

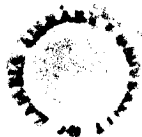
**CHALLENGES HIV POSITIVE MARRIED PERSONS  
ATTENDING KANYAMA CLINIC FACE IN USING CONDOMS**

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By

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A Dissertation submitted to the University of Zambia in partial fulfillment of the requirements for the Degree of Master of Public Health (MPH)



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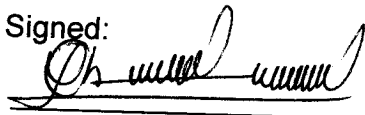
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## DECLARATION

I declare that this dissertation presents my own work and that all the sources I have quoted have been indicated and acknowledged by means of complete references. I further declare that this dissertation has not previously been submitted for a Degree, Diploma or other qualifications at this or another University. It has been prepared in accordance with the guidelines for Master of Public Health Dissertations of the University of Zambia.

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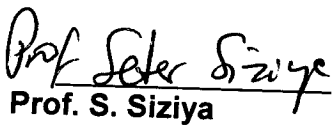
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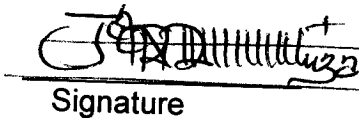
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## ABSTRACT

The ideal situation is that HIV positive married individuals ought to use condoms throughout their sexual life in view of preventing themselves from HIV reinfection except when the couple opts to have a child. However, from the time the ART program was scaled up in various health centers in Zambia almost five years ago, the rate of condom use among concordant HIV positive couples has not been studied and there are many issues that remain unknown. This study was designed to answer four research questions which are: (i) what is the condom use rate like among HIV positive married couples? (ii) Regarding their status of being HIV positive and married, what challenges do they experience sexually? (iii) In what ways do they cope? and (iv) noting the rate of condom use, why do they sexually behave in the manner they do?

The study was specifically carried out at Kanyama ART clinic in one of the consulting rooms and a qualitative research rooted in the abductive research was used. The data for this study were drawn only from HIV positive married patients on ARV's attending the ART clinic. Theoretical sampling of HIV positive married patients was the main stay for the study. Each respondent was interviewed in-depth and data was analyzed using content analysis informed by grounded theory.

The findings were that 14 (25 per cent) of the couples were consistent in using condoms when having sexual intercourse, 27 (47 per cent) were inconsistent and 16 (28 per cent) did not use any condoms at all. Respondents in this study experienced nine challenges which ranged from : (i) experiencing adverse effects due to condom use (ii) violence when denied sex without a condom, (iii) failure to convince partner to use a condom, (iv) desiring to have children and stopping to use a condom (v) quarrels on account of refusing to use a condom, (vi) desire for maximum pleasure (vii) lack of availability of condoms at the facility and cost of condoms which seemed to be high , (viii) refusal of advice and (ix) no problems at all with using the condom. On account of these challenges, the respondents used cognitive strategies and behavioral strategies to cope. Cognitive strategies included attempts to change the way one thinks about sex with condom use or not and behavioral strategies included one taking an attempt to reduce the impact of sexual stress. Specifically respondents coped in the following six ways (i) saying no to sex (ii) abstaining from sex if no condoms were not to be used (iii), rarely having sex , (iv) sought an alternative sexual partner because condoms were demanded in marriage (.iv) negotiating sex proved difficult and (vi) others did nothing at all. The reasons for selecting various coping strategies and whether to use or not use a condom were varied and the following stood out: (i) gender and the influence of patriarchy or (ii) one resigned and agreed to have sex with a condom in order for peace to prevail or (iii) one had to have sex because culture prescribed so, or (iv) one had experienced adverse effects warranting to use condoms or not to use condoms at all, or (vi) sex without a condom was pleasurable , or one had a number of fears and (viii) the fact that both were of the same status, sex with a condom was of no consequence.

The conclusion is that there are marked challenges of adhering to the condom prescription in marriage among people living with HIV and AIDS and on HAART as

observed by the low rates of condom use. The challenges that women mostly face than men with condom use within marital partnerships are extremely immutable. It is recommended that Kanyama clinic considers the following measures to fortify HIV and AIDs health promotion and prevention programs within the ART Clinic:

1. The government with its collaborating partners concern, should consider coming up with economic empowerment programmes for women, such as micro credit loans, in order to empower the disadvantaged women and in the long run, alleviate themselves from the economic dependence they have on their husbands, so that they would be able to mitigate their failures the perpetually encounter with their husbands, in deciding to use a condom as it is often outside of their control due to poverty they face.
2. Adherence counseling ought to be holistic in the sense that it encompasses messages that include effective pleasure-based safer sex information and emphasize: on the benefits of treatment adherence and also to deliberately draw appointments that enables couples to be counseled together rather than have separate appointments in order to enable the disadvantaged women to bring up issues/matters their husbands hold off using condoms in the midst of the adherence counselor to address.
3. Introducing during regular screening or adherence assessments checking for biological markers such as sperm on vaginal smears, screening for pregnancy at random visits and evidence of sexually transmitted infection, so that the verb consent HIV positive married individuals indicate for condom use when they are asked during adherence counseling is clinically backed up or supported and also in order not to overestimated condom use basing on the manner condoms are collected from the clinic, but be estimated basing on the use.
4. The results of this study confirm that some married men are unwilling to use condoms at least some of the times and others all of the times. The promotion of condoms within such relationships needs to be strengthened in all HIV prevention programs, largely because resistance against condom use is difficult to overcome.

## **In memory of my father**

I dedicate this piece of research in loving memory of my father Daniel Gracious Ng'onga Chelu, my super mentor. He was a remarkable man who saw the value and power in education as the only way to escape poverty. Passed on, in May 29, 2002, without seeing me complete my first degree. Your encouragement of furthering ones studies and having to make friends with people who will add a plus in my life still echoes in my ears. I immensely miss you dad. Rest in Peace.

## **ACKNOWLEDGEMENTS**

It has been my privilege to serve as an amanuensis to the field of research by showing what Challenges HIV positive married persons attending Kanyama Clinic face in using condoms. It is only for that reason that this study appears under my name.

In my quest to do this research, I have received tremendous help from too numerous people to name. Above this, I have learnt a lot of things. As the long gestation of the dissertation indicates, getting the ideas on paper and seeing to it that everything came out in the end, has not been an easy task. It has been Jehovah God's grace. It has been his principles that made it possible for all this work to come out as a single piece of reality in the end.

I designate true authorship of this work and credit to distinguished people and institutions. I take cognisance of the following:

1. To my supervisors, Professor S. Siziya in the Department of Community Medicine of the School of Medicine and Mr. Jason Mwanza in the Department of Sociology of the School of Humanities and Social Sciences, University of Zambia, who were not only my "guide" during my studies but also my mentors. They shared their immense knowledge in the field of research in a selfless manner.
2. Whole hearted thanks to the teaching staff and visiting lecturers for their dedication and commitment to their noble job, I salute you all for your kindness and understanding. In particular to the Head of Department, Dr. G. Silwamba for his patience and immeasurable willingness to go into the depth of individual academic problems and always assisting on the way forward.
3. This piece of research would never have taken place had it not been the Ministry of Health which, did not only grant me study leave but also sponsored me during the study period. I am most grateful to the ministry.
4. I also wish to acknowledge the cooperation received from my fellow course mates and colleagues, no words could describe you. I would simply say I love you all and I will miss you all.
5. Thanks to my entire family and friends for all the support.

My sincere gratitude also goes to all the respondents for opening up and sharing their views. Without their cooperation, the study could not have taken place in view of its sensitive nature.

**May the Almighty God bless you all.**

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## LIST OF ABBREVIATION

<b>AIDS</b>	-	Acquired Immunodeficiency Syndrome
<b>ARRM</b>	-	AIDS Risk Reduction Model
<b>ART</b>	-	Antiretroviral Therapy
<b>ARV</b>	-	Antiretroviral Drugs
<b>HAART</b>	-	Highly Active Antiretroviral Therapy
<b>HBM</b>	-	Health Belief Model
<b>HEA</b>	-	Health Education Authority's
<b>HIV</b>	-	Human Immunodeficiency Virus
<b>IDU's</b>	-	Intravenous Drug Users
<b>PLWHA</b>	-	Positive Living with HIV/AIDS
<b>SCT</b>	-	Social Cognitive Theory
<b>STD</b>	-	Sexually Transmittable Disease
<b>STI</b>	-	Sexually Transmittable Infections
<b>TPB</b>	-	Theory of Planned Behavior
<b>TRA</b>	-	Theory of Reasoned Action
<b>TTM</b>	-	Transtheoretical Model
<b>UN</b>	-	United Nations
<b>UNAIDS</b>	-	United Nations Programme on HIV and AIDS
<b>UNZA</b>	-	University of Zambia
<b>WHO</b>	-	World Health Organisation

## CHAPTER ONE-THE RESEARCH PROBLEM

### 1.0 Background

In Zambia a majority of married couples who are infected with the Human Immunodeficiency Virus (HIV) remain sexually active after they are diagnosed, and whether they practice safer sex or not, has not been a subject of investigation. To date, no study has been done to show the case. Furthermore, interpersonal dynamics and psychosocial barriers to condom use that may impinge on the sexual lives of married HIV-infected couples have not been explored and yet the realities of sexual relationships between men and women are critically important in shaping their sexually lived life.

Marriage as one of the profound institutions signifies some mutual commitment by each partner. It is not simply a personal relationship but it consists of a socially accepted union of individuals embracing the roles of husband and wife. Marriage indicates an intensely interpersonal relationship that is based on romantic love and it is sustained by the couples' companionship, emotional and sexual intimacy inclusive of the sharing of important events of life (Oakley, 1990).

However, with the emergence of Acquired Immunodeficiency Syndrome (AIDS) among HIV positive married concordant couples, marriage has taken a new twist in addressing emotional and sexual intimacy needs of couples from the natural non-use of condoms during sexual intercourse to use of condoms permanently in a couple's life time. This is done as a means of preventive measure to halt mainly HIV reinfection among the HIV positive persons. It has been shown that lack of use of condoms among HIV positive

couples precipitates reinfection and may accentuate multiple drug resistance on those on medication (Shapiro and Ray, 2007).

### **1.0.1 Re-infection or Superfection and its Dangers.**

Emerging superinfection studies show clearly that reinfection is a risk. For years HIV reinfection is seen as a consequence of unprotected sexual encounters between two HIV infected people. Simply put, reinfection occurs when a person living with HIV gets infected a second time while having unprotected sex with another HIV infected person. Its danger is that when exposed to medications, HIV changes or mutates overtime. If a person is infected with a strain of HIV that is different from the strains already present or if a mutated HIV type is introduced into the body through unsafe sex, treatment will be much more complex and potentially ineffective, rendering ones once successful treatment useless. Eventually the viral load skyrockets and the immune system pays the price (Blacked, et. al., 2002).

### **1.0.2 Condoms**

To prevent reinfection, safer sex should be a rule with each and every sexual encounter as experts have recommended. Therefore, condoms have to be used each time a concordant couple engage in sexual intercourse (Colfax, 2004). The couple should introduce condoms into their intimacy whether they like it or not and continue to take the medications as prescribed without missing any doses for them to remain healthy and in reducing risks of reinfection.

### **1.0.3 Public Health Implication**

The ease with which reinfection occurs could have serious public health implications and consequences jeopardizing frantic efforts in combating HIV/AIDS in a situation where an individual is on Antiretroviral Therapy (ART) and the HIV strain becomes resistant. Such reinfection with drug-resistant strains of virus, would lead to viral escape spreading all over the general public and then persist in the infected individuals, potentially reducing the effectiveness of Antiretroviral (ARV) drug therapy in that individual resulting in switching drug regimens as a new measure.

Many researchers have hypothetically outlined a situation in which an HIV-positive person is doing well on AIDS drugs and has unprotected sex with his HIV-positive partner ends up acquiring new HIV that is resistant to medication. He can end up having to be on two different drug regimes: one for his first HIV and another for his second HIV infection. It would expose him to another set of side effects and accelerate the progress of his disease and in turn speed up his demise (Blacked, et. al., 2002).

## **1.1 Technical Statement of the Problem and Demand for this Study.**

This study was premised on the following problems: the ideal situation is that HIV positive married individuals ought to use condoms throughout their sexual life in view of preventing themselves from HIV reinfection except when the couple opts to have a child.

However, from the time the ART program was scaled up in various health centers in Zambia almost five years ago, the rate of condom use among concordant positive couples has not been investigated and there are many issues that remain unknown. Most importantly, very little is known with regard to (i) the problems that are linked with the lifelong prescription of condom use and (ii) what the coping strategies are withstanding the need for sexual intimacy since condom use is a permanent engagement. As such there is a lack of empirical knowledge on the challenges HIV positive married persons face in using condoms. Given this scenario, it is difficult for HIV health care providers to engage themselves meaningfully in HIV reinfection prevention health education programs.

The second problem was that since no research has been done in this part of the world, on HIV positive married concordant couples, the researcher attested the magnitude of the problem to be either underestimated or overestimated. There was need therefore to conduct a study to show the scenario as of today and advance research driven solutions.

## 1.2 Research Questions.

This study seeks to answer the following research questions basing on the statement of the problem:

The principle question, which this study had set out to answer, was: When HIV positive married individuals (both male and female) are having sexual intercourse, what challenges do they encounter following the prescription to use condoms for life?

This principle question led to a set of sub-questions, which were used to guide the research. The sub questions were:

- (i) What is the condom use rate like among HIV positive married couples?
- (ii) Regarding their status of being HIV positive and married, what challenges do they experience sexually?
- (iii) In what ways do they cope?
- (iv) Noting the rate of condom use, why do they sexually behave in the manner they do ?

### **1.3 Research Aims and Objectives**

The study was guided by the following objectives:

#### **General Objective:**

To understand<sup>1</sup> based on the experiences of HIV positive married persons challenges they encounter in negotiating sex and how they cope.

#### **Specific objectives:**

Based on HIV positive married persons' accounts,

- (i) To describe their sexual behavioral life.
- (ii) To describe challenges they face in negotiating for sex.
- (iii) To explain the motives for adopting particular sexual behaviors.
- (iv) To explain the couples coping mechanisms when negotiating for sex.

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<sup>1</sup> According to Blaikie (2000), understanding is a qualitative concept where the researcher has to rely on what the respondents have in their minds.

## **1.4 Research Strategy**

In order to achieve the above objectives, this study employed the abductive research strategy outlined by Blaikie (2000). In essence, the abductive research strategy is used in qualitative studies to answer research questions of 'what' and 'why' type, particularly when the researcher wants to explore or describe and give an understanding of what is happening from the perspective of the social actor. Since this study was explorative and descriptive in nature and unlike nomothetic research, it did not predefine concepts or test any hypotheses.

## **1.5 Significance of this Study (What this Research Adds)**

The subject of ART and condom use among HIV positive married couples in the prevention of reinfection ever since the ART program was launched in Zambia is an important one, but no study had been done to explore the challenges they face despite being a high-risk group of HIV reinfection. This study would:

- (i) generate a methodological framework for future studies to consider doing a much wider research-a national one.
- (ii) fill in the theoretical gap through the conception of hypotheses in future researches'.
- (iii) stimulate policy makers and program managers in developing public health messages that will fortify condom use.
- (iv)to enable clinicians make sound clinical decisions on problems couples encounter.

## **CHAPTER TWO – LITERATURE REVIEW**

### **2.0 Introduction**

To begin with there is no previous nor similar studies done on challenges HIV positive persons on ART face towards using condoms among HIV concordant married couples worldwide as literature search was done on all reliable sites. Even when an electronic search on keywords published in peer reviewed articles in data bases where the University of Zambia (UNZA) subscribes and other multi-campus network was performed no data was found directly linked to the subject in question. This implies that this topic is absolutely new.

### **2.1 Definition of Key Concepts**

In an academic paper like this one, it is just prudent from the outset that key words, which form the building blocks of a subject matter, are identified and defined. There are benefits for doing this from the outset. Essentially it makes the reader appreciate the term when it reappears later in the text. It makes things flow linearly so that intra textual definitions do not obstruct the flow of ideas. Furthermore, it gives room for the writer to give a synthesis and where possible provide a unitary position on what could be the best meaning from a sea of definitions if at all they are there. Therefore, below are some definitions of key terms.

#### **2.1.1 Concordant**

Concordant refers to a married couple where the male and female are both HIV positive.

### **2.1.2 Discordant**

Discordant refers to a married couple where only one of them is HIV positive.

### **2.1.2 Safer Sex**

Based on biological principles of disease transmission, safe(r) sex refers to sexual activities that avoid or reduce exchange of body fluids (semen, blood, vaginal fluids), avoid genital-to-genital contact and reduce risk of Sexually Transmittable Infections (STI) and HIV transmission, including reinfection. The most effective forms of safe(r) sex are: Non-penetrative sex (no penetration of the vagina, anus or mouth by the penis) including masturbation, mutual masturbation, kissing, sex-talking, massage and other forms of touching and stimulation (Blacked, et. al., 2002).

### **2.1.3 Reinfection**

Reinfection is: i) a term used to describe a new or secondary infection by a virus that has already infected a person. Reinfection occurs when a person living with HIV gets infected a second time while having unprotected sex with another HIV infected person, or ii) super-infection with a second HIV strain some time after the initial infection has become established (Blacked, et. al., 2002).

### **2.1.4 Coping**

Until 1967, the term 'coping' did not appear in most Abstracts (print versions of the databases where UNZA subscribes). Since then, the databases JSTOR, science direct, Wiley, Oxford and PubMed specify 84,278 articles with the key word 'coping' as at 15th January 2009, of which 37,967 have been published in the last 10 years. Different

approaches are needed for the satisfactory understanding and researching of coping today. The coping concept has its origin in stress theory, coping with life events and psychoanalytical theory of defence mechanisms (Snyder and Dinhoff, 1999; Livneh and Martz, 2007).

Coping, in its most traditional definition, is a way of controlling and regulating stress (Lazarus and Folkman, 1984) and as such, coping is said to play a central role in managing stress. Selye (1976) and Holahan et. al., (1996) argue that stress, as a physiological fact, ensues when existing coping modes and available external resources are inadequate in dissipating increased tension. Coping as a way to deal with the effects of a problem can be broadly categorized as cognitive or behavioral (Waldrop and Resick, 2004), as well as effective or ineffective in reducing distress (Resick, 2004).

Cognitive strategies involve attempts to change the way one thinks about a situation, such as cognitive restructuring, wishful thinking, self-blame, and self-criticism, as a means of reducing distress about the situation or an attempt to make meaning of it.

Behavioral strategies are observable actions one takes as an attempt to reduce the impact of stress, including withdrawing from others, or conversely seeking social support, and problem-avoidance.

## **2.2 HIV/AIDS Profile**

AIDS has already killed more than 20 million people worldwide. More than 40 million others are today living with HIV infection, almost half of whom are women and a full third are young people aged 15 – 24. AIDS is regarded as one of the leading causes of

death in Sub-Saharan Africa and HIV, the cause of AIDS continues to spread in every corner of the globe. No country is immune. It is estimated that some 14 thousand people a day become infected with HIV and the vast majority of these infections are through sexual intercourse.

Zambia in particular is experiencing a generalized HIV/AIDS epidemic, with a national HIV prevalence rate of 14.3 per cent among adults' aged 15 to 49 (UNAIDS, 2006). The primary modes of HIV transmission are through heterosexual sex and mother-to-child transmission (WHO, 2005). HIV prevalence rates vary considerably within the country. Infection rates are highest in cities and towns, along major transportation routes and lower in rural areas with low population density. HIV prevalence among pregnant women can range from less than 10 percent in some areas to 30 percent in others (UNAIDS 2006).

In general, however, young women aged 25 to 34 are at much higher risk of being infected by HIV than young men in the same age group. The prevalence rates are 12.7 and 3.8 percent, respectively. Other at risk populations include military personnel, people in prostitution, truck drivers, and people who work in fisheries (WHO, 2005). However, there are about one million Zambians living with HIV/AIDS and 200,000 of these persons requiring ART. The Government of the Republic of Zambia has prioritized making ART available to all Zambians in need.

However, HIV can be avoided. All that is required is for all the people everywhere to be sensitized or given information, education, skills and full access to all the ways they need to protect themselves and others. Currently abstaining from sex, mutual

monogamy between uninfected sexual partners, and the correct and consistent use of male and female condoms are the only existing options for avoiding sexual infections. However, the battle of combating HIV has taken a new twist as there have been reported cases of drug resistance emerging among the People Living with HIV/AIDS (PLWHA) on medication and even the newly infected individuals.

## **2.3 Review of Literature**

As there is no literature on condom use among married concordant HIV positive couples on ART, what seems to be available is the issue on reinfection and safer sex though it is very limited as the question of reinfection with HIV has long been debated. Below are some of the themes reviewed related to the subject matter based on academic articles from the West and Africa with a few structured studies:

### **2.3.1 Risk Sexual Behavior Perceptions**

Shapiro and Ray (2007) wrote that reports of increasing unprotected intercourse associated with poor adherence to ART in the United States of America (USA) and Europe have given rise to fears that being on treatment, “safe-sex fatigue” and perceptions of HIV as treatable and chronic will result in increased risk-taking behaviors.

However, basing on their literature review Shapiro and Ray (2007) found that the prevalence of unprotected sexual intercourse was not higher in HIV positive people on ART than in those who were not, nor in those with undetectable versus detectable viral load. Regardless of HIV serostatus, however, the likelihood of unprotected sex was

higher in people who perceived that receiving ART or having an undetectable viral load was protective against transmitting HIV.

In Kenya, Akwara and colleagues (2003) found a strong positive association between respondents' perceptions that they were HIV-positive and risky sexual behaviors in the last 12 months. These risky behaviors included inconsistent use of condoms.

In Mozambique, Ndola and colleagues (2003) showed that individuals who correctly assess their risk of HIV are more likely to use condoms. A feature that shows an attempt to avoid risky sexual behaviors among the individuals that were HIV positive.

Another study in Malawi suggested that wives who are more worried about HIV risks are more likely to divorce their spouses (Smith and Watkins, 2003). This finding was a feature among women who were literate and economically independent.

Individuals' perceptions of their own HIV risks are also likely to motivate them to get tested for HIV or to modify their sexual and other behaviors to reduce HIV risks. Thus, gaining insights into the determinants of risk perceptions is, therefore, essential for developing better intervention strategies. Yet, much less is known about how risk perceptions are formed. While the majority of studies investigate the effect of risk perception on sexual behaviors, they acknowledge that sexual behaviors are also likely to be the dominant factors affecting risk perception (Cleland, 1995; Akwara, et. al., 2003; Ndola, et. al., 2003).

Partners' sexual behaviors, or more precisely beliefs about partners' behaviors, also appear to shape individuals' worries about having or getting HIV/AIDS (Moore, et. al.,

2004; Smith, 2003). These features attempt to explain factors affecting risky sexual perceptions.

Theoretical and empirical models of risk perception tend to also emphasize a variety of other factors such as knowledge about HIV risks, awareness about engaging or avoiding such risks, social and cultural perceptions of HIV, and unobserved personal characteristics such as one's inclination to worry and sense of vulnerability (Prohaska, et. al., 1990a; Smith, 2003; Akwara, 2003; Barden-O'Fallon, et. al., 2004; Behrman, et. al., 2003; Scherer and Cho, 2003).

Given the multitude of factors that can potentially affect risk perception, finding instances where individuals' *actual* risk of acquiring HIV reinfection is expected to be similar, but where their *perceived* risk of HIV differs systematically, could potentially help disentangle some of these effects. One of the largest and most puzzling inconsistencies between self-reported *perceptions* of HIV risk and *actual* risk is found among married couples throughout much of sub-Saharan Africa.

From this one would note that PLWHA tend to risk their lives and have mixed perceptions towards using condoms as a means to protect themselves from HIV reinfection.

### **2.3.2 Sexual Health for People Living with HIV**

Shapiro and Ray (2007) wrote an article entitled "Sexual Health for People Living with HIV", that appeared in a Journal Reproductive Health Matter. In this article Shapiro and Ray (2007) examined basing on the literature the sexual health needs of women and men living with HIV as they had requested help on sexual health education concerning:

help to gain skills to negotiate safer sex, access to condoms, lubricants and information on how to use them and information on reinfection with HIV, in view of being able to enjoy safer sexual lives.

### **(a) The Reality of Safer Sex**

On the Reality of Safer Sex Shapiro and Ray (2007) wrote that safer sex promotion has been seen as a reality and advised by many investigators as the only means of risk reduction approach in halting HIV reinfection among couples. To achieve this condoms have been advocated for people whose partner(s) also live with HIV. Prevention messages and reasons to practice safer sex are aimed to protect each other from STIs and reinfection. Evidence shows that consistent and correct condom use is the most effective risk-reduction strategy.

Shapiro and Ray (2007) further wrote that the ability to practice safer sex depends on confidence, communication and trust in the partner and the relationship. These characteristics may or may not be present; indeed, sex may take place with little or no communication whatsoever and/or may be coerced. Besides, in many cultures discussing sex is taboo, making the delivery of education to health workers and the discussion of safer sex by them with people living with and at risk of HIV very difficult. It is argued that safer sex promotion can only be effective if it considers people's real-world sexual desires and activities. These are the activities the study seeks to generate and address.

They also wrote that an obstacle of safer sex promotion has been linked to the loss of self-control leading to unsafe sex that may occur under the influence of alcohol or drug use.

### **(b) Reinfection in HIV couples**

On the Reinfection in HIV positive couples Shapiro and Ray (2007) wrote that the question of whether people with HIV can re-infect each other and whether such reinfection causes progression to AIDS more quickly has been around since the beginning of the epidemic. Conventional advice given to HIV positive couples emphasizes consistent condom use for all sexual intercourse for the rest of their lives because of the dangers of reinfection.

Shapiro and Ray (2007) noted that the main concerns are that dual infection (with two or more viral strains, in the case of multiple positive partners) may lead to more rapid disease progression and that recombinant drug resistant viruses may occur. Only 16 cases of reinfection have been reported in the literature since the first case in 2002 and as detecting reinfection is technically difficult, the frequency is quite possibly underestimated. Studies of super-infection have recently begun. At the International AIDS Conference in 2006 Dr Julie Overbaugh reported in a plenary presentation on eight potential cases of super-infection among a cohort of HIV positive women in Mombasa, Kenya, that had occurred after an antibody response had had time to develop (2 to 5 years).

### **(c) Antiretroviral therapy and safer sex**

Encouragingly, some studies have found a relationship between high adherence to ART and safer sex behaviors: In a London outpatient clinic, HIV positive homosexual men on ART consistently reported lower behavioral and clinical risk factors than men not on treatment (Shapiro and Ray, 2007:67–92).

In California HIV clinics with diverse populations’ reported higher use of safer sex practices and adherence to ART was at 95% as a result undetected viral load were significantly associated with a decrease in unprotected vaginal and anal sex.

A recent study in Uganda found that provision of ART along with prevention counseling and partner testing and counseling reduced sexual risk behavior by 70 per cent after six months (Shapiro and Ray, 2007:67–92). Antiretroviral “treatment literacy” for both health care providers and people with HIV was found to be essential for treatment to be effective. It was observed that treatment literacy education should include messages that include pleasure-based safer sex information and emphasize: the benefits of treatment adherence (better health, reducing the need to change treatment regimens, preventing development of drug-resistant virus); the continuing need for safer sex because although improvements in health (higher CD4counts and lower or undetectable viral loads) do reduce the risk of sexual transmission of HIV they do not eliminate it; ART is not a “cure” for HIV, and there is a continuing risk of other STIs with unprotected sex. As access to ART increases in developing countries, while second and third line drugs remain extremely limited, strategies to support adherence and sustained safer sex are critical to avoid resistant HIV strains emerging.

### 2.3.3 Condom use rate among HIV positive married couples

Notwithstanding the HIV and AIDS epidemic, the condom appears to be suffering from a crisis of identity in terms of sex appeal and credibility and there is strong resistance to a product which is generally regarded as being an impediment to passion. Such attitudes are far from being recent, however, and this article traces the evolution of such a consciousness by examining the promotion of contraceptives and prophylactics before the first AIDS-related advertisements in 1986.



Sex hasn't changed much over the years. Fortunately condoms have.

### 2.3.4 Challenges Experienced Sexually

In general, studies in many parts of the world suggest that challenges experienced sexually border on couples not using a condom.

#### Reasons for Non-Use

The most frequent reasons people give for not using a condom relate to the following issues: lack of sensation or interrupted sexual pleasure; psychological and social

In Australia Richters et. al. (1993) study among 544 men attending STD clinics and a university health service indicated that about one out of five were no longer using condoms. The major reasons were that his partner(s) was using another contraceptive, he was not sexually active, he thought his partner(s) did not have a STD, and he did not like how condoms felt.

In a nationally representative sample of more than 3,000 U.S. men interviewed about condom(s), the most frequently cited negative reactions by Grady et. al. (1993) were: reduce sensation, require being careful to avoid breakage, requires withdrawing quickly, embarrassing to buy, difficult to put on, often come(s) off during sex, embarrassing to discard, show(s) you think partner has AIDS, and make(s) partner think you have AIDS.

In another U.S. study of 652 sexually active people Kusseling et. al. (1996) found that 61 percent reported not using a condom with their last sexual partner. Low perceived risk of HIV infection was the main reason given, although most did not know enough about their partner to be sure.

Other than these quantitative studies, qualitative studies involving focus groups have shown similar findings. In China's most populous province of Sichuan discussed condom use among 106 people, divided into male condom users, wives of condom users, men whose wives used other contraceptives and women who were using other forms of contraception. Many participants drawn thought of condoms as troublesome to use, easy to forget and causing a decrease in sexual satisfaction (Lin et. al., 1996).

In Zimbabwe, Meursing (1999) using focus group discussions found that married couples who coped well together, husbands often remained reluctant to use condoms. As a consequence, condom use tended to decline over time or fluctuated with health problems in the family compounded with women's lack of sexual decision-making power, men's dislike of condoms, high value placed on fertility, and community denial of HIV.

## **2.4 The Conceptual Components of the Stress Process**

Stress is one factor that a researcher cannot fail to include in the literature review in reference to sex and PLWHA. Menaghan (1983); Pearlin, (1983); Lazarus and Folkman (1984) all claim that Stress has become a common denominator in our fast-paced complex society. Work stress, family stress, financial stress, chronic stress, and, for some, post traumatic stress are no longer isolated experiences but common refrains shared by people from varied backgrounds and in differing social circumstances.

### **2.4.1 Stressors**

In recent years there has been an attempt to expand the sampling of what Wheaton (1985) refers to as the “universe of stressors”. This is an important effort because as different types of stressors are refined more clearly the relationships between exposure to stressors in a sexual relationship and condom use are able to be traced. To cope with sexual stress, it is very important to have a proper understanding of the different processes that are the main factors of stress. Pearlin and Schooler (1978) reported that the concept of stressors not only refers to major life events as stressors but also encompasses ongoing stress, too many interruptions and various decisions to be made.

## 2.4.2 Eventful Stressors

Early research into life events was based on the assumption that all eventful experiences like sex are potentially stressful, with the degree of stressfulness varying with the magnitude of readjustment required by the specific event. Since then, research has revealed that the change and readjustment resulting from a stressful event cannot alone explain its stressful effects; there are classes of events that may require considerable readjustment but that do not appear to result in stress (Rabkin and Streuning, 1976; Vinokur and Seltzer, 1975) and one may not think of condom use and a sexual life to be stressful.

Everly and Lating (2002) outlined that any stress response begins with a stressor, which is defined as any real or imagined event, condition, situation, or stimulus that instigates the onset of the human stress response process within an individual. Furthermore, Everly and Lating (2002) reported that there are two types of stressors: *psychosocial* and *biogenic*. A psychosocial stressor happens when the individual reacts to an event, condition, or stimulus based on the attributed perception of that stressor as a threat. The psychosocial stressor is cognitively interpreted along a continuum ranging from no harm to adversely affecting the individual's well-being (Lazarus and Folkman, 1984). Everly and Lating (2002) also reported that stressors can be biogenic, where thoughts, cognitions, or an appraisal of a situation or event is not needed in order to produce the same physiological stress reaction. They reported that this can occur in instances where stress occurs in the body when it reacts to substances such as caffeine or environmental conditions such as extreme temperatures.

Selye (1976) indicated that Physiological response to stress is fundamental in stress theory, yet our inability to determine which events are psychologically stressful, to whom and in what ways is it problematic (Lazarus, 1999). Everly and Lating (2002) postulated that a stressful event becomes a psychological stressor when the individual reacts to the stressful event or condition based on cognitions that the event will adversely affect his or her personal well-being. They view that this perception of the event as psychologically stressful is the vital component necessary to define the event as a psychosocial stressor in the human stress response. Pearlin (1983) and Pearlin and McCall (1990) claimed that there are in essence stressors that have an acute onset and those that are chronic or ambient in nature. Acute and chronic stressors are examined below.

Acute stressors are life events that provide a large, short- term impact. Examples of this include the death of a loved one, a separation or divorce, or the loss of a source of income (Kessler and McLeod 1984). Chronic stressors are those that force one to cope with long-term stressful situations. For instance, living under conditions of economic hardship (Pearlin et. al. 1981), working within the home without any pay (Glass and Fujimoto 1994; Lennon and Rosenfield 1994), and being orphaned or widowed (Wheaton 1990) are all examples of chronic stressors that decrease psychological well being. Avison and Turner (1988), in assessing the relative impact of various types of stressors, concluded that chronic strains have a greater impact on psychological well being than do life events, like divorce or a death in the family.

## **2.5 Coping Mechanisms and the Occurrence of Use and Non Use Of condoms**

Lazarus and Folkman (1984) contended that Coping refers to the things people do in response to situations that put their adaptive capacities to test. It may be thought of as the actions and dispositions of people that help to direct or redirect the stress process. Coping mechanisms can be described as the sum total of ways in which we deal with minor to major stress and trauma. Some of these processes are unconscious ones, others are learned behavior, and still others are skills we consciously master in order to reduce stress, or other intense emotions like depression. Not all coping mechanisms are equally beneficial, and some can actually be very detrimental.

Merton (1968) offered two theories (Fetherstone and Deflem, 2003): a Micro Strain Theory of deviant motivation and a Macro Anomie Theory of social disorganization on the structural distribution of deviance. He was attempting to explain the differential crime rate between the lower and higher social classes. Merton (1968) posited that two social structures are involved. The first structure is culturally assigned goals and aspirations. These are the things that all individuals should want and expect out of life, including both material and non-material things. The second defines the acceptable means for achieving the goals and aspirations set by society e.g. obeying laws and societal norms, seeking an education, and working hard.

Merton (1968) contended that for society to maintain a normative function there must be a balance between aspirations and the means by which to fulfil such aspirations. According to Merton balance would occur as long as the individual felt that he or she was achieving the culturally desired goal by conforming to the “institutionally accepted

mode of doing so” i.e. there must be an intrinsic payoff, an internal satisfaction that one is playing by the rules and there must also be an extrinsic payoff, achieving their goals. It is also important that the culturally desired goals be achievable by legitimate means for all social classes. If the goals are not equally achievable through an accepted mode, then illegitimate means might be used to achieve the same goal. There is often a disparity between goals and means. Too much emphasis is placed on the goal and not enough emphasis is placed on achieving it through acceptable means. For some citizens there is a lack of opportunity. This leads individuals to seek out the goal by whatever means necessary.

Though there are no statistics on the rate of condom use among HIV positive couples in Zambia due to inconsistent tracking and reporting practices in health centres and hospitals at large, moreover the rate of condom use among HIV positive couples seem to be low. However, it should be noted that condom use among HIV positive married persons is a serious concern that affects most couples living with HIV and AIDS. The level of concern over condom use is low such that health workers have created personalised messages.

In addition to a paucity of research pertaining to the prevalence of condom use among couples that are living with HIV and AIDS in Zambia surprisingly, little about the correlates of condom use and inhibitors or promoters is know. That is, while several studies have assessed the consequences of lack of condom use, no study could be identified that have assessed the predictors, causes, or correlates using a nationally

representative sample of couples. It is surprising to note that very little research has been conducted to understand sexual behavior.

### **2.5.1 Coping Strategies**

The conceptual model of coping, which is adopted for analyzing the data on coping processes in this target group, is based on the exposition of coping styles drawn from the work of Lazarus (1984), Lazarus and Folkman (1984) and Snyder and Dinhoff, (1999). As an analytic tool, a range of coping styles were clustered into the three main categories of problem-focused coping, emotion-focused coping and coping style based on social support (Valtonen et. al., 2006:60-61). The strategies are discussed below:

#### **(a) Problem-focused coping**

Problem-focused coping, also termed 'vigilant coping', are efforts to do something active to alleviate stressful circumstances and they are directed at altering the situation that is causing distress, directing attention toward the problem in an effort to prevent or control it. In order to change the troubled person–environment relationship, the individual can engage in confrontational and/ or interpersonal activity (which can sometimes take an aggressive mode), removing barriers, learning new skills and generating alternative solutions. Carver et. al., (1989) demonstrated ways of coping such as *active coping*, the process of taking steps to actively improve the circumstances surrounding the stress or at least to minimize its effects and this requires one to plan. In planning, the individual selects a method of confronting the stressor, including the creation of plans of action and thinking about the necessary steps and the best way to manage the problem. It is

very likely that one may end up being deviant or truant. In problem focused coping, the emphasis is often directed to planning oriented problem solving.

**(b) Emotion-focused coping**

The second grouping of coping strategies is primarily emotion-focused, in that these strategies are directed at managing distress rather than changing the problem situation. This category includes nine types of strategies. Distancing and escape–avoidance strategies describe efforts to escape through wishful thinking (wishing that the situation would go away or simply go past), eating, drinking, smoking, using drugs or medication, or sleeping. The individual seeks to divert attention from the stressful situation, and to disengage mentally from it.

The escape–avoidance coping style is typified by drug-taking behavior. The individual is also using emotion-focused strategies when deciding to accept responsibility or blame, or through the exercise of self-control over the expression of feelings. Selective attention strategies not only diminish the negative emotional response, but generate positive emotional responses as well. Such strategies include making positive comparisons, cognitive restructuring, comforting cognitions and positive reappraisal.

Individuals using emotion focused coping tend to modify the way they think, for example: employing denial, or distancing oneself from the problem. It has been shown that truant individuals cope with stressful events using inadequate mechanisms, such as using alcohol or drugs, crying, attempting suicide, sleeping, trying to forget. However, other individuals tend to use more positive coping mechanisms, such as thinking, talking to friends or family members, and writing. Unger and her colleagues (1998) cited in

Chun and Springer (2005) found that individuals who used emotion-focused coping strategies (as opposed to problem-focused coping strategies) experienced depression, alcohol or drug dependency, and poor health conditions .

Individuals may alter the way they think about a problem by altering their goals and values. Individuals may use a mixture of these different types of coping, and coping mechanisms will usually change over time. All these methods can prove useful, but some claim that those using problem focused coping strategies will adjust better to life (Antonovsky, 1980).

### **2.6 Coping through social support**

The third category of strategies is based on support seeking and using social support resources. The individual would be inclined to seek out and interact with others as one strategy to moderate stress. Like in ART clinics this principle can be seen in the right of Adherence counseling that encompass condom use and drug medication. Baumeister (1999) concluded that the benefits of social support generally span practical, material help and emotional support. They contended that it is a form of coping that can contribute in powerful, important ways to assist individuals to deal with, and recover from, stress.

While Compton and Galaway (1999) referred to the network of family, friends, neighbours and colleagues as a supporting social system, which can also provide information and other resources in a time of stress or crisis. Coping is believed to reflect broader and more basic dispositional tendencies within the individual, and to be related to other types of responses. Coping reflects how individuals respond to a particular

class of events. In this connection, it was important to consider the context and the types of alternatives available to the individual in his/her life situation. It is possible that the choice of coping strategy has been severely constrained by life conditions.

## **2.7 Condom Use**

The effective evaluation of HIV and AIDS preventive activities depends on the identification of indicators and the selection of appropriate outcome measures which reflect the goals of the intervention. In the case of HIV and AIDS this task is made more difficult by the nature of the syndrome. The use of measures relating to morbidity and mortality is less feasible in the case of HIV and AIDS infection because of the time lag between infection and appearance of symptoms of HIV related illness, and the difficulties of collecting accurate data. STD incidence is a possible proxy indicator of programme impact, and is one of 10 indicators of progress and outcomes of programme impact and prevention activities developed by the WHO's then Global Programme on AIDS. However, Stroobant (1994) contended that given the relative inadequacy of epidemiologic indicators, data on risk behavior and protective strategies comprise important intermediate and surrogate indicators.

Coyle and colleagues (1991) claimed that behavioral measures will therefore be the primary outcome variables for most AIDS intervention programmes and accurate measurements of these behaviors will often be the most relevant indicators of the success of a programme in slowing the spread of HIV transmission.

Wellings and others (1994) (unpublished) contended that modification of the behaviors which influence HIV transmission has formed the basis of risk reduction advice to the

general public. In relation to the sexual transmission of HIV the two messages which have predominated in AIDS public education have been to use a condom and to restrict the number of sexual partners. On both scientific and practical grounds, the condom message seems most likely to be effective.

Epidemiological evidence suggests that it is not primarily the number of sexual partners that creates the risk of infection, but rather the exchange of body fluids in unprotected intercourse. Moreover, health educational messages most likely to meet with compliance are those which provide more easily actionable advice for preventive action. An understanding of 'safer sex' in the context of the AIDS epidemic, at least for heterosexual relations, most usually means using a condom for protection against HIV transmission.

An increase in condom use has, therefore, been seen as a positive sign of the impact of HIV and AIDS public education. This paper examined possible sources of data relating to condom use in the context of assessing public response to the AIDS epidemic, with particular reference to methodological challenges presented by each; issues relating to the validity of data, problems of interpretation and the scope for improvement.

Research in this area has mostly been quantitative taking the form of behavioral surveys and not qualitative surveys. Most researchers tend to focus on condom sales to measure use while others ask for use. Questions about condom use are routinely collected in surveys of contraception, e.g. in the British General Household Survey. Measures taken from repeat surveys showed large increases in condom use in recent years as shown in the comparison of data from the 1986 and 1993 surveys.

In addition, condom use has featured prominently as a variable in surveys of Knowledge, Attitudes and Behavior which have been conducted specifically to provide data to assist in monitoring public response to the AIDS epidemic. Typically, questions have been asked about attitudes towards condom use, knowledge of their protective effects and recent practice. Such surveys used alone have certain limitations. A problem intrinsic to studies of behavior generally, but heightened in sexual behavior research, relates to possible reporting bias (Catania et. al., 1990). Reliance on reported behavior is susceptible to a social desirability effect resulting from a possible tendency to produce responses which are socially valued.

Zenilman and colleagues (1995) claimed that where condoms are heavily promoted, people may feel compelled to report their use, to conform to the perceived expectations of the researcher. A further bias may be associated with problems of recall, which raises difficulties in relation to questions about the timing and frequency of use. Since the aim of most HIV preventive interventions is to motivate those at risk to use a condom on every occasion, what needs to be assessed is the tendency to systematic use among susceptible groups. Yet in order to avoid undue demands on the memory, surveys most commonly ask about condom use on the last (i.e. most recent) sexual occasion.

### **2.7.1 Condom sales**

An alternative to the use of self-reports of condom use from survey research is the use of condom sales data, potentially representing a more objective source of data. The AIDS evaluation literature contains several examples of condom sales figures being

used as objective measures of behavioral changes to validate self-reported behavior change.

In the Netherlands, for example, successive population surveys have been conducted to assess the effect of AIDS prevention campaigns. Researchers have reported an increase in the number of people who expressed an intention to use condoms or who already use them, observing that these findings were confirmed by condom sales figures (and STD incidence) (de Vroome, et. al., 1990).

In the USA, condom sales in drug stores (representing 60 per cent of the market) increased steadily during the time of combined AIDS intervention activities. Data from a national probability sample of US drug stores show that condom sales rose from 240 million annually in 1986 to 299 million in 1988, the greatest increase following the release of the Surgeon General's report on AIDS in 1987 (Moran et. al., 1990).

A key issue in relation to condom sales data, from whichever source, is that little is known about what happens to condoms once they are bought, i.e. whether they are used or not, since only the total volume of condoms is being measured. (For example, now those packets containing larger numbers of used condoms.) This methodological challenge has only rarely been addressed. An innovative approach to condoms are available, it may mean that more of the condoms purchased are never measuring actual use is demonstrated in a research project in the Dominican Republic. Project staff visited hotels used by sex workers and their clients to check the rooms and waste-paper baskets for discarded condoms after couples left (AIDS Health Promotion Exchange, 1993).

Similarly, in Managua, Nicaragua, researchers searched rooms in motels to find out whether the condoms which are issued to the commercial sex workers using the premises had actually been used (Gorter et. al., 1993). Since the scope for this sort of exercise is clearly limited, it is necessary to rely on people's accounts of what they do with condoms having bought them, research which is generally commissioned by manufacturers.

### **2.7.2 Service data**

A further source of information on condom use may be derived from records relating to service provision. Family planning clinic data is routinely collected in Britain. Statistics from family planning clinic services in England show a revival in the popularity of the condom. Although oral contraception remains the most popular method of birth control, chosen by 54 per cent of all attendee's in 1992/93, its popularity has declined steadily since 1982, while that of the condom has increased markedly. Condoms were the contraceptive of choice for 25 per cent of clinic attendee's in 1992/93 compared with 11 per cent in 1982 (Department of Health, SD2B, 1994).

Interpretation of this information needs to take account of the changing patterns of use of family planning clinic services in England. Attendance has declined in recent years, from 14.6 per cent of women in 1982 to 10 per cent in 1992/93. Within this overall trend, however, there are age-related variations which will affect patterns of contraceptive use. The most marked decline has been in the 20 to 34-year-old age group, among whom prevalence of use of oral contraception is highest. Attendance under 16 year olds, known to be bigger users of condoms, increased from 4.2 per cent to 10.3 per cent, and

there was also a recent increase in the 16 to 19 year olds after a decline in the mid1980s.

### **2.7.3 Condom use and HIV/ AIDS interventions**

Condom use is certainly a measure of risk reduction behavior, though it may not be entirely clear which adverse outcomes are being prevented. One of the difficulties with many surveys is that no distinction is made in the questioning as to whether the condom is used as a method of birth control or as a means of preventing sexually transmitted infection (i.e. as prophylaxis) and indeed many users may not themselves make this distinction.

An exception was the Health Education Authority's Health and Life style Survey (Health Education Authority, 1995) which did specifically ask respondents in the UK why a condom was used. In the vast majority of cases it was for contraceptive purposes, though more than one in 10 claimed they used it to protect against infection. It has been possible in survey research to examine the subgroup in the sample, of those who have used both a reliable method of contraception in a particular recent time period and who also reported having used a condom (Wellings et. al., 1994). The assumption here was that the condom was then being used prophylactically, but there was no certainty that the two had been used concurrently and not consecutively, unless the respondent was specifically asked for this information.

Evidence from other surveys showed that only very small proportions of those adopting condom uses as their main method of contraception do so additionally for protection

against HIV (Blacksell, 1992). A national survey of young adults showed the most important considerations when choosing contraception (in order of frequency) to be prevention of pregnancy, with prevention of risk from HIV infection and prevention of risk of infection from other diseases in second and third place, and ease of use in fourth (Health Education Authority, 1992).

In a further survey of the general population (aged 16 to 54), 24 per cent stated that they had used a condom on the last occasion that they had sexual intercourse, and of these 85 per cent stated that the most important reason for doing so was for contraception, for 12 per cent it was for prevention against HIV and for 3 per cent it was for prevention against other infections (Health Education Authority, 1995). None of these data provide insights into how the purpose of condom use changes over time.

The use of a condom as contraception varies with perceptions of health risks. Findings from the 1993 General Household Survey in Britain in 1993 did show that condom use among the partners of women of all ages had increased steadily during that period; 17 per cent of women in 1993 cited the condom as their usual method of contraception, compared with 13 per cent in 1986. The increase in condom use occurred predominantly in age groups under 30, with the largest increase being among the partners of women in the 18 to 19 age group (from 6 to 22 per cent). Condom use among 16 to 17 year olds did not begin to increase until 1991, but this has been followed by the largest rise in an individual age group between 1991 and 1993 (from 10 to 17 per cent). Use of the condom was highest among those aged 16 to 19. This marked a change since 1991 when condom use was most prevalent among those aged

35-39 and 40-44. Overall, 9 per cent reported having changed from some other method to the condom. Single women were more likely than married or cohabiting women to have changed to the condom (19 per cent) (Office of Population Censuses and Surveys, 1995).

Service data also suggested that increases in condom use were greater than the decline in the use of oral contraception. Condom use also fluctuated with a number of additional factors, such as the level of sexual activity and the proportion of the population who were sexually active (Armitage, 1995).

Wellings et. al., (1994) showed that in Britain there had been an increase in the likelihood of partner change during their life course and an increase over time (more markedly in women than men) in the number of lifetime partners reported. The evidence was that condom use with a new partner had increased, especially among those who reported two or more partners in the last year (Health Education Authority /BMRB, unpublished). Wellings et. al., (1994) contend that age at first intercourse had fallen over recent decades, e.g. in Britain, for men and women now in their late 50s the median age at first intercourse was 20 and 21 years, respectively. The median age for today's 16 to 24 year olds (male and female) was 17 so that more sexual activity needing protection was taking place among the young.

Walker et. al. (1993) claimed that in Africa, however, a different pattern regarding condom use was seen. Preventing conception and the sexual transmission of bacterial and viral infections, including HIV, it was often viewed with mixed feelings in countries

with a high prevalence of HIV infection, particularly in sub-Saharan Africa (Walker et. al., 1993).

In many parts of the world condoms are frequently used in casual partnerships, but infrequently in regular relationships and their use is largely determined by men (Worth 1989: 302, Cohen 1996, Pickering et. al. 1993, Mehryar 1995, Mgalla and Pool 1997).

Women may be more likely to practice safer sex using methods that are under their own control (Stein 1990, 1993), and there is widespread demand for and scientific research into the development of safe and effective female controlled methods of protection against STDs and HIV. The development of such methods has high priority but their success depend on their cultural acceptability. Currently the only form of HIV prevention which could be classified as being under women's control is the female condom. Studies of the female condom show that it is attractive to women (Bounds et. al. 1992, Farr et. al. 1994, Ray et. al. 1995, Dithan et. al. 1996, Ankrah and Attika 1997, Kalckmann et. al. 1998, Niang et. al. 1996), but women may discontinue use because of their partner's opposition (Ford and Mathie 1993).

## **2.6 Theoretical Paradigms/Framework**

In Public Health interventions designed for HIV and AIDS risk behaviors are based on several theoretical health models of behavioral change findings, arising from evidence generated from research studies within the health community done on the role knowledge and perceptions play in personal responsibility in influencing behavior and for their ability to predict general health behaviors in response to HIV/AIDS threats as postulated by the theoretical paradigms.

However, Hornik (1991) and other studies have shown that increasing knowledge may not always change risky behaviors. Attention to other individual traits related to HIV/STD avoidance, such as perceptions of vulnerability to disease and peer norms, beliefs about the value of prevention behavior, recognition of high risk behavior, behavioral intention and self-efficacy are considered necessary.

Moreover, these models identify perception of HIV risks as one of the main prerequisites for effective behavior change. Besides, these theories are said to be essential for understanding facts and problems as they explain the phenomenon (Ghosh, 2003) and thus are regarded useful to program designers in that they suggest specific areas for educational intervention and strategic planning.

Thus it is against this understanding that this study will employ and use the following theories to direct it: the Health Belief Model, the Theory of Planned Behavior, Social Cognitive Theory, the Multi-component Stage Model and the AIDS Risk Reduction. These models and theories were chosen because they have been used in public health to explain health behaviors and below is a description of each one.

### **2.6.1 Health Belief Model**

This is most popularly known model in public health, and also the oldest one from social psychology, developed in the 1950s. At the moment, it is one of the most widely accepted standards for understanding health-seeking behavior (Figure 1.) developed initially by a social psychologist Irwin Rosenstock, Godfrey Hochbaum and Stephen Kegels at about 1952. This theory is concerned with health promotion or illness

prevention of both chronic and acute illness. It focuses on an individual's perceptions of the threat posed by a health problem, the benefits of avoiding the threat, and factors influencing the decision to act.

The Health Belief Model (HBM) was originally developed as a systematic method to explain and predict who could engage in certain preventive behaviors. It is based on a 'value-expectancy' theory (Lewin et. al., 1944), which means that cognitions and perceptions expectancy about the value of some health outcome drive the adoption of the behavior that might influence that outcome argued Lewin et. al. (1944).

In later years, the HBM has been revised to include general health motivation for the purpose of distinguishing illness and sick-role behavior from health behavior. It is generally regarded as the beginning of systematic, theory-based research in health behavior. It is also one of the most influential social-psychological approaches designed to account for the ways in which we could be able to explain and predict preventive health behavior in which healthy people seek to avoid illness, as well as describing the sick-role and illness behavior (Rosenstock et. al., 1994) by focusing on the attitudes and beliefs of individuals when weighed against benefits and risks of taking or not taking an action.

The Health Belief is based on the assumptions that people exist in a life space composed of regions with both positive and negative valences (values). An unhealthy condition would be a negative valence and would have the effect of pushing a person away from the region of normality and health, unless doing so (acting to remain healthy)

would cause the person to enter a region of even greater negative valence (for example, risking death without using a condom might be more negative than not having a medical checkup). While people are pushed away from regions with negative valences, they are attracted or motivated toward regions of positive valences. Thus, a person's behavior might be viewed as seeking regions that offer the most attractive values (Kleinman, 1988).

There are three descriptors that determine the likelihood of action or probability of appropriate health behavior. The three have been summarized as follows (Champion, 1984; Conner and Norman, 1996):

1. **Perceived Susceptibility** – ‘My chances of getting tuberculosis are high.’ Each individual has his/her own perception of the likelihood of experiencing a condition that would adversely affect one's health. Individuals vary widely in their perception of susceptibility to a disease or condition. There are those at low end of the extreme and these deny the possibility of contracting an adverse condition. There are individuals in a moderate category who admit to a statistical possibility of disease susceptibility and there are those individuals at the high extreme of susceptibility who feel there is real danger that they will experience an adverse condition or contract a given disease.
2. **Perceived Seriousness or threats** - refer to the beliefs a person holds concerning the effects a given disease like tuberculosis or negative effects a condition would have on one's state of affairs. Perception of threat is conceived as two components: perceived severity of and susceptibility to an adverse

outcome. These effects can be considered from the point of view of the difficulties that a disease would create. For instance, pain and discomfort, loss of work time, financial burdens, difficulties with family, relationships, and susceptibility to future conditions. It is important to include these emotional and financial burdens when considering the seriousness of a disease or condition.

3. **Perceived Benefits of Taking Action** – ‘Completing the eight months course of anti tuberculosis drugs will make me get back to my job’. Taking action toward the prevention of disease or toward dealing with an illness is the next step to expect after an individual has accepted the susceptibility of a disease and recognized it is serious. The direction of action that a person chooses will be influenced by the beliefs regarding the action. The beliefs are moderated by a number of factors and these include:

- a. **Perceived Barriers to taking an action:** However, action may not take place, even though an individual may believe that the benefits to taking action are effective. This may be due to barriers. Barriers relate to the characteristics of a treatment or preventive measure may be inconvenient, expensive, unpleasant, painful or upsetting. These characteristics may lead a person away from taking the desired action.
- b. **Cues to Action** - an individual's perception of the levels of susceptibility and seriousness provide the force to act. Benefits (minus barriers) provide the path of action. However, it may require a 'cue to action' for the desired behavior to occur. These cues may be internal or external. Some of them include: physical symptoms of a health condition or environmental (e.g.,

media publicity) that motivate people to take action. Cues to actions are an aspect of the HBM that have not been systematically studied.

- c. **Self-Efficacy:** The belief in being able to successfully execute the behavior requires producing the desired outcomes.
- d. **Other Variables:** Diverse demographic, socio-psychological, and structural variables that affect an individual's perceptions and thus indirectly influence health-related behavior. According to Rosenstock (1974) these are 'modifying factors', serving to condition an individual's perceptions about perceived benefits of preventive health actions.

Below is the Health Belief Model Conceptual framework

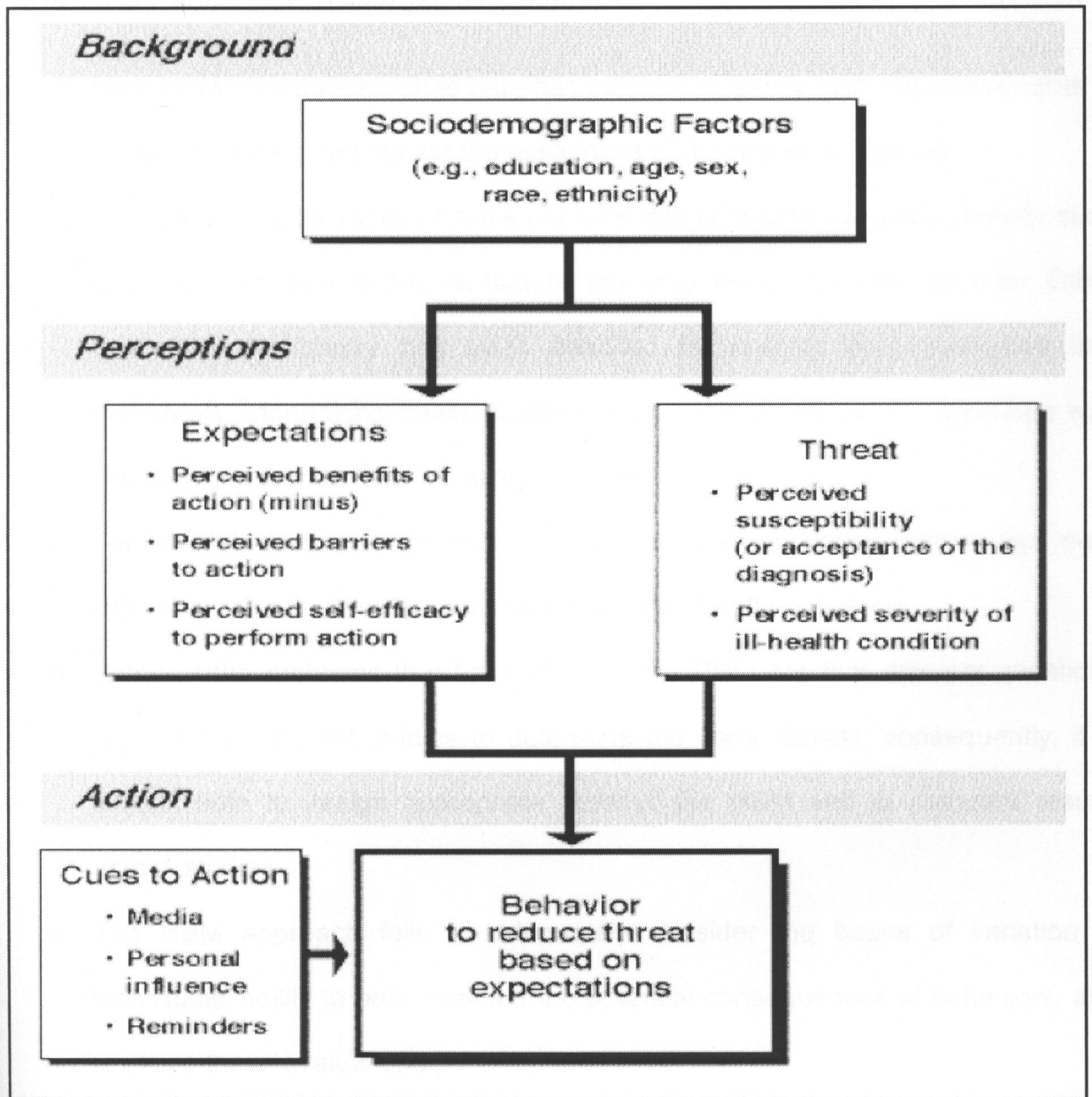


Figure 2.6.1.1. Health Belief Model Conceptual framework

This model has several notable limitations and the following stand out (Rosenstock, 1974; Rosenstock, 1990; Glanz, et. al., 2002):

- a) Most HBM-based research to date has incorporated only selected components of the HBM, thereby not testing the usefulness of the model as a whole;
- b) As a psychological model it does not take into consideration other factors, such as environmental or economic factors, that may influence health behavior. Other than this, the theory has been attacked by holding the assumption that individuals undertaking health behaviors do so in a rational or conscious way when, at times, there is irrationality;
- c) The model does not incorporate the influence of social norms and peer influences on people's decisions regarding their health behaviors;
- d) Some of the problems that have plagued the HBM are that different questions are used in different studies to determine the same beliefs; consequently, it is difficult both to design appropriate tests of the HBM and to compare results across studies;
- e) The HBM approach fails to adequately consider the bases of variation in individuals' ability to both evaluate the potential consequences of behaviors, and to utilize these evaluations ;
- f) Research does not always support the HBM as other factors rather than health beliefs also heavily influence health behavior practices and particularly personal and social factors. These factors may include: special influences, cultural factors, socioeconomic status, and previous experiences;
- g) There has been lack of evidence to support the belief-behavior relationship;

- h) There has been the difficulty associated with modifying beliefs and no suggestion of strategies for change;
- i) There has been focus on individual factors in terms of health intervention, rather than considering socio-environmental factors as well; limitations with logical explanation, clarity and accuracy of the HBM due to unclear construct and relationship development.

Although these criticisms are acknowledged, it appears that they can be challenged. For example, if the criticism of the lack of evidence to support the belief-behavior relationship is examined it can be argued that there is already extensive evidence to support the attitude, belief, behavior and intent relationship.

### **2.6.2 Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) was developed by Ajzen (1985, 1991) to predict and explain volitional and planned behavior. The theory was a development of the Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980). This theory is the same as the TRA except for the addition of the Perceived Behavioral Control component. Ajzen and Driver (1991) added this construct to account for situations in which people's behavior, or behavioral intention, is influenced by factors beyond their control. They argued that people might try harder to perform behavior if they feel they have a high degree of control over it.

The TPB (Ajzen, 1988, 1991; Ajzen and Driver, 1991) proposes a model about how human action is guided. It predicts the occurrence of a specific behavior provided that the behavior is intentional and planned. The model is depicted in Figure 2 and

represents three variables: attitudes, subjective norms and perceived behavioral control which the theory suggests will predict the intention to perform behavior. The variable names in this model reflect psychological constructs and so they have a special meaning within the theory.

The theory assumes that intention is a direct determinant of behavior, although perceived control can also have a direct effect on behavior, as shown by the dotted line in the figure. Thus it is seen from the figure that attitude to the behavior, subjective norm and perceived control of behavior are all determinants of intention, which then leads to performance of the behavior. These three constructs can be measured as a whole or the sum measure can be taken for each from the relevant outcome, control or referent beliefs. Here are some brief explanations of these special meanings:

**Attitudes** (*towards the behavior*)

Attitude toward the behavior is a person's weighted evaluation (negative or positive or neutral) of the intended behavior and beliefs about the outcome of the behavior. It is assumed to have two components which work together: beliefs about consequences of the behavior (behavioral beliefs; e.g. 'referring the patient for an x-ray will decrease future consultations') and the corresponding positive or negative judgments about each of these features of the behavior (outcome evaluations; e.g. 'decreasing future consultations is ... desirable/undesirable'). Attitudes are made up of the beliefs that a person accumulates over his lifetime. Some beliefs are formed from direct experience, some are from outside information and others are inferred or self generated.

However, only a few of these beliefs actually work to influence attitude. These beliefs are called salient beliefs and they are said to be the "immediate determinants of a person's attitude" (Ajzen and Fishbein, 1980:63). An attitude, then, is a person's salient belief about whether the outcome of his action will be positive or negative. If the person has positive salient beliefs about the outcome of his behavior then he is said to have a positive attitude about the behavior. And, vice-versa, if the person has a negative salient beliefs about the outcome of his behavior he is said to have a negative attitude. The beliefs are rated for the probability that engaging in the behavior will produce the believed outcome. This is called the belief strength.

### **Subjective norms** (*about the behavior*)

Subjective norms about the behavior are a person's own weighted estimate of the social pressure (the beliefs of people) against one's position to perform or not perform a targeted behavior and the individual's motivation to comply with such beliefs. They are in essence, perceptions about how family and friends will perceive the outcome of the behavior (normative belief) and the degree to which this influences whether the behavior is carried out (motivation to comply). These two factors are multiplied to give the subjective norms. It is important to note that subjective norms are formed only in relation to the opinions of persons considered to be significant or important.

### **Behavioral intention**

Behavioral intention is the probability, as rated by the subject, that he will perform the behavior. This intention is made up of the attitudes and subjective norms previously discussed. Fishbein (1967) proposed that variables not included in the model can affect

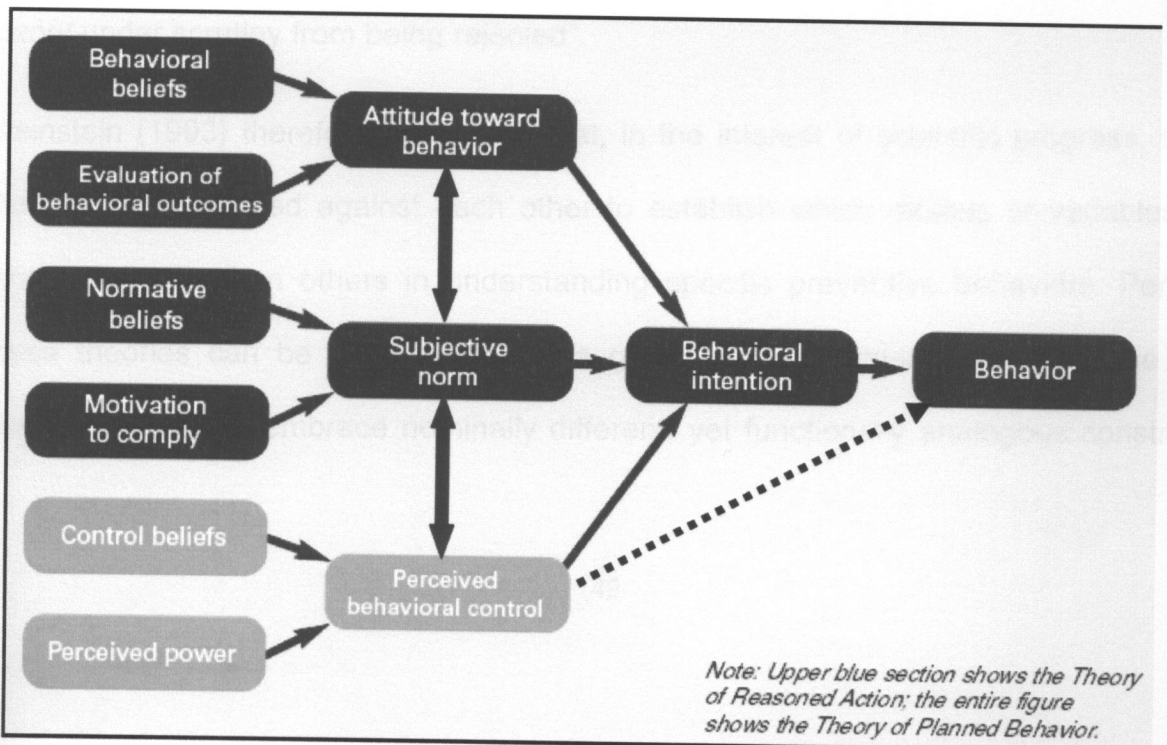
intention and, consequently behavior. However, these variables must significantly affect the attitude or normative belief component and their weights. These factors include demographic variables and personality traits.

### Perceived behavioral control (of the behavior)

Perceived behavioral control of the behavior is the extent to which a person feels able to enact the behavior based on a consideration of internal control factors (e.g. skills, abilities, information) and external control factors (e.g. obstacles, or opportunities) – both of which are related to past behavior.

Perceived behavioral control has two aspects: how much a person has control over the behavior (e.g. low control over determining the cost of a tuberculosis service); and how confident a person feels about being able to perform or not perform the behavior (e.g. not sufficiently skilled to treat oneself (Fishbein, 1996).

Figure 2.6.2.1 Theory of Planned Behavior



### **2.6.3 Social Cognitive Theory (SCT)**

According to social cognitive theory (SCT) (Bandura, 1986, 1990), health-protective behavior results from a process of cognitive appraisal by which people integrate knowledge about a disease, outcome expectancies associated with adopting preventive behaviors, and social influences.

The result of this integrative process is a judgment of "self-efficacy" or an estimate of how well one will be able to cope with a difficult situation, which moderates behavior. Hence, individuals practice safer sex only to the degree that they believe in their ability to do so, given the emotional and interpersonal circumstances of their lives.

The SCT has been used to explain diverse health behaviors, including HIV prevention (O'Leary et. al., 1992; Wulfert and Wan, 1993). In summary, the HBM, TRA, and SCT have successfully been used to elicit health behaviors, including safer sex practices. According to Weinstein (1993), such theories "contained at least a grain of truth (so that) empirical tests typically yield some degree of confirmation, enough to keep the theory under scrutiny from being rejected".

Weinstein (1993) therefore advocated that, in the interest of scientific progress, these theories be compared against each other to establish which models or variables are more influential than others in understanding specific preventive behaviors. Perhaps these theories can be used to predict a given behavior equally well because they partially overlap or embrace nominally different, yet functionally analogous constructs.

To illustrate, the just-described models all view behavior to be affected by expected costs and benefits associated with risk reduction.

In the HBM, this cost-benefit dimension is labeled benefits/barriers; in the TRA, it is subsumed under the concept of attitudes; and in SCT, it corresponds to outcome expectancies. Further, the TRA and SCT both incorporate social influences on behavior. In SCT they take on the form of comparisons with peers (models), and in the TRA, approval from significant others (subjective norms).

Some theorists (Janz and Becker, 1984; Weinstein, 1993) have even argued that the core construct of SCT, self-efficacy, is nothing but a "barrier" to action. However, self-efficacy might better be treated as a separate construct because of its well-documented predictive power in numerous other areas of research (e.g., Bandura, 1986; Strecher et. al., 1986; Wulfert and Wan, 1993).

Also, the "barriers" component in the HBM already has the quality of a catch-all category so that nothing would be gained by further increasing its range (Rosenstock, et. al., 1988). The previous examples suggested might be more similar than different. This led us to conduct an empirical comparison of these models to examine with causal modeling techniques which common and unique variables predict safer sex intentions and behavior.

#### **2.6.4 The Transtheoretical Model (TTM) or the Stages of Change Model or the Multi-Component Stage Model.**

One of the more popular commonly used HIV prevention intervention theories developed in 1983 by Prochaska and DiClemente. It is a model of intentional change that focuses on the decision making of the individual that involves emotions, cognitions, and behavior. Its central organizing construct of the model is the Stages of Change.

Prochaska and Velicer (1997) outlined that the model describes how a person modify a problem behavior or acquire a positive behavior that involves a process in which an individual progress through a series of stages of change. They state that the stages of change are five and these are Precontemplation, Contemplation, Preparation, Action and Maintenance. However, Prochaska and Velicer (1997) quickly point out that most often, these stages or phases do not follow a simple linear progression; instead, they are seen as a set of dynamically interacting components through which the individual will likely cycle a number of times before achieving sustained behavior change. The model makes no assumption about how ready individuals are to change. It recognizes that different individuals will be in different stages (Prochaska and Velicer, 1997). The theory also proposes that relapse to prior stages is a natural, expected, and often temporary outcome rather than a failure to change.

Prochaska and Velicer, (1997) contended that transition among stages results from experiential and behavioral processes that the individual may experience called the **Processes of Change**. Each of these stages is characterized by changes in decisional

balance; that is, the balance between benefits and costs associated with engaging in a particular behavior.

#### **2.6.4.1 Theory Constructs**

##### **Stages of Change**

**(a) Precontemplation (change is not yet intended)** is the stage in which people are not intending to take action in the foreseeable future, usually measured as the next six months. People may be in this stage because they are uninformed or under-informed about the consequences of their behavior. Or they may have tried to change a number of times and became demoralized about their inability to change. Both groups tend to avoid reading, talking or thinking about their high risk behaviors. They are often characterized in other theories as resistant or unmotivated or as not ready for health promotion programs. The fact is traditional health promotion programs are often not designed for such individuals and are not matched to their needs (Prochaska et. al., 1992; Prochaska and Velicer, 1997; Scholl, 2002). Prochaska and his colleagues (1992) suggested that the main trait of someone in the precontemplation stage is they show resistance to recognizing or modifying a problem behavior. For an individual to move out of this stage they must experience cognitive dissonance, a negative affective state, and acknowledge the problem (Scholl, 2002).

**(b) Contemplation (thinking about change within the next six months)** is the stage in which people are intending to change in the next six months (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al.,

1998). A person in this stage is more aware of the pros of changing and also acutely aware of the cons and whether or not the pros and cons of making a change outweigh the pros and cons of maintaining his or her present behavior (Scholl, 2002). This balance between the costs and benefits of changing can produce profound ambivalence that can keep people stuck in this stage for long periods of time. Being stuck in this stage is known as chronic contemplation or behavioral procrastination (Prochaska and Velicer, 1997). Persons in this stage are also not ready for traditional action oriented programs. During this stage the person still participates in the risky behavior but is aware that this behavior causes a problem (Patten et. al., 2000). The main trait of someone in the contemplation stage is that the person is seriously considering resolving the problem (Prochaska et. al., 1992). An individual will move on to the next stage if he or she perceives that the pros outweigh the cons and if the force of motivation is stronger for change than it is for remaining stable (Scholl, 2002).

(c) **Preparation (or ready for action or [seriously planning change])** is the stage when the person is intending to take action in the immediate future, usually measured as the next month (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). They have typically taken some significant action in the past year. These individuals have a plan of action, such as joining a health education class, consulting a counselor, talking to their physician, buying a self-help book or relying on a self-change approach. These are the people that should be recruited for action- oriented smoking cessation, weight loss, or exercise programs. A person in this stage has often

unsuccessfully taken some sort of action to change the behavior within the last year, but still engages in the high-risk behavior (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). An individual in this stage may not know how to proceed to make a change and could be nervous about his or her ability to change (Scholl, 2002). A plan of action is made up for elimination or significant reduction of the problem behavior in which the person can choose between alternative potential solutions (Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). Scholl (2002) claimed that individuals will move to the next stage when they select a plan of action that they feel will work and if they feel confident that they can follow through with the plan.

**(d) Action (starting to make change)** is the stage in which individuals have made specific overt efforts to modify their behaviors, experiences, or environments within the last six months to overcome their problem (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). The action stage requires a significant commitment of time and energy and is the stage where the individual gets the most recognition from others because of their visible efforts (Patten et. al., 2000; Prochaska et. al., 1992). Since action is observable, behavior change often has been equated with action. But in the Transtheoretical Model (TTM), Action is only one of five stages. Not all modifications of behavior count as action in this model. Research warns not to mistake this visible action of trying to change with change itself, because the individual's actual change only occurs when a certain criteria has been reached, a criteria which scientists and professionals agree is sufficient to reduce risks the

problem behavior (Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). In smoking, for example, the field used to count reduction in the number of cigarettes as action, or switching to low tar and nicotine cigarettes. Now the consensus is clear--only total abstinence counts. In the diet area, there is some consensus that less than 30 per cent of calories should be consumed from fat. Prochaska, DiClemente, and Norcross (1992) suggested that the main ways of recognizing that someone is in the action stage is through their significant efforts made to change and through modifying the problem behavior to acceptable criterion levels. Movement into the final stage occurs when an individual sees evidence of performance improvement, has a positive affective state, and receives positive social and performance feedback (Scholl, 2002). However, the Action stage is also the stage where vigilance against relapse is critical.

**(e) Maintenance (consistently behaving in the new way for at least six months)**

is the final stage of the TTM in which people are working to prevent relapse but they do not apply change processes as frequently as do people in action (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). In this stage people work to prevent relapse and secure their gains made during action (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). They are less tempted to relapse and increasingly more confident that they can continue their change.

According to Prochaska and colleagues (1992) the ability to remain free from the problem behavior and the ability to participate in new incompatible behaviors for more than six months is the criteria used to categorize someone into the maintenance stage. Research also recognizes that maintenance is a continuation of change, not an absence of it (Patten et. al., 2000; Prochaska et al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998).

The stages of change are often measured using a four- or five-item algorithm in which the questions asked are responded to with “yes” and “no” answers (Prochaska et. al., 1994). The responses to the questions reveal whether or not an individual meets the criteria to be in one of the stages of change .The questions asked cover current behavior, future intentions, and sometimes past attempts to change (Littell and Girvin, 2002; Prochaska et. al., 1994).

Prochaska and Velicer (1997) have found that there is a general rule of thumb when it comes to the distributions of people in each stage. In an assessment of 15 different health behaviors, it was generally found that 40 per cent of the population will be in precontemplation, 40 per cent in contemplation, and 20 per cent in preparation.

Prochaska and Velicer (1997) outlined that when people are in one of the first two stages (precontemplation or contemplation), their ability to move forward to the next stage depends mainly on cognitive and emotional factors, that is, deciding that the change is important and that they want to do it. Progress in the

later stages depends more on behavioral processes, for example, learning about, practicing, and getting support for the new behavior

As people move forward to another stage, their “decisional balance” changes, and their ambivalence decreases. That is, the reasons for making a change grow stronger, while those against making a change lose power. In the precontemplation stage, people are likely to feel that the losses that come with changing a behavior overshadow the benefits. The benefits of change grow stronger in the contemplation phase and outweigh the costs by the action stage. For example, someone in the precontemplation stage about condom use might not be ready to learn how to use a condom because that change has not yet become important to her or him. Instead, that person might be more open to an informational discussion about HIV risk. A counselor discovers a client’s stage by reflective listening; the counselor encourages the client to talk about his or her feelings and summarizes these feelings in the counselor’s own words. A counselor applying the stages of change does not try to aggressively push a client past his or her current stage, but meets the client where he or she is. Counselors are able to target interventions to the specific needs of the individual client, rather than using limited counseling time to work on issues the client is not ready to explore or has already mastered.

This model was identified for this study for its ability to describe how people modify a problem behavior or acquire a positive behavior. Rather than labeling a client as “motivated” or “not motivated” to change, it explains processes of

change in the adoption of consistent condom use to an individual instructed to do so along with emerging challenges. It also proposes five stages of motivational readiness that a person passes through as he or she attempts to adopt a new behavior or eliminate an old one (Cabral et. al., 2004; Prochaska et. al., 2004).

#### **2.6.4.2 Process of Change**

The processes of change are regarded as the second major aspects of the TTM as these processes describe how the stages of change shifts occur. It is posited that the stages of change describes the temporal aspect of when shifts in attitudes, intentions, and behaviors of an individual happen (Patten et. al., 2000; Prochaska et. al., 1992; Rodgers et. al., 2001).

Ten processes have been identified and are viewed as the most theoretical and empirical support as the covert (cognitive) and overt (behavioral) activities used to progress through the stages (Patten et al., 2000; Prochaska et al., 1992; Prochaska and Velicer, 1997; Rodgers et. al., 2001; Velicer et al., 1998). The first five processes are used in the early stages and classified as experiential, while the last five are classified as behavior processes and used in later stages (Patten et al., 2000; Velicer et al., 1998). These ten processes are as follows:

##### **(a) Consciousness Raising**

Consciousness Raising is regarded as a process in which the individual needs to increase his or her awareness about the negative consequences, the causes, and the cures of the problem behavior (Patten et al., 2000; Prochaska et al., 1992; Prochaska

and Velicer, 1997; Velicer et al., 1998). These authors claimed that awareness can be increased through feedback, education, confrontation, interpretation, and media campaigns.

### **(b) Dramatic Relief**

Dramatic Relief has been identified as a process in which the individual needs to experience and express his or her feelings and emotions relating to the problem behavior (Patten et al., 2000; Prochaska et al., 1992). For example, Patten and colleagues (2000) suggested that life events such as the death of a family member or close friend can move someone into precontemplation emotionally. This is especially common if the death was related to the problem behavior. Other techniques used to move someone emotionally include psychodrama, role-playing, grieving, personal testimonies, and media campaigns.

### **(c) Self-Reevaluation**

Self-Reevaluation is viewed as a cognitive and affective assessment of the individual's own self image with and without the problem behavior (Prochaska et al., 1992; Prochaska and Velicer, 1997; Velicer et al., 1998). This has been interpreted to mean that people assess the way they feel and think about the problem behavior and may become aware of their guilt towards the behavior (Patten et al., 2000). Patten et al. (2000) suggested that self-reevaluation is most important when the person is moving from the contemplation stage to the preparation stage. Value clarification, healthy role models, corrective emotional experience, and imagery are among the ways to increase chances of self-reevaluation.

#### **(d) Environmental Reevaluation**

Environmental Reevaluation is assumed as being an individual's assessment of how the presence or absence of their problem behavior affects his or her social environment (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). Prochaska and Velicer (1997) suggested that environmental reevaluation can include awareness of how the individual functions as a positive or negative role model for others. For example, strategies to help environmental reevaluation to occur include empathy training, documentaries, and family interventions.

#### **(e) Self-liberation**

Self-liberation is seen as the belief within the individual that he or she can change and the commitment to take action towards that belief (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). Strategies for self-liberation for example, include New Year's resolutions, public testimonies, decision-making therapy, logo therapy techniques, commitment enhancing techniques, and multiple rather than single choices . Research on motivation has shown that people with two choices have greater commitment than those with one choice, and those with three choices have the greatest commitment to ceasing their problem behavior (Prochaska and Velicer, 1997; Velicer et. al.,1998).

#### **(f) Social Liberation**

Social Liberation is another process that is taken to be the need for an increase in opportunities or alternatives for non-problem behaviors in society, especially for those

who are deprived or oppressed (Patten et. al., 2000; Prochaska et. al.,1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). Prochaska and colleagues (1992) reported that advocating the rights of the repressed, empowerment and policy interventions will increase social liberation.

**(g) Counter Conditioning**

Counter Conditioning is viewed as another process that requires the individual to learn to substitute healthy behaviors for problem behaviors (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al.,1998). For example, relaxation, desensitization, assertion, and positive self-statements all enhance counter conditioning.

**(h) Stimulus Control**

Stimulus Control is the process in which the individual needs to remove any stimuli associated with the problem behavior and replace it with prompts to participate in healthy behaviors (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). It is assumed that restructuring one’s own environment, self-help groups, and avoidance can all support appropriate change and reduce risk for relapse (Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998).

**(i) Contingency Management**

Contingency management is viewed to provide consequences to the individual for participating in problem behavior or for following through and avoiding the problem behavior (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997;

Velicer et. al., 1998). For example, punishment can be used with contingency management but using rewards as reinforcement is emphasized. Procedures for contingency management include contingency contracts, overt and covert reinforcement, self-reward, and group recognition (Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998).

### **(j) Helping Relationships**

Helping Relationships is taken to involve helping the individual to be open and trusting with those who are actively involved in helping them change their problem behavior (Patten et. al., 2000; Prochaska et. al., 1992; Prochaska and Velicer, 1997; Velicer et. al., 1998). This support for example, can be found with self-help groups, therapeutic alliances, buddy systems, counselor calls, and social support.

### **(k) Self-efficacy**

Self-efficacy is a theory which Bandura (1977) developed in his study which showed that the perception a person has about his or her own abilities to act out a specific behavior is important in determining behavior change. Most of Bandura's (1982) research has suggested that self-efficacy can help account for changes in coping, levels of physiological stress reactions, achievement strivings, growth of intrinsic interest, and career pursuits. The TTM construct of self-efficacy, integrated from Bandura (1977), is described as the situation-specific confidence that an individual can cope with high-risk situations and not relapse back to the problem behavior (Fallon and Hausenblas, 2004; Patten et. al., 2000; Prochaska and Velicer, 1997; Velicer et. al., 1998). Self-efficacy is considered important for people to move through the upper stages of change. An

example of this would be when an individual moves from the contemplation to preparation stage, and preparation to action stage (Kraft et. al., 1999). Another aspect of the TTM that is often brought up because of the relationship it has with self-efficacy is temptation (Fallon and Hausenblas, 2004; Patten et. al., 2000; Prochaska and Velicer, 1997; Velicer et. al., 1998). Temptation is described as the intensity of urges to engage in a specific habit while in a difficult situation (Prochaska and Velicer, 1997). Prochaska and Velicer (1997) acknowledged that the most common types of temptation come from situations of negative affect or emotional distress, positive social situations, and cravings. Studies have shown that temptation and self-efficacy have an inverse relationship with one another across stages of change, which suggests that temptation is highest during the earlier stages of change and lowest during the later stages, while sharing equal levels in the action stage (Fallon and Hausenblas, 2004; Patten et. al., 2000).

### **(I) Decisional Balance**

Decisional Balance is viewed to refer to the individual's weighing of the pros with the cons, the benefits of changing the behavior, and the costs of changing the behavior (Patten et. al., 2000; Prochaska and Velicer, 1997).

The core constructs of Janis and Mann's (1977) decision-making model were used to define decisional balance for the TTM (Prochaska and Velicer, 1997; Prochaska et. al., 1994). In a study by Velicer, DiClemente, Prochaska, and Brandenburg (1985) to measure decisional balance for smoking cessation only two factors were used, pros and cons of smoking, rather than eight factors proposed by Janis and Mann (1977)

(Prochaska et. al., 1994). The two scales, pros and cons, supported the comparative approach to balancing decisions studied by Janis and Mann (1997), Prochaska et. al. (1994). The main utility of decisional balance is that it has been identified that individual's judgments of pros and cons vary through the stages of change (Prochaska et. al., 1994). During the precontemplation stage, individuals will judge the pros of the problem behavior to outweigh the cons. While in the action and maintenance stages, the opposite will occur, with the cons outweighing the pros (Prochaska et. al., 1994). Decisional balance has demonstrated to be a good predictor through the stages of change (Prochaska et. al., 1985; 1994).

#### **2.6.4.3 Critical Assumptions**

Prochaska and Velicer (1997) outlined the following list of seven assumptions that drive Transtheoretical theory, research, and practice: 1) No one single theory can account for all of the complexities of behavior change. 2) Behavior change progresses over time through a sequence of stages. 3) Stages are open and stable to change just as chronic problem behavior factors are both stable and open to change. 4) Without planned interventions, people will remain caught in early stages because there is no inherent motivation to progress through stages of intentional change as there seems to be in stages of physical and psychological development. 5) The majority of at-risk populations are not ready for action and will not be served by traditional action-oriented prevention programs. 6) Specific process and principals of change need to be applied to specific stages for proper progress through the stages. 7) Chronic behavior patterns are often under some combination of biological, social, and self-control. Stage-matched interventions are primarily designed to increase self-controls.

#### **2.6.4.4 Applications of TTM to Healthy Behaviors**

A wide range of healthy behaviors have been investigated using this paradigm, since the early 1980s to help people change addictive behaviors, drinking, eating disorders, illicit drug use, beginning with smoking. Clinicians have since applied it in a variety of arenas, including HIV prevention and test counseling.

According to Prochaska and his colleagues (1994) the TTM is generalizable across a broad range of problem behaviors as well as a wide variety of populations with such behaviors. These behaviors include smoking cessation (Andersen and Keller, 2002; DiClemente and Prochaska, 1982; Pallonen, et. al., 1992; Prochaska and DiClemente,1983),quitting cocaine, weight control (Cardinal,1997; Fallon and Hausenblas,2004; Marshall and Biddle, 2001; Rodgers et. al., 2001), high-fat diets, adolescent delinquent behaviors, safer sex (Patten et. al.,2000),condom use, sunscreen use, radon gas exposure, exercise acquisition, mammography screening, and physicians' preventive practices with smokers (Marshall and Biddle,2001; Patten et. al.,2000;Prochaska et. al.,1994).

Studies have also examined the TTM over a range of populations including different work-site groups such as medical, industrial, retail, and governmental, as well as age groups, places of residence such as rural and urban, medical conditions, and countries (Rodgers et. al., 2001). Many studies have supported the TTM, some of which are examined below.

Patten et. al. (2000) tested the TTM with intravenous drug users (IDU's) in hopes of reducing the risk for spreading HIV. The authors observed and interviewed health practitioners, needle exchange program nurses, and harm reduction coalitions who use the TTM framework, and found that it was useful for these providers who work with IDU's in HIV prevention programs. Patten and colleagues (2000) suggested that by staging each IDU they work with, nurses can gain an understanding of their motivations and use staging to assess which social or environmental processes could be affecting them at the time. An example of how the TTM can be applied in these settings is if an IDU is particularly resistant to drug treatment and has no intention of trying to quit using drugs (the precontemplation stage), nurses would not encourage drug treatment but focus on other behaviors such as HIV prevention (Patten et. al.,2000). It is important to note that the TTM doesn't suggest interventions for individuals at each stage but suggests general strategies and approaches to use when counseling clients or patients (Patten et. al., 2000).

A study by Rodgers et. al., (2001) found support that the principles of the TTM apply to diverse populations. The study examined self-efficacy and processes of change of the TTM with exercise across three populations to determine its suitability for use in diverse groups. The three populations examined were high school students, university undergraduate students, and employed adults. Questionnaires were used to measure the stage of change, process of change, and self-efficacy. The results of the study suggested that the underlying principles of change in the TTM were similar across all populations. Stages of change and decisional balance (the pros and cons) were examined across 12 problem behaviors in a study by Prochaska and colleagues (1994).

Through this study, the researchers found that progress from the precontemplation to contemplation stage involved an increase in the evaluation of the pros of changing the problem behavior while progressing from the contemplation to action stage involved a decrease in the cons of changing the behavior.

This finding was significant for programs that use the TTM as the framework for the intervention. The interventions should be advised to target people in the precontemplation stage with efforts towards increasing the pros of changing the problem behavior to create optimum progress. Once this progress occurs, the intervention should aim at decreasing the cons of changing the problem behavior in attempt for progress from the contemplation to action stage. These results also provided strong support for the generalizability of Transtheoretical constructs across a variety of problem behaviors.

#### **2.6.4.5 Criticisms**

Even with an intuitive and heuristic appeal, the TTM does not go without criticism (Marshall and Biddle, 2001). Some critics reject stage-based theories of human behavior on conceptual grounds (Bandura, 1997; Kraft et. al.,1999),while others see methodological or analytic flaws and concerns over existing evidence (Macnee and McCabe,2004; Sutton, 2001). Examples of both these concerns and criticisms are described below.

The TTM has been criticized for the fact that human functioning is too versatile and multidimensional to be categorized into discrete stages (Bandura, 1997). According to Bandura (1997), a genuine stage theory has three defining properties: qualitative

transformations across stages, invariant sequence of change, and no reversibility. The TTM violates all of these requirements. Bandura (1997) goes on to say that qualitative transformations across stages are violated because the first two stages (precontemplation and contemplation) are only different in their degrees of intention, while the other stages are graduations of regularity or duration of behavioral adoption rather than differences in kind. Invariant sequences of change and non reversibility does not happen in the TTM because individuals do not all start at the same stage as well as the fact that individuals are able to skip stages within the model.

Kraft and colleagues (1999) found no theoretical reasoning or empirical findings to indicate that the six month time frame is appropriate for defining stages. The argument for the six month time frame is that there is an assumption that people plan behavior change about that far into the future. Kraft and colleagues (1999) also suggested that the TTM could be reduced to two stages only, pre-contemplation and one that includes the rest of the stages. This judgment was made due to the clear differences found between precontemplation and the rest of the stages on pros, cons, and confidence. In this instance, the staging algorithm could be reduced to one question: Are you thinking about quitting smoking in the next six months? This suggestion was made because the key difference in definition between precontemplation and the rest of the stages are that precontemplators are not thinking about quitting within the next six months, while contemplators and preparers are.

Macnee and McCabe (2004) do not have conceptual concerns regarding the TTM, but they have questioned the applicability of the model to specific populations. The

population under investigation is that of Southern Appalachia where cultural characteristics and the history of economic dependence on tobacco raised questions about whether the TTM is appropriate for smoking cessation. Following TTM framework, the authors found that the distribution of smokers in Appalachian Tennessee was 56 per cent in the precontemplation, 30 per cent in the contemplation, and only 14 per cent in the preparation. This population differs from the national sample in their cognitive and motivational decision making about smoking and smoking cessation. This study raised questions about the applicability of the TTM to unique populations as well as the possible modification of intervention strategies in such areas.

Another concern examined by Sutton (2001), suggested that there are some serious problems with the existing methods used to measure the stages of change. Sutton stated that staging algorithms are based on arbitrary time periods, some of which are logically flawed. For example, some questionnaires reveal a pattern of correlations among the subscales that do not measure discrete stages of change, which may contribute the low concordance found between different methods in studies.

In the critique by Littell and Girvin (2002), similar evidence has been found. For example, algorithm questions and stage criteria are not consistent across studies that use the approach. Some studies do not include questions about past attempts to change, and various time frames are used as reference points which alter distribution of people across stages.

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Finally, Littell and Girvin (2002) suggested that a continuous model of readiness for change may be more integrated with related concepts from other theories. They also

recognized that there is importance in distinguishing readiness for change from readiness to participate in particular treatments, and that change can come about quickly as a result of life events or external pressures.

### **2.6.5 AIDS Risk Reduction Model (ARRM)**

The AIDS Risk Reduction Model (ARRM), introduced in 1990, provides a framework for explaining and predicting the behavior change efforts of individuals specifically in relationship to the sexual transmission of HIV/ AIDS. A three-stage model, the ARRM incorporates several variables from other behavior change theories, including the Health Belief Model, "efficacy" theory, emotional influences, and interpersonal processes. The stages, as well as the hypothesized factors that influence the successful completion of each stage are as follows (Catania et. al., 1994):

#### **STAGE 1: Recognition and labeling of one's behavior as high risk**

*Hypothesized Influences:*

- Knowledge of sexual activities associated with HIV transmission;
- Believing that one is personally susceptible to contracting HIV;
- Believing that having AIDS is undesirable;
- Social norms and networking.

#### **STAGE 2: Making a commitment to reduce high-risk sexual contacts and to increase low-risk activities**

*Hypothesized Influences:*

- Cost and benefits;
- Enjoyment (e.g., will the changes affect my enjoyment of sex?);

- Response efficacy (e.g., will the changes successfully reduce my risk of HIV infection?);
- Self-efficacy;
- Knowledge of the health utility and enjoyability of a sexual practice, as well as social factors (group norms and social support), are believed to influence an individual's cost and benefit and self efficacy beliefs.

### **STAGE 3: Taking action.**

This stage is broken down into three phases:

- 1) Information seeking; 2) obtaining remedies; 3) enacting solutions. Depending on the individual, phases may occur concurrently or phases may be skipped.

#### *Hypothesized Influences:*

- Social networks and problem-solving choices (self-help, informal and formal help);
- Prior experiences with problems and solutions;
- Level of self-esteem;
- Resource requirements of acquiring help;
- Ability to communicate verbally with sexual partner;
- Sexual partner's beliefs and behaviors.

In addition to the stages and influences listed above, the authors of the ARRM (Catania et. al., 1990) identified other internal and external factors that may motivate individual movement across stages. For instance, aversive emotional states (e.g., high levels of distress over HIV/AIDS or alcohol and drug use that blunt emotional states) may facilitate or hinder the labeling of one's behaviors. External motivators, such as public

education campaigns, an image of a person dying from AIDS, or informal support groups may also cause people to examine and potentially change their sexual activities.

To date, ARRM studies in the United States have examined a variety of populations, including people attending HIV testing clinics, gay and bisexual men, unmarried white, black and Hispanic heterosexuals, and adolescent females attending family planning centers. (These are unpublished studies conducted by the Center for AIDS Prevention as described in Catania et. al., 1990) Results from a published study revealed how difficult it was for urban and rural women in the Democratic Republic of Congo (formerly Zaire) to label their behavior as problematic: only one-third of the study participants felt personally at risk for contracting HIV/AIDS (Bertrand et. al., 1992). Other research has expanded the ARRM to examine the behaviors of injecting drug users, as well as the protective behaviors of women who are already infected with HIV (Malow et. al., 1993; Kline and Van Landingham, 1994).

#### **2.6.5.1 Limitations:**

A general limitation of the ARRM model is its focus on the individual. For instance, many women in an ARRM-based study in Kampala, Uganda, felt at risk for HIV, not due to their own behavior but because of the behaviors of their sexual partners -- an issue the women reported was outside of their control (McGrath et. al., 1993). As a result, the researchers suggested that the ARRM take into greater consideration the sociocultural issues that influence, and may limit an individual's behavior choices and ability to take action.

## CHAPTER III — RESEARCH DESIGN

### Introduction

This study was conducted at ART clinic of Kanyama Health Centre, Lusaka from December 28, 2008 to March 6, 2009 (9 weeks). In designing the study, the researcher chose the qualitative approach since it was considered to be the most appropriate in answering the research questions and to meet the enunciated aims set out earlier in chapter one. A qualitative approach also fitted logically the research strategy adopted for this study, which is the abductive research strategy<sup>1</sup>. This kind of setting enables the researcher to capture everyday activities *in situ*, rather than under experimental conditions (Blaikie, 2000). Data was collected by in-depth interviews with each interviewee. This chapter discusses in detail how interviewees were selected, the data were collected as well as the analysis.

### 1 The Research Setting

The study was specifically carried out at Kanyama ART clinic in one of the consulting rooms. One ART consulting room was made available to the researcher by the Sister-Charge of the ART clinic for this study. The consulting room is located in the outpatient section of the department where HIV positive patients come for treatment of their health problems. Those visiting the room comprised patients who fell into four main categories and these included: those enrolling on ART program, those initiating

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<sup>1</sup>Blaikie argues that qualitative research, which is rooted in the two strategies, "requires an extensive and intensive period of involvement by the researcher to become an insider. This calls for participant observation" (Blaikie, 2000:242).

on ARV's, those coming for adherence monitoring and counselling and those coming for drug refills and sicknesses related to drugs and disease progress.

The researcher gained entry into this department through a letter of permission granted by the Lusaka Urban Clinics District Medical Officer (DMO). The Sister-In-Charge at Kanyama Health Centre provided the final assent and the researcher was helped with the consulting room through the ART Sister-In-Charge. The ART Sister-In-Charge facilitated the study by introducing the researcher to all the health workers and the supportive staff in the clinic as a student from University of Zambia, School of Medicine in the Department of Community Medicine who was conducting a research for his master's dissertation.

Although the ART clinic Sister In-Charge facilitated entry into the medical setting, the researcher was careful to adhere to strict ethical issues as enunciated below. This is one of the requirements of doing social research on human subjects (Bernard, 2000; Hannigan and Allen, 2003; Lothen-Kline et. al, 2003). In the case of this study, a few participants who were too sick to be interviewed and who felt that the issues to be interviewed on were too personal and sensitive were not included in the study.

Ethical consent was first obtained from University of Zambia Research Ethics Committee before the study took place. A research proposal and a research protocol were submitted and approved by the University of Zambia Research Ethics Committee. Once consent was achieved the study was commenced. The researcher explained in detail to the interviewees what was required of them, as well as assuring them that they had the right to decide not to be part of the study either before or during the study. The

researcher drafted a letter expressing purposes, benefits and risks. A letter was given to each participant who was approached (see Appendix A). Confidentiality and anonymity were assured to all parties concerned. Data were collected in the consultation room where patients came to meet the researcher with the help of the health staff.

### **3.2 Data Sources for This Study**

The data for this study were drawn only from HIV positive married patients on ARV attending the ART clinic on that particular day of their visits.

### **3.3 Sampling Process**

Theoretical purposive sampling was the chosen method of sampling. Theoretical purposive sampling was used to generate enough in-depth data that was expected to illuminate patterns, concepts, categories, properties, and dimensions on the subject of inquiry as espoused by, Glaser (1992) and Glaser and Strauss (1967) and later by Straus and Corbin (1998).

The process entailed interviewing enough clients so that a clear picture of all the patterns, concepts, categories, properties, and dimensions regarding their sexual lives of couples with HIV and AIDS was like. In case one asked, how was the sampling done and what was the appropriate sample size? The answer to the first question is that the researcher began sampling by recruiting clients that met the inclusion criteria. The researcher asked each client to elaborate on issues of sex and condom use (See Appendix B). From each case, the researcher built concepts to explore and compare with other clients. The researcher continued expanding the sample size until data collection (e.g. interviews) revealed no new data (Douglas, 2003; Goulding, 2003).

the patterns, concepts, categories, properties and dimensions of the phenomena (Kwortnik, 2003). Having gained the insight of the emerging patterns, categories and dimensions the following interviews were then focused on filling out those patterns, categories and dimensions to the point of saturation.

The flexibility of theoretical sampling allowed the researcher to follow directions highlighted by the data. By allowing the gathered data to dictate the choice of participants the researcher was able to reduce the anticipated sample size (Glaser and Strauss, 1967; Strauss and Corbin, 1998). Therefore in this study theoretical saturation occurred when:

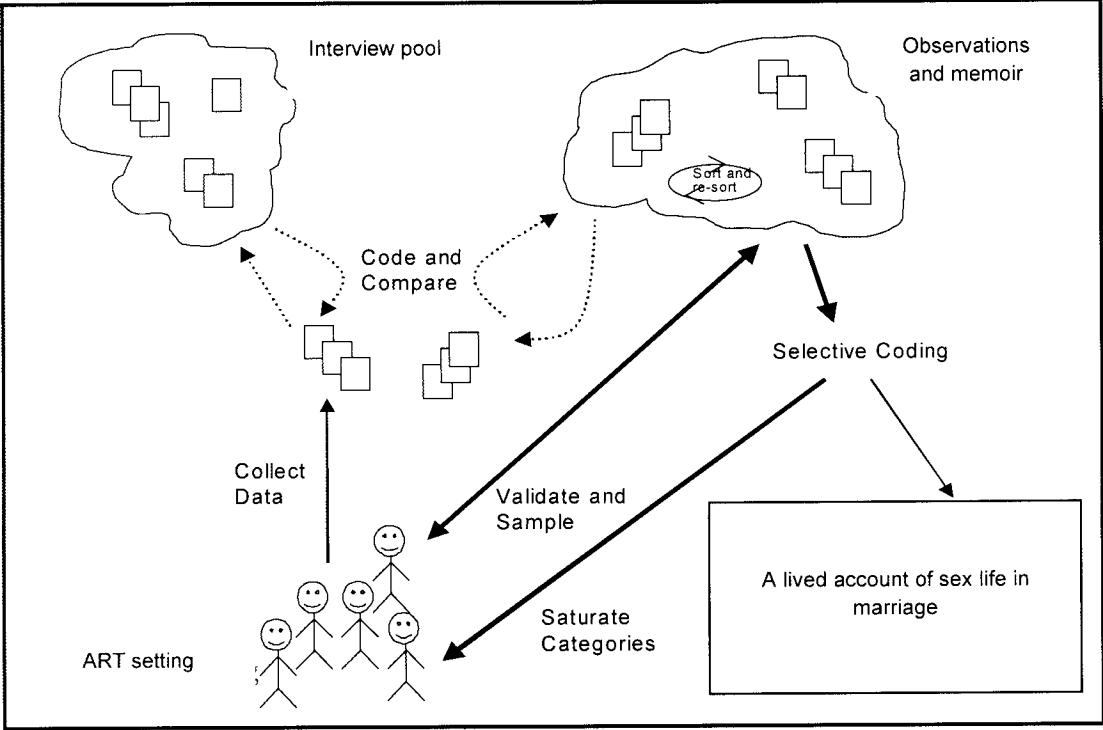
1. No new or relevant data seemed to emerge regarding a category,
2. The category became well developed in terms of its properties and dimensions demonstrating variation, and
3. The relationships among categories were well established and validated (Strauss and Corbin, 1998: 212).

One on going selection of respondents, particularly for the interviews, was based on emergent theoretical saturation<sup>2</sup>, constant delimiting, selective coding, core variable analysis, and theoretical completeness (Glaser and Strauss, 1967; Lincoln and Guba, 1985).

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<sup>2</sup>In their seminal text *The Discovery of Grounded Theory: Strategies for Qualitative Research*, (Glaser and Strauss, 1967:65) declared that saturation refers to when no additional data are being found whereby the researcher can develop properties of the category. They submitted, "As he sees instances over and over after they have seen coded incidents for the same category a number of times.

Figure 3.3.1 below shows a diagrammatic process of grounded theory<sup>3</sup> driven sampling procedures that was used.



..... Constant Comparative Analysis

—————

**Theoretical Sampling**

**Figure 3.3.1: Modified Grounded Theory Driven Sampling Procedures From Hughes and Howcroft (2000)**

**3.4 Data Collection**

For each participant, 30-45 minutes of tape recorded interviews were conducted in the consulting room. Informed consent was obtained before data were collected. Interview questions included those that explored the interviewees' background information

<sup>3</sup> Glaser and Strauss, 1967:42-43) \_define a grounded theory as being one, which will be "readily applicable to a indicated by the data", and "be meaningfully relevant to and be able to explain the behavior under study."

(including demographic characteristics; education level and family structure among others) before moving on to their sexual lived life behavior experiences. The interviewer posed open-ended, story-eliciting questions related to the specific aims of the study. What type of condoms do you use? From the time you started using condoms, how often do you engage in using condoms during sexual intercourse with your husband/wife? What has been your experience in using condoms? In a situation where your husband/wife does not need to use a condom what do you do? What has been the effect of condom use on your sex life/marriage?

The interviewer followed up on sexual narratives in subsequent interviews when a new theme emerged. This was done in order to inquire a new base of probes and prompts and if at all the experiences were also observed in other marriages. The interviewer and interviewees discussed more sensitive topics as rapport increased and examined their sexual lived experiences. To achieve this, the researcher bracketed his prior conceptions, understandings and assumptions in order to approach the inquiry with a fresh insight (Husserl, 1973). A reflective examination of the lived experience was done in order to be able to obtain the essences and meanings of the experience by identifying the concepts used and perceived and structured by the social actors in the settings and plan a description of what to learn from the essences and concepts based on research issues that were emerging.

Participants in this study were approached as individuals and it was not possible to have couples at that same time because each person had separate appointments. Freedom was given to the participants to discuss and express themselves about the

issues and questions asked. The interviews were guided by a set of questions and questions included those that explored<sup>4</sup> the respondents' background information before moving on to their sexual experiences. In total, 77 interviews were conducted with 57 participants. There were instances when participants would be interviewed more than once as they came for varying problems and as a matter of follow-up on issues that were not concluded at the previous meeting. However, most of them were interviewed once.

### 3.5 Data Analysis

The researcher personally transcribed all the interviews and imported them into NVivo software. In analysing these texts, the researcher paid attention to both the manifest content as well as the latent content of the texts. Manifest content analysis involves looking at what the text said, thus dealt largely on giving description of the visible and obvious components of the text (Oiler, 1982, Koch, 1995). In contrast, latent<sup>5</sup> content analysis required the researcher to interpret the underlying meaning of the text (Draper, 1997; Kondracki et. al., 2002) looking at the social actors' expressions.

Manifest content analysis is shown in this study by presenting reality in verbatim (quotations of parts of speech or the whole speech). This is that part of the data that

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<sup>4</sup> Interviews began with general opening questions, which were framed as follows: Please tell me about you please describe for me, as completely, clearly as you can an experience in marriage with a condom? Please describe for me, as completely, clearly why do those things happen? From this then specific experiences were continually probed for depth below surface responses

<sup>5</sup> The researcher used this as a dialogical interplay between the horizons of the text and interpreting it. This is central hermeneutical analysis according to Draper (1997:82). So, rather than following a step-by-step method, the analysis of data was guided by four main principles. These were (1) transcribed interviews were treated as textual units for analysis; (2) interpretations were not an arbitrary activity; (3) interpretation involved a description of the text and (4) interpretation involved the fusion of the horizons of the researcher as an interpreter and the text. These analytical principles provided a flexible but yet rigorous framework for analysing phenomenological data. These four principles were adopted from Draper as guides and not as analytical steps.

speaks for itself and allows the reader to make his/her own conclusions. This falls in the Husserlian transcendental descriptive phenomenology. In contrast, latent content analysis is shown by the researcher's interpretation of the underlying meaning of the text by looking at the social actors' expressions. This involves a process of phenomenological reflection of grasping, elucidating or explicating of the essential characteristics of an experience of the underlying meaning contained in the textual data (Downe-Wambolt, 1992, Kondracki et al., 2002).

In all the sections of the findings, latent content analysis is presented. This augurs well with Heideggerian hermeneutic phenomenology in that it augments the revelation of the essence of phenomenon, which exist independently of conscious experience, so that issues could also be known through the researcher's examination of such experience (Heidegger, 1962).

The data reduction process involved a consolidation of several analytic methodological steps of renowned social science researchers. Qualitative data analysis was assisted by the Non numerical Unstructured Data Indexing Searching and Theorizing (NUD\*IST Vivo or N Vivo) software version 1.1. This is a computer software package designed by Qualitative Research and Solutions (Q.R.S, 1997; Fraser, 1999).

The automated data handling and powerful search and retrieval mechanisms of this software facilitated data management. Three categories emerged: (1) Non condom users, (2) Inconsistent condom users and (3) Consistent condom users. For each interviewee narration of their sexual life were retrieved over their coding content and context under the three categories basing on their responses. Next, an across-case

analysis, searching for similarities and differences among interviewees in what they related about the challenges they faced in using condoms, coping mechanisms and why they behaved in that manner was drawn. The researcher constructed qualitative matrices, plotting story elements across study participants and comparing each participant sexual experiences with every other participant sexual experiences under each category. The researcher identified patterns apparent across the sample of sexual behaviors under the themes of challenges, coping mechanisms and as to why they behaved in a specific way towards sex and condom use as well as their interpretations of their patterns of behaviors and perceptions of their own responsibility in sexual matters. Lastly, the researcher selected exemplar narratives and interview excerpts that best illustrated these patterns.

Combining within-case and across-case approaches to qualitative data produces more contextually grounded, transferable findings. To further support the authenticity of findings and auditability of analytic processes, the researcher (1) engaged colleagues for help in recoding assuring interrater reliability as codes were created and applied, (2) returned to full transcripts for grounding sexual behavior data.

The memos generated in N Vivo formed the basis for much of the final writing of the study. While N Vivo assisted with the storage and categorizing of data, the analysis was conducted in accordance with grounded theory methodology.

## CHAPTER IV — RESEARCH FINDINGS

### 4.0 Introduction

This chapter presents the research findings guided by Lincoln and Guba (1985), Yin (1994) and Polit and Hungler's (1999) model of presenting qualitative data. Themes, sub themes and categories are used as heads to show narratives and the research backs up the findings where possible with literature to link with previous research.

#### 4.0.1 The Research Setting

Before presenting the research findings, the researcher found it prudent to describe the setting. The ART Clinic at Kanyama Health Centre, where the research was conducted, runs two types of clinics. On Wednesdays there is children's ART Clinic and the other days are open to adults. According to the ART in charge, on a daily basis, about 200-300 patients with varying ill health problems related to HIV and AIDS visit the ART Clinic. In order to be attended to, patients usually come early in the morning and put their ART identity cards on the entrance of the registry room, in an order of who came first, second, third and so forth and they sit in the waiting area outside the registry and consulting room waiting to be called in by adherence counsellors or nurses after each file is pulled out from the cabinet filing rows.

The patients who come to these clinics are either first attendees or re-attendees who have to continue the check up as a review or for continued treatment because they have this chronic illness. Others who are attended to are those who have chronic illnesses and these may be referred from the University Teaching Hospital (UTH)

private clinics within the locality, although there are self-referral patients too. When patients come, all of them are attended to on a first come first serve basis. Only when there is an emergency or an acutely ill patient he or she is seen at once.

The first health workers patients meet are adherence counsellors. These adherence counsellors have their own offices next to the registry. Clinical Officers or doctors screen all patients who come to the centre from the reception area after having been enrolled and vital signs taken at the observation table by a nurse who in turn places the patient(s) file(s) before the clinician in the consultation room. When a patient's turn comes, the attending clinician calls out the name of the patient and the patient responds by answering or standing up and walking forward. The patient then follows the clinician into the room. If it happens that a patient needs to see a particular clinician, the patient informs the nurse on the observation table in advance who takes the patient file to the particular clinician but if the clinician is alone he or she attends to all patients on that day.

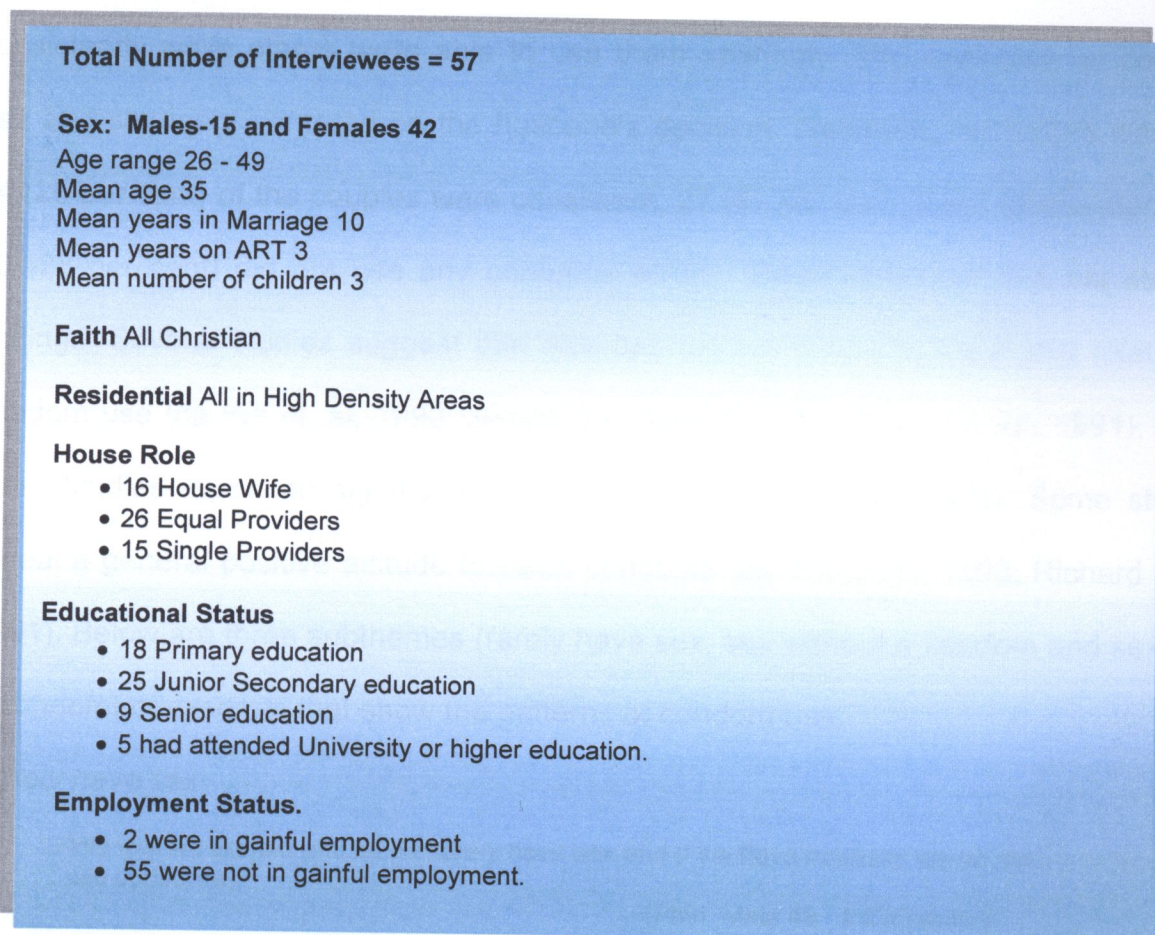
The consulting rooms in which the clinicians attend to patients are housed in one building. Other than accommodating consulting rooms, it also has a waiting area, a laboratory and a pharmacy catering only for patients with HIV/AIDS related problems.

#### **4.0.2 Interviewees Demographic Profiles**

The 57 interviewees were in their youth aged between 26 to 49. Fifteen were males and 42 were females. Of the 57 interviewees, 16 were house wives, 26 were equal providers and 15 were single providers. The interviewees were in marriage from about 2 to 10 years but the mean marriage time was 10 years. There were varied social demography

differences among them in terms of levels of education, providing for the home, age and years on ART. For instance, nearly all of them had attained at least primary or secondary education indicating that the researcher was dealing with a rather not illiterate or semi literate group. However, only 5 interviewees received college and/or university education. In terms of employment, 2 interviewees were in gainful formal employment at the time of the study whereas 55 were not in formal employment but were either looking for jobs or had informal temporal income generating activities (figure 4.0.2.1).

**Figure 4.0.2.1 Respondents' demographic profile**



### 4.0.3 Researcher's Experiences

The study's findings are presented under four themes and these are: (i) Condom use rate, (ii) challenges experienced sexually, (iii) ways of coping and (iv) motives for the sexual behaviors. In order to give life (by avoid objectifying persons with numbers) to the narratives, the researcher has opted to use Lincoln and Guba (1985) and Creswell (2005) ideas of using pseudonyms.

### 4.1 Theme I- Condom use Rate

The study reviewed that of the two types of condoms that could be accessed at the AR clinic or in the shops in Kanyama and town, the male condom was the most preferred. The data that emerged showed that most couples were unable to use condoms consistently while others were able to use them sparingly. The decisions on condom use and sex were centered on the husband's decision. Generally the picture was that 14 (25 per cent) of the couples were consistent, 27 (47 per cent) were inconsistent and 16 (28 per cent) did not use any condoms at all. These, however, are not strange findings. Several studies suggest that attitudes toward condoms are highly related to condom use (de Wit et. al, 1990; Jemott and Jemott, 1991; Sacco et. al., 1991), while other studies report no significant relationship (Richard et. al., 1991). Some studies reveal a general positive attitude towards condoms (de Wit et al., 1990; Richard et al., 1991). Below are three subthemes (rarely have sex, sex without a condom and sex with a condom) of excerpts that show the patterns of condom use.

#### *Rarely have sex*

'We feel we are old and so we rarely have sex and if we have honestly we do not use condoms.'

[Phiri, Male 49 a Carpenter]

'We rarely have sex and if we do a condom is not used.'

[Esnart Female 47 Unemployed]

### *Sex without a condom*

'I have been having sex with my wife without using a condom.'

[John, Male a Driver]

'I try always by all means insisting to him that we use condoms.'

[Mary, 27 years old and Hairdresser]

'You know it's not my wish to be having sex without a condom with her, but it's just the situation.'

[Masauso, Male 32 an Accountant]

'If it was not only for the small size of these condoms at the clinic I do not think we could be having any problems in using condoms.'

[Karen, Female 32 a Business lady]

'You see using condoms throughout is difficult, my wife understands me, and once in a while we do it without a condom just to have that feel again without a condom.'

[James, Male 42 a Shop Seller]

'He says he prefers it that way and that's when he enjoys sex.'

[Haangoma, Female 40 a Business women]

'He says he enjoys having sex without using a condom.'

[Florence, Female 27 Unemployed]

### *Sex with a condom*

'I insist to use a condom to avoid pregnancy, reinfection and drug resistance. What I have been taught and what I know is you can have a different virus and a partner a different virus and when you start having sex that one comes into your body to start being called foreign virus, so in other words you start developing resistant to your medicines. Condoms are 100% safe so I use them.'

[Walusungu, Female 35 a Business woman]

'I nearly died if it wasn't for these ARV's, all the pains, diarrheas I used to have are all gone and I would not want to suffer like that again through developing a resistance in my drugs if I fail to use a condom.'

[Justin, Male 46 Unemployed]

From these narratives, we can say that the couples we saw run several risks on account of their sexual behaviors. The risks range from protracted and concurrent re-infection, unwanted pregnancies, sexually transmitted infections and the menace of drug

resistance. It appears that counseling education falls on deaf ears among infected married couples.

#### 4.2 Theme II- Challenges Experienced Sexually

Sex in marriage in relation to condoms has shown that it is a challenge. In this study the researcher was not in a position to show the differences in challenges between men and female responses toward condom use. This is because most of the respondents projected not their feelings but those of their partner. Men and women also differed their challenges indicating that gender was a factor on matters of sexuality. Below are some of the narratives exhibiting the experienced challenges under nine sub themes which are: (i) adverse effects (ii) violence, (iii) failure to convince partner, (iv) desiring to have children, (v) no problems, (vi) quarrels, (vii) desire for maximum pleasure, (viii) availability and cost of condoms and (ix) refusal of advice.

##### *Adverse effects*

'My wife sometimes refuses to use the condoms and she says the condom itches after sexual intercourse, once we finish having sex, she starts experiencing itchiness on the vaginal every time. What we do is... since the man is the head of the house, I decide whether to use a condom or not, but if she says I do not want a condom, then it ends like that.'

[Mwiinga, Male 29 Employed]

'We do not use condoms with my wife. Her complaints are that whenever I use a condom it irritates her to an extent that she develops a rash that makes her fail to sleep as she would be scratching throughout the night. We have not tried a female condom, but other male condoms such as maximum just do the same. We have been told that there is no immediate solution to her situation.'

[Bwalya, Male 32 Accountant]

'I have always wanted to use condoms, but the problem I face is that whenever I use a condom I end up developing a rash on my manhood. Here I came after seeing that it was getting too worse. They examined me for STD's, did different tests and in all the results I was told, they could not find anything. I was told that may be I was reacting to the fluid found in the condom. They advised me to use different type of condoms apart from the ones I was getting from the clinic. I tried to use maximum, but still the rash reappeared. So with my wife we just have live sex.'

[Mabvuto, Male 39 Radio Repair]

### *Removing condom*

'My husband doesn't want to use condoms; he removes it in the midst of the act. Sometimes he forces me to have live sex if I refuse that no condom no sex.'

[Mwangala, Female 32 Unemployed]

'We do use a condom most times. The challenge just comes in when he is about to ejaculate he pulls off the condom and mostly it's a time when I cannot stop him.'

[Sharon, Female 40 Business woman]

### *Refusal of Advice*

'Using condoms with my husband has not been easy. He creates a little hole on the tip of the condom deliberately as during the sexual act the condom just slips over to his manhood without saving its purpose. One day I made sure that the counselor spoke to us over this issue. He pretended as if he understood, we used condoms well, but after a period of 3-4 months, he started again creating a hole.'

[Grace, Female 35 Business woman]

### *Availability and Cost of Condoms*

'It's not easy to use condoms, especially these we get from the clinic. My husband complains that they are too small in size and break easily. Yes with maximum no problem, but requires you to be buying. Yes if we have we use condoms, but in situations where the condoms run out unknowing, yes, live sex would happen.'

[Taonga, Female 32 Business woman]

### *Desire for Maximum Pleasure*

'It's not easy using condoms all the time; it's like eating a sweet wrapped in its cover.'

[Ibrahim, Male 42 Shop Salesman]

### *Quarrels*

'We quarrel a lot over the issue of using condoms. He has a girl friend just because of the arguments we have over using condoms. He spends nights with her and sometimes he would be gone for a week. I have seen that I am losing my marriage.'

[Namwinga, Female 33 an Industrial worker]

### *No Problems*

'We have no problem in using condoms. It's only that my wife complains of abdominal pains after having sex using maximum condoms. Yes, with those from the clinic no problem, but when the condoms are not available here we just have to buy and that's how maximum comes in.'

[Mubita, Male 43 a Records Clerk]

'Yes, difficulties will always be there, you have to get used to something. It's not that its unnatural, but it's something that is strange, because it has not been there but at some point, you won't even realize that there are condoms, because you would enjoy the sex as much as you did even before the condom were not being used, once you get used to using them.... and if you are using them consistently, you get used to them so easy that you do not even find anything strange about using condoms; and then it's so natural it becomes part of a process of having sex in the house.'

[Imakando, Female 38 a Peer Educator]

'I think it's just that I have gotten used to condoms that's how I have keep my sex life going.'

[Simbeye, Male 40 a Tailor]

### *Desiring to Have Children*

'My husband is the one with the problem. When I refuse we quarrel and sometimes he becomes violent. He has 2 children from his previous marriage and I have also 2 children from my late husband. We argue most times accusing me of not wanting to have a child with him as the reason why I insist of using condoms.'

[Mwape, Female 32 a Business woman]

### *Failure to Convince Partner*

'The problem I have is with my husband, I always try to convince him to be using condoms for us to remain health rather than just continue reinfecting ourselves, but I have never succeeded. He would reason with me and we can use a condom today, but after some time he stops. He just wants us to go on and on having live sex. He says he does not like to use a condom as it reduces his sexual satisfaction.'

[Maggie, Female 27 a Shop Sales lady]

'Myself, I have no problems in using condoms, but my friend faces problems. He comes home most often drunk with no intentions to us a condom. He is usually in a state that you cannot talk and all he would want from me is sex. If I refuse he becomes violent and sometimes picks anything within his reach and hit me with it. There is no room to discuss or compromise.'

[Febby, Female 32 Unemployed]

'Myself, I have no problems in using condoms, but it's my husband who has a big problem. He refuses to use them. When I ask him we will quarrel to the extent of beating me, especially when he is drunk he would say that if I want I can pack my things and go to my relatives so that he marries another woman who won't be asking him to put on a condom.'

[Namonje, Female 29 Unemployed]

'We fail to use condoms all the time with him. We quarrel a lot over this issue of using condoms mostly when he feels doing it live and I refuse. He has even got a girlfriend where he spends nights sometimes and I see it, I may lose my marriage.'

[Sibeta, Female 29 Unemployed]

'Myself, I do not see any problems in using condoms. Mostly it is my husband who does not want to use condoms. We used to quarrel a lot over condom use, when I demanded that we use one so that we prevent ourselves from reinfection. Nowadays we no longer use or talk of condoms.'

[Sinyasongo, Female 32 Unemployed]

### *Violence*

There were eighteen incidents of violence and condom use and all incidents were perpetrated by husbands. One incident that was worrisome involved Jennifer who was married to a minibus driver for four years. She had come to the ART Clinic to seek help. At the time of her visit, her husband had denied her money for home use. Her husband the family's sole bread-winner since their marriage four years ago had abandoned her for another girl. Her lamentation was thus:

'I used to see my husband with other women most of the times in the bus. So when I was told about my status, I was advised to use condoms by my peer counselor. Relaying the counselor's instructions, I told my husband that we should only have sex onwards if he used condoms and that he should get himself tested too as I was HIV positive... But you know what has happened, for two years now, this has been the subject for chaos in my marriage, and my husband forces me into having unprotected sex (even when I have declined). He would argue "it is unheard of for a man to use a condom with his wife." He would beat me and beat me. I have heard insults from him that I am a prostitute.'

[Vivian, Female 32 Unemployed]

Other incidents follow below;

'He beats me and forces me to have sex and when he is drunk it's worse, especially when there are no condoms in the home, he refuses to buy.'

[Mubika, Female 38 Unemployed]

'My husband refuses using condoms. If I insist we argue and when he is too drunk he just forces himself in and I fail to tell him to use a condom as he becomes violent.'

[Lishebo, Female 34 a Cashier]

'My husband behaves like an animal especially when he is drunk. He will just grab me and force himself on me. He does not give me room or time to prepare and talk about using condoms.'

[Kasonde, Female 47 a Business woman]

'The challenge I face usually comes when my husband refuses to use a condom. When the condom is not used it's not that I want, but just that he forces me. He forces himself on me to the extent that he would drag me if I refuse and do it by force.'

[Mervis, Female 32 a Dramatist]

'I have not found any challenges with using condoms me, so I can't tell anyone of any problems because myself I have not found any. The person I stay with refuses to use them. We use condoms very rarely.'

[Mulenga, Female 37 a Business woman]

It is evident from these narratives that there is widespread resistance to the use of condoms in stable, long-term relationships and this is responsible for the exhibited challenges. These are matters that have been discussed in several studies in Africa and most notably within sub Sahara Africa and notable ones include: Blecher et. al., (1995), Schoepf (1992) and UN (2002).

#### **4.3 Theme III- Ways of Coping**

Coping as a way of controlling and regulating stress (Lazarus and Folkman, 1984) regarding condom use in dissipating increased tension, was remarkable in this study. Two categories emerged under ways of coping and these were cognitive strategies and behavioral strategies. Cognitive strategies included attempts to change the way one thinks about sex with condom or not and behavioral strategies included one taking an attempt to reduce the impact of sexual stress. Six subthemes were generated under these two categories and these included: (i) no to sex (ii) abstain if no condoms (iii) rarely have sex, (iv) alternative sexual partner (iv) negotiating sex and (vi) doing nothing. A cursory look at these would show that the men and women made efforts to do something active to alleviate stressful circumstances and these aimed at altering the situation that was causing sexual distress by directing attention toward the problem in an effort to prevent or control it. Below are the notable experiences.

*No to Sex*

'I tell him that you are reinfesting me, so when it is too much I leave him and sleep on the sitting room, sometimes then you would find in the middle of the night he would come awakens me up, struggles with me and since he is huge manages and rape me especially when he is drunk.'

[Joan, Female 32 Hair Dresser]

'There are times when I face a challenge from him to have sex without a condom. I just say no to sex. The key is me the woman, if I say no it just ends up like that.'

[Chanda, Female 36 a School Teacher]

'Mostly, I just refuse to agree not to use a condom as it has been his intentions.'

[Mando, Female 35 a Maid]

### *Do nothing*

'Coping is not easy. He makes me defenseless just because he says he won't take his medicines if I refuse to have live sex with him. This puts me in an awkward position and I just let him do what he wants.'

[Mable, Female 29 Unemployed]

### *Abstaining if no condoms*

'I just say no to sex if he does not want to use a condom.'

[Namakwa, Female 38 a Health Worker]

'I do insist that a condom is used, otherwise I refuse to have sex without using a condom.'

[Chimuka, Female 33 a Maid]

### *Rarely having sex*

'You know it's not every day that we have sex, we stay 10 to 20 days without sex and we do manage like that. If there are people who have sex everyday then maybe they are taking something.'

[Tembo, Male 46 a Bricklayer]

### *An alternative Sexual Partner*

'At times there are incidents when I ask her to do it without a condom and she refuses. This on several times has made me to look for a girlfriend and have sex with her without using a condom, just to have that feel again without a condom.'

[Boston, Male 38 a Carpenter]

'I make sure he uses a condom every time we want to have sex. No his girl friend does not bother me in any way and in fact she acts as a relief to my sexual life with him.'

[Bertha, Female 34 a Business woman]

## *Negotiating sex*

'Talking about the importance of using a condom through the counselor's advice repeatedly has helped a lot in not forgetting and I myself remind my husband not to forget to use a condom whenever we are having sex.'

[Juliet, Female 39 a Business woman]

### **4.4 Theme IV- Motives for their sexual behaviors**

In a behavioral study like this one we sought an explanatory understanding (according to Weber, 1978) in which the actor's motive for the elicited sexual behavior could be explained. A motive or the reason of acting was part of the complex of subjective meaning for the demonstrated sexual behaviors for what is done (Weber, 1978:11) in marriage.

The respondents in this study elicited two categories of motives. The first one was actions of particular sexual behaviors indicative of notions of the future and the past. Motives that are associated with the past notions are "**because motives**" while those associated with the future are called "**in order to motives.**" The "because motive" is in essence a look at the past events influencing the present sexual behavioral response (use or non use of condoms) whereas the "in order to motive" is in essence a projection of the completed sexual behavior in the present circumstances by looking at the future of using or not using a condom. Within the two categories, six subthemes explain the motives and these include: (i) gender and the influence of patriarchy, (ii) resigning for peace to prevail, (iii) culture, adverse effects, (iv) pleasure a factor, (v) fear of loss and (vi) status.

## *Negotiating sex*

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The illustrations below point to these varying motives and they are described under each one of the six categories.

### *Gender and the influence of patriarchy*

'When I demand that we use one so that we prevent ourselves from reinfection we would quarrel. At one time he stopped buying food and started sleeping out with his girlfriend he claimed that there was no marriage in our home. I saw it was not helping and I found the condom to be the sole cause of the confusion in our home. The only thing I thought of doing to bring harmony in our home was to stop asking him to use condoms.'

[Susan, Female 32 Unemployed]

### *Resigning for Peace to Prevail*

'I just let him do what he wants as I dislike beating me over condoms and sex.'

[Hildah, Female 26 Unemployed]

'My uncle and auntie who do not know that my husband's behavior is all about our status and the need of using condoms, consistently blame me over my husband's actions; Of late, when he is home I no longer ask him to use a condom, I just let him do what pleases him.'

[Nakamba, Female 33 an Industrial worker]

'I just follow what he wants for the sake of the marriage and my children, so I just let him do what he wants.'

[Chisenga, Female 36 Unemployed]

### *Culture*

'I have let things flow in a natural manner; because this business of tradition, I cannot fight it being a woman who a man marries and society expects me to play a role of a woman and this has made it difficult for me.'

[Gwen, Female 42 Unemployed]

'We do not use condoms. My culture does not allow me to ask my husband to use a condom, that is disrespectful and if brought before the elders my auntie or my grandma that would be a shame and a disgrace to our family. Besides, our custom does not allow me to touch my husband's manhood. We do not discuss any issues to do with a condom, that's taboo in our tribe.'

[Charity, Female 42 Unemployed]

### *Adverse effects*

'I just avoid using condoms and the rash does not reappear, my wife understands.'

[Banda, Male 39 a Radio Repair]

'It's only because of these pains she experiences otherwise I do not wish to stop using condoms.'

[Nyambe, Male 43 a Records Clerk]

'If I do not use a condom, usually it's just the desire of doing it (sex) without using a condom. I usually think of stopping using condoms because of my status. What comes to my mind is if my wife became pregnant I feel there can be problems....like complications, so I prefer to be using condoms.'

[Mata, Male 40 Mini-Bus Driver]

'I refuse just to have sex without using a condom entirely as I do not want to conceive as my CD4 count is low.'

[Chisanga, Female 32 a Dramatist]

### *Pleasure a factor*

'He says the condom reduces sexual pleasure and by not using it or removing it before "releasing" makes him enjoy sex.'

[Kalima, Female 32 Unemployed]

'He says he does not feel satisfied when wearing a condom and insists that since we are both on medication we cannot become sick of HIV anymore.'

[Purity, Female 38 a House Maid]

'My husband says he does not feel anything when using condoms.'

[Jacklin, Female 34 a Cashier]

'Myself I like to be using condoms all the time, but it's him who says he enjoys live sex.'

[Mweso, Female 38 a Shop Seller]

'He says he does not feel comfortable. Also, he has taken it that since we are on medication, he just thinks that it's the end so we have to use no condom. He refuses to talk about sex and the condom.'

[Linda, Female 37 a Business woman]

### *Fear of loss*

'He says "*his feelings are not so much when he is using condoms*". Because he can say that we are not going to use a condom today, and then you just keep on insisting, no! No! No! If you just refuse like that, then in a way it means that is the end of the marriage, you see. Because in real life you do not want to lose him to what he is saying and then you are also caught between that you know the knowledge about HIV and infection and also being a wife and submissive like that.'

[Walinase, Female 27 a Peer Educator]

'I don't want to lose my marriage over sex and condoms. I fear for my children, they can suffer a lot.'

[Sililo, Female 29 Unemployed]

'I insist on using condoms. You know I lost my first husband as he was the one that time who was first put on ARV's and would go against medical advice of not drinking and using condoms.'

[Olipa, Female 32 a Business woman]

'I try to negotiate using condoms. I do this to try and remind him that what he is doing is wrong, I would not want to die early because, you know, no one can keep my children if I died.'

[Felistus, Female 43 a House Maid]

### *Status*

'I fear of becoming resistant on the medication I am on (ARV's).'

[Lontia, Female 32 a Dramatist]

'I usually get worried of getting sick one day as I feel he just re-infects me and since he does not take his medicine when he is drunk.'

[Majory, Female 35 Unemployed]

'I use condoms because I fear for my children, they can suffer a lot". I also have little trust for my husband.'

[Sitali, Female 29 Unemployed]

The presentations above are showing the difficulties that women experience in negotiating condom use and sexual behavioral change with their partners. It is evident that the prevailing norms in the community regarding sexual roles, as well as gender-related inequalities in sexuality are key sources of women's inability to engage in 'protective negotiation' and unexpected sexual behavior of failing to sustain condom use within sexual partnerships. These include barriers to communication about sex, norms about initiating sex and saying 'no', and a sexual double standard that permits or encourages greater sexual freedom for men than women. These motives are well documented in the literature (Bassett and Mhloyi, 1991; Holland et. al., 1992; Bond and Dover, 1997).

At the same time, it is important to recognize that sexual norms and decision-making authority are not the only barriers to condom use. Other issues, such as a desire for childbearing or the association of condoms with disease and infidelity, remain as powerful barriers to condom use even in the most egalitarian societies or relationships

Women may oppose condom use in some relationships because they wish to establish that the relationship is not casual or commercial (the types of relationships that are associated with condom use), in order to demonstrate trust in their partner or to discourage him from going elsewhere for sex, or to avoid arousing suspicion about their own behavior in the eyes of their partners or others and additional barriers can include access, cost, and a lack of knowledge about how to use condoms (Blanc et. al., 1996).

## CHAPTER FIVE- DISCUSSION AND CONCLUSION

### 5.0 What this study shows

The words of the married men and women who are living with HIV and AIDS disclosed the challenges of what sex in marriage with or without a condom is all about. This cross sectional qualitative study has the following answers to the four research questions:

Regarding research question number 1; ‘What is the condom use rate like among HIV positive married persons?’ the answer is that the picture is worrisome in the sense that condom use rate is low. The researcher found that 14 (25 per cent) of the couples were consistent in using condoms, 27 (47 per cent) were inconsistent and 16 (28 per cent) did not use any condoms at all.

In terms of research question number 2; “Regarding their status of being HIV positive and married, what challenges do they experience sexually?” the answers are that the respondents experienced nine challenges which ranged from : (i) experiencing adverse effects due to condom use (ii) violence when denied sex without a condom, (iii) failure to convince partner to use a condom, (iv) desiring to have children and stopping to use a condom (v) quarrels on account of refusing to use a condom,(vi) desire for maximum pleasure (vii) lack of availability of condoms at the facility and cost of condoms which seemed to be high , (viii) refusal of advice, (ix) no problems at all with using the condom.

In reference to research question number 3; In what ways do they cope? The answers are that the respondents used cognitive strategies and behavioral strategies. Cognitive

strategies included attempts to change the way one thinks about sex with condom or not and behavioral strategies included one taking an attempt to reduce the impact of sexual stress. Specifically respondents coped in the following six ways (i) saying no to sex (ii) abstaining from having sex if no condoms were to be used (iii), rarely having sex , (iv) sought an alternative sexual partner because condoms were demanded in marriage (v) negotiating sex proved difficult and (vi) others did nothing at all.

Regarding research question number 4; Noting the rate of condom use, why do they sexually behave in the manner they do ? The answers are that there were two main motives. The first one looked at the “**past events**” that seemed to influence the present sexual behavioral response (use or non use of condoms) and the second one looked at the “**in order to motive**” which in essence was a behavioral response that looked into the future for the present decision of using or not using a condom.

In essence whether one looked at the past or future events, it was either (i) gender and the influence of patriarchy was the root or (ii) one resigned and agreed to have sex without a condom in order for peace to prevail or (iii) one had to have sex because culture prescribed so, or (iv) one had experienced adverse effects warranting to use condoms or not to use condoms, or (v) sex without a condom was pleasurable , (vi) one had a number of fears and (vii) the fact that both were of the same status, sex with a condom was of no consequence.

## **5.1 Synthesis of findings**

This study has shown that most HIV positive married couples who attended the ART clinic in Kanyama face challenges in their sex life when it comes to using condoms and

s fact is critical in HIV health promotion and prevention. Between husbands and wives, the latter have greater challenges than the former and it all borders on the power that rests in the culture of patriarchy. There are notable challenges traversing gender, culture, the nature of the illness, marriage roles and personal attitudes towards condoms and the partner. These difficulties that women experience in negotiating condom use and sexual behavior change are well established in public health literature. For instance the prevailing norms regarding sexual roles, as well as gender-related inequalities in other arenas, are thought to be a key source of women's inability to engage in protective negotiation (Gupta and Weiss, 1993; Oppong, 1995; Gupta, 2000).

Studies conducted in many different settings have found common features of the sexual context that place women at a relative disadvantage in the ability to introduce or sustain condom use within sexual partnerships (Ulin, 1992; Orubuloye, 1993, Oppong, 1995; Gupta, 2000) as found in this study. These include barriers to communication about sex, norms about initiating sex and saying 'no', and a sexual double standard that permits or encourages greater sexual freedom for men than women (Bassett and Mhloyi, 1991).

At the same time, it is important to recognize that sexual norms and decision-making authority are not the only challenges to condom use. Other issues, such as a desire for childbearing or the association of condoms with disease and infidelity, remain as powerful barriers to condom use (Nicolosi et. al., 1994; Campbell and Kelly, 1995; UNAIDS, 2000). Having stated so, it is prudent to look at some outstanding phenomena in this study.

### **5.1.0 Culture and Condoms**

This study has shown that among the respondents, there seems to be a local culture, of publicly shared sexual codes or repertoires being building blocks that structure men and women's ability to think and to share ideas about sex and condoms in marriage whether the couple has HIV and AIDS. It was very evident that this society has a collectively held cultural symbolic system on sex and condom use that was binding. For instance earlier work on sexuality (e.g., Almond and Verba 1965; Parsons and Shils, 1951) treated sexuality in culture as a set of inner beliefs and values that people may never express outwardly but carry around in their heads.

It is evident that the dictates of society on gendered role performance; say a wife not touching a husband's manhood to ascertain if he is wearing a condom constitutes collective representations that ought not to be strongly held. However, this is polysemous in the sense that the same tradition or collective representation took on different meanings in different marital contexts.

#### **5.1.1 Marriage and use of condoms**

In this study, condoms were clearly less acceptable in marital relationships. Men more than women in this study, expressed strong negative attitudes toward the use of condoms. If a woman insisted on condom use, it was likely to be interpreted as lack of trust. For this reason, men interpreted it as offensive and suggestive of infidelity. Women would soften if confronted fearing that they may jeopardize their relationships especially because introducing the idea of using condoms may raise suspicions of infidelity. This finding is also supported by Blecher et. al. (1995), who likewise found that

condom use, is perceived as representing a lack of trust between partners or that it suggests that one partner might have a Sexually Transmitted Infection. These are some of the suspicions that create tensions, anger, and confrontation in marriages. Other studies also have found widespread resistance to the use of condoms, especially within marriage (Worth, 1989; Campbell, 1995; Cohen and Trussell, 1996). Often the resistance to condom use is strongly related to its negative association with pleasantness, illicit sex and prostitution (Reid 1996; Caldwell 1999). It is evident HIV-prevention programs, therefore, have an important role to play in promoting greater acceptance of condoms, especially in committed relationships.

### **5.1.2 Attitudes**

Looking at the responses, attitudes towards condom use seemed to be a critical factor. The narratives have shown that attitudes exhibited behavior of what wives and husbands liked to do and also what they thought they should do; a feature found in notable studies like Rosenberg and Hovland (1960) and Triandis (1971) long before the advent of HIV and AIDS. Despite the advantages of using condoms, it was surprising to note that there are a number of factors that work against them and these have been reported in previous research. For example: negative attitudes towards acceptance of advice to use condoms (Hebert et. al., 1989; Hingson et. al., 1990; MacDonald et. al., 1990; Weisman et. al., 1991); neglecting personal risk (DiClemente et al., 1990); using alcohol (Keeling, 1987; Noell et. al., 1993, 1997) sexual fears (Edgar and Fitzpatrick, 1988; Goodwin and Roscoe, 1988) have been the most common reasons for not using condoms. On the other hand, as seen in the literature, some commitment to using

condoms was seen (Catania et. al., 1990, 1992); with individuals having positive subjective norms (Ross and McLaws, 1992); attempts of communication with the partner (Pendergrast et. al., 1992); and availability of condoms (Freimuth et. al., 1992) and these seem to be important determinants of intended use of condoms in this study.

### **5.1.3 Violence and condoms**

This study has demonstrated that sex and condom use are linked to marital violence and negotiating condom use is not an easy undertaking by women. In a speech, Peter Piot (1999), the Executive Director of UNAIDS then, once noted that violence against women had many links to HIV/AIDS. "Violence against women is not just a cause of the AIDS epidemic," he pointed out. "It can also be a consequence of it". Women have attempted to negotiate condom use but in the process, have been abused. Violence influences the risk of HIV and other STIs directly when it interferes with women's ability to negotiate condom use.

The summary report of the Women and AIDS Research Program of the International Center for Research on Women (ICRW) concludes that "initiating condom use is simply not practical for many women around the globe" (Jenkins, 1993:29). In Guatemala, India, Jamaica, and Papua New Guinea, women reported that bringing up condom use with its implication that one partner or the other has been unfaithful risks a violent response (Wyatt et. Al., 1993; Jenkins, 1993; George and Jaswal, 1995; Hirschmann, 1998). Research has shown that raising the issue of condom use within marriage is especially difficult (Hebert et. al., 1989; Goldsten, 1992).

## 5.2 Theoretical orientations

In order to understand the motives which are explained in theme four, the theories that appear in the literature section are useful to explain the seven determinants<sup>2</sup> of using or not using a condom. First and foremost, in order to understand the motive for using or not using the condom, it is prudent to give explanatory examples using pattern matching by showing how a case fits into the extant theory. We shall do so deductively bringing cases in connection with the theoretical constructs. This is an activity of major importance in "permanent comparison" to test every inductive conclusion from particular data to more general principles.

In the qualitative deductive approach of theory validation, the researcher tried to find concrete data segments which may confirm general assumptions about how the seven specific categories are linked to theories. Below are some excerpts that relate to particular theories.

'When I demand that we use one so that we prevent ourselves from reinfection we would quarrel. At one time he stopped buying food and started sleeping out with his girlfriend. He claimed that there was no marriage in our home. I saw it was not helping and I found the condom to be the sole cause of the confusion in our home. The only thing I thought of doing to bring harmony in our home was to stop asking him to use condoms.'

[Susan, Female 32 Unemployed]

'I just follow what he wants for the sake of the marriage and my children, so I just let him do what he wants.'

[Chisenga, Female 36 Unemployed]

'I just let him do what he wants as I dislike beating me over condoms and sex.'

[Hilda, Female 26, Unemployed]

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<sup>2</sup> (i) gender and the influence of patriarchy was the root or (ii) one resigned and agreed to have sex with a condom order for peace to prevail or (iii) one had to have sex because Culture prescribed so, or (iv) one had experience adverse effects warranting to use condoms or not to use condoms, or (v) sex without a condom was pleasurable, one had a number of fears and (viii) the fact that both were of the same status, sex with a condom was of no consequence.

'My uncle and auntie who do not know that my husband's behavior is all about our status and the need of using condoms, consistently blame me over my husband's actions. Of late, when he is home I no longer ask him to use a condom; I just let him do what pleases him.'

[Nakamba, Female 33 Industrial worker]

These four excerpts could best be understood by using the Health Belief Model. The respondents assessed the need to use condoms. In these cases, an unhealthy condition has occurred being a negative valence and has the effect of pushing a person away from the region of normality and health (using the condom), unless doing so (acting to remain healthy) would cause the person to enter a region of even greater negative valence (risking death without using a condom). While people are pushed away from regions with negative valences, they are attracted or motivated toward regions of positive valences.

The excerpts that appear below fit into the Theory of Planned Behavior

'I have let things flow in a natural manner; because this business of tradition, I cannot fight it being a woman who a man marries and society expects me to play a role of a woman and this has made it difficult for me.'

[Gwen, Female 42 Unemployed]

This woman found it ideal later to accept not to use a condom and she was influenced by her own plans after assessing her situation which she perceived to be beyond her control.

'We do not use condoms. My culture does not allow me to ask my husband to use a condom that is disrespectful and if brought before the elders my auntie or my grandma that would be a shame and a disgrace to our family. Besides, our custom does not allow me to touch my husband's manhood. We do not discuss any issues to do with a condom, that's taboo in our tribe.'

[Charity, Female 42 Unemployed]

In this case, the woman felt unable to enact condom use based on a consideration of internal control factors (e.g. skills, abilities, information) and external control factors (e.g.

obstacles, or opportunities). Perceived behavioral control has two aspects: how much person has control over the behavior and how confident a person feels about being able to perform or not perform the behavior.

The three cases below fit into the Social Cognitive Theory:

'It's only because of these pains she experiences otherwise I do not wish to stop using condoms.'

[Goodwill, Male 43 Records Clerk]

'If I do not use a condom, usually it's just the desire of doing it (sex) without using a condom. I usually think of stopping using condoms because of my status. What comes to my mind is if my wife became pregnant I feel there can be problems....like complications, so I prefer to be using condoms.'

[Mata, Male 40 Mini-bus driver]

'I refuse just to have sex without using a condom entirely as I do not want to conceive as my CD4 count is low.'

[Chisanga, Female 32 Dramatist]

These health-protective behaviors result from a process of cognitive appraisal by which people integrate knowledge about a disease, outcome expectancies associated with adopting preventive behaviors, and social influences. The result of this integrative process is a judgment of "self-efficacy" or an estimate of how well one will be able to cope with a difficult situation, which moderates behavior. Hence, individuals practice safer sex only to the degree that they believe in their ability to do so, given the emotional and interpersonal circumstances of their lives.

### **5.3 The Meaning of the Study**

We do not doubt that any health worker dealing with people living with HIV and AIDS will be surprised by the accounts given. This is because it is expected that the rate of condom use ought to be high. The study has revealed that there was inconsistent condom use among most couples and therefore this inconsistent use renders the

strategy of condom use in health promotion and disease prevention the least effective way to control reinfection and drug resistance. The meaning we get from this study is that a woman's perceived risk of pregnancy or reinfection from her partner does not emerge as the strongest predictor of insisting on condom use. Interpretation of this relationship is straightforward: It reflects open acknowledgment of the woman's weakness in marriage to translate their concerns into protective behavior. Although the negative attitude of many men to condom use within marriage no doubt serves as a challenge, it appears that the woman's perceived risks of pregnancy or reinfection among others cannot override the man's objections. This interpretation contrasts sharply with the conclusions from many other studies, which have found that women are generally powerless to negotiate condom use with their husbands (Eng and Butler, 1997; Pinkerton and Abramson, 1997).

In addition, we cannot have any assurances in Kanyama that married couples are working towards using the condom as a strategy to reduce their risk of acquiring a sexually transmitted disease (STD), as well as an effective method of contraception which points we see in notable studies like those by Centers for Disease Control and Prevention [CDC], (2002a), Eng and Butler, (1997) and Pinkerton and Abramson (1997). The researcher is arguing that men have permanent negative attitudes towards condom use. In essence, the meaning of this study ought to be understood from an attitude perspective notwithstanding the fact that HIV counseling is done to the couples to spell out factors that may inhibit condom use. In other words, attitudes toward condoms in this study predict both intentions and actual use of condoms. Support for this postulation is provided by two profound quantitative meta-analyses, which indicated

that more positive attitudes were related strongly to condom-use intentions ( $r = .45$ ; Sheeran and Taylor, 1999) and moderately related to condom use behaviors ( $r = .32$ ).

#### **5.4 Limitations and Strengths of this Study**

Like all studies, this one has notable limitations on account of the research design. However, one may ask how authentic these findings are. The following make this study limited in design.

Though most studies have focused on men and women separately, it is becoming increasingly evident that the dynamics of condom use in marriage cannot be accurately understood unless researchers consider the attitudes and behavior of both partners (Becker and Costenbader, 2001). The collection of cognitive, attitudinal and behavioral data for partners in marital relationships does not allow a more complete understanding of a couple's condom use and motives for use and non use in the absence of clinical data. One, therefore, may question the reliability of self-reported condom use in this study.

It is difficult to draw conclusions about the qualitative nature of the relationship between condom attitudes and use because of differences in the operationalisation of condom attitudes. Some researchers are unlikely to accept the validity of these results because there has been no measurement of attitudes but mere narratives. Some work has focused on global measurements of assessments of attitudes towards condoms (e.g., as "good" or "bad"; Baker et. al., 1996), whereas other researchers have measured specific aspects of condom attitudes, such as the diminution of pleasure associated with

condom use (Catania et. al., 1994), anticipated partner reaction to condom use (Norris and Ford, 1994), or the perceived effectiveness of condoms in preventing pregnancy, HIV and other STDs (Morrison et. al., 1995; Wulfert et. al., 1993,1994).

Moreover, several studies have combined specific beliefs about condoms into a single overall score (e.g., Cole and Slocumb, 1995; Huszti et. al., 1998; Raj, 1996; Schieman et. al., 1998; Somlai et. al., 1998; Stokes et. al., 1996), which obscures the extent to which various attitudinal factors might contribute to the observed effect of attitudes on condom use.

However, in spite of these arguments, the response to any doubting Thomas is based on the following facts: This is a cross section qualitative study and not based on content analysis where measurements may be brought out and the selected methods therefore, have achieved the criteria of authenticity in the sense that they are fair (at least one spouse among all enlisted couples views were included). The accounts have generated more categories beyond the number of variables one would see in a quantitative study on condom use.

In addition, although this small-scale local study may seem to lack the robustness of larger studies, these findings may be applied in medical settings where researchers might find similar conditions to those obtaining in Kanyama and among low socioeconomic status groups.

The merit of this interpretation rests on the assumption that self reports of condom use are valid. Skepticism is entirely unjustified, and the narratives of condom use in this

study are immune from possible error because they do show truly they lived life though the consistency between partners' reports is impressive, and the pattern of condom use when individuals were interviewed was coherent and convincing.

This study could have considered validating the narratives by including in the research design searching for biological markers such as sperm on vaginal smears, screening for pregnancy at each visit and evidence of sexually transmitted infection. These strategies were once used in a study in Zambia (Reproductive Health Matters, 2004) to assess the validity of self-reports of condom use at three-monthly intervals. This is one way to rule out the tendency to overstate condom use.

However, this study has very notable strengths and the following ought to be noted. While all this suggests that this case study has value as an explorative one, the trustworthiness of the data and the researcher analysis of it depend on (i) its credibility to researchers with experience of the topic, (ii) transferability to other settings especially to those in Lusaka, (iii) dependability (depth of description of methods in detail (iv) and by availability of independent review of the raw data which tenets Guba and Lincoln (1985) state as requisites of trustworthiness of any qualitative research.

It ought to be noted that this study is significant in the sense that it is the first known qualitative study in Zambia to focus explicitly on HIV positive married couples and their patterns of condom use and sexuality from a public health perspective. It is a study with an initial step towards addressing the various challenges faced by HIV positive married couples as they desire to enjoy a sex life in marriage.

The study is also significant in the methodology it has adopted. Unlike most qualitative researches, this research has a trail of a researcher's path in data collection with a view to show the research design. As such, the research design will inform other researchers who may be interested in doing a similar study.

Another significance of this study is the development of themes, sub themes and categories. These sub themes and categories could be used in quantitative research to test the developed qualitative associations. Additionally, this study also contributes towards the scientific world knowledge on sexual behavior by the generation of sub themes and categories beyond studies that instead have developed variables cognitively which is a serious flaw in research.

## **5.5 Conclusions and Recommendations**

What we can conclude from this study is that there are marked challenges of adhering to the condom prescription in marriage among people living with HIV and AIDS as observed by the low rates of condom use. The challenges that women face and not men to condom use within marital partnerships are extremely immutable to what many commentators have claimed. The forecast can be made with reasonable confidence that condom use within marital partnerships in Kanyama Township is unlikely to rise and that less-educated couples will statically not adhere to the counseling messages. What remains in doubt, however, is the epidemiological impact of the observed lack of behavior change.

Little evidence in this setting has emerged that inconsistent condom use has caused reinfection, STIs, unwanted pregnancies and the menace of drug resistance although,

at the population level, an increase in the proportion of coital acts unprotected by condoms must surely act as a determinant for the further spread of HIV.

Given this scenario, and from narratives, we can say that counseling education falls on deaf ears among infected married couples. Notwithstanding the HIV/AIDS epidemic, the condom use in Kanyama Township among people living with HIV and AIDS appears to be suffering from a crisis of identity in terms of sex appeal and credibility to men and there is strong resistance by men to a product which is generally regarded as being an impediment to passion. It is recommended that Kanyama clinic considers the following measures to fortify HIV and AIDS health promotion and prevention programs within the ART Clinic:

1. The government with its collaborating partners concern, should consider coming up with economic empowerment programmes for women, such as micro credit loans, in order to empower the disadvantaged women and in the long run, alleviate themselves from the economic dependence they have on their husbands, so that they would be able to mitigate their failures the perpetually encounter with their husbands, in deciding to use a condom as it is often outside of their control due to poverty they face.
2. Adherence counseling ought to be holistic in the sense that it encompasses messages that include effective pleasure-based safer sex information and emphasize: on the benefits of treatment adherence and also to deliberately draw appointments that enables couples to be counseled together rather than have separate appointments in order to enable the disadvantaged women to bring up

issues/matters their husbands hold off using condoms in the midst of the adherence counselor to address.

3. Introducing random regular screening or adherence assessments checking for biological markers such as sperm on vaginal smears, screening for pregnancy at random visits and evidence of sexually transmitted infection, so that the verbal consent HIV positive married individuals indicate for condom use when they are asked during adherence counseling is clinically backed up or supported and also in order not to overestimated condom use basing on the manner condoms are collected from the clinic, but be estimated basing on the use.
4. The results of this study confirm that some married men are unwilling to use condoms at least some of the times and others all of the times. The promotion of condoms within such relationships needs to be strengthened in all HIV prevention programs, largely because resistance against condom use is difficult to overcome. We hope that prevention and health promotion programs will be encouraged to broaden their focus and strengthen efforts to meet the needs of married couples and especially men. In this vein the researcher is recommending the use of The Transtheoretical Model of Change (TMC) proposed by Prochaska and DiClemente (1983, 1984) because it offers promise for this endeavor by providing a framework—or paradigm—for understanding condom use behavior (Centers for Disease Control and Prevention, 2002a; Galavotti et. al, 1995; Grimley and Lee, 1997; Grimley et. al, 1993a, b, 1995a-c, 1996; Prochaska et. al, 1990).

## BIBLIOGRAPHY

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl and J. Beckman (Eds.), **Action-control: From cognition to behavior** (pp. 11-39). Heidelberg: Springer.
- Ajzen, I. (1988). **Attitudes, Personality and Behavior**. Milton Keynes: Open University Press.
- Ajzen, I. (1991). The Theory of Planned Behavior. **Organizational Behavior and Human Decision Processes**, 50, 179-211.
- Ajzen, I. and Driver B.L. (1991). Prediction of Leisure Participation from Behavioral Normative, and Control Beliefs: An application of the theory of planned behavior. **Leisure Science**, 13:185–204.
- Ajzen, I. and Fishbein, M. (1980). **Understanding Attitudes and Predicting Social Behavior**. Englewood-Cliff, NJ: Prentice-Hall.
- Akwara, P. (2003). "AIDS Related Knowledge and Perception of Risk of HIV in Kenya" **Macro International**.
- Akwara, P.A., Madise, N.J. and Hinde, A. (2003). "Perception to Risk of HIV/AIDS and Sexual Behavior in Kenya," **Journal of biosocial Science**, 35.
- Almond, G. A. and Verba, S. (1965). **Civic Culture**. Princeton. Little, Brown and Company.
- Andersen, S. and Keller, C. (2002). Examination of the Transtheoretical Model in Current Smokers. **Western Journal of Nursing Research**, 24(3), 282-294.
- Ankrah, E. M. and Attika, S. A. (1997). Adopting the Female Condom in Kenya and Brazil: **Perspectives of Women and Men** (Arlington: AIDSCAP).
- Antonovsky, A. (1980). **Health Stress and Coping**. San Francisco, London: Jossey-Bass.
- Armitage, B. (1995). Population Review—Structure and Distribution of the Population: A Review of the Changes in the United Kingdom Population since the Early Seventies. **Population Trends**, 81, 7—16.

- Avison, W. and Turner, R.J. (1988). "Stressful Life Events and Depressive Symptoms: Disaggregating the Effects of Acute Stressors and Chronic Strains." **Journal of Health and Social Behavior**, 29(3):253-265.
- Baker, S. A., Morrison, D. M., Cater, W. B. and Verdon, M. S. (1996). Using the Theory of Reasoned Action (TRA) To Understand the Decision to Use Condoms in an STD Clinic Population. **Health education quarterly**, 23(3), 528-542.
- Bandura, A. (1977). Self-efficacy: Toward a Unifying Theory of Behavioral Change. **Psychological Review**, 84 (2), 191-215.
- Bandura, A. (1982). Self-efficacy Mechanism in Human Agency. **American Psychologist**, 37(2), 122-147.
- Bandura, A. (1986). **Social Foundations of Thought and Action: A Social Cognitive Theory**. Eaglewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1990). Selective Activation and Disengagement of Moral Control. **Journal of Social Issues**, 46, 27-46.
- Barden-O'Fallon, Janine L., Joseph deGraft-Johnson, Thomas B., Sara S., Aimee B. and Amy O. Tsui. (2004). "Factors associated with HIV/AIDS Knowledge and Risk Perception in Rural Malawi." **AIDS and Behavior**, 8:131-140.
- Bassett, M.J. and Mhloyi, M. (1991). Women and AIDS in Zimbabwe: The Making of an Epidemic. **International Journal Health Service**, 2: 143-56. 9.
- Baumeister, R.F. (1999). The nature and structure of the self: An overview. In R.F. Baumeister (Ed.), *The Self in Social Psychology* (pp. 1–24). Philadelphia, PA: Psychology Press.
- Becker, S. and Costenbader, E. (2001). **Husbands' and Wives' Reports of Contraceptive Use, Studies in Family Planning**, 32(2):111–128.
- Behrman, J. and Hans-Peter K. (2003). "Social Networks, HIV/AIDS and Risk Perceptions," In **Submission**.
- Bernard, H. R. (2000). **Social Research Methods (Quantitative and Qualitative Approaches)**. Thousand Oaks: Sage.

- Bertrand, J.T., Brown L.F., Kinzonzi, M., Mansilu, M. and Djunghu, B. (1992). AIDS Knowledge in Three Sites in Bas-Zaire. **AIDS Education and Prevention**, 4 (3) 251-266.
- Blacked, J.T., Cohen, D.E. and Mayer, K.H. (2002). Human Immunodeficiency Virus Superinfection and Recombination: Current State of Knowledge and Potential Clinical Consequences. **Clinical Infection Disease**, 15, 34.
- Blacksell, S., Mathie, E. and Phillips, D.R. (1992). **Consumer Choices in Family Planning**. University of Exeter. Brook Advisory Services. (1994) **Annual Report 1994**. Brook, London.
- Blaikie, N. (2000). **Designing Social Research: The Logic of Anticipation**. Malden MA: Polity Press.
- Blanc A.K., Wolff, B., Gage, A.J., Ezeh, A.C., Neema, S. and Ssekamatte-Ssebuliba J. (1996). **Negotiating Reproductive Outcomes in Uganda**. Calverton: Macro International Inc. and Institute of Statistics and Applied Economics, Uganda.
- Blecher, M.S., Steinberg, M., Pick, W. and Hennink, M. (1995). "AIDS Knowledge, Attitudes and Practices among STD Clinic Attendee's in the Cape Peninsula." **South African Medical Journal** 85(12): 1,281-1,286.
- Bond V. and Dover P. (1997). Men, Women and the Trouble with Condoms: Problems Associated with Condom Use by Migrant Workers in Rural Zambia. **Health Transition Review**. ; 7(Supplementary): 377-92. 10.
- Bounds, W., Guillebaud, J. and Newman, G. B. (1992). Female condom (femidom). A clinical study of its use-effectiveness and patient acceptability. **British Journal of Family Planning**, 18, 36-41.
- Cabral, R.J., Cotton, D., Semaan, S. and Gielen, A.C. (2004). Application of the Transtheoretical Model for HIV Prevention in a Facility-Based and a Community-level Behavioral Intervention Research Study. **Health Promotion Practice**, 5(2) 199–207.
- Caldwell, J. C. (1999). "Reasons for Limited Sexual Behavioral Change in the Sub-Saharan African AIDS Epidemic and Possible Future Intervention Strategies." In Resistance to Behavioral Change to Re-duce HIV/AIDS Infection. Eds. John Caldwell, et. al., Canberra: **Health Transition Centre, National Center for Epidemiology and Population Health**, The Australian National University.

- Campbell, T. and Kelly M. (1995). Women and AIDS in Zambia: **A Review of the Psychosocial Factors Implicated in the Transmission of HIV.** *AIDS Care* 7:365-373.
- Cardinal, B. (1997). Construct Validity of Stages of Change for Exercise Behavior. *American Journal of Health Promotion*, 12(1), 68-74.
- Carver, C.S., Scheier, M. F., & Weintraub, J.K. (1989). Assessing Coping Strategies: a theoretically based approach. *Journal of Personality and Social Psychology* 56, 267-283.
- Catania, J. A., Kegeles, S. M. and Coates, T. J. (1990). Towards an Understanding of Risk Behavior: An AIDS Risk Reduction Model (AARM). *Health Education Quarterly*, 17, 53—72.
- Catania, J. A., Coates, T. J., Stall, R., Turner, H.A., Peterson, J., Hearst, N., Dolcini, M.M., Hudes, E., Gagnon, J., Wiley, J. and Groves, R. (1992). **Prevalence of AIDS-Related Risk Factors and Condom Use in the United States.** *Science* 258, 1101-1106.
- Catania, J.A., Coates, T. J. and Keels, S. (1994). A test of the AIDS risk Reduction Model: Psychosocial Correlates of Condom use in the AMEN Cohort Survey. *Health Psychology*, 13(6), 548-55.
- Centers for Disease Control and Prevention. (2002a). Sexually Transmitted Disease Treatment Guidelines 2002. *Morbidity and Mortality Weekly Report*, 57, No. RR-6. Retrieved July 1, 2004, from [www.cdc.gov/std/treatment/](http://www.cdc.gov/std/treatment/).
- Champion, V.L. (1984). Instrument Development of the Health Belief Model Construct. *Advances in Nursing Science*, 6, 73-85.
- Chun, J. and Springer D.W. (2005). Stress and Coping Strategies in Runaway Youth: An Application of Concept Mapping. *Brief Treatment and Crisis Intervention* Vol. 5, (1) 57-71.
- Cleland, J. (1995). "Risk Perception and Behavioral Change," pp. 157- 193 in **Sexual Behavior and AIDS in the Developing World.** New York: Taylor and Francis.
- Cohen, B. and Trussell, J. (Eds.). (1996). Preventing and Mitigating AIDS in Sub-Saharan Africa: **Research and Data Priorities for the Social and Behavioral Sciences**, Washington, DC: National Academy Press.

- Cole, F. L. and Slocumb, E. M. (1995). Factors Influencing Safer Sexual Behaviors in Heterosexual Late Adolescent and Young Adult Collegiate Males. **IhrlA Global Journal of Nursing Scholarship**, 27, 2 17-223.
- Colfax, G.N. (2004). "**Beliefs About HIV Reinfection (Superinfection) and Sexual Behavior Among a Diverse Sample of HIV-Positive Men Who Have Sex With Men**", *Journal of Acquired Immune Deficiency Syndromes*, 36, 4, 1 August 2004. Or at <http://www.natap.org>.
- Compton, B. R., and Galaway, B. (1999). **Social work processes** (6th ed.). Pacific Grove, CA: Brooks/Cole.
- Conner, M. and Norman, P. (1996). **Predicting Health Behavior**. Buckingham, UK: Open University Press.
- Coyle, S.L., Boruch, R.F. and Turner, C.F. (Eds.). (1991). **Evaluating AIDS Prevention Programs: Expanded edition**. Washington, DC: National Academy Press.
- Creswell, J. W. (2005). **Educational research: Planning, conducting, and evaluating quantitative and qualitative research** (2nd Ed.). Upper Saddle River, NJ: Pearson Education.
- de Vroome, E. M. M., Paalman, M. E. M. and Sandfort, T.G.M. (1990). AIDS in the Netherlands: the effects of several years of campaigning. **International Journal of STD and AIDS**, 1, 268-275.
- de Wit, J. B. F., Kok, G., Timmermans, C. A. M. and Wijnsma, P. (1990). **Determinanten van veilig vrijen en condoomgebruik bij jongeren (Determinants of safe sex and condom use among adolescents)**. *Gedrag en Gezondheid*, 18, 121-133.
- Department of Health. SD2B. (1994). **Family Planning Clinic Services 1992-93**. Summary information from Form KT31. HMSO, London.
- DiClemente, C. and Prochaska, J. (1982). Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. **Addictive Behaviors**, 7,133-142.

- DiClemente, R. J., Forrest, K. A., Mickler, S. and Principal Site Investigators. (1990). College Students Knowledge and Attitudes about AIDS and Changes in HIV Preventive Behaviors. **AIDS Education and Prevention**, 2, 201—212.
- Dithan, K., Lugada, E., Siagi, M., Musoke, D. (1996). **Acceptability of the Female Condom in Uganda. 11th World AIDS Conference**, Vancouver, (abstract no. Pub.C.1219).
- Douglas, D., (2003). Grounded Theories of Management: **A Methodological Review**. **Management Research News**, 26, 5, 44-60.
- Downe-Wamboldt, D. (1992). 'Content Analysis: Method, Applications and Issues'. **Health Care for Women International**, 13, 3.
- Draper, P. (1997). **Nursing Perspectives on Quality of Life**. London: Routledge.
- Dubois-Arber, F., Masur, J.B., Hausser, D., Zimmermann, E. and Paccaud, F. (1993). **Evaluation of the AIDS Prevention Strategy in Switzerland. Fourth Assessment Report 1991—92**. University Institute of Social and Preventive Medicine, Lausanne.
- Edgar, T. and Fitzpatrick, M. A. (1988). Compliance-Gaining in Relational Interaction: When Your Life Depends on It. **Southern Journal of Speech Communication**, 53, 385—405.
- Eng, T. R. and Butler, W. T. (Eds.). (1997). **The Hidden Epidemic: Confronting Sexually Transmitted Diseases**. Washington, DC: National Academy Press.
- Everly, G. S. and Lating, J. M. (2002). **A Clinical Guide to the Treatment of the Human Stress Response** (2nd Ed.). New York: Kluwer Academic.
- Fallon, E. and Hausenblas, H. (2004). Transtheoretical model: Is termination applicable to exercise? **American Journal of Health Studies**, 19(1), 35-44.
- Farr, G., Gabelnick, H., Sturgen, K. and Dorfinger, L. (1994). Contraceptive Efficacy and Acceptability of the Female Condom. **American Journal of Public Health**, 84, 1960-1964.
- Fetherstone, R. and Deflem, M. (2003). "Anomie and Strain: Context and Consequences of Merton's Two Theories" in **Sociological enquiry** (Vol. 73: 4 pp. 471-489).

- Fishbein, M. (1967). Attitude and the prediction of behavior. In C. D. (Ed.), **Readings in Attitude Theory and Measurement**, 477-492. New York: John Wiley.
- Fishbein, M. (1996). Behavioral Science and Public Health: A Necessary Partnership for HIV Prevention. **Public Health Reports**, 111 (Supl 1), 5-10.
- Ford, N. and Mathie, E. (1993). "The Acceptability and Experience of the Female Condom among Family Planning Clinic Attenders," **British Journal of Family Planning**, 19:187-192.
- Fraser, D. (1999). **QSR NUD\*IST Vivo: Reference Guide**. Melbourne: Qualitative Solutions and Research Pty.
- Freimuth, V. S., Hammond, S. L., Edgar, T., McDonald, D. A. and Fink, E. L. (1992). Factors explaining intent, discussion and use of condoms in first-time sexual encounters. **Health Education Research**, 7, 203-215. From <http://www.uri.edu/research/cprc/TTM/detailedoverview.Htm>.
- Galavotti, C., Cabral, R., Lansky, A., Grimley, D. M., Riley, G. E. and Prochaska, J. C. (1995). Validation of measures of condom and other contraceptive use among women at high risk for HIV infection and unintended pregnancy, **Health Psychology**, 14, 570-578.
- George, A. and Jaswal, S. (1995). **Understanding sexuality: Ethnographic study of poor women from Bombay**. Washington, D.C., International Center for Research on Women, 1995. (Women and AIDS Research Report Series No. 12) 75 p.
- Ghosh, B.N. (2003). **Scientific Method and Social Research**. New Delhi, Sterling.
- Glanz, K., Rimer B.K. and Lewis F.M. (2002). **Health Behavior and Health Education: Theory, Research and Practice**. 3rd edition, San Francisco: Wiley and Sons.
- Glaser, B. G. and Strauss, A. (1967). **The discovery of grounded theory: Strategies for Qualitative Research**. Chicago, Ill: Aldine Pub. Co.
- Glaser, B. (1992). Emergence versus Forcing: **Basics of Grounded Theory Analysis**. Mill Valley, CA: Sociology Press.
- Glass, J. and Fujimoto, T. (1994). Housework, paid work, and depression among husbands and wives. **Journal of Health and Social Behavior**, 35, (June), 179-191.

- Goldstein, D. (1992). The Cultural, Class, and Gender Politics of a Modern Disease  
**Women and AIDS in Brazil**. ABIA. 92 p.
- Goodwin, M. P. and Roscoe, B. (1988). AIDS: Students' Knowledge and Attitudes at a  
Mid Western University. **Journal of American College Health**, 36, 214—222.
- Gorter, A., Miranda, E., Smith, G.D., Ortells, P. and Low, N. (1993). How many people  
actually use condoms? An Investigation of Motel Clients in Managua. **Social  
Science and Medicine**, 36, 1645- 7.
- Goulding, C. (2002). **Grounded Theory: A Practical Guide for Management  
Business and Market Researchers**. Thousands Oaks CA: Sage Publications.
- Grady, W.R., Kleplinger D.H., Billy, J.O. and Tanfer, K. (1993). Condom  
Characteristics: The Perceptions and Preferences of Men in the United States.  
**Family Planning Perspective**, 25:67-73.
- Grimley, D. M. and Lee, P. A. (1997). Condom and other contraceptive use among a  
random sample of female adolescents: A snap-shot in time. **Adolescence**, in  
press.
- Grimley, D. M., DiClemente, R. J., Prochaska, J. O. and Prochaska, G. E. (1995a).  
Preventing adolescent pregnancy, STDs, and HIV: a promising new approach.  
**Family Life Educator**, 13, 7–15.
- Grimley, D. M., Prochaska, G. E. and Prochaska, J. O. (1993a). Condom use  
assertiveness and the stages of change with main and other partners. **Journal of  
Applied Biobehavioral Research**, 1, 152–173.
- Grimley, D. M., Prochaska, G. E., Prochaska, J. O., Velicer, W. F., Galavotti, C., Cabral,  
R. J. and Lansky, A. (1996). Cross-validation of measures assessing decisional  
balance and self-efficacy for condom use. **American Journal of Health  
Behavior**, 20, 406–416.
- Grimley, D. M., Prochaska, J. O., Velicer, W. F. and Prochaska, G. E. (1995b).  
Contraceptive and condom use adoption and maintenance: a stage paradigm  
approach. **Health Education Quarterly**, 22, 20–35.
- Grimley, D. M., Riley, G. E., Bellis, J. M. and Prochaska, J. O. (1993b). Assessing the  
stages of change and decision-making for contraceptive use for the prevention of  
pregnancies, STDs, and AIDS. **Health Education Quarterly**, 20, 455–470.

- Grimley, D. M., Willey, C., Johnson, S., Lee, P., Prochaska, J. O. and Redding, C. A. (1995c). Stages of change for contraceptive and condom use: A random state wide sample. Paper presented at the **Annual Meeting of the Society of Behavioral Medicine**, San Diego, CA.
- Gupta, G .R. and Weiss, E. (1993). Women's Lives and Sex: **Implications for AIDS Prevention. Cult Med Psychiatry.** 7: 399-412. 2.
- Gupta, G.R. (2000). Gender, sexuality, and HIV/AIDS: The What, The Why, and The How. **Plenary Address at the XII International AIDS Conference.** Durban South Africa.
- Hannigan, B. and Allen, d. (2003). 'A Tale of Two Studies: Research Governance Issues Arising from Two Ethnographic Investigations into the Organisation of Health and Social Care', **Nursing Studies**, 40 (7): 685-695.
- Health Education Authority. (1992). **Today's Young Adults: 16-19 Year Olds Look at Diet, Alcohol, Smoking, Drugs and Sexual Behavior.** HEA, London.
- Health Education Authority. (1995). **A Survey of the UK Population: Part 1.** HEA London.
- Health Education Authority. (1996) .**Gay Bars Survey: A Ten Year Review, 1986-1996.** HEA, London.
- Hebert, Y., Bernard, J., de Man, A. F. and Farrar, D. (1989). Factors Related to the Use of Condoms Among French-Canadian University Students. **Journal of Social Psychology**, 129, 707—709.
- Heidegger, M. (1962). **Being and Time.** Oxford: Basil Blackwell. (Translated by J. Macquarrie and E. Robinson).
- Hingson, R. W., Strunin, L., Berlin, B. M. and Heeren, T. (1990). **Beliefs about AIDS Use of Alcohol and Drugs, and Unprotected Sex among Massachusetts Adolescents.** AJPH, 80, 295—299.
- Hirschmann, A. (1998). Guatemala City Women: Empowering a Vulnerable Group to Prevent HIV Transmission. Guatemala City, Association Guatemalteca para Prevencion y Control del SIDA, **International Center for Research on Women** (Women and AIDS Research Report Series).

- Holahan, C.J., Moos, R.H. and Schaefer, J. A. (1996). Coping, stress resistance, and growth: conceptualizing adaptive functioning. In: Zeidner M, Endler NS, editors. *Handbook of coping: theory, research, applications*. New York: John Wiley and Sons; 24–43.
- Holland, J., Ramazanoglu, C., Sharpe, S., and Thomson, R. (1992). Pressure, Resistance, Empowerment Young Women and the Negotiation of Safer Sex. In Aggleton P, Davies P and Hart G (Eds.). **AIDS: Rights, Risk and Reason**. London: The Falmer Press.
- Hornik, R. (1991). Alternative models of behavior change. In J. N. Wasserheit, S. C. Aral, and K. K. Holmes (Eds.), **Research Issues in Human Behavior and Sexually Transmitted Diseases in the AIDS Era**. Washington, DC: American Society for Microbiology.
- Hughes, J. and Howcroft, D.A. (2000). 'Grounded Theory: Never Knowing Understood', **Information System Review**, 4 (1): 181-197.
- Husserl, E. (1973). **The Idea of Phenomenology**. The Hague: Martinus Nijhoff.
- Hushti, H. G., Parsons, J. T., Cotton, D., Mendoza, J., Harlow, L., Rich, L., Parish, K. and Nuss, R. (1998). Determinants of safer sexual behavior in a long-term HIV seropositive population: The multisite Hemophilia Behavior Intervention Evaluation Project (HBIEP). **Journal of Health Psychology**, 3, 507-522.
- Janis, I. and Mann, L. (1977). Decision making: **A psychological analysis of conflict, choice, and commitment**. New York: The Free Press.
- Janz, N.K., and Becker, M.H. (1984).The Health Belief Model: A Decade Later. **Health Education Quarterly**, 11, 201-225.
- Jemmott, L. S. and Jemmott, J. B. (1991). Applying the Theory of Reasoned Action to AIDS Risk Behavior: **Condom Use among Black Women**. **Nursing Research** 40, 228-234.
- Jenkins, C. (1993). Women and the risk of AIDS: Study of Sexual and Reproductive Knowledge and Behavior in Papua New Guinea. Washington D.C., **International Center for Research on Women**, Sep. 29 p.

- Kalckmann, S., Rea, M. F., Villela, W. V., Vieira, E. M., Fernandes, M. E. and Ankras  
E. M. (1998). Female condom: **Exploratory Study in Sao Paulo-Brazil**. 12th  
**World AIDS Conference, Geneva**, (abstract no. 23460).
- Keeling, R. P. (1987). Risk Communication about AIDS in Higher Education. **Science,  
Technology, and Human Values**, 12, 3—27.
- Kessler, R. C. and McLeod, J. D. (1984). **Sex Differences in Vulnerability to  
Undesirable Life Events**, **American Sociological Review**, 49, 620-631.
- Kleinman, A. (1988). **The Illness Narratives**. Basic Books, New York.
- Kline, A. and VanLandingham M. (1994). HIV-Infected Women and Sexual Risk  
Reduction: **The Relevance of Existing Models of Behavior Change**. **AIDS  
Education and Prevention**, 6(5), 390-402.
- Koch, T. (1995). 'Interpretive Approaches in Nursing Research: The Influence  
of Husserl and Heidegger', **Advanced Nursing**, 21 (5); 827-836.
- Kondracki, N.L., Wellman, N.S. and Amundson, D.R. (2002). 'Content Analysis: Review  
of Methods and Their Applications in Nutrition Education', **Nutrition Education  
and Behavior**, 34, 4.
- Kraft, P., Sutton, S. and Reynolds, H. (1999). The Transtheoretical Model of Behavior  
Change: Are the stages qualitatively different? **Psychology and Health**, 14, 433-  
450.
- Kusseling, F.S, Shapiro, M.F., Greenberg, J.M. and Wenger, N. S. (1996).  
Understanding Why Heterosexual Adults do not Practice Safer Sex  
Practices: A  
Comparison of Two Samples. **AIDS Education Preview** 1996; 84:1 918-22.
- Kwortnik, R. J. (2003). Clarifying "fuzzy" Hospitality-Management Problems with Dependent  
Interviews and Qualitative Analysis. **Cornell Hotel and Restaurant  
Administration Quarterly**, 44, 2, 117-129.
- Lazarus, R. S. and Folkman, S. (1984). **Stress, Appraisal, and Coping**. New York:  
Springer.
- Lazarus, R.S. (1999). **Stress and Emotion. A New Synthesis**. New York: Springer.
- Lennon, M.C. and Rosenfield, S. (1994). 'Relative fairness and the division of  
housework: The importance of options'. **American Journal of Sociology** 100,  
506-531.

- Lewin, K., Dembo, T., Festinger, L. and Sears, P. S. (1944). Level of Aspiration. **Personality and the Behavior Disorders: A Handbook Based on Experiment and Clinical Research**, (ed. J. M. Hunt), pp. 333-378. The Ronald Press: New York.
- Lin, L., Shizhong, W., Jian, G. and Lisha, T. (1996). Improving Condom use in Sichuan, China: Findings from a Qualitative Study. **Reproductive Health Matters**, 7:10-16.
- Lincoln, Y.S. and Guba, E.G. (1985). **Naturalistic Inquiry**. Newbury Park, CA: Sage Publications.
- Littell, H. J. and Girvin, H. (2002). Stages of Change: A Critique. **Behavior Modification**, 26, 2, pp. 223-273.
- Livneh, H. and Martz, E. (2007). An introduction to coping theory and research. In Martz E, Livneh H, editors. **Coping with Chronic Illness and Disability**. New York: Springer; p. 3–27.
- Locke, K. (2001). **Grounded Theory in Management Research**. Thousands Oaks CA: Sage Publications.
- Lothen-Kline, C., Howard, D.E., Hamburger, E.K., Worrell, K.D. and Boekeloo, B.C. (2003). 'Truth and Consequences: Ethics, Confidentiality and Disclosure in Adolescent Longitudinal Prevention Research', **Adolescent Health**, 33 (5): 383-394.
- MacDonald, N. E., Wells, G. A., Fisher, W. A., Warren, W. K., King, M. A., Doherty, J. A. and Bowie, W. R. (1990). High-risk STD/HIV Behavior among College Students. **Journal of the American Medical Association**, 263, 3155—3159.
- Macnee, C. and McCabe, S. (2004). The Transtheoretical model of behavior change among smokers in southern Appalachia. **Nursing Research**, 53(4), 243-250.
- Malow, R.M, Corrigan, S. A., Cunningham, S.C., West, J.A. and Pena, J. M. (1993). Psychosocial factors associated with condom use among African-American drug abusers in treatment. **AIDS Education and Prevention**, 5(3), 244- 253.
- Marshall, S. and Biddle, S. (2001). The Transtheoretical model of behavior change: a meta-analysis of applications to physical activity and exercise. **Annals of Behavioral Medicine**, 23(4), 229-246.

- McGrath, J.W., Rwabukwali, C.B., Schumann, D.A., Person- Marks, J., Nakayiwa, S. Namande, B., Nakyobe, L. and Mukasa, R. (1993). **Anthropology and AIDS: The Cultural Context of Sexual Risk Behavior among Urban Baganda Women in Kampala, Uganda. *Social Science and Medicine*, 36, 429-439.**
- Mehryar, A. (1995). Condoms: Awareness, Attitudes and Use. In Cleland, J. and Ferry B. (Eds) **Sexual Behavior and AIDS in the Developing World** (London: Taylor and Francis) 124-156.
- Menaghan, E. G. (1983). Individual Coping Efforts: Moderators of the Relationship between Life Stress and Mental Health Outcomes. In H. Kaplan (Ed.) **Psychosocial Stress** (pp. 157-191). New York: Academic Press.
- Merton, R. K. (1968). **Social theory and social structure, 4th Ed.** New York: The Free Press.
- Meursing, K. (1999). Barriers to sexual behavior change after an HIV diagnosis in sub-Saharan Africa. **Resistances to Behavioral Change to Reduce HIV/AIDS Infection**, 1999, 35-39.
- Mgalla, Z. and Pool, R. (1997). **Sexual Relationships, Condom Use and Risk Perception among Female Bar Workers in North-West Tanzania. *AIDS Care* 9, 409-418.**
- Moore, T., Sly, D. and Harrison, D. (2004). "Partner Awareness Risk and Perceived HIV Vulnerability among Seronegative Heterosexual Couples," **Paper prepared for the 2004 Annual Meeting of the Population Association of American.**
- Moran, J. S., Janes, H. R., Peterman, T. A. and Stone, K. (1990). Increase in Condom Sales Following AIDS Education and Publicity, United States. **American Journal of Public Health**, 80, 607-608.
- Morrison, D. M., Gillmore, M. R. and Baker, S. A. (1995). Determinants of condom use among high-risk heterosexual adults: A test of the theory of reasoned action. **Journal of Applied Social Psychology**, 25, 651-676.
- Morse, J. (2000). Determining Sample Size. **Qualitative Health Research**, 10, 1, 3-5.
- Ndola, P., Morris, L., Stehr, M. and Mazive, E. (2003). "Does self-perceived risk of contracting HIV change sexual behavior and condom use? **The Case of Mozambican Youth**". Gaborone, Botswana: IUSSP.

- Niang, C., Nguer, R., Camara, A., Outtara, A., Ndoeye, I. and Mane, P. (1996). Acceptability of Female Condom in Senegal. **Presented at the XI International Conference on AIDS**, Vancouver, British Columbia, Canada, July.
- Nicolosi, A., Correa Leite, M.L., Musicco, M., Arici, C., Gavazzeni, G. and Lazzarin, A. (1994). The Efficiency of Male-to-Female and Female-to-Male Sexual Transmission of the Human Immunodeficiency Virus: A Study of 730 Stable Couples. **Italian Study Group on HIV Heterosexual Transmission**. *Epidemiology*. 5:570-575.
- Noell, J., Ary, D. and Duncan, T. (1997). Development and Evaluation of a Sexual Decision-Making and Social Skills Program: The choice is yours—preventing HIV/STDs. **Health Education Behavior**, 24, 87—101.
- Noell, J., Biglan, A., Berendt, J., Metzler, C. W., Ary, D. and Smolkowski, K. (1993). Problematic sexual situations for adolescents: **Alcohol and Unsafe Sex. Health Values**, 17, 40—49.
- Norris, A. and Ford, K. (1994). Associations between Condom Experiences and Beliefs, Intentions, and Use in a Sample of Urban, Low Income, African American and Hispanic Youth. **AIDS Education and Prevention**, Vol. 6, No. 1, pp. 27-39.
- O'Leary, A., Goodhart, F., Jemmott, L. S. and Boccher-Lattimore, D. (1992). Predictors of Safer Sex on the College Campus: A Social Cognitive Theory Analysis. **Journal American College Health**, 40(6), 254-263.
- Oakley, A. (1990). **House Wife**. London: Penguin Books.
- Office of Population Censuses and Surveys. (1995). **General Household Survey 1995**. HMSO, London.
- Oiler, C.J. (1982). 'The Phenomenological Approach in Nursing Research', **Nursing Research**, 31 (3): 178-181.
- Oppong, C. A. (1995). High Price to Pay: For Education, Subsistence or a Place in the Job Market. **Health Transition Review**. (Suppl):3 5-56. 4.
- Orubuloye, I.O. (1993). "Patterns of Sexual Behavior of High Risk Groups and The Implications for Stds and HIV/AIDS Transmission in Nigeria", **IUSS International Population Conference Proceedings**, Vol. 4: 369-381, Montreal, Canada.

- Pallonen, U., Fava, J., Salonen, J. and Prochaska, J. (1992). Readiness for smoking change among middle-aged Finnish men. **Addictive Behaviors**, **17**, 415-423.
- Parsons, T. and Shils, E. (Eds.). (1951). **Toward A General Theory of Action**. New York: Harper and Row.
- Patten, S., Vollman, A. and Thurston, W. (2000). The utility of the Transtheoretic model of behavior change for HIV risk reduction in injection drug users. **Journal of the Association of Nurses in AIDS Care**, **11**(1), 57-66.
- Pearlin, L. I. (1983). Role Strains and Personal Stress. In H. B. Kaplan (Ed.) **Psychological Stress** (pp. 3-32). New York: Academic Press.
- Pearlin, L. I. and McCall, M. E. (1990). Occupational Stress and Marital Support: Description of Micro processes. In J. Eckenrode and S. Gore (Eds.), **Crossing the Boundaries: The Transmission of Stress between Work and Family** (pp. 39-60). New York: Plenum.
- Pearlin, L. I. and Schooler, C. (1978). The structure of coping. **Journal of Health and Social Behavior**, **19**, 2-21.
- Pearlin, L. I., Menaghan, E.G., Lieberman, M.A. and Mullan, J.T. (1981). The Stress Process, **Journal of Health and Social Behavior**, **22**, 337-356.
- Pendergrast, R. A., DuRant, R. H. and Gaillard, G. L. (1992). Attitudinal and Behavioral Correlates of **Condom** Use in Urban Adolescent Males. **Journal of Adolescent Health**, **13**, 133—139.
- Pickering, H., Quigley, M., Hayes, R. J., Todd, J. and Wilkins, A. (1993). **Determinants of condom use in 24000 prostitute/client contacts in the Gambia**, **AIDS**, **7**, 1093- 1098.
- Pinkerton, S.D. and Abramson, P.R. (1997). **Condoms and Prevention of AIDS**. **American Scientist**; **85**:364-73.
- Piot, P. (1999). HIV/AIDS and Violence against Women. Presented at the Panel on Women and Health 43rd Session, New York, Mar. 3, 1999. **United Nations Commission on the Status of Women**.

- Polit, D.F. and Hungler, B.P. (1999). **Nursing Research, Principles and Methods**. Philadelphia: J.B. Lippincott Co.
- Prochaska, J. O. and DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. **Journal of Consulting and Clinical Psychology**, **51**, 390-395.
- Prochaska, J. O. and DiClemente, C. C. (1984). **The Transtheoretical Approach: Crossing the Traditional Boundaries of Therapy**. Dow Jones/Irwin, Homewood, IL.
- Prochaska, J. O. and DiClemente, C. C. (1985). Common processes of self-change in smoking, weight control, and psychological distress. **Coping and substance abuse: A conceptual framework**. S. Shiffman and T. Wills. New York, NY: Academic Press: 345-363.
- Prochaska, J. O., Harlow, L. L., Redding, C. A., Snow, M. G., Rossi, J. S. and Velicer, W. F. (1990). **Stages of Change, Self-Efficacy, and Decisional Balance for Condom Use with a High-risk Sample**. Centers for Disease Control and Prevention, Atlanta, GA (contract grant 0-415-002).
- Prochaska, J., DiClemente, C. and Norcross, J. (1992). In search of how people change: Applications to addictive behaviors. **American Psychologist**, **47** (9), 1002-1114.
- Prochaska, J.O, Redding C.A., Harlow L.L, Rossi, J. S. and Velicer, W. F. (1994). The Transtheoretical Model of Change and HIV Prevention: A review. **Health Education Quarterly**, **21**(4): 471-486.
- Prochaska, J. O. and Velicer, W.F. (1997). The Transtheoretical Model of Health Behavior Change, **American Journal of Health Promotion**, **12**(1), 38-48.
- Prochaska, J.O., Velicer, W.F., Rossi, J.S., Redding, C.A., Greene, G., Rossi, S.R., Sun, X., Fava, J.L., LaForge, R. and Plummer, B. (2004). Multiple risk expert system interventions: Impact of simultaneous stage-matched expert system interventions for smoking, high-fat diet, and sun exposure in a population of parents. **Health Psychology**, **23**(5):503-516.

- Prohaska, T., Albrecht, G., Levy, J., Sugrue, N. and Joung-Hwa K. (1990). "Determinants of Self-Perceived Risk for AIDS." **Journal of Health and Social Behavior**, 31:384-394.
- Q.S.R. (1997). **Qualitative Research and Solutions, NUD\*IST.4 User's Guide**. Victoria: Sage.
- Rabkin, I. G. and Streuning, E. L. (1976). Life events, stress, and illness, **Science** 194, 1013-1020.
- Raj, A. (1996). Identification of Social Cognitive Variables as Predictors of Safer Sex Behavior and Intent in Heterosexual College Students. **Journal of Sex and Marital Therapy**, 22,247-258.
- Ray, S., Bassett, M., Maposhere, C., Nocolette, J. D., Machekano, R. and Moyo, (1995). Acceptability of the Female Condom in Zimbabwe: Positive but Male Centered Responses. **Reproductive Health Matters**, 5, 68-79.
- Reid, E. (1996). 'HIV and development: Learning from others'. In Sherr L., Hankins C and Benett. **AIDS as a Gender Issue: Psychosocial Perspectives**. Taylor and Francis.
- Reproductive Health Matters. (2004). Reliability of Self-Reported Condom Use in Heterosexual Discordant Couples in Zambia Source: **Reproductive Health Matters**, Vol. 12, No. 23, Sexuality, Rights and Social Justice: 176-177.
- Resick, P. A. (2004). Beyond cognitive processing: A reconceptualization of post traumatic stress disorder pathology. Paper presented at the 38th Annual Meeting of the Association for the Advancement of Behavioral Therapy, New Orleans, LA.
- Richard R., Van der Pligt, J. and De Vries, N. K. (1991). Een model van AIDS-gerelateerd gedrag bij jongeren. In Meertens, R. W., Buunk, A. P., and van der Pligt, R. (eds), *Sociale Psychologie Voorlichting en Maatschappelijke Problemen*. VUGA, 's Gravenhage, pp. 41-54.
- Richters, J., Donovan, B. and Gerofi, J. (1993). How often do Condoms Break or Slip off in Use? **International Journal STD AIDS**, 4:90-94.
- Rodgers, W., Courneya, K., and Bayduza, A. (2001). Examination of the Transtheoretical model and exercise in 3 populations. **American Journal of Health Behavior**, 25(1), 33-41.

- Rosenberg, M. J. and Hovland, C. I. (1960). Cognitive, affective and behavior components of attitudes. In Rosenberg, M. J. *et al.* (Eds) **Attitude Organization and Change**. Yale University Press, New Haven, CT, p. 1.
- Rosenstock, I.R., Strecher, V.J. and Becker, M.H. (1988). Social Learning Theory and Health Belief Model. **Health Education Quarterly**, 15(2), 175-183.
- Rosenstock, I. M. (1974). The health belief model and preventive health behavior. **Health Education Monographs**, No. 2, pp. 354-386.
- Rosenstock, I.M. (1990). The Health Belief Model: Explaining health behavior through expectancies. In K. Glanz, F.M. Lewis, and B. Rimer (eds.) **Health Behavior and Health Education: Theory, Research, and Practice** (pp. 39-62). New York: Jossey-Bass Publishers.
- Rosenstock, I.M., Strecher, V.J. and Becker, M.H. (1994). The health belief model and HIV risk behavior change. In: DiClemente, R.J. and Peterson, J.L. ed. **Preventing AIDS: Theories and methods of behavioral interventions** New York, NY, Plenum Press. pp. 5-24.
- Ross, M. W. and McLaws, M.L. (1992). Subjective Norms about Condoms are Better Predictors of Use and Intention to Use than Attitudes. **Health Education Research**, 7, 335—339.
- Rwabukwali, C. B., Schumann, D. A., McGrath, J.W., Carroll-Pankhurst, C., Mukasa, F., Nakayiwa, S., Nakyobe, L. and Namande, B. (1994). Culture, Sexual Behavior and Attitudes toward Condom use among Baganda women. In: Feldman DA, ed. **Global AIDS Policy**. (Westport, CT: Bergin and Gorvey, 1994) 70-89.
- Sacco, W. P., Rickman, R. L., Thompson, K., Levine, B. and Reed, D. L. (1999). Gender differences in AIDS-relevant Condom Attitudes and Condom Use. **AIDS Education and Prevention**, 5, 311—326.
- Scherer, C. W. and Cho, H. (2003). "A social network contagion theory of risk perception," **Risk Analysis**, 23:261-267.
- Schieman, S. (1998). Gender and AIDS-related Psychosocial Processes: A study of Perceived Susceptibility, Social Distance, and Homophobia. **AIDS Education and Prevention**, 10,264-277.

- Schoepf B.G. (1992). Women at risk: case studies from Zaire, in: Herdt G. and Lindenbaum S, eds., **In the Time of AIDS—Social Analysis Theory and Method**, London: Sage.
- Scholl, R. (2002). The Transtheoretical model of behavior change. Retrieved November 11, 2004, from <http://www.cba.uri.edu/Scholl/Notes/TTM.html>.
- Selye, H. (1976). **The Stress of Life** (rev. edn.). New York: McGraw-Hill.
- Shapiro, K. and Ray, S. (2007). "Sexual Health for People Living with HIV." **Reproductive Health Matters**, 15 (Suppl 29): 67-92.
- Sheeran, P. and Taylor, S. (1999). Predicting Intentions to Use Condoms: A Meta-Analysis and Comparison of the Theories of Reasoned Action and Planned Behavior. **Journal of Applied Social Psychology**, 29, 1624- 1675.
- Smith, K. P. and Watkins, S.C. (2003). "Perceptions of Risk and Strategies for Prevention: Responses to HIV/AIDS in rural Malawi," pp. 1-48 in **Population Association of America**. Minneapolis, Minnesota.
- Smith, Kirsten P. (2003). "Why are they worried?" Concern about HIV/AIDS in Rural Malawi." **Demographic Research** Special Collection 1, Article 9.
- Snyder, C.R. and Dinhoff, B.L. (1999). Coping: where have you been? In: Snyder C.R. editor. **Coping: the Psychology of What Works**. New York: Oxford University Press. p. 3–19.
- Sobal, J. (2001). Sample Extensiveness in Qualitative Nutrition Education Research. **Journal of Nutrition Education**, 33, 4, 184-192.
- Somlai, A. M., Kelly, J. A., Wagstaff, D. A. and Whitson, D. P. (1998). **Pattern of Risk Factors, Predictors, and Situational Contexts of HIV Risk Behaviors among Homeless Men and Women**. *Social Work*, 43, 7-20.
- Spruyt, A., Fox, L. and Figueroa, P. (1996). Dual Method Use among Family Planning Clients: Kingston, Jamaica. **Presented at the 124<sup>th</sup> Annual Meeting of the American Public Health Association**, New York, NY, November 17-21.
- Stein, Z. (1990). HIV Prevention: The Need for Methods Women can Use. **American Journal of Public Health**, 80, 460-462.

- Stein, Z. (1993). HIV Prevention: An Update on the Status of Methods Women can Use. **American Journal of Public Health**, 83, 1379-1382.
- Stokes, J. P., Vanable, P.A. and McKirnan, D.J. (1996). Ethnic Differences in Sexual Behavior, Condom Use, and Psychosocial Variables among Black and White Men who have Sex with Men. **Journal of Sex Research**, 33,373-381.
- Strauss, A. and Corbin, J. (1990). **Basics of qualitative research: Grounded theory procedures and techniques**. Sage Publications.
- Strauss, A.L. and Corbin, J. (1998). **Basics of Qualitative Research. Techniques and Procedures for Developing Grounded Theory**. Thousand Oaks, California: Sage.
- Strecher, V.J., DeVellis, B.M., Becker, M.H. and Rosenstock, I.R. (1986). The Role of Self-Efficacy in Achieving Health Behavior Change. **Health Education Quarterly**, 13(1), 73-91.
- Stroobant, A. (1994). **Indicators for the Evaluation of AIDS Prevention Programmes**. Institute of Hygiene and Epidemiology, Brussels.
- Sutton, S. (2001). Back to the drawing board? A review of applications of the Transtheoretical model to substance abuse. **Addictions**, 96, 175-186.
- Triandis, H. C. (1971). **Attitude and Attitude Change**. Wiley, USA.
- Ulin, P.R. (1992). African Women and AIDS: **Negotiating Behavioral Change**. **Sci Med** 1992; 34(1): 63-73. 6.
- UNAIDS. (2006). Report on the Global AIDS Epidemic.
- UNAIDS. (2000) .**Gender and AIDS Almanac**. Geneva: UNAIDS.
- United Nations (UN), (2002). **Levels and Trends of Contraceptive Use as Assessed in 2000**, New York: UN.
- Valtonen, K., Sogren, M. and Cameron-Padmore, J. (2006). Coping Styles in Persons Recovering from Substance Abuse. **British Journal of Social Work** (2006) 36, 57-73.

- Velicer, W., Prochaska, J., Fava, J., Norman, G. and Redding, C. (1998) .Smoking cessation and stress management: Applications of the Transtheoretical Model to behavior change. **Homeostasis**, **38**, 216-233. Retrieved November 11, 2004,
- Vinokur, A. and Seltzer, M. L. (1975). Desirable and undesirable events: The relationship to stress and mental distress, **Journal of Personality and Social Psychology**, **32**, 329-337.
- Waldrop, A. E. and Resick, P. A. (2004). Coping among adult female victims of domestic violence. **Journal of Family Violence**, **19**, 291–202.
- Walker, C. K, Hitti, J., Nsubuga, P. S., Sembajwe, V., Katende, S. and Mbidde, E. (1993). **Condom use among STD patients in Uganda. 8th World AIDS Conference**, (abstract no. WS-C14-2).
- Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology*. (2 volumes). Edited by Guenther Roth and Claus Wittich. Berkeley: University of California Press.
- Weinstein, N.D. (1993). Testing Four Competing Theories of Health-protective Behavior. **Health Psychology**, **12**,324-333.
- Weinstein, N. D., Rothman, A. J. and Sutton, S. R. (1998). Stages theories of health behavior. **Health Psychology**, **17**, 290–299.
- Weisman, C. S., Plichta, C. A, Nathanson, M., Ensminger, M. and Robinson, J. (1991). Consistency of **Condom Use** for Disease Prevention among Adolescent Users of Oral Contraceptives. **Family Planning Perspectives**, **23**, 71—74.
- Wellings, K., Field, J., Johnson, A.M. and Wadsworth, J. (1994). **Sexual Behavior in Britain: The National Survey of Sexual Attitudes and Lifestyles**. Penguin, London.
- Wheaton, B. (1985). "Models for the Stress Buffering Functions of Coping Resources" **Journal of Health and Social Behavior**, Vol. 26, pp. 352-64.
- Wheaton, B. (1990). Life transitions, role histories, and mental health, **American Sociological Review**, **55**, 209-223.

- World Health Organization. (2005). Summary Country Profile on HIV/AIDS Treatment Scale-up – Zambia.
- Worth, D. (1989). Sexual Decision-Making and AIDS: Why Condom Promotion among Vulnerable Women is Likely to Fail. **Studies in Family Planning**, 20, 297-307.
- Wulfert, E. and Wan, C. K. (1993). Condom use: A self-efficacy model. **Health Psychology**, 12, 346-353.
- Wulfert, E., Weaver, A., and Wan, C.K. (1994). A comparison of three self efficacy measures and their ability to predict condom use in college students. Unpublished manuscript. State University of New York, Albany.
- Yin, R.K. (1994). **Case Study Research: Design and Methods**. London: Sage.
- Zenilman, J. M., Weisman, C.S., Rompalo, A.M., Elish, N., Upchurch D.M., Hook E.W. and Celentano, D., (1995). Condom Use to Prevent Incident STDs: The Validity of Self Reported Condom Use. **Sexually Transmitted Diseases**, 22, 15-21.

## APPENDICES

### APPENDIX A.

#### INFORMATION SHEET

##### Introduction

You are being invited by Lazarous Chelu to take part in the research project that is looking at challenges HIV positive married persons attending Kanyama Clinic face in using condoms. Over the years, HIV positive married concordant persons engage in the use of condoms during sexual intercourse as a means to prevent them from HIV infection, but the rate of condom use has not been studied and there are many issues that remain unknown. Most importantly, very little is known with regards to (i) the problems that are linked with the lifelong prescription of condom use and (ii) what the coping strategies are withstanding the need for sexual intimacy since condom use is a barrier to permanent engagement. As such there is a lack of empirical knowledge on the challenges HIV positive married persons face in using condoms. Lazarous Chelu a student coming from the University of Zambia Community Medicine Department would like to find out what the challenges are with such a prescription and advance possible health education interventions. Therefore the objectives of the study are as follows: based on HIV positive married persons' accounts,

- (i) To describe their sexual behavioral life.
- (ii) To describe challenges they face in negotiating for sex.
- (iii) To explain the motives for adopting particular sexual behaviors.
- (iv) To explain the couples coping mechanisms when negotiating for sex.

Therefore, I would like to include you as one of several to be involved in my study. I believe that because you are HIV positive and married, you are best suited to spend time with and speak on the various issues.

##### What will be done?

If you agree to take part in the project, Lazarous Chelu will interview you on one to one in depth interviews to answer some questions on challenges HIV positive married couples face

ing condoms during sexual intercourse and particularly my feelings about it and my experiences. The interview will last between twenty to ninety minutes. The interviews may be audio recorded if you be willing otherwise the researcher will take notes on the spot.

### **Risks, Stresses and Discomfort:**

The possible risks in the project are minimal. Some of the questions may ask about sensitive and embarrassing subjects and may cause you to worry. You may choose not to discuss any of the questions if you wish. Whatever you decide, it will not be held against you.

### **Potential Benefits:**

There may be no direct benefit to you from participating in this study. Information learned from this study may help improve the clinic programs for HIV treatment counseling and patient education. However, all information collected will be used for the purpose of the study only.

### **Costs to You**

There will be no financial cost to you for participating in the study.

### **Legal Rights**

You do not give up any legal rights by signing this consent form.

### **Confidentiality:**

Efforts will be made to keep your personal information confidential. Names will not be asked and you will be identified by a participation identification number only, and no names will be attached to the write-up of the results. However, if you agree to have the interview recorded and after the interview is typed, the tape will be kept under lock and key. The recordings will be destroyed immediately it serves its purpose. This will guarantee you that no one other than the person will have information related to you. If you may wish to have full access to information regarding yourself that will be gathered in this study, it shall be made available. Your results may be disclosed if required by law or may be reviewed by the Zambia Ministry of Health, the University of Zambia (UNZA) Research Ethics Committee, the Department of Community Health, Medicine and the Supervisors.

**Persons to Contact for Problems or Questions:**

For questions about this study, contact: the Chairperson of the University of Zambia Research Ethics Committee,

Dr. Esther M. Nkandu,  
University of Zambia School of Medicine,  
P.O BOX 50110, Lusaka.  
Phone 252-641

Or

Dr. G. Silwamba, The Head,  
University of Zambia School of Medicine,  
Department of Community Medicine,  
P.O BOX 50110, Lusaka.



## Interview Questions

12. Please tell me do you use condoms?

13. What type of condoms do you use?

14. Would you tell me the reason/s as to why you have to use the condoms all the time?

15. From the time you started using condoms, how often do you engage in using condoms during sexual intercourse with your husband/wife?<sup>1</sup>

### **Prompts and Probes**

- *Once a week*

16. What has been your experience in using condoms?

### **Prompts and Probes**

- *Has it been ease to use condoms?*
- *Do you use them all the time? If not,*
- *How often or frequent do you use them?*
- *What makes you not use them all the time?*
- *How does it feel to use condoms during sex?*
- *Reduce sexual pleasure*
- *Is using condoms to inconvenient*

17. From the time you started using condoms, what would you say are challenges you face in using condoms?

### **Prompts and Probes**

- *Husband/wife refusal to use the condoms? if yes*
- *When does this occur? if yes*
- *How do you cope up with such a situation?*
- *Difficult to access/buy/ not available?*
- *Is it that you are afraid of reinfection occurring?*
- *Is it that you husband/wife is concerned?*
- *Is it that you are afraid of getting/impregnating your wife?*

18. In a situation where you Husband/wife does not need to use a condom what do you do<sup>3</sup>?

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### **Prompts and Probes**

- *Refuse to have sex with her/him*

19. What has been the effect of condom use on your sex life/marriage?

### **Prompts and Probes**

- *Husband/wife asking to be on separation?*
- *Husband resorting to have sex with other women?*
- *Has brought togetherness and love?*
- *Is it bad to use condoms in this situation? Or*
- *Do you see any importance of using condoms? ( to measure attitude)*

20. Is there at any particular moment you intend to stop using condoms?

### **Prompts and Probes**

- *If at all you wanted to conceive/have a baby*
- *Resort to non penetrative sex*

21. Are there situations where you completely fail to use a condom?<sup>4</sup>

### **Prompts and Probes**

- *If she/he has taken alcohol*
- *If there is only one condom in the night or*
- *When one forgot to buy condoms*

22. Apart from using condoms, Are there any other means you use to sexually sat yourself without necessary having penetrative sex?

### **Prompts and Probes**

- *Such as engaging in masturbation*

23. Going with your experience so far, if today you were asked to give a talk to a couple put on ARV's for them to enjoy their sex life with using of condoms, what would you say to them? OR

If you could give advice to a new couple put on ARV's, on how to cope up in using condoms during sex what would you say to them?

24. Is there any other information about using condoms during sex that you feel I should have asked, but I did not?

**APPENDIX D.**

**Permission Letter**

The University of Zambia,  
School of Medicine,  
Department of Community Medicine,  
P.O BOX 50110,  
Lusaka.  
December 22, 2008.

The Director,  
Lusaka DHT,  
P.O BOX 50827,  
**Lusaka.**

u.f.s Head,  
Department of Community Medicine,  
UNZA,  
Lusaka.

Dear Sir/Madam

**RE: PERMISSION TO CARRY OUT A STUDY**

I am a student undertaking a master's degree in Public Health at the University of Zambia. One of the requirements for this programme is to carry out a research study.

I hereby seek permission to carry out a study in your district on **Challenges HIV positive married persons attending Kanyama Clinic face in using condoms**, as my research topic.

I would be grateful if I could be allowed to carry out the study. I intend to base my study at Kanyama Health Centre.

During the study I shall interview HIV positive married persons attending Kanyama ART Clinic. Find attached is the approval letter from the University of Zambia Biomedical Research Ethics Committee and my Research Proposal.

Thanking you in advance.

Yours sincerely,

Lazarous C. Chelu.

**MPH STUDENT.**



# THE UNIVERSITY OF ZAMBIA

## BIOMEDICAL RESEARCH ETHICS COMMITTEE

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**Assurance No. FWA00000338**  
**IRB00001131 of IORG0000774**

Ridgeway Campus  
P.O. Box 50110  
Lusaka, Zambia

19 December, 2008  
Ref.: 012-09-08

Mr Chelu Chikoyi Lazarous  
Department of Community Medicine  
School of Medicine  
University of Zambia  
LUSAKA

Dear Mr Chelu,

RE: SUBMITTED RESEARCH PROPOSAL: "CHALLENGES HIV POSITIVE MARRIED PERSONS ATTENDING KANYAMA CLINIC FACE IN USING CONDOMS"

The above-mentioned research proposal was presented to the Biomedical Research Ethics Committee meeting on 29 October, 2008 where changes were recommended. We would like to acknowledge receipt of the corrected version with clarifications. The proposal has now been approved.

### CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).

Yours sincerely,

Dr James C. Munthali  
A/CHAIRPERSON

Date of approval: 19 December, 2008

Date of expiry: 18 December, 2009