

**HIV-Related Post-Traumatic Stress Disorder: Psychological distress among a
sample of individuals recently diagnosed with HIV**

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

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Signature

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Date

SUMMARY

Few studies have assessed the prevalence of Post-Traumatic Stress Disorder (PTSD) associated with the receipt of an HIV-positive diagnosis and no published studies in South Africa have used a structured clinical interview to assess the above-mentioned. The present cross-sectional study assessed the prevalence of HIV-related PTSD among a sample of recently diagnosed patients attending public health clinics in the Boland region of the Western Cape. The PTSD module of the Composite International Diagnostic Interview (CIDI), together with a battery of self-report instruments assessing symptoms of traumatisation, depression and anxiety were administered to 85 patients who had been diagnosed with HIV in the year preceding data collection. In addition, HIV-related PTSD and symptomatology were assessed using an adapted version of the PTSD module of the CIDI. The self-report instruments administered were (a) a demographic questionnaire, (b) the Posttraumatic Stress Diagnostic Scale (PDS) which assessed current PTSD symptom severity, and (c) the 25-item Hopkins Symptom Checklist (HSCL-25) which assessed psychological distress, and symptoms and intensity of anxiety and depression.

The primary aim of the present study was to determine the prevalence of HIV-related PTSD among a sample of recently diagnosed HIV-positive individuals attending HIV clinics in the Boland region. The second aim was to determine the lifetime prevalence of PTSD among the sample. The third aim was to determine the percentage of the sample that endorsed the DSM-IV's PTSD A2 criterion and the subsequent HIV-related PTSD symptomatology among those who did and did not meet full criteria for HIV-related PTSD. The fourth aim was to determine the level of psychological distress reported by the sample.

The prevalence of lifetime PTSD was 29.4% (95% confidence interval [CI], 20.7% - 39.8%).

Sixty-nine of the eighty-five participants (81.2%) endorsed the DSM-IV's PTSD A2 criterion. Of the total sample, 34 participants (40%) (95% CI, 30.2% - 50.6%) met the full criteria for HIV-

related PTSD. The majority of participants reported mild PTSD symptom severity (45.8%). Over half the sample (51.4%) experienced clinically significant distress. Of those participants diagnosed with HIV-related PTSD, 82.4% were clinically distressed, and 76.5% and 58.8% experienced high levels of depression and anxiety, respectively.

The present study's findings suggest that receiving an HIV-positive diagnosis and/or being HIV-positive may be considered a traumatic stressor that frequently results in HIV-related PTSD. Findings of the present study indicate the need for adequate support and care for HIV-positive individuals. Given the various barriers to efficient mental health interventions and services in South Africa, there are significant challenges that need to be addressed in order to ensure that the mental health and welfare of HIV-positive individuals are both adequately assessed and appropriately maintained.

OPSOMMING

Min studies het die voorkoms van Posttraumatische Stress Steuring (PTSS) wat geassosieer word met die ontvangs van 'n MIV-positiewe diagnose geassesseer en geen gepubliseerde studies in Suid-Afrika het 'n gestruktureerde kliniese onderhoud aangewend om die bogenoemde te assessee nie. Die huidige deursnee studie het die voorkoms van MIV-verwante PTSS geassesseer onder 'n steekproef van onlangs gediagnoseerde pasiente wat publieke gesondheidsklinieke in die Boland omgewing van die Wes-Kaap besoek. Die PTSS module van die 'Composite International Diagnostic Interview (CIDI)' tesame met 'n battery van self-rapporteringsinstrumente, wat simptome van traumatisering, depressie en angstigheidsgraad meet, was toegedien aan 85 pasiënte wie met MIV gediagnoseer is in die jaar voor data insameling. MIV-verwante PTSS en simptomatologie was geassesseer deur 'n aangepaste weergawe van die PTSS module van die 'CIDI' te gebruik. Die self-rapporteringsinstrumente wat toegedien is was (a) 'n demografiese vraelys, (b) die 'Posttraumatic Stress Diagnostic Scale (PDS)' wat huidige PTSS simptome ernstigheidsgraad geassesseer het, en (c) die '25-item Hopkins Symptom Checklist (HSCL-25)' wat sielkundige nood, en simptome en intensiteit van angstigheidsgraad en depressie geassesseer het.

Die primêre doelstelling van die huidige studie was om die voorkoms van MIV-verwante PTSS te bepaal onder 'n steekproef van onlangs gediagnoseerde MIV-positiewe individue, wat MIV klinieke in die Boland omgewing besoek. Die tweede doelstelling was om die leeftyd voorkoms van PTSS onder die steekproef te bepaal. Die derde doelstelling was om die persentasie van die steekproef wat die DSM-IV se PTSS A2 kriteria onderskryf en gevolglik die MIV-verwante PTSS simptomatologie onder dié wat aan die volle kriteria van MIV-verwante PTSS voldoen en dié wat nie daaraan voldoen nie te bepaal. Die vierde doelstelling was om die vlakke van sielkundige nood wat gerapporteer is deur die steekproef te assessee.

Die voorkoms van leeftyd PTSS was 29.4% (95% vertrouensinterval [VI], 20.7% - 39.8%). Nege-en-sestig van die vyf-en-tagtig deelnemers (81.2%) het die DSM-IV se PTSS A2 kriterium onderskryf. Van die totale steekproef het 34 deelnemers (40%) (95% VI, 30.2% - 50.6%) voldoen aan die volle kriteria vir MIV-verwante PTSS. Die meerderheid van deelnemers het geringe PTSS simptome ernstigheidsgraad gerapporteer (45.8%). Meer as die helfte van die steekproef (51.4%) het kliniese beduidende nood ervaar. Die oorgrote meerderheid (82.4%) van die deelnemers wat gediagnoseer is met MIV-verwante PTSS het kliniese nood ervaar, en 76.5% en 58.8% het onderskeidelik hoë vlakke van depressie en angstigheidsgraad ervaar.

Die huidige studie se bevindinge stel voor dat om 'n MIV-positiewe diagnose te ontvang en/of MIV-positief te wees mag beskou word as 'n traumatiese stressor wat dikwels MIV-verwante PTSS tot gevolg het. Bevindinge van die huidige studie wys op die behoefte vir voldoende ondersteuning en sorg vir MIV-positiewe individue. Gegewe die verskeie struikelblokke tot effektiewe geestesgesondheidsintervensies en dienste in Suid-Afrika, is daar beduidende uitdagings wat aangespreek moet word om te verseker dat die geestesgesondheid en welstand van MIV-positiewe individue beide voldoende geassesseer en toepaslik onderhou is.

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Lindi Martin

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DEDICATION

I dedicate this thesis to my family, my parents, Rosie and Juts, and my brothers and sister, Robbie, Stephen and Desi; and to my nieces and nephews, Amy-Rose, Max, Andrew, Alexia, and Juliette.

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CHAPTER 1

INTRODUCTION

1.1 Introduction and rationale for the present study

It has been estimated that over 39.5 million people globally are living with HIV (WHO, 2006). Moreover, in 2006 it was estimated that over 2.9 million individuals died as a result of HIV/AIDS, and over 4.3 million individuals worldwide became newly infected with the disease (WHO, 2006). Sub-Saharan Africa is the region in the world worst affected by HIV (HSRC, 2002; UNAIDS, 2006), with over 64% of the total number of HIV-positive individuals globally, residing in this region (UNAIDS, 2007). HIV prevalence and incidence data for South Africa indicates that HIV is considered a generalized epidemic in this country (Department of Health, 2007; Freeman, 2004; Shisana, 2004). The overall prevalence of HIV in South Africa is estimated at 10.8%, and among individuals aged between 15 to 49 years the prevalence is estimated at 16.2%. Furthermore, the HIV incidence rate for those aged two years and older has been estimated at 2.7% (HSRC, 2005). By the end of 2005 an estimated 320 000 deaths occurred in South Africa as a result of HIV/AIDS (WHO, 2006).

HIV/AIDS is undeniably a life-threatening, unpredictable, chronic medical illness (Withell, 2000), and living with this disease constitutes a chronic stressor (Martinez, Israelski, Walker & Koopman, 2002; Safren, Gershuny & Hendriksen, 2003). Not only is the single event of receiving an HIV-positive diagnosis psychologically distressing for the newly diagnosed individual, but also the range of challenges relating to future events, post-diagnosis, which the individual potentially has to deal with. These challenges include fears and worries about physical decline and disability, access to appropriate treatment, the welfare of dependents, loss of employment, stigma, discrimination, possible isolation, and dying (Brouwer, Lok, Wolffers & Sebagalls, 2000; Carr & Gramling, 2004; Kagee, 2007; Poindexter, 1997; Safren et al., 2003; Simbayi et al., 2007). These future-oriented

challenges commonly faced by HIV-positive individuals are in contrast to the traditional traumas, for example, combat exposure and exposure to natural disasters, that have been studied (Mundy & Baum, 2004). The distress commonly experienced by those who have experienced a 'traditional trauma' is most severe directly after the experienced event and tends to lessen with time (Rothbaum, Foa, Riggs, Murdoch & Walsh, 1992). In contrast, HIV-positive individuals' concerns appear to be future-oriented (Kagee, 2007; Mundy & Baum, 2004) and thus the distress experienced by these individuals seems to be associated with future events and potentially increases with the amount of post-diagnosis stressors experienced.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association [APA], 1994) has included the event of being diagnosed with a life-threatening illness as a qualifying trauma that could result in symptoms of post-traumatic stress disorder (PTSD) or PTSD caseness (APA, 1994; Breslau & Kessler, 2001). Thus, according to the DSM-IV, being diagnosed HIV-positive constitutes an event that could potentially result in PTSD.

As PTSD is an event-specific syndrome in that its symptoms are linked to an explicit etiological stimulus (Breslau, 2002; Schnurr & Green, 2004) from which symptomatology ensue (Shalev & Yehuda, 1998), the appropriateness of applying the concept of post-traumatic stress disorder to the psychological impact of a persisting life-threatening illness, as is characteristic of the HIV disease, has been questioned (Kelly et al., 1998). One of the challenges of determining the applicability and suitability of PTSD symptomatology among HIV-positive individuals lies in the difficulty of isolating a single event that could cause PTSD (Tedstone & Tarrier, 2003).

A number of studies have explored the rate of PTSD-symptomatology and PTSD caseness among HIV-positive individuals (Els et al., 1999; Israelski et al., 2007; Katz & Nevid, 2005; Kimerling et al., 1999; Martinez et al., 2002; Olley, Gxamza, Seedat, Reuter & Stein, 2003; Olley, Seedat &

Stein, 2006). These aforementioned studies have however assessed general rates of PTSD and not rates associated with the receipt of an HIV-positive diagnosis. Very few studies have assessed the prevalence of PTSD symptomatology and PTSD caseness associated with the receipt of an HIV-positive diagnosis (HIV-related PTSD) among HIV-positive individuals (Botha, 1996; Delahanty, Bogart & Figler, 2004; Kelly et al., 1998; Safren et al., 2003). Only one such study has been conducted in South Africa (Botha, 1996).

A number of limitations are evident in the studies which have assessed PTSD associated with the receipt of an HIV-positive diagnosis. These limitations include the use of self-report measures to assess symptoms of PTSD (Botha, 1996; Delahanty et al., 2004; Safren et al., 2003), small sample sizes (Botha, 1996; Kelly et al., 1998), and the use of DSM-III-R PTSD diagnostic criteria (Kelly et al.). Furthermore, no published studies have assessed the rate of endorsement of the DSM-IV's PTSD A2 criterion and the subsequent PTSD symptom profile among HIV-positive individuals who do and who do not meet the full criteria for HIV-related PTSD.

To address these various gaps in the literature, the present study used a structured diagnostic interview based on DSM-IV PTSD diagnostic criteria to determine the prevalence of PTSD symptomatology and PTSD caseness associated with the receipt of an HIV-positive diagnosis among a South African HIV-positive sample. Additionally, the rate of endorsement of the DSM-IV's PTSD A2 criterion and the subsequent HIV-related PTSD symptom profile among HIV-positive individuals who did and who did not meet full criteria for PTSD was assessed. A thorough literature survey yielded no published research that examined HIV-related PTSD in the South African context determined by means of a structured diagnostic interview, or explored the rate of endorsement of the DSM-IV's PTSD A2 criterion among a sample of individuals recently diagnosed with HIV. Thus, the present study is, to the best of my knowledge the first such investigation.

1.2 Need for the present study

It has been reported that the prevalence of mental disorders is considerably higher among HIV-positive individuals than among members of the general population in South Africa (Freeman, Nkomo, Kafaar & Kelly, in press; HSRC, 2005). As such, HIV-positive individuals experience high levels of distress, including elevated symptoms of depression and anxiety (Els et al., 1999; Olley, Gxamza, Seedat, Reuter et al., 2003). Given that approximately 5.5 million individuals in South Africa are living with HIV/AIDS (WHO, 2006), a substantial number of these HIV-positive individuals are likely experiencing significant psychological difficulties. Furthermore, the majority of HIV-positive individuals do not receive any form of psychiatric treatment (Israelski et al., 2007; Martinez et al., 2002), due to, amongst other factors, the shortage of mental health professionals in South Africa (Jacob et al., 2007). In light of the limited availability and provision of mental health care in South Africa, HIV-positive individuals may subsequently not receive adequate mental health treatment.

Being diagnosed with HIV and living with the disease appears to constitute a traumatic experience for those who are HIV-positive (Botha; 1996; Delahanty et al., 2004; Kelly et al., 1998; Safren et al., 2003). Given the paucity of research within the South African context as to whether the receipt of an HIV-positive diagnosis is associated with subjective feelings of distress that could lead to symptoms of PTSD or PTSD caseness, the present study aims to address these issues by exploring DSM-IV PTSD criteria among individuals who have recently been diagnosed with HIV. In doing so, the present study will be able to determine the extent of distress experienced by HIV-positive individuals, associated with the receipt of an HIV-positive diagnosis, and thus highlight the need for adequate mental health interventions among such individuals.

1.3 Aims of the present study

The first aim of the present study was to determine the lifetime prevalence of PTSD among the sample. The second aim was to determine the prevalence of HIV-related PTSD within the given sample. The third aim was to determine how many participants in the sample endorsed the A2 criterion for HIV-related PTSD. The fourth aim was to determine how many individuals who endorsed the A2 criterion did and did not meet full criteria for HIV-related PTSD. The fifth aim was to compare persons who endorsed the A2 criterion and who received an HIV-related PTSD diagnosis with those who endorsed the A2 criterion but did not receive an HIV-related PTSD diagnosis in terms of the rate of symptoms of PTSD. The sixth aim was to determine the PTSD symptom severity among the sample. The seventh aim was to determine the level of distress experienced by the participants in the study. The eighth aim was to determine the level of comorbid anxiety and depression among those participants who met full criteria for HIV-related PTSD.

In addressing the above-mentioned aims, it was possible to determine: (a) the proportion of the sample who responded to receipt of their HIV-positive diagnosis with intense fear, helplessness or terror, and subsequently did or did not meet the full criteria for HIV-related PTSD, (b) the extent to which receipt of an HIV-positive diagnosis could either result in a PTSD diagnosis, or result in the manifestation of PTSD symptomatology within the sample, and (c) the level of distress experienced by the sample.

1.4 Overview of chapters

Chapter 2 provides an overview of both the international and South African literature pertaining to HIV/AIDS, in terms of the extent of psychopathology found among HIV-positive individuals, the prevalence of lifetime PTSD and HIV-related PTSD among HIV-positive persons, and the impact and implications of an HIV-positive diagnosis for those who are HIV-positive. Furthermore, the theoretical framework for the present study is discussed.

Chapter 3 describes the method that was used in the present study, including the research design, the selection of participants, data collection instruments, and data analysis procedures.

Chapter 4 constitutes a presentation of the results found in the present study.

Chapter 5 comprises a discussion of the results, including the implications of the present study's findings and directions for future practice and research.

CHAPTER 2

LITERATURE REVIEW

2.1 HIV/AIDS: Global figures

According to the World Health Organization (2006), an estimated 39.5 million individuals (95% CI, 34.1 – 47.1 million) globally were living with HIV in 2006. Of all those living with HIV globally, an estimated 64%, or 25.8 million (UNAIDS, 2007), live in sub-Saharan Africa. Furthermore, data for 2005 indicate that an estimated 3.2 million adults and children living in sub-Saharan Africa were newly infected with HIV and 2.4 million deaths have occurred in this region as a result of AIDS (UNAIDS, 2007). These figures indicate that Sub-Saharan Africa is the region worst affected by the HIV/AIDS epidemic in the world (HSRC, 2002; UNAIDS, 2006).

2.1.1 HIV/AIDS: South Africa

Results from the second HSRC national household survey indicate that the prevalence of HIV among individuals aged two years and older was estimated at 10.8% (95% CI, 9.9% - 11.6%). Overall, the prevalence for males was estimated to be 8.2% (95% CI, 7.1% - 9.6%), which was higher than the prevalence among females which was estimated at 13.3% (95% CI, 12.1% - 14.6%). The overall prevalence for individuals aged between 15 to 49 years was estimated at 16.2% (95% CI, 14.9% – 17.7%), with females in this age category having a higher estimated prevalence, 20.2% (95% CI, 18.3% - 22.2%) in comparison with males in the same age category, 11.7% (95% CI, 10.0% - 13.6%). Furthermore, the HIV incidence rate for the total sample aged 2 years and older was estimated to be 2.7% (95% CI, 1.3% - 4.1%) (HSRC, 2005). Given these figures, HIV is considered a generalized epidemic in South Africa (Department of Health, 2007; Freeman, 2004; Shisana, 2004)

2.2 HIV/AIDS and psychopathology

Mental health problems commonly occur among individuals who are HIV-positive. These mental health problems emerge either shortly after receipt of an HIV-positive diagnosis or during the course of the disease (Olley et al., 2006). This statement suggests that psychological distress among HIV-positive individuals may be associated with the receipt of an HIV-positive diagnosis or with other traumatic events which they may encounter during the course of their illness.

In a study to determine the prevalence of mental disorders among HIV-positive individuals in the United States (U.S.), Bing et al. (2001) found that almost half (47.9%) of the sample screened positive for one or more psychiatric disorders, including major depression, dysthymia, generalized anxiety disorder (GAD) and panic attacks. Similar results were reported by Israelski et al. (2007) who assessed the prevalence of depression, post-traumatic stress disorder, and acute stress disorder among a sample of HIV-positive individuals. Israelski et al. found that over half of the sample (56%) screened positive for a psychiatric disorder, with over one-third (38.1%) of the sample meeting criteria for two or more disorders.

The assessment of the South African literature examining psychopathology among individuals living with HIV/AIDS suggests that the prevalence of mental disorders is high in this population. Furthermore, it has been found that in developing countries such as South Africa, the prevalence of mental disorders is considerably higher among HIV-positive individuals than in the general population (Freeman et al., in press; HSRC, 2005). Moreover, in South Africa, individuals infected with HIV/AIDS may be at greater risk for psychopathology than those infected with HIV/AIDS residing in developed countries (Olley, Gxamza, Seedat, Reuter et al., 2003). In addition to the stressor of being HIV-positive, individuals in South Africa face high levels of poverty (Marais, 2007), unemployment (Jacob et al., 2007; Marais, 2007), crime, inadequate housing, sexual assault (Petersen, Bhana & McKay, 2005) and domestic violence (Pillay & Kriel, 2006).

Studies conducted in South Africa have found high rates of psychiatric disorders and psychiatric comorbidity among HIV-positive individuals. For example, in a longitudinal study of 65 recently diagnosed HIV-positive adults in South Africa it was found that 56% of the sample had at least one psychiatric disorder at baseline, and 48% met criteria for at least one psychiatric disorder at six-month follow-up (Olley et al., 2006). Furthermore, Els et al. (1999) found that among a sample of 100 predominantly Black, heterosexual, HIV-positive individuals, psychiatric comorbidity was detected in 58% of the sample.

Data indicates that a number of psychological problems, such as depression and anxiety, are robustly associated with the HIV disease (Antelman et al., 2007; Boarts, Sledjeski, Bogart & Delahanty, 2006; Van Servellen et al., 1997). Due to the high levels of comorbid mood and anxiety disorder symptomatology found among HIV-positive individuals, studies that have explored psychiatric comorbidity among HIV-positive individuals have been assessed.

2.2.1 HIV/AIDS and mood disorders

Mood disorders commonly found among HIV-positive individuals include major depressive disorder (MDD), dysthymia, bipolar disorder and mania. Bing et al. (2001) found that the prevalence of mood disorders was greater than the prevalence of anxiety disorders among a sample of HIV-positive adult outpatients in the U.S. In Bing et al.'s study, 36% of the sample screened positive for major depression, and 26.5% screened positive for dysthymia. Additionally, over one-fifth (21%) of the sample in Bing et al.'s study screened positive for both MDD and dysthymia. Similarly, Spiegel et al. (2003) and Israelski et al. (2007) found rates of depression of 37% and 38%, respectively, among HIV-positive samples in the U.S. Cohen et al. (2002) however, found a rate of 45.5% for depression among HIV-positive outpatients in the U.S., which was higher than that found by Israelski et al. and Cohen et al.

It has been reported that the prevalence of depression is particularly high among HIV-positive women. For example, Van Servellen et al. (1997) found that among a sample of HIV-positive women in the U.S., 25% scored in the range of case or borderline condition for depression. Moreover, Morrison et al. (2002) found that of a sample of HIV-positive women in the U.S., 19.4% met criteria for current major depression in comparison to 4.8% of a sample of 62 HIV-negative women.

The above-mentioned rates of depression found among HIV/AIDS patients are greater than the lifetime rate of major depressive disorder in the U.S., which is estimated to be 13% (Kessler, Stang, Wittchen, Stein & Walters, 1999). The variability in the prevalence rates of depression may be due to a number of factors, such as differences in patient samples, particularly with regard to demographics, the stage of the disease, the treatment status of the individual, the methods of assessment, and comorbidity with other psychiatric disorders (Crues et al., 2003).

High rates of psychological ill health have been established in studies that have been conducted among individuals with HIV/AIDS in South Africa, particularly, mood and anxiety disorders. Among a sample of HIV-positive individuals, Els et al. (1999) found that 35% of the sample met criteria for major depressive disorder, 6% met criteria for bipolar disorder, and 3% met criteria for dysthymic disorder. Makoae et al. (2005) found that among a sample of HIV-positive adults, 40.2% endorsed symptoms of depression. Similarly, Olley, Gxamza, Seedat, Reuter et al. (2003) reported a rate of 38.7% for current depression and a rate of 19.1% for lifetime depression among a sample of recently diagnosed HIV-positive patients. Besides the aforementioned rates for depression reported by Olley, Gxamza, Seedat, Reuter et al., other mood disorders were prevalent among the sample, including, dysthymia (28%) and hypomania (2.2%). Suicidality was prevalent among 9.7% of the sample (Olley, Gxamza, Seedat, Reuter et al.). Olley et al. (2006) found that among an HIV-positive sample, depression was one of the most prevalent disorders reported at both

baseline and follow-up (Olley et al., 2006). In Olley et al.'s study, 34.9% and 20% of the sample met criteria for depression at baseline and follow-up, respectively, with four new cases of depression being detected at follow-up. Depression at follow-up was significantly associated with disability in work, social, or family functioning; greater number of negative life events; and a decline in CD4+ lymphocyte count (Olley et al.). Additionally, Olley, Seedat, Nei and Stein (2004) found that predictors of current major depression among individuals recently diagnosed with HIV were experiencing a greater impact of negative life events, a higher level of disability, and female gender.

It is important to note that mood disorders may either precede HIV infection or may emerge as a result of the HI virus (Treisman, Fishman, Schwartz, Hutton & Lyketsos, 1998). Consequently, the evaluation of mood disorders among HIV-positive individuals poses a number of challenges (Treisman et al.).

2.2.2 HIV/AIDS and anxiety disorders

Anxiety disorders associated with the HIV disease include panic disorder (PD), agoraphobia, specific phobia, social phobia, obsessive-compulsive disorder (OCD), acute stress disorder (ASD), and post-traumatic stress disorder (PTSD). Cohen et al. (2002) found that over 70% of an HIV-positive sample in the U.S. was significantly anxious and distressed. Israelski et al. (2007) found that 43% and 34% of a sample of HIV-positive individuals met symptom criteria for ASD and PTSD, respectively. Bing et al. (2001) found that 15.8% of a sample of HIV-positive adult outpatients in the U.S. screened positive for GAD, and 10.5% met criteria for panic attacks. Furthermore, 5% of the sample in the study conducted by Bing et al. screened positive for both GAD and panic attacks.

It has been reported that the rate of anxiety among HIV-positive women is high. Van Servellen et al. (1997) found that among a sample of 44 symptomatic HIV-positive women in the U.S., 72% scored in the range of case or borderline condition for anxiety on the Hospital Anxiety and Depression Scale. Moreover, Morrison et al. (2002) found that among a sample of women in the U.S., HIV-positive women had significantly higher anxiety scores than HIV-negative women.

Similar to the findings of studies conducted in developed countries, the prevalence of anxiety disorders and anxiety symptomatology among HIV-positive individuals in South Africa has been found to be elevated. Makoae et al. (2005) reported that among a sample of HIV-positive adults, the symptoms, fear and worries, were endorsed by 45.4% of the sample, with 26.8% of the sample endorsing symptoms of anxiety. Els et al. (1999) found similarly high rates of anxiety among a sample of HIV-positive individuals. In the study conducted by Els et al., the following disorders were prevalent: GAD (21%), PD (37%), social phobia (15%), specific phobia (10%), agoraphobia (9%), PTSD (6%), and OCD (3%). Similarly, Olley, Gxamza, Seedat, Reuter et al. (2003) reported that among a sample recently diagnosed HIV-positive adults, the following anxiety disorders were prevalent: GAD (9.7%), PD (7.5%), social anxiety disorder (6.5%), and PTSD (12.9%).

Taken together, it seems that those living with HIV/AIDS experience significant levels of distress.

2.3 Post-traumatic Stress Disorder: prevalence and exposure to traumatic events in community samples

Kessler, Sonnega, Bromet, Hughes and Nelson (1995) estimated the lifetime prevalence of PTSD among a community sample of 5877 persons in the U.S. to be 7.8%, with almost twice as many women (10.4%) than men (5.0%) likely to experience lifetime PTSD. For men, the traumas most frequently associated with PTSD were combat exposure and witnessing the serious injury or death of a person. For women however, the traumas most frequently associated with PTSD were rape and

sexual molestation (Kessler et al.). In comparison to the lifetime prevalence rates for PTSD reported by Kessler et al., Breslau, Davis, Andreski and Peterson (1991) found a marginally higher rate of lifetime PTSD among a random sample of 1007 young adults in the U.S. In Breslau et al.'s study (1991) it was found that the lifetime prevalence of PTSD in the total sample was 9.2%, with a higher rate evident among women (11.3%) than men (6.0%), despite exposure to traumatic events being higher among men (43.0%) than women (36.7%). A substantially lower rate for lifetime PTSD in comparison to those found by Kessler et al. (1995) and Breslau et al. (1991) was reported by Perkonig, Kessler, Storz and Wittchen (2000). Perkonig et al. found that among a representative community sample of 3021 German participants aged 14 to 24 years, the prevalence for lifetime PTSD was 1.3%, with only 1% of males and 2% of females fulfilling DSM-IV criteria for PTSD.

2.4 Risk factors for the development of PTSD

Breslau (1998) categorized risk factors associated with the onset of PTSD following exposure to a traumatic event or events as (a) characteristics of the trauma, and (b) characteristics of the individual. Trauma characteristics include the type of trauma (for example, violent physical assault and a motor vehicle accident, amongst others) and the severity of the traumatic event (Breslau, 1998; Green, Grace, Lindy & Gleser, 1990). Individual characteristics which pose a risk for the development of PTSD include female gender, personality traits, neuroticism and both a family and personal history of psychiatric disorders, including pre-existing anxiety and depressive disorders (Breslau, 1998). The aforementioned indicates a potential genetic vulnerability to PTSD (Seedat, Niehaus & Stein, 2001). Additional risk factors which increase the chances of developing PTSD include the experience of trauma during childhood and physical abuse (Bremner, Southwick, Johnson & Yehuda, 1993).

2.5 PTSD and life-threatening illness

As a result of the DSM-IV's adaptation and extension of the stressor criterion to include life-threatening illness as an event capable of precipitating PTSD (APA, 1994), an increase in studies focusing on the relationship between PTSD symptomatology and life-threatening diagnoses for example, cancer (Palmer, Kagee, Coyne & DeMichele, 2004; Smith, Redd, Peyser & Vogl, 1999); and HIV (Brief et al., 2004; Cohen et al., 2002; Israelski et al., 2007; Katz & Nevid, 2005; Kelly et al., 1998; Kimerling et al., 1999; Leserman et al., 2005; Martinez et al., 2002; Safren et al., 2003; Olley, Zeier, Seedat & Stein, 2005) has been evident. This emphasizes the notion that being faced with a terminal illness may be considered a traumatic stressor for those individuals who have been diagnosed with such illnesses (Kimerling et al.). Consequently, the investigation of PTSD and PTSD symptomatology among individuals who have received a life-threatening diagnosis is warranted.

2.6 The prevalence of PTSD among HIV-positive individuals

The prevalence of PTSD among individuals infected with HIV varies across studies as a result of various methods of assessment, different diagnostic criteria used to determine caseness or symptomatology, sample characteristics, and the diverse definitions of qualifying traumatic events (Breslau, 2001). Despite the varying rates of PTSD that have been reported among those diagnosed with HIV, the available figures suggest that the prevalence of PTSD may be high among HIV-positive individuals (Brief et al., 2004).

In a longitudinal study conducted by Olley et al. (2006) among a sample of individuals recently diagnosed with HIV, it was found that PTSD was one of the most prevalent disorders at both baseline and follow-up. Results from the study conducted by Olley et al. revealed that 14.8% and 26% of the sample, at baseline and follow-up, respectively, met criteria for PTSD. Of those who met criteria for PTSD at baseline, 36% reported that the index trauma was being informed of their

HIV-positive diagnosis (Olley et al., 2005). Olley et al. (2006) suggest that the high rate of PTSD found at follow-up may be explained by either the delayed onset of PTSD symptoms or the occurrence of new trauma exposure between baseline and follow-up assessments.

High rates of PTSD among HIV-infected women have been documented. Katz and Nevid (2005) examined the prevalence of PTSD and risk factors for PTSD symptomatology among a sample of 102 HIV-positive women in the U.S. The PTSD Checklist-Civilian Version (PCL-C) based on DSM-IV criteria for PTSD was used to determine the rate of PTSD in the sample, with the instructions being modified in order to elicit responses to being diagnosed and treated for HIV. Katz and Nevid found that approximately 15% and 20% of the sample scored in the syndromal and subsyndromal range for PTSD, respectively. Additionally, it was determined that HIV-related PTSD symptomatology was associated with more past traumatic events, less satisfaction with perceived accessibility to social support, a greater level of current negative life change, a larger amount of HIV physical symptoms, and a higher level of perceived stigmatization. Katz and Nevid found that the strongest predictor of HIV-related PTSD was stigma, indicating that the greater the level of perceived stigma, the higher the number of HIV-related PTSD symptoms tended to be.

Kimerling et al. (1999) reported a higher rate of PTSD among a sample of 67 HIV-positive African American women than did Katz and Nevid (2005). Kimerling et al. found that 35% of the sample met criteria for PTSD which was determined with the Impact of Events Scale-Revised (IES-R) based on DSM-IV criteria for PTSD. A markedly higher rate of PTSD to that found by Katz and Nevid among HIV-infected women in the U.S. was reported by Martinez et al. (2002). Martinez et al. reported a PTSD rate of 42% among a sample of 41 HIV-positive women, with 22 % of the sample meeting criteria for partial PTSD, determined using the PTSD Checklist-Civilian Version (PCL-C) based on DSM-IV criteria. Moreover, Martinez et al. found that the level of PTSD was significantly positively correlated with the total number of traumatic life events, with women who

had experienced a greater number of traumatic life events having a higher percentage of probable full PTSD, in comparison to those women who had experienced fewer traumatic life events.

As death anxiety may be of particular relevance to the development and maintenance of PTSD symptoms after being diagnosed with HIV, Safren et al. (2003) examined the association between death anxiety and PTSD symptoms among a sample of 75 HIV-positive individuals with medication adherence difficulties in the U.S. Safren et al. found that almost two-thirds of the sample (64%) met criteria for PTSD, related to the diagnosis of HIV and living with HIV, as measured with the Posttraumatic Diagnostic Scale (PDS) based on DSM-IV diagnostic criteria for PTSD. Safren et al. suggest that an HIV diagnosis may be an additional traumatic stressor for individuals who live with a range of other stressors, and that those with higher death anxiety may interpret illness symptoms in a maladaptive way, which subsequently results in more PTSD symptoms. Furthermore, an increase in HIV-related symptoms may signify a greater degree of life threat for HIV-positive individuals, which may lead to a greater risk of PTSD-related symptoms (Katz and Nevid, 2005).

2.7 PTSD in response to receipt of an HIV-positive diagnosis

Botha (1996), Delahanty et al. (2004), and Kelly et al. (1998) determined whether an HIV-positive diagnosis could result in PTSD or PTSD symptomatology among HIV-positive individuals. Botha explored levels of distress associated with receiving an HIV-positive diagnosis, by assessing PTSD symptomatology in a sample of 24 recently diagnosed HIV-positive individuals in South Africa. Botha's study revealed an above average score of 38.9 on the Impact of Event Scale (IES), indicating elevated posttraumatic stress symptoms.

Similarly, Delahanty et al. (2004) used the IES to assess PTSD symptomatology associated with receipt of an HIV-positive diagnosis among a sample of 110 HIV-positive participants on antiretroviral treatment in the U.S. Delahanty et al. determined that the total mean score on the IES

was 32.4. A mean total score on the IES of 38.9 and 32.4, as found by Botha (1996) and Delahanty et al., respectively, is higher than a mean IES total score of 24.2 found among a sample of 117 women recently diagnosed with primary breast cancer in the U.S. (Koopman et al., 2002), and substantially higher than a mean IES score of 9.1 found among a group of 30 motor vehicle accident victims diagnosed with PTSD (Kupchik et al., 2007).

In a similar study to Botha (1996) and Delahanty et al. (2004), Kelly et al. (1998) investigated the occurrence of PTSD in response to an HIV-positive diagnosis and the relationship between PTSD and other psychiatric disorders among 61 homosexual and bisexual men in Australia. In Kelly et al.'s study, the PTSD module of the Diagnostic Interview Schedule (DIS-PTSD) was modified in order to elicit responses to the event of receiving an HIV-positive diagnosis. Participants indicated the presence or absence of PTSD symptoms in response to the receipt of an HIV-positive diagnosis, occurring any time since they were informed of their HIV-positive status. Kelly et al. found that 30.2% of the sample met criteria for DSM-III-R PTSD in response to a diagnosis of HIV. Significant correlations were found between PTSD caseness and (a) any diagnosis of PTSD from other life events, particularly trauma occurring prior to HIV infection, (b) the presence of any other psychiatric disorder prior to receiving an HIV-positive diagnosis, and (c) higher neuroticism scores. Additionally, Kelly et al. found that those individuals with PTSD associated with an HIV diagnosis were more likely to suffer from depression after their diagnosis, and to have had a history of anxiety disorder.

2.7.1 Reactions to receiving an HIV-positive diagnosis

Several studies have shown that discovering that one is HIV-positive is psychologically distressing for the individual (Herbst, 2006; Stevens & Doer, 1997). The majority of individuals who are faced with an HIV-positive diagnosis commonly respond with initial shock, numbness and disbelief, and subsequently, anxiety and anger (Cartwright & Cassidy, 2002).

Stevens and Doerr (1997) explored the subjective experiences of being informed of an HIV-positive diagnosis among a low income community sample of 38 HIV-infected women in the U.S. Findings indicated that over half of the sample described their experience of receipt of an HIV-positive diagnosis as “a calamity” (Stevens & Doerr, p. 527). The remainder of the sample described their experience as either “a confirmation” or “an epiphany” (Stevens & Doerr, p. 527). Overall, the women in Stevens and Doerr’s study experienced their HIV-positive diagnosis as a traumatic event, accompanied with feelings of helplessness and threat, and in some cases, shock and numbness.

Herbst (2006) explored the initial subjective reactions to receiving an HIV-positive diagnosis among low-income, HIV-positive mothers in South Africa. In Herbst’s study, the women primarily reported shock, sadness, hopelessness and despair in reaction to receipt of their diagnosis. Additionally, feelings of blame, disappointment, anger and guilt were also reported. The women’s reactions to the shock of hearing that they were HIV-positive were described as speechlessness, confusion, paralysis and numbness. In Herbst’s study, the women perceived the receipt of their HIV-positive diagnosis as a death threat.

Findings from Stevens and Doerr’s study (1997) and Herbst’s study (2006) suggest that the receipt of an HIV-positive diagnosis (DSM-IV’s PTSD criterion A1) was coupled with subjective responses consistent with the DSM-IV’s A2 criterion for PTSD. Roemer et al. (1998) found that individuals’ subjective reactions occurring at the time of an experienced event which are most predictive of subsequent distress constitute both a sense of helplessness and a degree of disturbed emotional reaction. Besides the feelings of helplessness, fear, or horror experienced during an event, other emotions, such as anger, shame, numbness and disgust may be related to the development of post-traumatic symptomatology (Roemer et al.). Moreover, Blanchard et al. (1995) found that among a sample of motor vehicle accident survivors, perceived life threat or the fear of death significantly predicted the development of PTSD.

2.7.2 The implications and impact of an HIV-positive diagnosis

The HIV-positive individual faces numerous psychological challenges during the course of the disease. Among the most stressful events that may be experienced by individuals who are HIV-positive are receipt of their HIV-positive diagnosis, learning that a loved one has died as a result of HIV/AIDS, experiencing various signs and symptoms associated with the progression of the disease, treatment failure, and experiencing HIV-related symptoms without AIDS (Valente, 2003). Additionally, during the course of their illness, HIV-positive individuals are likely to experience a variety of health problems, financial stressors, family crises, losses and future uncertainties (Cohen et al., 2002; Withell, 2000). Stevens and Doer (1997) report that the impact of learning that one is HIV-positive is reflected in the experience of continuous despair, an increase in drug use, HIV transmission risks, and the instability of relationships, shelter and earnings. The degree of trauma experienced by the HIV-positive individual depends on a number of factors, including, how the individual became infected, the personality characteristics of the individual, the level of support available to the individual, and both the knowledge and experience of issues related to HIV/AIDS (Cavallari, 1996; Weinel, 1990). Additionally, the reactions of both family and friends, the nature of the immediate community and the availability of services, all play a role in the extent of trauma that the HIV-positive person may experience (Wilton, 1996). Moreover, as prejudice and stigmatization are closely associated with an HIV-positive diagnosis, HIV may be considered a unique disease, distinct from other progressive and life-threatening diseases (Katz & Nevid, 2005; Pedersen & Elklit, 1998).

In sum, it is evident that the prevalence estimates of PTSD among HIV-positive individuals are high as the majority of studies which have assessed PTSD among HIV-positive samples have found rates of PTSD which exceed 25% (Kelly et al., 1998; Kimerling et al., 1999; Martinez et al., 2002; Olley et al., 2005; Safren et al., 2003). PTSD rates of 25% and above found among HIV-positive individuals are higher than rates of PTSD found in the general population (Carey, Stein, Zungu-

Dirwayi & Seedat, 2003; Smit et al., 2006). The high prevalence of PTSD found among those who are HIV-positive indicates that people who are HIV-positive experience elevated symptoms of distress, including high anxiety and mood symptomatology, as evidenced by the reviewed literature. Additionally, HIV-positive individuals may experience symptoms of traumatisation associated with one or a combination of the following (a) exposure to traumatic life events, including physical and sexual abuse, serious accidents and unexpected deaths (Martinez et al.), (b) the receipt of their HIV-positive diagnosis, and (c) living with HIV (Botha, 1996; Delahanty et al., 2004; Kelly et al.; Safren et al.).

In light of the existing literature suggesting high rates of HIV-related PTSD, it is necessary to explore HIV-related PTSD within the South African context, as no such published research has been conducted in South Africa using a structured clinical interview based on DSM-IV criteria. The present study thus focused on assessing HIV-related PTSD, using DSM-IV diagnostic criteria for PTSD, among a sample of individuals recently diagnosed with HIV.

2.8 Theoretical framework

The present study is framed within the assumption of psychiatric nosology. By accepting the existence of a circumscribed nosological identity, the present study will employ the diagnostic criteria for PTSD as stipulated by the DSM-IV, to determine PTSD symptomatology and PTSD caseness among the sample.

2.8.1 PTSD: The expansion of the DSM's stressor criterion

The third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (APA, 1980), described a PTSD qualifying stressor as one “that would evoke significant symptoms of distress in almost everyone” (APA, 1980, p. 238). Specific traumatic experiences such as rape, combat, and torture, were considered experiences “generally outside the range of usual human

experience” (APA, 1980, p. 236).

The revised edition of the DSM-III, the DSM-III-R (APA, 1987), modified PTSD’s criterion A so as to include within its stressor criterion the witnessing or learning about one’s family or friends being exposed to serious dangers as well as being directly exposed to such dangers oneself. PTSD’s criterion A was further modified after changes to criterion A were debated upon by DSM-IV committee members as it was concluded that if an incident was personally experienced by the individual as traumatic, it would establish whether the individual would become symptomatic (McNally, 2004). Consequently, an individual’s subjective, or personal evaluation of an incident was taken into account in defining a potentially traumatic stressor. Thus, the DSM-IV (APA, 1994) states that an individual exposed to trauma has either directly or indirectly experienced an event or events that posed either an actual or potential threat to their life, or severe injury, to themselves or others (A1 criterion), and the individual’s reaction was that of extreme terror, helplessness, or shock (A2 criterion) (APA, 1994). Redefining the DSM’s A criterion to include the individual’s subjective response to a traumatic event has been described by Roemer, Orsillo, Borkovec and Litz (1998) as a shift in definition from a situational approach to an interactionist approach.

2.8.2 Implications of the DSM’s stressor criterion

Breslau and Kessler (2001) examined the effects of the revised stressor criterion among a community sample of 2181 members from the general community in the U.S. The results from Breslau and Kessler’s study indicated that the expanded definition of qualifying stressors in the A1 criterion increased the total number of events that can be used to diagnose PTSD by almost 60%. Furthermore, 37.8% of all PTSD cases in the sample were attributable to the expansion of criterion A1 qualifying events. Moreover, this study revealed that the majority of A1 events (76.6%) included the A2 criterion, thus A1 events were rarely experienced in the absence of the A2 response. Events that did not involve A2, rarely resulted in PTSD (Breslau & Kessler, 2001).

Breslau (2002) explains that the broadening of qualifying events in criterion A1, and the added subjective emotional response in criterion A2, places emphasis on the principle that people may perceive and react differently to externally similar events, and thus less emphasis is placed on the objective features of the stressors.

2.8.3 DSM-IV diagnostic criteria for PTSD

The DSM-IV (APA, 1994) stipulates that in order for an individual to meet caseness for Post-Traumatic Stress Disorder (PTSD), a number of criteria need to be endorsed. To qualify for a PTSD diagnosis, an individual has to meet both the A1 and A2 criterion, amongst others. Meeting both the A1 and A2 criterion would entail that the individual has been exposed to both, (a) a specific traumatic event in which “the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others” (APA p.467) and (b) the person’s subjective response was that of “. . . intense fear, helplessness, or horror” (APA p. 467).

Furthermore, diagnostic criteria for PTSD comprise three clusters of signs and symptoms reflected by the syndrome, namely, a re-experiencing cluster, an avoidance cluster, and a hyperarousal cluster. The presence of at least one re-experiencing, three avoidance, and two arousal symptoms are required for a PTSD diagnosis. The re-experiencing cluster, criterion B, encompasses symptoms such as recurrent, intrusive, distressing recollections of the experienced traumatic event in the form of, for example, dreams, images, thoughts, or perceptions. Other symptoms from the re-experiencing cluster include symptoms such as acting or feeling as if the traumatic event was recurring and physiological reactivity and psychological distress to cues symbolic of the experienced traumatic event.

The avoidance cluster, criterion C, is marked by the persistent avoidance of both activities and stimuli related to the trauma, and emotional numbing. Symptoms from the avoidance cluster include the avoidance of thoughts and feelings associated with the trauma, decreased interest or participation in important activities, feelings of detachment or estrangement from others and the inability to recall important aspects of the experienced trauma.

The hyperarousal cluster, criterion D, is characterized by persistent symptoms of increased arousal, present only after the traumatic event has been experienced. Hyperarousal symptoms include hypervigilance, concentration- and sleeping problems, irritability and anger outbursts, and exaggerated startle reflex. Additionally, PTSD can only be diagnosed if the individual's symptoms have endured for more than one month (criterion E) and have resulted in significant distress or impairment in social, occupational, or other important areas of functioning (criterion F). PTSD may be specified as (a) acute, if the duration of symptoms is less than 3 months, (b) chronic, if the symptoms have endured for 3 months or more, or (c) with delayed onset, if the onset of symptoms occurs at least 6 months after the traumatic stressor has been experienced (APA, 1994).

A substantial number of the above-mentioned symptoms are characteristic of a range of other mood and anxiety disorders (Bodkin, Pope, Detke & Hudson, 2007, Reynolds & Brewin, 1999). However, as mentioned previously, PTSD is an event-specific syndrome as its symptoms are linked to an explicit etiological stimulus (Breslau, 2002; Schnurr & Green, 2004), from which symptomatology then ensue (Shalev & Yehuda, 1998).

CHAPTER 3

METHODS

3.1 Research design

The present study was a research survey with a cross-sectional design.

3.2 Research method

3.2.1 Participants

By means of convenience sampling, 85 participants diagnosed with HIV within the year preceding data collection were recruited from three HIV clinics within primary health care facilities in the Boland region. These HIV clinics provided treatment for HIV infection, including the administration of anti-retroviral treatment (ARV's) to HIV-positive patients in need of such medication. Thus, some participants included in the present study were receiving ARV's and some were not.

In the present study, the following inclusion criteria were applied: (a) by the time of data collection, all participants had received their HIV-positive diagnosis within the year preceding the study, (b) all participants had been diagnosed with HIV for more than 1 month so as to exclude the possibility of Acute Stress Disorder symptomatology, and to minimize recall bias, (c) only participants aged 18 years of age and older were included in the study, (d) participants were able to understand either spoken English or Afrikaans, (e) participants were physically and psychologically capable of engaging in an interview and completing a battery of self-report instruments.

Exclusion criteria for the present study included participants who indicated that they had been diagnosed with bipolar disorder, schizophrenia or related psychotic disorders.

3.2.2 Procedure

Patients who had been diagnosed with HIV within the year preceding data collection were recruited with the assistance of medical doctors, nurses, or counsellors at the HIV units. Patients were referred to the researcher by the staff, upon which the researcher explained the study to individual patients, in private. Potential participants were invited to take part in the present study and were informed of the following: (a) the nature and intentions of the present study, (b) the risks and benefits associated with participating in the present study, (c) the maintenance of confidentiality and anonymity related to participation in the present study, (d) that participation was voluntary, and (e) that they could refuse participation at any time during the course of the study. Subsequently, after receiving the aforementioned information and after been given the opportunity to ask questions about the study, patients who agreed to take part in the present study, were asked to sign an informed consent form (see Appendix A). Upon completion of the clinical interview and self-report measures, each participant received a R20 voucher as a token of gratitude for taking part in the study. As participants may have experienced discomfort as a result of their participation in the present study, the contact details of the following institutions were provided: (a) the Trauma Centre in Cape Town, (b) the G.F. Jooste Hospital, and (c) Valkenberg Hospital. Furthermore, patients were made aware of the availability of counsellors at each of the HIV units.

Ethical clearance to conduct the present study was granted by both the Tygerberg Ethics Committee and the Ethics Committee of the University of Stellenbosch. Subsequently, the Department of Health for the West Coast and Winelands District and the Department of Health for the City of Cape Town approved access to the HIV units within the Boland region.

3.3 Data collection methods

The diagnostic interview was conducted in either English or Afrikaans. The self-report measures were administered in English, Afrikaans or Xhosa.

3.3.1 Lifetime PTSD

The Composite International Diagnostic Interview (World Health Organization, 1997) (WHO-CIDI) is a fully structured interview that assesses both the symptoms of mental disorders and determines whether diagnostic criteria have been met, based on both DSM-IV and ICD-10 diagnostic criteria. Furthermore, it determines whether the diagnostic criteria for either lifetime or current mental disorders are met (Andrews & Peters, 1998). Excellent reliability and adequate validity have been demonstrated by the CIDI (Andrews & Peters). The CIDI was designed to be administered by skilled interviewers with no clinical training (Breslau, 2002).

The PTSD module of the WHO-CIDI has been used in studies among various samples, e.g. among HIV-positive individuals (Tsao, Dobalian & Naliboff, 2004), among individuals who have experienced mild traumatic brain injuries (Bryant & Harvey, 1998), and among individuals who have experienced multiple traumatic events in post-conflict, low-income countries (de Jong et al., 2001).

In the present study the PTSD module of the WHO-CIDI was utilized to determine the lifetime prevalence of PTSD among the recently diagnosed HIV-positive sample (See Appendix B). The PTSD module assesses, by means of an interviewer-administered checklist, whether an individual has or has not experienced one of eleven potentially traumatic events in their lifetime. Questions pertaining to these events included, amongst others: “Were you ever involved in a life-threatening accident?”, “Were you ever involved in a fire, flood or other natural disaster?”, “Were you ever seriously physically attacked or assaulted?”, and “Have you ever experienced any other extremely stressful or upsetting event?”. If the participant responds affirmatively to having experienced any of the events, the most stressful event is determined by asking the participant which of the events was the most stressful or upsetting for them. Once the most stressful or upsetting event has been established, the participant is asked a range of questions which reflect the DSM-IV criteria for

PTSD, associated with the traumatic event experienced by the participant. If the participant has endorsed all the necessary diagnostic criteria for DSM-IV PTSD, he or she qualified for a diagnosis of PTSD.

The WHO-CIDI has previously been used in studies conducted in South Africa. For example, in the South Africa Stress and Health Study (SASH), the CIDI was used to assess both the lifetime and 12-month prevalence of mental disorders among a nationally representative sample of adults (Williams et al., 2004). Additionally, in the SASH Study, the PTSD module of the CIDI was used to determine the lifetime prevalence of traumas among the aforementioned sample (Williams et al., 2007).

3.3.2 HIV-related PTSD

An adapted version of the PTSD module of WHO-CIDI was used to determine the prevalence of PTSD and PTSD-symptomatology associated with receipt of an HIV-positive diagnosis and/or being HIV-positive (See Appendix C). This module was compiled as an exploratory measure by Freeman et al. (in press) to assess PTSD and PTSD-symptomatology associated with the receipt of an HIV diagnosis and/or being HIV-positive in a study conducted in South Africa to determine the prevalence of mental disorders in people living with HIV/AIDS. Thus, this adapted PTSD module of the CIDI assumes that receiving an HIV-positive diagnosis and/or being HIV-positive reflects the DSM-IV's A1 criterion.

The module is introduced to the participant by the interviewer with the following statement: "I am now going to ask you some questions around your reactions to hearing that you were HIV-positive and to being HIV-positive". The questions which follow this statement reflect the DSM-IV criteria for PTSD, for example, "After hearing that you were HIV-positive did you keep remembering that you were positive even when you didn't want to?", "After hearing that you were HIV-positive did

you feel unusually irritable or lose your temper a lot more than is usual for you?”, “Did you avoid places or people or activities that might have reminded you that you were HIV-positive?”, and “Have the problems which we have been talking about ever kept you from going to a party, social event or meeting?”. If the participant has endorsed the diagnostic criteria for DSM-IV PTSD, he or she qualified for a diagnosis of HIV-related PTSD.

3.3.3 Current PTSD symptom severity

The Posttraumatic Stress Diagnostic Scale (PDS) devised by Foa, Cashman, Jaycox and Perry (1997), is a widely used, psychometrically reliable and valid self-report measure for assessing PTSD and PTSD symptom severity. The PDS assesses the 17 symptoms of PTSD according to the DSM-IV diagnostic criteria for PTSD (five re-experiencing symptoms, seven avoidance symptoms, and five hyperarousal symptoms). In the present study, participants were asked to complete each item as it related to their HIV diagnosis (Kelly et al., 1998; Safren et al., 2003). For each item, participants rate on a 4-point scale the extent to which each symptom has bothered them in the past month, with ‘0’ indicating ‘not at all or only one time’, ‘1’ indicating ‘once a week or once in a while’, ‘2’ indicating ‘two to four times a week or half the time’, and ‘3’ indicating ‘five or more times per week or almost always’ (Foa et al.). In the present study, participants reported the degree to which each symptom had bothered them in the past week (See Appendix D).

The total symptom severity score ranges from 0-51, with higher scores indicating greater levels of PTSD symptom severity. The total symptom severity score is obtained by summing the ratings of the individual’s responses to the 17 items. According to Foa (as cited in Gold, Marx & Lexington, 2007), the cut-off scores for the symptoms severity rating categories are as follows: less than or equal to 10 indicates ‘mild’, more than or equal to 11 and less than or equal to 20 indicates ‘moderate’, more than or equal to 21 and less than or equal to 35 indicates ‘moderate to severe’, and more than or equal to 36 indicates ‘severe’.

Normative data for the PDS were determined by administering the PDS to 248 participants who had either experienced trauma or who were at high-risk of experiencing trauma (Foa et al., 1997). The internal consistency for total symptom severity of the above-mentioned sample was 0.92. Internal consistency for the symptom severity of the PTSD subscales was as follows: (a) 0.78 for the re-experiencing subscale, (b) 0.84 for the avoidance subscale, and (c) 0.84 for the arousal subscale. Furthermore, intercorrelations among symptom subscales and the total score were statistically significant (Foa et al.).

To the best of my knowledge, the PDS has not been validated for South Africa. However, the PDS has previously been used in studies conducted in Southern Africa. For example, the PDS was administered to a sample of 6 Somali children who had been exposed to war or violence associated with conflict, who were residing in a refugee settlement area in Uganda, (Onyut et al., 2005). In Onyut's study, the PDS was used to identify those children who met full criteria for PTSD.

3.3.4 Psychological distress

The 25-item Hopkins Symptom Checklist (HSCL-25) is a screening measure used to identify common psychiatric symptoms (Nettelbladt, Hansson, Stefansson, Borgquist & Nordström, 1993), and was derived from the 90-item Symptom-Checklist (Derogatis, Lipman, Rickels, Ulenhuth & Covi, 1974; Parloff, Kelman & Frank, 1954). The HSCL-25 has been utilized as a screening instrument in a range of cross-cultural settings (Cardozo, Talley, Burton & Crawford, 2004; Kaaya et al., 2002; Veijola et al., 2003) as well as primary care settings (Afana, Dalgard, Bjertness & Grunfeld, 2007; Fröjdh, Hakansson & Karlsson, 2004; Nettelbladt et al.). The HSCL-25 assesses both the symptoms and intensity of anxiety, assessed in the first ten items of the scale; and depression, assessed in the remaining fifteen items of the scale (See Appendix E). For each item, participants rate on a 4-point scale the extent to which each symptom has bothered them in the past

month, with '1' indicating 'not at all', '2' indicating 'a little', '3' indicating 'quite a bit', and '4' indicating 'extremely' (Derogatis et al., 1974). Higher scores indicate greater levels of distress.

The HSCL-25 total score is calculated by summing the ratings across the 25 items and dividing the sum score by the number of items answered (Sandanger et al., 1999). Mean symptom scores equal to or greater than 1.75 for the depression and anxiety subscales has been found to be valid in determining the diagnosis of anxiety and affective disorders (Mollica et al., 1992; Winokur, Winokur, Rickels & Cox, 1984). A cut-point of 44 on the HSCL-25 is used as an indicator of clinically significant levels of distress (Coyne, Benazon, Gaba, Calzone & Weber, 2000; Kagee, 2006). The administration of the HSCL-25 among HIV-positive pregnant women in Tanzania (Kaaya et al., 2002) indicated high internal consistency for the total scale ($\alpha = 0.93$), the depression subscale ($\alpha = 0.90$), and the anxiety subscale ($\alpha = 0.85$).

The HSCL-25 has previously been used in studies conducted in South Africa (Kagee, 2005, 2006; van der Merwe, 2005). For example, the HSCL-25 has been used to assess psychological distress among 148 former political detainees who had experienced torture and abuse during the apartheid era (Kagee, 2005), who subsequently did and did not give statements to the Truth and Reconciliation Commission (Kagee, 2006). Additionally, van der Merwe (2005) used the HSCL-25 to assess global psychological functioning among a sample of 79 hypertension patients attending primary care clinics.

3.3.5 Demographic variables

The following demographic variables were assessed by means of a self-administered questionnaire: 'Length of time since HIV diagnosis', 'gender', 'ethnicity', 'age', 'marital status', 'current living situation', 'educational level', 'work situation', 'household income' (see Appendix F).

3.4 Data analysis

All statistical analyses were performed using the Statistical Package for the Social Sciences version 14 (SPSS) with α set at 0.05. The frequencies (f), means (M), standard deviations (SD), percentages (%) and ranges were calculated for the variables relevant to the present study.

Contingency tables were analyzed by making use of the classification variables, namely, HIV-related PTSD and the DSM-IV's A2 criterion of PTSD. Thus, data in these contingency tables were divided into cells, reflecting the frequency or count of each of the above-mentioned variables as determined by the diagnostic interview (Lachenicht, 2003).

The Kolmogorov-Smirnov test was used to determine whether scores on the HSCL-25 were normally distributed (Field, 2005). If the scores on the HSCL-25 were found to be skewed, a base 10 log transformation would be applied to the raw scores in order to try to normalize the data.

Independent samples t-tests were used to determine whether there were significant differences in HSCL-25 mean scores (Kinnear & Gray, 2001) between (a) those participants who received an HIV-related PTSD diagnosis and those who did not, and between (b) those participants who endorsed the A2 criterion and who received an HIV-related PTSD and those who endorsed the A2 criteria but who did not receive an HIV-related PTSD diagnosis.

The 95% confidence interval for the prevalence rates for both lifetime PTSD and HIV-related PTSD in the sample was determined.

CHAPTER 4

RESULTS

4.1 Demographic characteristics of the sample

A total of 85 participants were recruited into the present study. The mean age of the sample was 33 years ($M = 32.8$, $SD = 7.6$), with a range of 19 years to 56 years. Over half of the participants (56.5%) had received their HIV-positive diagnosis 9 months to 1 year before the study, and a fifth (20%) had received their HIV-positive diagnosis 6 to 9 months before the study.

The majority of the participants (87.1%) identified themselves as Black, and 12.9% identified themselves as Coloured. The sample consisted predominantly of females (75.3%), with males representing 24.7% of the sample. Over half of the sample was single (61.2%) and more than a fifth of the sample (23.5%) was married or cohabiting. Over a third of the sample (37.6%) indicated that they lived with another adult or adults, and children.

In terms of educational level, more than half of the sample (55.3%) indicated that they had attended high school but did not complete grade 12, and over a quarter of the sample (28.2%) indicated that they had completed primary school. More than half of the sample (62.4%) were unemployed, and over a fifth (21.2%) were employed on a part-time basis. Just over half of the sample (50.6%) indicated that their annual family income was less than R5000, indicating that these participants were poor. The majority of participants were receiving counselling for their HIV status (75.3%). The demographic characteristics of the sample are illustrated in Table 1.

Table 1

Demographic Characteristics of the Sample

	N	f	(%)	M	SD	Range
Age (years)	85		100	32.8	7.6	19-56
Time since diagnosis	85					
1-3 months		10	11.8			
3-6 months		10	11.8			
6-9 months		17	20			
9-12 months		48	56.5			1-12 months
Ethnic group	85		100			
Black		74	87.1			
Coloured		11	12.9			
Gender	85		100			
Male		21	24.7			
Female		64	75.3			
Marital status	85		100			
Single		52	61.2			
Widowed		4	4.7			
Separated		5	5.9			
Divorced		4	4.7			
Married or cohabiting		20	23.5			
Educational status	85		100			
No formal education		2	2.4			
Completed primary school		24	28.2			
Attended high school but did not complete grade 12		47	55.3			
Completed grade 12		8	9.4			
Attended university, college, technikon, but did not graduate		3	3.5			
Graduated from university, college or technikon		1	1.2			

	N	<i>f</i>	(%)	M	SD	Range
Work situation	85		100			
Employed full-time		8	9.4			
Employed part-time		18	21.2			
Student		2	2.4			
Unemployed		53	62.4			
Homemaker		4	4.7			
Living situation	85		100			
Live alone		16	18.8			
Live with other adult(s), no children		25	29.4			
Live with other adult(s), and children		32	37.6			
Live with children only		12	14.1			
Annual family income	85		100			
Less than R5000		43	50.6			
R5000-R10 000		21	24.7			
R10 000-R30 000		6	7.1			
R60 000-R100 000		1	1.2			
Don't know		14	16.5			
Currently on Antiretrovirals	60		70.6			
Yes		36	42.4			
No		24	28.2			
Receiving medication for HIV	85		100			
Yes		63	74.1			
No		22	25.9			
Receiving counselling for HIV status	85		100			
Yes		64	75.3			
No		21	24.7			

4.2 Self-reported severity of current HIV-related PTSD symptoms among the total sample

A total of 83 participants completed the Posttraumatic Stress Diagnostic Scale (PDS) (Foa et al., 1997). A Cronbach alpha reliability coefficient revealed that the measure of PTSD symptom severity had high internal consistency ($\alpha = 0.90$) with the present sample. The internal consistencies for the three subscales, re-experiencing ($\alpha = 0.75$), avoidance ($\alpha = 0.80$), and hyperarousal ($\alpha = 0.81$) was also found to be high.

As can be seen in Table 2, 38 participants (45.8%) reported mild PTSD symptom severity, and 18 participants (21.7%) reported moderate PTSD symptom severity. Twenty-three participants (27.7%) reported moderate to severe PTSD symptom severity, and only four participants (4.8%), reported severe PTSD symptom severity.

Table 2

Self-Reported Severity of Current HIV-Related PTSD Symptoms (N=83)

	<i>f</i>	%	Cumulative %
Mild	38	45.8	45.8
Moderate	18	21.7	67.5
Moderate to severe	23	27.7	95.2
Severe	4	4.8	100
Total	83	100	

4.3 Lifetime prevalence of PTSD

Twenty-five of the 85 participants (29.4%) in the present study endorsed DSM-IV criteria for lifetime PTSD (95% confidence interval [CI], 20.7% - 39.8%). Of the 25 participants who met

DSM-IV criteria for lifetime-PTSD, 6 participants (24%) were male, and 19 participants (76%) were female.

4.4 The A2 criterion and HIV-related PTSD

As mentioned previously, the assumption in this thesis is that an HIV-positive diagnosis meets the A1 criterion for PTSD in that “the person experienced, witnessed or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others” (APA, 1994, p.467).

Of the total sample consisting of 85 participants, 69 (81.2%) endorsed the A2 criterion, indicating that they responded to the receipt of their HIV-positive diagnosis and/or living with HIV with “...intense fear, helplessness, or horror” (APA, 1994, p.467). Of the total sample, 34 (40%) (95% CI, 30.2% - 50.6%) met the full criteria for HIV-related PTSD.

Of the 69 participants who endorsed the A2 criterion, 34 (49.3%) met the full criteria for HIV-related PTSD. Of the 69, 35 (50.7%) did not meet the full criteria for HIV-related PTSD. The number of participants who met criteria for HIV-related PTSD (40%) was much lower than the number of participants who endorsed the A2 criterion (81.2%). These results are illustrated in Table 3.

Table 3

Crosstabulation Between the A2 Criterion and HIV-Related PTSD Diagnosis

		Criterion A2 met		
		No	Yes	Total
HIV-PTSD Diagnosis				
No PTSD diagnosis	Count	16	35	51
	Expected count	9.6	41.4	51
	% of Total	18.8%	41.20%	60.0%
PTSD diagnosis	Count	0	34	34
	Expected count	6.4	27.6	34.0
	% of Total	0%	40.0%	40.0%
Total	Count	16	69	85
	Expected count	16	69	85
	% of Total	18.8%	81.2%	100%

By definition, 100% of those participants who met full criteria for HIV-related PTSD also endorsed the A2 criterion (34/34), however, of those participants who did not meet full criteria for HIV-related PTSD, 50.7% endorsed the A2 criterion (35/69).

As indicated in Table 4, of the total sample of 64 females, 55 (85.94%) endorsed the A2 criterion, and of the total sample of 21 males, 14 (66.7%) endorsed the A2 criterion. A 2 X 2 χ^2 was carried out to explore whether there was a significant relationship between endorsing the A2 criterion and gender, as female gender has been documented as a risk factor in the development of PTSD (Breslau, 1998). The assumptions for χ^2 were not met as 25% of the cells had an expected frequency of less than 5. As a result, the appropriate statistical test was Fisher's Exact Probability (Corston & Colman, 2000; Dancey & Reidy, 2002). This yielded $p = 0.61$ for a two-tailed

hypothesis, which indicated that there was no significant association between gender and endorsing the A2 criterion.

Table 4

Crosstabulation Between the A2 Criterion and Gender

		Criterion A2 met		
		No	Yes	Total
Gender				
Male	Count	7	14	21
	Expected count	4	17	21
	% of Total	8.2%	16.5%	24.7%
Female	Count	9	55	64
	Expected count	12	52	64
	% of Total	10.6%	64.7%	75.3%
Total	Count	16	69	85
	Expected count	16	69	85
	% of Total	18.8%	81.2%	100%

4.5 PTSD symptoms endorsed by participants who did and did not meet caseness for HIV-related PTSD but endorsed the A2 criterion

The following section pertains only to those participants who endorsed the A2 criterion ($n = 69$). Table 5 presents data of those participants who did and did not receive a full diagnosis of HIV-related PTSD, in terms of the individual symptoms endorsed. As can be seen in Table 5, the largest difference was found in the avoidance symptom cluster. The following symptoms in the avoidance symptom cluster which were more commonly endorsed by those meeting caseness for HIV-related PTSD were: (a) 'sense of foreshortened future', (b) 'markedly diminished interest or participation in significant activities', (c) 'restricted range of affect', and (d) 'efforts to avoid activities, places, or people that arouse recollection'. The second largest difference was found in the arousal symptom

cluster. The following symptoms in the arousal symptom cluster which were more commonly endorsed by those meeting caseness for HIV-related PTSD were: (a) ‘irritability or angry outbursts’, (b) ‘sleep difficulties’, and (c) ‘difficulty concentrating’. The smallest difference was found in the re-experiencing cluster. Only one symptom from this cluster, ‘intense psychological distress at exposure to symbolic cues’ was substantially more frequently endorsed by those who received a diagnosis for HIV-related PTSD in comparison to those who did not. The only symptom which was more frequently endorsed by those who did not receive a diagnosis for HIV-related PTSD in comparison with those who did was ‘hypervigilance’.

Table 6 presents data of those participants who endorsed the A2 criterion, in terms of the individual HIV-related PTSD symptoms endorsed. The re-experiencing symptom most commonly endorsed was ‘recurrent, intrusive, and distressing recollections’. This symptom was endorsed by over 80% of all those endorsing the A2 criterion. The avoidance symptom most commonly endorsed was ‘efforts to avoid thoughts, feelings, and conversations associated with being HIV-positive. This symptom was endorsed by 71% of all those endorsing the A2 criterion. The arousal symptom most commonly endorsed was ‘hypervigilance’, which was endorsed by over 80% of all those endorsing the A2 criterion.

Table 5

PTSD Symptoms Endorsed by Individuals With and Without HIV-Related PTSD Diagnosis Who Met the A2 Criterion

Cluster and Symptom	PTSD Diagnosis (n=34)	No PTSD Diagnosis (n=35)	Difference (%) in Reported Symptoms
Re-experiencing Cluster	Mean (SD) 3.43 (0.75)	Mean (SD) 2.20 (1.21)	
	% Reporting	% Reporting	
Recurrent , intrusive, and distressing recollections	97.1%	71.4%	25.7%
Recurrent dreams or nightmares	58.8%	31.4%	27.4%
Intense psychological distress at exposure to symbolic cues	97.1%	54.3%	42.8%
Physiological reactivity at exposure to symbolic cues	91.2%	62.9%	28.3%
Avoidance Cluster	Mean (SD) 5.21 (1.39)	Mean (SD) 2.71 (1.74)	
	% Reporting	% Reporting	
Efforts to avoid thoughts, feelings, conversations associated with being HIV-positive	85.3%	57.1%	28.2%
Efforts to avoid activities, places, or people that arouse recollection	55.9%	20%	35.9%

Cluster and Symptom	PTSD Diagnosis (n=34)	No PTSD Diagnosis (n=35)	Difference (%) in Reported Symptoms
Inability to recall an important aspect of being diagnosed HIV-positive	50%	28.6%	21.4%
Markedly diminished interest or participation in significant activities	88.2%	42.9%	45.3%
Feeling detached or estranged from others	73.5%	48.6%	24.9%
Restricted range of affect	76.5%	34.3%	42.2%
Sense of foreshortened future	91.2%	40%	51.2%
Arousal Cluster	Mean (SD) 3.91 (1.11)	Mean (SD) 2.57 (1.33)	
	% Reporting	% Reporting	
Sleep difficulties	82.4%	42.9%	39.5%
Irritability or angry outbursts	94.1%	48.6%	45.5%
Difficulty concentrating	85.3%	51.4%	33.9%
Hypervigilance	79.4%	85.7%	6.3%
Exaggerated startle response	50%	28.6%	21.4%

Table 6

HIV-Related PTSD Symptoms Endorsed By Those Endorsing the A2 Criterion

Cluster and Symptom	<i>f</i>	%
Re-experiencing Cluster		
Recurrent, intrusive, and distressing recollections	58	84
Recurrent dreams or nightmares	31	44.9
Intense psychological distress at exposure to symbolic cues	52	75.4
Physiological reactivity at exposure to symbolic cues	53	76.8
Avoidance Cluster		
Efforts to avoid thoughts, feelings, conversations associated with being HIV-positive	49	71
Efforts to avoid activities, places, or people that arouse recollection	26	37.7
Inability to recall an important aspect of being diagnosed HIV-positive	27	39.1
Markedly diminished interest or participation in significant activities	45	65.2
Feeling detached or estranged from others	42	60.9
Restricted range of affect	38	55.1
Sense of foreshortened future	45	65.2
Arousal Cluster		
Sleep difficulties	43	62.3
Irritability or angry outbursts	49	71
Difficulty concentrating	47	68.1
Hypervigilance	57	82.6
Exaggerated startle response	27	39.1

4.6 Self-reported distress among the total sample

A Cronbach alpha reliability coefficient revealed that the measure of distress among the total sample, as measured by the HSCL-25, was high ($\alpha = 0.93$). The internal consistency for both the anxiety subscale ($\alpha = 0.88$) and the depression subscale ($\alpha = 0.89$) of the HSCL-25 was also found to be high. HSCL-25 raw scores were significantly skewed, $D(85) = 0.10$, $p < 0.05$. However, after a base 10 log transformation, the HSCL-25 scores were normally distributed, $D(85) = 0.07$, $p > 0.05$.

The total sample of 85 participants completed the HSCL-25. The mean total score on the HSCL-25 was 47.5 (SD = 16.4), indicating that distress scores for the total sample were, on average, above the cut-point of 44, which is indicative of clinically significant levels of distress. Of the total sample, 54.1% (46/85) scored 44 or higher on the HSCL-25.

4.7 Self-reported distress among those diagnosed with HIV-related PTSD and those not

Of those participants who met criteria for HIV-related PTSD ($n = 34$), 28 (82.4%) scored 44 or higher on the HSCL-25. For this group the HSCL-25 mean score was 56.20 (SD = 17.52). Of those participants who did not meet criteria for HIV-related PTSD ($n = 51$), 18 (35.3%) scored 44 or higher on the HSCL-25. For this group the HSCL-25 mean score was 41.76 (SD = 12.89).

In order to determine whether there was a significant difference in HSCL-25 mean scores between the above-mentioned groups, an independent samples t-test was employed. This test was found to be significant, $t(83) = -4.45$; $p < 0.05$. It could thus be concluded that there was a significant difference in reported levels of distress between those participants who met full criteria for HIV-related PTSD and those who did not.

4.8 Self-reported distress among the sample who met the A2 criterion and who received an HIV-related PTSD diagnosis and those who did not

Of those participants who endorsed the A2 criterion and who met full criteria for HIV-related PTSD ($n = 34$), 28 (82.4%) scored 44 or higher on the HSCL-25. For this group the HSCL-25 mean score was 56.20 ($SD = 17.52$). Of those participants who endorsed the A2 criterion but who did not meet full criteria for HIV-related PTSD ($n = 35$), 14 (40%) scored 44 or higher on the HSCL-25. For this group the HSCL-25 mean score was 43.57 ($SD = 13.35$).

In order to determine whether there was a significant difference in HSCL-25 mean scores between the above-mentioned groups, an independent samples t-test was employed. This test was found to be significant, $t(67) = -3.49$; $p < 0.05$. It could thus be concluded that there was a significant difference in reported levels of distress between those participants who met the A2 criterion and also met full criteria for HIV-related PTSD, and those participants who met the A2 criterion but did not meet full criteria for HIV-related PTSD.

4.9 HIV-related PTSD and comorbidity

Of the 34 participants among the total sample of 85 (40%) who met full criteria for HIV-related PTSD, 26 (76.5%) had elevated scores on the depression subscale of the HSCL-25. Furthermore, of those participants who met full criteria for HIV-related PTSD, 20 (58.8%) had elevated scores on the anxiety subscale of the HSCL-25 (see Table 7).

Table 7

Self-Reported Distress Among Those Diagnosed with HIV-Related PTSD (N = 34)

	<i>f</i>	%
HSCL-25 total score		
44 and above	28	82.4
Below 44	6	17.6
HSCL-25 depression subscale		
1.75 and above	26	76.5
Below 1.75	8	23.5
HSCL-25 anxiety subscale		
1.75 and above	20	58.8
Below 1.75	14	41.2

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Introduction

Findings from the present study indicated that the prevalence of lifetime PTSD was 29.4% (95% CI, 20.7% - 39.8%). Sixty-nine of the 85 participants (81.2%) endorsed the DSM-IV's PTSD A2 criterion. Of the total sample, 34 participants (40%) (95% CI, 30.2% - 50.6%) met the full criteria for HIV-related PTSD. The majority of participants reported mild PTSD symptom severity (45.8%), and over half the sample (51.4%) experienced clinically significant distress. Of those participants diagnosed with HIV-related PTSD, 82.4% were clinically distressed, and 76.5% and 58.8% experienced high levels of depression and anxiety, respectively.

5.2 The lifetime prevalence of PTSD among the sample

Over a quarter of the recently diagnosed HIV-positive sample (25/85, 29.4%) in the present study met DSM-IV criteria for lifetime PTSD (95% CI, 20.7% - 39.8%), confirming Brief et al.'s (2004) suggestion that the prevalence of this disorder is possibly high among HIV-positive individuals. The prevalence and associated confidence interval found for lifetime PTSD in the present study is higher than that found among an American general population sample of men and women in the National Comorbidity Survey (NCS). In the NCS, the estimated lifetime prevalence of PTSD was 7.8% (Kessler et al., 1995). Moreover, the prevalence of lifetime PTSD found in the present study is higher than that determined in the recently conducted South African Stress and Health (SASH) Study (Stein et al., in press). In this nationally representative household survey conducted among 4351 South African adults, the lifetime prevalence of PTSD was estimated at 2.3% (Stein et al.). Thus, the prevalence of lifetime PTSD among HIV-positive individuals is higher than that found among both a U.S. and South African general population sample.

The present study's finding lends support to previous studies which have explored the rate of PTSD among HIV-positive individuals and found the prevalence of this disorder to be elevated. For example, among 149 recently HIV-diagnosed individuals in South Africa, Olley et al. (2006) determined that the baseline prevalence of PTSD among the sample was 14.8%, which increased to 26% at follow-up 6 months after the initial evaluation. Similarly, among studies conducted in the U.S. among HIV-positive individuals, the prevalence of DSM-IV PTSD has been found to range from 15% to 53%, depending on the methods of assessment used (Israelski et al., 2007; Katz & Nevid, 2005; Kimerling et al., 1999; Martinez et al., 2002; Smith, Egert, Winkel & Jacobson, 2002).

A possible explanation for the high rate of lifetime PTSD found among HIV-positive individuals in general is that these individuals have been reported to have experienced and to have been exposed to a greater number of past traumatic experiences (Smith et al., 2002). For example, Kimerling et al. (1999) found that among a sample of 67 HIV-positive African American women in the U.S., the majority (62.1%) reported having experienced at least one traumatic event in their lifetime. The aforementioned rate of exposure to traumatic events (62.1%) encountered by HIV-positive women is higher than that found among women in the general population (51.2%) (Kessler et al., 1995). Moreover, in a study conducted among 102 HIV-positive women in the U.S., Katz and Nevid (2005) discovered that the total number of PTSD symptoms was associated with, amongst other factors, a greater number of past traumatic events. Similarly, Martinez et al. (2002) found that among a sample of 41 ethnically diverse HIV-positive women in the U.S., the total number of traumatic life events reported was both significantly and positively correlated with the level of PTSD.

It thus appears that HIV-positive individuals are exposed to a greater amount of traumatic events than individuals in the general community. Moreover, the level of PTSD found among HIV-positive individuals is directly related to the number of traumatic events experienced by them.

In the present study, the majority of the sample meeting full criteria for DSM-IV lifetime PTSD were female (19/25, 76%) and under a quarter of the sample who met full criteria for DSM-IV lifetime PTSD were male (6/25, 24%). However, relatively equal rates of lifetime PTSD were evident among females and males, with 29.7% of the total sample of females (19/64) and 28.6% of the total sample of males (6/21) meeting full criteria for lifetime PTSD. Thus, the high rate of lifetime PTSD found in the present study among females is due to the overrepresentation of females in the present study's sample and not a higher prevalence of lifetime PTSD among females vs. males. This result does not support findings from previous studies that have explored gender differences in the diagnosis of PTSD. For example, Breslau, Davis, Andreski, Peterson & Schultz (1997) found that among a random sample of young adults in the U.S., the prevalence of DSM-III-R PTSD was higher for women than for men after having been exposed to a traumatic event or events. Moreover, Kessler et al., (1995), using DSM-III-R diagnostic criteria, discovered that among a representative sample of individuals in the U.S., the likelihood of being diagnosed with lifetime PTSD was almost twice as high for women (10.4%) than for men (5.0%). In Kessler et al.'s study, it was found that men experience more trauma or adverse events than women. However, the traumas experienced by women were associated with a greater likelihood of PTSD (Breslau, 2001). When the prevalence of DSM-IV PTSD was explored among a community sample in the U.S. (Breslau et al., 1998), similar results to Kessler et al. (1995) were observed, with women almost twice more likely than men to endorse criteria for lifetime PTSD (18.3% vs. 10.2%). The above-mentioned findings validate that female gender is a risk factor for PTSD (Breslau, 1998), however this finding was not evident in the present study, as the rate of PTSD found among females and males differed only marginally. Unlike the present study's findings, studies that have been conducted among HIV-positive individuals to explore PTSD and PTSD-symptomatology have indicated that among such samples, differences in rates by gender have been evident. For example, Olley et al. (2005) found that among a sample of 149 recently diagnosed HIV-positive outpatients, 14.8% met criteria for PTSD. Of those diagnosed with PTSD in Olley et al.'s study, 90.9% (20/22)

were female and 9.1% (2/22) were male. Moreover, the rate of PTSD among the total sample of females and males was estimated at 19% (20/105) and 4.5% (2/44), respectively (Olley, Gxamza, Seedat, Theron et al., 2003; Olley et al., 2005), indicating that among the sample, females were more likely to meet full criteria for PTSD than were males. The present study's findings with regard to the relatively equal rate of lifetime PTSD found among males and females in the sample signify that both HIV-positive males and females may be at equal risk of developing PTSD.

5.3 The prevalence of HIV-related PTSD

In the present study, 40% (95% CI, 30.2% - 50.6%) of the total sample met criteria for HIV-related PTSD. The stressor criterion was either receipt of HIV-positive diagnosis and/or being HIV-positive. The results indicate that HIV-related PTSD was experienced by a large proportion of the sample. The prevalence found for HIV-related PTSD in the present study is substantially higher than the lifetime prevalence of PTSD found among an American general population sample of men and women in the NCS. In the NCS, the estimated lifetime prevalence of PTSD was 7.8% (Kessler et al., 1995). Moreover, similar to the lifetime rate of PTSD determined among the present sample, the prevalence of HIV-related PTSD determined in the present study was substantially higher than the estimated lifetime prevalence of PTSD determined in the SASH study (Stein et al., in press). Thus, the prevalence of HIV-related PTSD is substantially higher than that found among both a U.S. and South African general population sample where stressors are considerably more variable (Palmer et al., 2004).

The confidence interval for HIV-related PTSD associated with the prevalence found in the present study falls squarely within previously reported rates which range between 5% and 64% (Botha, 1996; Kelly et al., 1998; Olley et al., 2005; Safren et al., 2003). High rates of HIV-related PTSD have been found across both DSM-III and DSM-IV criteria, among various sample sizes, and among various cohorts of HIV-positive samples. For example, Safren et al. found a rate of 64% for

HIV-related PTSD among a sample of 75 heterosexual, bisexual, gay and lesbian HIV-positive individuals with HIV medication adherence difficulties in the U.S. In Safren et al.'s study, a self-report instrument reflecting DSM-IV PTSD diagnostic criteria was employed. Kelly et al., using a structured clinical interview reflecting DSM-III-R PTSD diagnostic criteria, revealed a prevalence of HIV-related PTSD of 30.2% among a sample of 61 HIV-positive homosexual and bisexual men in Australia.

In a study conducted in South Africa among a sample of 24 asymptomatic HIV-positive individuals diagnosed with HIV for 6 months or less, Botha (1996), using a self-report measure to assess PTSD, the Impact of Event Scale, found an above-average mean score of 38.9, reflecting an elevated amount of post-traumatic stress reactions amongst this sample. However, in a study conducted in South Africa among 149 HIV-positive individuals diagnosed HIV-positive on average for under 6 months (Olley et al., 2005), the prevalence of HIV-related PTSD, determined with the MINI International Neuropsychiatric Interview based on DSM-IV diagnostic criteria, was substantially lower than that found in the present study. Only 5.4% of the sample (8/149) in the aforementioned study reported the index trauma being receipt of their HIV-positive diagnosis. A possible explanation for the low rate of HIV-related PTSD found in the study by Olley et al. (2005) is that the authors were primarily interested in investigating the presence or absence of PTSD among the sample using a measure which explored PTSD-symptomatology as a consequence of exposure to or experience of various traumas reported by the participants. However, in the studies conducted by Safren et al. (2003), Kelly et al. (1998) and Botha, the measures used to explore rates of PTSD were modified in order to determine whether either the receipt of an HIV-diagnosis and/or being HIV-positive was associated with PTSD caseness or PTSD symptomatology.

The high prevalence of HIV-related PTSD found among HIV-positive samples indicates that receiving an HIV-positive diagnosis and/or being HIV-positive is a significant traumatic stressor

with a great likelihood of resulting in high levels of PTSD symptomatology or PTSD caseness, regardless of the HIV-positive cohort investigated or diagnostic criteria (DSM-III or DSM-IV) employed to assess PTSD.

In keeping with the findings of previous research, the present study found a high rate of HIV-related PTSD. Findings of this nature lend support to the notion that a diagnosis with a life-threatening illness such as HIV constitutes a traumatic event, which is thus capable of resulting in PTSD symptomatology as is specified in the DSM-IV (Kelly et al., 1998).

5.4 The prevalence of DSM-IV's A2 criterion

The majority of the participants (81.2%, 69/85) in the present study endorsed the DSM-IV's PTSD A2 criterion for HIV-related PTSD, indicating that these participants responded with intense fear, helplessness or horror to receipt of their HIV-positive diagnosis and/or being HIV-positive. This finding is consistent with the rate of endorsement of the DSM-IV A2 criterion detected among a representative sample of 2181 individuals in the U.S. in response to a representative sample of DSM-IV A1 traumatic events (Breslau & Kessler, 2001). In the aforementioned study, 76.5% of the events endorsed by the participants involved severe fear, helplessness or horror. Moreover, it was determined that the conditional probability of endorsing the A2 criterion in response to life-threatening illness was 83.4%, for the total sample, 81.4% for males and 85.2% for females (Breslau & Kessler). Similarly, in the present study, among the total number of females in the study, 85.9% (55/64) endorsed the A2 criterion in response to receipt of their HIV-positive diagnosis and/or being HIV-positive. However, the same percentage for males was 66.7% (14/21), which was lower than that found for males in the study conducted by Breslau and Kessler. Of the 69 patients who endorsed the A2 criterion in the present study, 34 met full criteria for HIV-related PTSD and 35 did not. Of those that met full criteria for HIV-related PTSD, 26 were female and 8 were male.

The present study's findings differ significantly from a study conducted by Palmer et al. (2004) in which PTSD and PTSD-symptomatology associated with the experience of breast cancer was assessed. In the study conducted by Palmer et al., a significant association was found between endorsing the A2 criterion and meeting full criteria for cancer-related PTSD. However, only 41% of the sample endorsed the A2 criterion, and of those that endorsed the A2 criterion, 4% met full criteria for cancer-related PTSD.

Breslau and Kessler (2001) found that the conditional probability of PTSD among individuals who reported exposure to a traumatic event (DSM-IV criterion A1) and who endorsed the A2 criterion was 12%. This finding is significantly lower than that found in the present study, which is 49.3%, suggesting that an HIV-positive diagnosis and/or being HIV-positive may present a substantial risk for PTSD.

5.5 PTSD symptoms endorsed by participants who did and did not meet caseness for HIV-related PTSD but endorsed the A2 criterion

The following section pertains only to those participants who endorsed the A2 criterion (n = 69).

5.5.1 Re-experiencing cluster symptoms

Symptoms from the re-experiencing symptom cluster were commonly endorsed by both those who endorsed the A2 criterion and met full criteria for HIV-related PTSD and those who only met the A2 criterion. Only one symptom from this cluster, 'intense psychological distress at exposure to symbolic cues' was more frequently endorsed by those who met full criteria for HIV-related PTSD than those who only met the A2 criterion, regardless of meeting full criteria for HIV-related PTSD. Among those participants who endorsed the A2 criterion, over 80% reported 'recurrent, intrusive and distressing recollections' associated with the receipt of their HIV-positive diagnosis. This finding is consistent with Palmer et al. (2004) who found that 80% of a sample of breast cancer

patients who endorsed the A2 criterion also reported 'recurrent, intrusive and distressing recollections' associated with their experience with breast cancer. A marginally lower rate of endorsement of the aforementioned re-experiencing symptom, 65%, was found among a sample of Turkish earthquake survivors who met DSM-IV criteria for PTSD (Şalcioğlu, Başoğlu & Livanou, 2007).

Furthermore, in the present study, over 75% of those participants who endorsed the A2 criterion reported 'severe psychological distress and physiological reactivity at exposure to symbolic cues'. This rate is similar to that found among Malaysian victims of a tsunami, which was estimated at 73.8% (Alzamani, Nik Arif, Idzwan, Abu Yazid & Mahathar, 2006). Similarly, among Turkish earthquake survivors who met criteria for DSM-IV PTSD, an estimated 89% endorsed the symptom 'severe emotional distress upon reminders', and an estimated 68% endorsed the symptom 'severe physiological reactivity to reminders' (Şalcioğlu et al., 2007).

Ehlers et al. (2002) explain that intrusive memories represent stimuli that indicate the onset of the trauma or of the moment with the greatest emotional impact, or of moments when the meaning of the event changed for the worse. These intrusive memories, by association with the previously experienced traumatic event, then become warning signals that indicate impending danger, when reencountered. Furthermore, it has been found that intrusive memories contain both strong perceptual and sensory features and are accompanied by extreme levels of fear and distress (Reynolds & Brewin, 1999). It appears then that intrusive memories are frequently endorsed by HIV-positive individuals as, during the course of their illness they are likely to experience a number of stimuli that evoke significant levels of fear and distress that are associated with: (a) receipt of their HIV-positive diagnosis, and (b) the psychological, physical, and social consequences of being HIV-positive.

As mentioned previously, abundant research suggests that intrusive memories are commonly experienced by those who have experienced or who have been exposed to trauma. In the present study, the rate of endorsement of re-experiencing symptoms is similar to that found among other samples of individuals who have experienced a traumatic event. In light of this, the endorsement of the re-experiencing cluster of symptoms in the present sample may be attributed to normal cognitive processing of a traumatic event and thus may not be indicative of pathology among individuals who have recently been diagnosed with HIV.

5.5.2 Avoidance cluster symptoms

Only one avoidance cluster symptom, 'efforts to avoid thoughts, feelings, and conversations associated with being HIV-positive' (71%), was commonly endorsed by those meeting the A2 criterion. A similar result to the present study's findings was evident in a study conducted by Palmer et al. (2004) among a sample of breast cancer patients. In Palmer et al.'s study, the symptom 'efforts to avoid thoughts, feelings, and conversations associated with breast cancer' was endorsed by over 80% of those who endorsed the A2 criterion. In Palmer et al.'s study, this was the only symptom from the avoidance cluster that was frequently endorsed by both those who met full criteria for PTSD and those who did not.

In the present study, the endorsement of avoidance cluster symptoms varied greatly overall between those who met full criteria for HIV-related PTSD and those who did not. The following symptoms in the avoidance symptom cluster which were more commonly endorsed by those meeting caseness for HIV-related PTSD were: (a) 'sense of foreshortened future', (b) 'markedly diminished interest or participation in significant activities', (c) 'restricted range of affect', and (d) 'efforts to avoid activities, places, or people that arouse recollection'. The present study's findings differed from those found by Palmer et al. (2004) in terms of the amount of symptoms from the avoidance cluster that were more commonly endorsed by those with PTSD than those without. In Palmer et al.'s

study, only two symptoms from the avoidance cluster were more commonly endorsed by those who met full criteria for cancer-related PTSD than those who did not. These symptoms included ‘sense of foreshortened future’ and ‘efforts to avoid activities, places, or people that arouse recollection’. In the present study, regardless of PTSD diagnosis, a greater percentage of respondents endorsed symptoms of avoidance than that of the sample of breast cancer patients in Palmer et al.’s study.

A possible explanation for the high endorsement of avoidance cluster symptoms found in the present study is that people who experience PTSD also experience depression, as PTSD rarely exists in isolation of other disorders (Reynolds & Brewin, 1999; Stein & Hollander, 2002). Major depression is a common psychiatric disorder likely to be associated with PTSD among HIV-positive individuals (Kelly et al., 1998; Olley et al., 2005), and therefore those who meet caseness for PTSD may be experiencing symptoms of depression along with PTSD-symptomatology.

The high endorsement of avoidance symptoms evident among those who met full criteria for HIV-related PTSD has implications for their overall health and treatment of the disease. It has been documented that the use of medication and routine follow-up visits may serve as constant reminders of the illness, and thus HIV-positive individuals may attempt to avoid these cues, potentially resulting in both non-compliance of treatment and follow-up care (Mundy & Baum, 2004).

5.5.3 Arousal cluster symptoms

‘Hypervigilance’ was endorsed by 79.4% of patients with HIV-related PTSD and 84% of patients without HIV-related PTSD. The high endorsement of hypervigilance amongst those who met the A2 criterion may be related to increased vigilance around monitoring of typical illness symptoms (Deimling, Kahana, Bowman & Schaefer, 2002), and may thus not reflect pathology.

The following symptoms in the arousal symptom cluster which were more commonly endorsed by those individuals meeting full criteria for HIV-related PTSD than those who did not were: (a) 'irritability or angry outbursts', (b) 'sleep difficulties', and (c) 'difficulty concentrating'. These findings are congruent with those found by Palmer et al. (2004). In Palmer et al.'s study, the three aforementioned symptoms, as well as the symptom 'exaggerated startle response' was more frequently endorsed by those individuals who met full criteria for cancer-related PTSD than those who did not.

Two of the arousal symptoms which were commonly endorsed, 'sleep difficulties' and 'difficulty concentrating', have been referred to as relatively non-specific symptoms which may be indicative of diffuse distress rather than PTSD (Palmer et al., 2004), and have been commonly endorsed by individuals who have experienced other stressors (Ford, Adams & Dailey, 2006; Hammond et al., 2006; Norman, Stein & Davidson, 2007).

5.6 Self-reported distress

The mean total score on the HSCL-25 was 47.5 (SD = 16.4). The present study's findings show that a substantial proportion of the total sample (54%, 46/85) scored above the cut-point of 44 on the HSCL-25, indicating the likelihood of clinically significant distress.

Data suggest that high rates of emotional distress are evident among HIV-positive individuals. For example, Cohen et al. (2002) found that among a sample of 101 HIV-positive patients in the U.S., 72% of the sample were found to be experiencing high levels of distress, determined using the Distress Thermometer. This elevated rate of reported distress found in the study conducted by Cohen et al. is likely due to the characteristics of the sample, as psychiatric disorders were highly prevalent in the sample population determined before assessment of distress. Similarly, Bernatsky, Souza and De Jong (2007) found that among a sample of 23 HIV-positive pregnant women and 134

pregnant women without HIV in Angola, 66.7% of the HIV-positive women were experiencing significant emotional distress in comparison to 30.6% of the pregnant women without HIV. The measure used to determine levels of distress in Bernatsky et al.'s study was the 12-item General Health Questionnaire. The higher rate of distress found in Cohen et al.'s study in comparison to the present study may be due to the use of different measures used to assess distress. Similarly, in Bernatsky et al.'s study, the higher rates of distress found in comparison to the present study's findings may be due to both the use of a different measure to determine distress and characteristics of the sample, that consisted solely of female participants.

The level of distress found in the present study is higher than that found among individuals who have experienced other forms of trauma, for example, among individuals who have been diagnosed with breast cancer (Coyne, Palmer, Shapiro, Thompson & DeMichele, 2004), and among former political detainees who have experienced both abuse and torture (Kagee, 2005). Coyne et al. found that among 113 female breast cancer patients, the mean score on the HSCL-25 was 40.5 (SD = 11.26), with 29.2% of the sample exceeding the cut-point of 44 on the HSCL-25. The lower rate of distress evident in Coyne et al.'s study may be due to the effect of over half the sample (52%) receiving psychotropic medication during the course of their treatment. In a study conducted by Kagee (2005) among a sample of 148 South African former political detainees, the mean score on the HSCL-25 was 56.18 (SD = 21.5), with 14.2% of the sample scoring above the HSCL-25 cut-point of 44. These percentages of distress are lower than that found in the present study.

In the present study, of the 34 persons who met the full criteria for HIV-related PTSD, 28 (82.4%) scored in the clinically significant range on the HSCL-25. In contrast, of the 51 persons who did not meet the full criteria for PTSD, 18 (35.3%) scored in the clinically significant range. Moreover, as shown in the previous chapter, the respective means on the HSCL-25 for the two groups were

significant, indicating a greater level of psychological distress among those persons who met the criteria for caseness for PTSD.

As mentioned above, of the 34 persons who met the full criteria for HIV-related PTSD, 28 (82.4%) scored in the clinically significant range on the HSCL-25. In contrast, of the 35 persons who endorsed the A2 criterion but who did not meet full criteria for HIV-related PTSD, 14 (40%) scored in the clinically significant range. Moreover, as shown in the previous chapter, the respective means on the HSCL-25 for the two groups were significant, indicating a greater level of psychological distress among those persons who endorsed the A2 criterion and also met full criteria for HIV-related PTSD.

In sum, these findings indicate that those individuals who met full criteria for HIV-related PTSD reported significantly higher levels of distress than individuals who did not meet caseness for HIV-related PTSD. Additionally, individuals who endorsed the A2 criterion but who did not have HIV-related PTSD reported marginally higher levels of distress than those who did not endorse the A2 criterion. These findings emphasise the importance of routinely screening HIV-positive patients for HIV-related PTSD, as individuals who meet full criteria for HIV-related PTSD are at significantly high risk for clinically significant levels of distress for which psychiatric intervention may be indicated. It is important to note that screening instruments commonly used to assess for psychological distress have a number of benefits and drawbacks. Screening is viewed as a brief and economical means of identifying those at risk of psychopathology and subsequently, those in need of psychological intervention (Coyne, Thompson, Palmer & Kagee, 2000). Data suggest, however, that the use of self-report measures that assess for pathology in the absence of a gold standard, frequently yield large numbers of false positives and false negatives. This discrepancy may potentially result in persons without a psychiatric diagnosis being identified as disordered and truly disordered individuals not being identified as such (Coyne et al.). Given these discrepancies in the

use of screening instruments, ideal screening measures should have optimal sensitivity (the ability to correctly identify true cases) and specificity (the ability to correctly identify true non-cases). Furthermore, if true cases are identified, follow-up assessments are required to assess for the nature and duration of the disorder (Coyne et al.).

Data suggest that countries characterized by populations with high rates of socio-economic deprivation have the greatest need for mental healthcare. However, these populations have the lowest access to such services (Saxena, Thornicroft, Knapp & Whiteford, 2007). Furthermore, it has been found that low- and middle-income countries have shortages of mental health professionals, such as psychiatrists, psychiatric nurses, social workers, and psychologists (Saxena et al.). If screened individuals are found to be true cases, healthcare providers have an ethical obligation to subsequently refer those in need of assistance for appropriate interventions (Seedat, Pienaar, Williams & Stein, 2004). However, in the absence of adequate and effective psychiatric resources and services in South Africa (Jacob et al., 2007), this may not be possible. Thus, it has been suggested that trauma-related content should only be assessed if there are appropriate and adequate mechanisms in place to both deal with the possible adverse effects of enquiry and to monitor potential harmful outcomes (Seedat et al., 2004).

5.7 HIV-related PTSD and comorbidity

The present study's findings show that of those participants who met full criteria for HIV-related PTSD, 76.5% (26/34) had elevated scores on the depression subscale of the HSCL-25, and 58.8% (20/34) had elevated scores on the anxiety subscale of the HSCL-25.

A number of studies have reported high rates of depression and anxiety among HIV-positive individuals. For example, Thornton et al. (2005) found that among a sample of 506 HIV-infected patients in New Mexico, 52% had elevated scores on the depression subscale of the HSCL-25, and

39% had elevated scores on the anxiety subscale of the HSCL-25. Similarly, Chandra, Ravi, Desai and Subbakrishna (1998) found that among a sample of 51 HIV-positive heterosexual men and women in India, 40% had elevated scores on the depression subscale of the Hospital Anxiety and Depression Scale (HADS) and 36% had elevated scores on the anxiety subscale of the HADS.

Previous studies have reported high levels of comorbid depression and anxiety among HIV-positive individuals who have met full criteria for PTSD (Boarts et al., 2006; Israelski et al., 2007; Olley et al., 2005). Moreover, it has been reported that psychiatric comorbidity appears to be significantly higher among HIV-positive individuals who meet full criteria for PTSD than among HIV-positive individuals who do not meet full criteria for PTSD (Olley et al.). Few studies have however assessed comorbidity among individuals who have been diagnosed with HIV-related PTSD. One such study was conducted by Kelly et al. (1998) among a sample of homosexual and bisexual men in Australia. Similar to the present study, Kelly et al. reported higher rates of depression (52.6%) than anxiety (33%) among individuals who met full criteria for HIV-related PTSD. Furthermore, in Kelly et al.'s study it was found that 21% of those diagnosed with HIV-related PTSD developed depression for the first time after being diagnosed HIV-positive, in comparison to only 3% of HIV-positive individuals who did not meet caseness for HIV-related PTSD. Thus, it would appear that meeting full criteria for HIV-related PTSD is a risk factor for major depression. Additionally, results from Kelly et al.'s study indicated that a diagnosis of HIV-related PTSD was significantly associated with the diagnosis of anxiety disorder pre-HIV infection.

As a paucity of research assessing comorbid disorders among those diagnosed with HIV-related PTSD exists, the evaluation of comorbid disorders, such as MDE and GAD among those diagnosed with HIV-related PTSD requires further investigation.

5.8 Limitations of the present study

Limitations of the present study include, firstly, the relatively small sample size and overrepresentation of women in the study, which makes generalizing the present study's findings to other populations infected with HIV problematic.

Secondly, over time PTSD symptoms may increase or decrease as a result of mood status or the reactivation of apparently resolved symptoms (Andrykowski, Cordova, Studts & Miller, 1998). Cross-sectional designs, as used in the present study, are unable to assess or detect such occurrences. Consequently, longitudinal studies may be more suitable to studying trauma responses over time (Andrykowski et al.).

Thirdly, self-report measures were used to assess both levels of distress and HIV-related PTSD symptom severity among the sample. The use of self-report instruments may have yielded unreliable responses as a result of overreporting.

A fourth limitation of the study was that the structured interview that was used to determine the prevalence of HIV-related PTSD did not solely address responses to the receipt of an HIV-positive diagnosis, but also responses to 'being HIV-positive'. As a result, participants may have endorsed symptoms that related to either or both of the aforementioned, which subsequently may have resulted in an overestimation of the prevalence of HIV-related PTSD. Moreover, 'being HIV-positive' appears to indicate both a general and a vague condition, and not a singular traumatic event. Thus, 'being HIV-positive' is incompatible with the strict criteria of the DSM-IV.

A fifth limitation of the study was that the structured interview that was used to assess the endorsement of PTSD symptoms did not assess the symptom 'acting or feeling as if the traumatic event was recurring'. Thus, it is unclear whether the data accurately reflect the DSM-IV re-experiencing cluster of symptoms.

Finally, the present study did not assess either the presence of anxiety and depression prior to receipt of an HIV-positive diagnosis. Thus, it could not be determined whether the levels of depression and anxiety found among the present sample were attributed to pre-HIV diagnosis distress, or whether depression and anxiety was associated with receipt of an HIV-positive diagnosis and/or being HIV-positive.

5.9 Conclusion

High rates of both lifetime PTSD (29.4%) and HIV-related PTSD (40%) were found among the sample of patients recently diagnosed with HIV. Additionally, levels of self-reported distress were elevated, with over half the sample (51.4%) likely to be experiencing clinically significant distress. Of those meeting full criteria for HIV-related PTSD, 82.4% were likely to be clinically distressed. Moreover, 76.5% and 58.8% of those meeting full criteria for HIV-related PTSD were experiencing high levels of depression and anxiety, respectively.

5.10 Implications of the present study's findings

The present study's findings have direct implications for HIV-positive patients' adherence to antiretroviral treatment and consequently, their overall physical health. Elevated HIV-related PTSD symptoms have been found to be associated with lower HIV medication adherence (Delahanty et al., 2004). Higher mean levels of self-reported distress among HIV-positive individuals have been found to be associated with both a decline in CD4 cell count (Remor, Penedo, Shen & Schneiderman, 2007) and non-adherence to antiretroviral treatment (Chesney et al., 2000).

The present study's findings indicate that receiving an HIV-positive diagnosis and/or being HIV-positive is a traumatic stressor frequently resulting in HIV-related PTSD. However, it has been documented that many of the concerns experienced by those who have been diagnosed with life-threatening illnesses, such as HIV, are future-oriented (Kagee, 2007; Mundy & Baum, 2004). Future research should thus assess the extent to which intrusion and re-experiencing symptoms

among HIV-positive individuals are future-oriented by suitably evaluating the content of these symptoms. Interestingly, higher levels of comorbid depression than comorbid anxiety were found amongst those individuals who met full criteria for HIV-related PTSD, although PTSD is categorized as an anxiety disorder and not a mood disorder (Sadock & Sadock, 2003). This finding leads one to question the appropriateness of applying PTSD criteria in isolation, instead of in the context of high comorbidity of depression and anxiety to those who have been diagnosed with a chronic, life-threatening illness like HIV.

The endorsement of the A2 criterion played a significant role in the present study's findings. Firstly, 81.2% (69/85) of the total sample met the A2 criterion for HIV-related PTSD. Of those who endorsed the A2 criterion, 49.3% (34/69) subsequently met full criteria for HIV-related PTSD. Self-reported levels of distress were highest among those who met the A2 criterion, particularly among those who met full criteria for HIV-related PTSD. In their assessment of the effects of the revised stressor criterion included in DSM-IV's criteria for PTSD, Breslau and Kessler (2001) found that very few A1 events, in the absence of A2, lead to PTSD. As a result of this finding, Breslau and Kessler suggest that it may be more useful to define the A2 criterion as a separate criterion, "...an acute response necessary for the emergence of PTSD" (Breslau & Kessler, p. 703). Consequently, the A2 criterion may be a useful item to screen for both those at risk of PTSD and elevated levels of distress, including depression and anxiety.

5.11 Overlap of symptoms for PTSD, MDD and GAD

In the present study there appeared to be a considerable overlap between HIV-related PTSD symptoms and symptoms of anxiety and depression (see Table 8). It would appear that individuals who endorsed the A2 criteria and met full criteria for HIV-related PTSD also experienced symptoms of depression and anxiety which evidently overlap with DSM-IV PTSD symptomatology.

Table 8

Overlap of PTSD Symptoms with MDD and GAD Symptoms

PTSD	MDD	GAD
PTSD Avoidance Symptoms		
1. Sense of foreshortened future	Recurrent thoughts of death	
2. Markedly diminished interest or participation in significant activities	Markedly diminished interest or pleasure in all or most activities all or most of the day	
3. Avoidance of activities, places or people that arouse recollection	Markedly diminished interest or pleasure in all or most activities all or most of the day	
4. Restricted range of affect	Psychomotor retardation and fatigue or less energy almost every day	
PTSD Arousal symptoms		
1. Sleep difficulties	Insomnia or hypersomnia	Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfactory sleep)
2. Difficulties concentrating	Diminished ability to think or concentrate	Difficulty concentrating or mind going blank
3. Irritability or outbursts of anger		Irritability Restlessness or feeling keyed up or on edge

Note. PTSD = DSM-IV Post-traumatic stress disorder. MDD = DSM-IV Major depressive disorder. GAD = DSM-IV Generalized anxiety disorder

5.12 Directions for future practice and research

5.12.1 Recommendations for practice

Screening for traumatic events, depression, anxiety and PTSD-symptomatology in medical settings where HIV-positive individuals are treated is recommended in order to identify those individuals most at risk for psychopathology. It has been reported that the majority of HIV-positive individuals do not receive any form of psychiatric treatment, including either medication or therapy for their symptoms (Israelski et al., 2007; Martinez et al., 2002). Despite the fact that three-quarters of the present study's sample indicated that they were receiving counselling from either HIV counsellors or ARV adherence counsellors at the HIV clinics for their HIV-positive status, counsellors and medical staff at these clinics may not be sufficiently trained or supervised to provide appropriate assessment and therapeutic intervention for traumatized patients (Saraceno et al., 2007). As the counsellors at the clinics from which the present study's participants were recruited comprised both lay HIV counsellors and ARV adherence counsellors, it is recommended that medical and counselling staff at HIV clinics be suitably trained in the use of screening instruments so as to routinely evaluate trauma symptomatology among HIV-positive individuals, and subsequently refer those at risk for suitable psychiatric treatment. This process would thus provide those at increased risk for psychopathology the opportunity for psychological intervention.

Given the high rate of HIV-related PTSD, depression, anxiety, and elevated levels of distress among the participants in the present study, suitable and effective prevention, treatment and care for HIV-positive individuals is required over the long term (Achmat & Simock, 2007). In terms of preventing PTSD and reducing distress, a single-session of debriefing within the first month after an experienced trauma, has been found to be ineffective (Van Emmerick, Kamphuis, Hulsbosch & Emmelkamp, 2002). In comparison, cognitive behaviour therapy has shown significantly better outcomes (Belaise, Fava & Marks, 2005; Ehlers & Clark, 2003), and is evidently the most effective in alleviating symptoms of traumatisation (Gore-Felton, 2000). Cognitive-behavioural group

interventions have proven to be successful at reducing symptoms of stress and decreasing the severity of re-experiencing and avoidance symptoms (APA, 2006). A group-based cognitive behavioural stress management (CBSM) intervention among HIV-positive gay men in the U.S. appeared to have positive psychological effects on participants. CBSM appeared to both decrease distress and depressed affect in individuals who received the intervention in comparison to a wait-list control group. Additionally, CBSM was associated with a decrease in avoidance and denial coping strategies, and an increase or maintenance of social support (Schneiderman, Antoni & Ironson, 1997). Furthermore, a manual-driven psycho-education intervention (PE) among HIV-positive patients in Nigeria has proven to be effective in increasing safe-sex practices and self-disclosure, and in reducing psychological distress associated with receipt of an HIV-positive diagnosis (Olley, 2006). Consequently, the positive outcomes from these interventions may facilitate medication adherence among HIV-positive individuals. Future research should aim to determine which psychological interventions are most effective in decreasing trauma symptomatology and distress among HIV-positive individuals within the South African context.

5.12.2 Recommendations for research

It is generally accepted that the treatment for PTSD and PTSD-symptomatology should include patient education, psychopharmacology and cognitive behaviour therapy (Grinage, 2003). The assessment of the effectiveness of mental health interventions in low- and middle-income countries has shown that depression, for example, can be effectively treated with low-cost antidepressants or with psychological interventions (Patel et al., 2007), as mentioned previously. However, data suggests that more than half of people in need of treatment for common mental disorders such as depression and anxiety do not receive it (Saxena et al., 2007). Moreover, the rate of treatment gaps for serious mental disorders such as schizophrenia and bipolar disorder in low- and middle-income countries has been reported to range between 76-85% (WHO, 2004). One reason for these large treatment gaps is that in many low- and middle-income countries, including South Africa, there is a

severe shortage of mental health professionals. Data indicate that there are 1.2 and 7.5 psychiatrists and psychiatric nurses, respectively, for every 100 000 people in South Africa (Jacob et al., 2007). Consequently, mental health and health professionals in South Africa are overburdened with numerous tasks and high patient loads (Marais, 2007; Saraceno et al., 2007) and may resist taking on additional responsibilities (Freeman, 2004). Additionally, it has been reported that primary healthcare workers do not receive adequate training, supervision and support (Saraceno et al.). For these aforementioned reasons, it is likely that patients with HIV-related mental problems may subsequently not receive effective treatment and care. Thus, the issue of how the mental healthcare and psychosocial support of HIV-positive people in South Africa can be efficiently integrated into general healthcare (HSRC, 2003), requires further investigation.

PTSD is an event-specific syndrome as its symptoms are linked to an explicit etiological stimulus (Breslau, 2002; Schnurr & Green, 2004), from which symptomatology then ensue (Shalev & Yehuda, 1998). As such, the condition is regarded as a disorder of memory as the event necessarily has to have occurred in the past. However, living with HIV is characterized by worries and concerns about future events (Kagee, 2007), making PTSD a questionable nosological category in this regard. For this reason the applicability of GAD criteria has been suggested to be more appropriate for the symptoms presented by those who have been diagnosed HIV-positive (Mundy & Baum, 2004). The central features of GAD are excessive anxiety and uncontrollable worry, described as 'apprehensive expectation' (APA, 1994). Mundy and Baum explain that anxious apprehension reflects a future-oriented mood state in which the individual attempts to prepare for or deal with potentially adverse future events. This explanation appears to be in accordance with the experience of those who are HIV-positive. In light of this controversy, future research should attempt to explore the suitability of applying DSM-IV GAD criteria, instead of DSM-IV PTSD criteria, to the symptoms experienced by those who are HIV-positive. Persons who have been diagnosed with medical life-threatening illnesses appear to have intrusive thoughts about a discrete

past event such as diagnosis with the disease but also with events that will occur in the future such as physical decline and death. It has been argued by Mundy and Baum that a new diagnosis may need to be formulated which incorporates this phenomenon.

In closing, a high rate of lifetime PTSD, HIV-related PTSD, and distress was found among the present sample. These findings indicate the need for adequate support and care for HIV-positive individuals. However, given the various barriers to efficient mental health interventions and services in South Africa, there are significant challenges that need to be addressed in order to ensure that the mental health and welfare of these individuals are both adequately assessed and appropriately maintained.

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APPENDIX A**PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM**

TITLE OF THE RESEARCH PROJECT: POST-TRAUMATIC STRESS DISORDER AMONG HIV POSITIVE PERSONS.

REFERENCE NUMBER:

PRINCIPAL INVESTIGATOR: LINDI MARTIN

**ADDRESS: DEPARTMENT OF PSYCHOLOGY
RYNEVELD STREET
UNIVERSITY OF STELLENBOSCH
STELLENBOSCH**

CONTACT NUMBER: 084-6744636

You are being asked to participate in this research study because you have been diagnosed with HIV in the last year. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

THE PURPOSE OF THIS RESEARCH STUDY

The purpose of this research is to establish the psychological consequences of having recently being diagnosed with HIV. It is believed that the information gained in this research will help to better understand the psychological symptoms of persons who have recently been diagnosed with HIV in the last year. This information will benefit the on-going process of developing and implementing the necessary interventions for persons who have recently received an HIV diagnosis.

The study will be conducted at this clinic as well as other clinics in the Western Cape. In total, the study aims to recruit over 150 participants who meet the necessary criteria to take part in this study.

PROCEDURES

As a participant, you will be asked to participate in an interview inquiring about various aspects of your experience of having been diagnosed with HIV and the effects that it has had on your life. A research associate will conduct the interview with you asking about your present level of psychological functioning. You will be asked to complete a number of questionnaires relating to your experience of having been diagnosed with HIV.

RISKS

Some of the questions in the interview and questionnaires may touch on sensitive areas. However, every effort will be made by the researchers to minimize your discomfort. You are encouraged to discuss with the research staff any negative or difficult feelings or experiences you have as a result of participating in this research project. If at any time you feel you would like to stop your participation in the research study you will be free to do so. In the event that you experience significant distress and would like to discuss your feelings with a counsellor, you may call the Trauma Centre in Cape Town at 021-465-7373.

COSTS AND FINANCIAL RISKS

There are no financial costs directly associated with participation in this project.

BENEFITS

There is no guarantee that you will benefit directly from this study. However, the researchers believe that it is important to understand the manner in which psychological symptoms manifest themselves. The results of this investigation will help to inform an understanding of the effects of a recent HIV diagnosis. If you wish, you will be informed of the results of this study when it is completed.

COMPENSATION

You will be issued with a R20 voucher for participating in this study.

ALTERNATIVES

Participation in this research project is entirely voluntary and you may choose not to participate.

CONFIDENTIALITY

Every attempt will be made by the investigators to keep all information collected in this study strictly confidential. If any publication results from this research, you will not be identified by name.

ADDITIONAL INFORMATION

Your participation in this study is entirely voluntary, and you are free to refuse participation. You may discontinue your participation at any time without prejudice. If you discontinue participation in the project, you may request that we do not use the information already given to us. You are encouraged to ask questions concerning the study at any time as they occur to you.

DISCLAIMER / WITHDRAWAL

You agree that your participation in this study is completely voluntary and that you may withdraw at any time. You also understand that if you have any questions pertaining to your participation in this research study, you may contact the Principal Investigator, Lindi Martin, by telephoning 084-6744-636. You acknowledge that you have been given the opportunity to ask questions and have had them answered to your satisfaction.

CONCLUSION

You have read and understand the consent form. You agree to participate in this research study. Upon signing below, you will receive a copy of the consent form.

Print name of Participant

Participant's signature

Date

Print name of Witness

Witness's signature

Date

DEELNEMER INLIGTINGSPAMVLET EN VRYWARINGSVORM

**TITEL VAN DIE NAVORSINGSPROJEK: POST-TRAUMATIESE STRES-
VERSTEUTRING ONDER HIV POSITIEWE PERSONE.**

VERWYSINGSNOMMER:

HOOF NAVORSER: LINDI MARTIN

**ADRES: DEPARTEMENT SELKUNDE
RYNEVELDSTRAAT
UNIVERSITEIT VAN STELLENBOSCH
STELLENBOSCH**

KONTAK NOMMER: 084-6744-636

U word gevra om deel te neem aan hierdie studie, want u was gediagnoseer met MIV in die afgelope jaar. Neem asseblief tyd om deur die inligting te lees wat die details van die projek verduidelik. Vra asseblief die navorsers enige vrae as u nie die projek ten volle verstaan nie. Dit is baie belangrik dat u ten volle tevrede is en dat u presies verstaan wat hierdie navorsing behels en hoe u betrokke kan word. Besef asseblief ook dat u deelname **heeltmal vrywillig** is en u kan enige tyd weier om deel te neem. As u nee sê, sal u in geen manier benadeel word nie. U kan ook enige tyd gedurende die studie onttrek, selfs al het u ingestem om deel te neem.

Hierdie studie was goedgekeur deur die **Komitee vir Menslike Navorsing van die Universiteit van Stellenbosch** en sal uitgevoer word volgens die etiese riglyne en bepalinge van die internasionale Verklaring van Helsinki, Suid-Afrikaanse Riglyne vir Goeie Kliniese Praktjke en die Mediese Navorsingsraad (MNR) se Etiese Riglyne vir Navorsing.

DOEL VAN DIE NAVORSINGSPROJEK

Die doel van die navorsing is om die sielkundige gevolge te identifiseer van iemand wat onlangs met HIV gediagnoseer is. Daar word beweer dat die inligting wat ingesamel gaan word van hierdie navorsing ons sal help om die sielkundige simptome van mense wat in die laaste jaar met HIV gediagnoseer is, beter te verstaan. Hierdie inligting sal die aaneenlopende proses vir die ontwikkeling en implementering van noodsaaklike intervensies vir mense wat onlangs met HIV gediagnoseer is, bevorder.

Hierdie studie sal by dié kliniek, asook ander klinieke in die Wes-Kaap, uitgevoer word. Die studie beoog om in totaal 150 deelnemers te werf wat aan die nodige kriteria van die studie voldoen.

PROSEDURES

As 'n deelnemer sal u gevra word om deel te neem aan 'n onderhoud wat 'n verskeidenheid aspekte van u ervaring om gediagnoseer te word met MIV en die effek wat dit op u lewe het, sal aanraak. 'n Navorsingsassistent sal die onderhoude met u voer en u vra oor u huidige sielkundige

funksionering. U sal gevra word om 'n paar vraelyste te voltooi in verband met u diagnose van HIV.

RISIKO

Sommige van die vrae in die onderhoud en die vraelyste kan dalk sensitiewe areas aanraak. Alle voorsorg sal egter deur die onderhoudsvoerders gemaak word om u ongemak te verlig. U word aangemoedig om enige negatiewe of moeilike gevoelens of ervarings wat u as gevolg van die onderhoud ervaar, met die onderhoudsvoerder te bespreek. As u enige tyd gedurende die onderhoud wil stop, is u onder geen verpligting om aan te hou met die onderhoud nie. As u egter beduidende ongemak ervaar en dalk u gevoelens met 'n berader wil bespreek, kan u die Trauma Sentrum in Kaapstad bel by 021-465-7373.

KOSTE EN FINANSIËLE RISIKO

Daar is geen direkte finansiële koste geassosieer met deelname aan die projek nie.

VOORDELE

Daar is geen waarborg dat u direk uit hierdie studie voordeel sal trek nie. Die navorser glo egter dat dit belangrik is om die wyse te verstaan waarop sielkundige faktore hulleself manifesteer. Die resultate van die studie sal lig werp op die verstaan van die effek van 'n onlangse MIV diagnose. As u so wil, kan ons u inlig oor die resultate van die studie as dit afgehandel is

KOMPENTASIE

U sal 'n R 20 geskenkbewys ontvang vir die deelname aan die studie.

ALTERNATIEWE

Deelname aan die navorsingsprojek is heeltemal vrywillig en u mag weier om deel te neem.

KONFIDENSIALITEIT

Alle moontlike voorsorg sal getref word deur die navorsers om die inligting wat ingesamel word vir die navorsing streng konfidensieel te hou. As enige publikasie voortspruit uit die studie sal u nie geïdentifiseer word deur u naam nie.

ADDISIONELE INLIGTING

U deelname in hierdie studie is heeltemal vrywillig en u kan weier om deel te neem. U kan enige tyd onttrek sonder enige vooroordeel. As u deelname in hierdie projek staak, kan u versoek dat ons die inligting wat u ons alreeds gegee het, nie gebruik nie. U word aangemoedig om enige tyd vrae te vra oor die studie soos dit by u opkom.

VRYWARING/ ONTTREKING

U stem in dat u deelname aan die studie heeltemal vrywillig is en dat u enige tyd kan onttrek. U verstaan ook dat as u enige vrae het in verband met u deelname aan hierdie projek, kan u die hoofnavorser, Lindi Martin, kontak by 084-6744-636. U erken dat u die geleentheid gegun is om vrae te vra en hulle beantwoord is tot u satisfaksie.

GEVOLGTREKING

U het die vrywaringsvorm gelees en verstaan. U stem in om deel te neem aan die navorsingsprojek. As u hieronder teken sal u 'n afskrif van die vrywaringsvorm kry.

Deelnemer se naam in drukskrif Deelnemer se handtekening Datum

Getuie se naam in drukskrif Getuie se handtekening Datum

INCWADANA EYENZELWE OTHATHA INXAXHEBA KUNYE NEFOMU YEMVUMELWANO

ISIHLOKO SENKQUBO YOPHANDO: UDANDATHEKO NGOKWASENGQONDWENI KUBANTU ABANENTSHOLONGWANE KAGAWULAYO/IHIV

INOMBOLO YESINGQINISO:

**UMPHATHI OMKHULU WOPHANDO: LINDI MARTIN
IDILESI: DEPARTMENT OF PSYCHOLOGY
RYNEVELD STREET
UNIVERSITY OF STELLENBOSCH
STELLENBOSCH**

INOMBOLO YOQHAKAMSHELWANO: 084-6744636

Uyacelwa uba uthathe inxaxheba kolu phando kuba ufunyaniswe unentsholongwane kagawulayo/iHIV kulo nyaka ophelileyo. Nceda uthathe ixesha ukufunda olu lwazi olunikezelweyo apha, olucacisa ngeenkukacha zolu phando. Nceda buza omnye wamalungu olu phando xa kukho nantoni na ongayivisisanga enxulumene nolu phando. Kubalulekile uba woneliseke ngokupheleleyo uba uyaluqonda uba lungantoni olu phando kunye nenxaxheba oza kuyidlala. Kwakhona, ukuthatha inxaxheba **lolokuzinikela ngokupheleleyo** kwaye ukhululekile ukwala ukuthatha inxaxheba. Xa usala ukuthatha inxaxheba, loo nto ayinakukuchaphazela nangaluphi na uhlobo. Ukhululekile kwakhona uba ungarhoxa nanini na kolu phando, nangona ubuvumile ukuthatha inxaxheba.

Olu phando lufumene imvume **Kwikomoti ye Human Research ekwi Dyunivesithi yase Stellenbosch** lwaye luzakuqhutywa ngokwemigaqo esesikweni kunye nemithetho siseko ye International Declaration of Helsinki, South African Guidelines for Good Clinical Practice kunye ne Medical Research Council (MRC) Ethical Guidelines for Research.

INJONGO YOLU PHANDO

Injongo yolu phando yeyokufumana iziphumo zodandatheko ngokwasengqondweni ezimalunga noba uthe wafunyaniswa unentsholongwane kagawulayo/iHIV kutsha nje. Kukholeleka ukuba ulwazi oluza kuthi lufunyanwe luza kunceda ekuphuculeni ulwazi ngeempawu zodandatheko ngokwasengqondweni lwabantu abafunyaniswe benentsholongwane kagawulayo/iHIV kulo nyaka ophelileyo. Olu lwazi luzakunceda kwinkqubo eqhubekayo yokukhulisa nokuphumeza ungenelelo olufunekayo kubantu abafunyaniswe benentsholongwane kagawulayo.

Olu phando luzakwenziwa kule kliniki nakwezinye iikliniki ezise Ntshonalanga Koloni. Ngokupheleleyo, olu phando lujonge ukufumana abathath'inxaxheba abangaphezu kwe 150 abafezekisa inkqubo efunekayo yokuthatha inxaxheba kolu phando.

IMIGAQO

Njengothatha inxaxheba, uya kucelwa ukuba uthathe inxaxheba kudliwanondlebe oluphanda malunga neminye imibandela engamava akho okufunyaniswa unentsholongwane kagawulayo/iHIV

kwakunye negalelo eye yanalo ebomini bakho. Umphandi osebenzisana nawe kolu phando uza kuqhuba udliwanondlebe nawe ekubuza ngenqanaba ingqondo yakho esebenza ngayo ngoku. Uza kucelwa uba ugcwalise iphepha lemibuzo elibuza malunga namava akho ngokuthi ufunyaniswe unentsholongwane kagawulayo/iHIV.

UBUNGOZI

Eminye yemibuzo kolu dliwanondlebe nakwiphepha lemibuzo ingachukumisa iindawo ezibuthathaka. Noxa kunjalo, ziya kwenziwa iinzame ngabaphandi ukunciphisa ukungakhululeki kwakho. Uyakhuthazwa uba uthethe nelungu lophando ngemizwa enzima okanye amava owavayo ngenxa yokuthatha inxaxheba kule nkqubo yophando. Nangaliphi na ixesha xa uziva ufuna ukuyeka ungakhululeka ukwenze oko. Apho kunokwenzeka ukuba uzive unodandatheko olungamandla kwaye ufuna ukuthetha ne Counsellor, ungatsalela iTrauma Center ese Kapa kule nombolo 021-465-7373.

INTLAWULO NONGCIPHEKO NGEZEZIMALI

Akusayibakho zintlawulo eziqondene nokuthatha inxaxheba kule nkqubo yophando.

INZUZO

Akukho siqinisekiso sokokuba kungakho inzuzo eqondene nale nkqubo yophando. Noxa kunjalo abaphandi bakholelwa ukuba kubalulekile ukuqonda indlela iimpawu zodandatheko ngokwasengqondweni ezithi zizibonakalise ngayo. Iziphumo zolu phando ziza kunceda ekuphuhliseni ulwazi ngamava owafumene emva kweziphumo zakho zakutsha nje zoxilongo lwentsholongwane kagawulayo/iHIV. Uba unomdla uyakwaziswa ngeziphumo zophando xa sele lugqityiwe.

IMBUYEKEZO

Uzakubuyekizwa ngesipho seR20 ngokuthatha inxaxheba kolu phando.

OKUNYE ONOKWENZA

Ukuthatha inxaxheba kolu phando kuse kuzinikeleni kuwe kanti ungakhetha nokungathathi nxaxheba.

IMFIHLELO

Abaphandi bazakwenza iinzame zokuba ulwazi oluqokelelweyo kolu phando luhlale luyimfihlelo. Xa kungakho upapasho olwenziwayo kolu phando, igama lakho alisayi kukhankanywa.

ULWAZI OLWENGEZELELWEYO

Ukuthatha inxaxheba kolu phando lolokuzinikela ngokupheleleyo, kwaye ukhululekile ukwala ukuthatha inxaxheba. Unganqumama nanini na ngaphandle kokusengelwa phantsi. Uba uyanqumama ekuthatheni inxaxheba unakho ukucela ukuba singalusebenzisi ulwazi osinike lona. Uyakhuthazwa uba ungabuza imibuzo ebhekiselele kolu phando ngendlela evela ngayo kuwe.

UKUYEKA

Uyavuma ukuba inxaxheba yakho kolu phando yeyokuzinikela ngokupheleleyo yaye ungayeka nanini na. Uyayiqonda kwakhona nento yokuba xa unemibuzo eqondene nokuthatha kwakho inxaxheba kolu phando ungaqakamshelana nomphathi omkhulu wophando, uLindi Martin, utsalele le nombolo 0846744636. Uyayamkela into yokuba ulinikiwe ithuba lokubuza imibuzo yaye wanelisekile yindlela ephendulwe ngayo.

ISIPHELO

Uyifundile yaye uyayiqonda ifomu yemvumelwano. Uyavuma ukuthatha inxaxheba kolu phando. Ngokuyisayina ngaphantsi uya kufumana ikopi yefomu yemvumelwano.

Bhala igama lomthathi nxaxheba

Usayino lomthathi nxaxheba

Umhla

Bhala igama lengqina

Usayino lwengqina

Umhla

APPENDIX B

PTSD MODULE OF THE CIDI

K22: Now I would like to ask you about extremely stressful or upsetting events that sometimes occur to people.

ASK **K22.1 – K22.11.** CODE IN COL.I

	COL. I		COL. II WORST EVENT	
	NO	YES	NO	YES
1. Did you ever have direct combat experience in a war?	1	5	1	5
2. Were you ever involved in a life-threatening accident?	1	5	1	5
3. Were you ever involved in a fire, flood or other natural disaster?	1	5	1	5
4. Did you ever witness someone being badly injured or killed?	1	5	1	5
5. Were you ever raped, that is someone had sexual intercourse with you when you did not want to, by threatening you, or using some degree of force?	1	5	1	5
6. Were you ever sexually molested, that is someone touched or felt your genitals when you did not want them to?	1	5	1	5
7. Were you ever seriously physically attacked or assaulted?	1	5	1	5
8. Have you ever been threatened with a weapon, held captive, or kidnapped?	1	5	1	5
9. Have you ever been tortured or the victim of terrorists?	1	5	1	5
10. Have you ever experienced any other extremely stressful or upsetting event? DESCRIPTION: _____ _____	1	5	1	5

IF OTHER EVENTS IN 10 ARE ONLY BEREAVEMENT, CHRONIC ILLNESS, BUSINESS LOSS, MARITAL OR FAMILY CONFLICT, BOOK, MOVIE, OR TELEVISION, CODE 1. OTHERS CODE 5.

	COL. I		COL. II WORST EVENT	
	NO	YES	NO	YES
11. Have you ever suffered a great shock because one of the events on the list happened to someone close to you?	1	5	1	5
IF YES, ASK: Briefly, what was the event that you found most stressful or upsetting when it happened to someone close to you? DESCRIPTION: _____ _____				

IF EVENTS IN 11 ARE ONLY BEREAVEMENT, CHRONIC ILLNESS, BUSINESS LOSS, MARITAL OR FAMILY CONFLICT, BOOK, MOVIE, OR TELEVISION, CODE 1. OTHERS CODE 5.

IF NO 5'S IN COL. 1, SKIP TO L1 (NEXT MODULE)

IF ONLY ONE 5 IN COL. 1 CODE 5 FOR THAT EVENT IN COL. II AND ASK K22A.1. OTHERS SKIP TO K22A.2

K22A 1. You mentioned that you have experienced (EVENT CODED 5 IN COL. 1). Did this happen only once in your lifetime or more than once? IF ONCE, SKIP TO **K22B**, OTHERS ASK: Of these times, was one of them more stressful or upsetting than the others? SKIP TO **K22B**.

K22A 2. You said that you have experienced (EVENTS CODED 5 IN COL. I). Of those events, which was the most stressful or upsetting? CODE 5 FOR THAT EVENT IN COL. II.

K22B FOR EVENT CODED 5 IN COL. II, ASK: How old were you when (EVENT) happened? AGE: _____/ _____

K22C FOR EVENT CODED 5 IN COL. II, ASK: When it happened, did you feel terrified?
NO.....1
YES.....5

K22D FOR EVENT CODED 5 IN COL. II, ASK: When (EVENT) happened, did you feel helpless?
NO.....1
YES.....5

Now I would like to ask you about the time after the stressful or upsetting experience happened to you.

ASK K23 TO K45 FOR EVENT CODED 5 IN COL. II.

K23 Did you keep remembering (EVENT) even when you didn't want to?

NO.....1

YES.....5

K24 After it, did you keep having bad dreams or nightmares about it?

NO.....1

YES.....5

K25 Did you suddenly act or feel as though (EVENT) was happening again even though it wasn't?

NO.....1

YES.....5

K26 Did you get very upset when you were reminded of it?

NO.....1

YES.....5

K27 Did you sweat or did your heart beat fast or did you tremble when you were reminded of (EVENT)?

NO.....1

YES.....5

K28 After (EVENT) did you have trouble sleeping?

NO.....1

YES.....5

K29 After it, did you feel unusually irritable or lose your temper a lot more than is usual for you?

NO.....1

YES.....5

K30 After it, did you have difficulty concentrating?

NO.....1

YES.....5

K38 After (EVENT) did you find you had more difficulty experiencing normal feelings such as love or affection towards other people?

NO.....1

YES.....5

K39 After (EVENT) did you begin to feel that there was no point in thinking about the future anymore?

NO.....1

YES.....5

IF K33 TO K39 ALL CODED 1, SKIP TO PTA MODULE

K40 You said that you had problems after (EVENT) like (SX coded 5 in K23 to K39). How soon after (EVENT) did you start to have any of these problems?

CODE LOWEST NUMBER.

SAME DAY.....1

THAT WEEK.....2

THAT MONTH.....3

WITHIN 6 MONTHS.....4

WITHIN 1 YEAR.....5

MORE THAN 1 YEAR.....6

IF MORE THAN 1 YEAR, ASK: How old were you? AGE: _____ / _____

K41 How long did you continue to have any of these problems because of (EVENT)?

CODE LOWEST NUMBER.

LESS THAN 1 WEEK.....1

LESS THAN 1 MONTH.....2

LESS THAN 6 MONTHS.....3

LESS THAN 1 YEAR.....4

MORE THAN 1 YEAR.....5

K42 When was the last time you had any of these problems as a result of (EVENT)?

SAME DAY.....1

THAT WEEK.....2

THAT MONTH.....3

WITHIN 6 MONTHS.....4

WITHIN 1 YEAR.....5

MORE THAN 1 YEAR.....6

AGE: _____ / _____

K43 Did you tell a doctor about the problems that occurred as a result of (EVENT)?

PTSD MODULE VAN DIE CIDI

K22: Nou wil ek vir jou vra oor hoogs stresvolle of onstellende gebeurtenisse wat deur mense ervaar word.

VRA **K22.1 – K22.11.** KODEER IN KOLOM I.

	Kolom I		Kolom II	
	Nee	Ja	Nee	Ja
1. Het jy ooit direkte geveg ervaring gehad in 'n oorlog?	1	5	1	5
2. Was jy ooit betrokke by 'n lewensbedreigende ongeluk?	1	5	1	5
3. Was jy ooit betrokke by 'n vuur, vloed, of ander natuurlike ramp?	1	5	1	5
4. Het jy ooit gesien hoe iemand erg beseer of vermoor is?	1	5	1	5
5. Was jy ooit verkrag, dus, iemand het seksuele omgang met jou gehad wanneer jy nie wou nie, deur om jou te dreig of 'n sekere mate van geweld te gebruik?	1	5	1	5
6. Was jy al ooit seksueel gemolesteer, dus, iemand het aan jou geslagsorgane geraak of gevat wanneer jy nie wou hê hulle moes nie?	1	5	1	5
7. Was jy al ooit ernstig fisies aangerand of aangeval?	1	5	1	5
8. Was jy al ooit gedreig met 'n wapen, of gevange gehou, of ontvoer?	1	5	1	5
9. Was jy al ooit gemartel, of die slagoffer van terroriste?	1	5	1	5
10. Het jy al ooit enige ander uiters stresvolle of onstellende gebeurtenis ervaar?	1	5	1	5

AS 'JA', VRA KORTLIKS, wat was die mees stresvolle of onstellende ervaring van hierdie tipe wat ooit met jou gebeur het?

BESKRYWING: _____

INDIEN ANDER GEBEURTENISSE IN 10. net verlies, kroniese siekte, besigheidsverlies, huweliks- of familie konflik, boek of fliëk, of televisie: kodeer 1, en alle andere kodeer 5.

	Kolom I		Kolom II	
	Nee	Ja	Nee	Ja
11. Het jy al ooit aan groot skok gely omdat een van die gebeurtenisse op die lys met iemand na aan jou gebeur het?	1	5	1	5

As 'Ja', vra kortliks: Wat was die gebeurtenis wat jy mees stresvol of onstellend gevind het wanneer dit met iemand na aan jou gebeur het?

BESKRYWING: _____

INDIEN GEBEURTENISSE IN 11. net verlies, kroniese siekte, besigheidsverlies, huweliks- of familie konflik, boek of fliëk, of televisie: kodeer 1, en alle andere kodeer 5.

As daar geen 5's in Kolom I is nie, gaan na L1: (GAAN NA VOLGENDE MODULE)

As daar net EEN 5 in Kolom I is, kodeer 5 vir daardie gebeurtenis in Kolom II, en vra **K22A.1**.

Andere: gaan na **K22A.2**.

K22A 1. Jy het genoem dat jy (gebeurtenis wat 5 kodeer is in Kolom I) ervaar het. Het dit net een keer in jou lewe plaasgevind, of meer as een keer?

As 'een keer', gaan na **K22B**.

Andere vra: Van hierdie kere wat jy genoem het, was een van hulle meer stresvol of onstellend as die ander? Gaan na **K22B**.

K22A 2. Jy het gesê dat jy (gebeurtenisse wat 5 kodeer is in Kolom I) ervaar het. Van hierdie gebeurtenisse, watter een was die mees stresvol of onstellend gewees vir jou?

Kodeer 5 vir daardie gebeurtenis in Kolom II.

K22B Vir die gebeurtenis wat 5 gekodeer is in Kolom II, vra: Hoe oud was jy toe die (gebeurtenis) plaasgevind het? Ouderdom: _____ / _____

K22C Vir die gebeurtenis wat 5 gekodeer is in Kolom II, vra: Wanneer dit gebeur het, het jy verskrik gevoel?
 NEE.....1
 JA.....5

K22D Vir die gebeurtenis wat 5 gekodeer is in Kolom II, vra: Wanneer (gebeurtenis) plaasgevind het, het jy hulpeloos gevoel?
 NEE.....1
 JA.....5

Nou wil ek vir jou vra oor die tyd na die stresvolle of onstellende ervaring met jou gebeur het.

VRA K23 – K45 VIR GEBEURTENIS WAT 5 KODEER IS IN KOLOM II.

K23 Het jy (gebeurtenis) aanhou onthou, selfs toe jy nie wou nie?
 NEE.....1
 JA.....5

K24 Na die gebeurtenis, het jy aanhoudende slegte drome of nagmerries gehad daaroor?
 NEE.....1
 JA.....5

K25 Het jy skielik opgetree of gevoel asof (gebeurtenis) weer gebeur, selfs al het dit nie?
 NEE.....1
 JA.....5

K26 Het jy baie onsteld geraak toe jy daaraan herinner was?
 NEE.....1
 JA.....5

K27 Het jy gesweet, of het jou hart vinnig geklop, of het jy gebewe toe jy daaraan herinner was?
 NEE.....1
 JA.....5

K28 Na (gebeurtenis), het jy slaapprobleme gehad?
 NEE.....1
 JA.....5

K29 Na (gebeurtenis), het jy buitengewoon geïrriteerd gevoel, of jou humeur verloor, baie meer as gewoonlik?

NEE.....1

JA.....5

K30 Na (gebeurtenis), het jy probleme gehad om te konsentreer?

NEE.....1

JA.....5

K31 Na (gebeurtenis), het jy baie meer besorg geword oor gevaar, of baie meer versigtig?

NEE.....1

JA.....5

K32 Na (gebeurtenis), het alledaagse geraas of bewegings jou senuweeagtig gemaak of maklik onstel?

NEE.....1

JA.....5

AS K28 – K32 ALMAL 1 KODEER IS, GAAN NA L1. (VOLGENDE MODULE)

K33 Het jy bewustelik probeer om nie oor (gebeurtenis) te praat of dink nie?

NEE.....1

JA.....5

K34 Het jy plekke of mense of aktiwiteite vermy wat jou dalk daaraan (gebeurtenis) sou herinner?

NEE.....1

JA.....5

K35 Na (gebeurtenis), was jou geheue leeg vir die hele of net deel van die (gebeurtenis)?

NEE.....1 (**GAAN NA K36**)

JA.....5

AS GEBEURTENIS, GEKODEER 5 IN KOLOM II, GETUIE VAN 'n ONGELUK IS (K22.4), OF GEBEURTENIS HET GEBEUR MET BLOEDVERWANTE FAMILIE OF VRIENDE/VRIENDINNE, GAAN NA K36.
ANDERE VRA:

(a) Het jy 'n kopbesering opgedoen as gevolg van (gebeurtenis)?

NEE.....1

JA.....5

(b) Was jy bewusteloos vir meer as tien minute?

NEE.....1

JA.....5

K36 Na (gebeurtenis), het jy belangstelling daarin verloor om dinge te doen wat voorheen vir jou belangrik of genotvol was?

NEE.....1

JA.....5

K37 Na (gebeurtenis), het jy meer geïsoleerd of verwyderd van ander mense gevoel?

NEE.....1

JA.....5

K38 Na (gebeurtenis), het jy gevind dat dit vir jou moeiliker was om gewone gevoelens soos liefde te ervaar, of om liefdevol teenoor ander mense te wees?

NEE.....1

JA.....5

K39 Na (gebeurtenis), het jy begin voel dat daar geen doel daarin was om meer oor die toekoms na te dink nie?

NEE.....1

JA.....5

AS K33 – K39 ALMAL 1 GEKODEER IS, GAAN NA PTA DEEL VAN ONDERHOUD (VOLGENDE MODULE)

K40 Jy het genoem dat jy probleme ervaar het na (gebeurtenis), soos (SX wat 5 gekodeer is in K23-K39). Hoe gou na (gebeurtenis) het jy begin om hierdie probleme te ervaar?

KODEER DIE LAAGSTE NOMMER.

SELFDE DAG.....1

DAARDIE WEEK.....2

DAARDIE MAAND.....3

BINNE 6 MAANDE.....4

BINNE 1 JAAR.....5

MEER AS 1 JAAR.....6

AS 'MEER AS 1 JAAR', VRA: Hoe oud was jy? Ouderdom: ____ / ____

- K45** Het die probleme wat plaasgevind het as gevolg van (gebeurtenis), al vir jou weerhou daarvan om na 'n sosiale gebeurtenis of byeenkoms, of 'n partyjie te gaan?
- NEE.....1
- JA.....5
-

APPENDIX C**PTSD – “EVENT” BEING HEARING ABOUT/KNOWLEDGE OF BEING HIV-POSITIVE**

I am now going to ask you some questions around your reactions to hearing that you were HIV-positive and to being HIV-positive.

PTA1. After hearing that you were HIV-positive did you keep remembering that you were positive even when you didn't want to?

NO.....1

YES.....5

PTA 2. After hearing that you were HIV-positive did you keep having bad dreams or nightmares about it?

NO.....1

YES.....5

PTA 3. Did you get very upset when you were reminded of being positive?

NO.....1

YES.....5

PTA 4. Did you sweat or did your heart beat fast or did you tremble when you were reminded of being HIV-positive?

NO.....1

YES.....5

PTA 5. After hearing that you were HIV-positive did you have trouble sleeping?

NO.....1

YES.....5

PTA 6. After hearing that you were HIV-positive did you feel unusually irritable or lose your temper a lot more than is usual for you?

NO.....1

YES.....5

PTA 7. After hearing that you were HIV-positive, did you have difficulty concentrating?

NO.....1

YES.....5

PTA 8. After hearing that you were HIV-positive did you become very much more concerned about danger or very much more careful?

NO.....1

YES.....5

PTA 9. After hearing that you were HIV-positive did you become jumpy or easily startled by ordinary noises or movements?

NO.....1

YES.....5

PTA 10. After hearing that you were HIV-positive did you deliberately try not to think or talk about this fact?

NO.....1

YES.....5

PTA 11. Did you avoid places or people or activities that might have reminded you that you were HIV-positive?

NO.....1

YES.....5

PTA 12. Check! After the consultation where you were told that you were HIV-positive was your memory blank about this consultation?

NO.....1

YES.....5

PTA 13. After hearing that you were HIV-positive did you lose interest in doing things that were once important or enjoyable for you?

NO.....1

YES.....5

PTA 14. After hearing that you were HIV-positive did you feel more isolated or distant from other people?

NO.....1

YES.....5

PTA 15. After hearing that you were HIV-positive did you find you had more difficulty experiencing normal feelings such as love or affection towards other people?

NO.....1

YES.....5

PTA 16. After hearing that you were HIV-positive did you begin to feel that there was no point in thinking about the future anymore?

NO.....1

YES.....5

PTA 17. You said that after hearing that you were HIV-positive you had problems like (those listed in 1-16). How soon after hearing that you were HIV-positive did you start to have any of these problems?

SAME DAY.....1

THAT WEEK.....2

THAT MONTH.....3

WITHIN 6 MONTHS.....4

WITHIN 1 YEAR.....5

MORE THAN 1 YEAR.....6

IF MORE THAN ONE YEAR, ASK: How old were you? AGE: ____ / ____

PTA 18. How long did you continue to have any of these problems?

LESS THAN 1 WEEK.....1

LESS THAN 1 MONTH.....2

LESS THAN 6 MONTHS.....3

LESS THAN 1 YEAR.....4

MORE THAN 1 YEAR.....5

PTA 19. When was the last time you had any of these problems?

THAT DAY.....1

THAT WEEK.....2

THAT MONTH.....3

WITHIN THE LAST 6 MONTHS.....4

WITHIN THE LAST YEAR.....5

MORE THAN ONE YEAR AGO.....6

PTA 20. Did you tell a doctor about the problems like the ones you have been telling me about related to being HIV-positive?

NO.....1

YES.....5

1. Did you tell any other professional?

NO.....1

YES.....5

2. Did you take medication, or use drugs or alcohol more than once for the problems you have been telling me about?

NO.....1

YES.....5

3. Did the problems which you have just been telling me about interfere with your life or activities a lot?

NO.....1

YES.....5

- PTA 21.** Have you been very upset with yourself for having these problems which occurred as a result of being HIV-positive?

NO.....1

YES.....5

- PTA 22.** Have the problems which we have been talking about ever kept you from going to a party, social event or meeting?

NO.....1

YES.....5

- * After hearing that you were HIV-positive, did you feel terrified or fearful?

NO.....1

YES.....5

- * After hearing that you were HIV-positive, did you feel helpless?

NO.....1

YES.....5

**PTSD - "GEBEURTENIS": VERNEEM VAN / KENNIS VAN MIV
POSITIEF DIAGNOSE.**

Ek gaan nou 'n paar vrae vir jou vra rondom jou reaksies toe jy gehoor het dat jy MIV positief is, en om MIV positief te wees.

PTA 1 Nadat jy gehoor het dat jy MIV positief is, het jy aanhou onthou dat jy positief was selfs toe jy nie wou nie?
NEE.....1
JA.....5

PTA 2 Nadat jy gehoor het dat jy MIV positief is, het jy aanhoudende slegte drome of nagmerries gehad daaroor?
NEE.....1
JA.....5

PTA 3 Het jy baie onsteld geraak toe jy daaraan herinner was dat jy MIV positief is?
NEE.....1
JA.....5

PTA 4 Het jy gesweet of het jou hart vinnig geklop, of het jy gebewe, toe jy daaraan herinner was dat jy MIV positief is?
NEE.....1
JA.....5

PTA 5 Nadat jy gehoor het dat jy MIV positief is, het jy slaapprobleme ondervind?
NEE.....1
JA.....5

PTA 6 Nadat jy gehoor het dat jy MIV positief is, het jy gevoel dat jy buitengewoon geïriteerd was of het jy jou humeur verloor, baie meer as gewoonlik?
NEE.....1
JA.....5

PTA 7 Nadat jy gehoor het dat jy MIV positief is, het jy probleme gehad om te konsentreer?
NEE.....1
JA.....5

PTA 8 Nadat jy gehoor het dat jy MIV positief is, het jy baie meer besorg geword oor gevaar, of baie meer versigtig?

NEE.....1

JA.....5

PTA 9 Nadat jy gehoor het dat jy MIV positief is, het alledaagse geraas of bewegings jou sensuueagtig gemaak of maklik onstel?

NEE.....1

JA.....5

PTA 10 Nadat jy gehoor het dat jy MIV positief is, het jy bewustelik probeer om nie oor hierdie feit te praat of dink nie?

NEE.....1

JA.....5

PTA 11 Het jy plekke of mense of aktiwiteite vermy, wat jou dalk daaraan sou herinner dat jy MIV positief is?

NEE.....1

JA.....5

PTA 12 MAAK SEKER!! Na die konsultasie waar jy ingelig is dat jy MIV positief is, was jou geheue leeg oor hierdie konsultasie?

NEE.....1

JA.....5

PTA 13 Nadat jy gehoor het dat jy MIV positief is, het jy belangstelling daarin verloor om dinge te doen wat voorheen vir jou belangrik of genotvol was?

NEE.....1

JA.....5

PTA 14 Nadat jy gehoor het dat jy MIV positief is, het jy meer geïsoleerd of verwyderd van ander mense gevoel?

NEE.....1

JA.....5

PTA 15 Nadat jy gehoor het dat jy MIV positief is, het jy gevind dat dit vir jou moeiliker was om gewone gevoelens soos liefde te ervaar, of om liefdevol teenoor ander mense te wees?

NEE.....1

JA.....5

PTA 21 Was jy baie onsteld met jouself omdat jy hierdie probleme het, wat plaasgevind het a.g.v. jou MIV positiewe diagnose?
 NEE.....1
 JA.....5

PTA 22 Het die probleme waarvan jy gepraat het, al ooit vir jou weerhou daarvan om na 'n sosiale gebeurtenis of byeenkoms, of 'n partyjie te gaan?
 NEE.....1
 JA.....5

* Nadat jy gehoor het dat jy MIV+ is, het jy **verskrik** (terrified) gevoel? JA.....5 NEE.....1

* Nadat jy gehoor het dat jy MIV+ is, het jy **hulpeloos** gevoel? JA.....5 NEE.....1

APPENDIX D

Below is a list of the problems that people sometimes have after experiencing a traumatic event. Read each one carefully and **circle** the number (0-3) that best describes how often that problem has bothered you in the **past week**. **Rate each problem with respect to being informed of your HIV status.**

	Not at all/ only one time	Once a week/ once in a while	2-4 times per week/ half the time	5 or more times per week/ almost always
1. Having upsetting thoughts or images related to hearing about your HIV status, that came into your head when you didn't want them to?	0	1	2	3
2. Having bad dreams or nightmares about being informed of your HIV status?	0	1	2	3
3. Reliving the experience of being informed that you are HIV positive, acting or feeling as if it were happening again?	0	1	2	3
4. Feeling EMOTIONALLY upset when you were reminded of being informed that you are HIV positive (for example, feeling scared, angry, sad, guilty, etc.)?	0	1	2	3
5. Experiencing PHYSICAL reactions (for example, break out in a sweat, heart beats fast) when you were reminded of hearing about your HIV status?	0	1	2	3
6. Trying not to think about, talk about, or have feelings about the experience of hearing that you are HIV positive?	0	1	2	3
7. Trying to avoid activities, people, or places that remind you of the experience of hearing about your HIV status?	0	1	2	3
8. Not being able to remember an important part of being informed of your HIV status?	0	1	2	3
9. Having much less interest or participating much less often in important activities?	0	1	2	3
10. Feeling distant or cut off from people around you?	0	1	2	3
11. Feeling emotionally numb (for example, being unable to cry or unable to have loving feelings?)	0	1	2	3
12. Feeling as if future plans or hopes will not come true (for example, you will not have a career, marriage, children, or a long life)?	0	1	2	3
13. Having trouble falling or staying asleep?	0	1	2	3

	Not at all/ only one time	Once a week/ once in a while	2-4 times per week/ half the time	5 or more times per week/ almost always
14. Feeling irritable or having fits of anger?	0	1	2	3
15. Having trouble concentrating (for example, drifting in and out of conversations, losing track of a story on television, forgetting what you read)?	0	1	2	3
16. Being overly alert (for example, checking to see who is around you, being uncomfortable with your back to the door, etc.)?	0	1	2	3
17. Being jumpy or easily startled (for example, when someone walks up behind you)?	0	1	2	3

Hieronder is 'n lys probleme wat mense soms ervaar nadat hulle 'n traumatiese ervaring beleef het. Lees elke antwoord noukeurig en **omkring** die nommer (0-3) wat die beste beskryf hoe dikwels die probleem u die **afgeloop week** gepla het. **Beoordeel elke probleem deur u diagnose van MIV in ag te neem.**

	Glad nie/ net een keer	Een keer 'n week/ net nou en dan	2-4 keer per week/ helfte van die keer	5 of meer keer per week/ omtrent altyd
1. Kry ontstellende gedagtes of beelde van die tyd toe u u MIV status uitgevind het wat in u kop kom as u nie wil hê dit moet nie?	0	1	2	3
2. Kry slegte drome of nagmerries van die dag toe u u MIV status uitgevind het?	0	1	2	3
3. Herlewing van die ervaring toe u ingelig was dat u MIV positief is, tree op of voel asof dit weer gebeur?	0	1	2	3
4. Voel EMOSIONEEL omgekrap as u herinner word dat u ingelig was dat u MIV positief is (byvoorbeeld, voel bang, kwaad, hartseer, skuldig ens.)?	0	1	2	3
5. Ervaar FISIESE reaksies (byvoorbeeld, breek uit in 'n koue sweet, hartkloppings) as u herinner word aan die dag dat u u MIV status uitgevind het?	0	1	2	3
6. Probeer nie om daaraan te dink nie, nie daaroor te praat nie of vermy gevoelens oor die ervaring toe u Uitgevind het u is MIV positief?	0	1	2	3
7. Probeer aktiwiteite, mense of plekke wat jou herinner aan die ervaring toe u uitgevind het u is MIV positief, vermy?	0	1	2	3
8. Kan nie belangrike dele onthou van die dag dat u uitgevind het u is MIV positief nie?	0	1	2	3
9. Stel baie minder belang of neem baie minder aan belangrike aktiwiteite deel?	0	1	2	3
10. Voel afgesonder of afgesluit van mense rondom jou?	0	1	2	3
11. Voel emosioneel afgestomp (byvoorbeeld, kan nie huil nie of het nie gevoelens van liefde nie)?	0	1	2	3
12. Voel asof toekomsplanne of hoop vir die toekoms nie waar sal word nie (byvoorbeeld, u sal nie 'n loopbaan, huwelik of lang lewe hê nie)?	0	1	2	3
13. Het probleme om aan die slaap te raak of te bly?	0	1	2	3
14. Voel geïrriteerd of het woede buie?	0	1	2	3

	Glad nie/ net een keer	Een keer 'n week/ net nou en dan	2-4 keer per week/ helfte van die keer	5 of meer keer per week/ omtrent altyd
15. Het probleme om te konsentreer (byvoorbeeld, dryf in en uit geselskappe, verloor die draad van 'n storie op TV, of vergeet wat jy gelees het)?	0	1	2	3
16. Voel meer bedag (byvoorbeeld, kyk wie rondom u is, voel ongemaklik met u rug na die deur, ens)?	0	1	2	3
17. Voel opgewen of skrik maklik (byvoorbeeld, as iemand van agter na jou aankom)?	0	1	2	3

Apha ngezantsi luluhlu lweengxaki abathi abantu ngamanye amaxesha babenazo emva kwesenzeko esibuhlungu kakhulu. Funda enye nenye ngobuchule ze wenze isangqa kwinqombolo ibenye kwezi (0-3) eyona echaza ngcono ukuba kukangaphi apho le ngxaki ithe yakufikela kule veiki edlulileyo. Thelekelela ingxaki nganye malunga nexesha lokwaziswa kwakho ngemeko yakho yeHIV.

	Nakanye/ kanye kuphela	Kanye ngeveki/ ngamanye amaxesha	Amaxesha ama 2-4 ngeveki/ isiqingatha sexesha	Kayi-5 okanye kaninzi ngeveki /phantse lonke ixesha/rhoqo
1. Uneengcinga okanye imibona emalunga nokufumanisa kwakho uba uneHIV, ekufikelayo noxa ungafuni?	0	1	2	3
2. Unamaphupha amabi okanye inarhumeni ngokwaziswa kwakho uba uneHIV?	0	1	2	3
3. Uziva kwakhona ukula meko owawukuyo xa usaziswa uba uneHIV, wenza ngathi okanye uva ngathi le nto iyenzeka kwakhona?	0	1	2	3
4. Uziva unxunguphele emphefumleni xa ukhunjuzwe ngokufunyaniswa kwakho uba uneHIV (umzekelo uzive usoyika, unomsindo, udangele, unesazela, njalo njalo)?	0	1	2	3
5. Uye uve untlontlozelelwa ngumzimba (umzekelo ubile kakhulu, nentliziyo ibethe ngamandla) xa ukhunjuzwe ngexesha owaxelelwa ngalo uba uneHIV?	0	1	2	3
6. Uzama ukulibala ngayo, ukuthetha ngayo, okanye uve ngathi lela xesha lokuva uba uneHIV?	0	1	2	3
7. Uzama ukuphepha izinto, abantu, okanye iindawo ezinokuthi zikukhumbuze ngokufumanisa kwakho uba uneHIV?	0	1	2	3
8. Ufumana ubunzima bokukhumbula inxenye ebalulekileyo malunga nokwaziswa kwakho uba uneHIV?	0	1	2	3
9. Uzifumana ungenamdla kakhulu /okanye uzibandakanya kancinci kakhulu kwizinto ezibalulekileyo?	0	1	2	3
10. Uziva ungenabudlelwane nabantu okanye akudibani nabanye abantu?	0	1	2	3
11. Uziva undindisholo (umzekelo ungakwazi kulila, ungenathando)?	0	1	2	3

	Nakanye/ kanye kuphela	Kanye ngeveki/ ngamanye amaxesha	Amaxesha ama 2-4 ngeveki/ isiqingatha sexesha	Kayi-5 okanye kaninzi ngeveki /phantse lonke ixesha/rhoqo
12. Uva ngathi izicwangciso zekamva lakho okanye iminqweno yakho ayizuphumelela (umzekelo inkqubela phambili, umtshato, abantwana, okanye ubomi obude)?	0	1	2	3
13. Unengxaki yokufumana ubuthongo/uphelelwa bubuthongo?	0	1	2	3
14. Uziva unomsindo okanye ingcwangu ekhwankqisayo?	0	1	2	3
15. Unengxaki yokuzikisa ingqondo (umzekelo ungena uphuma encokweni, akulandeli ibali leTV, ulibala nento oyifundayo)?	0	1	2	3
16. Uphaphame ngokugqithisileyo (umzekelo, ujonga-jonga abo bakungqongileyo, ungakhululeki xa umva wakho ubhekise ngasemnyango)?	0	1	2	3
17. Uyaphakuzela okanye wothuka lula (umzekelo, xa kukho umntu oza emva kwakho)?	0	1	2	3

APPENDIX E

Listed below are some symptoms of strain that people sometimes have. Please read each one carefully and check the answer that best reflects how much that symptom has bothered you during the **past month**.

	Not at all	A little	Quite a bit	Extremely
1. Suddenly scared for no reason	1	2	3	4
2. Feeling fearful	1	2	3	4
3. Faintness, dizziness, or weakness	1	2	3	4
4. Nervousness or shakiness inside	1	2	3	4
5. Heart pounding or racing	1	2	3	4
6. Trembling	1	2	3	4
7. Feeling tense or keyed up	1	2	3	4
8. Headaches	1	2	3	4
9. Spells of terror or panic	1	2	3	4
10. Feeling restless, can't sit down	1	2	3	4
11. Feeling low in energy - slowed down	1	2	3	4
12. Blaming yourself for things	1	2	3	4
13. Crying easily	1	2	3	4
14. Loss of sexual interest or pleasure	1	2	3	4
15. Poor appetite	1	2	3	4
16. Difficulty falling asleep or staying asleep	1	2	3	4
17. Feeling hopeless about the future	1	2	3	4
18. Feeling blue	1	2	3	4
19. Feeling lonely	1	2	3	4
20. Feeling trapped or caught	1	2	3	4
21. Worrying too much about things	1	2	3	4
22. Feeling no interest in things	1	2	3	4
23. Thoughts of ending your life	1	2	3	4
24. Feeling everything is an effort	1	2	3	4
25. Feelings of worthlessness	1	2	3	4

Hieronder word ’n paar simptome van spanning gelys. Lees elkeen asseblief sorgvuldig en merk die antwoord wat die beste weergee hoe baie daardie simptome u die **afgeloopde maand** gepla het.

	Geensins	Ietwat	Heelwat	Uitermate
1. Skielik bang sonder rede	1	2	3	4
2. Voel bang/ “fearful”	1	2	3	4
3. Flouheid, duiseligheid of swakheid	1	2	3	4
4. Senuweeagtigheid of bewerigheid binne-in	1	2	3	4
5. Hartkloppings	1	2	3	4
6. Bewerigheid	1	2	3	4
7. Voel gespanne of opgewen	1	2	3	4
8. Kopseer	1	2	3	4
9. Tye van ang of paniek	1	2	3	4
10. Voel rusteloos, kan nie stilsit nie	1	2	3	4
11. Energie voel min – voel traag	1	2	3	4
12. Blameer uself vir dinge	1	2	3	4
13. Huil maklik	1	2	3	4
14. Afname in seksuele belangstelling of plesier	1	2	3	4
15. Swak eetlus	1	2	3	4
16. Sukkel om aan die slaap te raak of te bly	1	2	3	4
17. Voel wanhopig oor die toekoms	1	2	3	4
18. Voel neerslagtig	1	2	3	4
19. Voel eensaam	1	2	3	4
20. Voel vasgekeer of vasgevang	1	2	3	4
21. Bekommer te veel oor dinge	1	2	3	4
22. Voel geen belangstelling in dinge nie	1	2	3	4
23. Dink daaraan om u lewe te beëindig	1	2	3	4
24. Voel asof alles moeite is	1	2	3	4
25. Voel waardeloos	1	2	3	4

Ezi zilandelayo apha ngezantsi ziimpawu zobunzima abathi abantu babenazo ngamanye amaxesha. Nceda funda uphawu ngalunye ngocoselelo ze ukhethe impendulo ebonakalisa ngcono ukuba olo phawu lukukhathaze kangakanani **kule nyanga edlulileyo**.

	Nakanye	Kancinci nje	Kancinci noko	Kakhulu ggitha
1. Ukoyika ngequbuliso ngaphandle kwesizathu	1	2	3	4
2. Ukuziva uxhalabile	1	2	3	4
3. Ukuba nencilikithi, isiyenzi, okanye ungabi namandla	1	2	3	4
4. Unongcangazelo/uqhaq hazelo ngaphakathi	1	2	3	4
5. Ukubetha /ukuphala kwentliziyo	1	2	3	4
6. Ukungcangazela	1	2	3	4
7. Ukuziva undindisholo okanye untlontlozelelwa.	1	2	3	4
8. Unentloko ebuhlungu	1	2	3	4
9. Unamaxesha oloyiko okanye uphaphazelo.	1	2	3	4
10. Ukuziva uphakuphaku ungenakuhlala phantsi	1	2	3	4
11. Ukuziva ungenamandla kwaye udiniwe	1	2	3	4
12. Ukuzisola ngezinto	1	2	3	4
13. Ukulila msinya/lula	1	2	3	4
14. Ukuphelelwa ngumdlawokwabelana ngesondo	1	2	3	4
15. Ukungabaweli kutya	1	2	3	4
16. Ukuba nengxaki yokulala/ukuphelelwa bubuthongo	1	2	3	4
17. Ukulahla ithemba ngengomso/ubomi	1	2	3	4
18. Ukuziva umatshekile	1	2	3	4
19. Ukuziva uwedwa	1	2	3	4
20. Ukuziva ukhonkxekile/usemgibeni	1	2	3	4
21. Ukuzikhathaza kakhulu ngezinto	1	2	3	4
22. Ukungabi namdla ezintweni	1	2	3	4
23. Uneengcinga zokuzibulala	1	2	3	4
24. Uva ngathi yonke into ingumzamo	1	2	3	4
25. Uziva ungento	1	2	3	4

APPENDIX F

1. Please indicate your age: _____

Date of Birth: ____ / ____ / ____

2. What is your gender?

Male	
Female	

3. What is your current marital status?

Single	
Widowed	
Separated	
Divorced	
Married or living with a significant other in a marriage-like relationship	

4. What is your current living situation?

Live alone	
Live with other adult(s), no children	
Live with other adult(s) and children	
Live with children only	
Other	

5. Please select the highest level of education that you have completed:

No formal education	
Completed primary school	
Attended high school but did not complete matric	
Completed matric	
Attended university, college or technikon but did not graduate	
Graduated from university, college or technikon	

6. What is your current work situation?

Employed full time	
Employed part time	
Student	
Unemployed	
Disabled	
Homemaker	
Retired	

7. Which of the following best describes your approximate annual family income from all sources, before taxes?

Less than R5 000	
R5 000 – R10 000	
R10 000 – R30 000	
R30 000 – R60 000	
R60 000 – R100 000	
R100 000 or above	
Don't know	

8. Please indicate the length of time that has passed since you found out that you were HIV-positive.

1 month – 3 months	
3 months – 6 months	
6 months – 9 months	
9 months – 1 year	

9. Please indicate which ethnic group best describes you:

Black	
Coloured	
Indian	
White	
Other	

10. Are you receiving any medication as a form of treatment for your HIV status?

Yes	
No	

Are you on ARV's? YES..... NO....

11. Are you receiving any form of counselling due to your HIV diagnosis?

Yes	
No	

12. Are you actively involved in any religious and/or spiritual activities?

Yes	
No	

1. Skryf u ouderdom hier: _____

Geboortedatum: ___ / ___ / ___

2. Watter is u geslag?

Manlik	<input type="checkbox"/>
Vroulik	<input type="checkbox"/>

3. Wat is u huidige huwelikstatus?

Enkellopend	<input type="checkbox"/>
Weduwee/wewenaar	<input type="checkbox"/>
Uitmekaar	<input type="checkbox"/>
Geskei	<input type="checkbox"/>
Getroud of woon saam met 'n lewensmaat in 'n verhouding gelykstaande aan 'n huwelik	<input type="checkbox"/>

4. Wat is u huidige woonsituasie?

Woon alleen	<input type="checkbox"/>
Woon saam met ander volwassene(s), geen kinders	<input type="checkbox"/>
Woon saam met ander volwassenes en kinders	<input type="checkbox"/>
Woon slegs saam met kinders	<input type="checkbox"/>
Ander	<input type="checkbox"/>

5. Kies asseblief die hoogste vlak van onderrig wat u voltooi het:

Geen formele onderwys	<input type="checkbox"/>
Laerskool voltooi	<input type="checkbox"/>
Hoërskool bygewoon, maar nie matriek voltooi nie	<input type="checkbox"/>
Matriek voltooi	<input type="checkbox"/>
Universiteit, kollege of technikon bygewoon, maar nie graad/diploma behaal nie	<input type="checkbox"/>
Graad/diploma aan universiteit, kollege of technikon behaal	<input type="checkbox"/>

6. Wat is u huidige werksituasie?

Voltyds in diens	<input type="checkbox"/>
Deeltyds in diens	<input type="checkbox"/>
Student	<input type="checkbox"/>
Werkloos	<input type="checkbox"/>
Gestremd	<input type="checkbox"/>
Tuisteskepper	<input type="checkbox"/>
Afgetree	<input type="checkbox"/>

7. Watter van die volgende beskryf u gesin se benaderde **jaarlikse inkomste**, uit alle bronne en voor belasting, die beste?

Minder as R5 000	
R5 000 – R10 000	
R10 000 – R30 000	
R30 000 – R60 000	
R60 000 – R100 000	
R100 000 of meer	
Ek weet nie	

8. Dui asseblief aan hoe lank gelede u uitgevind het u is MIV positief.

1 maand – 3 maande	
3 maande – 6 maande	
6 maande – 9 maande	
9 maande – 1 jaar	

9. Dui asseblief aan watter etniese groep u die beste beskryf:

Swart	
Gemeng/Kleurling	
Indiër	
Wit	
Ander	

10. Ontvang u tans enige medikasie as behandeling vir u MIV?

Ja	
Nee	

Neem u tans ARV's? JA.... NEE....

11. Ontvang u enige berading as gevolg van u MIV diagnose?

Ja	
Nee	

12. Is u tans aktief betrokke by enige kerklike of geestelike aktiwiteite?

Ja	
Nee	

1. Xela iminyaka yakho: ____

Umhla wokuzalwa: ____ / ____ / ____

2. Sithini isini sakho?

Uyindoda	
Ulibhinqa	

3. Lithini inqanaba lakho lomtshato ngoku?

Awutshatanga	
Ubhujelwe yindoda/inkosikazi	
Wahlukene nendoda/inkosikazi ngokwasemtshatweni	
Uqhawule umtshato ngokwasemthethweni	
Utshatile okanye uhlala namntu uthile obalulekileyo njengabantu abatshatileyo	

4. Ithini imeko yakho yokuhlala ngoku?

Uhlala wedwa	
Uhlala nomnye umntu/nabanye abantu abadala, akukho bantwana	
Uhlala nomnye umntu/nabanye abantu abadala kunye nabantwana	
Uhlala nabantwana bodwa	
Okunye	

5. Nceda khetha ibanga lemfundo eliphakamileyo oliphumelelelyo:

Awufundanga/awunamfundo esesikweni	
Uphele kumabanga aphantsi emfundo	
Uyile esinaleni kodwa zange uliphumelele ibanga lematriki	
Uyiphumelele imatriki	
Uyile edyunivesithi, ekholeji okanye etheknikhon kodwa zange usithweswe isidanga	
Unemfundo enomsila yasedyunivesithi, ekholoji okanye etheknikon	

6. Ithini imeko yakho yengqesho/impangelo ngoku?

Uqeshwe isigxina	
Uqeshwe okwexeshana	
Ungumfundi	
Awusebenzi	
Ukhubazekile	
Uhlala ekhaya	
Udla umhlala phantsi	

7. Yeyiphi kwezi zilandelayo echaza ngcono intelekelelo yemvelaphi yomvuzo wakho ogoduka nawo, phambi kokutsalwa kwerhafu?

Ngaphantsi kwe R5 000	
R5 000 – R10 000	
R10 000 – R30 000	
R30 000 – R60 000	
R60 000 – R100 000	
R100 000 okanye ngaphezulu	
Andazi	

8. Nceda xela ixesha esele lidlulile ufumanise uba unentsholongwane kagawulayo/iHIV.

Inyanga - Iinyanga ezintathu	
Iinyanga ezintathu – Iinyanga ezintandathu	
Iinyanga ezintandathu – Iinyanga ezilithoba	
Iinyanga ezilithoba– Kunyaka	

9. Nceda xela uhlanga olukuchaza ngcono:

Mnyama	
Webala	
Ndiya	
Mhlophe	
Okunye	

10. Ingaba kukho amayeza owafumanayo ukuthibaza imeko yakho yeHIV?

Ewe	
Hayi	

Are you on ARV's? YES..... NO.....

11. Ingaba kukho hlobo luthile lwengebiso enobugcisa oyifumanayo njengamntu ofunyenwe eneHIV emva kwesiphumo soxilongo?

Ewe	
Hayi	

12. Ingaba uzikhuthalele ezenkolo/ezakwalizwi okanye imisebenzi yomoya?

Ewe	
Hayi	