

**Actions of female sex workers faced with condom failure during penetration  
sexual encounters with clients in Cape Town**

By

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## **DECLARATION**

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Date: February 2014

## **DEDICATION**

To my wife and two sons

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## LIST OF ABBREVIATION

SWEAT	-	Sex Worker Education and Advocacy Taskforce
SW	-	Sex Worker
MC	-	Male Condom
HIV	-	Human Immuno- Virus
AIDS	-	Acquired Immune Deficiency Syndrome
STI	-	Sexually Transmissible Infection
SA	-	South Africa
FSW	-	Female Sex Worker
SPSS	-	Statistical Package for Social Sciences
PEP	-	Post Exposure Prophylaxis

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## ABSTRACT

Male latex condoms have empirically been established as one of the effective barrier prevention methods against HIV transmission and are thus widely recommended. Meanwhile, there are a copious number of studies supporting its effectiveness; there have also been reports of condom breakages and slippages during heterogeneous vaginal intercourse, which undermines its primary goal as a barrier prevention method. The rate of condom failure is even higher among sex workers as the nature of their work is characterised by frequent coitus. This, consequently, increases the susceptibility of sex workers and their clients to contracting HIV and other sexually transmissible diseases. The situation is made dire due to the criminalisation, stigmatisation and discrimination of sex workers. While so much has been done to investigate the use, effectiveness, and failure rates of condoms among various populations, there is a troubling research gap regarding the actions of female sex workers when they are faced with situations of condom failure.

This study revealed that, with respect to the immediate actions of sex workers after a condom failure incident, about 36% of the respondents revealed that they continued with their sexual rapport to the end even after noticing that the condom is broken. Another 36% said that they stopped immediately they noticed that the condom broke or slipped. Some 13% of the participants pointed that they stopped the sexual encounter completely. Another 3% revealed that they applied vaginal spermicidal foam. About 5% of the respondents said that they stopped immediately and took a douche when they had the chance. For the actions within the next 24 hours of experiencing condom failure with a client, 53% of the participants reported doing, meanwhile 4% attested of seeking counsel from a professional. About 3% of the

respondents revealed that they simply took alcohol or drugs to forget the incident and 25% said that they went to the clinic for assistance when they experienced condom failure. Meanwhile, some of the actions such as continuing the sexual encounter without a new condom, taking alcohol and drugs or doing nothing at all could increase the risk of contracting HIV, other actions such as stopping the sexual completely, paying a visit to a clinic or visiting a professional could make a difference between staying HIV negative or becoming HIV positive.

## OPSOMMING

Latex kondome vir mans is bewys as een van die mees effektiefste metodes teen die voorkoming van MIV-oordrag en word dus wyd aanbeveel. Alhoewel daar 'n oorvloed aantal studies is wat die doeltreffendheid daarvan ondersteun, is daar ook talle studies van kondome wat breek en lek tydens heterogeen vaginale omgang. Dus ondermyn dit die primêre doel van die kondoom as verspreidings voorkomingsmiddel. Die koers van kondoom mislukking is selfs hoër onder sekswerkers as gevolg van die aard van hul werk, wat gekenmerk word deur gereelde seksuele omgang. Dit verhoog sekswerkers en hul kliënte se blootstelling aan MIV en ander seksueel oordraagbare siektes en word vererger te danke aan die kriminalisering, diskriminasie en stigmatisering van 'n sekswerker se beroep. Daar is tans baie navorsing oor die gebruik, doeltreffendheid, en mislukking van kondome onder verskillende bevolkingsgroepe, maar 'n kommerwekkende gaping ten opsigte van die optrede van die vroulike sekswerkers wanneer hulle gekonfronteer word met situasies van kondoom mislukking.

So 'n studie toon dat met betrekking tot die onmiddellike optrede van sekswerkers na 'n kondoom mislukking voorval, sowat 36% van hulle voortgegaan met die seksuele daad, selfs al is hulle bewus van die gebreekte kondoom. 'n Verdere 36% het gesê dat hulle onmiddellik gestop het, nadat hulle opgemerk het die kondoom het gebreek of gegly. 13% van die deelnemers het daarop gewys dat hulle glad nie voortgegaan het met die seks daad nie. Nog 'n verdere 3% het aangedui dat hulle 'n vaginale spermisidiese skuim aangewend het. Ongeveer 5% van die deelnemers het onmiddellik gestop en so gou moontlik van 'n douche-stort gebruik gemaak. In verband met hul optrede/aksie binne die volgende 24 uur na die insident, het 53% van die deelnemers dit gerapporteer, en 4% het 'n professionele persoon

geraadpleeg. Sowat 3% van die deelnemers het getoon dat hulle alkohol of dwelms gebruik het om van die voorval te vergeet en 25% het hul kliniek om hulp gevra. Wanneer daar geen aksie geneem word na die mislukking van 'n kondoom nie, byvoorbeeld om voort te gaan met die seksuele daad en nie 'n nuwe kondoom te gebruik nie, of om na drank en dwelms te draai, verhoog die kans om die MIV virus oor te dra. 'n Positiewe reaksie, byvoorbeeld om onmiddelik op te hou met die seksuele daad en 'n kliniek te besoek, kan die verskil maak tussen MIV-negatief en MIV-positief.

## **CHAPTER ONE**

### **FOCUS OF THE RESEARCH**

#### **1.1 INTRODUCTION**

Sex work is characterised by multiple sex partners and frequent coitus. This fact, biologically, structurally, and behaviourally puts sex workers at a higher risk of acquiring and transmitting HIV than the general population (Wojcicki & Malala, 2001), considering that penetrative sex constitutes the most prominent route of HIV transmission. This offers a possible explanation why commercial sex is identified to play a significant role in the HIV epidemic of many developing countries (Vuylsteke & Jana, 2011; Qu et al., 2002). Consequently, the rates of HIV among sex workers are relatively higher compared to their corresponding general populations (Ditmore, 2012) highlighting why the sex workers worldwide should become a key population in the fight against the HIV pandemic.

Bearing in mind that sex workers have been identified as a core population with regard to the risks of contracting and transmitting HIV (Lewis, 2011), non-profit organisations around the world have mustered efforts to support sex workers by enforcing positive behavioural changes in themselves and consequently their clients. Some of these support efforts include, sex education, training on STIs and HIV/AIDS, voluntary counselling and testing, condom distribution and advocacy services. Although most intervention packages contain at least three of the above-mentioned exercises (projects), condom distribution forms an integral part of these packages. The distribution of condoms is intended to provide a more direct

protection to both the sex workers and their clients. The emphasis on its use is based on its practicability, and its reported effectiveness in providing protection against STIs including HIV.

## **1.2 BACKGROUND**

Recommendations for the prevention of sexually transmitted HIV infection include abstinence, long-term monogamy with a sero-negative partner, a limited number of lifetime sexual partners and condom use for every act of intercourse (Davis & Weller, 1999). The latter of these prevention methods suits the situation of sex workers as there is a substantial body of knowledge about their behaviours that place sex workers, their clients and regular partners at greater risks. It is estimated that approximately 20% of new HIV infections in SA can be attributed to sex work (Richter et al., 2013). As a result of the high levels of vulnerability to and consequently high incidence rates of HIV and other STIs associated to sex work (Ditmore, 2012), consistent and correct use of condoms with clients remain the single best strategy to prevent the transmission and acquisition of STIs including HIV among sex workers (Sanders, 2012).

While there is ample evidence that latex condoms can significantly reduce the risk of HIV and other STIs when used correctly and consistently (Crosby, Charnigo & Shrier, 2012; Noar, Cole & Carlyle, 2006), there is also evidence that they are not 100% efficacious and require a high degree of compliance by users to be effective in use (Roper, Peterson & Curran, 1993). In spite of this condition, empirical evidence supports that condoms play a significant role in preventing the sexual transmission of HIV (UNAIDS, 2004). As a matter of fact, consistent and correct use of condoms

effectively protects against the HIV infection. Consequently, effective condom use is commended for people who have multiple sexual partners (Weller & Davis-Beaty, 2012). Sex workers, as a result of the nature of their work, fall into this category of people having multiple sexual partners.

The United States' Centre for Disease Control (CDC) and Prevention recommends the male latex condom, as the best physical barrier for preventing HIV and STI transmission (Centre of Disease Control, 2010). Nevertheless, according to Weller and Davis-Beaty (2012), the amount of protection condoms provides against HIV and other STIs is unknown because design complexities and ethical considerations make it difficult to appropriately study condom effectiveness. Studies that have attempted to assess the effectiveness of condoms, nonetheless, provide varying reports on the levels of effectiveness of male latex condoms. This is confirmed by a review of the literature conducted by Weller and Davis-Beaty (2007) to estimate condom effectiveness in reducing heterosexual transmission of HIV. They concluded that although consistent condom use is effective in reducing sexual transmission of HIV, it does not completely eliminate the risk of HIV transmission.

Although condoms by themselves have been found to be up to 98% efficient, condom failure has been identified to considerably interfere with the protective functionality of condoms, thus compromising their complete effectiveness. Condom failure has been subdivided into User failure, Method failure and Device failure (Weller & Davis-Beaty, 2012). Meanwhile, user failure includes incorrect condom usage and other user factors that result in high rates of breakage and slippage; method failure is the theoretical failure rate of the device, apart from user failure.

Studies show that the chances of theoretical failure occurring is very unlikely and that condom failure often associated with inappropriate use (Crosby et al., 2008). Failure to use condoms correctly may compromise their efficacy and cause breakage and slippage (Richard et al., 2001) and is likely to occur in situations of too much friction (lengthy or intense intercourse) and not enough lubrication or if the condom comes in contact with sharp edges.

This means, therefore, that even when condoms are used consistently and correctly, failures such as slippage and breakage may occur, with higher rates occurring more with less-experienced users (Fitch et al., 2002). According to a study conducted in Cape Town, South Africa, by Sex Worker Education and Advocacy Taskforce (SWEAT, 2013), about 72.0% of sex workers reported condom breakage during sex with their clients. This finding shows that condom breakage is an issue that should receive further attention especially among sex workers.

### **1.3 PROBLEM STATEMENT**

Prospective studies and retrospective surveys have established that condom failure is relative common especially among sex workers. An established protocol to minimise the chances of STIs and HIV transmission when faced with a situation of condom breakage or slippage during sexual intercourse, involves immediately washing off the areas exposed to body fluids with soap and water and applying vaginal spermicidal foam as soon as possible. Additionally, the individuals are advised to seek a health facility that provides intensive risk-reduction interventions. These intensive risk-reduction interventions comprise of the distribution of condoms, offering information and advice on safer condom use skills and sexual health,

HIV/AIDS counselling and testing, as well as screening and treatment for STI (Spice, 2007).

Although these services are made available to the general population by many government health facilities, NGOs working with sex workers, human rights activists, women's health and violence against women, nothing was found on the actions taken by sex workers when they experience condom breakage or slippage during a sexual encounter with their clients. This study is designed; therefore, to explore these actions of sex workers within twenty-four hours after they experience condom breakage or slippage during a sexual encounter with a male client.

Many of studies carried out on sex work and condom use have focused on various aspects. Some have explored aspects such as reducing the risk of HIV infection among South African sex workers (Karim, et al. 1995); the use of condoms by sex workers (Albert et al., 1995); the effectiveness of condoms in preventing the transmission of HIV and STIs (Fitch et al., 2002; Freziers et al., 1999; Roper, Weller & Davis-Beaty, 2012); factors influencing the use of condoms (Valdiserri, et al., 1988; Weinstock et al., 1992); condom breakage and slippage during sexual intercourse (Crosby, et al., 2001; Messiah et al, 1997) among others. However, limited evidence was found on the actions of sex workers when they encounter circumstances of condom failure during penetrative sex.

#### **1.4 RESEARCH AIM**

The aim of the research was to explore and describe the actions taken by female sex workers within the first 24 hours of experiencing condom failure with a male client during penetration sex.

#### **1.5 RESEARCH OBJECTIVES**

To achieve the above-mentioned aim, the study was designed to meet the following research objectives:

1. To investigate the actions of sex workers when they encounter condom failure with a client during penetration sex.
2. To describe the immediate and 24-hour-period actions of female sex workers after condom failure.
3. To make recommendations that could help SWEAT and other NGOs working with sex workers in Cape Town design and implement programmes that would address actions relating to condom failure.

#### **1.6 RESEARCH QUESTION**

What are the actions of female sex workers in Cape Town, 24 hours after they have experienced condom breakage or slippage during penetration sex with a male client?

#### **1.7 RESEARCH SETTING**

This research was designed to take place in the Cape Town Metropole. According to Statistics South Africa – Stats SA (2013), the present-day city of Cape Town as a

municipal entity is about ten years old. However, this Mother City is considered South Africa's oldest city (Stats SA, 2013), thus having the oldest municipal structure in South Africa. It is the legislative capital of South Africa, and the administrative and economic centre of the Western Cape Province. Geographically, it has a total surface area of about 2 461 km<sup>2</sup>.

Demographically, the City of Cape Town has a total population of 3, 740, 025 according to the 2012 statistics on the City and is composed of the following population sub-groups; Coloured 42,4%, black African 38,6%, white 15,7%, Indian / Asian 1,4% and other 1,9%. Regarding the literacy levels, the population is divided as follows; the percentage of people aged 20 years and older with Grade 5 educational level or less – 5, 3%; 50, 2% of the people aged 20 years and older are educated below the Matric level or Grade 12; about 29%; of the people aged 20 years or more hold a Matric / Grade 12 certificate and about 18, 8% of the population over 20 years hold a Post Matric / Grade 12 certificate (Stats SA, 2013).

Although Cape Town is South Africa's second largest city in terms of population; it has the third highest population of sex workers, estimated at 15, 699 (SWEAT, 2013). Meanwhile about half of the Western Cape's sex workers are thought to operate in the city of Cape Town Metropole, a study conducted by SWEAT (2013) indicated a further 20 substantial town with estimated sex work populations of over 100 operating in them. When all these towns are put together with the values obtained from the major city of Cape Town, a population of approximately 16 000 sex workers are estimated to operate in the Western province.

According to a study conducted by Richet (2013), sex work is considered a full-time profession for as many as two-thirds of female sex workers, male sex workers and transgender sex workers. Hairdressing was the most popular secondary occupation for women and transgender people who practiced sex work on a part-time basis. For male sex workers, hawking or selling goods is the likely other means to supplement their income. Regardless of whether it is considered a full time profession or not, they operate in various settings in Cape Town. Formal sex work venues involve operating in places such as brothels, escort agencies, hotels and massage parlours, meanwhile informal sex venues include roadsides, homes, truck stops, taverns, petrol stations market stalls and bars (South African National AIDS Council, 2013).

The Cape Town Metropole was selected for this study because of the ready availability of research participants, widely spread across the different communities. Secondly, because of the presence of NGOs working with sex workers in and around who provide support services to the sex workers, accessibility to study participants for data collection was possible. Finally, the study findings could be shared with these Sex work-led NGOs which could be translated into programmes and projects that could help sex workers in general.

## **1.8 RESEARCH PROCESS**

The investigator used the survey method of enquiry to explore the actions taken by FSW when they encounter condom failure during penetrative sex with their male clients. After selecting the study participants through the snowball sampling method, a self-administered questionnaire was administered to the sampled population for the data collection. The questions were directed towards the general demographics

of the study participants, the use of alcohol and other drugs during sex work, the rate of condom failure experienced during sex work and finally the actions taken by the female sex workers when faced with an event of condom breakage or slippage. The data were analysed using the IBM Statistical Package for Society Sciences (SPSS) Statistics software (version 21) – (IBM, 2012) programme and the findings were represented using descriptive statistical tools. The inferential analysis was interpreted and the findings reported. From the obtained findings, inferences and conclusions were drawn, serving as the basis for recommendations that could have practical implications.

## **1.9 ASSUMPTIONS**

In conducting this study, it was assumed that the participants for the study were good informants on the subject matter (Coyne, 1997). By this, it was assumed that the respondents provided information that reflected the actual experience that they had and not because they were being coerced, threatened, bribed or rewarded in any way for the responses they provided in the study.

## **1.10 SCOPE AND DELIMITATION**

This study was designed to take place in the Cape Town Metropole in the Western Cape. The Western Cape was found suitable because it is one of the South African provinces where the sex industry is quite prominent, thus, offering proximity and easy access to study participants. The Cape Town office base of the Sex Workers' Education and Advocacy Taskforce (SWEAT) was used as a base for conducting the study. This was because SWEAT is an accredited and registered NGO, known to specialise in the education and advocacy of sex workers. They are also involved

in research efforts on various aspects of sex work which plays an important role in their programme development and implementation. Through the SWEAT network, it was possible to access the study participants, thus the investigator was limited to the participants that he could obtain through the SWEAT network.

The study was estimated to span over a period of at least 9 months. The reason for this was because it was carried out within the frame of a structured master's HIV/AIDS management programme. Also, because the ethical clearance from the University of Stellenbosch was only obtained in December 2013, the intended date for submitting the research project was estimated at February 2014.

### **1.11 OPERATIONAL TERMS**

**Client:** Someone who gives money or material gifts in exchange for sexual favours.

**Sex worker:** A person who provides sexual activities for a financial or material benefit, thus, considered as revenue generating activity, rather than a deviant or criminal activity (Shaver, 2005).

**Condom breakage:** Total breakage is defined as the number of condoms that reportedly open or split at any time from opening the package to removing the condom from the penis, divided by the total number of condoms opened.

**Condom failure:** See condom breakage and/or condom slippage.

Condom slippage:	Partial or complete fall-off of a condom from a penis
Post exposure prophylaxis:	Treatment given to persons who have been exposed to the risk of contracting the HIV virus.
Male latex condom:	A latex device worn over the penis as a physical barrier during sex
Penetration sex:	The act of inserting an erect penis in a vagina, anus or mouth.

## **1.12 CONCLUSION**

This chapter provided a description of the focus of the research work and its motivation. It spelled out the aim of the research and the objectives that the research tried to achieve. It also articulated the main research problem and the research question that the research sought to answer. It also touched on the research methodology, including the significance of the study, the assumption on which the study is based, scope and delimitation of the study, not excepting of the definitions of the operative terms.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 INTRODUCTION**

This chapter explores relevant literature aimed at generating background information. This creates a context to explore the actions taken by sex workers when they experienced condom failure during penetrative intercourse with a client. The purpose of the literature review, therefore, is to place the study findings within a contextual framework of what is already known and what the study aims to add. For this reason, the literature review for this study includes applicable, current studies that summarise what is known around the subject under investigation.

The chapter is organised under the following headings;

- Overview of the sex industry in South Africa
- The use of condoms for the prevention of HIV
- Conceptual Framework
  - Condom use and the sex industry
  - Condom used errors and Failure
  - Managing unanticipated exposure to HIV
  - Diagrammatic representation of the concepts

## 2.2 OVERVIEW OF THE SEX INDUSTRY IN SOUTH AFRICA

A deep understanding of the epidemiological disposition, the influence of policies and the social context within which sex work is set exposes the complex backdrop for increased risk to HIV among sex workers (The World Bank, 2013). This is even more complicated because the sex industry has a very high turnover rate, posing a big challenge to estimate the population of sex workers. The primary motivation factors influencing people getting into the sex industry in South Africa as well as in most other parts of the world relates to economic consideration (Garner, 2005). A minority, nevertheless, is linked with drugs. These entered the industry out of the need to maintain their expensive drug addictions (Spice, 2007). Low socioeconomic status, high unemployment rates and limited education, however, have been found to greatly influence entry into sex work in South Africa.

Depending on their reason for entering into the sex industry, to achieve their goals, sex workers live in squats or drug dens, some of the sex workers become street based, brothel based or hanging around massage parlours, bars and sometimes hotels to achieve their goals (South Africa National AIDS Council, 2013). SWEAT in 2010 estimated that the average period of indoor sex work is 3 years as opposed to 5 years for outdoor sex workers. Sixty-eight percent (68%) of SWs considered sex work as temporary work, meanwhile 20% took sex work as a permanent work. In another study conducted in 2013, SWEAT provided some working estimates of the sex industry in South Africa. They estimated that the Gauteng province had 29, 733 representing the highest number of sex workers in any province. This is followed by the Kwazulu Natal province with the total of 22, 480. The rest is in the following order

Western Cape (15, 699), Eastern Cape (13, 408), Mpumalanga (14, 112), North West (13, 911), Limpopo (13, 263), Free State (10, 046) and Northern Cape (4, 988). Cross checking with the corresponding adult female populations of the various provinces, an estimated 1.51% of the adult female population are involved in the sex trade.

The literature suggests a close association shared between sex work and high incidences of STIs including HIV. It has been estimated that the prevalence of HIV among female sex workers is almost five times greater than their female counterparts in the general population (Vuylsteke & Jana, 2011). As a result, the role of sex work in propagating STIs is considered as an important public health issue. The focus on sex workers is further heightened with the advent of the HIV pandemic to the point that sex workers have been considered the vectors of the HIV epidemic (Kerrigan et al., 2013). Although discussions regarding the role of sex work in the spread of HIV are discordant (Wojcicki & Malala, 2001), their role in the spread of the HIV epidemic attracted, after much debate and discriminatory arguments, legal measures against sex work (Garner, 2002).

According to Mokgoro et al. (2007), prostitution has been illegal in South Africa since 1957 as stipulated in the Sexual offences Acts (N0.23 of 1957). This Act defined a sex worker as 'a person who has unlawful carnal intercourse with another for reward' (Gardner, 2005, p. 311). According to this Act, 'unlawful carnal intercourse' was sex outside marriage and 'reward' was not specified, although is it generally understood to be financial. A reinforcement of this criminalisation, in recent years, is elaborated in Section 20 (1) (A) of the Sexual Offences Act (SOA)

interdicting any person from unlawful sexual intercourse or committing any act of indecency with any other person in exchange of financial or material gain. Under the SOA of 2003, it is illegal;

- For a prostitute to loiter or conduct solicitation in a street or public place.
- For a potential client to solicit persistently, or solicit from a motor vehicle.
- To own or run a brothel.
- To control prostitution for gain
- To cause or incite child prostitution, where a child is defined as below 18.

Sex work is criminalised in SA under the pretext that sex work is immoral, promotes crimes; can help increase public nuisance, contributes to violence against women and presumably, perpetuates the transmission of HIV and other STIs. Irrespective of the reasons for the criminalisation of sex work, the consequences are that sex workers have been considered criminals and are often marginalised. Criminalisation of sex workers in South Africa as well as in many parts of the world disheartens sex workers, thus inhibiting their ability to negotiate condom use. This makes them vulnerable to contracting HIV. Also, much of the vulnerability of sex workers to HIV and other STIs in South Africa can be attributed to the fact that their work is criminalised (Richter, 2010).

Although sex work is considered a criminal act in South Africa as well as in many parts around the world, there is empirical evidence portraying that the proportion of men using the services of SWs is on the increase (Spice, 2007) even in the era of HIV/AIDS. This fact suggests that an increasing number of people are being exposed to the risk of contracting HIV, considering that SWs are thought-out to bear

higher prevalence of the HIV infection than the general population in every diverse region and societies (SWEAT, 2013). Conversely, with the rise in the number of people using the services of the sex industry, the chances of the SWs contracting HIV increase, coupled with the fact that a good number of SWs in SA is also substance abusers. The synergy of being a sex worker and using an intravenous drug greatly increases the risks of acquiring HIV and other STIs (Spice, 2007).

Although the law is against sex trade in South Africa (SA), it is, nevertheless, widespread (Karim et al., 1995). Albeit the responsible authorities being aware of the high levels of vulnerability to HIV and other STIs (considering that sex work is illegal and stigmatised in SA), providing targeted services to this segment of the population is met with many challenges. On the other hand, the illegal nature and stigmatisation attached to sex work make sex workers reluctant to assess good HIV prevention services offered to the general population (Shaver, 2005). These services usually include post-exposure prophylaxis, STI treatment and care of vaginal, anal, and oral infections; voluntary and confidential HIV counselling and testing; and the prevention of mother-to-child transmission.

According to Oliviera (2011) arresting and detaining sex workers as a means of deterring them from carrying out sex work is counterproductive. This is usually because the moment they are released, they tend to intensify their sex work activities as to make up for the lost time and finances. This exposes them more as they will be willing to engage in unprotected sexual intercourse with their clients for more money. Many authors have suggested that the best way of reducing HIV/AIDS among sex workers is by simply decriminalising sex work.

### 2.3 THE USE OF CONDOMS FOR THE PREVENTION OF HIV

In recent years, condoms were found to be the only contraceptive method that is effective at reducing the risk of contracting STIs (Steiner & DeCarlo, 2005). Their effectiveness is based on the fact that they prevent the mixing of body fluids, thus, preventing pregnancy and sexually transmitted infections (PPFA, 2011). Consequently, to reduce the vulnerability to contracting HIV through sexual intercourse condoms were recommended by many public health professionals, and endorsed by the centre for disease control (CDC) as an important component in the strategy to prevent the transmission of HIV (Valdiserri et al., 1988).

With the increased use of condoms for the prevention of diseases, there has been a proliferation of studies conducted to investigate the effectiveness of condoms in preventing pregnancy and STIs especially HIV. *In vitro* tests (artificial laboratory environment) have consistently proven that condoms effectively stop the passage of minute microbes through its microscopic pores (Crosby & Brounse, 2012). Notwithstanding, *in vivo* studies (on living organisms) have not been very successful in proving their effectiveness as they are not easy to design and carry out. Most *in vivo* studies designed to investigate condom effectiveness are based on counting how often women have fallen pregnant when their partners have used condoms for birth control or prospective follow-up studies conducted among HIV discordant couples to assess the number of HIV negative partners who become HIV positive.

Studies ranging from prospective observational studies, multiple component STI trials and couple randomised trials have been conducted to investigate the efficacy

of condoms in the prevention of STIs (Holme, Levine & Weaver, 2004). In one of such studies conducted to assess the effectiveness of condoms in preventing HIV and other STIs, Davis and Weller (1999) conducted a mega-analysis after sampling 25 published studies of sero-discordant heterosexual couples by design, direction of transmission and condom usage group. They concluded after analysing the data that consistent use of condoms provides protection from HIV (Davis & Weller, 1999).

In a double blinded study to investigate the effectiveness of two material types of condoms; polyurethane and latex, the sampled couples were asked to record the number of times they had sex and the frequencies of breakage and slippage that occurred during a six-month period. The results showed that condom breakage and slippage that occurred during intercourse or withdrawal was 8.5% for the polyurethane and 1.6% for the latex condom. Although, the study was set out to compare the efficiency of two condom materials, one other fact that stood out is that irrespective of the condom material used, there is condom breakage or slippage. In another study to explore the rate of condom breakage and slippage, Macaluso et al., (1999) conducted a 6-month period prospective study of women attending an STD clinic. They found out that of the 21,852 condoms that were used by 892 women within the six-month period, 2.3% broke during sexual intercourse, meanwhile 1.3% slipped during this period. The differences in breakage and slippage rates observed by the various studies indicate that there is variability in condom breakage and slippage during typical use (Spruyt et al., 1998). According to UNAIDS (2004), when condoms are used correctly and consistently, they reduce the risk of HIV transmission by about 90%.

Many different studies have shown different rates of condom failure, fundamentally, they have consistently supported the effectiveness of condoms in reducing the transmission of HIV. They do not, however, suggest that they are a hundred percent efficacious even when used continuously and efficiently (Fitch, 2002), suggesting that correct condom use does not completely eliminate the risk of HIV transmission (Davis & Weller, 2007).

## **2.4 CONCEPTUAL FRAMEWORK**

The conceptual framework condenses three main concepts in a logical outline; the use of condoms by female sex workers during penetration sex with their male clients, plausible condom errors that could occur during penetrative sexual intercourse leading to condom breakage and slippage and how to reduce the risk of contracting HIV after condom breakage or slippage occurs.

### **2.4.1 Condom Use and the Sex Industry**

Numerous efforts by non-governmental organisations (Berenguera et al., 2011) and different government departments have designed projects that focus on individual factors and individual behavioural change among FSWs (Yang et al., 2005). Many of these studies, however, are based on the male latex condoms. One of the several factors that hamper the success of such initiatives is related to women having limited control over the use of the male condoms with their sex partners or clients in the case of sex workers (Pettifor, 2010). According to UNAIDS (2013), nevertheless, sex workers, owing to the nature of their work, generally adopt HIV-related protective behaviours such as high rates of consistent condom use, several times greater than

condom use rates among the general population. Consequently, studies conducted in some developing countries have shown that the sex industry has recorded one of the greatest behaviour change with regard to the prevention of HIV (UNAIDS, 2004).

A study to explore the factors that influence the decision-making on whether to use a condom or not, among sex workers in India revealed, a number of different types of dynamics, on the type of sex with clients, the amount the client is willing to pay and the economic independence of the sex worker (Blankenship, West, Kershaw, & Biradavolu 2008). Literature explored around condom use among sex workers shows that there has been a remarkable increase in use of condoms during penetration sex. This is supported by a study conducted by Jung (2013) in South Korea, where he discovered that FSWs always used condom when they had high sexual beliefs. In another study conducted in Kwazulu-Natal in South Africa, Loggerenberg et al. (2012) estimated that about 60.3% of the study participants reported condom use with even more participants demonstrating a high level of HIV/AIDS knowledge. Another study conducted by SWEAT (2013) to explore condom use among sex works in Cape Town indicated that more that 70% consistently used condoms with their clients.

Meanwhile, 100% condom use policies among sex workers implemented in countries such as Thailand and Cambodia are reaping great success; studies show that these policies are most of the time cohesive and denigrating. Rather, programmes targeting increased condom use among sex workers should focus on improving condom negotiation skills of the sex workers. Studies that have shown that increase educational intervention for sex workers have been effective in instilling

condom negotiation skills which has rippled into many sex workers making use of condoms during sex work (Foss et al, 2007).

#### **2.4.2 Condom Use Errors and Problems**

Although latex condoms have an established effectiveness in the prevention of STIs if used correctly and consistently (Holland & French, 2012); evidence reveals that problems associated with condom use may be quite regular (Crosby et al., 2003). There is empirical evidence on the incorrect male condom use and failure in South Africa (SWEAT, 2013). Although regular, evidence shows that the occurrences of condom problems can vary from as low as 1% to as high as 13% (Spruyt et al., 1998). Common problems associated with male latex condoms include breakage, slippage, leakage, condom-associated erection problems, and difficulties with the fit and feel (Sanders et al, 2012). In a study conducted by Wojcicki and Malala (2001, p. 112) with female sex workers in the Hillbrow/Berea/Joubert Park area of Johannesburg, to explore condom use, power and HIV/AIDS risk, they uncovered through interviews with 50 female sex workers that many sex-workers regularly experience condom breakage with clients. This is captured by the experience of a respondent who stated that “Not a week goes by without a condom breaking.”

Although different studies estimate various rates of problems related to condom use, probably resulting from the difference in research design, selected population and study objective, a commonality identified is that condom use problems are fairly regular. Extensive literature in the United States shows that rates of breakage, caused by a fault in the condom itself are less than two percent. This means,

deductively, that most of the problems associated with condom use are related to condom use errors than faults in the condom itself. Studies have proven that condom use errors predispose the occurrences of condom breakages and slippages. One such study, a systematic review conducted by Sanders et al. (2012), on studies investigating the prevalence of condom use errors and problems among a variety of populations, including sex workers, STI clinic attendees, monogamous married couples and college students, revealed that condom problems potentially result from condom use errors. This study also estimated that problems associated with condom use occurred at the following frequencies.

- Breakage – 1% to 41% of participants; 0 to 33% of events
- Slippage during intercourse – 13% to 19% of participant; 0 to 7% of events
- Slippage during withdrawal – 12% to 15% of participants; 0 to 13% of events
- Slippage at any point during intercourse or withdrawal – 1% to 36% of participants; 0 to 78% of events
- Leakage – 8% to 13% of participants; 0 to 7% of events
- Breakage and slippage or complete failure – 25% to 45% of participants; 1% to 8% of events

To support the findings of Sanders et al. (2012), in another study carried out by Crosby et al. (2001) to investigate condom use errors and problems encountered by heterosexual male college students, they observed that higher error scores were associated with breakage/slippage rather than with a consistency of condom use.

The guidelines for using male latex condoms have been emphasized in many training programmes on the prevention of HIV and other STIs. These guidelines are:

- Ensuring that the condom is within the appropriate date of use (not expired)
- Attention should be paid when opening a condom to avoid tearing it with your fingernails or teeth.
- Only use a single condom once, even if you are having sex with the same partner at a single session.
- Ensure that the penis is partially or fully erect before preparing to put on the condom. In the case of an uncircumcised penis, the foreskin should be pulled back before putting on the condom.
- When the condom has been taken out of its pouch, start by putting the condom on the tip of the penis. Then pinch the small pocket on the tip to remove any residual air. Finally, roll the condom all the way down to the base of the erect penis.
- Regularly check the condom during sex to ensure it has not rolled up, broken off or slipped off.
- Ensure that there is sufficient lubrication during sexual intercourse to minimise friction and prevent condoms from tearing and breaking.
- After ejaculation, do not wait for the penis to go flaccid before withdrawal. Withdraw from your partner while holding the base of the condom to ensure it does not slip off of the penis.
- Discard the condom appropriately after use (Sources: Health 24, 2014)

According to Graham (2003), when a condom breaks either as a result of condoms errors, incorrect use or with the condom itself, its efficacy diminishes. This evidently leads to vulnerability to STIs including HIV as the purpose of using the condom is defeated. In this light, therefore, it is important to explore the various actions and behaviours that could possibly lead to condom breakage or slippage. In a study

conducted by Sanders et al., (2012) to identify common condom use errors associated with condom problems they identified the following issues as related to condom failure;

1. The complete unrolling of the condom before putting it on,
2. Failing to leave space at the tip of the condom,
3. Not squeezing out the air from the tip of the condom before use,
4. Putting the condom on inside out and then flipping it over to use,
5. Beginning sex before the condom is completely unrolled to the base of the penis,
6. Damage issues stemming from the use of a sharp object to open the package,
7. Lubrication issues (condom not lubricated, or using oil-based lubricant),
8. Incorrect withdrawal or not holding base of condom during withdrawal,
9. Reuse of a condom and
10. Storage and expiration date issues.

These acts of condom misuse dispose the condoms to breakage or slippage during sexual encounters, thus, increasing the chances of contracting STIs. When people are exposed to the HIV infections through means such as needle stick injuries and rape, they easily access the services of a clinic or hospital for post exposure prophylaxis (PEP). However, very little was found that suggested the actions of female sex workers when they are faced with the situation of condom breakage or slippage, especially in the wake of a period where post-exposure prophylaxis (PEP) has been developed to reduce the chances of infection after a high-risk exposure. A literature review of the various databases such as EBSCO, GOOGLE SCOLAR,

PUBMED, MEDLINE and GOOGLE SEARCH and so on did not reveal any study that has been done to explore these actions, indicating a dearth of information regarding this aspect. However, there were studies that were conducted to explore their attitudes towards making use of medical facilities tailored to address their needs.

A quantitative study conducted by Wong (2003) to explore the medical seeking behaviours of SWs in a village in China by opening a clinic meant to serve this population, he discovered that these SWs found the clinic inconvenient and claimed that it did not meet their needs. Wong uncovered that stigma, and discrimination was a common fear and played a major role in the use of the clinic as no SW wanted a clinic that served only them. Kerrigan et al., (2013) supported this as they observed that violence, stigma and discrimination against sex workers are extremely prevalent and are, therefore, considered mitigating factors to the access of HIV prevention efforts (Ditmore, 2012). This study has provided the investigator with an idea of why SWs would be sceptical in using sex work tailored services to their profession, behavioural pattern and social context when the need of such a facility arises.

### **2.4.3 Managing Unanticipated Exposure to HIV**

Experts recommend that if a condom breaks, or slips off during sexual intercourse, the people involved should wash off the areas exposed to body fluids with soap and water (Brown University Health Services, n.d). To ensure better safety as well as reducing the chances of contracting any STI's including HIV, the people should apply vaginal spermicidal foam and start using emergency contraceptive pills (to

prevent pregnancy) as soon as possible. These products are available at Health Services or at most local pharmacies without a prescription for those over 17 years of age. If frequent breakage occurs, consider using a different brand or size.

According to the Department of Health and Human Services, providing antiretroviral (ARVs) to prevent HIV infection after unanticipated sexual or injection-drug-use exposure, helps reduce the chances of infection. However, because providing ARVs intermittently for prophylaxis increases the chance of drug resistance, frequently exposed persons should instead be provided with intensive risk-reduction interventions (CDC, 2005). Intensive risk-reduction interventions provided to SWs should include

- Access to comprehensive HIV prevention, treatment, care and support services,
- Provision of clean needles and syringes (for injection drug users),
- Offering information and advice on safer sex and sexual health,
- Treating sex workers for STI and screening for other health needs,
- Psychosocial support services (Scheibe, Drame, Shannon, 2012)

In spite of the fact that many studies have confirmed the effectiveness of PEP (Post exposure prophylaxis) as a method of HIV prevention after exposure, there is a lot of debate on its inclusion into the intensive risk reduction interventions provided to sex workers. A common argument is based on the uncertainties surrounding the frequent exposure to the PEP after every risky sexual encounter. These uncertainties are associated with repeatedly being exposed to HIV while on the PEP after each exposure, being exposed after completing a course of PEP and repeated

the consequences of repeatedly being taking the PEP (Livingston, 2012). Owing to the above uncertainties, there have been many sceptics whether to make PEP available to sex workers or not. Nevertheless, several International agencies, governments and non-governmental organisations (NGOs) increasingly acknowledged the need for these intensive risk-reduction interventions and support services for sex workers.

#### 2.4.4 Diagrammatic Representation of the Concepts

The diagram below illustrates the flow of the various events leading up to the aspect under investigation (the actions of sex workers when faced with condom breakage or slippage during sexual encounters with their male clients).

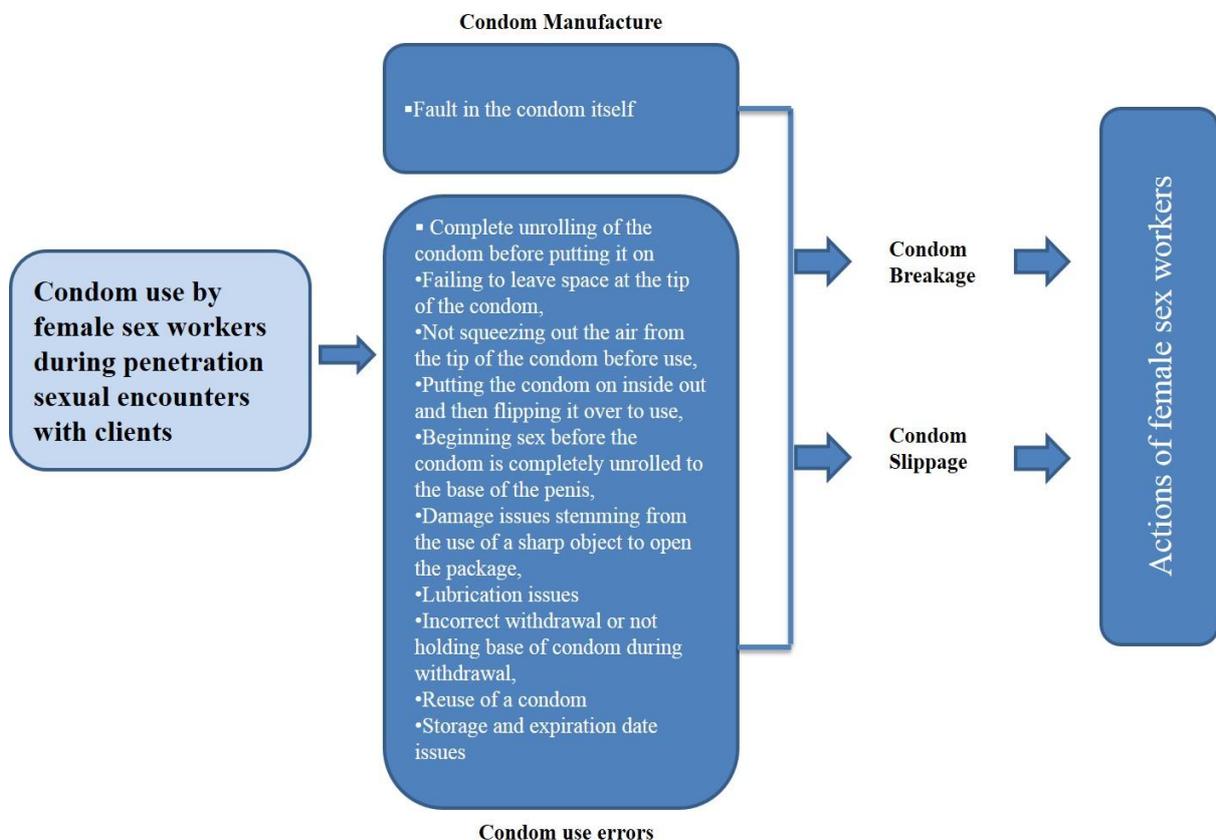


Figure 2.1: **Conceptual framework of actions of sex workers in condom failure**

## **2.5 CONCLUSION**

Having focused the study through a review of relevant literature and evidence from other studies, the investigator will continue to the third chapter, which involves identifying and justifying the research methodology with respect to the phenomenon under investigation. The research method will in turn determine the sampling method, the data collection tool and method, as well as the technique that will be used for data analysis.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter deals with the research paradigm guiding the overall investigation as well as the research methodology employed in answering the research question. It covers, therefore, the aspects of the data collection, data storing and data analysis processes. It also embodies the different techniques and concepts employed to ensure rigour and trustworthiness during the research investigation.

#### **3.2 RESEARCH DESIGN**

##### **3.2.1 Quantitative Research Paradigm**

The term quantitative research is used to describe a set of research techniques (Clark-Carter, 2010). These research techniques, share a characteristic feature that they involve numbers that are being applied to the results of the research. Consequently, they are guided by a basic principle or philosophy. Quantitative research reflects a deterministic philosophy that is rooted in the positivist paradigm, or school of thought. This traditional, positivist scientific method of enquiry refers to a general set of orderly, disciplined procedures used to acquire knowledge (Polit & Beck, 2003). The positivist paradigm adopts the philosophy that reality can be discovered, in whatever way and in a probabilistic sense. The quantitative research approach is typically deductive where most ideas or concepts are reduced into variables and the relationship between or among them are tested (Creswell, 2008).

Thus, quantitative researchers use deductive reasoning to generate hunches that are tested in the real world (Polit & Beck, 2003). The knowledge that results from the positivist paradigm is based on careful observation and measurement and interpretation of objective reality.

Quantitative researchers gather empirical evidence. Therefore, in the positive paradigm, evidence is gathered according to a specific plan, using formal instruments to obtain the required information. This evidence is mostly rooted in objective reality and is usually gathered directly or indirectly by the senses. In the end, the findings are grounded in reality rather than based on personal bias or subjective considerations of the investigators (Fain, 2009).

Quantitative research designs can be classified depending on the nature of the problem and the aims of the research. A research design type range of research methods could be applied to obtain and analyse the data that appropriately respond to the research question. Common research designs associated with the quantitative research paradigm as defined by the nature of the problem include descriptive, correlation, comparative and experimental research designs. Based on the aim of the research, quantitative research can be classified into experimental research, quasi-experimental research, single case research and non-experimental research.

For this study, the investigator used a quantitative research paradigm to explore the actions of female sex workers when they experience condom failure during penetrative sex with male clients. The descriptive quantitative research methodology was used because the investigator intends to observe, count, delineate and classify

the actions of sex workers during the aforementioned circumstance (Polit & Beck, 2003). This would to an extent help the investigator to obtain an insight about what female sex workers would possibly do when faced with a situation of condom breakage or slippage.

### **3.2.2 The Survey Research Design**

According to Christensen, Johnson & Turner (2011), research design is described as 'the outline, plan, or strategy that satisfies the procedure to be used in seeking an answer to your researcher question(s).' To shed light on the identified research problem, a non-experimental quantitative research design; the survey research design will be conducted. The cross-sectional research survey was selected for this investigation as the data would be collected from the research participants only once.

A survey design is described by Gillis and Jackson, (2002) as the process of collecting information from targeted respondents on a topic at one point in time. Surveys are used to measure one or more variables, from which statistical techniques could be used to make inferences about, spread and causal relations among variables. According to Christensen, Johnson & Turner (2011), survey research are appropriate when measuring the attitude, activities, opinions and beliefs of informants and can allow the investigator to examine relationships among the variables, make predictions and determine how subcategories differ. Secondly, the appropriateness of the survey research to this study is related to the ability of survey designs to describe and predict phenomena. Descriptive survey research is aimed at discovering new meaning, describing what is happening, determining the

frequency with which a phenomenon occurs as well as categorising information (Walker, 2005). These qualities qualify the descriptive survey research methods being selected as the method of choice for the investigation of the actions of female sex workers when they are faced with a situation of condom slippage or breakage with a male client during penetrative sexual encounters.

### **3.2.3 The survey Research Method**

Christensen, Johnson and Turner (2011) describe a research method as “the outline, plan, or strategy that satisfies the procedure to be used in seeking an answer to your investigator question (s)” (p. 232). The survey research method basically employs the use of well-constructed questionnaires to assist the collection of information in a standardized manner. When this information is gathered from a representative sample of a defined population, an inference could be made of the results to the wider population (Rattray & Jones, 2007).

## **3.3 POPULATION AND SAMPLE**

### **3.3.1 The Study Population**

Burns and Grove (2011) define a research population as all elements/subjects that meet the criteria for inclusion in a study. Also known as the target population, it can as well be described as the group or individuals to whom the research applies (Kitchenham & Pfleeger, 2002). These are, therefore, the groups or individuals who are in a position to answer the questions and to whom the results of the research apply and thus could be used to make inferences (Lavraska, 2013). The population of this study includes all the female sex workers who conduct sex work around the

Cape Town Metropole. This includes both the roadside and the brothel-based FSWs.

Research into sex work is hampered by several methodological challenges. First, the study populations are usually small and unrepresentative due to problems gaining access to sex workers and establishing trust (Spice, 2007). Furthermore, SWs represent an unstable population, both temporally and geographically, which means prospective studies are difficult to conduct without the loss of significant numbers of subjects, which itself may bias results. Nevertheless, using Mathematical modelling techniques, SWEAT (2013) estimated that there are about 167 009 female sex workers nationwide and about 15,699 female sex workers in the Western Cape Province. The following inclusion criteria were used for the selection of the study participants.

- Must be a Female sex worker.
- Must be 18 years of age or more.
- Must have been working as a sex worker for more than 6 months
- Must use the male latex condom during sexual encounters with clients.
- Must be operating within the Cape Town Metropole.

### **3.3.2 Sample and Sampling Methods**

Samples of potential participants represent the target population of interest with the sample frame composed of the population from which the sample is drawn. Obtaining a representative sample of sex workers has always been a challenge for surveillance researchers. The challenge is based on the fact that no sampling frame exists for sex workers, mainly because the behaviours in which they engage is

considered illegal or illicit and because they are constantly being stigmatised against (Johnston & Sabin, 2010). Consequently, they generally prefer not to participate in surveillance data collection activities (Magnani et al., 2005) making them a hard-to-reach population. Owing to the unstable and unpredictable nature of the population of the sex workers, it is extremely difficult to obtain a randomly selected representative sample (Shaver, 2005).

Although randomised sampling would have been the ideal method of data collection, because of the aforementioned reasons, it would be practically impossible. An alternative sampling method was adopted, therefore, in the selection of the study participants. Nevertheless, the concept that formed the basis of selecting an alternative sampling method to obtain a valid sample was the representativeness of the general population. A valid sample is a representative subset of the target population. According to Kitchenham and Pfleeger (2002), if a representative sample is not obtained, then the investigator cannot claim that the results obtained from the studies could be generalised to the target population.

As a result of the difficulties associated with obtaining a randomised sample of female sex workers, the method of sample selection that was adopted in this investigation was a convenient sampling method known as the snowball sampling technique. According to Johnston and Sabin (2010), "Snowball sampling is a chain referral sampling method, that relies on referrals from initial subjects to generate additional subjects" (p. 38). This type of sampling technique involves asking people who have participated in the survey to nominate other people they believe fit the selection criteria and would be willing to participate in the study. The first participants

were the self-identified sex workers who are registered with Sex Worker Education and Advocacy Taskforce (SWEAT). They were then asked to recommend someone else they know, who also self-identifies as a sex worker and would be willing to participate in the study. Through this method, participants from the various areas of Cape Town were selected constituting some sort of 'representativeness' of the female sex worker population in Cape Town.

An issue of concern when using a convenience sampling method in a study is determining the sample size. According to Burns & Grove, (2011) to compensate for the non-randomisation of the sample and make it more representative, researchers often increase the size of the sample. The investigator recruited as many participants for this study as time, material and financial resources could allow. A total of a hundred and twelve (n=112) participants were recruited to take part in the study.

### **3.4 DATA COLLECTION**

#### **3.4.1 Data collection instrument**

Questionnaires are the most widely used data-collection tool (survey instrument) in survey studies (Saris & Gallhofer, 2007). They are used to elicit information related to the phenomenon under investigation from respondents. Christensen, Johnson, and Turner, (2011) describe questionnaires as "a self-report data collection instrument that is filled out by research participants" (p. 336). The questionnaire that was used in this survey is the interviewer-completed questionnaire (Manning & McMurray, 2010). However, some potential problems with studies done on sex

workers is that there is likely to be biased in response to questionnaires or structured interviews on topics such as condom use and drug habits (Spice, 2007). To minimise this problem, the questionnaire that was used for this study was adapted from questionnaires designed for other studies on SWs. The advantage of using instruments that have already been used by others, according to Howitt and Cramer, (2009) is that they are recognised by the research community as effective measures.

The questionnaire used in this study was designed in four sections (Appendix 1, p.77). The first section explored the demographics of the study participants. The second section was related to substance use by the female sex workers. The third section dealt with their sex work experiences and the final section was based on condom use, condom failure (Breakage and slippage) and actions of the sex workers after experiencing condom failure. This questionnaire was designed to measure the attitudes and behaviour of sex workers when they experience condom breakage or slippage with their male clients. First, it is built on the attitude, practice and behaviour of the sex workers with respect to drug use and alcohol consumption prior to engaging in sex trade with their male clients. With this in mind, the next part explored the power balance between the sex worker and the client during a sexual encounter. This power dynamics could have an impact on the actions of the sex worker during the sexual encounter when there is a situation of condom breakage or slippage. The last sets of questions explored the action of the study participants immediately when they realised the condom failed as well as within the next 24 hours of the incident happening.

### **3.4.2 Data collection process**

The data collection process took place at the premises of SWEAT. The first study participants recruited to the study were found at the premises of SWEAT. The respondents used the boardroom of SWEAT to fill in their questionnaires. When these participants had completed their questionnaires, they were asked to recommend someone else who fits the study criteria to also come and take part in the study. The investigator, nonetheless, ensured that all the study recruits were not obtained from the same region by recording the sector the participants came from. Using the sex work mapping by SWEAT (2013) the investigator encouraged recruitment from the sectors that have not yet been covered to ensure some representativeness of the sample. A R40 transportation fee was given to the participants who left their various homes for the SWEAT premises. When a total of 114 participants were obtained, the investigator stopped the recommendation process by asking the last participants not to recommend any further participants.

Two main factors determined the number of participants recruited in the study. Firstly, the time frame given to the investigator was too small to carry out a large-scale study and secondly, financial constraints. Because the study was not funded by anyone or any institution, the investigator had to bear the costs of transporting the participants who had to displace themselves to take part in the study. This also contributed in the participant number being limited at 112.

### **3.4.3 Data Storing Methods**

The primary goal of storing data used in research is to protect the anonymity of the research participants. Data storing, therefore, refers to the various methods

employed by the investigator to prevent access to the research data from persons other than those directly involved in the research. To ensure anonymity of the participants (Creswell, 2007), no names were required on the questionnaires or any form of identification. The investigator also opened a file for the questionnaires that were collected during the study. This file was kept in a filing cabinet with a locking system, and the keys to this filing cabinet were at the reach of the research investigator alone.

### **3.5 DATA ANALYSIS**

The investigator collected a total of 112 self-administered questionnaires at the end of the data collection process. Of the 112 questionnaires, 12 were incompletely completed and were thus discarded. A hundred of the questionnaires were therefore analysed for the study. The analysis of the data obtained from the data collection phase was performed using the IBM SPSS Version 21 (IBM, 2012). The results of the analysis were described and displayed using descriptive statistical methods.

#### **3.5.1 Characteristics of the Sample**

The graph below (figure 3.1) shows the frequency distribution of the ages of the participants for easy viewing. The youngest participant was 19 years of age and the oldest was 60 years old.



Figure 3.1: Frequency distribution of the ages of the female sex workers

The mean age of the participants was 33.52 and the mode (highest occurring age) was 30 years. Refer to table 3.1 below for more details

Table 3.1: Statistical representation of the age distribution of the sex workers

N		Mean	Median	Mode	Std. Deviation	Minimum	Maximum
Valid	Missing						
100	0	33.52	30.50	30	9.288	19	60

In terms of their relationship status, 58% were single women, 27% live-in with a partner, 6% were married women, 4% were divorced and 1% was widowed. This information is displayed on the bar chart below (figure 3.2).

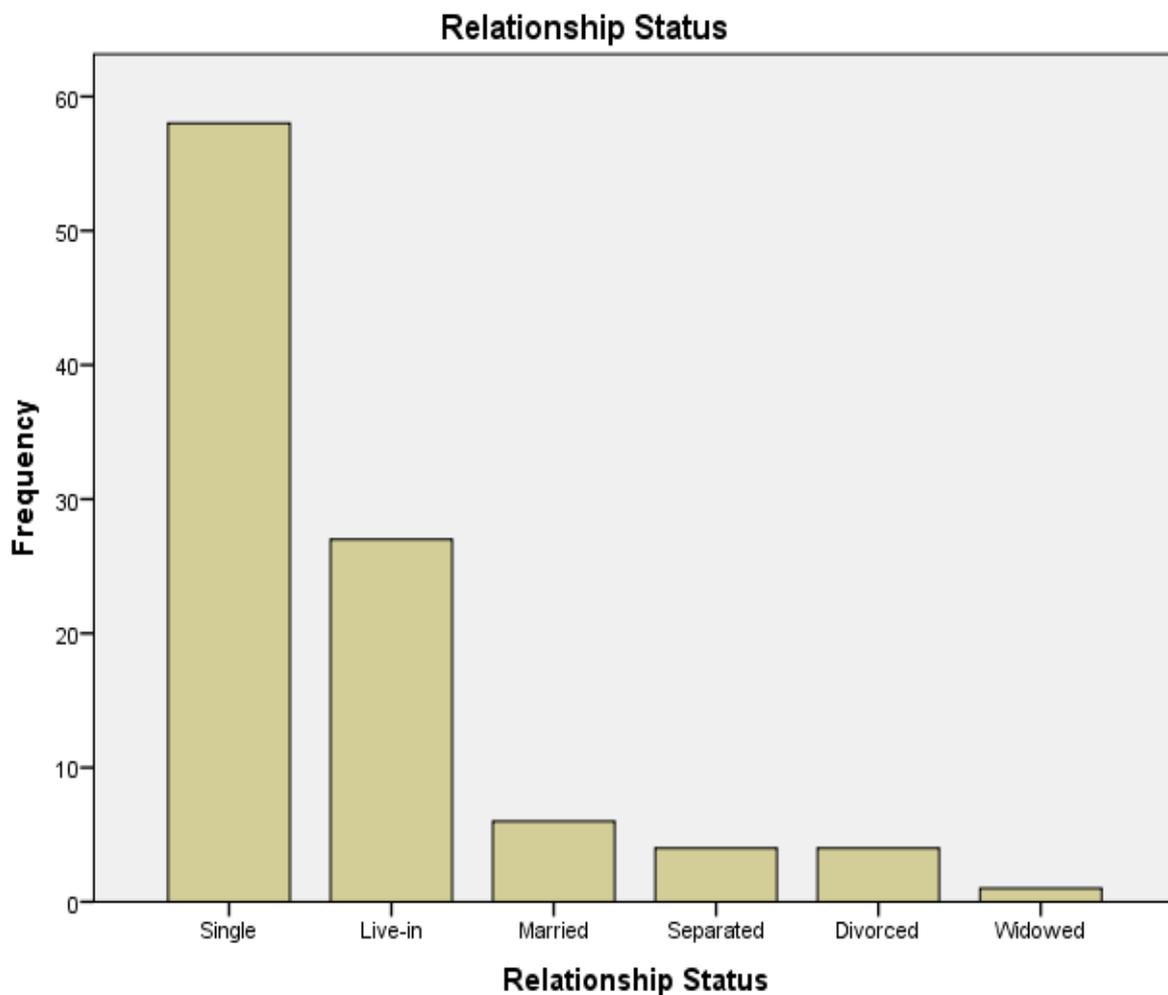


Figure 3.2: Relationship status distribution among the sampled population

The educational levels of the sex workers who participated in the study showed that most of the participants attended high school but did not obtain a Matric certificate. 58 % of the participants fell under this category. Nevertheless, 8% of the participants were holders of a Matric certificate.

Of the 100 sampled for the study, 4 % had some university training, but only 1% had actually graduated from the university. On the other end of the spectrum, 18% of the sample did not have any formal education. This distribution is represented on the graph below (Figure 3.3).

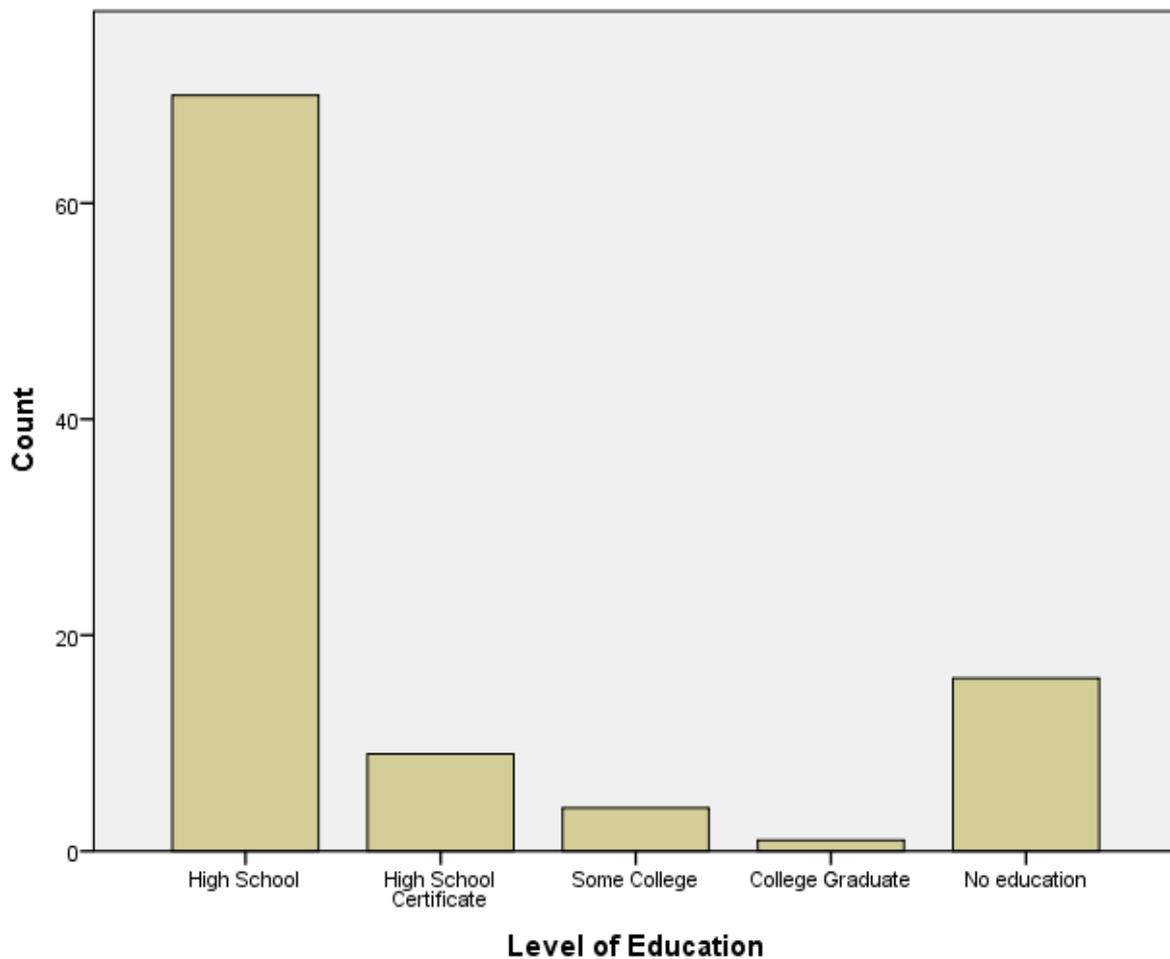


Figure 3.3: **Level of Education of the female sex workers**

According to racial distribution, self-identification from the participants revealed that 54% of the participants were blacks, 41% were Coloured and 5% were whites. This distribution is shown in Table 3.2 below.

Table 3.2: **Racial Distribution of the sampled sex workers**

		Frequency	Percent	Valid Percent	Cumulative Percent
	<b>Black</b>	54	54.0	54.0	54.0
	<b>Coloured</b>	41	41.0	41.0	95.0
	<b>White</b>	5	5.0	5.0	100.0
	<b>Total</b>	100	100.0	100.0	

### 3.5.2 Condom use among sex workers

Condom use among the sex workers was found to be frequent. Almost at 100% of the sex workers who participated in the survey (99%) indicated by using condoms during their sexual endeavours with male clients during penetrative sexual intercourse. However, when the question of whether they have had sexual intercourse without condom for more money was asked, it was clear that consistency in the use of condom still is an issue among sex workers working in the Cape Town Metropole. Almost half (44%) of the respondents attested to sometimes having sex without condom for more money. Another 8% said that they frequently engaged in unprotected sex with their clients, while 10% said that they rarely had unprotected sexual intercourse with their male clients. Therefore, 62% of the study participants at one point of the work have engaged in unprotected sexual encounters with their clients for more money. Nevertheless, 38% of the respondents confessed to never engage in unprotected sexual intercourse with their clients for more money. The chart below (Figure 3.4) reveals the finding in a more visible presentation.

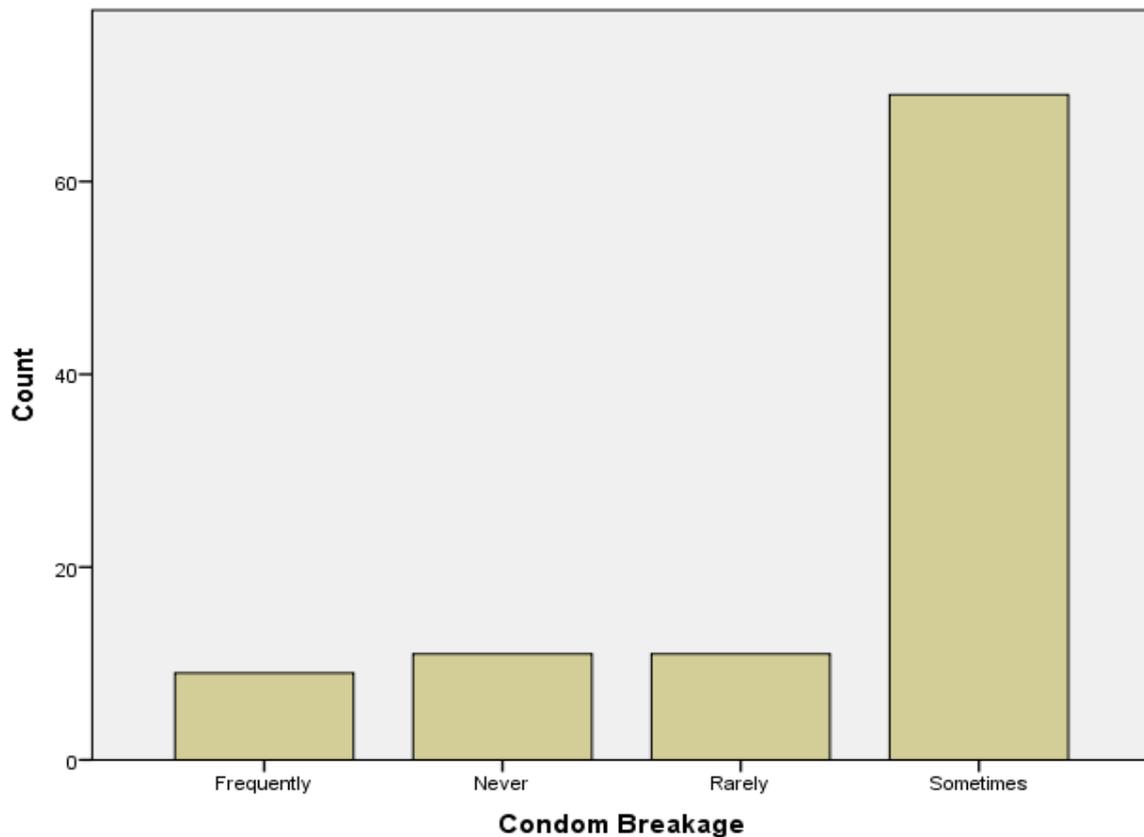


Figure 3.4: Rates of unprotected sex for more money

### 3.5.3 Condom breakage and slippage

Meanwhile, most of the study subjects indicated by frequently using condoms while having penetration sex with their male clients, two issues that stood out with respect to condom usage is condom slippage and breakage. With respect to the former, 65% of the participants indicated they sometimes had a condom breakage with their male clients. 8% of the sex workers revealed that they frequently experienced condom breakage during their sexual encounters with their male clients. Meanwhile, 10% of the participants pointed out that they rarely had occurrences of condom breakage; another 10% confirmed that they had never experienced condom breakage while having sex with their male clients. This means, therefore, that 90% of the participants had experienced condom breakage even though the rates at

which they experienced this breakage vary. This variation is displayed in the bar chart below (Figure 3.5).

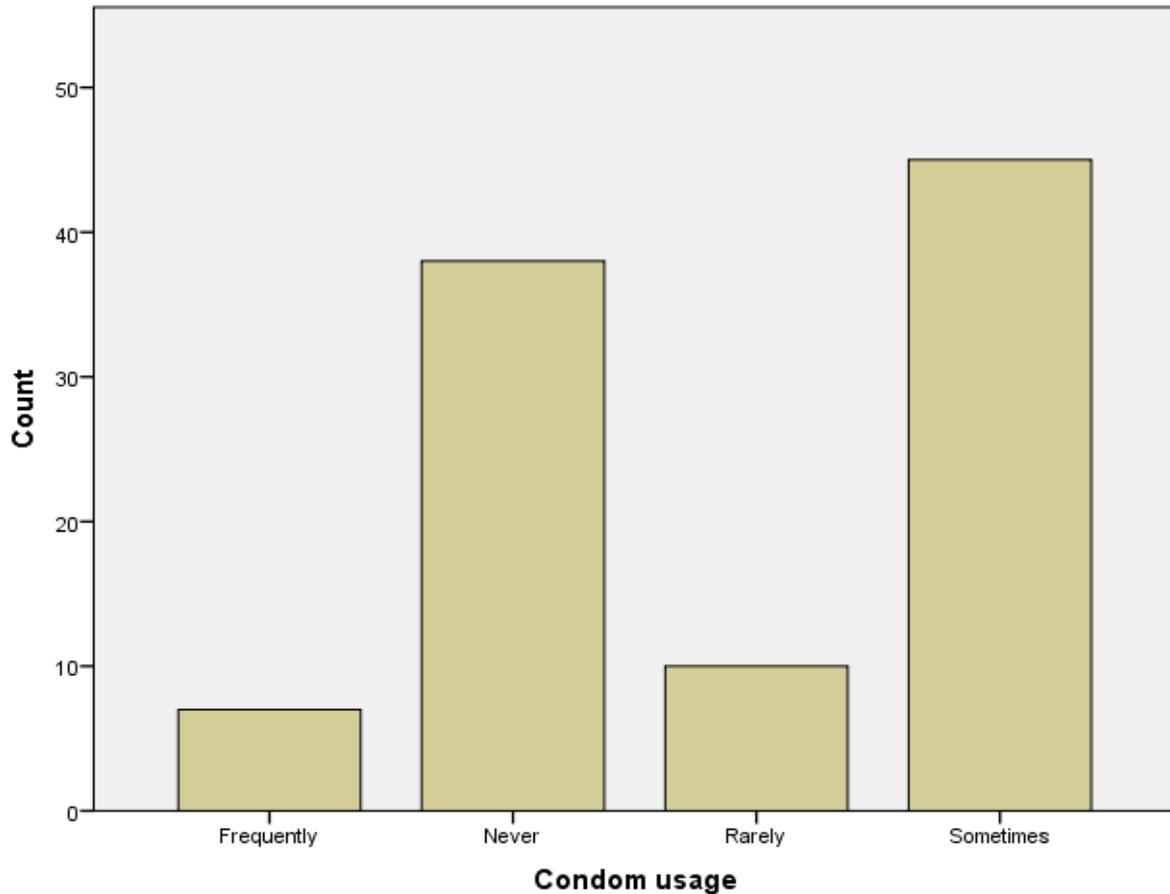


Figure 3.5: Frequency of condom breakage among sex worker

As far as condom slippage goes, 62 % of the participants expressed having condom slippage sometimes. A total of 8 % of the sex workers indicated that they frequently had condom slippage. A total of 15% said that they rarely experienced condom slippage while another 15% said that they had never experienced condom slippage when having penetration sex with male clients. These findings are presented on the bar chart below (Figure 3.6). Meanwhile, 90% of the of the participants confirmed having experience condom breakage at some point while working as sex workers,

75% confessed to encountering situations of condom slippage. These findings mean that condom slippage and breakage are fairly common among female sex workers.

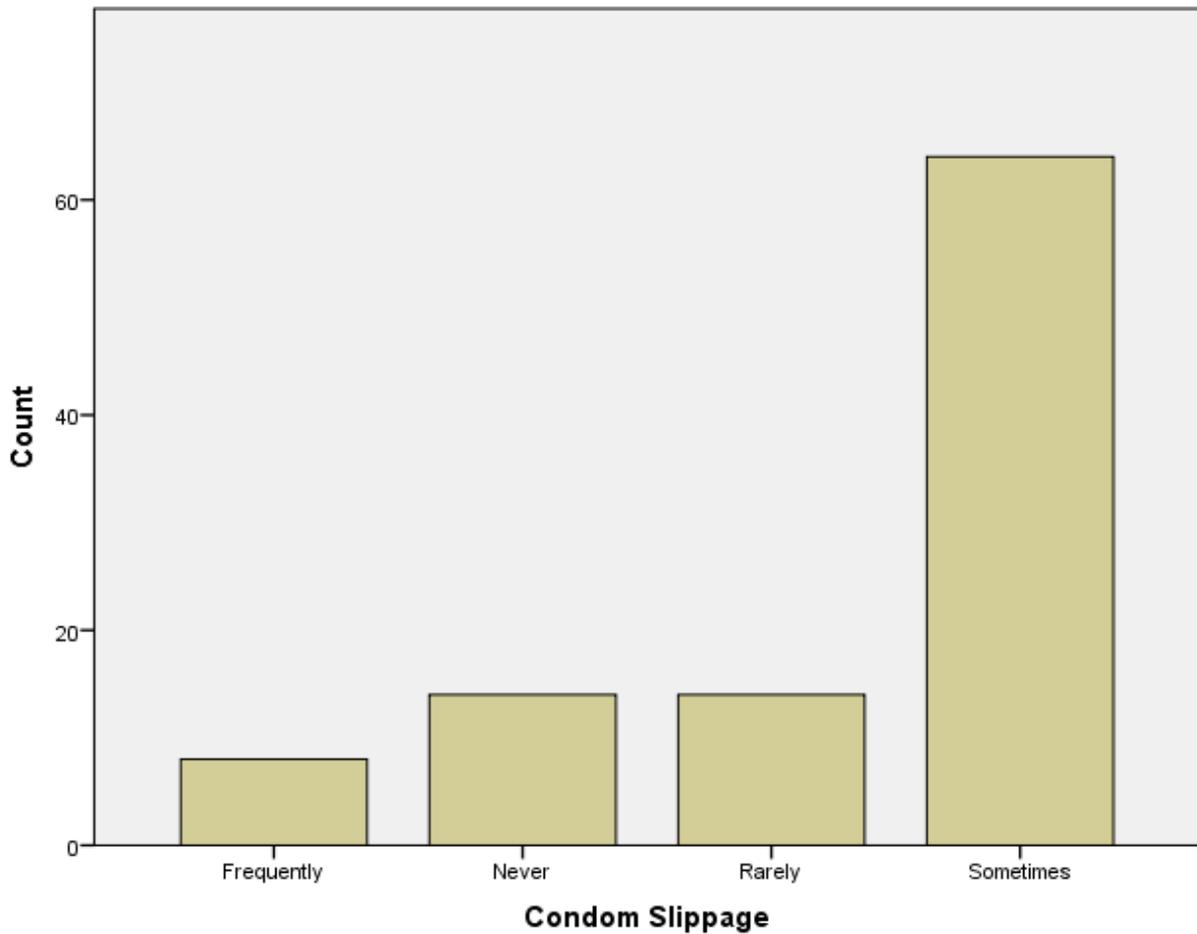


Figure 3.6: Frequency of Condom slippage among FSWs

### 3.5.4 Actions of sex workers after condom failure

While the literature and the responses of the study participants suggest that condom breakage and slippage is fairly common among sex workers engaging in penetration sex with their male clients, the main focus of this study was to explore the actions of sex workers when they are faced with condom breakage or slippage. This exploration was divided in two phases. The first stage comprised of the actions taken by the sex workers immediately when they notice the condom breakage or slippage. The second stage represents their actions, then up till the 24<sup>th</sup> hour.

Regarding the actions of the sex workers immediately when they noticed that the condom has broken or slipped during the sexual encounter with a male client, the questionnaire offered six possible (options) actions. These actions included “Continue to the end”, “Stop immediately and put on a new condom”, “Stop the sexual encounter completely”, “Apply vaginal spermicidal foam”, “Stop and take a douche”, and “Others (specify).” After the analysis, it was uncovered that 36% of the respondents revealed that they continued the sexual encounter with their clients to the end even after noticing that the condom is broken or has slipped off. Another 36% said that they stopped immediately they noticed that the condom broke or slipped and put on a new condom, continuing the encounter to the client’s satisfaction. Some 13% of the participants pointed that they stopped the sexual encounter completely when they realised that the condom was broken or had slipped out during the sexual encounter.

Immediately after the sexual transaction with the client is over some of the sex workers carry out some other actions. A small percentage of 3 revealed that they applied vaginal spermicidal foam after realising an incidence of condom breakage or slippage. About 5% of the respondents said that they stopped immediately and took a douche. None of the participants offered other actions that they took when faced with condom breakage and slippage. Finally, 7% did not offer any response because they had previously identified that they have never experienced condom breakage or slippage while working as sex workers. This finding is represented in the bar chart below (Figure 3.7).

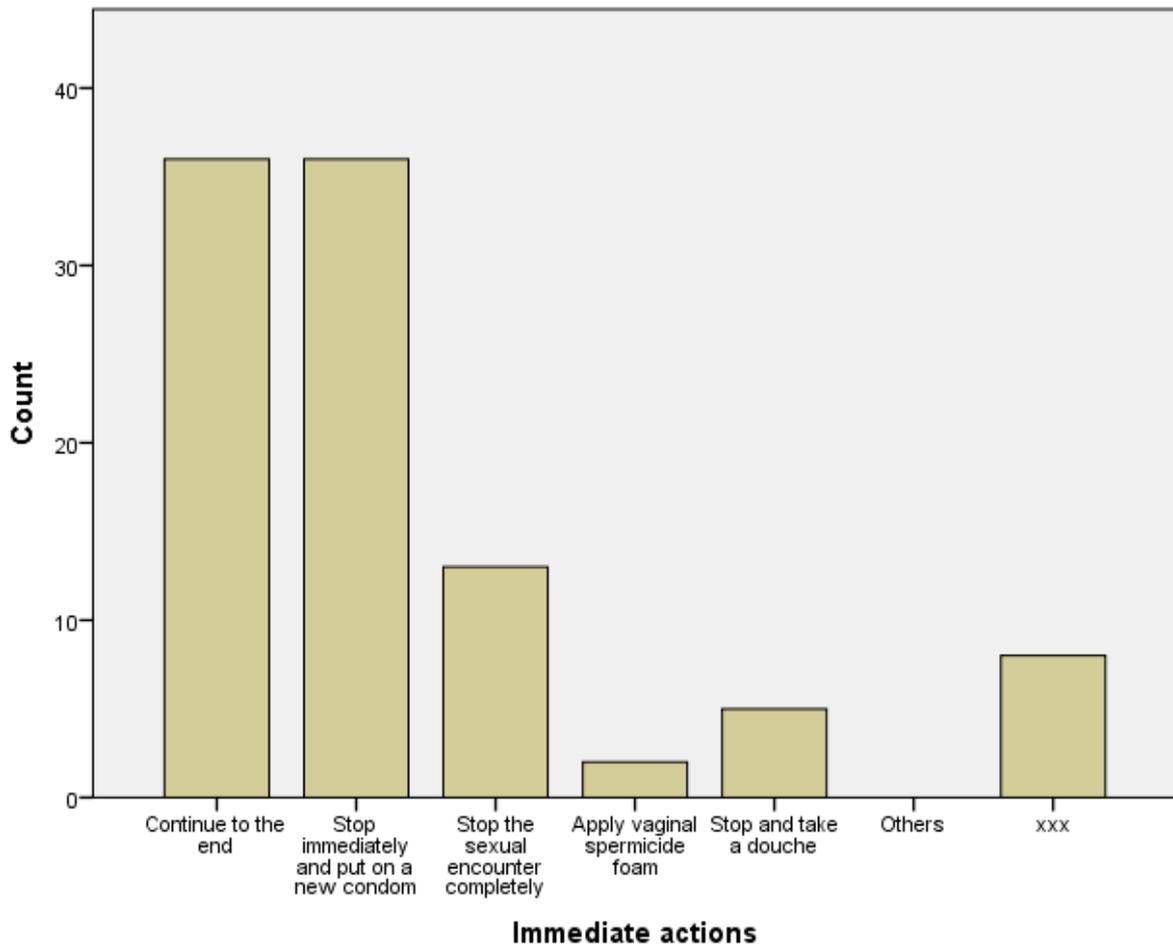


Figure 3.7: **Immediate actions of sex workers after condom breakage or slippage**

The second part of the action of sex workers was explored using the following question and response options; What do you do when you notice that the condom has slipped or broken when having sex with a client after the encounter is over until the next day? The response options listed were; “Nothing”, “Take drugs to make me forget”, “Ask the client’s HIV/AIDS status”, “Visit the clinic” and “Others (Specify).” The responses obtained from the data obtained from the participants are displayed in the bar chart below (Figure 3.8).

Slightly more than half (53%) of the participants reported doing nothing after noticing an episode of condom failure after a sexual encounter was over. Meanwhile, 4% of the participants attested of seeking counsel from a professional after an experience of condom breakage or slippage, 3% of the respondents revealed that they simply drank alcohol or took drugs to forget the incident. Another 25% said that they went to the clinic for help when they experienced condom breakage and slippage. The last 3% who suggested other actions mentioned taking morning pills for the prevention of pregnancy; however, they did not mention anything they did to prevent the transmission of HIV. The last 7% offered no response as they stated that they have never experienced condom breakage or slippage while working as sex workers.

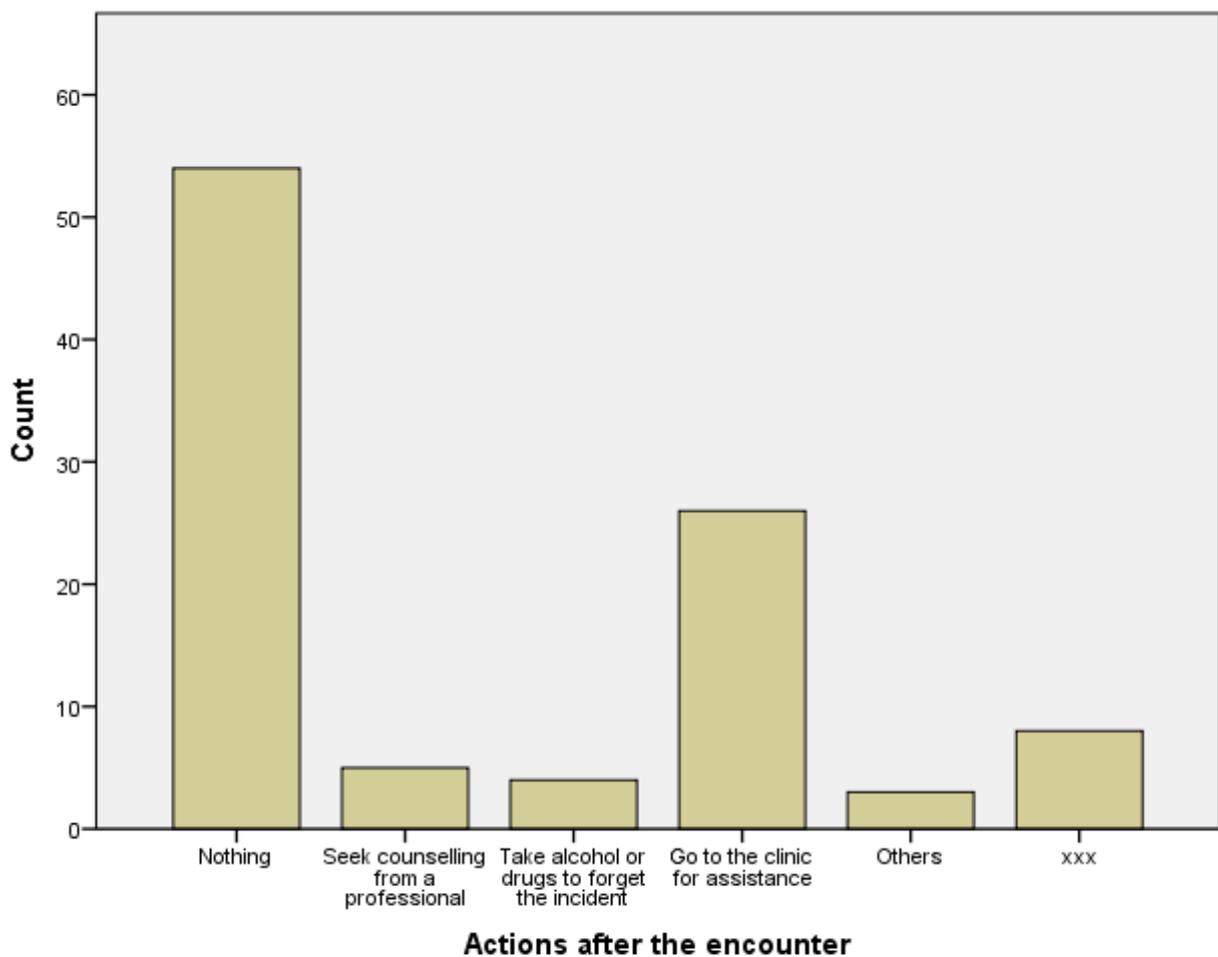


Figure 3.8: Actions of sex workers after condom breakage or slippage

## 3.6 VALIDITY AND RELIABILITY

Reliability and Validity seek to examine the fitness of measure (Khalid, Hilman, Kumar, 2010). Since these two constructs relate to the research procedures that play a pertinent role in the trustworthiness of the results, it is important to consider issues of reliability and validity from the outset of designing research projects.

### 3.6.1 Validity

Validity refers to the ability of an instrument to measure exactly what it is expected to measure (Howitt & Cramer, 2009). An investigator, therefore, by using an instrument wishes that the measurement he takes from participants reflects what he intends to measure (Roberts & Priest, 2010). Meanwhile, there are many types of validity relating to data collection, two are of most importance to this study – external and internal. **External validity** relates to the ability of the investigator to generalise the findings to the general population, other settings and times (Christensen, Johnson, & Turner, 2011). Generalisability is usually attributed to the nature of the participants and the nature of the setting in which the research occurred (Clark-Carter, 2010). Challenges to the generalisability of this study are related to the fact the research participants will not be randomly selected for reasons outlined in the sample selection. Although the snowballing method of data collection was employed to recruit the participants of the study, the investigator ensured some representativeness of the sex workers' population by making sure that participants were selected from the various areas notorious in the sex trade. These “hot spots” were identified from a sex worker population mapping that was done by SWEAT in 2013.

To ensure that a quantitative research yields findings for accurate inferences, the questionnaire designed for the collection of the research data must pass face validity, content validity and construct validity (Roberts & Priest, 2006). These three types of validity consist of what is referred as *internal validity*. With respect to *face validity*, the investigator consulted his peers to informally assess whether on the face of things, the questionnaire would be able to measure the concept that is under investigation as suggested by Howitt and Cramer (2009). This, according to Roberts and Priest, (2010) can be a problem, particularly with measures such as questionnaires. *Content validity* is concerned with the relevance and representativeness of various items, such as demography, individual questions related to the subject under investigation in a questionnaire, to the intended setting (Roberts & Priest, 2006). Content validity will be enhanced by including material from literature review, materials from other questionnaires addressed to similar research population as well as established theories around the subject of research and will be achieved through conducting a pilot study with a smaller number of SWs. Finally, *Construct validity* focuses on demonstrating the relationships between the concepts under study and the construct or theory that is relevant to them (Roberts & Priest, 2006). It is thus concerned with the extent to which operationalisations are represented (Christensen, Johnson, & Turner, 2011) and can be demonstrated with the use of factor analysis.

To verify that the face validity, content validity and construct validity were in order, firstly, the questionnaire was adapted from a questionnaire that was used in another study. Secondly, a copy of the questionnaire was verified by a research delegate of SWEAT. Thirdly, the designed questionnaire was administered to some of the participants to pilot the studies. This pilot study involving six participants from

SWEAT, tested for their comprehension of the questions to place the questions at the level that will be comprehensible to all the participants, even those who did not have any formal education. After the pilot study, some rectifications were made on the questionnaire to remove every questions carried double meanings or misunderstood to elicit the information that the investigator really wanted to obtain.

### **3.6.2 Reliability**

"*Reliability* describes how far a particular test, procedure or tool, such as a questionnaire, will produce similar results in different circumstances, assuming nothing else has changed" (Roberts & Priest, 2006, p. 41). Therefore, it is concerned with the consistency of the measure of an instrument in this case the questionnaire (Howitt & Cramer, 2009). Essentially, the questionnaire that will be used in this study should provide the same information if used by street sex-workers, brothel-based sex workers as well as any other category of SWs (inter-rater reliability), or if it is used at different times, as the research will be conducted throughout the day. To ensure reliability of the questionnaire, very simple and straight forward questions were asked to avoid ambiguity and confusion while answering the questions. This ensured a better understanding of the questions which will elicit the same answers from the participants irrespective which category sex worker responds to the questions or the time the questionnaire are distributed.

## **3.7 ETHICAL CONSIDERATIONS**

"Research within any paradigm that includes human participants will inevitably involve choices about how best to satisfy moral obligations to participants while meeting the study requirements" (Ballinger & Wiles, 1996, p. 46). In light of this

statement, the investigator ensured that the Declaration of Helsinki that was adopted in 1964 and revised in 2004 was fully respected. In accordance to the declaration, the investigator (1) strived to protect life, health, privacy, and the dignity of the research participants, (2) employed greater care to protect the participants from harm and (3) conducted the research because the importance of the research purpose; to explore the experiences of the patients when nursed by student nurses, outweighs whatever risk that might be attributed to the study either at present or in the future (Burns & Grove, 2011).

Further ethical issues related to the survey research design, such as informed consent (vulnerable population), meaningful participation, confidentiality and anonymity was also ensured satisfied in this study. According to the Social Research Association (2003), an informed consent is the procedure for ensuring that research participants understand what their participation entails, the limits to their participation and awareness of any potential risk(s) involved if they participate. An informed consent empowers the participant to be fully aware of the risks, and anything that can influence the individual's decision to take part in the research. In principle, individuals should not be coerced, persuaded or induced into research 'against their will' but their participation should be based upon their willingness, and on a full understanding about the implications of participation (Green, & Thorogood, 2009). In accordance to Green and Thorogood (2009), before a participant was recruited into this study, the potential participant was given a typed-out consent form which the investigator explained the contents to the participant. Signing it, implied their acknowledgement to take part at their own will, without any coercion, induction or manipulation.

To guarantee true and meaningful participation of the sex workers during the investigation, the study was conducted under the auspices of Sex Workers' Education and Advocacy Taskforce (SWEAT) where the first participants were obtained for the studies. The other participants were obtained from their various localities or area of sex work through the process of snowballing, from the first set of participants who were selected from the SWEAT premises. According to STELLA (2006) participation under the ambit of a protecting body can prevent further stigmatisation and abuses of the SWs, thus, supporting the Advancement of ethical research.

Confidentiality and anonymity are two very important and related aspects of research ethics that give lots of value, especially when dealing with a vulnerable population. According to Green & Thorogood, (2009) confidentiality means not disclosing information that is acquired from research in other settings. To ensure confidentiality of the participants' information is maintained, all the questionnaires collected were locked up in a safe drawer during the studies, and when the study was completed. On the other hand, anonymity entails that the researcher avoids liaising or connecting the participants to the data that was collected. The investigator ensured that the promise of confidentiality and anonymity were respected, by omitting the names on the questionnaires. This made it impossible for the responses of a respondent to be linked to the participant.

This study received approval from the Stellenbosch Ethical Research Council and Sex Workers Education Advocacy and Taskforce (SWEAT).

### **3.8 CONCLUSION**

In this chapter, the investigator explored the quantitative research methodology and its appropriateness to the study under investigation. Attention was paid to the descriptive quantitative methodology and the survey research methods. Explications on the study population, data samples and sampling methods, data collection, data storing and rigour were also part of this chapter. It explored the data analysis process using the IBM SPSS statistics 21 software. The data obtained from the computation process were also presented in this chapter with descriptive statistical methods used to display the findings. Finally, the ethical issues related to the study were addressed.

## **CHAPTER FOUR FINDINGS AND DISCUSSIONS**

### **4.1 INTRODUCTION**

This chapter explores the data that were obtained from the questionnaires and the IBM SPSS Statistics 21 computations. The aim of this section is to attach meaning to the various findings and at the same time comparing and contrasting these findings with the findings reported by other authors on related issues.

### **4.2 RESEARCH FINDINGS**

The finding of this study is discussed under the following headings

- Condom use among sex workers
- Condom (breakage and slippage) failure and
- Actions of sex workers after condom breakage or slippage

#### **4.2.1 Condom use among sex workers in Cape Town**

The findings of this study portray that many of the sex workers are making efforts towards using the male latex condoms during penetrative sexual intercourse with their male clients. Nevertheless, most of these sex workers are ready to compromise their safety by engaging in unprotected sexual relations with their male clients for better pay rates. This fact is espoused by the finding, that only 38% of the respondents reported never having unprotected sexual intercourse with their male clients for better pay. The other 62% of the respondents either sometimes, rarely or frequently engaged in unprotected sexual intercourse for more money, representing

the portion of sex workers who use condoms inconsistently with their clients. These findings do not, however, tally with the findings of a study conducted by SWEAT (2013) to explore the rates of condom use among sex workers in Cape Town. They observed that among sex workers that have vaginal sex with male clients, 64.3% reported using a condom all the time. Notwithstanding, according to this same study, 45.6% of sex workers reported engaging in penetration sex with a client without a condom. This figure is not far off the 38% of participants who agreed to indulging in unprotected sexual relations with male clients for better pay.

Although there is disparity with the exact percentage of sex workers who use condoms every time they had sex with a client, the bottom line is that there is still a large portion of sex workers who are still engaging in unprotected sexual intercourse with their clients. Though other socio-cultural factors such as accessibility of condoms, client violence and forced unprotected sex, working under the influence of alcohol (Richter et al. 2013), substance use among sex workers (Pauw & Brener, 2003) and the influence of gatekeepers (Yang et al., 2012) may have roles to play, an outstanding factor is the need for financial stability. In essence sex work is the main reason people employ themselves in the sex industry. According to the South African National AIDS Council (2013), sex work provides an important income and financial support to some families. This fact was confirmed by the percentage of sex workers (62%) who agreed to having unprotected sexual intercourse with their clients for more money than the regular rate.

Meanwhile sex workers who are addicted to drug-use are likely to engage in unprotected sexual intercourse for more money to feed their habits and to secure

more clients (Parry et al., 2009); sex workers working under the influence of alcohol are likely to neglect the using condoms because their judgement is clouded by alcohol. Evidence accrued to date, links binge drinking and chronic alcohol use as well as other alcohol use disorders with unsafe sex and HIV transmission (Luchters et al. 2013). Although drug use and alcohol consumption are common among sex workers (Li, Li & Stanton, 2010), while comparing the rates of condom use by sex workers in four cities in South Africa namely; Sandton, Rustenburg, Hillbrow and Cape Town, Richter et al. (2013) uncovered that sex workers in Cape Town are 5.5 times more likely to engage in unprotected sex compared to their counterparts in the other areas.

#### **4.2.2 Condom breakage and slippage (Condom Failure)**

Although HIV prevention interventions have positively influenced the prevalence of condom use among sex workers in Cape Town, the risk of transmission of HIV among this population may remain relatively high as “unsafe” sex relating to condom failure remains prevalent. The situation is even more dire as mastery of condom use skills is always assumed among SWs because of the knowledge that they practice sex regularly. Unfortunately, condom failure always co-exists with condom usage and condom use errors. The findings of this study revealed that condom breakage and slippage (condom failure) is fairly common among female sex workers in Cape town. According to this survey, 90% of the participants have experienced condom failure at one point in their career as sex workers. About 65% of the participants indicated they sometimes experienced condom breakage with their male clients while 8% of the sex workers revealed that they frequently experienced condom breakage. The final 10% of the participants pointed out that they rarely had

occurrences of condom breakage. These findings are consistent with the findings of SWEAT (2013) as they indicated that 72.0% of sex workers in Cape Town experience condom breakage during sex.

According to this study conducted by SWEAT, high levels of condom failure are associated with the Choice<sup>®</sup> condom brand. While condom make has been established to slightly contribute to condom failure, studies have also shown that condom failure is more associated with condom use skills than the condom make. Based on the different condom use errors identified in the literature review, it could be assumed that the condom use skills of the sex workers need to be improved as the rates of condom breakage and slippage is relatively high.

#### **4.2.3 Actions of sex workers after a condom failure experience**

The actions of female sex workers after they have experienced condom failure formed the principal aim of this study. These actions were classified into two phases. The actions of the female sex worker immediately the realise the broken or slipped condom and their actions within the next 24 hours of exposure. Although this question was not asked, 5% of the respondents indicated that most of the time they do not realise that the condom has broken and would only take note of it when the sexual encounter is over. One of the respondents went further to explain that this is so because they work in dark corners making it difficult to see what has happened.

#### **4.2.3.1 Immediately after Exposure**

According to the survey, 36% of the respondent continued their sexual encounter to the end, even after noticing that the condom is broken. This situation constitutes a very high risk sexual activity, both for the client and the sex worker as they are unaware of each other's HIV status. Based on biomedical perspective, the risk of HIV infection is determined by the number of HIV-infected partners, the efficiency of HIV transmission and the number of unprotected sex acts with each HIV-infected partner (South African AIDS Council, 2013). Inconsistent condom, duration of sex work, a higher number of clients and obviously, high rates of condom failure are identified as proxy markers to the risk of HIV acquisition. Consequently, continuing a sexual encounter with a client after the condom has broken or slipped off is like having an unprotected sex with the client. In this case, the chances of contracting HIV, according to the biomedical formula are even greater. This could definitely increase the chances of HIV transmission from one party to another. Another 36% said that they stopped immediately they noticed that the condom broke or slipped and they put on a new condom to continue the sexual encounter to the end. Although this is better than the first option of continuing the sexual relationship after the failure, it carries some elements of risk prior mixing of the biological fluids.

Some 13% of the participants pointed that they stopped the sexual encounter completely when they realised that the condom was broken or had slipped out during the sexual encounter. The action taken by the sex worker at this stage is greatly influenced by sex worker-client power dynamics. When a sex worker feels that they control the situation, they could stop the sexual encounter completely and explain to the clients about the risks involved in continuing with the sexual activity.

Conversely, if the sex worker feels less in control and intimidated by the client considering that she already has collected the clients' money, the situation is left at the discretion. This situation is potentially precarious because there is a high chance that they will opt to continue the sexual encounter without any condom. This possibility is substantiated by the large number of studies documented portraying client resistance to using condoms during the sexual transaction and is often willing to pay more for unprotected sex (South African National AIDS Council, 2013). One of such study conducted in Cape Town by Gould and Fick (2008) indicated that the demand for unprotected sex from clients instigates most of the significant problems of sex workers. According to Gay, Croce-Galis, & Hardee, (2012), most violence perpetrated on sex workers by their clients is based on their refusal to comply with the clients' demands for unprotected sex and up to a third of street-based sex workers have reported being raped by their clients. Therefore, violence or fear of violence has a role to play as to what the sex worker does when they are faced with a situation of condom failure with a client.

Another 3% revealed that they apply vaginal spermicidal foam after realizing an incidence of condom breakage or slippage. About 5% of the respondents said that they stopped immediately and took a douche. Those who said they did other things than the ones suggested in the questionnaire suggested that they took the morning after pills. Meanwhile, these methods would kill, eliminate or block the entry of the sperm from accessing the ovaries; they are all more focused at preventing the sex workers from falling pregnant and not preventing the transmission of HIV. Consequently the risk of contracting HIV after performing these acts remains very high as these actions are at best myths.

#### **4.2.3.2 Within the next 24 Hours:**

The responses offered by the sex workers in this category represent their actions within the next 24 hours after a condom failure incident. The most popular response from the study participants indicated that the participants did nothing after the incident of condom failure with a client. Although it is unclear why they do nothing at all, a reasonable assumption is that they do not actually know what to do or where to go in situations of condom failure constituting high risk exposure to HIV and other STIs. In a study conducted by Parry et al. (2009), they uncovered that most of the sex workers in Cape Town knew about treatment for HIV, but they did not know where to go to get access to the ARVs. This is supported by Gay, Croce-Galis & Hardee, (2012), who noted that most prevention interventions targeting sex workers focus on condom use and that just a few have advocated for sex workers to have equal access to ARTs. They also noted that sex workers are faced with a lot a barrier to accessing healthcare.

Another plausible explanation for sex workers doing nothing when they experience condom failure with clients is offered by a quantitative study conducted by Wong (2003) to explore the medical seeking behaviours of SWs in a village in China by opening a clinic meant to serve sex workers. He discovered that these SWs refused to make use of the services of the clinic because they interpreted it as some form of stigma and discrimination. Sex workers have reported of being stigmatised against at every level of the society. According to Scheibe, Drame & Shannon (2012) discrimination, stigma and violence by police officers, clients, healthcare service providers, family members and community members have adverse impacts on the health and wellbeing of sex workers and so increases their vulnerability to HIV.

Therefore, stigma and discrimination could adversely impact on the health service seeking behaviours of sex workers. According to Gay, Croce-Galis & Hardee, (2012), sex workers may have difficulties accessing both post-exposure prophylaxis and legal services in situations of rape.

Notwithstanding, a fair number of sex workers reported to have attended a clinic (27%) and making use of the services of a professional (4%) within 24 hours of experiencing condom failure. This behaviour is espoused by a study conducted by Richter (2013), where she observed some positive attitude of the sex workers towards health care services tailored to sex workers' needs such as sex worker consultation, peer education and empowerment initiatives. She explained that strategies to mitigate sex workers' risk for HIV and ill-health by ensuring access to proper and sensitive health care and education in Rustenburg were successful.

Finally, 3% of the participants indicated that they took drugs and/or alcohol to forget the incidence of the condom failure. Although they were aware of the dangers they faced with condom failure with a client, sex workers who indulged in drugs and alcohol took these substances to forget about the incident. Sex workers have reported using alcohol and other drugs to lower inhibitions and give them the courage they need to approach clients (Parry et al., 2009). Nevertheless, as revealed by some of the sex workers in this study, those who have develop drug and alcohol dependency may use these substances to drown their worries and escape from the reality of their problems.

### 4.3 DISCUSSIONS

The actions of sex workers, though varied, indicates that sex workers do not most of the time make the right the decisions or do the right the things that could reduce their vulnerability to contracting HIV after condom failure. As far as the immediate actions go, continuing a sexual encounter without putting on a new condom after the first one fails constitutes a huge risk as the situation is identical to having unprotected sex. Actions such as taking a douche and applying spermicide foams would only go a long way to stop the individual from falling pregnant, but would not contribute so much in reducing the risk of HIV transmission. Nevertheless, some of the respondents reacted in ways that could reduce the risks of contracting HIV. These respondents admitted that they stopped the sexual encounter completely while others stopped and put on a new condom before continuing the sexual encounter.

Similarly, long-term actions such as doing nothing as reported by a majority of the sex workers would increase the chances of seroconversion whereas actions such as going to the clinic as reported by a third of the participants would be a better idea. This is important because the healthcare practitioners could provide intensive intervention strategies to abate the situation. Meanwhile, there is ongoing debate on the provision of PEP to sex workers, special considerations could be taken for them to receive PEPs. Although only a small population of the respondents confessed to using alcohol and drugs to get their minds off the situation of condom failure, it is an action that does not exactly help stop the seroconversion process nor reduce the stress associated with the risky exposure perpetuated by the condom failure. Nevertheless, those who decided to seek the help of a professional counsellor could

get some professional help that could help ease the stress associated with the unanticipated exposure. These professional counsellors could also recommend to the sex workers, other actions to take that could help reduce their vulnerability to the HIV infection and seroconversion.

#### **4.4 STUDY LIMITATIONS**

##### **4.4.1 Sampling Method**

The snowballing sample method was employed to obtain the required sample for the study for various reasons. Nonetheless, this technique of participant selection has its drawbacks which might influence the possibility of generalising the research finding to the general population identified. The main drawback of this sampling method is that it has a high possibility of producing biased samples. This is because the initial respondents who have a large number of social connections would provide the investigator with a higher proportion of other respondents who most likely have characteristics similar to that initial respondent and vice versa (Erickson, 1979 as cited by Johnston & Sabin, 2010). There is, therefore, a possibility that the resultant sample would be over-represented by the characteristics of those respondents who recruited more from their social circle and underrepresented by the characteristics of those respondents who recruited fewer participants from their peers.

##### **4.4.2 Sample Size**

One of the limitations of this study is related to the sample size. This is also tied down to the difficulty of estimating an appropriate sample size using the snowballing sampling method. Because in convenient sampling such as the snowballing sampling technique, the analysis is limited to the proportions of the sample, it is

difficult to generalise the findings to the larger population. This is because of the absence of randomisation during the sample selection process owing to the fact that the probability of selection is unknown. This also makes it difficult to estimate the size of the sample. To overcome this shortcoming, the investigator recruited as many participants as possible with the time frame and resources available to him.

## **CHAPTER FIVE**

### **SUMMARY, RECOMMENDATIONS AND CONCLUSION**

#### **5.1 INTRODUCTION**

This last chapter is divided into three main sections; summary of findings, recommendations and the conclusion. The summary of the findings provides a general idea of what the study sought to explore and the findings obtained. The chapter also provides some recommendations that the investigator proposes to the various stakeholders based on the findings of the study and finally, the conclusion, containing the final remarks that are made by the investigator with respect to the study.

#### **5.2 SUMMARY OF FINDINGS**

The aim of the research was to explore the actions taken by female sex workers within the first 24 hours of experiencing condom failure with a male client during penetration sex. This study firstly, confirmed what has been reported by other studies; the fact, condom failure among sex workers is common as a result of the frequency of their sexual activities and most probably the absence of condom skills. The participants confirmed this by stating their action when they experienced condom failure. Immediately when the sex workers see the condom has failed the majority of the respondents (37%) expressed that they continued the sexual intercourse till the end. An equal amount of respondents (37%) reported stopping the sexual encounter and putting on a new condom before continuing. About 13% of the respondents said that they stopped the sexual encounter altogether immediately

they saw that the condom has failed without any further action. A few of the respondents (6%) said that they stopped the sexual encounter and took a douche the moment they had the chance, to rid themselves of the semen.

The second phase of the actions of the sex workers involved the actions of the sex workers within the next 24 hours of experiencing the condom failure situation. Slightly above half (54%) of the research respondents confessed that they did nothing at all after a condom failure ordeal. A very small fraction (3%) revealed that they took alcohol and/or drugs to forget about the incidence, while another 4% of the participants said that they consulted a professional to help them overcome the stress associated with the consequences attached to condom failure.

### **5.3 RECOMMENDATIONS**

The findings of this study revealed some serious issues related to the actions of female sex workers that increase the susceptibility of both the sex workers and their clients to HIV. Based on these findings related to the actions of the sex workers as revealed in this study, the following recommendations are made by the investigator.

Primarily, the sex workers could benefit from this study findings through appropriate programmes designed to provide measures that ensure proper condom negotiation skills, correct condom usage and right health seeking behaviours when faced with a situation of condom failure. An important aspect that could be included in these training programmes is encouraging sex workers to discuss with the clients the possibility of condom failure and the various options of what they will do should it occur. These measures when applied appropriately would minimise their chances of

contracting HIV. Sex worker-led organisations such as SWEAT and Sisonke should include such elements in their peer led activities targeting female sex workers, men having sex with men as well as transgender sex workers.

Secondly, the findings of this study could inform NGOs working with sex workers such as Sex Workers Education and Taskforce (SWEAT) and Sisonke to possibly advocate for better and need-specific services such as health care facilities that can meet the needs in the case of unanticipated exposure to STIs including HIV of sex workers. Considering that little is done by African countries to provide HIV prevention services in sex work settings with an adequate scale and intensity (Chersich et al, 2013), these sex worker-led organisations could lead sex work-focused service delivery that could address their healthcare related issues.

#### **5.4 FINAL CONCLUSION**

Undoubtedly, condom failure has always been found to coexist with condom usage and is often associated with condom use errors. This study confirmed the occurrences of condom failure among sex workers as reported by the female sex workers in Cape Town. However, what the sex workers do when faced with such a situation immediately it occurs and within the next 24 hours could tremendously reduce their risks of contracting HIV and seroconversion (in the case of HIV transmission). Meanwhile, some of the actions such as continuing the sexual encounter without a new condom, taking alcohol and drugs or doing nothing at all could expose the sex workers more to contracting HIV, other actions such as stopping the sexual completely, paying a visit to a close clinic or visiting a professional could be the difference between staying HIV negative or becoming HIV

positive. Unfortunately, many sex workers avoid seeking medical attention or specialised advice when they are faced with situations that increase their vulnerability to HIV.

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## APPENDIX 1

### QUESTIONNAIRE

#### Instruction:

Please answer the following questions whether you are currently working as a sex worker or you are an ex-sex worker. If you feel uncomfortable answering a specific question move on to the next. You can quit this survey at any time.

#### Demographic Information

Please mark an (X) on ONE answer for each question unless new instructions are given on the question. Your participation is greatly appreciated.

1. What is your age?

\_\_\_\_\_

2. Race

Black

Coloured

White

Others (Specify) \_\_\_\_\_

3. Marital Status

Single

Live-in

Married

Separated

Divorced

Widowed

4. Mark your level of education.

High School

High school Graduate

- Some College
- College Graduate

### Substance Use

5. Have you ever used illegal drugs?

- Frequently  Sometimes  Rarely  Never

6. Are you high while working as a sex worker?

- Frequently  Sometimes  Rarely  Never

7. Are you intoxicated while working as a sex worker?

- Frequently  Sometimes  Rarely  Never

8. Do you feel powerful when you are working as a sex worker?

- Frequently  Sometimes  Rarely  Never  Only when I am high

9. Do you feel in control when you are working as a sex worker?

- Frequently  Sometimes  Rarely  Never  Only when I am high

### Sex Work Experiences

Thinking about your experience as a sex worker, how often did the following events happen to you while you were working as a sex worker?

10. Sexually assaulted by a client?

- Frequently  Sometimes  Rarely  Never

11. Had sex without condom for more money

- Frequently  Sometimes  Rarely  Never

12. Had sex without condom against your will

Frequently       Sometimes  Rarely       Never

13. Experienced condom breaking during sexual intercourse?

Frequently       Sometimes  Rarely       Never

14. Experience condom slipping of the client during sexual intercourse?

Frequently       Sometimes  Rarely       Never

15. What do you do when you notice that the condom has slipped or broken when having sex with a client?

- Continue to the end
- Stop immediately and put on a new condom
- Stop the sexual encounter completely
- Apply vaginal spermicidal foam
- Stop and take a douche
- Others

(Specify) \_\_\_\_\_

16. What do you do when you notice that the condom has slipped or broken after the sexual encounter?

- Nothing
- Seek counselling from a professional
- Take alcohol or drugs to forget the incident
- Go to the clinic for assistance
- Others

(Specify) \_\_\_\_\_

Thank you very much for taking out time to answer the questions