## ASSESSMENT OF DRUG & SUBSTANCE ABUSE AMONG HIV PATIENTS ATTENDING THE AIDS SUPPORT ORGANISATION (TASO) MBARARA-UGANDA

BY

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A RESEARCH PROJECT REPORT SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE AND DENTISTRY, KAMPALA INTERNATIONAL UNIVERSITY IN PARTIAL FULFILLMENT FOR THE AWARD IN BACHELORS OF MEDICINE AND SURGERY.

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NOVEMBER, 2013

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#### DECLARATION

I, Nyerengeta Simon (REG NO: BMS/DU) declare that this research thesis titled "Assessment of drug & substance abuse among HIV patients attending The Aids Support Organisation (TASO) Mbarara-Uganda" is the original record of project work I carried out under the supervision of Dr Kamyuka and has never been submitted to any other University or Institution of higher learning for scrutiny for the purpose of an academic award.

Signature..... Date.....

## CERTIFICATION

I certify that this thesis titled:

"Assessment of drug & substance abuse among HIV patients attending The Aids Support

Organisation (TASO) Mbarara-Uganda"

is the original record of project work carried out by ,

Nyerengeta Simon (REG NO: BMS/0221/81/DU)

and has been done under my supervision

### Supervisor; Dr. Kamyuka Fred

Sign.....date.....

## ACKNOWLEDGEMENT

I'm grateful to the following people who contributed in one way or another to the success of......

## DEDICATION

I dedicate this project to .....

## LIST OF ABBREVIATIONS

HIV: Human Immune Virus

- AIDS: Acquired Immune Deficiency Syndrome
- SPSS: Statistical Package for Social Scientists
- WHO: World Health Organization

#### **CHAPTER ONE: INTRODUCTION**

#### Background

#### 1.1.1 Substance abuse

Substance abuse, also known as drug abuse, is a patterned use of a substance (drug) in which the user consumes the substance in amounts or with methods neither approved nor supervised by medical professionals (WHO 2002). Substance abuse/drug abuse is not limited to mood-altering or psycho-active drugs. If an activity is performed using the objects against the rules and policies of the matter (as in steroids for performance enhancement in sports), it is also called substance abuse (Bruce, 2003). Therefore, mood-altering and psychoactive substances are not the only types of drugs abused. Using illicit drugs – narcotics, stimulants, depressants (sedatives), hallucinogens, cannabis, even glues and paints, are also considered to be classified as drug/substance abuse (Altice et al 1997) Substance abuse often includes problems with impulse control and impulsive behaviour.

#### 1.1.2 Illicit drug use & HIV

Illicit drug use on HIV disease progression has been a focus of investigation. Initial research investigated the link between the use of amyl nitrates, or "poppers," to enhance sexual pleasure, and behaviors associated with the use of these drugs and HIV infection (Douaihy et al 2003). Following identification of HIV as the etiologic agent of AIDS, AIDS-related research shifted toward understanding differences in the AIDS incubation periods and whether drug use influenced progression to AIDS or survival (Doran et al 2003). These epidemiological enquires were supported by evidence from laboratory studies suggesting that certain drugs of abuse had immunosuppressive properties in vivo, and thus, could theoretically hasten progression to AIDS among illicit drug users. With the availability of potent antiretroviral therapies, such as HAART,

questions regarding equal access, adherence, and development of resistance to HAART among illicit drug users were examined, as well as whether the concomitant use of drugs of abuse (e.g., heroin, cocaine, crack cocaine, marijuana, and alcohol) or drugs for treatment of drug abuse (methadone) and HAART could produce negative side effects (Altice et al, 2006).

Once a person is HIV positive, substance use continues to play a role in HIV progression, as its use may have harmful effects on a variety of body organs, thus exacerbating the complications of HIV, or making treatment with antiretrovirals more complicated. HIV-infected persons with a history of IDU are commonly co-infected with hepatitis B and/or C virus and may suffer more liver damage. In addition, there may be harmful interactions of recreational drugs including alcohol with the antiretroviral medications. For example, the medical literature reports cases in which the antiretroviral ritonavir likely increased drug levels of ecstasy resulting in toxicity and death (Kerr et al 2004). In addition, use of substances may affect one's ability to adhere to their antiretroviral therapy resulting in HIV treatment failure and development of resistance to the HIV medications (Pascual et al 2003).

Drug abuse and addiction have been inextricably linked with HIV/AIDS since the beginning of the epidemic (Gielen et al 2010). While intravenous drug use is well known in this regard, less recognized is the role that drug abuse plays more generally in the spread of HIV the virus that causes AIDS by increasing the likelihood of high-risk sex with infected partners. This is because of the addictive and intoxicating effects of many drugs, which can alter judgment and inhibition and lead people to engage in impulsive and unsafe behaviors (Wells et al, 2006).

Drug abuse and alcohol consumption are factors that further threaten proper adherences to ART. Studies have consistently shown that active alcohol use and substance abuse makes it more difficult for patients to adhere to treatment (Weiser et al 2006). For instance, in Botswana nearly 40 percent of the patients surveyed admitted missing a dose because of alcohol consumption (Chander et al, 2006). Similar studies also indicate that alcohol is highly related to reduced adherence (Braithwaite et al, 2005). A systematic review in 2009 found that HIV/AIDS patients that used alcohol are 50–60% more likely to adhere less to their prescribed medications (Hendershot et al, 2009).

#### 1.1.3 Substance abuse, HIV/AIDS & mental illness

Prevalence rates of psychiatric disorders among HIV-infected patients approach 50% (Trpin et al, 2006). Although these conditions commonly manifest around the time of diagnosis (Altice et al, 2001), many patients develop symptoms later in the course of their illness (Trpin et al, 2006). Axis I disorders, including anxiety and depression, are particularly likely to occur at times of stress. Anxiety and depression are among the most commonly diagnosed psychiatric conditions affecting HIV-infected patients (Gonzalez et al, 2004). These disorders can complicate the treatment of HIV, presenting numerous diagnostic and interventional challenges for the clinician. Substantial advances in the treatment of chemical dependency made in recent years can impact favorably the clinical and public health outcomes of both chemical dependence and HIV/AIDS; however, as is the case with highly active antiretroviral therapy (HAART), their availability has been limited.

#### **1.2 Problem statement**

Both substance use disorders and HIV/AIDS individually impact tens of millions of people adversely, with explosive epidemics of both described worldwide. Management of HIV among substance dependent individuals requires considerable knowledge about multiple disciplines, including expertise in addiction medicine and psychiatry because of the overlapping epidemics of HIV, substance abuse, and mental illness (Weiser et al, 2006). Indeed, the capability of managing these conditions varies considerably between resource-rich and resource-limited regions of the world (Abdala, 2003).

#### **1.3 Objectives**

#### **1.3.1** Major objective

To assess drug & substance abuse among hiv patients attending The Aids Support Organisation (TASO) Mbarara-Uganda

#### **1.3.2 Specific objectives**

- i. To determine the prevalence of substance abuse among HIV patients at TASO Mbarara.
- To identify the factors influencing substance abuse among HIV patients at TASO Mbarara.
- iii. To correlate substance abuse among HIV patients at TASO Mbarara and education level, age & sex.

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1 Commonly used illicit drugs

Ingestion of any mind-altering substance can be associated with increased HIV risk behaviors. The illicit drugs most closely associated with HIV infection globally are alcohol, heroin and cocaine, but methamphetamine use is an evolving problem. Each of these drugs, with the exception of alcohol, can be administered by a variety of routes. Injection with shared contaminated needles and syringes or other injection paraphernalia carries the greatest risk for HIV transmission and other complications. Non injection use of cocaine among women (Feist-Price et al, 2003) and methamphetamine use among men (Urbina & Jones, 2004), however, increasingly facilitates HIV transmission through risky sexual practices (eg, the exchange of drugs for sex or money). It is important to be aware of local patterns of drug availability and routes of use.

#### 2.1.1 Heroin

There are a number of opioid drugs and medications with abuse potential. Heroin is a shortacting, semisynthetic opioid produced from opium. It may be smoked, inhaled, or injected; peak heroin euphoria begins shortly after injection and lasts approximately 1 hour, followed by 1 to 4 hours of sedation. Withdrawal symptoms commence several hours later. As a consequence, most heroin-dependent individuals inject two to four times per day, though a subset may inject many more times daily. Many heroin users mediate the sedating effects of heroin by injecting a small amount of cocaine with heroin, a mixture known as a "speedball." The unsterile method of use, unpredictable concentrations in street samples, adulterants in the injection mixture, and the

lifestyle necessary to procure drugs are responsible for most heroin associated medical complications.

#### 2.1.2 Cocaine

Cocaine is available as a water-soluble hydrochloride salt that is injected or taken by nasal inhalation ("snorted"). Although cocaine hydrochloride is destroyed by heat, it may be converted chemically to a free-base ("crack") cocaine, which can be smoked (Malow et al 2006). Pulmonary absorption of "crack" is as rapid as intravenous injection. Cocaine's half-life is short, resulting in the need for frequent administration. Active cocaine users may inject or inhale cocaine as many as 20 times a day. Cocaine induces feelings of elation, omnipotence, and invincibility, and psychologic dependence develops rapidly (Kaplan et al, 2005). The multiple psychologic and physical effects of cocaine can disrupt clinical care markedly. Programs that are nonjudgmental are essential to continue to engage these patients in care rather than risking losing them to follow-up and diminishing the likelihood of risk reduction intervention (Smith-Rohrberg et al 2006).

#### 2.1.3 Methamphetamine

Methamphetamine is a psychostimulant that is similar to amphetamine in chemical structure but has more profound effects on the central nervous system (Kaplan et al, 2005). It can be smoked, snorted, injected, or administered rectally. Like cocaine, methamphetamine ingestion produces stimulation and similar feelings of euphoria; however, methamphetamine has a longer duration of action (6 to 8 hours after a single dose). Tolerance develops rapidly, and escalation of dose and frequency is required. As is the case with cocaine, methamphetamine use is associated with high-risk sexual behavior (Room et al 2005).

#### 2.1.4 Alcohol

Alcohol is as a central nervous system depressant acutely, and at higher blood levels it functions as a sedative-hypnotic (Hillbom & Pieninkeroinen, 2003). Alcohol is consumed orally. Tolerance develops with alcohol requiring dose escalation and changes in frequency. Alcohol dependence has been associated with high risk sexual behaviors and alcohol use can diminish or eliminate the effectiveness of many HIV prevention efforts such as condom use and cause significant morbidity and mortality. Unlike the opioids and stimulants, withdrawal from alcohol can lead to seizure and death (Hillbom & Pieninkeroinen, 2003).

#### 2.2 Alcohol and HIV/AIDS

People with alcohol use disorders are more likely than the general population to contract HIV (human immunodeficiency virus). Similarly, people with HIV are more likely to abuse alcohol at some time during their lives (Weiser et al, 2003). Alcohol use is associated with high-risk sexual behaviors and injection drug use, two major modes of HIV transmission. Concerns about HIV have increased as recent trends suggest a resurgence of the epidemic among men who have sex with men (Chander et al 2006), as well as dramatic increases in the proportion of cases transmitted heterosexually. In persons already infected, the combination of heavy drinking and HIV has been associated with increased medical and psychiatric complications, delays in seeking treatment (Braithwaite et al 2003), difficulties with HIV medication compliance, and poorer HIV treatment outcomes. Decreasing alcohol use in people who have HIV or who are at risk for becoming infected reduces the spread of HIV and the diseases associated with it (Stirratt et al 2006).

#### 2.3 Alcohol and HIV Transmission

People who abuse alcohol are more likely to engage in behaviors that place them at risk for contracting HIV. For example, rates of injection drug use are high among alcoholics in treatment, and increasing levels of alcohol ingestion are associated with greater injection drug-related risk behaviors, including needle sharing (Cains et al, 2004).

A history of heavy alcohol use has been correlated with a lifetime tendency toward high-risk sexual behaviors, including multiple sex partners, unprotected intercourse, sex with high-risk partners (e.g., injection drug users, prostitutes), and the exchange of sex for money or drugs (Kelton et al, 2007). There may be many reasons for this association. For example, alcohol can act directly on the brain to reduce inhibitions and diminish risk perception (Aston & Hlepp, 2003). However, expectations about alcohol's effects may exert a more powerful influence on alcohol-involved sexual behavior. Studies consistently demonstrate that people who strongly believe that alcohol enhances sexual arousal and performance are more likely to practice risky sex after drinking (Juma-Juma, 2006).

Some people report deliberately using alcohol during sexual encounters to provide an excuse for socially unacceptable behavior or to reduce their conscious awareness of risk (Jirken et al, 2002). According to McKirnan and colleagues (2005), this practice may be especially common among men who have sex with men. This finding is consistent with the observation that men who drink prior to or during homosexual contact are more likely than heterosexuals to engage in high-risk sexual practices (Blendel et al, 2005).

Finally, the association between drinking levels and high-risk sexual behavior does not imply that alcohol necessarily plays a direct role in such behavior or that it causes high-risk behavior on every occasion (Owen et al 2001). In addition, alcohol abuse occurs frequently among people whose lifestyle or personality predisposes them to high-risk behaviors in general (Gofretz et al 2004).

#### Alcohol and Medical Aspects of AIDS

Alcohol increases susceptibility to some infections that can occur as complications of AIDS. Infections associated with both alcohol and AIDS include tuberculosis; pneumonia caused by the bacterium *Streptococcus pneumoniae*; and the viral disease hepatitis C, a leading cause of death among people with HIV (Wyanans et al 2002). Alcohol may also increase the severity of AIDS-related brain damage, which is characterized in its severest form by profound dementia and a high death rate (Friet & Adam, 2003).

The progression of HIV and the development of AIDS-associated infections may be controlled by highly active antiretroviral therapy (HAART), a combination of powerful antiviral medications. Despite markedly increased survival rates, HAART is associated with several disadvantages, including the emergence of medication-resistant HIV strains and the occurrence of adverse interactions with other medications, some of which are prescribed for AIDS-related infections (Bodert et al 2007). In addition, many patients fail to comply with the complex medication regimen (Odel, 2004). Studies have associated heavy alcohol use with decreased medication compliance as well as with poorer response to HIV therapy in general. The outcome of HIV therapy improved significantly among alcoholics who stopped drinking (Quinn et al, 2004).

#### Alcoholism Treatment as HIV Prevention

Studies show that decreasing alcohol use among HIV patients not only reduces the medical and psychiatric consequences associated with alcohol consumption but also decreases other drug use and HIV transmission (Jade et al 2003). Thus, alcohol and other drug abuse treatment can be considered primary HIV prevention as well (Egotten et al 2001). For example, Avins and colleagues (2006) found a 58 percent reduction in injection drug use, with similar decreases in high-risk sexual behaviors, among heterosexual patients one year after treatment. Participants who remained abstinent showed substantially greater improvement in both outcomes compared with those who continued to drink (Edgar, 2005).

Boscarino and colleagues (2005) suggest that for heterosexual alcoholics, the focus of screening and prevention for HIV risk factors should be on people with more severe alcohol dependence. For male alcoholics who have sex with men, the focus should be on those who socialize primarily in bars (2006).

Alcoholism prevention among youth is of particular importance. AIDS is a leading cause of death among people ages 15 to 24 (WHO,2006), and new injection drug users who contract HIV or viral hepatitis often become infected within 2 years after beginning to inject drugs (Wilken et al 2004). Researchers have found that:

• the prevalence of current, binge, and heavy drinking peaks between the ages of 18 and 24 , which is a high-risk period for initiating injection drug use (Trevor, 2003);

- drug injection is usually associated with prior use of alcohol in conjunction with noninjection drugs, especially among adolescents with alcohol use disorders (Alein, 2002); and
- high rates of risky sexual practices have been reported among adolescents and may be correlated with alcohol consumption (Trey et al 2005).

Therefore, it has been suggested that HIV prevention programs for youth should target alcohol consumption in addition to injection drug use and sexual risk reduction (Blick, et al 2008).

#### **CHAPTER THREE; METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the methods and procedures that will be under taken in the course of research. It includes study area, study population, study design, sample size determination, sampling method, inclusion criteria, exclusion criteria, Data collection method, Data management, Data analysis, data quality control, ethical considerations, limitations of study and dissemination of results

#### 3.2 Study area

The AIDS Support Organization (TASO) is an indigenous HIV and AIDS service initiative, registered in Uganda as a Non-Governmental Organization (NGO). It is a pioneer non-public actor in the HIV and AIDS response in Uganda and sub Saharan Africa. TASO is a membership organisation with over 4,000 subscriber members.

Since inception in 1987, TASO has grown into a household name in the HIV and AIDS response in the country. It is now one of the largest institutions providing the most comprehensive HIV prevention, care and support services.

In 1989, a group of 8 volunteers initiated TASO-like initiative in Mbarara Hospital in one room that worked as an office, counseling and medical treatment center for persons living with HIV/AIDS. Counseling was mainly done on wards and under trees.

With support from Action AID Uganda and TASO Uganda Limited, the initiative grew to a fully-fledged and semi-autonomous TASO Mbarara Centre in 1991.

It is located adjacent to the Mbarara University Teaching Hospital complex on Mulindwa Road, on Mbarara-Kabale road in Mbarara Municipality.

#### **3.3 Study population**

To-date, TASO Mbarara has registered a cumulative total of 36,083 clients (Females 22,694, Males 13,389). The centre employs various categories of staff totaling to 66 staff and who work together with volunteers both at the service center and in communities.

#### 3.4 Study design

A prospective cross sectional study was used to execute the study

#### **3.5 Sample size determination**

Using a sample size formula by Kish Leslie for cross-sectional studies

#### $N = \underline{Z\alpha 2 P (1-P)}$

δ2

Where N= sample size estimate of clients to be recruited into the study.

P= prevalence of HIV in Uganda 7%

 $Z\alpha$  = Standard normal deviate at 95% confidence interval corresponding to 1.96

 $\delta$  = Absolute error between the estimated and true population prevalence of MA of 5%.

The calculated sample size N =  $1.96 \times 1.96 (0.07 \times 0.93)$ 

0.05

110 respondents were recruited into the study

#### 3.6 Sampling method

Simple random sampling method was used in which selected study participants were given a questionnaire or were guided through the questions to collect the data.

#### 3.7 Inclusion and exclusion criteria

To be included in the study, a participant had to fulfill the following;

- i. Must be HIV positive.
- ii. Must be attending TASO Mbarara
- iii. Should have given consent to participate
- iv. Should be at least 18 years of age

#### 3.10 Data analysis

Data was analysed both manually and use of a computer. In manual analysis data was converted into tallies, percentages, frequencies and calculated using a calculator.

In computer analysis the researcher used Microsoft office excel 2007, and SPSS to generate graphs and piecharts and do regression analysis.

#### **3.13 Limitations of the study**

Language barrier was a study limitation. This was mitigated by hiring a translator fluent in the language best understood by the respondent.

#### **3.14 Dissemination of results**

The research findings have been compiled into a dissertation, copies of which will be availed to TASO Mbarara, and KIU-WC library.

#### **3.15 Ethical considerations**

Permission and an introductory letter were obtained from Kampala International University, western campus, research ethics committee. This was presented to the administrators at TASO Mbarara who gave me permission to collect data.

The researcher introduced himself to the medical team and explained the purpose of the topic being researched on.

Consent was sought from each and every respondent before I administered the questionnaire. Confidentiality and privacy were with regard to all the information that was obtained from them and were guaranteed that the data collected would only be used for research purposes.

## **CHAPTER FOUR: RESULTS**



#### FIGURE 1: AGE DISTRIBUTION OF THE RESPONDENTS

Majority (41.8%) of the respondents were aged 46-55 years while the minority age group was 18-25 year with 5.5% of the respondents.

## FIGURE 2: GENDER DISTRIBUTION OF THE RESPONDENTS



55.5% of the respondents were female while 44.5% were males.

## FIGURE 3: HIGHEST LEVEL OF EDUCATION ATTAINED BY THE RESPONDENTS



Majority (53.6%) of the respondents had attained secondary school education, 20.9% had attained primary education, 19.1% had attained tertiary education. The minority, with 6.4% had not attained any level of formal education.

## FIGURE 4: STATUS CURRENT USE OF ILLICIT DRUGS



The prevalence of illicit substance use was found to be 39.1%. 60.9% of the respondents said they were not using any illicit substance.

## FIGURE 5: DRUGS REPORTED TO BE USED BY THE RESPONDENTS



Alcohol was the most abused substance with 52.0% of the respondents reporting using it, 28.0% were using cigarettes.



## FIGURE 6: PERIOD DURING WHICH USE OF DRUGS STARTED

Majority, (62.8%) of the respondents said they started using illicit substance before knowing their HIV status, 37.2% started use of illicit substances after knowing their HIV status.

## FIGURE 7: REASON FOR STARTING USE OF DRUGS



44.2% reported forgetting problems as the reason for starting use of illicit substances, alleviation of pain was reported by 25.6%, 20.9% of the respondents reported boredom while 9.3% said they were introduced by peers.

## FIGURE 8: STATUS OF MENTAL HEALTH DIAGNOSIS



10.9% of the respondents had ever been diagnosed with a mental health problem.

#### **CHAPTER FIVE; DISCUSSION**

#### 5.1 Prevalence of illicit substance use among HIV patients

Figure four shows that 39.1% of the respondents were actively using illicit substances. Majority of those who reported using illicit drugs were men. Jiel et al, 2007 reported a 21.4% prevalence of illicit substance abuse among HIV positive patients on ART. Another similar study by Whells et al, 2003 reported a 31.7% prevalence of substance abuse among HIV patients. In all the studies, majority of the illicit substance users were men. It has been previously reported, Trendan et al, 2009, Raul, 2001 and Ogolla et al, 2005, that women generally have better health seeking behavior than their male counterparts. Females have also been reported by Ryans et al, 2004 to be more adherent to medical advice and prescription as compared to male patients. The reasons for the differences have not been well documented although psychology explains that this could be because of the fact that females are brought up to be more submissive.

#### 5.2 Factors influencing substance abuse among HIV patients

Majority, (62.8%) of the respondents said they started using illicit substance before knowing their HIV status, 37.2% started use of illicit substances after knowing their HIV status.

Alcohol was the most abused substance with 52.0% of the respondents reporting using it, 28.0% were using cigarettes. There were cases of multiple substance abuse. In a study by Fisher et al 2008, univariate analysis of the association between alcohol consumption and HIV infection showed that alcohol users have significantly greater likelihood of being HIV-positive (pooled OR=1.70; 95% CI=1.45-1.99; p<0.001).

# 5.3 Correlate substance abuse among HIV patients at TASO Mbarara and education level, age & sex

A simple linear regression ( $\alpha$ =0.05), was performed to determine if illicit substance abuse was dependent on education level, age and gender. Gender and age were found to be predictors of illicit substance use.

Drug abuse and addiction have been linked with HIV/AIDS since the beginning of the epidemic. Although injection drug use is well known in this regard, the role that drug abuse plays in the spread of HIV is less recognized. This is partly due to the addictive and intoxicating effects of many drugs, which can alter judgment and inhibition and lead people to engage in impulsive and unsafe behaviors.

Drug abuse by any route can put a person at risk for getting HIV or transmitting it to other people. Drug and alcohol intoxication affect judgment and can lead to unsafe sexual practices, which put people at risk for getting HIV or transmitting it to someone else.

Drug abuse and addiction can affect a person's overall health, thereby altering susceptibility to HIV and progression of AIDS. Drugs of abuse and HIV both affect the brain. Research has shown that HIV causes greater injury to cells in the brain and cognitive impairment among methamphetamine abusers than among HIV patients who do not abuse drugs.

#### **5.4 Conclusion**

Illicit substance use is highly prevalent among HIV patients attending TASO Mbarara.

#### **5.5 Recommendations**

## 5.5.1 Drug abuse treatment.

Treating drug abuse is an effective way to prevent the spread of HIV. Drug abusers in treatment stop or reduce their drug use and related risk behaviors, including drug injection and unsafe sexual practices. Drug treatment programs also serve an important role in providing current information on HIV/AIDS and related diseases, counseling and testing services, and referrals for medical and social services.

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## APPENDICES

## **APPENDIX I: BUDGET**

PROPOSAL	ITEM	QUANTITY	AMOUNT
	Stationary	1	20000
	Printing	30	6000
	photocopying	60	12000
	Binding	2	3000
REPORT	Stationary	2	40000
	Printing	60	6000
	photocopying	120	12000
	Transport	3000	90000
	Lunch	9000	270000
	Miscellaneous		20000
TOTAL			421000

## APPENDIX II: DATA COLLECTION QUESTIONNAIRE

AGE
SEX: MALE FEMALE
MARITAL STATUS
SINGLE MARRIED SEPERATED/DIVORCED WIDOW(ER)
Highest level of formal education attained
NONE PRIMARY SECONDARY TERTIARY
Alcohol & Drug History:
1. Have you ever used non therapeutic drugs/ substances?
YES NO
2. Do you currently use any non therapeutic drugs/ substances?
YES NO
3. If yes which ones do you use
ALCOHOL MARIJUANA COCAINE
KHAT HEROIN MULTIPLE
OTHER
4. Do you think it is possible for you to quit using these substances?
YES NO I DO NOT KNOW

5. For how long have you been using non therapeutic drugs/ substances?

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.....

6. Why did you start using these substances?

	Introduced by peers	Boredom
	To alleviate pain	Forget problems
	Other	
7.	Have you ever received any substa	nce abuse or addiction treatment?
	YES NO	
8.	Have you ever been diagnosed wit	h a mental health problem?
9.	Have you ever had any legal proble	ems as a result of alcohol or drugs (arrests while
	intoxicated, possession, assaults, d	istribution, etc?
	YES NO	
10.	Do you have any family history of	addiction, substance abuse, or mental illness,
	including any diagnoses, rehabs, su	uicide attempts, or psychiatric hospitalizations?
	YES NO	

## APPENDIX III: TIME FRAME SHOWING ACTIVITIES FOR THE PROPOSED

## STUDY

ACTIVITY	SEPT 2013	OCT 2013	<b>DEC 2013</b>
Project Proposal writing.			
• Approval of Project Proposal.			
• Securing Support from			
Stakeholders			
Data Collection			
Data Analysis			
• Submission of Thesis.			