-cutting issue, HIV/AIDS was discussed as one of the three disasters indirectly influencing suicide ideation in Okakarara, namely floods, drought and HIV/AIDS.

In Okakarara no survey that relates suicide to disaster has been conducted and documented. Therefore this study was an effort to establish the casual-effect between these phenomena. By

doing this, it helps to identify underlying factors leading to increased cases of suicide and to address them systematically.

In this chapter, a brief description of the study area is given and this includes the geographical location of the study area. Much of the details regarding population density of area, its socio-economic status are discussed in subheadings below. More importantly in this chapter also is suicide situation in the study area, in this regard suicide statistics, are given with a view to show the magnitude of the suicide problem.

The last part of this chapter focuses on research methodology where the objectives of the study are specified. It explains the value of the study as well as its delimitations. Worth noting in this chapter is the description of data collection and data analysis methods, including the sampling methods. These important aspects of the chapter are explained in the foregoing subheadings.

1.2. Description of Study Area

Okakarara district is in the Otjozondjupa region of Namibia. It is estimated that it is residence to fifteen thousand inhabitants. This means it constitutes 13% of the regional population (Namibia. Demographic Health Survey 2009-10). The study area is an electoral constituency that includes three settlements of Okakarara central (town), Okondjatu and Okamatapati.

Formerly Bantustan-Hereroland before independence, the area is still mainly populated by the Herero people. The population density of Okakarara is 0.97 km2 (Demographic Health Survey (DHS) 2009-10).

a) Socio-Economic Status of the Study Area

Okakarara is one of the least developed of the other towns that form Otjozondjupa region .The town features secondary schools, a government hospital, a vocational training centre, a few wholesalers and bottle stores. This being the case, the town does not have good employment opportunities. In the other settlements, major businesses are mainly centred on livestock (for example operating butcheries, abattoirs or livestock auction centres).

Crop farming in maize, sunflower and groundnuts is done, but on minimal scale. Although not industrially developed, Okakarara is one of Namibia's reliable supplies of livestock for commercial purposes (Okakarara Town Council Report 2008/09).

Levels of poverty are high and a striking feature is the almost exclusive reliance on government grants (pension, disability and orphan grants) and livestock. A viable informal sector is practically non-existing mainly as a result of lack of access to markets, low population density and limited purchasing power among the people (Boonzaier 2000). Moreover, long distances to bigger towns cause constraints with regards to transport costs and competition with imported goods. Horse and donkey riding are the common means of transport in the other settlements of Okakarara (Okondjatu & Okamatapati).

Self-employment within the communal areas encompasses mainly mobile shops (Kapana) where hot food is sold, local kiosks and the occasional places for repairing bicycles and donkey carts. Occasionally, goods are exchanged for services, for example collecting firewood, washing clothes or herding animals. (Demographic Health Survey 2006-7). Within the communal areas there are limited formal employment opportunities in the public sector (teachers, extension officers, nurses and social workers). Most of these posts are occupied by expatriates and people from the northern part of the country − Owamboland. The locals are mainly employed on white people's farms (Demographic Health Survey 2006-7) Remittances from family members working in urban areas play a small role in supplementing meagre incomes for the extended families which is a feature at almost every household in Okakarara (Boonzaier 2000).

In the absence of any substantial food production, food security for families in communal areas is closely related to their cash income. Old age pensions play a crucial role in communal areas as the main sources of income (Boonzaier 2000). Often, whole families survive on the USD 60.00 (R408) per month received by the pensioner. However, high dependency on pensions and other government grants poses a major threat to household food security, since when the monetary flow ceases upon the death of the pensioner, many families cannot afford to sustain themselves.

Livestock is considered an investment and saving capital, which can be turned into cash during emergencies. A coping strategy for some farmers during drought is to reduce their stock numbers. Unfortunately, in times of drought livestock prices decline considerably with market

speculators taking advantage of the situation. As a result the farmers are left with less livestock and are often not able to buy them back even during years of good rains. Although the sale of animals may not be an important contributor to the cash income, milk and meat provided by the animals are vital in supplementing food bought from shops (Devereux, Rimmer, LeBeau & Pendleton 1993).

The socio-economic status of Okakarara resembles a typical at-risk-community where the livelihoods are directly dependent on agriculture and are less diversified which ultimately correlates to high vulnerability to disasters.

b) Suicide situation in the area of study

In 2005, Namibia had the tenth highest suicide rate in the world (Whittaker 2008). According to the same author, worldwide, the average suicide rate is 16 per 100 000. The statistics gathered by the Ministry of Safety and Security (MoSS) of Namibia in 2005 showed that during the same year there were 432 successful cases of suicide in the country. It therefore puts the country's suicide rate on an above average figure of 22 per 100 000 people per year.

 In spite of such findings, there are no suicide counselling centres in the country. Suicide and related issues are thus left to be managed and coordinated by the Ministry of Health and Social Services (MoHSS) through social workers. Two important points have to be stressed:

- Firstly, these social workers are not specialists in suicide management.

- Secondly, most of the social workers practicing in Namibia are not indigenous practitioners which poses a lot of challenges in providing counselling services (for example cultural and language barriers).

This could be a probable explanation for fairly high figures of attempted suicide that fluctuate above 20 per year in Okakarara (MoHSS, 2009).

The management of suicide in Okakarara is more reactive than proactive. Suicide survivors only get professional assistance when referred or make their own effort to consult social workers. Many a time, survivors consult social workers only as a formality to be discharged from the

hospital if they had been admitted for that cause (Afunde 2008). With lack of trust in professional assistance, most suicide attempters will still consult other sources of their choice or rather consult all available options even after social work intervention. Suicide management in Okakarara is thus not systematic. Chapter 5 of this study will elaborate more on other available sources where suicide attempters go for psychosocial support.
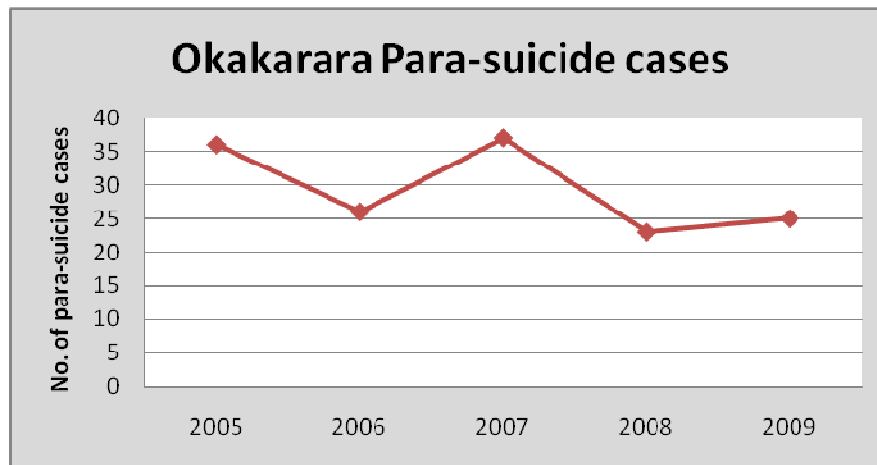
Figure 1: Attempted suicide cases (Source: Okakarara State Hospital- March 2010).

Suicide attempts in Okakarara have been fluctuating above 20 for the past five years as illustrated by the graph in Figure 1. Spanning a period of five years a total number of lives that could have been lost were 147. Adding those that had been successful cases, the figure could be fairly high. The figure only encompasses those that sought assistance from the hospital; many more cases might have gone unreported or uncaptured. Such high statistics viewed against a small population of 15 000 is very disturbing. Therefore there is an urgent need to analyse suicide causes and triggers in Okakarara and to employ the appropriate approaches to addressing them. An in-depth analysis of suicide statistics in Okakarara will be presented in Chapter 5.

c) Common disasters in Okakarara

As the world is experiencing gradual climatic change, putting the greater part of it at risk of natural disasters, Namibia is one such developing nation that has become a victim of climatic change. Major disasters in the country are floods and drought as already mentioned. These have become almost perennial disasters posing a lot of socio-economic suffering especially in the poor communal areas of the country ((Devereux *et al.* 1993). It is also worth noting that suffering

induced by these disasters is not in isolation with the devastating effects of HIV/AIDS. Namibia has an HIV& AIDS adult prevalence rate of 15.3 % (National Centre for Health Statistics 2009). Although this figure is fairly low in comparison with other Southern African countries of Botswana and Swaziland with 23.09% and 26, 01% respectively as in 2009 (National Centre for Health Statistics 2009), HIV/AIDS effects to the Namibian communities are heavy and far-reaching. Many of the effects of HIV/AIDS and other disasters will be discussed in detail in Chapter 4.

The combination of the common disasters, namely drought, floods and HIV/AIDS epidemic impacting on the economically vulnerable community of Okakarara predisposes people to depression which in turn leads to suicide ideation.

1.3 The Research Problem

The alarming suicidal statistics show that there is urgent need to analyze the relationship between the occurrences of disasters and suicide in Okakarara. As has been noted, there is a simultaneous increase in the magnitude and frequency of disasters and suicidal cases in this community. The socio-economic tragedy that normally characterises the post-disaster period seems to be the principle factor exposing disaster survivors to suicide.

Although there are a number of capital social networks (families, royal houses, religious congregations, etcetera) that people in this community can rely on for psychosocial support, it seems there are gaps within these system paving the way to the high prevalence of suicide in the study area. In this study, the effectiveness and efficiency of these systems will also be examined.

Whilst it is critical to qualitatively assess suicide management systems in Okakarara, emphasizing this will simply be addressing the symptoms of the problem. The traceable relationship of suicide to disasters, posits that disaster impacts are the root causes of the problem and therefore any sustainable solution to this problem lies in the addressing of peoples' vulnerability to disasters.

1.4 Main Objective of the Study

The study aimed to identify the relation between effects of common disasters and the occurrence of suicide as a result of these disasters in Okakarara district.

1.4.1 Sub-objectives of the study

- To evaluate coping strategies of disaster and suicide survivors.
- To determine the influence of gender on vulnerability to disasters.
- To provide recommendations that will help address causes of suicide in Okakarara district.

1.5 Research Questions

In this study the researcher will attempt to answer the following research questions:

- What are the disaster impacts that predispose survivors to suicide ideation?
- What are the supporting networks available for disaster and suicide survivors?
- What are the factors that make women attempt suicide more than men?

1.6 The Value of the Study

Generally, the post recovery phase initiatives in Namibia have not focused on the holistic needs of disaster survivors (Nangula 2000), instead attention is biased towards the biological and physiological needs like food, shelter, water and sanitation. Normally, these come as relief aid. Little attention is paid to psychosocial needs of disaster survivors and this predisposes the same to post trauma stress disorder, a fertile condition for suicide ideation. As this study will explain the link between disaster effects and suicide, it will suggest the need to treat psychological needs equally to other biological and physiological needs of disaster survivors. Powell (1990) pointed out that the psychological sequelae of disasters can persist up to five or more years. This means psychological needs of disaster survivors are central and should not be undermined when providing assistance.

Although some survey on suicide has been conducted in the northern regions of the country (Owamboland) by Afunde in 2008, it did not relate the two phenomena, namely disaster occurrence and suicide. Therefore this study will relate the two variables with a view to determine the casual effect.

The study is of great importance not only in forming a suicidal hypothesis, but in its provoking interest amongst the concerned individuals and professions who in turn might be challenged to do further research regarding the problem of suicide. Possible solutions to this problem are going to be suggested as mentioned earlier. These will be made available to the local authorities, development planners and humanitarian agencies through the community library and related fora.

1.7 Delimitations to the Study

The study focused on the views of suicide survivors themselves to get a clear understanding of the underlying suicide factors. Significant others like the family members were consulted in determining the surrounding circumstances that led to suicide or attempted suicide. It is not within the scope of this study, however, to provide an exhaustive review of the psychological and psychiatric factors to suicide, rather the focus is on investigating the influence of disaster effects on suicide. Though reference to psychological processes might be made, these will remain simple psychological explanations.

1.8 Research Design

The influence of the effects of disaster on suicide in Okakarara was assessed using the quantitative research methodology. Specifically, the researcher used the survey method to gather the data. A survey is a study that asks large number of people questions about their behaviour, attitude and opinions (Fouche 2005). Other surveys attempt to find relationship between characteristics of two or more phenomenon. In this case, the researcher wanted to establish or investigate the link between suicide ideation (criterion variable) and disaster effects as (predictor

variable). According to Morton (1998), when a survey seeks to establish a relationship between or among variables, it is referred to as correlational study or design.

Morton further argues that correlational designs only tell us that there is a relationship between two variables or more, but do not tell us which variable caused the other. He suggested that to establish the causal effect relationship, there should be a mechanism of establishing causality of which the following conditions should be a prerequisite:

- That there is a correlation between two variables.
- Time order; that the presumed cause came before the presumed effect.

In this study, the literature review indicates that there is a traceable relationship between disasters and the occurrence of suicide. This qualifies it a correlational study. Secondly, time order element was considered in that respondents were asked whether they had experienced any disaster prior to the suicide attempt within the time frame of five years. Therefore in this study, a correlational design was used.

1. 9 Sampling Methods

In sampling the target group, the researcher used a mixed method of sampling. The researcher will explain and justify the use of mixed sampling methods under the sub-heading as follows:

- **Convenience sampling**

  The researcher made use of the seventy-eight para-suicidal cases consisting of 42 males and 36 females that were available in the District Social worker's office for the past five years (2005-2009). The clients were then conducted through details available on the intake forms for interviewing and questionnaire administration.

- **Snowball Sampling**

  This sampling method is used when the desired sample characteristic is rare. It is not easy to locate people with suicidal behaviour or those who have attempted because of fear of

stigmatisation. In this case, those who have been captured in the hospital database were asked to refer those whom they knew had once attempted suicide or have suicidal tendencies for interviewing.

1.10 Data Collection

In this study, the researcher made use of questionnaires to get the views of those who once attempted suicide. The questionnaires were guided by three key questions, such as:

- Which disasters affected your family in the past five years?
- What are your accessible support networks for psychosocial support?
- Under which circumstances would you think of committing suicide?

The questionnaires were designed in two languages, English and Otjiherero and respondents had a choice of responding in either language. Most of the questions had options to guide respondents and to avoid social desirability (The questionnaire sample is annexed as an appendix).

1. 11 Data Analysis

After the data had been collected, closed and open-ended questions were decoded to ensure that they were filled in correctly, and to see if each question was responded to. For easier data analysis and data entry, the answers to closed-ended questionnaires were categorized and converted into numerical codes. Statistical Package for Social Scientists (SPSS) was used in analyzing data. Chapter 5 of this study will show the analysed data.

1.12 Ethical Consideration

In common language, ethics refers to issues of morality. According to Fouche (2005) ethics are all about doing the right things, and to be ethical is to conform to acceptable professional practices. This is very important in order to guide and protect the respondent or subject of the

research. Participation of respondents in this study was made voluntary and there were no financial rewards (voluntary allowances) after participation. The aim of this study was communicated to the respondents before their participation so as to have their informed consent. Confidentiality was also assured to the participants before responding to the questionnaire. The credentials or identity of the researcher was also availed to the respondents.

1.13 Conclusion

Suicide in Okakarara and Namibia at large has reached alarming proportions. It has reached an above average rate of 22 persons per 100 000 (MoSS 2005). Simultaneously, due to climate change the occurrence of natural disasters has become frequent and of great magnitude. This chapter showed in brief the correlation between suicide and disasters. Thus given the link between disasters and depression and that of depression and suicide, it is natural to expect a positive relation between disasters and suicide. The proceeding chapters will further explain this hypothesis.

CHAPTER 2

THEORETICAL FRAMEWORK

2. Introduction

The influence of disaster effects on suicide has so far provoked interesting field and academic debates and continues to exercise the minds of those concerned. In an effort to bring clear understanding of the link between the two phenomena, a number of theoretical models have been brought forward. In this chapter, two of the models namely the Disaster Management Continuum and the Integrated Stress and Coping Model are going to be discussed to conceptualise the psychological factors of disasters that influence suicide ideation. A comparison of the two models will be done with a view to come up with the most suitable and applicable model for this study.

2.1 Disaster Management Continuum

Disaster Management Continuum consists of series or phases through which a disaster or disasters can be effectively managed. The United Nations Development Programme (UNDP) in its module overview of Disaster Management (1992:12) states, "Disasters can be viewed as a series of phases on a time continuum". The module further states that through understanding and by identifying each of the phases, disaster-related needs can be described to conceptualise disaster management activities. Given the link between disasters and depression and the link between depression and suicide as highlighted in Chapter 1, it is reasonable to expect a positive relation between disasters and suicide. Therefore each positive step in addressing disaster impacts through the disaster continuum is also a positive step in addressing suicide, yet the reverse of it is also true.

The disaster management continuum is illustrated in Figure 2. It consists of a number of phases, each requiring a different range of response activities. The different phases are normally grouped

into three main categories of pre-emergency phase, the emergency phase and the post-emergency phase. The disaster management cycle will be examined under these three broad categories.
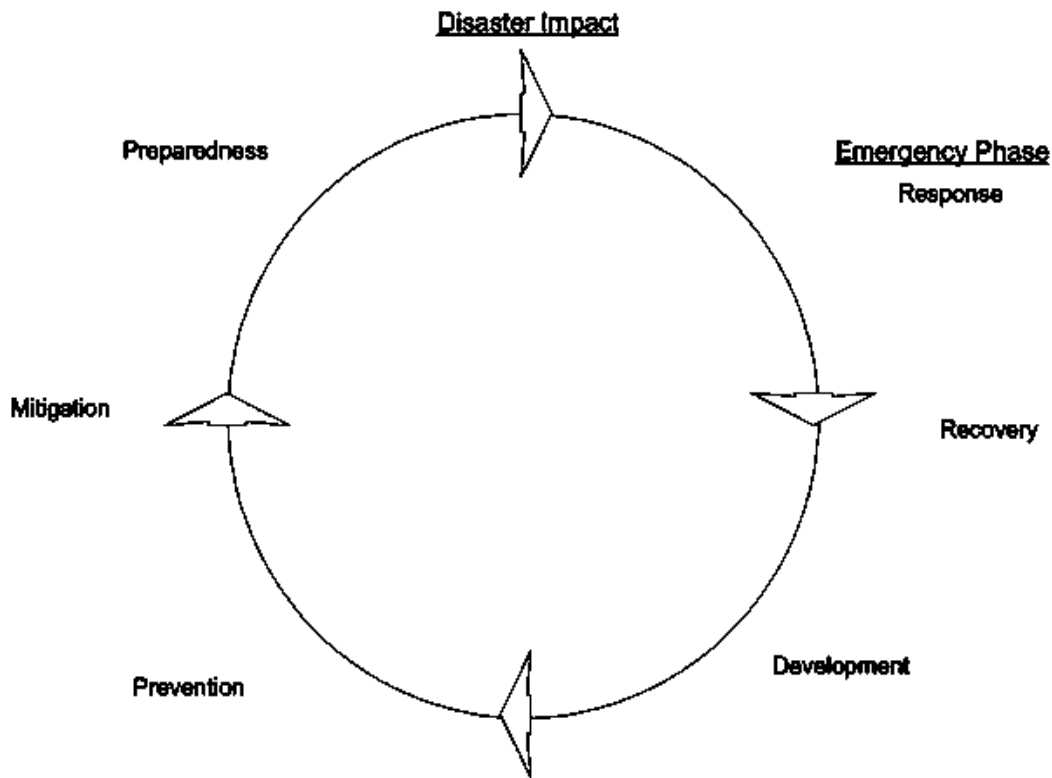
Figure 2*: Disaster Management Continuum (Source: Veenema, 1996)*

2.1.1 Pre-emergency phase

The emphasis in the pre-emergency phase is on reducing the vulnerability of communities suffering from the impact of natural phenomena. Measures to achieve this objective include risk-mapping, application of building codes, land zoning as well as structural measures such as the construction of dams against flooding. These measures are grouped under the headings: risk reduction measures, comprising of prevention, mitigation and preparedness. This stage is of paramount importance in the management of disasters. The better the preparedness of the community, the lesser the impact of disasters will be. This also implies that the lesser the impact of disasters on survivors the lesser the psychosocial-sequelae that influences suicidal ideation. Each of the three risk reduction measures will be briefly discussed:

▪ **Prevention**

This includes all measures aimed at avoiding that natural phenomena turn into disasters for settlements, economies and the infrastructure of communities. This measure is then of significant importance in reducing suicide. This model posits that if people are not affected or exposed to any disaster then there will not be any disaster induced depression which is a correlate of suicide. Thus if anything, effort should be made to prevent hazards turn into disasters if the problem of suicide is to be addressed.

▪ **Mitigation**

The National Disaster Management Framework (NDMF) for South Africa (2005) defines disaster mitigation as the structural and non-structural measures that are undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards on vulnerable areas, communities and households. Examples of mitigation are the retrofitting of buildings or the installation of flood-control dams and specific legislations aimed at reducing disaster impact. According to Wisner *et al.* (2004) the principle objectives of mitigation are to:

- Save lives
- Reduce economic disruption
- Decrease vulnerability and increase capacity
- Decrease chance or level of conflict

This model posits that if measures are taken to limit the adverse impacts of a disaster, the chances of psychological trauma that victims were supposed to suffer are proportionally reduced. The more effective and efficient mitigation measures are employed, the less likely victims succumb to suicide thinking.

▪ **Preparedness**

This is an important risk reduction measure in that it is a phase where initiatives are taken in advance to ensure effective response to the impact of hazards, including

timely and effective early warnings and temporary evacuations. Preparedness enables organs of the state and other institutions involved in disaster risk management, the private sector, communities and individuals to mobilize, organize, and provide relief measures to deal with an impending or occurring disaster or the effects of it. Preparedness focuses on activities and measures taken in advance of a specific threat or disaster. Preparedness actions include:

- ✓ Planning for seasonal threats, such as heavy rainfall, flooding, strong winds, veldt or informal settlements fires, and communicable disease outbreaks.

- ✓ Anticipating and planning for the potential dangers associated with for instance large concentrations of people at sporting, entertainment or other events.

- ✓ Establishing clear information dissemination processes to alert at-risk communities of an impending seasonal threat, such as a potential outbreak of cholera during the rainy season.

- ✓ Specifying evacuation procedures, routes and sites in advance of expected emergencies, including the evacuation of schools in areas exposed flash floods.

- ✓ Defining in advance clear communication process and protocols for different emergency situations, including the dissemination of early warning for an impending extreme weather threat to isolated or remote communities.

Preparedness is a very vital component of this model, its importance to the reduction of risk has been highlighted. However, it is also an important determinant of suicide ideation during and in the aftermath of a disaster. Victims that are caught unawares or unprepared are more likely to experience shock compared to those that might have been psychologically prepared for a calamity. If people participate in disaster preparedness they will be psychologically prepared for losses that result from the disaster, and their grief will be more manageable than those that were caught by surprise. The latter are

more likely to suffer from post traumatic stress disorder which is a correlate of suicide ideation.

2.1.2 Emergency Phase

In the emergency phase of a natural disaster, response mechanisms are automated. This phase is normally short-lived and may be over within days or weeks (Veenema 1996). The main activity in this phase is response.

▪ *Response*

Response involves measures taken immediately, prior to and following the disaster impact. Response measures are directed towards saving lives and protecting property. They deal with the immediate disruption caused by the disaster. They include search and rescue and the provision of emergency food, shelter, medical assistance. The effectiveness of responding to disasters largely depends on the level of preparedness.

According to the South African National Disaster Management Framework 2005, an effective and appropriate disaster relief is facilitated by:

- Implementing a uniform approach to the dissemination of early warnings.

- Averting or reducing the potential impact in respect of personal injury, health, loss of life, property, infrastructure, environments and government services.

- Implementing immediate integrated and appropriate response and relief measures when significant events or disasters occur or are threatening to occur.

- Implementing all rehabilitation and reconstruction strategies following a disaster in an integrated and developmental manner.

The disaster continuum model posits that the more appropriate each phase is managed the less likely that victims suffer heavy losses. It is upon extreme suffering of the impacts of disasters that victims are depressed. As explained before depression, dementia and post traumatic stress disorders are good predispositions to suicide ideation.

2.1.3 Post-Emergency Phase

The transition from relief to rehabilitation is rarely clear-cut. On one hand, the foundations of recovery and reconstruction are usually laid in the immediate aftermath of a major disaster, while emergency response activities are still ongoing. On the other hand, there is often, in the aftermath of a natural disaster, a phase when basic needs must still be met as the long-term benefits of rehabilitation and reconstruction projects might not yet been fully realised. As a result, the phasing-out of relief assistance must be managed carefully (WHO 1999). In this phase, where victims take stock of what transpired during the calamity, it is a period of enhanced post trauma counselling. It is recommended that trauma centres be established at this phase for counselling services. Again in this phase the worst scenario of it will see an increase in the cases of suicide, yet the best will see a minimized level of suicide cases.

- **Recovery**

It is the process by which communities are assisted in returning to their proper level of functioning (Veenema 1996). The recovery process can be very protracted, in some cases up to a decade or more. Typical activities undertaken under this phase include: restoration of essential services and installations, long-term measures of reconstruction including the replacement of buildings and infrastructure that have been destroyed by the disaster. In this phase not only structural damages are restored but there are also family reunifications as the disaster could have dispersed people. If families are not unified, this could be a strong source of stress which would see disaster victims, victims of suicide. In that regard this model posits that every effort should be made to restore the socio-economic function of the survivors where possible to the levels it was before the disaster.

- **Development**

According to Veenema (1996), the inclusion of a development component in the disaster continuum is intended to ensure that following the natural disaster, countries factor hazard and vulnerability considerations into their development policies and plans, in the interest of national progress it is a positive development. Like in the recovery phase, if disaster survivors are not put at the centre of development, the psychosocial-sequelae of the past disaster can influence suicidal ideation throughout their life time. Therefore according to this model the plans and policies of development should also consider the interest of the disaster affected people.

2.2 Disaster Impact

Any disaster leaves a profound trail of suffering in the community (Herbst & Drenth 2009). To work with the disaster affected community, it is essential to understand the different nature of impacts due to the disaster. The categorization of the impacts on the survivors will help to deal with the situation in a more organized and systematic way. The impacts of disasters are mainly categorised under the following headings:

- **Economic Impact**

A disaster by definition affects large numbers of people and a vast area, so the entire community could be experiencing the impact. However, the poor people will always feel a deep pinch of a disaster in the sense that their livelihoods which are normally land-based and undiversified are adversely affected by natural disasters. Barnett (2002) points out that the post disaster period is normally characterized by an economic quagmire where unemployment and under employment are major issues since land-based economic activities could have been destroyed. In the case of floods, places of work maybe inaccessible or damaged. There may be total breakdown of communication and lack of basic supplies of food or raw materials causing abnormality of life.

In extreme cases of cyclones or floods, land could be inundated and victims may totally lose their sources of income. In Okakarara, during the 2009 floods some places were inundated to a height of two metres resulting in total destruction of crops and related livelihoods (Namibia. Health and Social Services 2009). Barnett (2002) postulates that in any disaster, the effects on the livelihood are one of the main impacts. The loss of primary livelihoods like agricultural activities due to the disaster will have implications on social relations of the community as will be discussed. These economic impacts of disasters predispose survivors to depression which in turn predispose them to suicide ideation.

- **Social Impact**

There is discontinuity of normal life routines during and after a disaster. Critical services like education, health and access to information can be totally disrupted in cases of floods. In most cases there is destruction of homes leading to relocation of victims. For the displaced people, life in the camps can be unbearable, for nuclear families ties may be cut off and privacy is normally compromised. People face problems of day to day living in difficult circumstances along with trying to pick up and rebuilding their lives as they were before the disaster (Herbst & Drenth 2009).

Wisner *et al.* (2004) argue that though initially people come together as the affected to counsel and offer assistance to each other, later in the rehabilitation phase, the desire to live with one's community and one's own group increases. In such an environment, there are high chances of ethnic clashes and other violence based on religion, political affiliation and more. Stillion, McDowell and May (1989) also point out that there is increase of social ills like domestic violence, abuse of the vulnerable and alcoholism in the camp sites. An environment marred with these ills predisposes people to suicide (Casterns 1999).

- **Emotional Impact**

Any disaster affects people emotionally (Afunde 2008). The change it brings in life seems unbearable and people often feel helpless, hopeless and frustrated in the aftermath

of a disaster. Often they seem unable to cope with the consequences of the loss they have experienced. They may have repeated thoughts about the events which caused severe disability and destruction to property and livelihoods. With disasters like floods and earthquakes as noted by Gwimbi (2008) survivors will live in fear of recurrence of the disaster and this can lead to continued feelings of anxiety, sleeplessness and an inability to find strength to regain confidence to lead a normal life. In short, survivors suffer from Post Traumatic Stress Disorder (PTSD). It is not unusual that survivors who fail to sustain PTSD succumb to suicide.

The disaster management continuum is very critical in so far as it helps to examine the influence of each phase of a disaster on suicide. Without clear understanding of each phase it will be difficult to implement disaster reduction initiatives and thus the impact of the disaster will be heavy on the victims. This situation will ultimately give way to depression and suicide thinking. In this study therefore referral will be made to this model wherever necessary.

2.3 Addressing the Influence of Disaster Effects on Suicide

In this study, as already mentioned the Integrated Stress and Coping model of Moos and Schaefer (1993) is also discussed to conceptualise the psychosocial factors that influence suicidal ideation during and after a disaster. The basic assumption of this model posits that the personal and environmental stressors, resources, as well as the life crises and transitions of the individual, combine to shape cognitive appraisal and coping skills that ultimately determine the health and wellbeing of the individual. The impacts of disasters which could be socio-economic, psychological and environmental are sources of stress which this model posits will influence the health and wellbeing of an individual.

According to the integrated stress and coping model, Figure 3, an individual's health and wellbeing is considerably affected by exposure to stressors, as well as the accessibility and functionality of personal and environmental coping resources (Moos & Schaefer 1993).The

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stress and coping model consists of five panels, which are bidirectional which means the model indicates processes that are reciprocal.

| Panel 1 Personal system (Life stress, social resources) Dispositional factors: Hope and purpose of life, self-esteem and sense of coherence. Demographic factors such as: a) Age b) Gender | Panel 3 Transitions and Life Crises -Developmental Perspective -Traumas and Life Crisis | Panel 4 Cognitive style and Coping responses -Cognitive distortions -Coping style -Primary appraisal -Secondary appraisal -Coping strategies | Panel 5 Health and Wellbeing -Positive health outcome Negative life outcomes |

Panel 2 Contextual stressors and resources
Social stressors:
- Relationships
- Financial stressors
- Health
- Social support
- Material resources

Figure 3: The Integrated Stress and Coping Process Model (Source: Moos & Schaefer 1993)

2.3.1 The personal systems (Panel 1)

The personal systems which consist of personal stressors and resources form Panel 1. Hope and self esteem are examples of stressors and resources. After disasters like drought and floods that are common in Okakarara, community members could be stripped of their livelihoods which could be their source of hope and life. The aftermath of such disasters will therefore see the survivors in a state of hopelessness and low self esteem, predisposing them to suicide ideation:

> **Self-esteem**

It is defined as self-evaluation by an individual and involves the individual's attitude towards himself/herself along a positive to negative continuum (Baron & Byrne 2000). According to Brown and Dutton (1995) low self-esteem leads to an over-generalisation of the implications of failure and rejection. A high sense of self-esteem is perceived as a resource factor allowing an individual to maintain a positive and optimistic outlook

amidst his/her negative circumstances (Dutton & Brown 1997). High self-esteem thus acts as a buffer in reducing the risk of suicide behaviour. On the other hand Wilson *et al*. (1995) conclude that low self-esteem is a pathway towards a negative attributive style of engaging one's environment, thereby predisposing an individual towards self-destructive tendencies.

Hewitt (1998) argues that self-esteem is also influenced by social factors such as socio-economic status, accomplishments and having power to influence others. The devastating impacts of disasters like financial hardships caused by HIV/AIDS, drought, floods as will be discussed later can impact survivors' self-esteem negatively, thereby predisposing the same to suicide ideation.

> **Sense of coherence**

According to Antonovsky as quoted by Basson (2008) sense of coherence is a pervasive feeling of confidence that the life events one faces are comprehensible, that one has the resources to cope with the demands of these events, and that these demands are meaningful and worthy of engagement. Antonovsky (1992) postulates that an individual with a strong sense of coherence, is cognitively and emotionally able to order the nature of problems, and is willing to confront them. Sense of coherence has been linked with lower levels of depression, anxiety, life stress and physical symptoms (Bowman 1996; Frommberger 1999; Schnyder *et al*. 2000). Therefore individuals with a strong sense of coherence will be more able to withstand traumas of disasters than those with low sense of coherence who will succumb to the stresses that disasters pose, sometimes ending in self-destructive behaviour.

> **Dispositional optimism**

This is another dispositional factor that forms part of Panel 1 of the Integrated Stress and Coping Process model. It refers to the anticipation that good outcome will occur when confronting major problems (Scheier & Carver 1985). This quality is considered to be a determinant of sustained efforts to deal with problems, as contrasted with turning away and giving up. According to Ben-Zur (2002), dispositional optimism has been found to enhance adaptation following stressful encounters. Individuals that possess this quality

are more likely to sustain disaster induced depression than those who do not have it hence the later have higher chances of committing suicide.

➢ **Hope**

Snyder (2000) has conceptualised hope as the sum of the capability to plan one's ways to attain desired goals, regardless of barriers. He went on to identify two components of hope, namely agency and pathways. According to him hope-agency is a sense of successful determination in meeting goals of the past, present and future, whereas hope-pathway is viewed as confidence in one's ability to devise plans in order to achieve one's goals. According to Beck *et al.* (1979) as well as Goldston *et al.* (2001), a strong association exists between hopelessness and depression. A lower level of hopelessness correlates significantly with a higher risk of suicidal behaviour (Goldston *et al.* 2001). The state of hopelessness that generally disaster survivors are left to bear in the aftermath of a disaster exposes them to suicide ideation.

It has been noted from the above paragraphs that hope and self-esteem as part of personal stressors and resources play an important role in influencing the wellbeing of an individual. If these components can be enhanced and maintained, the ultimate subjective wellbeing of an individual can be increased, thereby reducing suicidal tendencies.

➢ **Demographic factors**

Another factor that forms part of Panel 1 is demographic factors which include age and gender. These factors are strong moderators of suicide ideation as shall be discussed briefly under the following headings.

i) **Age**

Age is a central moderator of suicide ideation. The middle aged, being the economically active, faces a lot of challenges in the event of a disaster. If livelihoods are affected in a disaster, it exposes the young men and women to financial hardships. According to Afunde (2009) young men are expected to fend for their families and to plough back to their communities. In the event of a disaster, those with big responsibilities would be the ones to bear the impact of it, more than other age

groups. Carstens (1999) sees the inability to perform one's social roles adequately as a major risk to suicide. Thus due to financial challenges posed by disasters, young people may not be able to meet their financial and social obligations and this exposes them to suicide thinking.

In the Suicide Trajectory Theory, Stillion and McDowell (1999) note that the age of the early adulthood, which is 20 to 35, may be characterised as the time of making marital and occupational choices and of 'transition.' In this transitional period, the psychological risk factors involve the changes of roles and the stress inherent in assuming new responsibilities. The occurrence of disasters normally closes employment opportunities that young people would need the most at this stage. Lack of employment is a great source of stress among young adults and it is not unusual that young people facing this challenge consider self-destruction.

ii) Gender

Gender in the context of this study plays a pivotal role in determining the wellness of an individual. Women generally as will be highlighted in Chapter 5, attempt suicide more than their counterparts. The multiplicity of roles that women play in their families, community and society make them central to disasters of any nature. Some roles that put women at the centre of disasters include: caring for children, the elderly and people living with AIDS as well as financial responsibility for their families' survival. Because of these roles, the effects of disasters are heavier on them as compared to men. In this sense they are more likely to be depressed by disaster impacts than men, thus they are predisposed to suicide ideation more than men.

2.3.2 Contextual stressors and resources (Panel 2)

Social support, health, material and financial resources constitute the contextual stressors and resources panel of the Integrated Stress and Coping Process model. Specific sources of stress will emanate from economic instability, unemployment, famine, negative relationships with significant others, lack of support from others, unavailability of information, etcetera. These factors are important determinants of the health and well-being of the individual. It is also

important to bear in mind that the occurrence of disasters negatively affects the accessibility of core resources that are needed for individual growth and well-being.

Social support is increased through close supportive relationships within a family and among extended family members. These supportive relationships enhance the wellbeing and happiness of an individual. In disaster situations, social capitals might be affected as people could be displaced and the support needed for the wellbeing of an individual will not be available, increasing chances of victims considering suicide.

The following discussion is focused on specific social resources that influence the individual's happiness and well- being, lack of which can be a source of stress:

- **Family and parents**

  Central to social support is the family. According to Thomlison (2002) the basic functions of a family are multifaceted and include such aspects as having to ensure socio-emotional competence. In displacing disasters like floods, such emotional warmth provided within a family might be compromised as people could be staying in camps where family matters do not take precedence. Wisner *et al.* (2004) noted that displaced people, lacking family cohesion in the temporary shelters i.e. camps, end up engaging in antisocial behaviours like prostitution, alcohol and drug abuse etcetera. These, in one way or another, trigger suicide ideation.

  In sudden disasters like earthquakes which do not, however, happen in Namibia, there could be large losses of human lives posing a threat to the existence of family units. In the Haiti earthquake in January of 2010 for instance, more than one hundred thousand perished and more than 1.5 million were left homeless (UNSO 2010.) In such instances victims may fail to leave without their families and beloved ones, and as such suicide ideation is prompted.

  Social competence, which is learned by virtue of interactions in the family, is required in all interpersonal engagement and may operate in various ways to protect individuals from maladjustment and promote life satisfaction (Fogle, Huebner & Laughlin 2002). Research

indicates that family relationships throughout the lifespan have vital flow-on effects for a number of domains such as autonomy and later independence, individual pathology and problem behaviour (Peiser & Heaven 1996). Given such dimensions, every effort should be put to restore family fabric during and after a disaster. Failure of which may contribute to problem behaviours which include suicide ideation.

- **Material and financial resources**

Possession of material and financial resources has a bearing on the wellness of an individual. Wealth is related to many positive life outcomes (Furnham & Argyle 1998) yet poverty appears to contribute to suicidal behaviour (Sadock & Sadock 2003). Furnham and Argyle (1998) noted that people with a higher income have better physical and mental health can afford improved health care services, have greater longevity, lower rates of infant mortality, are less frequently the victims of violent crime have access to better social services and experience fewer stressful events in life. Those who possess material and financial resources therefore in this context are less likely to commit suicide as compared to the poor.

Lele (1998) argues that while poverty is easily understood as an individual level risk factor, an ecological perspective on suicide that analyses the problem at a community level also suggests that areas of poverty, deprivation, unemployment and poor education are associated with higher suicide rates. Poverty brings along with it lack of opportunities, reduced availability and accessibility to resources and a greater likelihood of experiencing difficult events. The resistant distress of poverty may manifest in a variety of presentations including emotional states such as low mood and sadness, frustration or discontent. Poverty and disasters influence each other and thus the effects of both correlates strongly with suicide.

Dunn (2004) argues that the psychological impacts of living in poverty are mediated by stigma, social isolation, exclusion and the shame and humiliation of poverty. People experiencing poverty report higher levels of hopelessness, fatalism- lack of control over their circumstances, an orientation towards the present rather than the future and lower

levels of satisfaction with life than the better off. According to Dunn (2004) the occurrence of disasters increases poverty levels and thus if the affected lack good coping mechanisms they can commit suicide.

Chambers (1983) postulates that relative poverty which is dissatisfaction with one's lot in life compared to that of others is seen in every society and seems to correlate with emotional distress. He argues that while unemployment is a definite stressor, being in a paid work is not a solution if the individual remains poor. Working poverty represented by financial deficiency and restricted standards of living negatively correlates with the psychological well-being of an individual. Thus individuals exposed to such living condition are predisposed to suicide ideation. Chambers (1983) and Afunde (2008) noted that financial impacts of disasters affect both the employed and the unemployed. For the employed the burden to take care of the disaster victims poses a form of stress yet for the unemployed, their situation might be worse than before causing them to contemplate suicide.

- **Physical Health**

As a contextual factor, physical health can influence the wellbeing of an individual. One of the major health risks in Namibia and the rest of Southern Africa is HIV/AIDS. The devastating effects of the disease cause major social and economic difficulties. Having to deal with the traumatic experience and social stigma of HIV/AIDS, the infected as well as the affected, may succumb to depression if proper psychosocial intervention lacks. The impacts of HIV/AIDS perpetuate poverty thus putting into motion the poverty-suicide cycle all over again

2.3.3   Life transitions and life crises (Panel 3)

Panel 3 which includes developmental processes and traumas, form an interactive part as the specific stage of development which determines eventual health and well-being of an individual. Life events encountered by individuals have strong bearing on one's well-being. Traumatic events have a potential to cause post trauma stress disorder, which closely relates with suicide ideation. In this study common disasters in Okakarara like flood, drought as well as HIV/AIDS are considered root sources of trauma and distress.

- **Developmental perspective**

With regards to adolescents, the developmental stage from childhood to adulthood is very critical. According to Moos and Schaefer's (1993) model, the adolescent forms an interactive part in the process that determines the eventual health outcomes. Cummings (1995) defined adolescence as a developmental transition between childhood and adulthood, which begins at about the age of 12 or 13 years and extends to the late teens or early twenties. Cummings further emphasises society's need to adopt a protective role in nurturing adolescents who are being faced with ever-increasing pressure to perform, conform, and successfully negotiate the rapid emotional, physical and cognitive changes so typical of the period of transition.

Adolescent development brings with it not only the perks of greater social recognition, but additional new challenges that involve making decisions about proper as opposed to risk behaviours. Not having adequate supportive structures and resources predisposes the adolescent to engage in negative behaviours as a means of coping. In situations of disasters when learning institutions are destroyed, livelihoods are disrupted and getting people into disaster induced poverty, loosened family cohesion, adolescents are further pushed into curious situations. As they try to cope with situations, exposure to alcohol, drugs, sexually transmitted diseases and eventually the threat of depression and suicidal behaviour becomes very real to adolescents (Heaven 1996; Larson *et al*. 2002).

- **Trauma and life crisis**

Adolescents in particular, faced with a crisis in life (disaster) happen to try and get out of their predicament through exploring their environment. According to Erickson's psychosocial theory, young people in trying to get solutions to their predicaments normally suffer identity crises and the confusion in defining their roles in the society. Other life crises among the young people such as destabilized families, family violence and abuse, as well as personal losses through death create feelings of negativity,

hopelessness and confusion and even cause depression and isolation in young people leading to suicide ideation.

2.3.4 Coping style and coping resources (Panel 4)

Coping style and coping resources, such as primary appraisal, secondary appraisal, cognitive distortions and coping strategies form part of Panel 4 of the Integrated Stress and Coping Process model.

- **Primary appraisal**

A primary appraisal is made when the individual makes a conscious evaluation of the matter at hand of whether it is harm or a loss, a threat or a challenge (Moos & Schaefer 1993).

Primary appraisal is categorized as being irrelevant, positive or stressful. When a situation is not perceived to be detrimental in any way, the primary appraisal is seen as irrelevant, as the outcome of the situation does not affect an individual. A situation is perceived as being positive when the possible outcome is positive and likely to help an individual in some way. The emotions related to this appraisal include joy, exhilaration, love and peacefulness. A situation is said to be stressful if the outcome is likely to be negative and in the form of a challenge, threat or harm/loss. The emotions associated with this appraisal include fear, anger and sadness.

Individuals that uphold primary appraisal mechanisms are less likely to commit suicide even in the face of disasters because of their ability to assess or evaluate their situation and take appropriate courses of every action.

- **Secondary appraisal**

Secondary appraisal takes place when the individual asks him/herself "What can I do?" by evaluating the coping resources around him/her. These resources include physical resources, such as how healthy one is, or how much energy one has, social resources,

such as the family or friends one has to depend on for support in one's immediate surroundings, psychological resources, such as self-esteem and self-efficacy, and also material resources such as how much money one has or what kind of equipment one might be able to use.

When people are faced with an adverse situation, something needs to be done to control it and avoid any subsequent repercussions. The reaction to the situation is decided by carefully analyzing what is at stake and what can be done to reduce negative consequences. Secondary appraisal is therefore necessary for disaster victims, for it allows them time to carefully consider their situation and employ or implement the disaster reduction measures taking into consideration resources available to them. This will in turn contribute to lowering suicide incidences. Lack of secondary coping strategy is then a risk factor to suicide.

- **Cognitive distortions**

These are exaggerated and irrational thoughts identified in cognitive therapy and its variants which, according to the theory of such therapy, perpetuate certain psychological disorders. Eliminating these distortions and negative thoughts is said to improve mood and discourage maladies such as depression and chronic anxiety. Disaster victims normally have cognitive distortions which could be self-blaming for the disaster, over generalising the disaster incident, etcetera. These distortions are predispositions to suicide and therefore every effort through counselling should be made to eliminate these.

- **Coping**

Coping refers to the set of behaviours that individuals use in their efforts to manage stressful situations. One copes with a stressor either by adjusting to the prevailing circumstances or directly attempting to change them. An individual's choice of coping strategies will influence the outcomes (Hobfoll 1988; Lazarus & Folkman 1984; Moore 2000; Smith 1993). There are a number of coping dimensions that disaster survivors can employ, namely problem versus emotion focused coping, primary versus secondary control coping and engagement and disengagement coping (Lazarus & Folkman 1984).

- **The problem versus emotion focused,** reflects the function of coping responses to either act on the sources of stress in the environment or react to negative emotions that arise from a stressful encounter or event (Lazarus & Folkman 1984). The two writers define problem-focused coping as a coping style in which the individual attempts to change the situation that is causing the stress through the use of realistic strategies which can change the situation that is causing stress. Compton (2005) argues that an individual can either change the environment in which he is or can change himself in order to rid the situation of stress. This coping style helps in fighting suicide ideation by thinking positively even in the midst of a calamity.

- **Emotion-focused coping** has been defined by Lazarus and Folkman (1984) as an individual's attempt to change negative emotions; it is aimed at normalizing the emotional response to a stressor. The goal is to release the tension, forget the anxiety, eliminate the worry or just release the anger. Individuals who possess this coping style can sail through hardships, and therefore manage to overcome suicidal thoughts by forgetting their ordeals.

- **The primary versus secondary control coping dimension** refers to the orientation of the individual to either enhance a sense of personal control over the environment and reaction (primary control) or adapt to the environment (secondary control). Primary control refers to coping attempts that are directed towards influencing objective events or conditions and directly regulating one's emotions. On the other hand secondary control coping includes efforts to fit with or adapt to the environment and typically may include acceptance or cognitive restructuring (Compton 2005). This coping style helps disaster victims not to fall into depression by being able to self control and regulate their emotions.

- **Engagement coping** includes responses that are oriented either towards the source of stress or towards one's emotions or thoughts (for example problem solving or seeking social support). Disengagement coping refers to responses that are oriented away from the stressor or the individual's emotions or thoughts (for

example withdrawal and denial) (Lazarus & Folkman 1984). Both engagement and disengagement help disaster victims to come to terms with the situation. Thus either orienting oneself towards the source of stress or drifting away from it will produce positive outcome, avoiding depression.

- **Avoidance** is another coping dimension that aims at refusing to confront difficulties presented by life. An individual attempts to reject the importance of the stressor or the impact that it has had on his/her life (Lazarus & Folkman 1984). This has seen some disaster victims coping well with the impacts of disasters and overcoming suicide that is normally triggered by disaster-induced depression.

Be that as it may, Compton (2005) concluded that an effective coping strategy is one that lessens the burden of challenges of both short-term immediate stress, and should also contribute to longer-term stress relief. The long-term effects of coping are seen when coping builds resources that will help to guard the individual against future stressors and challenges. Such a mechanism is important in so far as it lowers chances of suicide ideation upon victims or survivors of disasters.

2.3.5 Health and Well-being (Panel 5)

Health and Well-being (Panel 5) concludes the health and well being outcomes (Moos & Schaefer 1993). The panel is formed of positive health and negative life outcomes:

- **Positive health outcomes**

A psychologically well person displays characteristics which are all integrated into a complex system which functions effectively as a holistic unit and which grows in time. These characteristics include: perception of self-esteem, constructive thinking skills, coping strategies to deal with stress, self-regulated behaviour and sense of social support, guided in thoughts feeling and behaviour by a set of values that promote life satisfaction.

Such holistic integration is a manifestation of the individual's high level of adaptability, satisfaction and mastery of life's demands (Wissing & Van Eeden 1994).

Individuals who are happy and satisfied with life are good problem solvers, show better work performance, have meaningful social relationships, display virtues such as forgiveness and generosity. They have more adaptive dispositions and temperaments, tend to be more resistant to stress, have better self enhancing cognitive styles (Pressman & Cohen 2005). Individuals with a positive health outcome are unlikely to have suicide ideation. It should, however, be emphasised that the attainment of a positive health outcome is necessitated by both proper disaster management measures in place as well as possessing good coping skills. For if individuals are affected by disasters and lack proper coping skills, their wellness and happiness are definitely negatively affected.

- **Negative life outcomes**

Negative life outcome is a result of exposure to stressors. These stressors as noted already emanate from the contextual stresses, life crises as well as personal systems. Characteristics of negative life outcome include lack of life satisfaction, lack of coping skills and suicide ideation behaviour. In short, negative life outcomes are the opposite of positive health outcomes. It is also important to highlight that disasters have a strong bearing on exposing individuals to these sources of stress.

2.4 Critique of Disaster Management Continuum and Integrated Stress Coping Models

Both of the models show the link between disasters and depression and that of depression and suicide. Whilst both models are appropriate and applicable to the study, the disaster management continuum emphasises more on showing the domino effect of the disaster management phases. At each phase, however, the wellness of an individual is singled out depending on how well managed the phase is done. For example in the preparedness component of pre-emergency phase, it has been highlighted that the higher the level of preparedness the higher the

psychological alertness of the people. This will also determine the coping mechanisms and period taken to psychologically rehabilitate.

However, the Disaster Management continuum does not necessarily show the exact forms of stress that ultimately leads to suicide. The Integrated Stress and Coping Model on the other hand shows the different sources of stress that emanates from the personal systems, contextual stressors and resources, transitions and life crisis as well as cognitive distortions. This model goes on to suggest ways of coping with stress.

Whilst the Integrated Stress and Coping model considers such important variables like gender dynamics, issues of age in the face of disasters, the Disaster Management continuum does not put this clearly. However, this does not mean that the disaster management continuum should be discarded, for it is very essential in illustrating the management of disasters through systematic phases.

Although the Integrated Stress and Coping model does not illustrate management phases of disasters, it posits that environmental stressors and resources, life crisis and transition as well as the personal systems of the individual, combine to shape cognitive appraisal and coping skills that ultimately determine the health and wellbeing of an individual. For this reason, the Integrated Stress and Coping model is going to be used as guiding theoretical model to conceptualise the psychological factors that influence suicide ideation.

2.5 Conclusion

The above discussion was focused on theoretical models. The Disaster Management Continuum and the Integrated Stress and Coping models were discussed in light of disasters and suicide. This was followed by a critique of both models with a view to get the most appropriate one for the study. Although both models are important in investigating the influence of disaster effects on suicide, the Integrated Stress and Coping model was chosen to be the guiding theoretical model in this study as it shows a detailed link of factors that predispose to suicide ideation.

CHAPTER 3

GLOBAL PERCEPTIONS OF DISASTER INFLUENCE ON SUICIDE

3. Introduction

In this chapter, a global overview of the influence of disasters on suicide is going to be discussed. Suicide as discussed in the previous chapter is driven of multifaceted factors. Although in this study the genesis of all forms of stress is based on disasters, situational factors or triggers differ from community to community and from country to country. It is also interesting to note that even the lethal methods of suicide differ from country to country and community to community.

It is reported that there are about 877 000 suicide deaths each year globally and it is the thirteenth major cause of death around the world (WHO, 2004). The suicide death toll per year by 2020 will have risen to one and half million (WHO 2008). According to the same WHO (2008) report, suicide deaths account for more than half of all violent deaths in the world i.e. more than all deaths from wars and homicides combined.

In this study, a few countries where suicide studies in relation to disasters were conducted were selected to illustrate the relationship or influence of disasters on suicide.

- **United States of America (USA)**

According to Obasi (1994) a study carried out in the USA in the early 1990s to check on the influence of disasters on suicide for the years between 1982 and 1989 revealed that there is a causal effect relationship between the two phenomena where the former is the cause and the latter, effect. The results of the study showed that in the first year after an earthquake, suicide increased by 62.9% from 19.2 to 31.3 per 100 000 people. This high increase in the suicide rate was mainly due to Post-Traumatic Stress Disorder (PSTD) (Obasi 1994).

Similar studies were also carried out for flood disasters for the same period (1982-1989). The results according to Obasi also showed that suicide rates increased in the two years after floods by 13.8%, from 12.1 to 13.8 per 100 000 people. This research showed that the

disaster effects, especially psychological effects like PSTD, predispose disaster victims to suicide. According to Kellermann (1992) the most commonly used lethal method of suicide in the USA is firearms. This could be because firearms are accessible to the public for security reasons yet they will be misused for suicide, homicides and other unintended ends.

▪ **Taiwan**

According to the International Federation of Red Cross and Crescent Societies, World Disaster Report (WDR) (2002), studies to determine the influence of disasters on suicide were conducted after a devastating earthquake rating 7.3 on the Richter scale hit central Taiwan in 1999. The study showed that since 1999, Taiwan has experienced a consistent increase in suicide rate from 10.36 per 100 000 people in 1999 to 12.45 per 100 000 people in 2000. According to this World Disaster Report (2002), researchers concluded that the increase in suicidal rates was a contribution of the devastating earthquake and the financial crisis in Asia with the resulting economic recession.

It was also observed by the Taiwanese researchers that significantly high suicidal ideation existed among earthquake victims who suffered injuries, lost relatives and property. In addition to other researches done all over the world, these findings in Taiwan also confirmed a link between disaster impacts and suicide and/or suicide ideation. Unlike in the USA, Spicer and Miller (2003) observed that in Taiwan hanging is the predominant suicide method.

▪ **India**

The World Disaster Report (2002) states that India has the highest incidences of disaster induced suicide in the world. According to the WDR (2002), a case study that was carried out in Andhra Pradesh region in 2001 showed that out of the 495 farmers who committed suicide in India in the same year, 385 (78% of the total cases) were farmers from Andhra Pradesh. The farmers having switched to commercial farming on the advice of the central government, most of them received farming implements through bank loans using the few assets they had as collateral (World Disaster Report 2002). However, the recurring droughts in India made them a misfortune and yet they still had to pay back the loans. The increased threats by the

banks to confiscate assets and arrest defaulters depressed most farmers, and thus a great number turned to suicide as the only solution to their predicament.

Owing to increased poverty and drought depression, it was reported that between 1997 and the end of 2000, 1826 people, mainly farmers, committed suicide in the region of Andhra Pradesh. The World Disaster report (2002) mentions that hundreds of them did so by swallowing poison mostly pesticides. The report thus indicated, as observed in the United States and Taiwan that disasters do have an influence on suicide. The psychological trauma caused by disasters is the main factor predisposing victims to suicide ideation.

The most commonly used lethal method for suicide in India is poisoning. According to Cantor (2002) self-poisoning is normally done using agricultural chemicals or medical drugs. Most people who commit suicide in India are communal farmers thus they have more access to agricultural chemicals which in turn they will misuse to poison themselves.

3.1 Perceptions of Disaster Influence on Suicide in Southern Africa

- **South Africa**

South Africa just like other African countries does not experience sudden disasters like earthquakes. Common disasters in South Africa are drought, fires and HIV/AIDS pandemic (World Disaster Report 2002). Meels (2003) carried out a study on the influence of HIV/AIDS pandemic on suicide in the Transkei. In his study, he discovered that death from hanging increased from 16% in 1996 to 24% in 2000. Most of these deaths were males in the 20-30 years age group. Meels (2003) further noted that death due to poisoning had increased from four percent to 28% over the past eight years with males predominating over females with 66% against 34%.

According to Meels (2003), gunshot related death also increased from 14% in 1996 to 25% in 2000. In his analysis, he observed that all these increases corresponded to the estimated prevalence of HIV infection in South Africa from 14% in 1996 to 25% in 2000. The observation by Meels therefore showed there that there was a positive influence of HIV/AIDS pandemic on suicide.

Meels (2003) further noted that during the same period of his study (1996-2000), student enrolment at the University of Transkei decreased from 7 038 to 3783 in 2000. It was believed that this decrease was caused by HIV/AIDS related issues including suicide. Jackson (2001) postulates that the critical psychosocial stressors of HIV/AIDS including social stigma, discrimination, isolation, lack of support from family and friends and social devaluation, enhance suicide risk.

According to Van Zyl (1993) due to climatic change, South Africa has been experiencing recurrent droughts. The most serious drought spell was the 1991/2 drought that also affected the whole of Southern Africa. This disaster saw great loss in crops livestock, and increased levels of poverty. According to Meels (2000) the effects of serious droughts combined with the devastating effects of HIV/AIDS pandemic predisposed victims to suicide ideation.

In South Africa, Flisher and Parry (2007) noted that self-poisoning is the commonly used method of committing suicide. They noted that drug overdose is the major form of self-poisoning used.

- **Mozambique**

Mozambique is one of the southern African countries that are at high risk of natural disasters. The United Nations (2005) reported that due to climatic change, the country could suffer more severe droughts and floods, more intense cyclones and worse outbreak of epidemics like malaria. In the past decade Mozambique suffered from deadly floods in 2000 and 2007 as well as a heavy cyclone in 2008 (UN 2005). According to the same report, during the 2007 floods 113 571 people were affected while the cyclone of 2008 destroyed 30 000 houses, 200 schoolrooms, and dozens of public buildings. Many lives are lost each time these disasters occur in Mozambique.

Joshi (2009) studied the trends of disaster and suicide in Mozambique and observed some positive link. He noted that as disasters hit the country with more severity and frequency, the rate of suicide increased as well. Between 2000 and 2008, the suicide rate increased from 7.6 per 100 000 people in the late 90s to 10.6 per 100,000 people by 2008 (Joshi 2009). Suicide and the occurrence of disasters therefore cannot be divorced from each other, for disasters bring along depression, PSTD and other forms of stress that strongly correlates with suicide.

According to the Mozambique National Centre for Injury Prevention and Control (2001) the most commonly used lethal method for suicide is firearms. They suggested that the long civil war in the late 80s exposed the public to the use of firearms and some still illegally possess these firearms which are then turned on their own lives.

3.2 The Influence of Disaster Effects on Suicide in Namibia

In Namibia, researches on disaster effects and suicide have been conducted. However, there was no scientific research that attempted to link the two phenomena although results of some of the studies showed a lot of effects that could provoke suicide ideation. For this reason, this area of study is still grey.

Between 1997 and 1998, the Ministry of Health and Social Services (MoHSS) carried out a survey to investigate factors associated with high incidence of suicide in the northwest part of Namibia. The results of the survey indicated that most of the subjects 48% (those that attempted suicide) were in the 20-29 year age group (early adulthood). The majority of the subjects 66% were unemployed. A greater percentage of the respondents (71%) were single and 68% of these respondents were regular users of alcohol. Twenty seven percent of the subjects were suffering from chronic physical illness such as HIV/AIDS, (Afunde 2008). In these findings, most of the factors (age group, unemployment, physical wellness, etcetera) and how they contribute to suicide has been explained in the Integrated Stress and Coping model.

Viewing these findings in light of the prevalence of disastrous hazard of floods in the northern part of Namibia, one can conclude that the devastating effects of floods which almost on a yearly basis hit the northern part of the country are the root cause of suicide predisposing factors. The chief factor pre-disposing people to suicide is depression which affects people when their means of production are adversely affected by floods.

According to Afunde (2008) since the year 2000, the local newspaper, *The Namibian* began to publish incidences of suicide. Over the years, the newspaper mentioned various factors which contributed to suicide like chronic illness, HIV/AIDS, unemployment, problems at school, family disputes, breakdown of relationships and bewitchment.

The importance of having sound relationships with lovers and supportive family; physical health and wealth that contribute to the wellness of an individual, has been explained in the guiding theoretical model. However, it is important to bear in mind that the smooth functioning of these institutes or elements is heavily affected by the effects of disasters in Namibia.

In 2004, the Namibian Broadcasting Corporation as noted by Shivute (2009) conducted a research to find out why there were three to four cases of suicide in Owamboland (northern Namibia) every week. The results of this research, however, were more or less similar to those of *The Namibian.* In all cases the common denominator was unemployment. It has been highlighted that disasters like floods in the northern parts of Namibia destroy and disrupt sources of employment, and thus unemployment seems a direct impact of floods that causes high suicidal rates in the north.

The Lutheran Church based in Windhoek in 2005 undertook a research on how churches might prevent suicide, and minister to those that have lost their loved ones (Afunde 2008). The research that was done nationwide found that the reasons for committing suicide were: breakdown of relationships, HIV/AIDS infection, depression, mental illness, loneliness, unemployment, significant crimes and issues of financial hardships. Being vulnerable to such disasters like floods, droughts and HIV/AIDS pandemic, it posits that the devastating effects of these disasters are contributing factors to high suicide rates in Namibia.

In Okakarara, suicide has no special causes other than the ones already mentioned. That means factors exposing people to suicide ideation revolve around the effects of mainly three disasters of floods, drought and the HIV/AIDS pandemic. Findings by Afunde (2008) revealed that the commonly used lethal method for suicide is hanging. Other lethal methods used in Okakarara as well as Namibia at large are illustrated in Chapter 5.

Suicide trends in Okakarara are also a true reflection of the WHO (2004) findings that generally women attempt suicide more than men. More clarity on this trend will be discussed under gender attempted suicide in Chapter 5.

The following suicide attempts statistics were gathered from Okakarara State Hospital with a view to determine gender trend suicide as well as the influence of disaster effects on suicide.
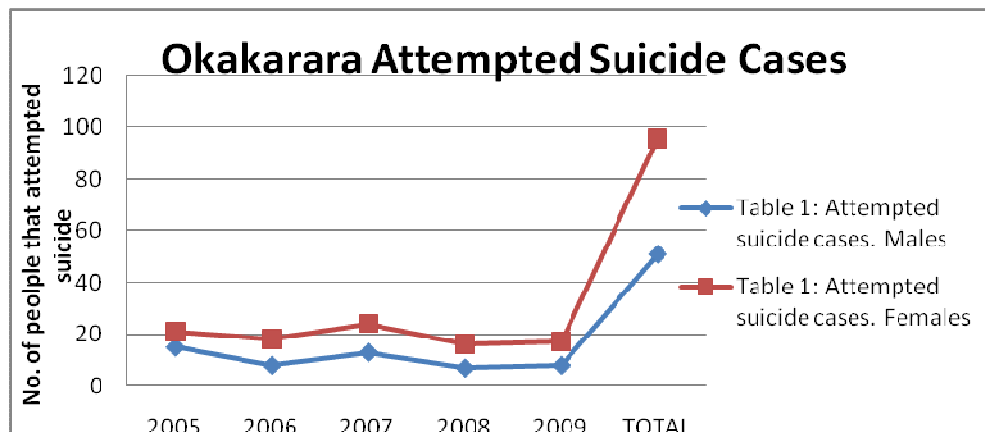
Figure 4: Attempted suicide cases (Source: Okakarara State Hospital- March 2010).

The occurrence of suicide in Okakarara also follows disaster patterns. During the period 2005 and 2009, there were two major natural disasters. Firstly in 2007 there was a severe drought. The Ministry of Regional and Local Government, Housing and Rural Development (2007) reported that 85% of people living in Okakarara constituency were affected by drought and outside aid was called for. Secondly in 2009 due to above average rainfall, there were heavy floods that affected a big number of people. According to the report issued by the Office of the Prime Minister (OPM) (2009) 2 393 livestock were lost, 8 208 hectares of crops were damaged and 881 people were displaced.

The number of people attempting suicide as illustrated in Figure 4 corresponds with the occurrence of these disasters − the year that a disaster hit the community there was an increase in the number of para-suicide cases and particular years are 2007 and 2009. Therefore it is natural to conclude that disaster effects have a positive influence on suicide in Okakarara.

3.3 Conclusion

Researches or studies both locally and abroad as discussed in this chapter have shown that disaster effects do in one way or another influence suicide ideation. The PSTD that disaster survivors experience is the primary factor exposing the same to suicide ideation. In Taiwan and the United States, researches were conducted prior and after earthquake disasters to determine whether there was some increase in the rate of suicide. A high increase was noted in both cases

implying that disasters influenced suicide ideation. In Southern Africa analysis of the trends of the two phenomena, namely disasters and suicide also indicated a casual-effect relationship. To have a global overview of the study helps in identifying and defining the most appropriate strategies in addressing the problem of disasters and suicide in Okakarara.

CHAPTER 4

DISASTEROUS HAZARDS IN OKAKARARA

4.1 Introduction

As already mentioned, Namibia is yet another Southern African country that is at risk of natural disasters as the world is experiencing a gradual climatic change. In this chapter, two disastrous hazards of drought in its four forms (Meteorological, Agricultural, Hydrological and Socio-economic) and floods are going to be discussed *vis-a-vis* their impacts in Okakarara. HIV/AIDS pandemic, whose effects exacerbate those of drought and floods, is also going to be paid particular attention. In each hazard discussion, the link to suicide is going to be highlighted.

4.2 Overview of Drought in Okakarara

Drought is a consequence of natural reduction in the amount of precipitation received over extended period of time, usually a season or more in length and it is often associated with climatic factors such as high temperatures, high winds, and low relative humidity (Tannehill 1947). Basically, four common types of drought occur in Okakarara. These are going to be discussed briefly as follows:

➢ **Meteorological**

From a meteorological point of view drought exists when rainfall is abnormally low. Meteorological drought is expressed solely on the basis of degree of dryness in comparison to some normal or average amount and duration of the dry period (UNEP 2004). Thus intensity and duration are the key characteristics of this type of drought.

➢ **Agricultural**

Agricultural drought exists when soil moisture is depleted to the extent that crops and pasture yields are considerably reduced (Bruwer 1990; Solanes 1986)

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> ## Hydrological

In hydrological terms drought exists when the actual water supply is below the minimum for normal operations and reflects a deficit in the water balance (Bruwer 1990; Solanes 1986). Cunha (1983) states that drought occurs when there is a deficit in water, including not only precipitation but also surface and sub-surface water runoff and storage. Hydrological droughts usually lag the occurrence of meteorological and agricultural droughts because more time elapses before precipitation deficiencies are detected in reservoirs, groundwater and other components of the hydrological systems.

> ## Socio-economic

Socio-economic drought exists when demand for water exceeds supply, usually over an extended period (Solanes 1986).

More often than not, the occurrence of one of these droughts triggers the other so much that there will not be clear cut identification and differentiation of these forms of drought in reality. Droughts become disasters when both the natural and human environment becomes highly vulnerable to the adverse impacts of drought hazards (UNEP 2004).

Namibia is the driest country south of the Sahara (Giorgis 1995). During the past two decades, Namibia, and southern Africa as a whole, has experienced a procession of droughts that had serious consequences, particularly for rural communities (Devereux, Rimmer, LeBeau & Pendleton 1993).

The worst drought episodes in Southern Africa occurred from 1982-83 and from 1991-92 and were the most severe meteorological droughts of the 20th century over Southern Africa. During the 1991-92 drought, 70% of crops failed and it was estimated that half of the population in the affected areas was at risk of malfunction, other health problems and even starvation (Buckland 1994).

The lack of rainfall in the rest of Namibia during the years 1991/92 caused an alarming deterioration in the grazing situation and water availability. Thousands of livestock were reported dead. The estimated livestock mortality is presented in the pie-chart below:
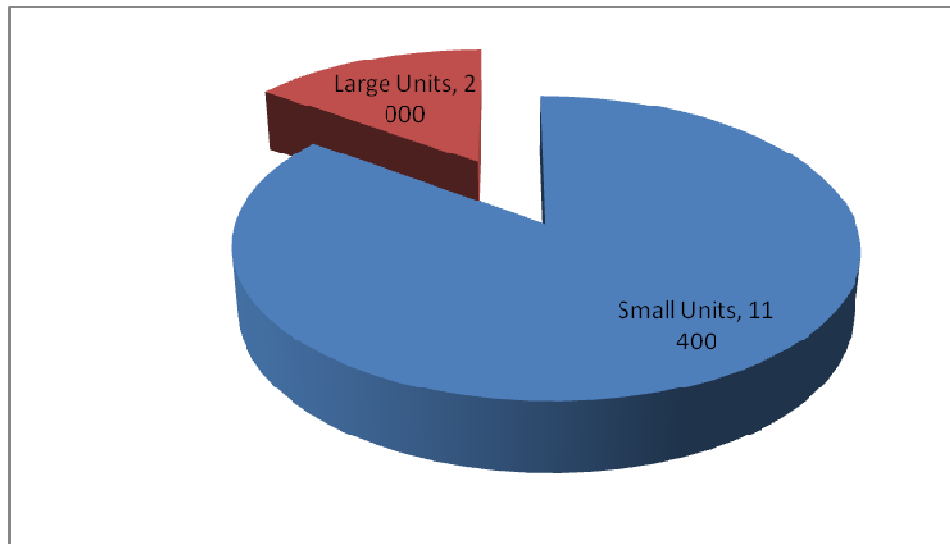
Figure 5: Livestock Mortality, December 1992 (Source: Devereux and Neraa 1996).

Large livestock units mainly comprised of cattle, horses and donkeys. The small units included goats and sheep. Such big losses on main sources of livelihoods meant food security in the communities was compromised resulting in malnutrition.

Nationwide surveys conducted by the Ministry of Health and Social Services recorded a total of 75 deaths of children at Namibian hospitals and clinics from January to April 1993 and the loss of those children was attributed to severe malnutrition as a result of drought (Devereux & Neraa 1996).

According to Moos and Schaefer (1993), the psychosocial-sequelae of disaster can manifest in five or more years after the occurrence of a disaster. This suggests that even though there are a couple of years after this serious drought disaster, some survivors have not fully recovered and rehabilitated and therefore such unsettled psychological traumas can still trigger suicide ideation now and in the future.

It is also important to note that recovery from such a serious disaster is not without challenges in Okakarara, taking into consideration the occurrence of other disasters like floods, the recurring

droughts on five-year intervals as well as the HIV/AIDS pandemic. In almost all the settlements in Okakarara, drought had some far-reaching effects which created basis for mental disorders, depression and PSTD upon victims. These factors as already mentioned are strong correlates of suicide ideation.

4.3 Effects of Drought in Okakarara

The 1991/92 and the recurring droughts on five-year intervals have had strong adverse impacts upon the Okakarara communities (Devereux & Neraa 1996). The effects of these droughts can generally be outlined as:

- Financial hardships.
- Loss of life.
- Malnutrition.
- Loss of livestock
- Negative general living standards.

Compromised sources of income, namely loss of livestock and crops, which apart from the economical value, play a central cultural role in the lives of Namibian people. The negative living conditions create favourable conditions for HIV/AIDS and other poverty related problems. These effects of drought have a strong bearing on the wellbeing of individuals as they are sources of stress and trauma according to the Integrated Stress and Coping model of Moos and Schaefer (1993). These major effects of drought are going to be elaborated under the following headings:

4.3.1 Financial hardships due to affected livelihoods

Livestock has always been the major livelihood of most communal farmers in Okakarara. In Chapter 1 it was noted that livestock production is the major socio-economic activity in the district. Due to limited livelihoods, communal farmers normally bear the brunt of the drought on a more magnified level. During drought, many families experience school drop outs, increased poverty and malnutrition as well as increased domestic violence (Devereux & Neraa 1996). It is not unusual that families will depend on government grants for the vulnerable i.e. orphan grants,

pensions and disability grants for a living (Devereux & Neraa 1996).These grants are too meagre (USD33, USD60 & USD40 respectively) to sustain the extended families that characterize almost every household in Okakarara and Namibia at large. Lack of sound financial base will ultimately yield to poor health due to unaffordable health services, malnutrition, poor general living conditions etc.

According to Furnham and Argyle (1998) wealth is related to many positive life outcomes. People with higher income have better physical and mental health, they can afford improved health care services, have greater health longevity, lower rates of infant mortality, are less frequently the victims of violent crimes and experience less stressful life events. Financial problems are therefore a strong predictor of depression. Unless such drought effects are addressed in Okakarara and Namibia at large, suicide will still be a challenge.

The deterioration of living conditions due to financial hardships create a fertile environment for such ills like domestic violence, divorce, women and child abuse, robbery, stealing etc. Moos and Schaefer (1993) postulate that social attachments through sound social relations, enhance the wellbeing and happiness of an individual. A community marred with violence and abuse of one another as opposed to social attachments is therefore at high risk of suicide.

 According to Tueumuna (2009) suicide in Okakarara can be traced to the pattern of drinking. He like Afunde (2008) noted that after such major events like district livestock auction, suicide cases increase. Afunde (2008) explained this in two ways. He noted that one may engage in self destruction behaviour because he or she cannot stand the shame of irresponsible behaviour they would have engaged in by squandering money in beer with girlfriends or boyfriends. Secondly, the unfulfilled promises from the lovers after selling of livestock at auction can get people into depression. Yet most alcoholics take alcohol and drugs as opium to financial and social challenges of the day. This creates a vicious circle where drought victims drink to stay away from challenges of life, that is financial hardships and yet the more they want to free their minds from problems the more they go deeper into them. More often than not suicide cases are committed when victims are under the influence of alcohol.

Officials from Women and Child Protection Unit (WCPU) Okakarara in May 2010 provided that there are high cases of divorce, domestic violence and women and children abuse during a

drought period. Such social problems create a favourable environment for suicide behaviour as they (social problems) bring about stress upon the victims. A research conducted by Afunde (2008) in Owamboland-Namibia revealed that 80 percent of suicide cases in the region have implications of broken relationships. As noted earlier most marriages and relationships break up during times of financial stress. Lack of social attachment combined with financial challenge will in-turn affect the well being of a person, exposing him/her to suicide ideation.

4.3.2 Unemployment

With no farming activities in the communal areas after a drought spell, the economically active will find their way to the small town of Okakarara to look for employment. However, they get disillusioned upon failing to get employment mainly because the town does not have good employment opportunities and also that the young people lack the required skills and competence in the job market (Afunde 2008). Young people are therefore caught in a double bind where they are pushed from the communal areas because of hunger, starvation and idleness on the other hand their job prospects are extremely limited (Afunde 2008). In such situations the victims of such circumstances may opt to suicide as the only way of solving their problems.

In the Herero tradition (patriarchal), just like any other African cultures, men are the heads of the families and therefore are expected to provide adequately for their families. A man who fails to provide for the family is traumatized by the fear of a questioned manhood. He losses self-esteem which is a buffer to suicide ideation (Moos & Schaefer, 1993). The unemployed man also fears that the wife can always go to other men who are more successful and able to provide for her. This situation creates instability, anxiety and lack of satisfaction with life, factors which predispose victims of drought to suicide ideation.

On another scenario, if a marriage is challenged by drought or disaster effects, it has been highlighted that divorce will be an immediate step. A deserted young man or woman thus will lack the love, intimacy and emotional support from the opposite sex. According to Arnett (2000) as well as Myers (1992), romantic relationship is an important part of an individual's life. These

authors argue that the quality of romantic relationship determines the wellbeing of an individual. Afunde (2008) concluded that mostly a deserted man/ woman who lacks this love often commits suicide.

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Any man in Namibia who intends to get married, must have enough money, or the material means such as livestock to pay for the pride (Afunde 2008). Being without work, keeps a young man in a state of prolonged parental dependence. The disaster effect, unemployment in particular keeps young people under parental dependence which cultivates a sense of low self-esteem among young people and predisposes young people to suicide ideation (Afunde 2008).

4.3.3 Loss of Livestock

Traditionally, the Hereros who are the inhabitants of Okakarara are livestock farmers with crop farming at minimal scale. Their main source of food is milk and meat locally called *Omaere* and *Onyama* respectively-(direct products of livestock). Besides being used as the main sources of food, livestock play a very important role in the Herero culture. It is used in such customs like paying lobola; it is a traditional banking system as well as a simple of wealth. According to Coertzee (1986), the day of a Herero man is spent thinking about or tending his cattle. He says that a day spent without thinking about livestock or an opportunity to work with them is a day wasted to a Herero man. Thus cattle are not just ordinary animals to the Hereros. They are also medium of communication between the dead and the living (beast of burdens) (Coertzee, 1986).

The value attached to cattle among the Hereros is huge. When therefore livestock is adversely affected by drought, communal farmers feel stripped off their cultural and ethnic identity (Afunde 2008). Such situations can trigger hopelessness and depression. According to Seeman (1989) lower level of hopefulness strongly correlates with high risk of suicide.

According to Devereux and Neraa (1996) communal farmers are normally affected by drought more as compared to commercial farmers mainly because they are generally reluctant to sell animals during a drought. The two writers noted that there are various reasons why communal farmers do not want sell animal and these include:

- They are not commercially oriented and have different reasons for keeping livestock which range from cultural to religious.

- The majority of herds and flock sizes are small.

- The communal farmers do not know how long the drought will last.

- By the time the drought is apparent, the animals will have lost health and their sale value is reduced.

- The sale points are not usually close to the where the communal farmers will be.

- There is always a suspicion among the communal farmers that the government wants to coerce them to de-stock. From a communal farmer's perspective, livestock is the best insurance against drought. However they normally loss due to lowered prices and failure to predict when drought will end thus their livestock will just succumb to drought.

Owing to the above mentioned reasons or factors, communal farmers are more vulnerable to drought. Most of the farmers will be stripped off their animals totally during droughts yet their forms of investments are only limited to keeping these animals and subsistent crop farming. Failing to adjust in the aftermath of the drought disaster causes people to engage in self destruction behaviours.

Linked to this is the peasantry mentality of 'Image of limited Good'. This is a peasantry mentally as studied by Foster (1965) that maintains that the broad areas of peasant behaviour are patterned in a fashion as to suggest that peasants view their economic, social and natural universes as in which all desired things in life are not only in short supply but there is no direct way within their power to increase the available quantities. Owing to this mentality, recovery after a drought disaster is a challenge to most communal farmers. An apparent relative improvement in someone's position with respect to any 'Good' (livestock, land, wealth, health, friendships and love, manliness and honour, respect and status, power and influence, security and safety) is viewed as a threat to the entire community. This will give rise to social isolation, conflict with friend and relatives (one's community), chronic factionalism, depression and so forth. These relations breed the basis for suicide ideation.

During a drought period, communal farmers are stressed up of their so much valued livestock that day after day may perish due to starvation. The photograph below shows some pasture stranded livestock in the midst of a drought in Okakarara.

Figure 6:   'Okakarara': goats grazing on the available vegetation (Photo: Kuiper 2007).

In the event of lack of assistance from the government with fodder, which normally is the case, livestock seriously become affected by drought. The coping strategy which some farmers would employ is to sell out the livestock. However, some will not be interested because the market prices for livestock decrease during drought. This scenario presents a curious situation for

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communal farmers in the sense that either decision they take there are negative implications (Selling livestock and get 'robbed' due to low prices at the market or to keep the livestock and face the daily trauma of hunting for fodder). This state of anxiety presented by drought will in turn predispose the victims to suicide thinking.

4.4 Floods

Namibia is hit by floods almost on a yearly basis (MOHSS 2008). The causes of floods in the northern, eastern and central parts of the country are a combination of the above average rainfall and the high inflows in the Cuvelai basin from Kwando and Kavango Rivers with flood water from Southern Angola (Namibia. Emergency Management Unit (EMU) 2010). These floods have far-reaching effects on the lives of people in the flood-prone areas. Like drought, floods do affect the livelihoods of the victims negatively thereby generating a basis for depression and other forms of stress that ultimately expose victims to suicide.

The Emergency Management Unit carried out a survey on the impacts of floods in the affected regions in January of 2010 whereupon they came up with the following findings:

- The successive floods in 2008 and 2009 compounded by drought in previous years have eroded household coping capacity and resilience. This has resulted into increased household vulnerability to environmental risks, common hazards and economic shocks in the North Central and Eastern parts of Namibia.

- Overall trends show that agricultural productivity in the flood affected areas was reduced due to various factors such as flood water, exacerbated by poor seed quality and lack of fertilisers.

- The direct impact of the 2009 floods included loss and damage of crops and livestock, as well as gainful employment opportunities within the formal and informal sectors. This reduced local availability of cereals and access to food among the poorest households. Specific losses include reduction of income derived from various

livelihood activities such as agricultural labour. Other negative impacts included limited access to trade and markets among the directly affected population.

▪ Overall access to food and non-food items among the poorest households was exacerbated by various economic factors such as extreme household poverty, loss of household income, centralized system of regional staple food markets due to flood waters particularly in the central part of the country.

The socio-economic impacts of floods are so devastating and thus they bring about the state of depression and hopelessness (Herbst & Drenth 2009). During flooding times in Namibia, overall access to food and non-food items is hindered by centralized system of staple food markets, poor state of rural roads and in some cases physical obstruction of markets due to flood waters. In such circumstances life becomes more complicated especially for the vulnerable groups of women, the elderly, children and the People Living with HIV/AIDS (PLWHA). Moos & Schaefer (1993) argue that such sufferings are major life crises that prompt suicidal behaviour.

The progression of drought effects into depression and ultimately to suicide ideation, is also the same with floods. In both cases there are destruction of livelihoods and a general increase in poverty levels. However, looking at the nature of the hazards, there is more destruction with floods than drought. Floods are more sudden than drought, and there is no destruction of infrastructure with drought. The stress of losing valuable documents, relocation to camps, outbreak of diseases like malaria is not felt with drought disaster. Unlike drought, floods can take the victims by surprise if warning systems are not adhered to. For these reasons, victims of floods are likely to be depressed more than those of drought disaster and more likely to succumb to suicide ideation.

During floods, households in communal areas get into financial crisis. The MoHSS (2009) noted that during the 2008/09 floods in Namibia, income sources affected include agricultural labour (weeding, harvesting and cattle herding) as well as self-employment opportunities such as making of local crafts, collection of wild foods and brewing as well as loss of capital and assets from small scale trade or enterprises.

Once there is a financial crisis, poverty levels increase. According to Moos & Schaefer (1993) poverty is an environmental factor that strongly correlates with suicidal behaviour. In a poverty-stricken community, all other social ills that directly influence suicide come into play, for instance domestic violence, drug and substance abuse, hunger, etcetera.

The displacement of people during floods does not only result in loss of crops and livestock but disruption of access to such services like education, information and health amongst others. Afunde (2008) in his suicide research in Owamboland observed that school dropout was one of the major causes of suicide. He found out that school dropouts were normally experienced when the schools were destroyed by floods and in some instances where people were displaced. Parents or guardians might have failed to make alternative arrangements for children to continue with school. The young learner who could have set life goals found himself in a state of hopelessness hence school dropout. As noted in the Integrated Stress and Coping Process model school plays a very important role in the development of children; lack of which will cause behavioural challenges, exposing them to suicide ideation.

Floods bring about major depressions in life in the sense that there is loss of live, loss of livelihoods, injuries and destruction of property. During the 2009 flood disaster, the Directorate of Emergency Management (DEM) of Namibia noted the following statistics presented in the bar-graph below in the 6 regions affected including Otjozondjupa where Okakarara lies.
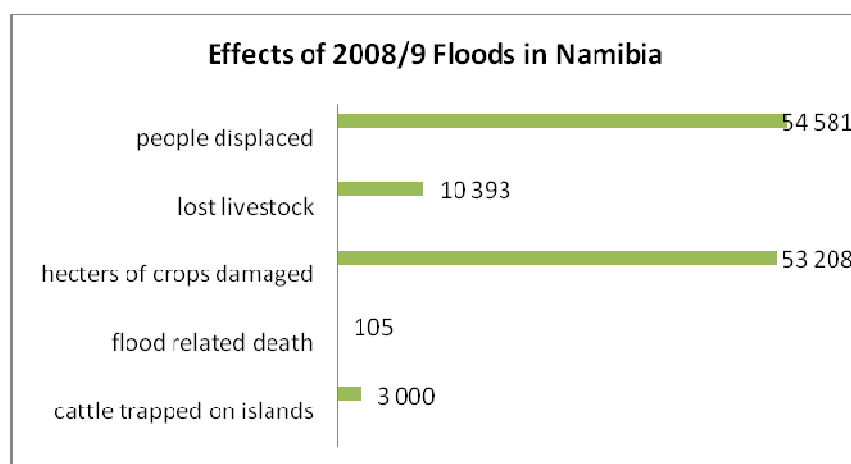

Fig 7: Effects of floods in Namibia (Source: DEM, 2009).

 These great losses are sources of stress and therefore predispose victims to suicide ideation. It should be born in mind that these great losses are also felt simultaneously with the impacts of other disasters like HIV/AIDS and drought as already discussed. The devastating and far-reaching effects of HIV/AIDS hinder the process of floods recovery in that resources that were to be directed to recover from the floods will need to take care of the needs of the infected and affected. Thus it is not unusual that faced with such losses, victims of such disaster take to suicide as a coping mechanism.

4.4.1 Living standards in relief camps during and after floods

Disaster displaced people have always faced the challenge of adjusting to a new environment (Wisner *et al*. 2004). More often than not what makes the change difficulty to cope with are the conditions in the camps. Normally in relief camps, there is no room for family affairs, water and sanitation may not be adequately provided and outbreak of diseases rampant. Such conditions make coping difficult and victims may consider suicide.

Wisner *et al.* (2004) are of the opinion that there are always conflicts in social relations when people are settled in disaster camps. Major conflicts arise from political and religious differences. Muslims and Christians for instance normally do not accommodate each other well and in relief camps this area (religious difference) is sensitive. Other conflicts emanate from ill behaviour or practices of prostitution. MoHSS (2009) on the update report on floods in the affected areas in Namibia noted that although basic necessities were not a major issue, social life within the camps left a lot to be desired as there were many cases of infidelity. Such conditions in camps prompt the victims to consider suicide.

According to Afunde (2008), in most African societies, the success of a woman is determined by a good marriage more than anything else as such many women would try everything they can to maintain their marriage for the sake of their status, children and for economic survival. In the event of the breakdown of a relationship they feel helpless, hopeless, unworthy and see no reason to live. They will be seen as unstable and will be blamed for failing of the relationship. Committing suicide becomes a solution to this problem. For this reason most women would rather endure to live in inundated places than face the shame and agony of losing their husbands or boyfriends in relief camps.

4.5 Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (HIV/AIDS) Pandemic

Sub-Saharan Africa has been referred to as the epicentre of HIV and AIDS with 28.1 million adults and children living with HIV& AIDS by December 2005 (Barnett & Whiteside 2006). Unlike the discussed disasters (floods and drought), this epidemic is a slow and continuous disaster whose devastating effects exacerbate those of occasional disasters. HIV/AIDS is more devastating if combined with displacing disasters. In such disasters for instance when survivors are evacuated, some will not be able to access medication and nutrition due to disrupted services. This increases the impact of the disaster upon the victims. It has been highlighted that the heavier the impact on an individual the more exposed to suicide ideation they become.

Not only the infected or the sick are to bear the brunt of the pandemic, but families shoulder the burden of the HIV/AIDS pandemic too. Those who fall ill become unable to work, forcing family members to provide care rather than work to improve household incomes. Jackson (2001) listed a number of household impacts of HIV/AIDS that can depress both the infected and the affected. According to him these effects include:

- Loss of income, remittances or productive labour leading to increased poverty and poorer nutrition.
- Increased expenditure on health care, transport and funerals.
- Reduced expenditure on food, clothing, school and funerals.
- Increased workload on women and children.
- Children, especially girls, drawn out of school.
- Drawing on savings and sale of assets.
- Emotional stress and loss.
- Risk of stigma, isolation and rejection.

Most of the above impacts are the contextual stressors and resources mentioned in the Integrated Stress and Coping Process model (Moos & Schaefer 1993). These factors or impacts correlate strongly with suicide as individuals exposed to them are at risk of suicide.

The impact of HIV/AIDS pandemic in Okakarara cannot, however, be generalized. The high adult prevalence rate of infection, 15.2% as in 2008 (MoHSS 2008) in Okakarara can be attributed to high levels of alcohol and drug abuse. According to Afunde (2008) heavy consumption of alcohol impairs the ability to make informed sexual decisions. He says that there are higher chances of engaging in unsafe sex when one is under the influence of drugs and alcohol. Alcohol abuse in Okakarara is further necessitated by proliferation of shebeens and lack of stringent by-laws to regulate them. Combined with the severe impact of drought and floods, HIV& AIDS makes life unbearable and victims will consider suicide.

4.5.1 Poverty

The cyclical link between HIV/AIDS and poverty is widely reported. A number of factors point to the link between poverty and risky sexual behaviour that leads to HIV exposure. Yet, HIV/AIDS increases household poverty because affected households experience a decline in income as a result of illness and death. In addition, households have to cope with increased expenditure on food, transport, medical and funeral costs. Children may experience the loss of one or even both parents and that gives rise to their vulnerability. In some cases fostering and child-headed households will emerge. Children, particularly adolescents, if exposed to such an environment due to their multidimensional needs can easily succumb to suicide (Basson 2008).

4.5.2 Gender

The gender dynamics of the epidemic are far-reaching due to women's weaker ability to negotiate safe sex, and their generally lower social and economic status. More women than men are caretakers of people with AIDS, which may saddle them with the triple burden of caring for children, the elderly and people living with AIDS as well as financial responsibility for their families' survival. Girl children or older women may find themselves at the head of households and many girls from families facing poverty, risk exploitation, especially sexual exploitation, when trying to bring in additional income. The heavy responsibilities that women carry, put them at risk in the centre of the pandemic, ultimately resulting in many forms of stress. Exposed to such contextual stressors, these women normally succumb to suicide.

In cases where the wife is told to go back to her family after the husband has died of AIDS - a common practice in Okakarara (Afunde 2008), it means there will be a child-headed household.

Even though the relatives may claim to foster the children, their support may not last (Afunde 2008). These life crises that the mother and children will endure lead to suicide ideation (Goldston *et al.* 2001)

Fryer (1987) postulated that there was an elevated suicide risk among people living with HIV/AIDS. He pointed out that living with HIV/AIDS constituted a high risk for committing suicide as a result of several reasons. Living with a condition that will result in a slow and horrible death increases the chance that a suicidal solution will be considered. He argues that advanced stages of AIDS often involve a type of dementia that may affect the risk for suicide.

Promiscuous homosexuals and intravenous drug users (groups at high risk of getting infected) are especially vulnerable to suicide even before infection, and their chances get extremely high when they are infected (Fryer 1987). Homosexuals are normally considered social misfits and thus they are isolated, placing them at risk of suicide ideation.

According to Jackson (2001) there are a number of factors or events that trigger PLWHA to commit suicide. These factors include:

- Learning about their positive HIV status
- Disclosing their status to family and friends
- Starting antiretroviral therapy
- Noticing the first symptoms
- Having decrease in CD4 count
- Undergoing major illness or hospitalization
- Receiving an AIDS diagnosis
- Losing a job
- Requiring evaluation for dementia
- Losing a significant relationship.

According to Parker and Galvao (1996) the above-mentioned triggers can rapidly cause suicide when the victim is stigmatized and discriminated against. Parker and Aggleton (1997) write that there are various sources of stigma and discrimination. They argue that stigma and discrimination are strong correlates of suicidal thoughts. Sources of stigma and discrimination are mainly the following:

- **Religious institution**

In some contexts, HIV and AIDS-related stigma and discrimination have been reinforced by religious leaders and organisations, which have used their power to maintain the *status quo* rather than to challenge the negative attitude to PLWHA. According to Sigh (2001) it was noted that religious doctrines, moral and ethical positions regarding sexuality, sexism homophobia, and denial of the realities of HIV/AIDS have helped create the perception that those infected have sinned and deserve their 'punishment', increasing the stigma associated with HIV/AIDS. Religious networks are meant to provide and protect individuals against crises in life. In the event of rejection by the same, individuals will turn to suicide as a way of solving their problems.

- **Community context**

In societies with cultural systems that place greater emphasis on individualism, HIV/AIDS may be perceived as the result of personal irresponsibility and thus individuals are blamed for contracting the infection (Kegele 1990). In contrast, in a society where cultural systems place greater emphasis on collectivism like in Namibia and other African nations, HIV/AIDS may be perceived as bringing shame on the family and community (Panos 1996). In all cases, the infected will feel ashamed and his mind is preoccupied by remorseful thoughts. This in most circumstances predisposes people to suicide ideation.

In Namibia, there is a general tendency of viewing HIV/AIDS through the lances of morality (Afunde 2008). A person that is infected is perceived as immoral and deviant (Warwick 1998). In such situations, the PLWHA will desire HIV to progress more rapidly into AIDS and sometimes if the person is on treatment he will stop taking medication (Jackson 2002). In other words this person will be committing slow suicide just for him to die rather than bearing the shame.

- **Family context**

The family is the main source of care and support for a person, more especially a PLWHA, in most developing countries (Warwick 1998; World Bank 1997). However, negative family responses are common. Infected individuals often experience stigma and

discrimination in the home, and women are often more likely to be badly treated than men and children in spite of the fact that they are mostly the caregivers to family members that fall sick (Bharat & Agyleton 1999). Negative community and family response to women with HIV/AIDS include blame, rejection and considered as *Oshikumbus* - husband snatchers (Afunde 2008). According to Parker and Galvao (1996) families may reject PLWHA not only because of their HIV status, but also because HIV/AIDS is associated with promiscuity. In most cases the infected can be so emotionally stressed that he can consider suicide.

In many cases also, HIV/AIDS-related stigma and discrimination has been extended to families, neighbours and friends of PLWHA. This 'secondary' stigmatisation and discrimination has played an important role in creating and reinforcing social isolation of those affected by the epidemic, such as the children and partners of PLWHA. In most teenagers as noted by Basson (2008) secondary discrimination is a major predisposing factor to suicide.

- **Individual context**

In individuals, the way in which HIV/AIDS-related stigma discrimination is manifested depends on family and social support, and the degree to which people are able to be open about such issues as their sexuality as well as their zero status (Parker & Galvao 1996). In contexts where HIV/AIDS is highly stigmatized, fear of HIV/AIDS-related stigma and discrimination may cause individuals to isolate themselves to the extent that they no longer feel part of the civil society, and are unable to gain access to the services and support they need (Daniel & Parker 1983). This has been called internalized stigma. In extreme cases, this has led to premature death through suicide (Gilmore & Somerville 1994).

In Namibia, laws are there that protect the rights and confidentiality of PLWHA. However, few individuals are willing to litigate for fear that this will result in disclosure of their identity and HIV status (Afunde 2008).

- **Institutional context: educational and schools**

Children with HIV/AIDS or associated with HIV through infected family members have been stigmatized and discriminated against in educational settings in most communities. Stigma has led to teasing by classmates. This affects the learner that at times he gets depressed and isolated. According to Basson (2008), stigma and discrimination result in low self-esteem. High self-esteem contributes towards acting as a buffer in reducing the risk to suicidal behaviour among adolescents. Lack of it therefore will result in suicidal behaviour.

Stigma and discrimination make both the infected and the affected hopeless about their situation. According to Sebate (1999) hopelessness has a strong correlation with suicidal ideation.

The misconception that HIV/AIDS is contracted through promiscuity alone makes the PLWHA run the risk of being stigmatized, isolated and rejected (Jackson 2001). Many a time some people, soon after having been diagnosed HIV positive, if they lack proper counselling, will commit suicide because of fear of going through social rejection and stigmatization.

4.6 Conclusion

From the above discussion on suicide and common disasters in Okakarara and Namibia in general, it shows that to a greater extent the impact of these disasters influence suicide ideation. The heavy loss of property, disruption of livelihoods that victims suffer during floods, the loss of livestock, general increase in poverty levels during times of drought and the trauma the affected and infected face as a result of HIV/AIDS pandemic, are all fertile grounds for depression and other forms of stress, strong correlates of suicide. The most effective way therefore to addressing suicide is through good management of these disastrous hazards (which predispose victims to depression) through the disaster management continuum and proper managing of situational circumstances through the Integrated Stress and Coping model as explained in Chapter 2.

CHAPTER 5

RESEARCH RESULTS

5.1 Introduction

This chapter will focus on the overall analysis of the research results of Okakarara as a whole. Most of the questions covered during the interview stage will be analysed briefly, but more attention will be paid to those that will contribute more towards answering the research questions. In justifying the research results, the researcher will make reference to the literature study and additional sources wherever possible.

This chapter will also focus on the comparison of results for the three areas of Okakarara, namely Okakarara central, Okondjatu and Okamatapati. Only the questions where major differences among the areas were identified will be compared with one another.

One notable area of difference is the percentages of people that attempted suicide in the three areas. Of all the para-suicide cases recorded in Okakarara, Okakarara central constituted 60%, Okamatapati 21% and Okondjatu 19% as illustrated in Figure 8.
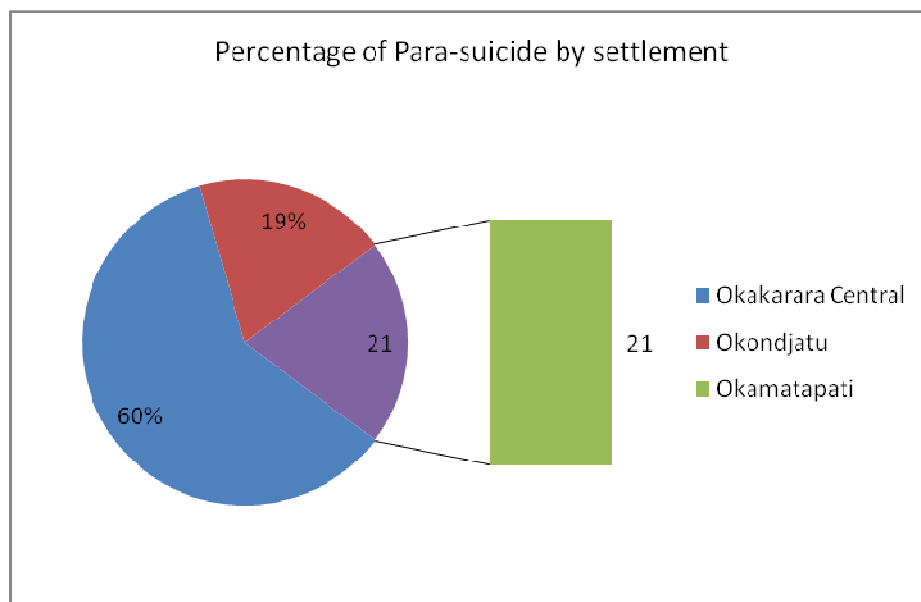

Figure 8: Percentage of para-suicide cases in Okakarara

Okakarara central has the highest score of para-suicide incidences constituting 60% of the total cases in five years' time (2005-2009). In the first chapter, it has been noted that Okakarara is the least developed town of the region with few learning institutions, banking services and wholesales. As a result of this, the area does not offer good employment opportunities. Lack of employment is exacerbated by natural disasters that disrupt and destroy livelihoods almost on a yearly basis (Devereux *et al.* 1993). Unemployment and suicide closely correlate. The higher the unemployment rate, the higher the incidence of suicide.

Having elaborated on the link between unemployment and suicide ideation through the integrated stress and coping process model in Chapter 2, the research results also confirmed the correlation between these two variables (unemployment and suicide ideation). These will be discussed under the following sub-heading.

5.2 Unemployment

In this study, unemployment was defined as any situation where a person did not have a source of income or livelihood that could generate income at any given point. Those that fell under government grants like disability grant, pension and fostering grants were considered as unemployed.

In Okakarara central, unemployment among the para-suicidal was 77% while in Okamatapati it was 75% and in Okondjatu 73%. Whilst all areas had very high levels of unemployment, Okakarara central has the highest with 77% as already indicated. Figure 9 indicates the levels of unemployment in Okakarara settlements

Investigating the influence of disaster effects on suicide: A case study of the Okakarara community, Namibia.
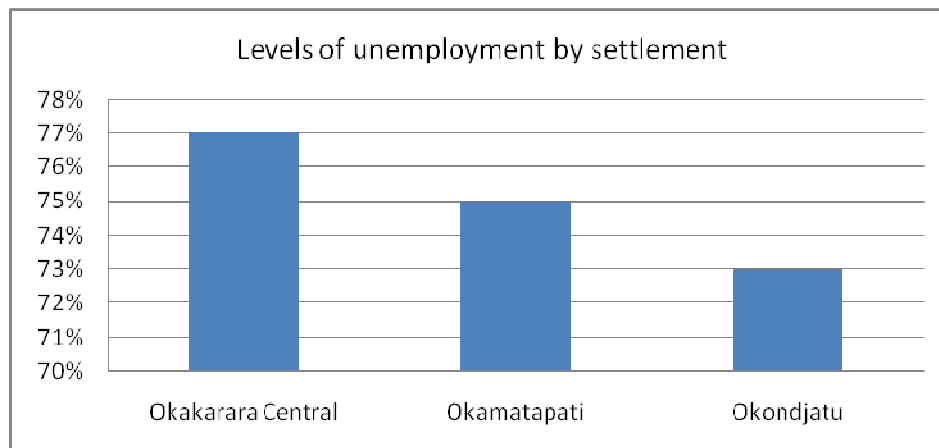

Figure 9: Levels of unemployment in the three settlements.

Unemployment among the recorded suicide cases remain a common denominator in all the three areas with above 70%. Reasons for such high unemployment rates are similar to those already mentioned which are mainly limited employment opportunities.

Unemployment is a situation that can affect both the employed and the unemployed. Those that are in jobs, but have a family member or members who do not work worry about the latter's welfare. In the African context where the bond of extended families is still so much cherished, having family members who cannot afford to fend for themselves can bring stress to those in jobs. Unemployment therefore is a situation which can trigger anxiety and depression both for those who are working and those who are unemployed (Afunde 2008).
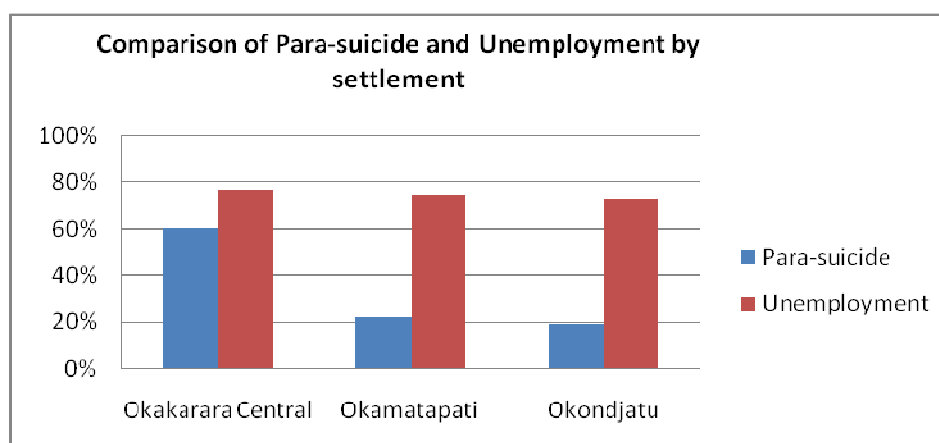

Figure 10: Suicide attempt and unemployment in Okakarara

According to Moos & Schaefer (1993) in their model − Integrated Stress and Coping Process, unemployment forms part of contextual stressors and resources. Employment makes it possible for people to access material resources, satisfies their financial and social needs and ultimately brings happiness to one's life. Lack of it then will give way to stress. In the aftermath of a disaster, only those that are financially stable will recover quickly and the have-nots will stagger to recover and rehabilitate. This prolongs their period in disaster induced stress or post-trauma stress disorder which strongly correlates with suicide ideation.

However, it was noted during the survey that there were interwoven factors that led to high suicide and para-suicide cases in Okakarara central besides unemployment as elaborated above. Another grand factor that contributes to high levels of suicide ideation in Okakarara central is the impact of drought, in particular more in Okakarara central than in other settlements. This is mainly because the Regional Council which is mandated by the government to mitigate the impact of drought by issuing out food handouts in Okakarara, does not include Okakarara central as a drought relief beneficiary. It is considered a town, and therefore it is assumed that the residents are less vulnerable than those in the other settlements. This is an unfounded assumption because the unemployment rate amongst the para-suicidal cases is higher in Okakarara central than the other two which logically points out that assistance with food relief and other self-reliance projects is equally needed.

5.3 Gender Attempted Suicide

In the study area, there are more women that attempted suicide than men, which supports Stillion and McDowell's (1999) assertion that gender plays a central role in determining suicide ideation, and that more women than men attempt suicide. In terms of percentage, women who attempted suicide are 53% while men are 47%. Figure 11 indicates the ratio between male and female-related suicides.
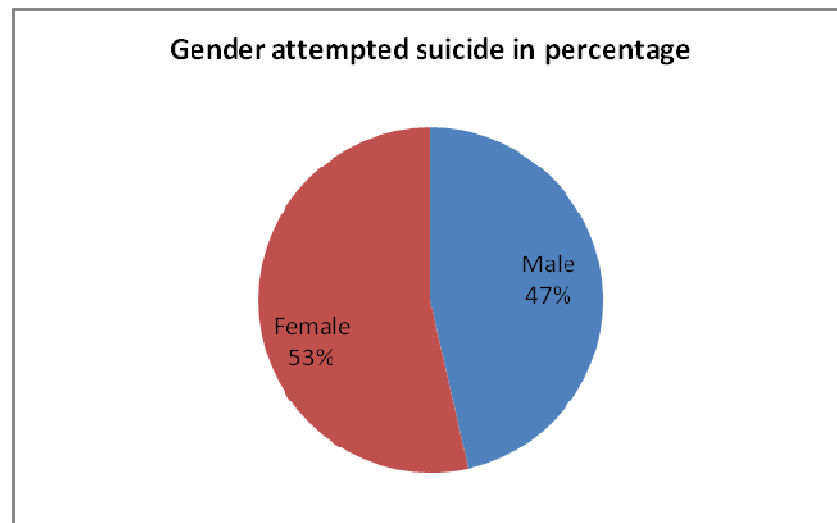
Figure 11: Gender attempted suicide in Okakarara.

However, there is no notable difference between males and females that attempted suicide. Although WHO (2004) findings revealed that women attempt suicide more than men, in Okakarara the difference is not significant as illustrated in Figure 11. This could be because the population of women generally in Okakarara is small − 48% against 52% for males (Namibia. Demographic and Health Survey 2008-09) However, if cases were weighed proportionally against its population (female or male) perhaps a big difference could be noted.

In a patriarchal community like Okakarara, women play a multiplicity of roles in their families. This puts them central to disasters, for example with HIV/AIDS, whether by choice or not, women find themselves giving care to those that are sick, and those that are affected by the illness. It is not unusual to find that the care-giving women consider themselves last when it comes to resource distribution at family level. Even though they are infected, women are still expected and required to look after the family until they succumb to the disease. If they themselves are not necessarily ill or infected, they provide home-based care to husbands, children, relatives and at times, neighbours. Being the least developed town in the whole region as mentioned earlier, Okakarara does not have many supportive systems for the women as they engage in these multiple roles. Thus at times women experience burn-out, a form of stress which will ultimately lead to suicide ideation. Therefore, it is important to analyse gender dynamics

when analyzing the phenomenon of suicide and disasters. The difference noted between men and women that attempted suicide in Okakarara can be related to these gender dynamics.

5.4 Age Related Suicide

It has been noted from the above discussion it is clear that children are also at the core of this study. They are equally or even much more affected by disasters than other age groups. In this study age plays a critical role in determining vulnerability to disasters. The economically active age of 19-35 constituted the highest percentage of those who attempted suicide with 58%, those of the age 18 and below had 28%, 36-45 age groups constituted eight percent while those between 46-55 and those over 56 years had equal percentages of four percent.
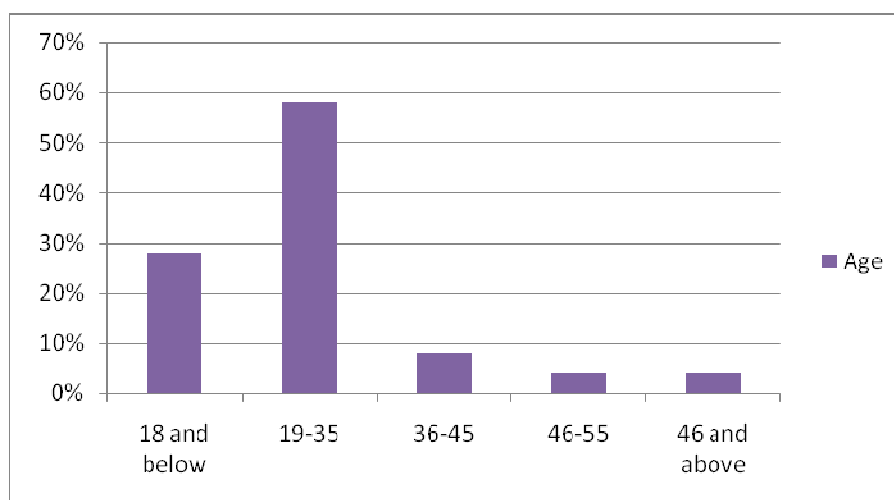
Figure 12: Age attempted suicide

According to the suicide trajectory theory by Stillion and McDowell (1999) the age 19-35 may be characterised as the time of making marital and occupational choices and of "transition". In this transitional period, the psychological risk factors involve the changes of roles and the stress inherent in the beginning of a career. Early years of adulthood are also spent on the task of establishing intimacy in interpersonal relationship. It is a period of establishing a critical bond with mates and friends that can be a protective factor against isolation and accompanying a sense of loneliness. In other words it is a period of great stress if expectations are not met.

The highlighted factors accompanied by disaster impacts of drought, flood and HIV/AIDS pandemic will not only contribute to life transition and life crises, but to personal systems, contextual stressors and resources as well. As indicated in Chapter 2 these factors correlate strongly with suicide ideation. Therefore it stands to reason that there is a high percentage of attempted suicide amongst the young adults (19-35).

A fairly high percentage of attempted suicide was also recorded among children of 18 years and under. A number of possible reasons for this trend have been explained in the previous discussion of gender, suicide and position in a household.

From 36 years up, incidence of suicide decreases gradually. As people experience life, they seem to be resilient to the stress and frustrations of the day. In his hierarchy of needs, Maslow argues that people move towards self-actualization as they grow older. Some of the self-actualization characteristics as outlined by Maslow are:

- Having a keen sense of reality, aware of real situations.
- See problems in terms of challenges and situations rather than excuses.
- Not susceptible to social pressure- non-conformist.
- Comfortable with oneself- despite any unconventional tendencies.

Thus as opposed to self-destruction in the early years of adulthood, individuals at old age are motivated to self-actualize. For this and other reasons, there is a gradual decrease in attempted suicide amongst ages of 46-55 and 56 up: both having as low percentages as four.

5.5 Gender and Lethal Methods of Suicide

Gender plays an important role in choosing lethal methods to commit suicide. Although men have a lower percentage of 47% against women's 53% in attempted suicide, it is said that men commit successful suicides more than women. This is mainly because men use more effective methods than women; methods like firearms and hanging which allow little intervention between the suicide event and death. On the other hand women use light and simple methods like drug overdose. The highest lethal method used in Okakarara is hanging. Other methods used are shooting, drug overdose and drowning.

According to Afunde (2008) men cannot endure pain for too long and thus when they decide to commit suicide they will do it in an effective way. More so they cannot stand the stigma attached to those who wanted to surrender their lives. They are regarded as weak mortals. However, one can also argue that the accessibility and availability of the tools or lethal methods also determines the manner of suicide. For example a woman's life is mostly centred on the kitchen and thus accessible tools for suicide become substances like detergents, for example washing power, Jik, etcetera. On the other hand a man's life is mainly outside the house, for example hunting, repairing broken tools and machines at home. In such an environment, men get exposed to firearms, wires, petrol, etcetera which becomes easily accessible tools when he wants to commit suicide.   Figure 13 is an indication of the lethal methods used in Okakarara.
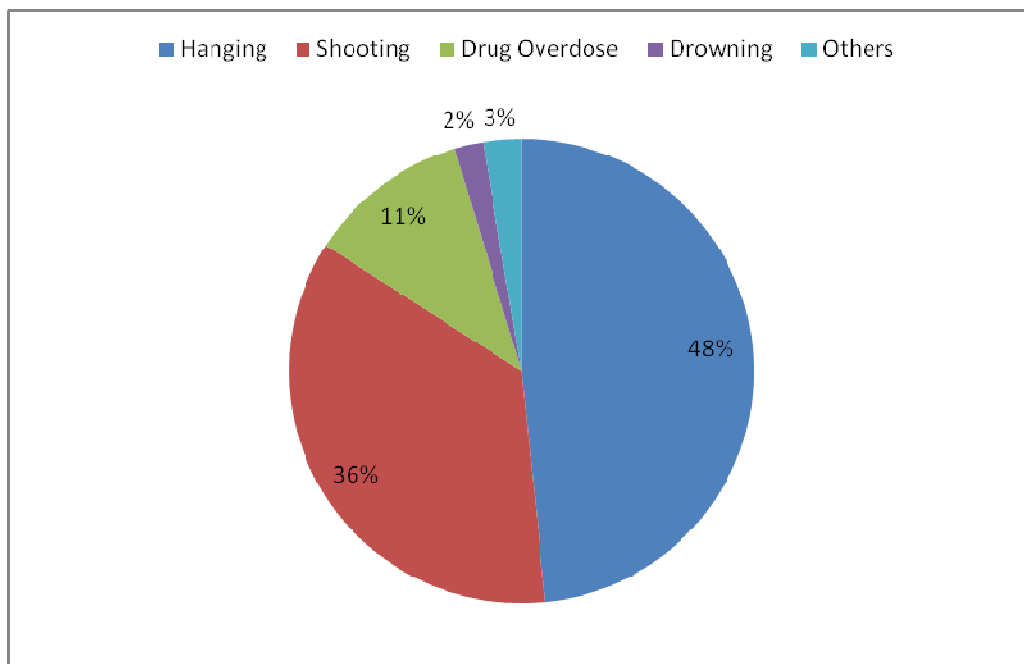
Figure 13**:** Lethal methods of suicide in Okakarara.

Most of the respondents to this study came from the drug overdose segment. This lethal method is not violent and quick, thus there is the possibility of being rescued, as drug overdose requires medical attention. Most of those that fell into this category found themselves in hospital. Findings from the seventy-eight suicide attempters interviewed revealed that 37 of their relatives died due to hanging. Thus hanging stood out as the most common lethal method constituting 48% of other methods used in Okakarara as shown in Figure 13. This is probably because

hanging is a readily available method of suicide. Of the 37 who committed suicide by hanging, 27 were men and ten were women, 73% and 27% respectively.

Drowning constituted a small percentage of two per cent probably because it is usually seasonal, that is commonly during the rainy season when water reservoirs have abundance of water. Other methods included falling from tall buildings or throwing oneself on a moving vehicle. These are not very common as such very few (3%) cases came from this category.

5.6 Suicide Attempters and Positions in Households

In this study, heads of households and children had the highest percentages of attempted suicide. Couples and others occupied the least percentages of attempted suicide. Among the heads of households, males attempted suicide more than female yet among the children under 18 years, females constituted a higher percentage of 24% than males 18%. The percentage of attempted suicide by gender and household position can be seen in Figure 14.
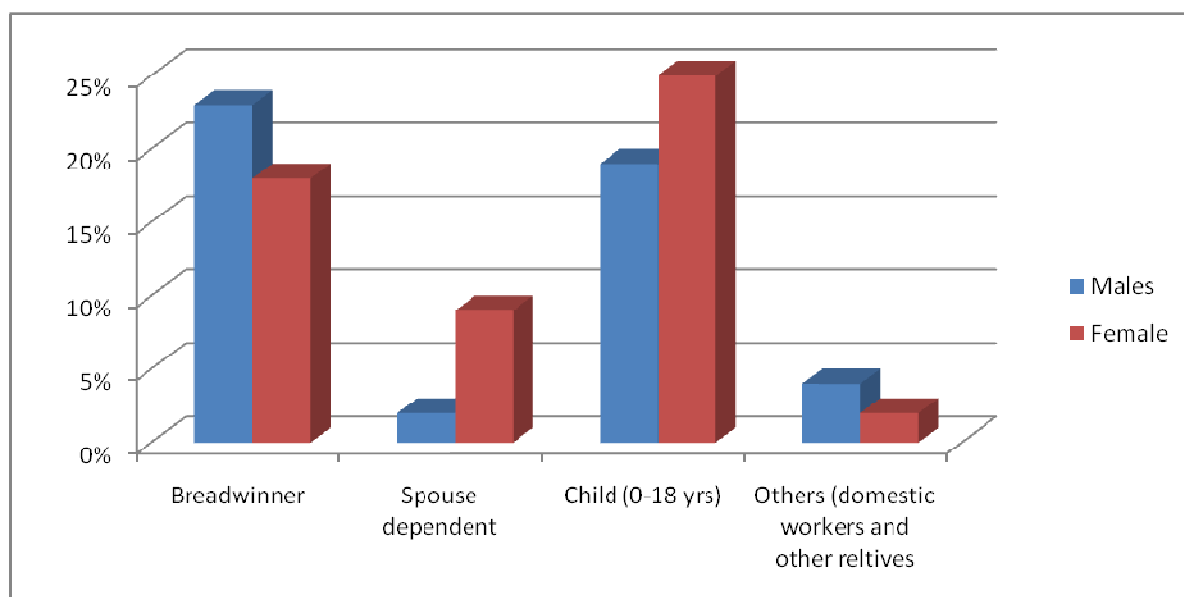

Figure 14: Gender, household and percentage of attempted suicide.

Being a breadwinner means catering for the welfare of the dependents. In the event of a disaster it means a heavy burden is loaded on the breadwinners as they try to continue assuming their responsibilities with reduced or limited resources. Without the necessary support both material

and psychosocial, breadwinners fall into depression due to disaster losses. From the findings, the major loss that people normally experience is financial stability as livelihoods will be affected, subsequently breeding other stressful problems like marital relationships. In Okakarara the high percentage (23%) of male breadwinners who attempted suicide could be related disaster induced depression.

Children, especially females, constitute the highest percentage (24, 8%) of attempted suicides, namely 25 children. The stress and coping model discussed in Chapter 2 posits that most sources of stress among the adolescents are life transition and life crises. These include developmental processes and traumas. Most of the children are school going in the 10-18 age group. According to Sigeman & Rider (2003) schools can have a profound impact on many areas of a child's development. These influences may be positive or negative. For some children, school is a place where they are stimulated, valued and encouraged to achieve their full potential. Olweus (1993) also suggests that the social context and culture of schools can play a key role in a child's level of achievement and emotional well-being. Teachers play an important role in the school environment as they often act as role models and are important sources of support and feedback.

In Okakarara children are normally affected by the prevailing disasters of floods, drought and the HIV/AIDS pandemic. During flooding times schools are destroyed and in some cases children are relocated to other places of safety where they cannot access proper education. In such circumstances, the role that school plays in the development of a child will be missed, bringing about life transitional and life crisis among the affected children. Life in transition and a life crisis are strong correlates of suicide as demonstrated by the stress and coping model in Chapter 2.

In the case of HIV/AIDS, it is a common trend that when a family member is AIDS bedridden, a girl child is assigned to take care of the sick person (Jackson 2002). As the need for care and household chores increases, the girl child will eventually drop out of school. Such life changes affect children and they become victims of suicide ideation. The high percentage of female children attempting suicide in Okakarara could be attributed to this amongst others.

5.7 Disasters and Impact on Okakarara

The study focused on the impact of two common natural disasters in the area, and these are drought and floods. HIV/AIDS pandemic as a global issue exacerbating the impacts of natural disasters was also focused on. From the findings it was noted that the most common disaster in Okakarara is drought which affected 40% of the suicide survivors, followed by the HIV& AIDS pandemic with 35%, and lastly floods which affected 25% of the respondents.   In a space of five years (2005-2009) suicide survivors reported that they had experienced the effects of at least one of these disasters. The three common disasters as felt by suicide survivors in Okakarara are illustrated in Figure 15.
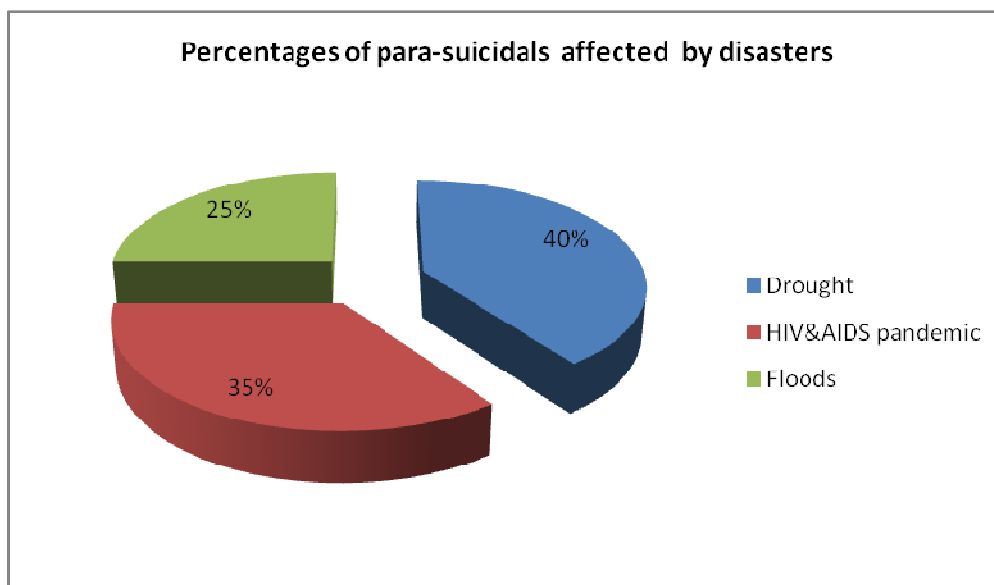
Figure 15: Common disasters in Okakarara.

Referring to Chapter 2, drought in Okakarara has a five-year interval. This period is too short for maximum rehabilitation and recovery. It means victims could be caught in a vicious circle where, by the time they try to pick up from the impact of the previous drought, a new one will be imminent. During drought, communities are affected in a number of ways as noted from the findings: loss of crops, livestock, property and life. These losses as illustrated in Figure 16 can easily depress the victims thereby predisposing them to suicide ideation

HIV/AIDS pandemic was ranked second with 35% of the respondents having been affected by it. Regarding age attempted suicide findings, it was noted that young adults in the 9-35 age group constituted the highest percentage of 58% of attempted suicides. This age group is not only economically but sexually active as well, positing that a good number of these constituted the 35% of those that had been affected by HIV/AIDS. Factors that predispose young people to HIV infection have been elaborated on in Chapter 2.

Those that had been affected by floods, the least threatening hazard, within a period of five years constituted 25%. However, it should be borne in mind that floods also contribute to drought. The presentation of the results only depended on how the respondents recalled the immediate disaster that affected them. This means chances are there that in certain cases where floods caused drought, the respondent could only mention drought as it could have had a direct impact. In light of this, floods in Okakarara may not necessarily be ranked the least of hazards.

5.8 Main Sources of Livelihoods

TABLE 5.1: SOURCES OF LIVELIHOODS

SOURCES OF LIVELIHOODS	FREQUENCY	PERCENTAGE
Subsistence farming	38	49%
Small scale commercial farming	0	0%
Operating a Kapana (selling fast foods)	5	6%
Other	35	45%

Table 5.1 illustrates that the majority, 49% (38 out of 78), of suicide survivors in Okakarara are subsistent farmers. A fairly big population, 45% (35 out of 78), of suicide survivors had other sources of livelihoods besides those listed. Others included such activities as piece jobs, vending, repairing broken assets or gadgets,

To have subsistence farming as the main source of livelihood, posits a high level of risk as a result of climatic hazards like droughts and floods. In most cases communal farmers do not diversify their livelihoods, further putting the same at risk of disasters. Most other sources of livelihoods among the suicide survivors in Okakarara are informal, namely operating kapanas,

vending, scotch carts workshops, etcetera. This poses a challenge in accessing insurance for their businesses, and increases their vulnerability to disasters.

5.9 Losses as a Result of Disasters in Okakarara

As noted above, 40% of the respondents were affected by drought, 35% by the HIV/AIDS pandemic and 25% by floods. It is also of great importance at this stage to determine the loss incurred by the survivors of these disasters. The level of loss incurred, can to a certain extent assist in determining the psychosocial-sequelae of the suffering which will ultimately contribute to suicide ideation.
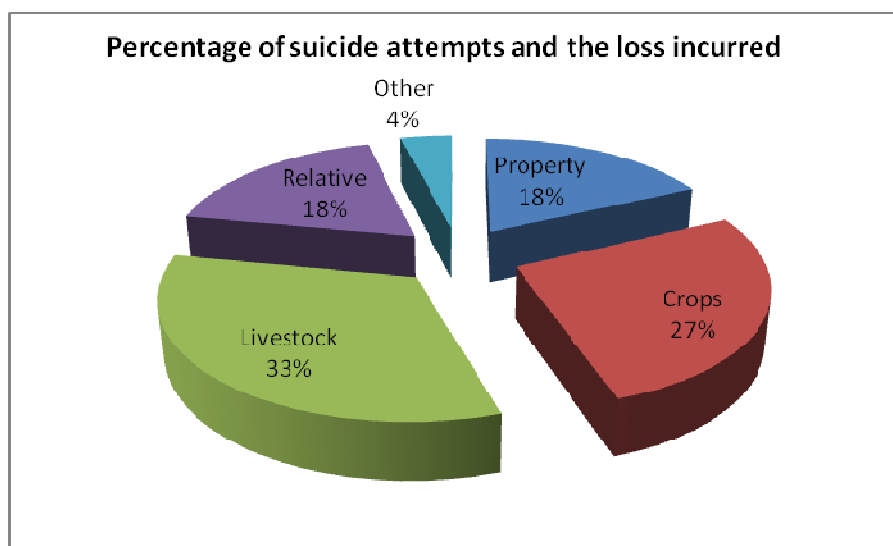
Figure 16: Percentage of suicide survivors and loss incurred.

It has been found that a greater percentage of para-suicide cases suffered loss of livestock and crops. Those who suffered loss of livestock constituted 33% while 27% lost crops in disasters that occurred from 2005 to 2009 as illustrated in Figure 16. Eighteen percent of the suicide survivors pointed out that due to disasters that happened the past five years, they suffered heavy losses of property. Another 18% also indicated that they had lost relatives due to the disasters.

'Other' refers to employment and other valuables like pets, photographs, etcetera. Those in this category constituted four per cent. It should be borne in mind, however, that when it comes to

the gravity of the impact of a disaster upon individuals, this cannot be compared to, for example those who lost a relative during a disaster, cannot be said to be at a greater loss than those who lost employment, an animal or a crop. It is all determined by how close or how dependent that particular individual was to the thing that was lost during a disaster. This also posits that psychosocial support should be impartial when assisting disaster survivors.

5.10 Assessment of Actions and Accessibility

TABLE 5.2 THE RESPONSE BY SUICIDE SURVIVORS TO DISASTERS

ACTION TAKEN TO MITIGATE IMPACT OF DISASTER	FREQUENCY	PERCENTAGE
Nothing	33	50%
Waited for the government and donor aid	8	12%
Sold livestock	9	14%
Sought health information from the hospital	16	24%
Other	0	0%

Table 5.2 clearly indicates that the results of the survey showed that half of the people that were affected by a disaster or disasters did nothing to mitigate the impact. This is probably because people did not have enough information to empower them to take the initiatives in their situation.

A fairly high percentage of 24% responded that they sought information from the hospital. This suggests that with health-related disasters like the HIV/AIDS pandemic people are keen to seek health information. Twelve percentage of the 66 respondents indicated that they sought government intervention or assistance from donors.

TABLE 5.3: KNOWLEDGE OF DISASTER MANAGEMENT COMMITTEES

PRESENCE OF DISASTER MANAGEMENT COMMITTEE IN AREA	FREQUENCY	PERCENTAGE
Do not know	36	46.2%
Do have	12	15.4%
Do not have	30	38.5%

According to the findings in Table 5.3, the majority of suicide survivors (46%) indicated that they did not know about any disaster management committees in their areas. On the other hand a fairly big percentage (38%) indicated that they did not have disaster management committees in

their areas. Effectively, 84% of suicide survivors in Okakarara are neither aware of existing disaster committees nor are they actively involved in any disaster management committee. According to Veenema (1999) the only effective way of reducing the impacts of disasters is through implementing disaster mitigation measures through the disaster continuum. In situations where disaster management committees do not exist or members of the community are not aware of such, it posits that such a community is highly susceptible to disasters. Only 12% of suicide survivors indicated that they had disaster management committees in their areas. However, having a disaster management committee does not necessarily mean that people are immune to disaster. Therefore this calls for a qualitative assessment of the existing committees.

TABLE 5.4: ROLE OF DISASTER MANAGEMENT COMMITTEES PRIOR, DURING AND AFTER A DISASTER

EMERGENCY MANAGEMENT COMMITTEE ASSISTANCE	FREQUENCY	PERCENTAGE
Provide with early warning information	4	33%
Provide forms for humanitarian aid	8	67%

Of the 12% that indicated that they had disaster management committees, four of them indicated that their committees provided them with early warnings to disasters. A much greater percentage 67%   (8 out of 12) highlighted that their disaster management committees provided them with forms for humanitarian aid. Although the existing committees at least do something to mitigate the impact of disasters upon the community, their inputs are not meant to empower people to be resilient to the disaster impact but rather reactive and rudimentary, like providing forms and selecting beneficiaries for aid. More empowering measures are therefore encouraged.
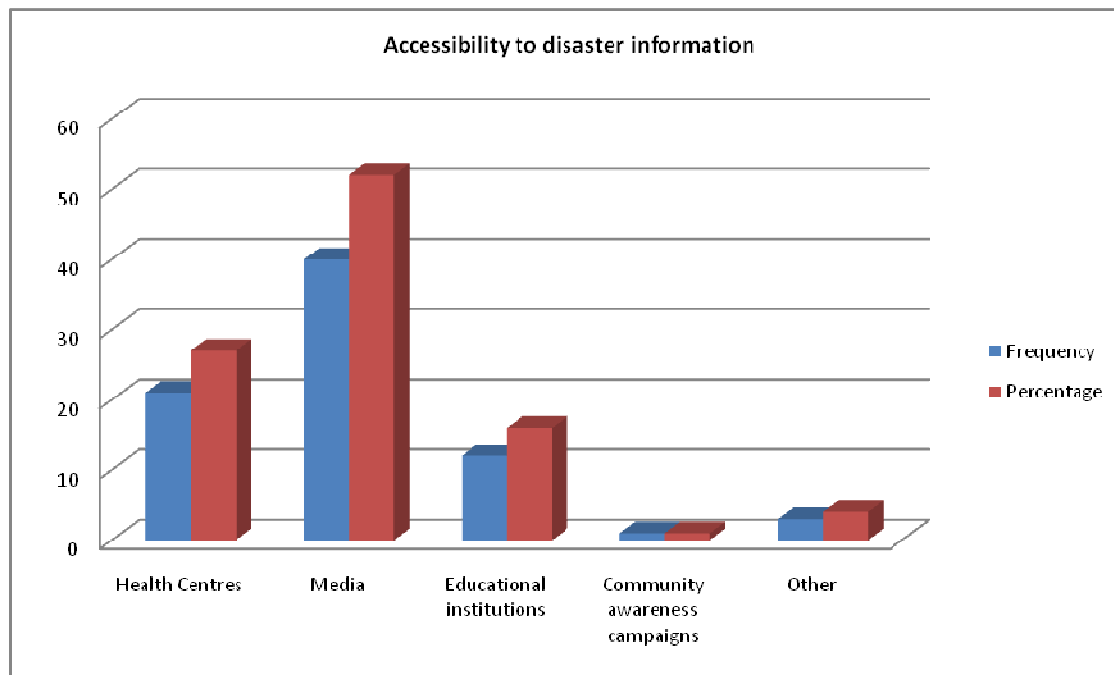
Figure 17: Accessibility to disaster information

More than half of the interviewed suicide clients showed that they access information about disasters from the media mostly newspapers, radio and television. Access to disaster information is important in so far as people get information on the early warnings. If people are warned before hand, they can take initiatives to prevent or mitigate the impending disaster. Other sources that are accessible to people for disaster information are the health centres and the educational institutions. For effective dissemination of disaster information, it will therefore be ideal to use the three sources of health centres, media and educational institutions. Only one percent indicated that they got information about impending disaster through community awareness campaign which showed that this method of information dissemination does not reach out much of the community members as compared to the media and educational institutions. Other sources referred in Figure 18 are posters, causal meetings or conversation. A minimal number of respondents (three) said they accessed disaster information through these means.

5.11 Suicide-Related Circumstances

In Table 5.5 it shows that more than half of the suicide survivors (60%) attained secondary education. Those who attained primary education were 32% of the total respondents. Tertiary education constituted three per cent. Therefore most of the suicide survivors were literate. However, in this case the level of literacy cannot determine the problem-solving capacity or accessibility to resources to reduce disaster impacts. Other things being equal, educated people should have more life options in terms of accessibility to resources than the uneducated. Resources in this sense refer to psychosocial support services, material resources as well as useful disaster information. Even though most of the suicide survivors (74) received at least primary education as mentioned earlier, unemployment is a major challenge. This means most of them are living in poverty which prevents them from accessing services and other resources to improve their quality of life, and reduce the indirect effects of disasters.

TABLE 5.5: SUICIDES AND LEVEL OF EDUCATION

HIGHEST LEVEL OF EDUCATION	FREQUENCY	PERCENTAGE
Never went to school	4	5%
Primary	25	32%
Secondary	47	60%
Tertiary	2	3%
Other	0	0%

According to Afunde (2008) early years of adulthood are spent on making career choices. If due to poverty and unemployment one fails to attain career objectives, it leads to suicide ideation. Disaster effects like loss of property, livestock and crops affecting an already impoverished and disillusioned people can trigger suicide thinking. This analysis is relevant to Okakarara community, which despite a fair standard of education, suicide and suicide attempts still remained high. This can be attributed due to the devastating effects of disasters which depress people and expose them to suicidal behaviour.

TABLE 5.6: SUICIDE AND RELIGION

RELIGION	FREQUENCY	PERCENTAGE
Christian	25	32%
Muslim	0	0%
Traditionalist	51	65%
No religion	2	3%
Other	0	0%

Throughout the centuries religion has been thought to influence suicide through different mechanisms (Afunde 2009). In Okakarara most of the people that attempted suicide (65%) were traditionalists while 32% were Christians. No member of the Muslim community was reported to have attempted suicide. Stack in Casterns (1999) postulates that only few beliefs and practices are needed to lower the suicide rate such as a belief in an 'after life'. Against this background, people facing unemployment, divorce and other adversities are more apt to persevere until the end. Therefore being exposed to the basic religious teaching, being a church member and attending church services can lower suicide rate. Although some traditionalists believe in life after death, the belief is not more pronounced than among Christians and Muslims. Moreover traditionalists rarely gather for spiritual nourishment as do the other religions. This is perhaps the reason why there are a very high percentage of traditionalists that attempted suicide, more than any other religion.

In this regard, religion plays a very important role as a psychosocial support network. Those that that are of Christian background, that biblically believe that committing suicide is a sin, are likely to rekindle hope by reflecting on scriptures to overcome stress of disaster effects. This might be an explanation as to why there were fewer Christians (25) that attempted suicide than traditionalists (51).

TABLE 5.7 FAMILY STRUCTURE AND SUICIDE

Family Structure	Frequency	Percentage
Nuclear family unit	61	78%
Single parented household	2	3%
Extended family	12	15%
Sibling headed	2	3%
Cohabiting	1	1%

The highest percentage (78%) of those that attempted suicide had a nuclear family unit structure. Extended families constituted 15%. Durkheim's views in Giddens (1997) on suicide *vis-a-vis* family or society's structure are that egoistic suicide is a result of weakening of the bonds that normally integrate individuals into collectivity. He referred to the breakdown or decrease of social integration. Durkheim (1952) refers to this type of suicide as a result of 'excessive individuation' meaning that the individual becomes increasingly detached from other members of his community. Those individuals who are not sufficiently bound to social groups (with well-defined values, traditions, norms and goals) are left with little social support or guidance, tend to increasingly commit suicide. Individuals coming from the nuclear family structures according to Durkheim's (1952) views, lack the bond that extended families have. People are more likely to get support from extended family members than 'individualistic' nuclear families. This explains the high number of attempted suicide cases recorded from nuclear families in Okakarara.

With disasters that constantly push people into poverty, family cohesion is gradually fading as people move towards individualistic lives. Traditionally, in most African societies, there used to be collectivism as opposed to individualism, and this helped to maintain those social values, traditions, norms and goals that bound the community. Thus Durkheim (1952) postulates that if the society maintains unity or cohesion there will be fewer incidences of suicide. However, as the world is becoming more commercialized, collectivism is becoming expensive as a coping strategy. As a result of the economic demands of the industrialized economies, societies have shifted to nuclear family- oriented lives. This trend makes people vulnerable as they have limited access to both material and other psychosocial resources (previously or traditionally enjoyed from the extended families), which could prevent depression and ultimately suicide ideation.
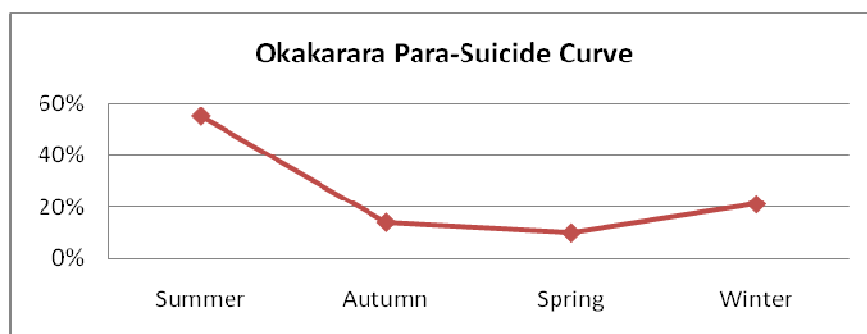

Figure 18: Para-suicide curve

Investigating the influence of disaster effects on suicide: A case study of the Okakarara community, Namibia.

The highest percentage (57%) of para-suicide cases occurred in summer. There is a steep decrease in suicide incidence as autumn approaches. Suicide incidents are lowest in spring (10%). The beginning of winter sees a steady increase in the incidence of suicide.

Durkheim employed an empirical method to analyse how cosmic factors such as weather or seasons, influence suicide. In his findings he concluded that suicide is higher in summer as the heat increases the excitability of the nervous system. This makes people susceptible to stress and ultimately suicide ideation.

On the other hand, the impacts of drought are mostly felt in summer when big numbers of livestock succumb to drought. It will be dry in terms of pastures and water reservoirs will be dry as well. Most people will be depressed due to drought impacts during this season which will cause them to consider suicide. As mentioned earlier HIV/AIDS exacerbates the effects of both drought and floods. When the community is seriously affected by drought during summer, the devastating impacts of HIV/AIDS are also deeply felt, thereby triggering suicide thinking among the affected.

However, it cannot be factually determined that a suicide attempt during summer was as a result of drought or in autumn or spring that it was caused by floods. Post trauma stress disorder which triggers suicide behaviour can be experienced for a long time (five or more years) after the specific disaster (Moos & Schaefer, 1993).

5.12 Knowledge of Available Support to Reduce Disaster Impact

TABLE 5.8: KNOWLEDGE OF AVAILABLE SERVICES TO REDUCE DISASTER IMPACT

REFERRAL TO SOCIAL WORKER FOR PSYCHOSOCIAL SUPPORT	FREQUENCY	PERCENTAGE
Own initiative	2	3%
Family	60	77%
Community leader	2	3%
Police	2	3%
Other	12	15%

According to the findings illustrated in Table 5.8, 77% of the respondents indicated that they were brought to the social worker for counselling by their family members. A very small percentage, two per cent, went to the social worker on their own initiative. 'Other' in this case

included internal referrals, for example from hospital wards, schools and other institutions. The information illustrated in Table 5.8 shows that services of social workers are not known to survivors of disasters. As mentioned in Chapter 1, social work intervention in the area is more reactive than proactive. Lack of information or knowledge of professional psychosocial support might be contributing to high incidences of suicide and suicide attempts in Okakarara.

However, it cannot completely be ruled out that people are reluctant to seek assistance in times of calamities. It has been mentioned as well in the first chapter that there is a general apathetic attitude towards professional intervention. Thus some suicide and disaster survivors may decide to consult other sources for post trauma stress disorder, for example faith healers, pastors and others.

TABLE 5.9 SHOWS OTHER SOURCES OF PSYCHOSOCIAL SUPPORT

BESIDES SOCIAL WORKERS, OTHER PSYCHOSOCIAL SUPPORT	FREQUENCY	PERCENTAGE
Family	67	86%
Royal house	0	0%
Religious leaders	6	8%
Peers	5	6%
No where	0	0%
Other	0	0%

According to Table 5.9 an extremely high percentage (86%) of the respondents indicated that they had their families as sources of psychosocial support during times of need. Nobody indicated that they were assisted at a royal house/chief's place, nobody received counselling from other sources besides those listed and nobody indicated that they did not go anywhere for psychosocial support. Very small percentages (8%, 6%) indicated that they received psychosocial support from religious leaders and peers respectively. In this study it shows that the family plays a pivotal role in psychosocial support.

In Table (5.8), it showed that most cases (77%) were referred to the social worker by the families and 86% of the respondents in Table 5.9 also indicated that besides professional psychosocial support, they are supported by their families. The importance of a family in promoting the well-being of an individual cannot be over-emphasized. Research indicates that family members share

Investigating the influence of disaster effects on suicide: A case study of the Okakarara community, Namibia.

a subjective reality, including shared values and world views (Lazarus & Folkman 1984). This ultimately contributes to the wellness of an individual reducing suicide ideation.

5.13 Assessment of Psychosocial Services Received

One of the research questions for this study was, "What are the supporting networks available for disaster and suicide survivors?" It has been highlighted from the findings that most of the existing support networks are mainly the family, the religious leaders and the peers. From these social capitals, suicide and disaster survivors receive psychosocial support.

As noted earlier, a very small percentage (3%) of the respondents made their own way for professional psychosocial support. Many relied on the families, peers and religious leaders. A qualitative assessment was done on these major sources of psychological help during disasters and other times of need.
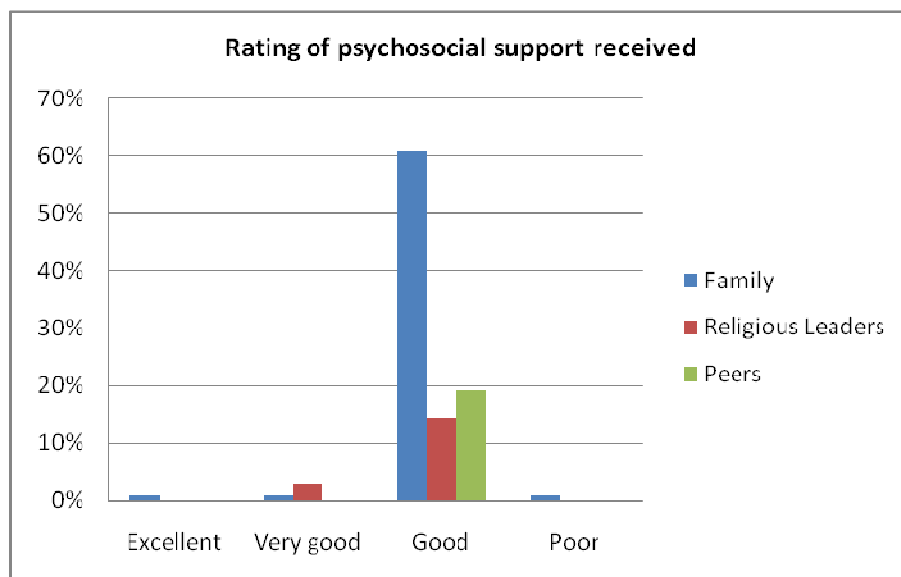
Figure 19: Rating of psychosocial support received

Figure 19 shows that much of the psychosocial support from other sources besides professionally, was satisfactory or good. A very high percentage (62%) that received support from the families indicated that the support was good. Also in the same range is the 19% that was assisted by their peers. Religious leaders were also provided good support as indicated by the 12% of respondents who received help from them. Five percent also highlighted that

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religious leaders were very good in providing psychosocial support. Only one percent commented that family support was very excellent and the other one percent indicated that family support was poor.

This information therefore means that since most people entrust their families to provide good psychosocial support, the best strategy could be to empower the family members (community) with counselling skills to further enhance their counselling skills. However, this is not meant to replace professional intervention, but rather to compliment it.

5.14 Summary of Views from Survivors

The aim of this section is to give the readers an opportunity to make their own assessment of the views that suicide and disaster survivors have on mitigation of disaster effects as well as suicide itself. This section shall be divided in three sections as follows:

❖ **How to address the impact of disasters**

- Introduce early warning systems to drought, epidemics and floods.
- The only way to survive from disasters is to pray.
- Disaster is a punishment from God for the evils that are happening and men cannot do anything to stop them.
- People with problems should find other people to talk to.
- Information about HIV/AIDS should clearly be communicated to people to prevent infection.
- Disaster management should be taught at school so that the learners will be able to teach others how to prevent disasters.
- Every settlement should have its own disaster management committee.
- People should be prepared to evacuate, and not to wait for the government to intervene.
- Nongovernmental organisations should also chip in to assist the government to reduce the impact of disasters.

❖ **How to address suicide in THEIR area**

- Avoid dishing out medication to the public.
- Demystify myths about suicide, for instance:

  "People who talk about suicide won't really do it",

  "If a person is determined to kill him/herself, nothing can stop him/her"
- Suicide is an act of witchcraft; people with suicide ideation should visit a witchdoctor.
- Community counsellors should identify and talk to people with suicide ideation.
- The government should provide suicide counselling centres in the communities.
- Suicide survivors should be encouraged to share their problems with the social workers.
- The community should have a suicidal checklist so that people are assisted before they commit or attempt suicide.
- Suicide survivors should have support groups.
- The issuing of firearms should be very strict because people use those firearms against themselves and families.
- There should be suicide campaigns in schools.

❖ **Other comments with regard to disasters and suicide**

- Most people that are HIV positive commit suicide.
- Disasters are created by God and man can do nothing to stop them.
- I now know the consequences of suicide; I will not attempt it again.
- The government is doing nothing to empower and assist us during disasters. That is why we are suffering like this.
- The government should provide food, clothes and cattle to start projects to prevent dying from hunger.
- The community leaders should conduct awareness campaigns for both suicide and disaster.

- Committing suicide is the only solution to these earthly problems.
- The community and the government should work together to reduce the impacts of disasters.
- Grants for the vulnerable people should be increased so that they do not feel the impacts of drought.
- Community workshops should be conducted to give information on disaster risk reduction.
- People should discuss problems at family level, guidance from social workers and stop attempting suicide.

From the wide diversity of opinions, it is evident that some information pertaining to suicide and disasters is still regarded as myths in Okakarara community. There are still people who believe suicide is an act of witchcraft and people with suicide ideation should visit witchdoctors for healing; some believe that disasters are God-created and therefore mankind can do nothing to prevent them. It is necessary to demystify the myths and misconception about suicide and disasters. However, some comments showed knowledge of proper intervention in reducing suicide, for example to limit access of medication to people who do not need it as this could be a lethal method for committing suicide.

5.15 Conclusion

The overall analysis of the research results for Okakarara community was done. The effects of disaster impacts upon survivors were established to determine their psychological impact. The link between disasters and depression was therefore established and the link between depression and suicide ultimately determined. It became clear that suicide, which is the main social issue in Okakarara, is only a symptom of the devastating effects of disasters of floods, drought and HIV/AIDS in the area. There is need to consider addressing the impact of disaster if any solution is to be found to reduce suicide in Okakarara.

Views from the respondents were also considered for further discussions and analysis by the readers. These views were mainly on how disasters and suicide could be reduced in Okakarara. It can be provoking regarding some research problems, yet it might create awareness of what constitutes a disaster-stricken community.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

In this chapter a conclusion of the main perspective gleaned from the literature and the findings of the study is presented. This is followed by recommendations arising from the study.

6.2 Perspective from the Literature

The core of this study was on determining the influence of disaster effects on suicide in Okakarara. To be able to achieve that, the integrated stress and coping process model was employed to conceptualise the psychological effects of disasters that influence suicidal ideation.

In this model the impacts of disasters that are socio-economic and psychological were defined and categorised in panels showing their domino effect on suicide. Lack of hope, low self-esteem, economic instability, lack of capital networks in the aftermath of a disaster are all sources of stress that eventually bring about suicide thinking.

From a sociological perspective, Durkheim (1952) sees the breakdown of family cohesion and the development of individualistic life style as opposed to collectivism as major predisposing factors to suicide. He traced the genesis of this trend to poverty. The cyclic link of poverty and disasters posits that the two are inseparable hence principally, the effects of poverty can interchangeably be effects of disasters.

The global trend of suicide reveals that more women than men attempt suicide yet more men commit suicide than women. This formed part of the research questions and the quest to understand this "ambiguous" trend shall satisfactorily be responded to in the conclusion of the research findings.

The progression of women's vulnerability to disasters illustrated the need to consider gender equity and equality in all circles of development. Their vulnerability emanates from socio-

cultural and economic settings of the society. In Okakarara women are found to be at the centre of the common disasters of drought, floods and HIV/AIDS because of the roles of care-giving and providing for the family that they naturally and socially assume.

The disastrous hazards of drought, floods and HIV/AIDS have been explained in detail in respect of their impacts to the affected. Drought in its four forms has been identified as the major disaster in Okakarara. Drought effects such as loss of life, malnutrition, financial hardships, etcetera, accompanied by the devastating impact of the HIV& AIDS pandemic, make the situation of the victims unbearable predisposing suicide ideation.

The harsh living conditions that normally characterise the relief camps during flooding time like lack of proper water and sanitation provisions, at times disease outbreaks and family displacements could not be left unmentioned as they pose stress upon survivors and ultimately predisposing them to suicide behaviour.

6.3 Conclusion of Results

The overall analysis of the research results for Okakarara show that it is a community at risk of mainly the mentioned disastrous hazards of drought, floods and HIV/AIDS pandemic. Its vulnerability mainly stems from lack of mitigation measures. A quantitative and qualitative assessment of the existence and work of the disaster management committees was done and it left a lot to be desired. Eighty-four percent of suicide survivors in Okakarara are neither aware of existing disaster committees nor are they actively involved in any disaster management committee programmes. According to Veenema (1999) the only effective way of reducing the impacts of disasters is through implementing disaster mitigation measures throughout the disaster continuum. Disaster management committees are vital in spearheading the disaster reduction measures.

The research questions that guided this study were satisfactorily answered from the research findings.

- Firstly, the disaster impacts that predispose survivors to suicide ideation in Okakarara were determined and these were mainly loss of livestock, property and other livelihoods

from disasters of floods and drought. The burden of being infected and affected by HIV/AIDS could not be left out as a major predisposition to suicide behaviour among the affected and infected.

- Secondly, support networks available for disaster and suicide survivors were defined and identified as mainly the family system, religious congregations and peers in various circles.

- Thirdly, the multiplicity of roles that women play in families (like care-giving, providing food for the family, participating in dynamic development issues yet usually not empowered) which put them at the centre of disasters answered the million-dollar question of why women occupied a bigger para-suicide percentage of 53 than their counterparts (reconfirming the global gender suicide trend) and paradoxically, committing suicide less than men.

Such roles as mentioned above, make the burden of disaster impacts heavier on women than men, hence the former fall victim to suicide behaviour. However, when it comes to the choice of lethal methods, women normally use less effective methods of suicide while men use the most effective methods which do not leave space for rescue, hence more men commit suicide than their counterparts.

6.4 The Researcher's Opinion on Suicide

Moral arguments regarding suicide have typically revolved around the issue whether or not suicide violates one or more of three obligations, namely to oneself, to the community including family and to God. In this day, the classical position of sanctity of life against suicide is being questioned by the principles of autonomy and utilitarianism, arguing for rational justification in the right to self-determination, control of one's destiny or taking one's own life as they so wish.

The researcher holds that there should be a respect for life. That means people have no right to intentionally take their lives more especially taking into consideration the obligations which individuals have to the three units of self, community and God.

People who commit "rational" suicide as a coping mechanism for personal problems are morally biased because personal autonomy or independence is not the ultimate goal of human life. In other words this is an expression of radical individualism, a philosophy that weakens the community or the multidimensional aspect of the human person. It places little or no value on social or communitarian belonging of a person. Interdependence as opposed to independence is the goal of human life.

The wrongness of suicide lies in the wrong intention to kill oneself. Suicide is an egocentric act. It is a self-serving attitude, which is not appropriate because it does not consider adequately the totality of a human person as always a being-in-relation with others or the moral principle of "*munhu munhu muvanhu*" –'*I am because we are, and since we are, therefore I am.*' This expression is a practical pointer to the moral centrality of community in the researcher's tradition.

Though driven by multidimensional factors as they are posed by disasters and other associated or situational factors, every effort should be directed towards seeking assistance rather than committing suicide.

However, life still maintains its relative value when taken in a sacrificial sense. This will be altruistic suicide. According to Durkheim (1952), such kind of suicide is very rare, but it can happen that one can kill oneself in order to save the community or family.

6.5 Recommendations for the Research

6.5.1 Recommendations for drought management.

In Okakarara, the main source of livelihood is subsistence farming in livestock and crops. It has been noted from the research that drought is the major of the three disastrous discussed in the study. Against such findings, a quantitative and qualitative assessment of disaster preparedness in general, in the area revealed that the level of preparedness is very low. In simple sense Okakarara community is highly vulnerable to these three mentioned hazards particularly drought. In light of this therefore the following recommendations pertaining to drought are suggested as follows:

- The Regional Council that is responsible for drought relief should revise its criterion for defining and identifying beneficiaries. It has been noted that Okakarara central is outside their working framework which contributed to high levels of impoverishment, ultimately contributing to higher levels of suicide in the area than other benefiting settlements of Okondjatu and Okamatapati.

- Small informal livelihoods which constituted a fairly high percentage (33%) of total livelihoods in Okakarara should be upgraded into Small and Medium Enterprises (SMEs) which will enable them to access bank loans and donations. With this, livelihoods will be diversified and sustainable hence the impacts of drought and other disasters will be eased.

- An Early Warning System should be put in place for effective management of drought as well as floods. To be effective, an early warning system should be able to provide the following information:

  - Spatial extent of draught/floods
  - Duration of drought/floods
  - Time of occurrence of drought/floods in relation to the crop calendar.

It has also been noted during the research that most respondents did not have disaster management committees and therefore many do not have drought plans. It is therefore recommended that after disaster management committees have been formed, they should develop drought plans. The following guidelines on establishing committee structures for drought management are thus recommended.

The first step in developing a drought plan is to establish a relevant committee that will develop and write the development plan and develop the necessary organizational structures to carry out its responsibilities. The drought plan should have three primary components of monitoring, risk assessment, mitigation and response. It is recommended that committees be established to focus on the first two (monitoring and risk assessment). The mitigation and response functions can in

most instances be carried out by the drought task force. The diagram in Figure 20 shows the responsibilities of the task force.
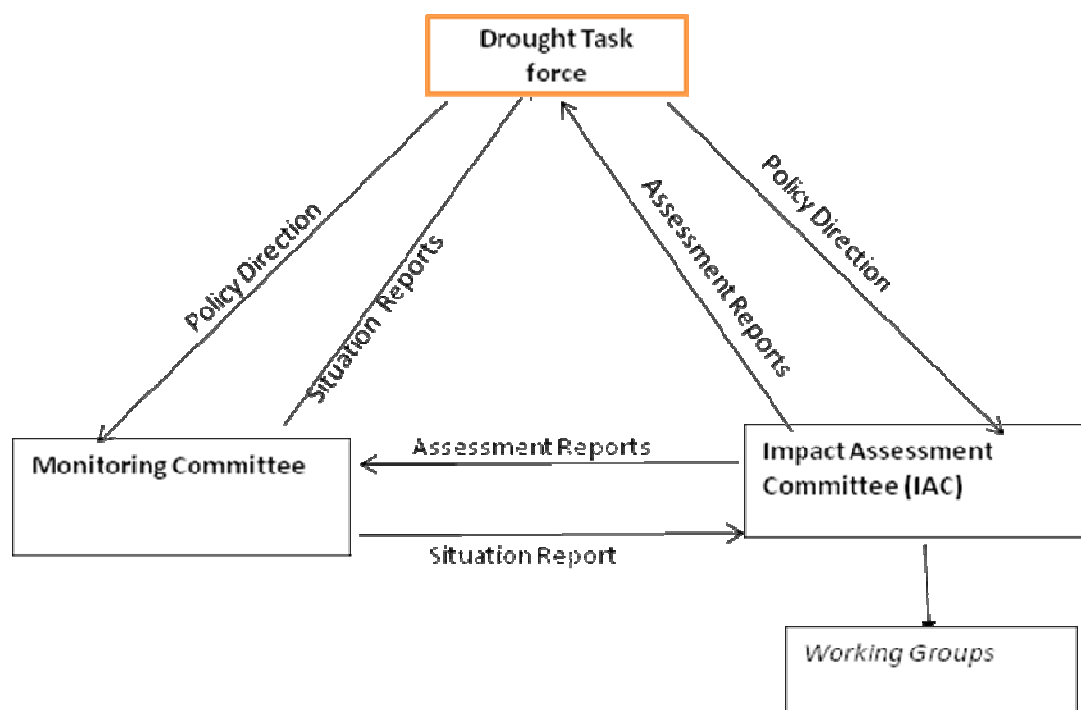

Figure 20: Drought plan

The monitoring and impact assessment committees will have their own tasks and goals, but well-established communication and information flow between committees and the task force is a necessity to ensure effective planning.

6.5.2 Task force (mitigation and drought response)

It is recommended that the task force, working in cooperation with the monitoring and risk assessment committees, has the knowledge and experience to understand drought mitigation techniques, risk analysis (economic, environmental and social aspects), and drought related decision making processes at all levels of government. This means a drought task force should be

composed of senior policy makers from various state and federal agencies. The group should be in an excellent position to recommend and/or implement mitigation actions and influence policies. The main tasks of the task force include determining mitigation and response actions, having an inventory of all forms of assistance available from local, state and federal government during drought, work with the monitoring and risk assessment committees to establish triggers amongst others.

6.5.3 Monitoring committee

The monitoring committee should include representatives from agencies or stakeholders with responsibilities for monitoring climate and water supply like the Namibian Weather Services. This is important as assessment of availability of water and its outlook for near-and long-term has to be done regularly in both dry and wet period. Invaluable indicators that the committee will need to constantly check on include precipitation, temperature, evapotranspiration, long-range weather forecasts, soil moisture, stream flow, ground water levels, reservoir and lake levels and snow packs. The main objectives of the monitoring committee are to:

> ➢ Help policy makers adopt a workable definition of drought that could be used to phase in and phase out levels of state and federal actions in response to drought.

> ➢ Develop a drought monitoring system

> ➢ Work closely with the task force and risk assessment committees.

> ➢ Develop and/or modify the data and information delivery system.

6.5.4 Risk assessment committee

The membership of risk assessment committee should represent economic sectors, social groups and ecosystems most at risk from drought. It is recommended that the committee's chairperson should be a member of the task force. According to Devereux *et al.* (1993) the most effective approach to follow in determining vulnerability to and impacts of drought is to create working groups under the aegis of the risk assessment committee. The responsibility of the committee and the working groups is to assess sectors, population groups, and ecosystems most at risk and

identify appropriate and reasonable mitigation measures to address these risks. The working groups should be composed of technical specialist and stakeholders representing the respective areas of operation. The chair of each working group as a member of the risk assessment committee, would report directly to the committee.

In managing drought, there are basically four stages that have to be followed and these are highlighted in Table 6.1.

TABLE 6.1 STAGES OF DROUGHT MANAGEMENT

STAGE	KEY ACTIVITY
Normal	Ensure update drought plans are in place and routine monitoring is undertaken
Potential Drought	Drought teams set up and monitoring undertaken. There may be additional reporting.
Drought	Drought teams manage the drought; other activities may be reduced or stopped.
Post Drought	Review management of drought, identify lessons learnt and update drought plans

It is recommended that the working committees work through these stages of drought management.

6.5.5 Recommendations to the management of HIV/AIDS pandemic

The results of the study also revealed that the HIV/AIDS pandemic is a major hazard affecting a significant amount of people after drought in Okakarara. It has been noted that the young adults or the economically active groups are the ones mostly infected by HIV. Factors that expose these young people to infection have been highlighted by the literature study. Recommendations for considerations in respect of HIV/AIDS for effective management of the pandemic, programming should be enhanced. Programming of HIV/AIDS has the following components:

❖ **Prevention**

Prevention of HIV/AIDS involves embarking on a number of programmes that are aimed at prevention of transmission of the virus. Among others the programmes include; prevention of mother to child transmission, circumcision, promoting voluntary counselling and testing(VCT) , provision of information, education and communication

(IEC) materials, awareness campaigns on prevention and mitigation methods and many more. In Okakarara, though circumcision is a common practice, the community should be informed that it is only a measure to reduce infection and not an immune measure to HIV infection. Other practices common in Okakarara like cohabitation with multiple sexual partners should be discouraged as it speeds up the rate of infection and re-infection. Intergenerational relationships expose young people to HIV infection, and as such should also be discouraged.

❖ **Care, treatment and support**

Care, treatment and support programmes are vital in the management of HIV/AIDS in that they reduce chances of stigmatisation and discrimination of the victims of the pandemic. In the literature study it has been recognized that stigmatisation and discrimination influence suicide ideation, therefore by providing care and psychosocial support, it reduces chances of stigma and discrimination, ultimately reducing suicide.

Programmes involved in this stage of HIV/AIDS management include:

(i)   Home-based care (HBC) where the sick are cared for at home by their relatives and health workers.

(ii)   Psychosocial support, which involves the use of community counsellors, health workers, social workers, peer counsellors, relatives as well as support groups in giving emotional support.

(iii)   Nutritional support, which involves provision of food assistance for the sick as well as nutritional education. It should be noted that such programmes or activities like provision of IEC need to be rolled out at every stage of HIV/AIDS management. Advocating for better access to treatment, care and support is also of importance to this end.

❖ **Impact mitigation**

This stage in the management of HIV/AIDS focuses on reducing the impact of the pandemic amongst the affected and infected by introducing programmes that are meant to

improve their well-being. Some of the programmes include programmes for the Orphan and Vulnerable Children (OVCs), that is provision of food handouts , assistance with school fees, taking custody of the OVCs taking into consideration the six tier system of child welfare management: nuclear family, extended family, community care, fostering, adoption and   institutionalisation. In the study area it has been noted that being a vulnerable child predisposes teenagers to suicide. Thus by rolling out such programmes as named above, it helps reduce the impact of HIV/AIDS.

Other programmes on impact mitigation include initiating income generating programmes (IGPS) for the widows. It has been noted in the study that the household impact of the pandemic are as heavy on the women due to their central roles in the family, community and the society as a whole. Projects that aim at enhancing their livelihoods will therefore definitely reduce the impact of HIV/AIDS on them.

❖ **Advocacy and Research**

The component of advocacy and research is one of the invaluable components in the management of HIV/AIDS, which is applicable to the four programming components throughout. Research is important in so far as it updates information on HIV/AIDS. This assists in developing appropriate IEC materials as well as policies. Research will specifically contribute to capacity building of those central to the pandemic. People need to be capacitated in providing care, treatment and support through the home based care programmes so that they also do not get infected while providing care and support. Myths and misconceptions of HIV& AIDS are also demystified through research. In fighting stigma and discrimination, an advocacy role is of paramount importance and thus has to be enhanced.

6.5.6 Recommendations to the management of floods

Last but not least, floods have been noted to be the third disastrous hazard in Okakarara. Twenty five percent of the respondents indicated that they suffered big losses as a result of floods in a period of five years. The management of drought is not very different from that of floods in terms of working committees. The committees that manage drought can still be employed to manage floods. For this reason the important functions and significance of the task force and

other committees will not be re-emphasized. The slight difference in the management of the two disastrous hazards is that floods are more emergency and sudden than drought which is a slow hazard. That means the reaction or response time differs as well. Recommendations in respect of flood management in Okakarara are as follows:

- A number of respondents indicated that they look forward to the government to get assistance in times of floods. This dependency syndrome has seen people being heavily affected by floods. In light of this, communities have to be encouraged to adhere to flood early warnings and to timely evacuate to safe areas on their own.

- Generally, Disaster Risk Reduction (DRR) should be mainstreamed in all development plans.

- There is need for the Ministry of Regional Local Government Housing and Rural Development (MRLGHRD) to ensure adherence to land use planning and development in Okakarara.

- The MRLGHRD need to review and enforce building and construction standards for housing in the flood-prone areas.

- Okakarara town council should conduct a research into appropriate and affordable building materials for houses in flood-prone areas.

- It is recommended that the Regional and Local Authorities maintain the Water and Sanitation (WATSAN) existing in the relocation centres to ensure that they can be reactivated quickly when the need arises.

- Okakarara hospital should activate its health and hygiene promotion activities as soon as people start moving into the centres to minimize possibilities of diseases outbreaks.

- Minimum standards for water and sanitation provision should be maintained in relocation camps.

- The department of agricultural extension services should improve on monitoring and implementation of subsidized agricultural inputs (timely distribution), ploughing services and provision of technical support to communal areas to improve food security.

- Appropriate farming technology should be introduced to building resilience to natural disasters.

- As mentioned in drought recommendations, there is need to explore mechanisms to design a risk spreading programme (insurance cover) for the small businesses.

- Seed packs and agricultural inputs should be provided for the communal farmers for winter crops in order to take advantage of the moisture left by floods.

- Reunification of families should be done the soonest possible after the disaster.

6.5.7 Recommendations regarding suicide

- The response from the suicide attempts indicated that there is an urgent need to establish suicide centres where suicide cases can be assisted without fear of stigmatisation and discrimination.
- The findings also showed that more community counsellors should be appointed and assigned to work with communities in handling suicide ideation.

- More has to be done in terms of educating the community on the importance of professional intervention as compared to traditional customs in handling para-suicide cases.

- The respondents have highlighted that accessibility of tools or substances used as lethal methods for suicide should be checked and restricted for example the availability of harmful medication in the community, firearms etc should be restricted.

- For professional intervention to be meaningful and palatable to the Okakarara community, professionals like social workers and community counsellors should be locals. This prevents some communication barriers when providing services.

- Suicide campaigns should be enhanced, especially in schools to prevent adolescent suicide.

- There should be suicide support groups just like there are HIV/AIDS support groups or alcoholic anonymous groups for psychosocial support.

- The families or community should be empowered with information on suicide, for example knowing the suicide checklist so that they can detect suicide ideation cases early for referral.

Having traced the link between disasters and depression and that of depression and suicide from the research literature study and findings, it is hereby reconfirmed that any sustainable solution to the problem of suicide in Okakarara should have its emphasis in addressing the impacts of the three disastrous hazards of drought, floods and HIV/AIDS pandemic. Concentrating on addressing suicide alone will only be directing effort to the offshoot of the problem rather than the root cause of it.

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APPENDIX: A Suicide Case study

NB: The story is based on oral tradition, the researcher's effort to access documented evidence was futile due to bureaucratic procedures at Henties Bay archives.

Photo showing suicide lethal method used by one predominant figure (Mr. F. Atkinson) in Henties Bay, Namibia.

Hanging method has always been a common method of committing suicide: Photo by C.Taderera, November 2010

It is said that the first inhabitant of this place, Henties bay, Mr. Atkinson committed suicide by hanging himself after a long battle with cancer. It is a clear testimony supported by the research findings that when human beings endure pain for too long or if they can not withstand a great shame, they react by committing suicide. Other great leaders and politicians who chose this path include, Adolf Hitler in 1945, Maurice Nyagumbo a Zimbabwean Nationalist in 1988. In the Bible, Matthew 27: 3-5 "…Judas was seized with remorse and returned the thirty silver coins..he then went away and hanged himself"

This serves to provoke further researches on issues like:

- To what extent can media through publication of suicide cases of great and influential people, influence suicide in the present day society?
- Is suicide a justified and rationale coping mechanism in present day society?

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APPENDIX B: Questionnaire used for collecting data on suicide attempters.

A BACKGROUND INFORMATION

Question 1: Okondjatu [ ]

Okamatapati [ ]

Okakarara Central [ ]

Question 2: Gender of the respondent

1	Male	
2	Female	

Question 3: What is your position in the household?

1	Head of the household	
2	Spouse	
3	Child	
4	Other (specify	

Question 4: Age in years

1	18 and below	
2	19 – 35	
3	36 – 45	
4	46 – 55	
5	56 and above	

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Question 5: What is your marital status?

1	Single	
2	Married	
3	Widowed	
4	Divorced	
5	Cohabiting	
6	Other (Specify)	

Question 6: Family Structure

1	Nuclear family unit	
2	Single parented headed household	
3	Extended family	
4	Sibling headed household	
5	Cohabiting	
6	Other (Specify)	

Question 7: Highest level of Education

1	Never gone to school	
2	Primary	
3	Secondary	
4	Tertiary	
5	Other (Specify)	

Question :8   What is your religion?

1.	Christian	
2	Muslim	
3	Traditionalist	
4	No Religion	
5	Others (specify	

Question 9: Employment status

1.	Employed full-time	
2	Part time employment	
3	Unemployed	
4	student	

Question 10:   What is your main source of livelihood

1	Subsistence farming	
2	Small scale commercial farming	
3	Operating small income generating project	
4	Employment	
5	Other specify	

B. Information on Disasters

Question 11: Have you experienced any disaster in your area for the past 5 years?

1	Yes	
2	No	

* If No to question 11 go to 15.

Question 12: If Yes to question 11. What was the disaster?

1	Drought	
2	Floods	
3	Epidemics	
4	Fire	
5	Other (specify)	

Question 13:   How did you deal with the disaster?

1	Nothing	
2	Waited for the government and donor aid	
3	Sold livestock	
4	Sought health information from the hospital	
5	Other (specify)	

Question 14:   What did you lose as a result of the disaster in your area?

1	Property	
2	Crops	
3	Livestock	
4	Relative	

5	Other (specify)	

Question 15: How do you access information about disasters in your area

1	Community awareness campaigns	
2	Educational institutions	
3	Health centres	
4	Media	
5	Other (specify)	

Question 16: Do you have a disaster /emergency management committee in your area?

1	Do not know	
2	Do have	
3	Do not have	

*If No to question 16 go to 19

Question 17: If Yes to question 16, How does this emergency management committee assists you in times of emergency?

1	Provide with early warning information	
2	Provide forms for humanitarian aid	
3	Assist to access medication	
4	Other(Specify)	

Question 18: How would you rate your state of preparedness for a disaster

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1	Not at all	
2	Little	
3	Some what	
4	Very much	

C. Information on Suicide

Question 19: Was this your first time to attempt suicide

1	Yes	
2	No	

*If yes to question 19 go to question 21

Question 20: If **No** to question 19, How many times have you attempted suicide for the past 5 years?

1	2	
2	3	
3	4	
4	5	
5	Above 5	

Question 21: Which season of the year did you attempt suicide?

1	Summer	
2	Autumn	
3	Winter	
4	Spring	

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Question 22: What disaster effect do you think is associated with your attempting suicide?

1	Financial hardship	
2	Unemployment	
3	Chronic illness	
5	Relationship problems	
6	Other (specify)	

Question 26: Do you have any other relatives that attempted or committed suicide in the past 5 years?

1	Sister	
2	Brother	
3	Mother	
4	Father	
5	Other	

Question 27: Why do you think they attempted/ committed suicide?

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1	Had lost property/ animals during flood/drought	
2	Had a chronic illness (HIV/AIDS)	
3	Had financial hardships	
4	Had lost a relative	
5	Other (specify)	

Question 28: Who referred you to the social worker for psychosocial support?

1	Own initiative	
2	Family	
3	Community leader	
4	Police	
5	Other (specify)	

Question 29: Besides social workers, where else do you access psychosocial support?

1	Family	
2	Royal house	
3	Religious leaders	
4	Peers	
5	No where	
6	Other (specify)	

Question 30: How do you rate the services if you got assistance from anyone of the above?

1	Excellent	
2	Very good	
3	Good	
4	Poor	
5	Very poor	

Question 31: Do you think of committing suicide again

1	Yes	
2	No	

Question 32: How do you think disasters in your area should be addressed?

1	
2	
3	
4	
5	

Question 33: How do you think suicide should be addressed in your area .

1	
2	
3	

4	

Question 34: What other comments with regards to disasters and suicide would you want to share?

1	
2	
3	
4	
5	

*Thank you very much for sparing time for this questionnaire.