

CHAPTER ONE: INTRODUCTION

1.1 Background

By the dictates of their profession, military personnel are particularly vulnerable to engagement in casual sex with non – regular partners and at a higher risk of contracting sexually transmitted infections (including HIV) than the general population. Their frequent mobility, involvement in international peace keeping operations, patronage of commercial sex workers makes them more at risk. The higher vulnerability to pre/extramarital sex and HIV/AIDS could probably also be attributed to the fact that, globally, the military culture, at least until recently, had traditionally fostered the habit of heavy smoking, high alcohol consumption and increased risk taking (UNAIDS, 2006). Military personnel have average expendable income which can be abused to purchase sex from women in the surrounding areas especially when they are deployed in operations away from their homes. This provides circumstances in which they are likely to engage in casual sex, posing a big risk for HIV infection.

The military implies a combat force of men and women who take up the challenge of voluntarily being trained as officers and soldiers to perform the constitutional duty of defending the nation from external and internal aggression (ZDF 2006). As Abel (1998) puts it, military organizations are anchors of national security, nation building, and good governance, and are indispensable in national and international peace and humanitarian relief operations.

1.1.1 National population and military profile

The Zambian military and other sectors of the security force constitute a reasonable size of the adult overall population and an important pool of human resource. Military personnel in the armed forces constitute about 10 percent of the Zambian government work force (ZDF 2007).

The Zambia Defence Force (ZDF) is made up of three arms/services, namely; Zambia Army, Zambia Air Force, and Zambia National Service. Zambia, a country located in the southern part of sub – Saharan Africa had an estimated population of 12.2 million in 2007 based on a 2.9 percent annual growth since 2000 national census (CSO). More than 50 percent of the population is under twenty (20) years of age. The Defence Force always restricts recruitment of its military personnel to Zambian citizens in the age range of 18 – 25 years, the age group said to be most vulnerable to the HIV and AIDS epidemic (ZDHS 2007). Being charged with the responsibility of defending national territories, there is reliance on the military to be combat ready at all times, and it is therefore important to consider the health of military personnel as one area that government should pay particular focus for them to be able to perform this national function.

1.1.2 Prevalence of HIV and AIDS epidemic in Zambia

Zambia is one of the countries worst affected by the HIV and AIDS pandemic in Southern Africa. Current statistics show that 14.3 % of the adult population aged 15 – 49 is infected (ZDHS 2009). This group is also the most productive in the development of the country and unfortunately the age group where most military personnel in Zambia fall.

The impact of HIV and AIDS – usually a direct consequence of unprotected casual sex is felt more in the military than any other organization because it is solely dependent on Zambian youths and citizens for its personnel.

1.2.0 Statement of the problem

Military populations have a higher exposure to high risk sexual behaviour. Mobility, age group and opportunities for casual sex by military personnel are believed to make soldiers an especially high risk group. Military and peacekeeping service often includes lengthy periods spent away from home on military operations within and outside the country, with the result that personnel are often looking for ways to relieve loneliness, stress and the building up of sexual tension. Other factors such as lessened restrictions, peer pressure, influence of alcohol etc. all combined increase the likelihood of engagement in casual sex with women in, or around areas of deployment. Soldiers sent on peace keeping missions often have money in their pockets than local people, giving them the financial means to purchase sex from commercial sex workers (UNAIDS 2005).

Military personnel and camps, including the installations of peacekeeping forces, generally attract sex workers (Bienen 1998).

The sense of prestige that comes with being part of the uniformed armed forces, reinforced by bonding within units, may tempt soldiers to view civilians – especially women – as people over whom power can be exerted. This may increase the likelihood of soldiers engaging in anonymous, purchased or even coercive sex (UNAIDS 2002).

In Zambia in general, and the military in particular, nearly 80% of the spread of HIV has occurred primarily through heterosexual contact in the general population (ZDHS 2007). Therefore, the fight against HIV/AIDS and other STIs in the military requires an understanding of the military's individual sexual practices and behaviours.

Risky sexual behaviour gives vulnerability to HIV and other sexually transmitted infections (STIs). Risky sexual behaviour is that which exposes either partner to the possibility of HIV

infection. Sexual relations with sex workers or when either partner has a sexually transmitted infection without protection by use of condoms are examples of risky behaviour (ZSBS 2005).

In our country, where adult HIV prevalence is high, any unprotected sexual relationship with a partner whose HIV status is positive or unknown carries the risk of HIV transmission.

In a survey conducted in the Zambia Defence Force in 2005, 38.8% of soldiers had affirmed having sexual relationships with two or more non – regular partners (ZDF 2005). This is higher than that estimated in the general civilian population 20.8% according to the ZSBS of 2005.

This appears consistent with statistics obtained in most SADC armed forces where HIV prevalence is estimated to be between 15 – 30%, and exacerbated by the high – risk sexual practices (UNAIDS 2005; Dewal et al 2006). Risk factors for infection are usually casual sex with multiple partner relationships in the face of low condom usage, and lack of knowledge of either own HIV status or that of sex partners (ZDF 2008). Often, mobility, peer pressure, influence of alcohol etc, are viewed as predisposing factors.

Several factors are believed to have placed military personnel at higher risk of casual sex involvement. Some of these factors are:

Age at entry into military

- a. Most military personnel are commissioned or enrolled in the military at a young age, usually between 18 and 25 years. At this age, these youthful soldiers are both physically and mentally active. They would want to explore as much as possible and take a few risks. It is a fact that this group is one of the most sexually active and therefore high risk groups. There are higher opportunities for casual sex this age group which acts, are

usually unprotected. Young recruits both male and female are sometimes vulnerable to sexual violence and exploitation by their superiors.

Peer Pressure

- b. Youthful soldiers are also victims of peer pressure. Military personnel work in teams rather than as individuals. Therefore, they are forced to indulge in activities such as casual/commercial sex, alcohol or drugs which make them vulnerable to contracting HIV because of peer pressure/boredom and the need to belong to the group.

Mobility

- c. Military personnel frequently travel away from home and mix with the civilian population both in peace and war time when they are deployed on local and international operations for a protracted period of time far from wives or regular sexual partners. This predisposes them to having casual sex relationships and contract HIV and sexually transmitted infections. In militaries where research has been done, high prevalence rates of HIV and ST infections have been reported in civilian populations living near military cantonments. In these areas, there is increased interaction among military/combatants and civilians in day – today social life. Soldiers often have a limited choice of partners in these areas where they have been deployed. This may force personnel from the same camp to share available partners over a period of time. Even if only a small number of military personnel or their partners were infected initially, unprotected sex and sharing of partners lead to the spread of HIV and STI's. (ZDF 2008)

Socio – economic

- d. Money and status also play a role. Defence personnel on national average have higher disposable incomes and if in operational areas or peace keeping missions, normally have more money or material resources than local communities such that they attract sex workers and consume large quantities of alcohol. Alcohol has the effect of impairing judgement that often leads to risky choices of having unprotected sex or incorrect use of condoms. The status conferred by a uniform might also provide greater opportunities for casual sex with locals and commercial sex workers. All these circumstances may predispose soldiers to contracting and transmitting HIV (UNAIDS 2005, ZDF 2008).

Policies

- e. Certain policies and ethos in the military may influence personal life choices. For example, the delay by government to clear and repatriate widows of deceased soldiers in barracks encourages sexual relationships with serving servicemen for purposes of economical survival by the surviving widows. This leads to spread of HIV especially in circumstances where the spouse died from AIDS. When soldiers are commissioned or enlisted in the military, they take an oath to defend the country's territory and its citizens from foreign aggression. Therefore, military duties such as sentry or operational camping are conducted without gender segregation. This may sometimes predispose female soldiers to sexual abuse or exploitation by male counterparts especially their superiors.

Cultural/religious values

- f. Cultural and religious values tend to influence acceptability of HIV prevention strategies. Use of condoms for example as a means of HIV/STI's prevention is not

acceptable by all members of the military on religious grounds. Some church doctrines preach abstinence rather than use of condoms.

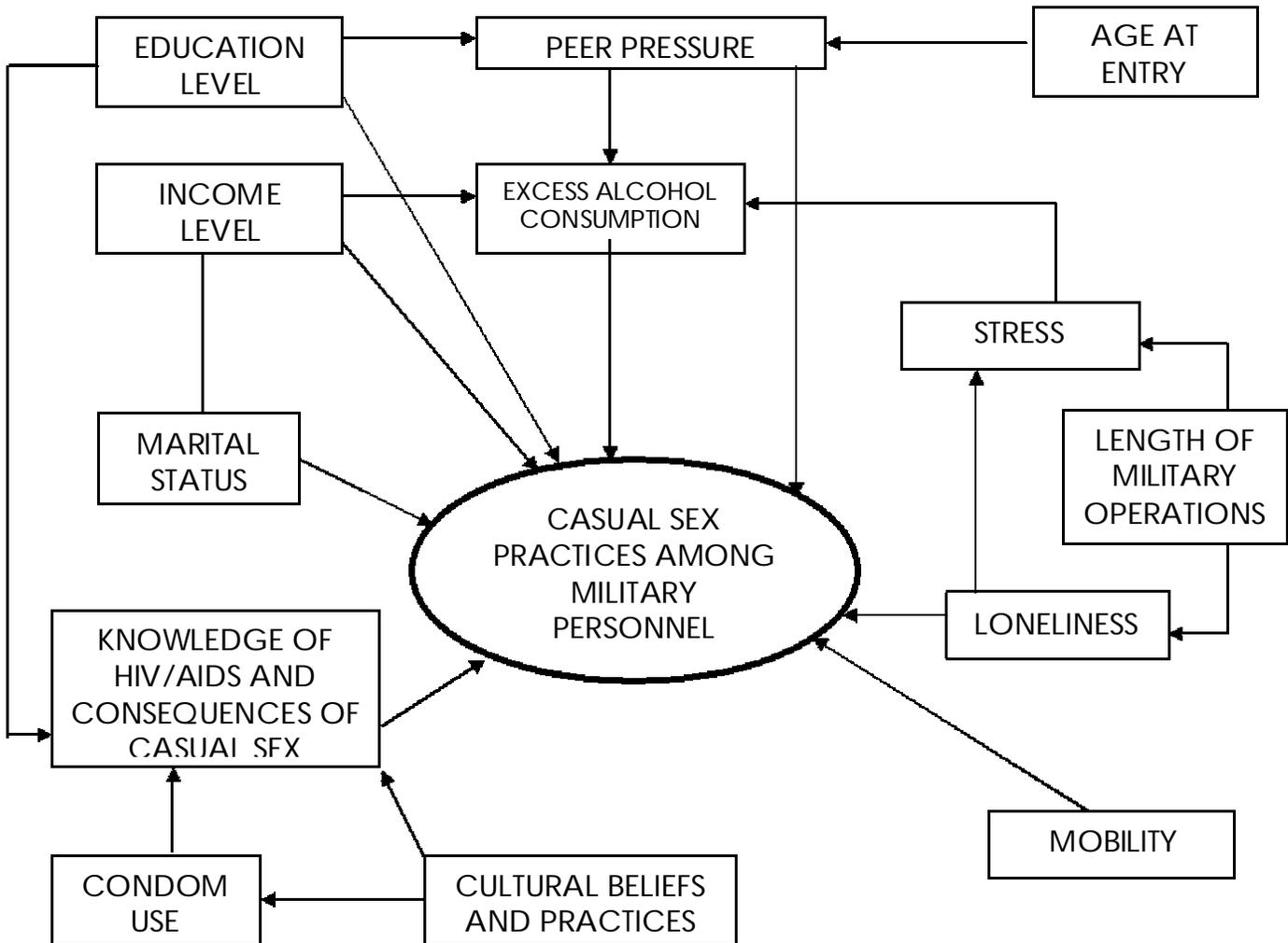
Knowledge of HIV/AIDS

- g. Knowledge about the HIV/AIDS pandemic in terms of transmission and other basic facts by soldiers may be scanty or mixed with distortions. In certain cases, there is decreased access to HIV information and means to prevent it especially in operational areas and times of conflict. This may be exacerbated by different levels of educational attainment.

In responding to the above issues, the ZDF has realised the need to scale up activities in the areas of peer education with a view to effecting further behaviour change, condom promotion and encouraging soldiers to seek Voluntary Counselling and Testing (VCT) services. Other efforts have concentrated on promotion of sexual abstinence for non – married soldiers or encouragement of mutual faithfulness, and consistent and correct use of condoms. Educational campaigns have been used as a major thrust of efforts to reduce risky sexual behaviour. Education efforts assume that increased knowledge about the risks will eventually translate into reductions in casual sex practices and a drop in new HIV infections.

However, despite all these interventions, casual sex is still rampant among military personnel. There is an upswing of STI incidences reported at most ZDF health facilities each time soldiers return back from operational assignments. Statistics from the HIV/AIDS Prevalence and Impact Survey conducted in the ZDF in 2005 indicates overall HIV sero – prevalence among military personnel at 28.9%; 29.4% among males and 24.0 % females respectively. Sero – prevalence by ZDF service was 33.9% Army, 28.2% ZNS and 16.7% ZAF (ZDF 2005). There is therefore need to examine factors associated with sexual behaviour/casual sex practices among military personnel.

Figure 1: Analysis diagram of determinants of casual sex practices among military personnel



The above diagram shows a pictorial analysis of the various factors and their relationship links that may be responsible for involvement of military personnel in casual sex practices.

1.2 Significance of the study

The study was designed to explore the determinants associated with sexual behaviour which impacts on HIV prevalence among military personnel. The results could be useful to ensure that the Defence Force plays a more proactive role in HIV/AIDS/STI prevention. It could also be beneficial to ensure that military personnel on deployment, in – and outside the country are provided with the necessary information and means to guard themselves against contracting HIV. On the basis of information gathered, education awareness programmes and information, education and communication (IEC) materials appropriate for specific needs of the military can be developed.

To the knowledge of the researcher, this study had not been done before in the Zambian military. Very little data exists in the military to document these statistics, or is kept restricted from public consumption due to security considerations.

1.4 Research Questions

- What determinants are influencing casual sex practices among military personnel in the Zambian military?

1.5 Objectives

1.5.1 General Objective

To identify factors associated with casual sexual intercourse among military personnel so as to develop appropriate measures to address the problem and avert HIV and Sexually Transmitted Infections.

1.5.2 Specific Objectives

- To determine the prevalence of casual sex among military personnel
- To determine the extent to which demographic factors such as age, education and marital status influence casual sex among military personnel.
- To establish whether length of military operations and frequency has an influence on casual sex among military personnel.
- To examine the association between alcohol consumption and engagement in casual sexual intercourse among military personnel.
- To establish use of condoms among military personnel during casual sex.
- Make recommendations to the appropriate authorities on specific action interventions to prevent the spread of HIV through casual sex.

1.6 Research Variables

The conceptual framework of this study describes variables for measurement as dependent and independent variables. A variable is a characteristic of a person, object or phenomenon which is measurable and can take different values. The following are the dependent and independent variables and their operational definitions.

1.6.1 Dependable Variable

- Casual sexual: sexual intercourse with more than one or two regular sexual partners

1.6.2 Independent Variables

- Demographic variables: the variables that will be used to determine characteristics of respondents associated with practice of casual sex such as; age, sex, marital status, distance, employment, and education level.
- Condom use: protective method used during an act of sexual intercourse
- Alcohol consumption: act of taking an alcoholic containing beverage
- Knowledge of HIV/AIDS: state of knowing about facts on HIV and AIDS
- Mobility: frequency and duration of deployment on military away from home more than 3 months.

CHAPTER TWO: LITERATURE REVIEW

World over, it is recognised that military personnel are vulnerable to risky sexual practices and at higher risk of contracting HIV because of the nature of their work, which often takes them away from their regular sex partners for long periods. Specific military ethos, which applauds risk – taking behaviours, coupled with loneliness, stress, lessened restrictions and inhibitions in areas of deployment, and the influence of peers may all combine to further increase the likelihood of military personnel to engage in unprotected casual sex (UNAIDS 2006). Military men and women tend to be young at entry into the service and sexually active, but with limited access to partners especially when working away from their home bases. Often, a relatively small group of women lives near a barrack and has sex with the soldiers; when the soldiers move on, others come in and the pattern is repeated with the same women. Large numbers of soldiers contract HIV and other STI's this way especially in operational assignments.

UNAIDS – HIV/AIDS epidemic update of 2005, reports that Military personnel all over the world on deployment regularly have sexual contacts with sex workers (prostitutes) and the local population. For example, 45% of Dutch navy and marine personnel on peace keeping duty in Cambodia had sexual contact with sex workers or other members of the local population during a five month tour. Another study indicated that 10% of United States navy personnel and marines contracted a new type of STI during trips to South America, West Africa and the Mediterranean during 1989 – 91.

Often, condoms are not used consistently. The report further says that there usually was an increase in the number of STIs recorded at the military clinics each time soldiers returned from their tours of duty in various operational areas (UNAIDS 2005). According to UNAIDS, during peace time, STI rates among armed forces are generally two to five times higher than in

comparable civilian populations; in times of conflicts, they can be more than 10 times higher. Rupiya (2006) further adds that, "probably the single most important factor often causing soldiers to engage in illicit sex and contributing to high rates of HIV and ST infections in the military is the practice of posting personnel far from their accustomed communities and families for varying periods of time. As well as freeing them from traditional social controls, it removes them from contact with spouses or regular sexual partners and thereby encourages growth of sex industries in the areas where they are posted."

The above is true for the Zambian military as well. During peace keeping operations, and conflict situations, young, unattached soldiers become a highly susceptible group both inside and outside the military. Typically, the young recruit has both the time and motivation, particularly under the influence of peer pressure, to indulge in high-risk behaviour such as excessive alcohol consumption and commercial sex. (ZDF

The increasing participation of women in the military various parts of the world has brought to light the special vulnerability of women to illicit sex and HIV transmission. WHO in 2002, in a report on sexuality among female recruits in Afghanistan, stated that women soldiers could be at a higher risk of HIV infection. As well as being at higher risk of HIV for physiological reasons that all women share, they are often at a disadvantage in sexual negotiations including negotiations for condom use. They are more likely to acquire any kind of STI from a single sexual exposure than men, and to have more asymptomatic STI's that are difficult to treat. De Waal et al, (2006) further states that female military personnel are often subject to sexual acts under duress and sometimes to outright rape. A factor peculiar to uniformed forces is the tendency for some senior members of the military to abuse their authority, forcing sexual relations on those under their charge, such as junior ranked soldiers and officers, or using material or financial advantage to lure females for sex.

Being a global problem, the UN recognised the magnitude of sexual behaviour and the HIV pandemic in the armed forces. Therefore, addressing the UN General Assembly in 2003, United States of America Secretary of State then, Colin Powell likened the situation in the armed forces to a war that destroys countries and destabilises regions. He was quoted as saying, "I was a soldier. But I know of no enemy in war more insidious – vicious than AIDS – an enemy that poses a clear and present danger to the world. Military populations are among the most vulnerable to HIV infection due to their sexual practices, and in many countries infection rates are several times higher in the military than among civilians" (Radhika 2006). Powell's assertion rests on the premise that HIV has compromised the very institution charged with maintaining security – the military.

Other studies conducted in the USA, the UK and France show that soldiers from these countries have a much higher risk of HIV and ST infections than equivalent age/sex groups in the civilian population usually due to unprotected heterosexual contacts (UNAIDS 2005).

On the African continent, most armed forces have been seriously affected by HIV and AIDS, main factor for infection being unprotected sexual intercourse, compounded by long periods of absence from homes and regular partners. Statistics for HIV infection rates in most militaries are usually difficult to pin down. They either do not exist or governments cite concerns about national security and do not make them public. According to the UNAIDS (2005) epidemic update, sub – Sahara African armed forces is home to 60% of global HIV/AIDS cases and currently 23.4 – 28.4 million people are infected with the HIV virus. Since the mid – 1990s, a fierce debate on the impact of HIV/AIDS on the national and international security and military forces effectiveness in sub – Saharan Africa has taken place (De Waal et al, 2006). Uganda's

defence force lost more soldiers to AIDS than to fighting in two decades of war with the Lords Resistant Army, most of which cases were sexually transmitted (Rupiya 2006).

A staggering seven out of ten military deaths in South Africa are AIDS – related, according to government figures released in 2003. The Telegraph, of October 8, 2003, in an article by associated press, titled “HIV invading South Africa’s military;” quotes South Africa’s Defence Minister, MOSIUOA LEKOTA as saying, “am not alarmed by the report that says 20% of soldiers are infected with HIV.” The article further said that the government of South Africa was working hard to reduce the infection rates in the military where 20-22% of service members were living with HIV and embarked on several programmes aimed at promoting and inculcating behaviour change.

Recent figures from Zimbabwe and Cameroon showed military infection rates 3-4 times higher than in the civilian population. The Xinhua News Agency of 2004, reported that about 50 % of Zimbabwean soldiers were infected with HIV and that more soldiers in Zimbabwe were prone to HIV infection due to risky sexual behaviour in the military compared with what was happening to members of the general publ The Harare – based Southern Africa HIV/AIDS Information Dissemination Service was quoted the Zimbabwe Inter Africa News Agency as saying, that HIV/AIDS was more prevalent among soldiers in Zimbabwe compared with 25% of the general population. HIV/AIDS accounts up to 60% of military personnel deaths in the fourteen nations of the Southern African Development Community (U.N. 2005). HIV/AIDS – afflicted soldiers occupy 50 – 60% of hospital beds at Nairobi’s Kenya Armed Forces Memorial Hospital (UNAIDS 2005).

In the Zambian Defence Force, it is recognised that HIV and AIDS due to casual sex is not only a serious public health problem, but a national security problem which requires a concerted effort

by all members of the, especially the top leadership. Data from pilot studies and anecdotal reports have always suggested that this problem may occur with an increased frequency amongst members of the military. Increased morbidity and mortality have been observed in the ZDF health institutions since the advent of HIV/ AIDS (ZDF 2008)

AIDS – related illnesses have afflicted mainly the more senior, experienced and difficult – to – replace ranks, due to the higher prevalence of HIV among older soldiers. Large numbers of soldiers on extended sick leave and unfit for active duty, further weaken military capability (ZDF 2008). Information on the disease burden due to HIV/AIDS in the Zambia Defence Force was not well documented. Therefore, recognising the magnitude of the pandemic, it was seen necessary to conduct an HIV/AIDS prevalence and impact survey in order to have baseline information on the status of the epidemic in the Zambia Defence Force. In 2005, DFMS conducted the first ever prevalence survey targeting military personnel. The results of the survey were no different from what is prevailing in other neighbouring militaries in the region. The HIV prevalence was estimated at 28%, which is by far higher than that of the general public. Main causes of infection are primarily through unprotected heterosexual intercourse.

Zambian soldiers continue to participate in peace keep missions at local and international levels. Most of these soldiers being stationed away from their families are young and sexually active. When posted away from home, they fall prey to peer pressure, boredom, loneliness, and other stressors, which increase sexual desires amid the abundance of casual and commercial sex near military camps. These conditions make them vulnerable to HIV infections. In a number of ZDF health facilities, cases of STI's go high each time soldiers return back from operations. (ZDF, 2005).

It has been shown that consistent use of good quality condoms reduces transmission of both HIV and STI's. The ZDF intends therefore to scale up the promotion of condom use, and increase distribution of free condoms in user – friendly points in their cantonments and work places. However, there is no data evaluating acceptability and usage of condoms among military personnel, either in bases or in operation areas.

Usually, the military is considered as an institution that has the weapons to win the war against HIV/AIDS. Armed forces have the advantage of highly structured, disciplined and organised environments, in which personnel can be mobilised to participate in HIV/AIDS prevention, and education can be provided to large captive audiences. In some ways, such efforts fit perfectly with the ethos of a profession that places a high value on loyalty to comrades and to traditions of Officers looking out for the well – being of those under their responsibility.

The Zambian Defence Force recognises this very perspective, that HIV prevention and education through promotion of behavioural change is every bit as important to life and health as rescuing a wounded colleague on the battle field or securing a position once taken (ZDF 2008).

ZDF has in the past few years moved with all the energy and decisiveness of which the military is capable when faced with a serious and clearly defined mission. Most programmes have aimed at changing high – risk behaviours practised by military personnel, while others attempt to deal with the factors underlying the military's special vulnerability. Action areas have evolved around mobile sensitisation teams, use of theatre, brochures, video shows, peer education and condom distribution.

Promoting behaviour change in mitigating HIV and AIDS in the ZDF requires resources far in excess of those that the government can provide. Government has therefore provided an environment that will encourage the ZDF and collaborating partners to provide support in this direction. Notable among the present collaborators are:

- a. National HIV/AIDS/STI/TB Council (NAC): a statutory government body charged with coordinating HIV and AIDS mitigating efforts.
- b. Zambia National Response to AIDS (ZANARA) project: this is the World Bank fund to support the Zambia National Response to AIDS project through the Ministry of Finance.
- c. United States of America Presidential Emergency Plan for AIDS Relief (PEPFAR).
- d. Global Fund: this operates through the Ministries of Finance and Health.

CHAPTER THREE: METHODOLOGY

3.1 Study design

The study is designed to explore the determinants associated with casual sex practice among military personnel. The study design used is a cross – sectional survey. This aims at quantifying the distribution of certain variables among the study population. It covers socio – economic characteristics of respondents such as age, education, income levels, and marital status etc. It also explores the behaviour of soldiers, knowledge, attitudes and beliefs that may help to explain sexual behaviour. The design was chosen to identify and explore variables responsible for casual sex practices among the military. This design helped to describe the phenomena and allowed for data collection from study subjects to show the association between the dependent and independent variables.

3.2 Study Setting

The study took place in 6 Defence Force camps based in Lusaka Distric i.e. Two (2) peri – urban and four (4) urban camps which were purposively selected. There are a total of 16 Defence Force camps in Lusaka Province. More than half of these camps are in the peri – urban areas of Lusaka while the rest are in the urban centre. Peri – urban camps are the camps situated within 20km radius or more from the main central town.

3.3 Study Population

The study population consisted of serving military personnel based in ZDF camps in Lusaka District, which were systematically selected. It included male and female commissioned and non – commissioned Officers aged between 18 to 55 years.

3.4 Sampling

3.4.1 Sampling method

Purposive sampling of military camps was done. Participants were drawn from six (6) military camps. There was homogeneity in these camps as all of them were of high operational nature. Each of these military camps had strength of about 600 military personnel. Selection of male participants was randomly done through simple random sampling technique. Participants were paraded at normal parades while others gathered in camp halls where sampling was conducted. However, due to the low ratio of female to male person in the military, female personnel were purposively included in the study.

3.4.2 Inclusion Criteria

The inclusion criterion of participants was as follows;

- § One currently on active service in the Zambia Defence Force
- § Aged between 18 to 55 years
- § One who willingly accepted to participate in the study

3.4.3 Exclusion Criteria

The exclusion criterion was as follows:

- § One not on active service in the Zambia Defence Force
- § Military personnel below 18 years or above 55 years
- § Who refused to participate in the study

3.4.4 Sample size

The Statistical package EP Info version 6 was used to calculate the sample size. The confidence interval was set at 95%. The size of the population from which the sample was calculated was 3600 (total number of soldiers from 6 camps). The expected frequency of the factor under study was 38% (estimated percentage of casual sex practice among the military). The worst acceptable frequency was 33% and a non response rate of 10% was included.

Population size.....3600

Expected frequency.....38%

Worst acceptable.....33%

Confidence interval.....95%

Sample size.....290

Non response rate at 10%

Total sample size.....341

3.5 Data collection methods

A structured questionnaire was used to collect information. Questions were of quantitative nature. Quantitative research aims at quantifying the size, distribution and association of certain variables among the study population. Answers to questions can be counted and expressed numerically. Questions with closed ended questions were administered and answered by respondents in written form. Information collection was carried out in a period of one month.

3.6 Data processing and analysis

Data from questionnaires were checked for completeness before being put on the master sheet. Frequencies were made by simple tallying. The Researcher engaged a consultant to help enter

the data into the computer for processing and analysis. SPSS statistical package was used for analysis. Chi – square was used to test for the association between casual sex and the testable variables. P–value of 0.005 was considered significant. Questions to certain variables were cross tabulated to show their relationship in numerical terms.

3.7 Data quality control

Research assistants were trained to conduct interviews and enter information on the questionnaires. All questions were reviewed prior to the exercise.

3.8 Pilot study

A pilot study involving 30 participants was done at Chindwin barracks in Kabwe, prior to actual collection of information. This proved very helpful in pre – testing of the research methodology.

3.9 Ethical considerations

Consent for conducting the study was sought from the Research Ethics Committee of the University of Zambia (REC). Permission was also sought from Service Commanders through the Permanent Secretary at the Ministry of Defence Headquarters.

Confidentiality was guaranteed to respondents. Anonymity was maintained as no respondent was identifiable by name except by assigned numbers to questionnaires. Written consent was obtained from the respondents after explaining to them the purpose of the study and how the results would be utilized; as such no respondent was forced to take part in the study against their will regardless of rank. Informed consent descriptions described the purpose of the study,

the procedures, and risks or benefits of participation. Participants were given the opportunity to ask questions for clarifications before signing the consent.

3.10 Utilization of the results

The information collected will form the baseline for future strategic planning in the formulation of HIV and AIDS Prevention, Care and Support interventions. It was hypothesised that most cases of HIV and sexually transmitted infections were heterosexually transmitted through unprotected casual sex with consequent high HIV prevalence in the military. Research findings from this study will be communicated to various Service Commanders Military Medical Corps to enable them modify their programmes and/ or redesign interventions to address the HIV/AIDS crisis in the military.

3.11 Study Limitation

The major limitation of this study was the financial constraint. The researcher would have been happy to conduct the study on a large scale and involve more military personnel in many more military barracks outside Lusaka Province. The selected sample size was one which could be easily managed within the resources which were available and time frame.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF RESULTS

The study sought to examine determinants that could be associated with casual sex engagement among military personnel. According to the chosen sample, a total number of 341 respondents were interviewed from six military camps. The names of these camps are not mentioned for confidentiality purposes and in compliance with the Defence Force regulations. This chapter presents the findings as follows:

4.1 General study characteristics

The characteristics of the subjects examined are shown in Table 1. A total of 341 respondents were interviewed of whom 262(76.8%) were males. Their age was 31.8 (SD 7.55) years. They had served for a mean of 9.49 (SD 7.50) years. Most of the respondents were Senior Non – Commissioned Officers (47.2%), while only (14.7%) were Commissioned Officers.

From table 1, the majority of respondents were aged between 31 – 40 years (39.9%) while those aged below 21 years old were only 1.2%.

Table 1 further shows that most of the participants 207 (60.7%) had attained secondary education and only 45 (13.2%) attained primary education level; and most of the participants were married (71.3%). Table 1 also shows that nearly all (99.1%) respondents were Christians and only 0.6% had no religion.

In terms of service record, 30.8% of respondents had served for less than five (5) years, and about a quarter (25.5%) of the respondents had served for more than 15 years.

Table 1: Social Demographic features of respondents

<u>Age (years)</u>	Frequency	Percent
< 21	4	1.2
21 – 30	132	38.7
31 – 40	136	39.9
41+	69	20.2
Total	341	100.0
<u>Marital Status</u>		
Single	98	28.7
Married	243	71.3
Total	341	100.0
<u>Length of Service (years)</u>		
<5	105	30.8
6 – 10	67	19.6
11 – 15	82	24
16+	87	25.5
Total	341	100.0
<u>Sex Distribution</u>		
Male	262	76.8
Female	79	23.2
Total	341	100.0
<u>Education Level</u>		
Primary	45	13.2
Secondary	207	60.7
Tertiary	89	26.1
Total	341	100.0
<u>Religion</u>		
No religion	2	0.6
Christian	338	99.1
Muslim	1	0.3
Total	341	100.0
<u>Rank Distribution</u>		
Corporals and below	130	38.1
Senior Non – Commissioned Officer	161	47.2
Commissioned Officers	50	14.7
Total	341	100.0

Table 2: Involvement in military operations lasting at least 3 months last 24 months

Has been in military operations = 3 months	Frequency	Percent
Yes	248	72.7
No	93	27.3
Total	341	100.0

Table 2 shows that almost two thirds of respondents (72.7%) had served on peace keeping military operations that lasted at least three months and more.

Table 3: Distribution of respondents by number of times separated away from home lasting at least 3 months on military operations last 24 months

Number of occasions	Frequency	Percent
None	177	51.9
Once only	83	24.3
2 times	45	13.2
>3 times	36	10.6
Totals	341	100.0

Table 3 indicates that nearly half of the surveyed respondents (48.1%) affirmed that they had stayed away from their home bases at least once on military duty for a period lasting at least 3 months in the last 24 months.

Table 4: Distribution of sexual activity and number of different sex partners one had sex with last 12 months

<u>Currently has sex partner</u>	Frequency	Percent
Yes	295	87.6
No	42	12.4
Totals	337	100.0
<u>Had casual sex with non – regular partner last 12 months</u>		
Yes	157	46.0
No	184	54.0
Totals	341	100.0
<u>Number of different sex partners one had sex with last 12 months</u>		
Only with one main partner	135	43.5
2 – 3	155	50.0
4 – 5	8	2.6
6+	12	3.9
Totals	310	100.0

Table 4 shows that, 295 (87.6%) of respondents currently had a sex partner and (46.0%) had casual sex with a non – regular partner in the last 12 months. Table 4 also shows that, of the 310 valid responses, over 50% of respondents had sex with more than one partner (multiple partner relationships).

Table 5: Respondent took alcohol last time had sex with non regular partner

<u>Took alcohol before sex with casual partner last time</u>	Frequency	Percent
Yes	61	31.0
No	136	69.0
Total	197	100.0

Table 5 indicates that (31.0%) of study participants had taken alcoholic beverages the last time they had casual sex with a non – regular partner.

Table 6: Used a condom last time had sex with non regular partner last 12 months

Ever used a condom before	Frequency	Percent
Yes	292	85.6
No	49	14.4
Total	341	100.0
<u>Used condom at last sex with non – regular partner</u>	Frequency	Percent
Yes	108	54.8
No	89	45.2
Total	197	100.0
<u>Used condom consistently with non – regular partner last 12 months</u>	Frequency	Percent
Yes	125	46.5
No	144	53.5
Total	269	100.0

Results in Table 6 show that over two thirds of respondents (85.6) had used a condom before during previous sexual encounters. The table on the other hand indicates that (54.8%) of the surveyed respondents had used a condom at the last time they had casual sex with a non – regular paying or non – paying partner. Table 6 however, also shows that only (46.5%) had used a condom consistently at each sexual encounter with a non – regular paying or non – paying partner in the previous 12 months.

Table 7: Reasons for not using condom with non regular partner last time had sex

Reasons for not using condom with casual partner at last sex	Frequency	Percent
Trusted partner	105	53.3
Condoms not available	40	20.3
Was too drunk to remember	21	10.7
Partner refused	18	9.1
Don't like condoms	13	6.6
Total	197	100.0

Table 7 illustrates that over half of the respondents (3%) who did not use a condom at their last sexual encounter with a non – regular partner, did so because they developed trust in their partner (s), while (6.6%) said they did not like condoms.

Table 8: How likely that last your casual partner had other sexual partners last 12 months

How likely your last casual partner had other partners last 12 months	Frequency	Percent
Likely	97	55.7
Not Likely	77	44.3
Total	174	100.0

Table 8 shows that (55.7%) of respondents who engaged in premarital/extramarital activities in the previous 12 months felt that it was likely that their last casual partner had other sexual partners at the same time.

Table 9: Distribution of respondents ever tested for HIV

Ever undergone HIV test	Frequency	Percent
Yes	259	76.9
No	78	23.1
Total	337	100.0

Table 9 indicates that more than two thirds of the surveyed respondents (76.9%) had tested for HIV and were aware of their HIV status.

Table 10: Whether respondents ever paid to have sex with Last 12 months

Ever paid for sex last 12 months	Frequency	Percent
Yes	49	20.3
No	192	79.7
Total	241	100.0

Respondents were asked as to whether they had ever paid or were paid money to have casual sex with a non – regular partner. Of the 241 valid responses, (20.3%) affirmed that they had paid money to have sexual intercourse with a casual partner in the previous 12 months (Table 10).

4.2 Factors associated with Casual Sex

4.2.1 Marital Status

Table 11: Engagement in casual sex in relation to respondents' Marital Status

N (%)

Marital Status	Casual Sex		Total	P value
	Yes	No		
Single	30 (17.4)	46 (34.1)	76 (24.8)	0.001
Married	142 (82.6)	89 (65.9)	231 (75.2)	
Total	172 (100.0)	135 (100.0)	307 (100.0)	

Table 11 illustrates that a significant relationship existed between marital status and engagement in casual sex. The majority of respondents who were single were less likely to engage in casual sex with non – regular sex partners [(OR = 0.41, and 95% Confidence Interval (CI): 0.24 – 0.70].

4.2.2 Age and Gender

Table 12: Respondents' age, sex and engagement in casual sex

N (%)

Factor	Casual Sex			Total	P value
		Yes	No		
Age	<31	61 (35.5)	61 (45.2)	120 (39.1)	0.198
	31 – 40	76 (44.2)	48 (35.6)	124 (40.4)	
	< 40 < 49	35 (20.3)	26 (19.3)	61 (19.9)	
	Total	172 (100.0)	135 (100.0)	307 (100.0)	
Sex	Male	150 (87.2)	91 (67.4)	241 (78.5)	0.001
	Female	22 (12.8)	44 (32.6)	66 (21.5)	
	Total	172 (100.0)	135 (100.0)	307 (100.0)	

Results from this study revealed that a significant relationship existed between respondents' gender and engagement in casual sex with non – regular partners ($P < 0.001$). Male participants were more likely to engage in casual sex than female participants [OR = 3.30; 95% CI: (1.86 – 5.85)]. There was, however, no significant relationship observed between age of participants and engagement in casual sex, as shown in Table 12.

4.2.2 Military operations

Table 13: Casual sex in relation to being away from home on military duty in the last 12 months

N (%)

Factor		Casual Sex		Total	P value
		Yes	No		
Has had sex with casual partner when away from home the last time	Yes	107 (62.9)	29 (22.3)	136 (45.3)	0.001
	No	63 (37.1)	101 (77.7)	164 (54.7)	
Total		170 (100.0)	130 (100.0)	300 (100.0)	

The study in Table 13 has revealed a significant relationship between being away on military duty and engaging in casual sex with non – regular sex partners ($P < 0.001$). Respondents who undertook operational assignments away from home bases in the previous 12 months were 6 times more likely to get involved in casual sex [OR = 5.92; 95% CI: (3.53 – 9.92)]. Further, a significant association was observed between number of occasions one had been away from home and engaging in casual sex ($P = 0.031$) as seen in Table 14 [OR=0.32, 95%CI (0.11, 0.93)]

Table 14: Occasions one had been away from home and had casual sex last 12 months

N (%)

Factor		Casual Sex		Total	P value
		Yes	No		
Occasions has had sex with casual partner while away from home the last time	Once only	50 (54.9)	19 (79.2)	69 (60.0)	0.031
	2+	41 (45.1)	5 (20.8)	46 (40.0)	
Total		91 (100.0)	24 (100.0)	115 (100.0)	

Table 15: Involvement in military operations and casual sex

N (%)

Has been involved in military operation	Casual Sex		Total	P value
	Yes	No		
Yes	141 (82.0)	88 (65.2)	229 (74.6)	0.001
No	31 (18.0)	47 (34.8)	78 (25.4)	
Total	172 (100.0)	135 (100.0)	307 (100.0)	

Table 15 shows a significant relationship between involvement in military operations and engagement in casual sex (P = 0.001). Respondents who been involved in military operations away from their home bases for varying periods were two times more likely to indulge in casual sex with non – regular sex partners [(OR = 2.43), and 95% Confidence Interval (CI) of (1.44 – 4.11)]

4.2.3 Sexual activity and condom use

Table 16: Ever used condom in relation to casual sex last 12 months

N (%)

Has used a condom before	Casual Sex		Total	P value
	Yes	No		
Yes	148 (87.6)	121 (91.0)	269 (89.1)	0.347
No	21 (12.4)	12 (9.0)	33 (10.9)	
Total	169 (100.0)	133 (100.0)	302 (100.0)	

The results in Table 16 show no significant relationship between those who had ever used condoms and casual sex.

Table 17: Consistent condom use and casual sex last 12 months

N (%)

Used condom consistently last 12 months	Casual Sex		Total	P value
	Yes	No		
Yes	75 (50.7)	50 (41.3)	125 (46.5)	0.126
No	73 (49.3)	71 (58.7)	144 (53.5)	
Total	148 (100.0)	121 (100.0)	269 (100.0)	

The results of the study in Table 17 show no significant relationship between consistent condom use in the previous 12 months and casual sex.

4.2.4 Alcohol and sexual activity

The study has revealed that there was a significant association between partner(s) being drunk with alcoholic drinks and having casual sex ($P = 0.001$) as shown in Table 18. Respondents who were under the influence of alcohol were more likely to indulge in casual sex with non – regular partners [OR = 4.13; 95% CI: (1.73 – 9.84)].

Table 18: Last time had casual sex, had drunk alcohol before sex

N (%)

Factor		Has casual sex		Total	P value
		Yes	No		
Last time had sex with casual partner, you or your partner drank alcohol before sex	Yes	52 (39.1)	7 (13.5)	59 (31.9)	0.001
	No	81 (60.9)	45 (86.5)	126 (68.1)	
Total		133 (100.0)	52 (100.0)	185 (100.0)	

Table 19: Last time had sex with casual partner, had influence of factors other than alcohol

N (%)

Last time had sex, had influence of	Casual Sex		Total	P value
	Yes	No		
Friends	16 (12.5)	11 (19.3)	27 (14.6)	0.509
Boredom	18 (14.1)	8 (14.0)	26 (14.1)	
Alcohol	44 (34.4)	14 (24.6)	58 (32.1)	
Stayed long without sex	40 (31.3)	16 (28.1)	56 (30.3)	
Was cohered	10 (7.8)	8 (14.0)	18 (9.7)	
Total	128 (100.0)	57 (100.0)	185 (100.0)	

Table 19 shows that no significant association existed between who had an influence of which factors the last time had sex and having engaged in casual sex (P = 0.509).

4.3 Self risk assessment for HIV infection

Table 20: How likely that your non regular partner(s) had other sexual partners last 12 months by casual sex

N (%)

Factor		Casual Sex		Total	P value
		Yes	No		
How likely that your casual partner had other sex partners in the last 12 months	Likely	72 (71.3)	21 (33.9)	93 (57.1)	0.001
	Not Likely	29 (28.7)	41 (66.1)	70 (42.9)	
Total		169 (100.0)	62 (100.0)	163 (100.0)	

Table 20 shows that participants who indicated that it were likely that their casual partners had other sex partners were more likely to have casual sex [OR = 4.85; 95% CI: (2.46 – 9.57)].

Table 21: Ever tested for HIV and has Knowledge of own status in relation to casual sex last 12 months

N (%)

Factor		Casual Sex		Total	P value
		Yes	No		
Has tested for HIV before	Yes	129 (76.8)	107 (79.3)	236 (77.9)	0.606
	No	39 (23.2)	28 (20.7)	67 (22.1)	
Total		168 (100.0)	135 (100.0)	303 (100.0)	

The results in Table 21 show no significant association between indulging in casual sex and HIV counselling and testing to know one's sero – status (P = 0.606).

Table 22: Whether concerned one might be infected with HIV and had casual sex last 12 months

N (%)

Factor		Casual Sex		Total	P value
		Yes	No		
Concerned that you might be infected with HIV	Concerned /at risk	105 (63.6)	75 (59.1)	180 (61.6)	0.425
	Not concerned	60 (36.4)	52 (40.9)	112 (38.4)	
Total		165 (100.0)	127 (100.0)	292 (100.0)	

The study sought to find out the relationship between being concerned about being HIV infected and having casual sex. Table 22 shows that no significant relationship was observed between these factors in question (P = 0.425).

4.4 Preferred duration of military operation

The study sought to find out the relationship between duration of military operations and engaging in casual sex, and found no significant association between the two factors (P = 0.909) as shown in Table 23.

Table 23: Preferred duration of military operations and had Casual Sex

Factor		Casual Sex		Total	P value
		Yes	No		
Maximum period of operations	3 months	61 (37.7%)	47 (35.9%)	108 (36.9%)	0.909
	6 months	90 (55.6%)	76 (58.0%)	166 (56.7%)	
	12 months	11 (6.8%)	8 (6.1%)	19 (6.5%)	
Total		162 (100.0%)	131 (100.0%)	293 (100.0%)	

4.5 Multivariate analysis

The following factors that were significant at bivariate analyses were considered in a multivariate analysis: marital status, sex, having had sex with casual partner when away from home the last time, occasions had sex with partner when away from home the last time, involved in military operations, being drunk with alcohol last time had sex with casual partner, and feeling that casual partner had other sex partners. Only marital status and being involved in military operations remained significantly associated with engaging in casual sex.

Respondents who were single were 69% [OR = 0.31; 95% Confidence Interval: (0.16, 0.62)] less likely to have casual sex compared to the married respondents. Respondents who occasionally had sex with partner while away from home on military duty were 5.21 (95% Confidence Interval: (1.15 – 23.62) times more likely to have casual sex.

CHAPTER FIVE: DISCUSSION OF FINDINGS

5.1 Summary of Results

The age range of the surveyed population was 18 to 55 and this reflects the minimum entry and retirement ages in the Zambia Defence Force. The preponderance of males (76.8%) among the respondents reflects the fact that the military is a male dominant profession. About 80.0% of respondents were within the highly vulnerable age group of 18 to 40 years. This is an important target group in the military that needs to be continuously sensitized on HIV/AIDS because of their probable mobility, increased risky sexual behaviour and substance abuse. Nearly, 61.0% of respondents had completed secondary education, with 26.1% attaining tertiary education level. This suggests that military personnel have reasonable levels of education to enable them understand issues affecting their health.

Results from this study revealed that nearly half of the surveyed respondents (46.0%) engaged in premarital/extramarital sex (casual sex) with a non regular partner or female sex worker in the previous 12 months. Results also indicated that married personnel were more likely to engage in casual sex. Other results from this study have revealed a significant relationship between personnel being involved in military operations away from home and engaging in casual sex.

5.2 Prevalence of Casual Sex (premarital/extramarital activities)

The population studied was a working, highly mobile population of very sexually active adults with about 46.0% of them having had sex with multiple partners in the last 12 months to the survey. Results of the study also showed that 18.7% of respondents who had casual sex had a completely new sexual partner at the last time they had sex. The overall prevalence was

significantly higher than the current general population rate of 38% of sexually active male and female adults who reported sex with one or more non cohabiting partners, as reported in the 2007 Zambia Demographic Health Survey (ZDHS, 2007). These findings from the current study are supported by recent figures from studies conducted in Zimbabwe and Cameroon which showed that soldiers were 4 times more likely to have had sexual contact with more than two non regular partners compared to civilian populations. In Cameroon, the proportion of military personnel who reported having multiple partners was as high as 88.0%, while it was 75.5% among the Nigerian police officers (Nwosu, 2001). Another report further says that often; long absence of sexual intercourse while away from home on military duties; influence of alcohol, boredom and peer pressure are viewed as contributing factors for perpetuating this behaviour (UNAIDS, 2005).

There was a high rate of sexual activity among all cadres of personnel in the last 12 months before the survey. The study however, revealed that a significant relationship existed between marital status and engagement in casual sex. The majority of respondents who were married were more likely to engage in casual sex with multiple non regular sex partners. This probably shows that married couples could be at a slightly higher risk of contracting HIV and other sexually transmitted infections through extramarital sex. In a similar study about HIV risk related sexual behaviour conducted among Nigerian nava personnel, corroborated results indicated that of the 156 surveyed respondents who had sex with a female sex worker (FSW), more married respondents (36.7%) than single ones (31.5%) reported ever having had sex with a FSW (Raufu, 2002). This study however showed no significant relationship between age and sex of participants and engagement in casual sex as it was dominant across all age categories. Therefore, it implies that intensified and sustained Behaviour Change Communication (BCC)

interventions with more information on HIV/AIDS, particularly about how to protect themselves, should be targeted at all personnel especially those in marriage relationships.

5.3 Military Operations and Casual Sex

There was high mobility among the surveyed respondents as almost two thirds (72.7%) of respondents had served on peace keeping military operations that lasted at least three months or more. The study revealed significant relationships between being involved in military operations, spending lengthy periods away from home and engaging in casual sex with non regular sex partners among military personnel. Results of this study showed that 83.3% of military personnel who went on operational assignments had engaged in casual sex with two or more non regular sex partners compared to 69.0% who did not. However, there was no significant association between the number of operational occasions one undertook and engaging in casual sex. These results are consistent with those obtained from the study conducted among the Dutch navy and marine personnel on peace keeping duty in Cambodia, which showed that 45.0% of peace keeping personnel had sexual contact with sex workers or other members of the local population during a five month tour. A similar study in the USA indicated that 10% of United States naval personnel and marines contracted a new type of sexually transmitted infections during trips to South America, West Africa and the Mediterranean during 1989 – 91 tour of duties due to casual sex with locals (UNAID 2006). This is to the effect that military ethos, which applauds risk – taking behaviors, coupled with loneliness, stress, lessened restrictions and inhibitions in areas of deployment, and the influence of peers all combined tend to increase the likelihood military personnel engaging in unprotected casual sex with multiple relationships. Findings in this study also corroborated surveys among military communities in Nigeria, which revealed that young soldiers and those

who were deployed on military operations were more likely to engage in risky sex than those who never participated in military operations. The study further reported that; temporally family separation removed the contact with soldiers' spouses and regular sexual partners thereby encouraging sexual escapades and other harmful activities as a way of relieving boredom or easing tension (Chikwem, 2002).

"UNAIDS HIV/AIDS epidemic update" of 2005, reports that military personnel all over the world on deployment regularly have sexual contacts with sex workers (prostitutes) and the local population. Multiple concurrent partnerships in the face of inconsistent and incorrect use of condoms tend to be among the major drivers of the HIV transmission among military personnel world over.

While acknowledging the occupational risks associated with military deployment, strong emphasis should be laid on personal lifestyles, and behaviour change. There must be renewed attempts to highlight these issues in a programmatic reorientation that includes BCC interventions as a core activity.

5.4 Alcohol and sexual activity

Results of this study showed a statistically significant relationship between alcohol consumption and engagement in casual sex. The study showed that 39.1% of respondents had taken alcohol the last time they had sexual intercourse with a non regular partner, compared to 13.5% who did not. Similar results were observed in a study done in Burkina Faso, Cameroon and Namibia on alcohol and drug use among military personnel and mobile populations; which revealed that alcohol consumption, was a big problem particularly among male soldiers, and that

this happened more in deployment periods. Results from this study showed that soldiers were most likely to drink alcohol with sex with casual partners in deployment situations, as compared with on post situations [(61% vs. 47%) (Radhika, 2006)]. In another survey, results also reported that in an environment of limited or no recreation facilities among peace keepers, practices such as alcohol and drug use become alternatives to recreation and passing time (UNAIDS, 2005). Unfortunately, these practices contribute to misjudgements, low risk perception and indulgence in risky sexual behaviour. Under such circumstances, condoms may not be used correctly or not even used at all.

The current study results among the Zambian military indicated that a significant proportion of military personnel continued to expose themselves to such dangers of HIV infection. Programmes may need to be put in place to motivate and teach soldiers through peer education and awareness campaigns not to succumb to social, psychological and other enticements to use alcohol and drugs, as well as to increase knowledge on the effects of alcohol on health and links with HIV.

5.5 Sexual activity and condom use

There is still appreciable risk taking behaviour among military personnel. While the results did not show any statistical significance between those who had ever used condoms and engagement in casual sex, the study revealed that only 45.2% of respondents who had sexual contact with non regular partner or FSW did not use a condom during the most recent sexual contact. Only 46.5% of those who had ever had sex with a non regular partner used a condom consistently in the previous 12 months to the survey compared to 53.5% who did not. Those who did not use a condom at the last sexual encounter with a non regular partner gave several

reasons for not doing so including belief that they trusted their partner, dislike for condom, condom was not available, their partner refused and being under the influence of alcohol.

UNAIDS reported an increase in the number of STIs recorded at the military clinics in West Africa particularly Nigeria and Burkina Faso each time soldiers returned from their tours of duty in various operational areas, a proxy affirmation that condoms were not used at all or were not used consistently among military personnel. According to UNAIDS, during peace time, STI rates among armed forces are generally two to five times higher than in comparable civilian populations; in times of conflicts, they can be more than 10 times higher (UNAIDS, 2005). In the Zambian military, nearly 5.0% of annual Out Patient attendances at ZDF health facilities are cases of STIs (ZDF, unpublished)

In a survey conducted among 480 Nigerian navy, 41.0% of those with sexual contact with a female sex worker did not use a condom during the most recent sexual encounter with these women. Similar reasons as found from this current study were given for not using a condom, majority expressing the feeling that they were not susceptible to HIV infection (36.1%), while 5.2% said that the female sex worker was a regular and trusted partner (Nwosu, 2001). This is in contrast to the results of the behavioural surveillance survey, conducted among long Distance Truck Drivers (LDTDs) one of the mobile populations at high risk for HIV infection in the border towns of Chirundu and Livingstone – Zambia. Results of this survey indicated a significant increase in the proportion of LDTDs who reported using condoms consistently with any type of sex partner from 84.4% to 91.3% between 2000 – 2009 (Corridors of Hope Project, 2009). These findings suggest that the military needs to strengthen BCC messages in future, apart from making condoms available and accessible as this does not translate into usage.

Condom promotion must be accompanied by clear BCC messages that will encourage soldiers to change their attitudes and self conduct; make them realize their responsibility as individuals in preventing the spread of HIV, and thus not engage in sexual relations that endanger either themselves or that of their spouses or other sex partners. Condoms worldwide are considered a very useful tool in the prevention of HIV and other STI if used correctly and consistently. In the face of low condom use, military populations will remain among the most vulnerable to the HIV/AIDS crisis (Radhika, 2006).

5.6 Self risk assessment for HIV infection

The study results did not show any significant relationship between personnel who underwent HIV counselling and testing, and engagement in casual sex. However, 64.0% of respondents who had casual sex in the previous 12 months to the survey evaluated the HIV/AIDS situation in the military as serious and thought that they were at high risk and could be infected with HIV due to the nature of military work compared to 40.9% that did not. In addition, other results showed that 71.3% of participants who reported having sex with a casual partner in the previous 12 month recall indicated that it was very likely that those partners had multiple sexual relationships with other partners elsewhere at the same time compared to 33.9% who did not.

Although it was gratifying that the majority of respondents (76.9%) had tested and had knowledge of their HIV status, the fact that they continued to engage in high risk sexual activity and with partners who had sex with many other partners and whose HIV status they did not know, is still a source of worry. Results from the Zambia Demographic Health Survey conducted in 2007 concluded that nearly 80.0% of the spread of HIV in Zambia occurred primarily through heterosexual contact in the general population (ZDHS, 2007). Certainly, appropriate

sensitization and BCC interventions are needed; targeted at individuals' attitude change and instilling a sense of personal responsibility among soldiers so that they protect themselves and their loved ones from HIV infection.

5.7 Respondents' preferred length of military operation

It has been observed worldwide that military personnel are a high risk group for HIV infection. This group is very mobile and required to stay away from their families and regular partners for lengthy periods on military operations both within and outside the country; mobility and migration being one of the core drivers for HIV infection. Freed from the strictures of their normal social environments, many soldiers engage in risk behaviours as a means of relieving the tension of loneliness including use of drugs and unprotected sex with FSW. The current study however showed no statistical significance between preferred duration of military operations and engaging in casual sex. However, the majority (56.0%) of participants felt that personnel should only have maximum six (6) months duration stay in operational areas. The general feeling is that longer stay and frequent operational assignments to a large extent contributes to engagement in casual sex because of staying away from wives/husbands and regular sex partners. Studies conducted in many parts of the world all agree to the fact that military operations are closely associated with risky sexual behaviour (DoD & UNAIDS 2001).

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

It can be concluded from the results that pre/extramarital sex with multiple sexual relationships among military personnel is high. As a group, military personnel are vulnerable to this vice due to work conditions, mobility, relatively young age, influence of alcohol and some ethos of military tradition. In Zambia and the military inclusive where nearly 80% of the spread of HIV occurs primarily through heterosexual contact and with a high HIV prevalence rate of 14.3%, any unprotected sexual relationship with a partner whose HIV status is positive or unknown carries the risk of HIV transmission. Risky sexual behaviour gives vulnerability to HIV and other STIs. It is evident from this study, that our personnel are exposing themselves and their partners to huge possibilities for the HIV/AIDS crisis. Sexual relations with sex workers or other multiple sexual relationships in the face of low condom usage are exacerbating this situation.

It can also be concluded that service on either local or foreign military operations with long periods of absence from spouses or regular sex partners have been found to be strongly associated with engagement in casual sex with non regular partners by military personnel. Risk factors for casual sex under such situations are often peer pressure, influence of alcohol, boredom, for example.

It can be concluded from the results of the study that married personnel have a higher chance of involvement in casual sex and may be a focus group for specific interventions. From the results of this study, we can conclude that prevalence of condom use among the surveyed respondents is low. Although, certain reasons were advanced for its irregular or non use among this surveyed

population, there is need for aggressive sensitization of personnel on the consistent and correct use of condoms, targeted at the entire military population, with an emphasis on personnel on peace keeping operations.

6.1 Recommendations

1. The Zambia Defence Force (ZDF) should intensify HIV/awareness campaigns with greater emphasis on self evaluation of risk of HIV infection, safer sex practices and behaviour change. These messages can be packaged in form of Theatre For Development (drama) and Information, Education and Communication materials such as (brochures, pamphlets, posters and videos). It is important that the education levels of recipients of awareness messages be taken into account in designing and delivering these messages. Mobilization and active involvement of entire barrack companies rather than military personnel alone for awareness outreaches should be considered.
2. Peer Education activities involving all rank levels of the military should be expanded as one of the core activities for awareness campaigns.
3. The ZDF should intensify redeployment health education activities, on the need for soldiers to exercise personal responsibility and discipline in their sex lives so that they do not indulge themselves in illicit sex and subsequently infect themselves and others, whilst in operations. Post deployment HIV testing of troops should also be undertaken so that appropriate care interventions can be done to the returning troops.
4. Condom distribution should be expanded both at redeployment level as well as in operational areas. The distribution process should be done through Peer Educators and utilizing more discreet distribution methods like placing condoms in boxes in toilets and in social places like messes. It is particularly important that personnel on peace keeping

operations be provided with constant supply of condoms to motivate them to use these products. Branding and packaging of condoms specific for military colours have been done in some countries and this tends to encourage utilization. The same can be done for our soldiers in the Zambia Defence Force.

5. The ZDF Religious Services with support from Defence Force Medical Services needs to introduce programmes to provide psychosocial counselling and support for military personnel to address issues of alcohol abuse, deviant behaviour and management of work related stress which could be associated with risk sexual behaviour. Programmes targeted at married personnel to promote faithfulness marriage relationships should be reinforced.
6. There is need for a revision of the policy of frequent family separations. A policy that emphasizes maintenance of family life and shortening tours of duty away from home, and finding ways of helping soldiers to bring their families with them if long term postings are not avoidable. It is a constitutional duty of each military to defend the country against foreign invasion and aggression. The Country has also signed charters/treaties to help resolve conflicts and peace keeping in countries going through civil wars and other political conflicts. Therefore, the military will always be called upon to go into operational assignments in these particular countries to maintain peace and political order. While this is a national duty, it can be concluded from this study that, an operational assignment should only last at the most, six (6) months duration. This however is a policy matter that should be taken care of by Service Chiefs and Government. What is recognizable from the study is the fact that mobility and labor migration are associated with high risky sexual activi

7. Sexual Behaviour Surveys in the military should be repeated at least once every two years in order to determine the trends over time and impact of various interventions. In this regard, this study can be replicated to cover a much larger sample size and sample more military camps across the Country.

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THE UNIVERSITY OF ZAMBIA
School of Medicine
Department of Community Medicine

RESEARCH STUDY QUESTIONNAIRE

STUDY TOPIC: "Prevalence and determinants of casual sex among military personnel in Lusaka District"

Questionnaire Code number:

Name of interviewer:

Date of interview: /.../.../.../

Thank you for agreeing to complete this questionnaire. The information you shall provide will be completely private, and will NOT in any way be linked to you. Please follow the instructions carefully and answer every question that applies to you.

NOTE: In some cases, you are asked to provide only one answer in other cases, you provide several answers. In certain cases, you are asked to skip some questions if they do not apply to you. We appreciate your cooperation and time.

Section A Demographic Data

Please tick (v) your answer in the provided spaces against each Question.

1. What is your age? []
2. Are you v (tick one)
 1. Male []
 2. Female []
3. What is your religion?
 1. No religion []
 2. Christian []
 3. Muslim []
 4. Other (specify) []
4. What is your tribe?
5. What rank category are you?
 1. Major to Lt Colonel []
 2. 2Lt to Captain []
 3. SNCO to Warrant Officer []
 4. JNCO []
6. How long have you worked in the Military?
7. What is the highest level of education you have complete (Tick one answer only)
 1. Grade 1 – 7 []
 2. Grade 9 – 12 []
 3. College []
 4. University []
 5. Other (specify) []
8. What is your marital status?
 1. Single []
 2. Married []
 3. Divorced []
 4. Separated []
 5. Widowed []

Section B. Military Operation Experience

9. Have you ever been involved in a local military operation lasting 3 months or more?

- 1. Yes []
- 2. No []

10. If answer to Question 10 is yes; how long did the last operation last?

11. Have you ever been involved in a foreign military operation?

- 1. Yes []
- 2. No []

12. If answer to Question 12 is yes; how long did the last operation last?

13. In the last 24 months, on how many separate occasions have you travelled or spent days away from your home community for more than one month (consecutive days) on military tasks?

- 1. 1 occasion []
- 2. 2 occasions []
- 3. 3 occasions []
- 4. 4 occasions []
- 5. None []

Section C. Alcohol and drinking

This section has questions on alcohol and drinking (please try to answer as honestly as possible. Your answers will remain strictly confidential)

“a drink is a can or bottle of beer, a glass of wine, a shot/tot of spirits or mixed drink with liquor in it. We are not asking about times when you only had a sip or two from an alcoholic drink”

14. Have you ever taken an alcoholic drink in your life time?

- 1. Yes []
- 2. No, I do not drink []

15. In the last 3 months, how often did you take a drink containing alcohol?

- 1. Never []
- 2. Once monthly or less []
- 3. 2 – 4 times per month []
- 4. 2 – 3 times per week []
- 5. 4 or more times per week []
- 6. Not applicable []

16. In the last 3 months, have you drunk alcohol regularly to achieve any of the following?

- 1. Relax, relieve anxiety or go to sleep []
- 2. Be more comfortable in social situations []
- 3. Avoid thinking about sad or unpleasant things []
- 4. Socialize with other regular drinkers []
- 5. Not applicable []

Section D. Sexual Behaviour

This section asks some specific questions about sex and sexual partners. It may be difficult to remember everything, but please answer the questions to the best of your knowledge. Again, this information is completely private and cannot be linked to you in any way?

17. Do you currently have a sex partner?

- 1. Yes []
- 2. No []

18. What type of sex partner do you have?

- 1. Wife []
- 2. Husband []
- 3. Girl friend []
- 4. Boy friend []

19. Have you had sexual intercourse in the last 12 months?

- 1. Yes []
- 2. No []

20. How many different people have you had sex with in the last 12 months? (Tick one answer only)

- 1. Only with my main partner []
- 2. 2 – 3 []
- 3. 3 – 4 []
- 4. 5 or more []

5. Do not know/cannot remember []
21. How many of these people were new sexual partners for you?

- 1. 1 only []
- 2. 2 []
- 3. 3 []
- 4. 4 or more []
- 5. Not applicable []

22. Did you have sexual intercourse with a casual partner other than your spouse/girl friend the last time you were away from your home community; i.e. on military duty such as peace keeping mission or other personal tasks?

- 1. Yes []
- 2. No []

23. On how many occasions did you have sexual intercourse with a casual partner the last time you were away from your home community on military duty?

- 1. Once only []
- 2. 2 – 3 []
- 3. 4 – 5 []
- 4. 5 or more []
- 5. Do not know/cannot remember []

24. The last time you had sexual intercourse with a casual partner; did you have influence of any of the following?

- 1. Friends influence []
- 2. Boredom []
- 3. Alcohol influence []
- 4. Stayed long without sex []
- 5. Was cohersted []
- 6. Not applicable []

25. The last time you had sexual intercourse, was it with regular partner such as wife/husband/ steady girl/boy friend or a completely new partner?

- 1. Regular partner []
- 2. Completely new partner []
- 3. Not applicable []

26. The last time you had sexual intercourse with a casual partner, did you or your partner drink alcohol before sex?

- 1. Yes []
- 2. No []
- 3. Cannot remember []

4. Not applicable []
27. Were you or your casual partner drunk at the last time you had sexual intercourse?
1. Yes []
 2. No []
 3. Cannot remember []
 4. Not applicable []
28. In the past 12 months, how likely is it that your last sexual partner had other sexual partners?
1. Very likely []
 2. Some what []
 3. Likely []
 4. Not at all likely []
 5. Not applicable []
29. In the last 12 months, have you paid for sex or been paid to have sex?
1. Yes []
 2. No []
 3. Not applicable []
30. Have you ever used a condom?
1. Yes []
 2. No []
31. Did you use a condom consistently the last 12 months during sexual intercourse?
1. Yes []
 2. No []
 3. Not applicable []
32. If you used a condom in the past 12 months, with whom did you use a condom?
1. Spouse/regular partner []
 2. Casual partner []
 3. Not applicable/not used condom []
33. If you have had sex with more than one partner in the past 12 months, did you use a condom the last time you had sexual intercourse with someone who is NOT your spouse or regular partner?
1. Yes []
 2. No []
 3. Only had sex with spouse or regular partner []

4. Not applicable []

34. If you have had sexual intercourse with a casual partner in last 12 months and DID NOT use a condom, what are the reasons why you didn't use a condom?

- 1. Trusted my partner []
- 2. Condoms were not available []
- 3. Was too drunk to remember []
- 4. Partner refused []
- 5. Don't like condoms []
- 6. Not applicable []

Section E. Self perceived to HIV infection

The following section asks questions relating to your knowledge about HIV and AIDS and your own feelings about self risk to HIV infection.

35. Are you concerned that you might be infected with HIV?

- 1. Very concerned/highly at risk []
- 2. Somewhat concerned []
- 3. Not concerned at all []
- 4. Do not know/cannot tell []

36. Have you ever been tested for HIV, the virus that causes AIDS?

- 1. Yes []
- 2. No []

37. If you have not been tested for HIV, what are the reasons why you have not tested? (Circle only one answer)

- 1. I do not feel that am at risk of HIV infection []
- 2. Never thought of having a test []
- 3. Afraid of the test []
- 4. Do not know where to go for the test []
- 5. My spouse/partner is against the idea of testing []

38. Are there any policies in the Zambian military which protect military personnel at higher risk of contracting HIV and other Sexually Transmitted Infections?

- 1. Yes []
- 2. No []
- 3. Do not know/not sure []

39. If answer to Question 42 is yes, which policies?

.....

.....
40. In your view, what do you think should be the maximum number of military personnel should stay in operational areas?

- 1. Less than 3 months []
- 2. 6 months []
- 3. 9 months []
- 4. 12 months []
- 5. Do not know/not sure []

THANKYOU FOR YOUR COOPERATION

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF COMMUNITY MEDICINE

PARTICIPANT INFORMATION SHEET

TITLE OF RESEARCH PROJECT:

“Prevalence and determinants of casual sex among military personnel in Lusaka District”

Introduction

I, Remmy Mulenga (Major) a student from the University of Zambia in Public Health Programme, kindly request your participation in this study were am gathering information on the above Research Topic. The information being collected may be used to help design specific appropriate intervention measures to prevent the contraction and transmission of HIV in the military. Your participation is entirely voluntary and you are under no obligation to take part in this exercise.

Purpose of the study

The purpose of the study is to gather information on factors associated with casual sex among military personnel which put them at risk of HIV infection.

Procedure

If you accept to take part, a form will be issued were you will sign or put a thumb print to show consent. Feel to ask any questions relating to the exercise. You will be asked a number of questions on your military service, sexuality, alcohol consumption and HIV/AIDS in general.

Risks and Discomforts

This study will not involve drawing of blood from you any invasive procedures. It will only involve you in answering the structured questions. You may find some questions uncomfortable and you will be free to skip any of those questions.

Benefits

The benefit you get from participating in this study is that the information from this study will be used to design interventions in the control of HIV/AIDS among military personnel by policy makers

Confidentiality

The information you will volunteer will be kept strictly confidential will not be disclosed to anybody or used for anything other than the intended purpose of the study. No name will be written on the questionnaire, except for the questionnaire number known by the interviewer only.

CONSENT TO PARTICIPATE IN THE STUDY

I.....Hereby CONSENT to take part in the study having been explained to, the nature and purpose of the study, risks, benefits and confidentiality, I hereby declare my participation as voluntary and not forced.

Sign/Thumbprint.....Date.....

Witness (Name)Sign.....

CONTACT PERSONS FOR ANY QUERRIES OR INFORMATION RELATE HE
STUDY

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2. The Chairman, Research Ethics Committee, School of Medicine, P.O. Box 50110, Lusaka. Tel: 260 – 1 – 256067
3. Prof. S Siziya UNZA, Community Medicine, P.O. Box 50110, Lusaka.
4. Dr. R N Likwa, UNZA, Community medicine, P.O. Box 50110, Lusaka

