Screening for sexual trauma, intimate partner violence and mental health symptoms among HIV positive South African women

by

Tatenda Tariro Yemeke

Duke Global Health Institute
Duke University

Date: ______________________

Approved:

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Kathleen J. Sikkema, Supervisor

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John A. Joska

Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the Duke Global Health Institute in the Graduate School of Duke University

2016
ABSTRACT

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Abstract

**Background:** The psychological sequelae of sexual trauma and physical intimate partner violence (IPV) exposure can lead to poor HIV care outcomes, including poor treatment adherence. This study aimed to estimate the prevalence of and factors associated with mental health symptoms and trauma among HIV positive women. Additionally, the study aimed to assess the feasibility and acceptability of screening for trauma and mental health symptoms among HIV positive South African women. Finally, the study aimed to elicit healthcare workers’ perceptions related to sexual trauma and the provision of care and services for HIV positive women with trauma histories.

**Methods:** The study utilized a mixed-methods approach that included a cross-sectional survey of 70 HIV positive women recruited through referral sampling and key informant interviews with seven healthcare workers (HCWs). A study-screening instrument consisting of 24 items from standard measures was used to screen women for sexual trauma, physical intimate partner violence (IPV), depression and PTSD. Sexual trauma and IPV were assessed across the lifetime, while depression and PTSD were current assessments. Logistic regression models were used to explore the relationship between trauma exposure and mental health symptoms, while controlling
for age and education. Interview transcripts were coded and analyzed for emergent themes on HCWs perceptions on sexual trauma and HIV care.

**Results:** Among participants, 51% had sexual trauma experience and 75% had intimate partner violence (IPV) experience. Among participants, 36% met screening criteria for major depression; among those with traumatic experiences (n=57), 70% met screening criteria for post-traumatic stress disorder (PTSD). Compared to having no sexual trauma or IPV exposure, having both sexual trauma and IPV was significantly associated with higher odds of depression (OR = 8.11; 95% CI 1.48-44.34), while having either IPV or sexual trauma individually was not significantly associated with increased odds of depression. Compared to having either IPV or sexual trauma, having both sexual trauma and IPV was not significantly associated with PTSD. Responses from participants’ feedback on screening process suggest that screening was feasible and acceptable to participants. Some of the health care workers (HCWs) did not perceive dealing with trauma to be part of their duties, but instead viewed social workers or psychologists as the appropriate health cadre to provide care related to trauma and mental health.

**Conclusions:** High levels of sexual trauma, IPV and mental health distress were reported among HIV positive women in this setting. Screening for trauma and mental health symptoms was acceptable to the participants, but several challenges were encountered in implementing screening. Given the potential impact of trauma and
mental health on HIV care engagement, interventions to address trauma and its psychological sequelae are needed.
Dedication

I dedicate this thesis to everyone who has believed in me, supported and nurtured me through my educational and professional journey. To my family I say “Makanditenga moyo nerutsigiro, vekwangu ndinokutendai, nemiwo muri magamba”.

Finally, I dedicate this thesis to the women at the clinic who courageously and graciously accepted to take part in this study and shared their personal stories.
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I am also grateful to Corne Robertson for her warmth and support that made my stay in at the University of Cape Town while conducting research comfortable and fruitful. I am also grateful to Alexis Dennis and Karmel Choi, whose work on the Sikkema lab team helped lay the groundwork for my own research. Finally, I thank Dr. Asia Maselko for her guidance in the statistical analysis of study data.
1. Introduction

1.1 HIV and trauma in South African women

South Africa accounts for a disproportionate share of the global HIV burden, representing 17% of all infections globally [1]. Women are a particularly vulnerable group, with an estimated 3.9 million South African women older than 15 years living with HIV [2]. In women between the ages of 15 and 24, the HIV prevalence rate in women is 16.9%, almost fourfold that of men [3]. Biological factors, poverty, violence against women and other socio-economic, historic and cultural factors account for this high prevalence [3].

In addition to high rates of HIV infection, women in South Africa also suffer from high rates of trauma. Approximately 64% of women in one study reported exposure to some form of trauma (inclusive of child abuse and recent partner sexual and physical violence) [4]. Other studies have also found similarly high levels of sexual abuse and physical abuse among South African women [5-7].

The co-occurrence of high rates of HIV and trauma in South Africa is not surprising, given a large body of literature linking sexual trauma and interpersonal trauma to HIV infection [8-11]. Studies in the United States have estimated rates of trauma between 20 and 50% in HIV positive populations [12, 13]. In fact, HIV and trauma have been shown to have a syndemic relationship [14], with trauma history associated with both HIV infection and worse health outcomes [15].
1.2 Trauma and the HIV care cascade

The relationship between trauma and HIV outcomes is mediated by psychological sequelae of the trauma exposure [14]. PTSD, major depression and anxiety are some of the sequelae of trauma exposure that have been shown to lead to poor health outcomes in HIV positive people, through both biological and behavioral mechanisms [14, 15]. For example PTSD, trauma and depression are associated with decreased cognitive and physical functioning in HIV positive people [16, 17]. Research has also shown that trauma history leads to risky sexual behavior [18, 19] and poor adherence to HIV treatment [20-22].

The impact of trauma on HIV care adherence is especially relevant in the context of the HIV care engagement spectrum, which ranges from being undiagnosed to being fully engaged in HIV care and attaining viral suppression [23]. However the spectrum has also been a cascade, due to the drop off of patients at each of the stages in the spectrum [24]. A particular challenge in the care cascade is ensuring that people who have enrolled in HIV care remain in care. For instance in the United States, 50% of diagnosed HIV infected individuals are not engaged in care [24]. In sub-Saharan Africa, an estimated 60% of patients who were enrolled in antiretroviral therapy (ART) are no longer in care [25].

The consequences of patients dropping out of care or not fully adhering to care include increased risk of resistance, viral failure and forward transmission of HIV [26, 27].
Despite a delayed government response to the HIV epidemic in South Africa and slow rollout of treatment [28], South Africa has made considerable progress with increased expenditure on treatment and over 2 million people currently enrolled on ART [29]. Poor HIV care engagement and treatment adherence have the potential to undermine the progress that has been made in addressing HIV in South Africa.

1.3 Trauma informed HIV care

Given the potential negative impacts of trauma on HIV care outcomes, there have been calls to develop and implement interventions that address trauma, in order to impact HIV care engagement and improve health outcomes [15, 30]. More broadly, there is an increasing recognition of the importance of addressing trauma histories in HIV patients as part of a new model of care called trauma informed care [14, 31]. Trauma informed care calls for the education of healthcare providers and patients on trauma, its psychological sequelae, and potential negative impacts on HIV care. A key component of trauma informed care is the screening and referral to services of HIV positive patients [14].

Screening for trauma can be a potential challenge in implementing trauma informed care and interventions, especially in settings where there is potential for stigma against individuals with trauma. For instance, a study in South Africa found high rates of non-disclosure amongst women with sexual trauma history [32]. The reasons for non-disclosure were multi-faceted and included cultural factors that led to feelings of shame.
and fear of retribution amongst victims [32]. Therefore a key question in the implementation of trauma informed care is whether it is feasible to screen for trauma, in order to inform care and link patients to services.

### 1.4 Trauma and mental health screening approaches

The few extant studies on screening for sexual trauma in clinical settings have been on mandatory universal screening for military sexual trauma by the United States Veterans Health Administration [33, 34]. These studies conclude that universal trauma screening is feasible and an appropriate way to identify individuals with trauma histories and link them to care [33]. The screenings were conducted in a non-HIV and non-civilian context, where it was possible to mandate the screenings. Nevertheless, individuals who were screened positive for trauma had increased utilization of mental health treatment, and when coupled with access to care had the potential for improved health outcomes [34-36].

In contrast to the dearth of studies on screening for sexual trauma, there is a large body of literature on screening and interventions for physical intimate partner violence (IPV). In the US and other high-income country settings, there have been recommendations for universal screening of women for IPV as part of a systems approach to preventing and addressing the negative impacts of IPV on women’s health [37, 38]. Screening in these settings has been identified as acceptable to women and has shown
promise in reducing psychological distress, therefore supporting the utility of screening for IPV [39, 40]. There have also been similar calls for the integration of IPV and sexual violence screening into primary care in low-income country settings [41].

Within South Africa, a limited number of studies have been conducted that have established the feasibility and acceptability of screening for IPV in health care settings [42-44], including within the context of HIV care [42, 43]. The studies that have explored the prevalence of trauma have looked at IPV more generally, including both physical and sexual violence. One study found 55% of women attending antenatal clinics had experiences of sexual violence and/or physical violence [45]. A peri-urban community based study looking at women with multiple sexual partners, estimated overall combined sexual and physical violence within the last 12 months among these women to be 86% [46], with 67% of the full sample reporting sexual IPV and 80% reporting physical IPV [46].

Screenings for various other disorders have also been piloted in primary care settings in South Africa. These screening studies were done within the context of brief interventions for depression, alcohol and substance abuse in antenatal care and emergency care settings [47, 48]. The results of these pilot projects and formative work with healthcare workers in South Africa [49] suggests that programs to screen for and refer patients with mental health issues can potentially be integrated into care [47-49].
1.5 Rationale and study aims

Given the relationship between exposures to trauma, including sexual trauma and IPV, and poor HIV care outcomes, it is critical to screen HIV positive women for trauma as part of a trauma informed care framework. It is also important to screen for and address the mental health sequelae of trauma exposure, since mental health plays a role in poor HIV care adherence and outcomes [50]. To ensure that healthcare providers are informed about trauma and prepared to implement trauma informed care, it is important to elicit their perspectives on trauma.

To date, in South Africa, few studies have focused on screening for mental health symptoms and trauma. Within the studies conducted in HIV care settings, there is an emphasis on IPV and violence, with less emphasis on sexual trauma. The studies that have explored both sexual trauma and IPV have not been focused exclusively HIV positive women, but have explored other specific populations, such as women with multiple sexual partners or those attending antenatal clinics [45, 46]

To our knowledge, none of the previous studies have included screening for the mental health sequelae of trauma, thus little is known about the prevalence and co-occurrence of trauma and mental health symptoms among HIV positive women in South Africa. Furthermore, healthcare provider perspectives on trauma and provision of care
for HIV positive women with trauma history have not been explored in the limited extant literature.

To address this evidence gap, we piloted a screening protocol to assess sexual trauma, IPV and mental health symptoms amongst South African HIV positive women receiving care in a clinic in Cape Town, South Africa. Firstly, the study sought to assess the prevalence of sexual trauma, physical intimate partner violence and mental health symptoms among the women and to explore the associations between trauma experiences and mental health symptoms. Secondly, the study aimed to assess the feasibility and acceptability of the screening, through exploring participants’ experience of the screening process and attitudes toward potential integration of the screening as part of routine HIV care management. Related to the feasibility of routine screening, a purpose of the study was to determine whether the screening could be incorporated within the existing HIV treatment protocol and HIV care clinic flow.

Finally, the study aimed to elicit healthcare workers’ perceptions related to sexual trauma and the provision of care and services for HIV positive women with trauma histories. Findings from the study have the potential to inform trauma and mental health symptoms screening procedures as part of routine, trauma informed HIV care.
2. Methods

Overview

The study was part of the formative phase of an intervention development study to improve HIV care engagement among HIV positive women with sexual trauma histories. The study utilized a mixed-methods approach that included a cross-sectional survey of 70 HIV positive women currently enrolled in care, and key informant interviews with seven healthcare workers.

2.1 Setting

The study was conducted during an 8-week period between June and July 2015 at an urban municipal clinic located in a township of Cape Town, South Africa. The township's 191,000 residents are mainly Xhosa speaking black Africans. Approximately 78% of households in the township live below the poverty line and only 44% of residents live in formal dwellings[51, 52]. Unemployment is high at 38%, while only 32% of the residents have an education above high school level[52].

The clinic is one of the government HIV treatment centers. At the time of the study, the clinic had a caseload of over 2,500 adult HIV positive patients. Nurses provide most of the care in the clinic, but a doctor also sees patients on select days and attends to complex cases. Patients receive free HIV care at the facility, including ART. At the time of the study, ART initiation was based on patients meeting any one of the following
Initiation on ART follows a standard protocol as per provincial government guidelines [53]. After receiving an HIV diagnosis, patients are assessed based on the ART initiation criteria. Patients meeting ART initiation criteria receive readiness and adherence counseling in the counseling sub-clinic, after which they are initiated on ART and receive their care in the ART sub-clinic. HIV patients who do not yet meet ART initiation criteria receive care and regular assessments, including CD4 count monitoring, in the Wellness sub-clinic. Once patients receiving care in the Wellness clinic meet initiation criteria, they receive counseling before transitioning their care in the ART sub-clinic.

HIV patients who have defaulted on ART in the past, but are coming back to care, receive counseling in the counseling sub-clinic before reinitiating treatment. HIV patients with TB comorbidity also receive TB medication adherence counseling in the counseling sub-clinic.
2.2 Participants

Data were collected from 70 HIV positive women who were screened during an 8-week period during June and July 2015. Eligible participants for sexual trauma, IPV and mental health symptom screening were HIV positive women, who presented for care in the Wellness or Readiness sub-clinic. Eligible women in the Wellness clinic were those who had been attending regular health assessment appointments but were now preparing for ART initiation (transitioning to Readiness clinic), having recently met ART initiation criteria.

Women in the Readiness sub-clinic were either attending readiness counseling sessions to initiate ART or TB medication or were attending adherence session after defaulting (either ART or TB medication). Nurses in the Wellness sub-clinic and counselors in the Readiness sub-clinic were asked to briefly inform participants about a study for HIV positive women. Women who were interested in learning more were given a study card and directed to the study office in the clinic.

Eligible participants for the key informant interviews were healthcare workers at the clinic involved in care for women or in administration of the clinic. The healthcare workers were chosen to represent a wide range of roles that may have insights on the issues, with both administrative and direct patient care roles represented.
2.3 Procedures

Trauma screening: A Xhosa-speaking female research assistant described the study in detail to the patients who were referred to the study office by the nurses and counselors. If the woman was interested in participating, the research assistant obtained oral consent. The research assistant orally administered the study-screening instrument and recorded the participant’s responses on the paper copies of the instrument. All the assessments were completed in Xhosa, except for one conducted in English for a non-native Xhosa speaker. The average time for this process was 18 minutes; including an explanation of the study purposes, administration of the oral consent and administration of the study-screening instrument and feedback questions.

Women with elevated levels of psychological distress or suicidal ideation were referred to a psychologist at the clinic or a psychiatric hospital. All participants were provided with a list of social service organizations in their area where they could obtain services. Participants were not offered any compensation for participation; however, they were offered complimentary beverages and snacks.

Key informant interviews: Semi-structured qualitative interviews were conducted with healthcare workers to get insights into their perceptions related to sexual trauma and provision of services for women with sexual trauma histories. The interviews were conducted in a private room by a research assistant using a semi-structured guide and audio-recorded. Healthcare workers were asked open-ended
questions about their experiences working with patients with trauma histories, experiences with trauma disclosure and their thoughts on screening women for trauma as part of routine clinic care.

The ethical review boards at Duke University and at the University of Cape Town approved all study procedures.

2.4 Measures

The study-screening instrument consisted of 24 questions from the following standard measures: PHQ-2, WHO instrument, Childhood Trauma Questionnaire, revised Conflict Tactics Scale (CTS2), the Sexual and Physical Abuse Questionnaire (SPAQ), Breslau PTSD screener and the Mini International Neuropsychiatric Interview (MINI). An additional 15 questions were developed specifically for the study. The items developed for the study were demographic measures and open ended screening feedback questions. Existing Xhosa translations of the standard measures, which had been previously used in other studies in South Africa, were back translated by the research assistant and used for the study. The research assistant translated and back translated all the self-developed items from English into Xhosa.

2.4.1 Depression

The two-item PHQ-2 screener for depression measured the frequency of depressive symptoms in the past two weeks [54]. The measure has been validated for use in a primary care setting in South Africa [55]. Response options ranged from ‘not at
all’ to ‘nearly every day’, corresponding to a score range of 0 to 3 for each question and a total score of six. The two items are summed, with a score of three or more indicative of major depression [54].

2.4.2 Sexual trauma

Sexual trauma was defined as sexual abuse or assault occurring during childhood, adolescence or adulthood. Sexual trauma was measured using four questions adapted from the WHO instrument [56], Childhood Trauma Questionnaire [57], the revised Conflict Tactics Scale (CTS2) [58], and the Sexual and Physical Abuse Questionnaire (SPAQ) [59], which are all validated measures of sexual trauma.

Participants were asked the following questions: whether someone had ever touched them in a sexual way or made them touch the person in a sexual way against their will; whether someone had ever threatened to hurt them unless they did something sexual with the person; whether someone had ever forced them (physically, emotionally or with a weapon) to have sexual intercourse or other sexual activities against their will; and whether they had ever had any other unwanted or threatening sexual experiences.

The four sexual trauma experience questions had yes/no response options, with follow-up sub-questions for each yes response. For each yes response, participants were asked when the experience occurred (childhood, adolescence and/or adulthood). If experiences occurred during adulthood, participants were asked whether the experiences were ongoing, happened in past year, or were not recent. Participants were
categorized as having a sexual trauma history if they endorsed a lifetime experience of any of the four sexual trauma experience questions.

2.4.3 Physical intimate partner violence (IPV)

Physical intimate partner violence was measured using three items from the physical assault subscale of the revised Conflict Tactics Scale (CTS2) [58]. Participants were asked the following questions: whether a sexual partner had ever threatened to hit them or throw something at them; whether a sexual partner had ever beat them; and whether a sexual partner had ever used a knife or gun on them. Response options were yes/no, and for yes responses participants were asked if the violence had occurred within the last month. Participants were categorized as having a history of intimate partner violence if they endorsed a lifetime experience of any of the three items.

2.4.4 PTSD

Traumatic stress symptoms in the past month were assessed using the seven-item Breslau PTSD screener, [60] which has been previously used in South Africa (α=0.81) [61]. The screener was only administered to participants who had endorsed either sexual trauma or IPV history. Response options were yes/no for each question and captured whether a participant had experienced a particular symptom within the last month. A yes response corresponded to a score of one, creating a total summed score ranging from 0 to 7. A score of three or more was indicative of elevated traumatic stress [62].
2.4.5 Suicidality

Suicidal ideation and severity were assessed using items adapted from the suicidality subscale of the Mini International Neuropsychiatric Interview (MINI) [63, 64]. The first three questions on the measure from the subscale were “Have you thought you would be better off dead or wish you were dead?”, “Have you wanted to harm yourself or to hurt or injure yourself?” and “Have you thought about suicide?” In addition to the six items on the subscale, participants were asked if they had attempted suicide in the last month and whether they had deliberately harmed themselves without intent to kill themselves. Response options were yes/no.

Participants who did not endorse any of the first three questions were categorized as not having suicidal ideation and the assessment was stopped. If a participant answered yes to any one of the first three questions, they were categorized as having suicidal ideation and were asked the rest of the items to assess the severity of the suicidal ideation and determine whether referrals to a psychologist were necessary.

2.4.6 Screening experience and acceptability

Participants’ reactions to the screening process, its acceptability, and attitudes towards potential integration into routine HIV care management were measured using eight questions. Participants were asked four open ended questions: 1) how they felt being asked the screening questions 2) whether they would feel comfortable being asked these screening questions by a healthcare provider 3) whether they thought it would be
appropriate to screen all women and 4) suggestions for how screening could be conducted in the future. Participants were probed to explain their answers for each question.

Participants were also asked four questions with yes/no response options for whether they had ever disclosed either their sexual or IPV to anyone else before the screening, the cadre of healthcare worker whom they would prefer to conduct the screening, and the reasons why they would prefer that particular cadre of healthcare worker.

2.5 Analysis

Data from the screening surveys was entered into an Excel spreadsheet from the paper surveys administered by the research assistant. The data were then exported into and analyzed using Stata statistical software (version 14.1) for analysis. Descriptive statistics were used to describe the demographic and other characteristics of the sample. To examine potential differences in these characteristics, non-parametric statistical tests were conducted comparing participants with a trauma history (sexual and/or IPV) and those without trauma history. For continuous outcomes, the Wilcoxon rank sum test was used to compare the means. For categorical outcomes, the Fisher’s exact test was used to compare proportions.

The statistical test to examine potential differences in characteristics was conducted on a subset of the variables reported (see Table 1 below). Some of the
variables were transformed for the purpose of the statistical tests. For example, education is reported across categories, but the statistical test was conducted on years of education as a continuous variable.

To estimate the prevalence of trauma and mental health symptoms, summary statistics were used. The summary statistics also compared the prevalence of mental health symptoms (depression and PTSD) among three groups (no trauma history, one type of trauma history, both sexual trauma and IPV). Since screening for traumatic stress symptoms was only conducted on participants with a trauma history, participants without a trauma history were excluded from the analysis for traumatic stress symptoms.

To explore whether trauma was a significant predictor of mental health symptoms, logistic regression models were used. Two separate models were run with depression and PTSD (indicative of disorder) as categorical outcomes, based on score cutoffs. Age, education and trauma experience (with no trauma, one type of trauma and both types of trauma as the types of trauma experiences) were the predictor variables. In the regression model for the depression outcome, no trauma was the referent group. The regression model for PTSD was run only on data from participants with trauma experiences and had one type of trauma as the referent group.

To assess healthcare providers’ perspectives on trauma, interviews with healthcare workers were recorded, transcribed and then translated from Xhosa into
English. The translated transcripts were coded and analyzed for emergent themes using Nvivo (version 11). Summary memos were then written from the emergent themes. To assess the acceptability of screening, participants' qualitative responses on the screening instrument were analyzed using Nvivo and coded for emergent themes. Illustrative quotes representing the emergent themes were chosen for all the qualitative components of the analysis.
3. Results

3.1 Description of sample

Most of the participants were referred to the study from the counseling sub-clinic (76%, n=53), and the rest were referred from the wellness sub-clinic (24%, n=17). Of the participants recruited from the counseling sub-clinic, 16 were attending ART readiness counseling sessions and 26 attending ART adherence counseling session. The rest of the participants from the counseling sub-clinic (n=11) were attending either TB treatment readiness counseling sessions or TB treatment adherence sessions.

Among the participants screened, 37% (n=26) had been initiated on ART in their lifetime. Of the participants who had ever been initiated on ART, 80% had a history of ART defaulting. Table 1 (below) summarizes the demographic and other characteristics of the participants.
Table 1: Sample demographics and characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (n= 70)</th>
<th>Trauma history (n= 57)</th>
<th>No trauma history (n= 13)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>31.6 (9.5)</td>
<td>32.5 (9.9)</td>
<td>27.5 (5.4)</td>
<td>0.1056</td>
</tr>
<tr>
<td>Education (highest level)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;= Grade 7, n (%)</td>
<td>7 (10)</td>
<td>6 (10.5)</td>
<td>1 (7.7)</td>
<td></td>
</tr>
<tr>
<td>Grade 8-11, n (%)</td>
<td>42 (60)</td>
<td>35 (61.4)</td>
<td>7 (53.8)</td>
<td></td>
</tr>
<tr>
<td>Completed high school, n (%)</td>
<td>20 (28.6)</td>
<td>15 (26.3)</td>
<td>5 (38.4)</td>
<td></td>
</tr>
<tr>
<td>Post-secondary education, n (%)</td>
<td>1 (1.4)</td>
<td>1 (1.8)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Years of education as of last interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>10.4 (1.9)</td>
<td>10.2 (2.0)</td>
<td>11 (1.3)</td>
<td>0.1557</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed, n (%)</td>
<td>26 (37.1)</td>
<td>20 (35.0)</td>
<td>6 (46.1)</td>
<td>0.531</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, n (%)</td>
<td>12 (17.1)</td>
<td>11 (19.2)</td>
<td>1 (7.7)</td>
<td></td>
</tr>
<tr>
<td>Partner, n (%)</td>
<td>39 (55.7)</td>
<td>29 (50.8)</td>
<td>10 (76.9)</td>
<td></td>
</tr>
<tr>
<td>Married, n (%)</td>
<td>11 (15.7)</td>
<td>9 (15.7)</td>
<td>2 (15.3)</td>
<td></td>
</tr>
<tr>
<td>Divorced, n (%)</td>
<td>8 (11.4)</td>
<td>8 (8.8)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Current partner</td>
<td>50 (71.4)</td>
<td>38 (66.6)</td>
<td>12 (92.3)</td>
<td>0.097</td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnant, n (%)</td>
<td>3 (4.3)</td>
<td>2 (3.5)</td>
<td>1 (7.7)</td>
<td></td>
</tr>
<tr>
<td>Time since HIV diagnosis (yrs.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;= 2, n (%)</td>
<td>38 (54.2)</td>
<td>27 (47.3)</td>
<td>11 (84.6)</td>
<td></td>
</tr>
<tr>
<td>3-5, n (%)</td>
<td>15 (21.4)</td>
<td>13 (22.8)</td>
<td>2 (15.4)</td>
<td></td>
</tr>
<tr>
<td>&gt;5, n (%)</td>
<td>17 (24.2)</td>
<td>17 (11.1)</td>
<td>0 (0)</td>
<td></td>
</tr>
</tbody>
</table>
3.2 Prevalence of trauma and mental health symptoms

Over half of all participants (51%, 36/70) reported a lifetime experience of sexual trauma. Of the women reporting a history of sexual trauma, 25% (n=9) reported that the trauma was currently ongoing. Physical intimate partner violence (IPV) was also highly prevalent, with 75% (53/70) of participants reporting a history of intimate partner violence. Of the women reporting IPV, 22% (n=12) had experienced the IPV within the last six months. Thirteen of the participants had no history of trauma, 25 participants had one type of trauma (either sexual or IPV) and 32 participants had both sexual and IPV trauma. Of the 25 participants with one type of trauma, 21 of them had IPV and only 4 participants had sexual trauma only. There were no significant differences in demographic characteristics between those who had a trauma history (sexual trauma and/or IPV) and those without a trauma history.

About one-third of participants (36%, 26/70) met screening criteria indicative of major depression. Among the participants who had a trauma history (either sexual and/or IPV) and thus were screened for PTSD (57/70), 70% (40/57) met screening criteria that were indicative of elevated traumatic stress/PTSD. Table 2 (below) summarizes the prevalence of mental health symptoms amongst the aforementioned groups.
Table 2: Mental health symptoms by trauma history*

<table>
<thead>
<tr>
<th>Measure</th>
<th>No trauma (n=13)</th>
<th>IPV (n=21) or Sexual trauma (n=4)</th>
<th>Sexual trauma and IPV (n=32)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated depression symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* (%)</td>
<td>15.3%</td>
<td>20.0%</td>
<td>59.3%</td>
</tr>
<tr>
<td>Mean score (SD)</td>
<td>1.3 (1.8)</td>
<td>1.7 (1.7)</td>
<td>3.0 (1.9)</td>
</tr>
<tr>
<td>Elevated PTSD symptoms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* (%)</td>
<td>N/A</td>
<td>60.0%</td>
<td>78.0%</td>
</tr>
<tr>
<td>Mean score (SD)</td>
<td>N/A</td>
<td>3.0 (2.3)</td>
<td>4.1 (2.2)</td>
</tr>
</tbody>
</table>

*Depression percentage based off meeting cutoff score of >= 3. PTSD percentage based off meeting cutoff score of >= 3.
3.3 Associations between trauma and mental health symptoms

Table 3 (below) summarizes the results of generalized linear model logistic regression on the associations between depression and experiences of trauma, while controlling for demographic variables of age and education. Compared to having no trauma, having both sexual trauma and IPV was significantly associated with higher odds of depression. The odds of meeting the screening criteria for major depression for women with both sexual trauma and IPV were 8.11 times larger (OR = 8.11; 95% CI 1.48-44.34), than the odds for women no trauma experience.

The odds of meeting the screening criteria for depression for women with either IPV or sexual trauma alone were not significantly different from the odds for women with no trauma experience (OR = 1.30; 95% CI 0.21-8.10). Age and education were not associated with the odds of meeting screening criteria for depression.

Table 3: Association between depression and experiences of trauma† (n=70)

<table>
<thead>
<tr>
<th>Depression</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.99</td>
<td>0.93 – 1.05</td>
<td>0.787</td>
</tr>
<tr>
<td>Education</td>
<td>0.92</td>
<td>0.67 – 1.24</td>
<td>0.596</td>
</tr>
<tr>
<td>IPV or Sexual trauma</td>
<td>1.30</td>
<td>0.21 - 8.10</td>
<td>0.773</td>
</tr>
<tr>
<td>IPV and Sexual trauma</td>
<td>8.11</td>
<td>1.48 – 44.34</td>
<td>0.016*</td>
</tr>
</tbody>
</table>

†No sexual trauma = referent group
* Statistically significant at p < 0.05
Table 4 (below) summarizes the results of generalized linear model logistic regression on the associations between PTSD and experiences of trauma, while controlling for demographic variables of age and education. The analysis was done on the sub-sample of women with traumatic experiences (and thus to whom the PTSD screener was administered), and excluded those with no trauma experiences. The odds of meeting screening criteria for PTSD for women with both sexual trauma and IPV were not significantly different from the odds for women with either sexual trauma or IPV alone (OR = 2.37; 95% CI 0.72-7.72). Age and education were not associated with the odds of meeting screening criteria for depression.

Table 4: Association between PTSD and experiences of trauma† (n=57)

<table>
<thead>
<tr>
<th>PTSD</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.99</td>
<td>0.93 – 1.06</td>
<td>0.878</td>
</tr>
<tr>
<td>Education</td>
<td>1.03</td>
<td>0.74 – 1.42</td>
<td>0.847</td>
</tr>
<tr>
<td>IPV and Sexual trauma</td>
<td>2.37</td>
<td>0.72 – 7.72</td>
<td>0.151</td>
</tr>
</tbody>
</table>

†IPV or sexual trauma = referent group
* Statistically significant at p < 0.05
3.4 Feasibility of screening

Healthcare providers referred a total of 70 women to the study during the 8-week study period. After being informed about the study purpose and the nature of the screening questions, 100% (n=70) of the referred women agreed to participate in the study and completed the screening assessment.

Barriers to implementation of screening observed included staffing shortages and staffing changes. Due to staffing shortages, healthcare providers often had to staff additional sub-clinics and perform other various duties within the clinic. Consequently, there were variations in how consistently the healthcare providers referred women to the study, and often there was need to remind and explain the study to the new healthcare providers staffing the study referral sites on a particular day/time.

The aforementioned barriers were mostly observed in the wellness sub-clinic, which had more staffing changes compared to the counseling sub-clinic. Additional screening implementation challenges were related to lack of a private space in the clinic in which women could be confidentially screened.

3.5 Acceptability of screening

Responses to the four open-ended feedback questions that participants were asked at the end of study procedures were analyzed for emergent themes around participants’ screening experience, their attitudes towards screening being expanded to
all women and the potential role of healthcare workers in screening. The themes that emerged from the responses are presented below.

### 3.5.1 Participants’ screening experience

Many participants expressed “relief” at finally being able to talk about their experiences, which they described as weighing on them. Many of the women disclosed and spoke about their trauma experiences for the first time; 61.1% (22/70) of those with sexual trauma histories said this was the first time they had disclosed their experience, and 33.3% (18/70) of those with intimate partner violence histories said this was the first time they had disclosed.

Participants viewed the screening process as an opportunity to speak about their experience and reported that the screening process helped reduce their psychological distress. For example, one participant with sexual trauma said: “I felt relieved, sometimes I have to tell somebody about what happened in my past because I’ll be learning from other people and also I really feel like telling people what happened because I want to move on and forget about my past”. Another participant with both sexual trauma and IPV said? “I felt relieved because it is nice to speak out. It now feels like all the thoughts I have been having will now go away because I have had a chance of speaking to someone”.

However, eight (n=8) participants mentioned that the questions caused them some distress while recalling their experiences. For example, one participant with sexual trauma said: “I felt sad because these questions remind me of the past things, the sexual
touching from my mom’s cousin, he fondled me, brushed my thighs and buttocks, and they made me think of my late mother”. Another participant with sexual trauma said: “I feel a bit of relief but at the same time I feel like crying, these things are thing I thought I am forgetting, trying to forget about. I want to move on”.

### 3.5.2 Attitudes towards universal screening

Participants almost unanimously agreed that it would be appropriate and acceptable to routinely screen all women in the clinic setting for trauma and mental health symptoms (98.6%, 69/70). One participant did not have an opinion on the acceptability of routine universal screening. Participants said it would be feasible and acceptable to implement universal screening in the clinic, if conducted confidentially:

“These questions can be asked confidentially by the counselor, some other people should not hear about the questions and answers.”

The perceived therapeutic effect of the screening process was the main reason why participants thought universal screening in the clinic, as part of routine care, was important and would be acceptable to women. In particular, participants noted the difficulty they have disclosing their trauma histories and talking about their mental health symptoms with their friends/family. Participants thought that a confidential clinic setting would protect them from the stigma and gossip they would encounter, if they disclosed within their family or social circles. For example, a participant said: “Most people feel reluctant to speak to family members, they might feel comfortable talking to someone at
Another participant said: “Women will be able to speak about their problem. To talk out about your problems brings some kind of relief”.

### 3.5.3 Role of healthcare workers in universal screening

Participants expressed comfort with having this type of screening conducted either by a nurse or by a counselor in the clinic. Almost all (98.6%, 69/70) agreed that they would be comfortable with either cadre of providers. However, 81.4% (57/70) participants expressed a preference for the screening to be conducted by a counselor.

Participants preferred being screened by counselors because they saw it as a more “natural” role for them, preferring to only receive medical advice from nurses and psychosocial advice from the counselors. Others cited negative treatment by nurses and the nurses’ busy workload as reasons why it would be more appropriate for counselors to conduct the screening. For example a participant said: “Counselors take time to speak with people and make people understand, the nurses are always busy running around attending to patients so they don’t really have time to sit down and listen to each and every patient”. Yet another participant commented: “Sometimes nurses become harsh, at least counselor understands the situation. The way nurses are sometimes it makes it hard for us to ask questions”.

### 3.6 Healthcare workers’ perceptions of trauma and care

Seven healthcare workers (HCWs) were interviewed and provided insights into their perceptions related to trauma and provision of services for women with trauma
histories. The HCWs interviewed were an ARV nurse, community care worker, social worker, psychologist, clinic facility manager, administrative clerk and a HIV, STI and TB counselor. Only two healthcare workers (a social worker and a psychologist) reported having worked directly with women with histories of sexual trauma. The social worker estimated that she had worked with 10 women with sexual trauma histories during the year. The other HCWs did not perceive dealing with trauma to be part of their duties, instead viewing social workers or psychologists as the appropriate health cadre to address trauma.

Two HCWs (facility manager and community care worker) suggested that women might not report their trauma experiences to the clinic staff. HCWs cited cultural factors as reasons why women might not disclose trauma experiences, including in a clinical setting. They cited the influence of a culture that emphasizes dominance of men over women, reinforced by the culture of men paying bride price for women and therefore having a sense of “ownership” over the women. They also cited victim self-blaming as another reason that women might not disclose or report abuse. However, they felt that women would be more likely to disclose IPV (mostly to family members) compared to sexual trauma, since it was less taboo.

HCWs identified nurses, social workers or counselors as the type of providers who might conduct screening as part of universal screening. They suggested that women could be screened during HIV post-test counseling or as part of the nurse taking
their medical history. Others suggested that general information about sexual trauma and IPV could be posted in the clinic, and women could approach the HCWs themselves or disclose their experiences during consultation.

4. Discussion

4.1.1 Prevalence of trauma and mental health symptoms

The study found high levels of traumatic experiences among HIV positive women and high levels of depression and PTSD symptomatology. Over half of all women reported a history of sexual trauma and three-quarters reported a history of IPV, and 70% of those with trauma history met screening criteria indicative of PTSD. In addition, 36% percent of all participants met screening criteria for major depression, with depression being most common among women who had both sexual trauma and IPV histories.

The rates of sexual trauma and IPV found in this study are consistent with rates found in the few previous studies that have examined sexual trauma and/or IPV among South African women [7, 46, 65]. However these studies included women who were HIV negative and the populations studied also differed in other ways from the participants in this study. The rates of PTSD found in this study (70%), among the subset of participants with trauma experience, were significantly higher than estimates of between 4.2% and 40% found in a review of six previous studies among HIV positive populations in South Africa [66]. These previous studies investigated PTSD either in relation to an HIV
diagnosis or more generally as a co-morbid disorder in HIV [66], while the current study investigated PTSD in relation to sexual trauma or IPV experiences among women with trauma histories. Hence it possible that the rates on PTSD among those with trauma experience could have been higher in these prior studies. Furthermore, these studies used diagnostic interviews for PTSD, in contrast to the brief, non-diagnostic, screening used in this study. The rates of depression found in this study were comparable to found in prior studies in HIV populations in South Africa [67, 68]. These studies were conducted in antenatal and HIV testing settings and those conducted in HIV testing setting included men in their samples.

4.1.2 Associations between trauma and mental health symptoms

Experiences of both sexual trauma and physical intimate partner violence were significantly associated with higher odds of depression. This finding supports the hypothesis that the experiences of sexual trauma and IPV in HIV positive women are associated with higher levels of mental health distress, including depression. The experience of IPV or sexual trauma alone, compared with no trauma, was not significantly associated with depression. This result suggests that sexual trauma is contributing to the significant association of experiencing both sexual trauma and IPV with depression. The overall high prevalence of IPV in the sample and research suggesting societal normalization and acceptance of IPV [69-71] could be reasons why IPV alone is not significantly associated with the depression.
Experiences of both sexual trauma and physical IPV was not significantly associated with meeting screening criteria for PTSD, when compared to women who experienced either sexual trauma or IPV alone. It should be noted that there were high rates of IPV overall, with 70% of women with trauma experiences meeting screening criteria for PTSD. Thus a high proportion of those with IPV alone still had elevated PTSD symptoms, and hence it was not surprising to find an absence of difference in odds for PTSD between the groups.

Due to the sample size and/or the low occurrence of sexual trauma without IPV, it was not possible to make the optimal comparison across the four groups (no trauma, IPV only, sexual trauma only and both sexual trauma and IPV). As a result, it is not possible to conclusively parse out the exact impact that the different experiences of trauma have on mental health outcomes. Furthermore, while depression was assessed generally in all women, PTSD was only asked in relation to sexual trauma or IPV, and it possible that women without sexual trauma would have PTSD from other stressors that were not assessed in the study.

### 4.1.3 Feasibility and acceptability of screening

Results from the study suggest that screening for sexual trauma, IPV and mental health symptoms among HIV positive women is feasible and acceptable from the participant perspective. Despite a lack of a financial study incentive, all the women referred to and informed about the study agreed to participate. Most of the women
reported positive experiences with the screening thought that screening should be extended to all women in the clinic, and could be done as part of routine care by healthcare providers. Importantly, a number of the women were disclosing their experiences for the first time (61% for sexual trauma and 33% for IPV), suggesting willingness and comfort talking about their experiences in the clinic setting. The willingness of women to talk about their experiences was at odds with perceptions of some of the healthcare workers that women would not be willing to disclose these experiences, due to stigma and cultural factors.

While the participants envisioned screening being expanded to all women in the clinic as part of routine care, the study cannot confirm the feasibility or acceptability of screening conducted by healthcare workers, since the screening was conducted by the study staff rather than clinic staff. As noted in the barriers to screening, there are significant staffing challenges and healthcare worker overload, and it took a concerted effort and constant reminders for health care workers to consistently refer participants to the study. The study was also conducted for a limited time frame and having routine screening would likely involve significant human resource effort and other changes to clinic protocol.

Due to implementation challenges, it was not possible to obtain a measure of the total number of women informed about the study and calculate a refusal rate. Hence while all women who did come to the study agreed to participate, it is possible that
some women were not interested or refused study referral. Further evaluation of routine screening would be needed to confirm feasibility. However the study did find evidence suggesting the acceptability of asking questions about trauma and mental health to participants. This finding could help dispel any reluctance to implement screening for sexual trauma, IPV and mental health symptoms that is based on concerns about the acceptability of asking such questions.

4.2 Implications for policy and practice

Given the potential impact on HIV care engagement, the high levels of trauma experiences and mental health distress found in the study call for interventions to address trauma and its psychological sequelae. Despite the high prevalence of sexual trauma found in the study, very few healthcare workers stated that they had worked with women who had sexual trauma histories. This gap represents a missed opportunity for intervention.

The key informant interviews with healthcare workers suggest that not all staff see trauma as part of their duties, and instead relegate the identification and treatment of trauma as the preserve of specialized mental health staff, such as social workers and psychologist. However, there is a severe shortage of these specialized mental health staff in low and middle-income country settings, such as in South Africa [72]. The lack of specialist human resources could therefore be seen as an impediment to the
implementation and scale up of universal screening for trauma and mental health symptoms in South Africa.

Task shifting and task sharing approaches, whereby primary care workers are trained to do tasks otherwise done by specialists, have been suggested as solution to the human resource challenges in mental health [72]. Prior research suggests that these approaches are feasible and acceptable in South Africa, including in the context of mental health care [73]. Potential task sharing approaches to universal screening would need to train and possibly incentivize non-specialists to ensure buy in from them, given their perception that trauma and mental health are not part of their duties. Scaled up universal screening in this setting could involve primary care nurses, counselors and community care workers administering brief screening and referring cases to services that would be provided by the few specialists.

Health systems and resource mapping research should be conducted to ascertain mental health services and resources available to women with traumatic experiences and mental health symptoms. The availability of these resources is crucial, since it would be unethical to expand screening without opportunities to link women to care. Further mental health training and task sharing should also be accompanied by policy and programmatic changes to ensure that mental health treatment is more widely available. Other parallel program and policy changes could involve work on reducing
stigma around mental health that might increase in response to increased screening and identification of women with mental health symptoms.

4.3 Implications for further research

Further studies should investigate the specific effects that different types of trauma have on mental health outcomes. This study suggests that the presence of sexual trauma, rather than physical IPV alone, may drive significant associations with negative mental health outcomes. However, due to the sample size it was not possible to tease out these effects. Larger studies could address this limitation and establish the different impact that multiple traumas have on mental health outcomes.

Given the potential impact on HIV care engagement [14, 15], future studies should explore the relationship between traumatic experiences, mental health symptoms and HIV care engagement. Thirty-four percent (n=22) of participants recruited in this study had defaulted on ART (and were thus attending adherence counseling sessions in the Readiness clinic). Ninety-five percent (n=21) of those who had defaulted on ART had a history of trauma (either sexual or IPV). These high rates of trauma among those who had a history of ART default suggest a possible impact of trauma experience on care engagement. However, it was beyond the scope of this study to examine the impact that traumatic experiences and mental health were having on care engagement. There is also need for research into interventions that can improve HIV care engagement among these populations.
Conceptually this study measured PTSD in relation to exposure to sexual trauma and IPV only; however, there are many other stressors that may contribute to PTSD. Future studies could examine mental health outcomes in relation to other traumas and traumatic events. Finally, this study did not analyze the impact of time since the occurrence of sexual or physical abuse of the outcomes. Future studies should consider the time since occurrence of trauma as a variable in their analysis.

4.4 Study strengths and limitations

One of the study’s main strengths is its use of mixed methods. The qualitative data obtained from healthcare workers interviews, as well as brief feedback about screening from the women, complements the quantitative data of prevalence of trauma and mental distress. Together, they highlight the extent of the problem and also highlight feasibility of policy and programmatic changes that can address the problem.

Limitations of the study include a modest sample size and the limited time frame in which the screening trial was conducted. Due to the cross-sectional study design, conclusions cannot be drawn regarding a causative relationship between traumatic experiences and mental health symptoms. The study also conceptualized and measured PTSD symptoms as being related to sexual and IPV exposure, however it is possible that symptoms could be related to other events. Finally, although the measures used to assess mental health were validated screening instruments, they were not diagnostic in nature.
5. Conclusion

This study is one of the first in the South African setting to screen HIV positive women for sexual trauma, physical intimate partner violence and mental health symptoms. Its findings highlight opportunities for mental health interventions in clinical settings that can address trauma and mental health distress, thus improving HIV care engagement. In particular, the finding that women were comfortable with being screened for trauma and mental health symptoms suggests that non-disclosure might not be a significant barrier to identifying these women. The challenge then lies in whether health systems and policy makers are willing to implement trauma informed care, given evidence that women are willing to talk about their experiences.

Identifying and addressing trauma and mental health symptoms in HIV care is also important in the context of reducing HIV transmission risk and improving the quality of life of people living with HIV [74]. There have been calls to place mental health treatment at the core of secondary prevention, given the potential of mental treatment to reduce transmission risk and improve HIV care outcomes [74]. Beyond improving HIV care outcomes and reducing transmission risk, secondary prevention can also have potential economic benefits from savings in healthcare costs and better returns on investments in HIV treatment programs.

Screening for trauma and mental health symptoms must also be accompanied by greater supply and access to treatments and interventions. These interventions and
treatments can either be pharmacological or behaviors and there is evidence establishing the efficacy of some pharmacological and behavioral interventions for mental health among HIV positive populations [75-77]. There is need to further develop interventions and to adapt the existing efficacious interventions for broad based use in settings that might be different from the ones they were developed in. Finally, in order to achieve the scale up of screening and provision of treatment and interventions, it will be necessary to involve other stakeholders such as community based nongovernmental organizations in order to reach populations.
Appendix A

Screening instruments

<table>
<thead>
<tr>
<th>Place of screening (CIRCLE ONE):</th>
<th>Date:   ____ / ___ / _______ dd mm YYYY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Readiness session</td>
<td></td>
</tr>
<tr>
<td>2) Wellness clinic</td>
<td></td>
</tr>
<tr>
<td>3) PMTCT clinic</td>
<td></td>
</tr>
<tr>
<td>4) OTHER: __________</td>
<td>Time: <em><strong><strong>:</strong></strong></em>__ AM/PM</td>
</tr>
</tbody>
</table>

NB: Make sure participant has given oral consent before proceeding to administer the following screening tools

I’m going to ask you some questions about yourself and your health history.

There are no right answers to these questions. Just pick the answer that’s best for you personally. We are in a private place where no one will hear your answers, and I will keep them private. If you don’t understand a question, please tell me. It is very important for you to answer all questions truthfully. If you prefer not to answer, you may skip any question. Do you have any questions before we begin?
# General Demographics

1. **How old are you?**

2. **What is your highest level of education?**

3. **Do you currently have any paid job?**
   
   1 = Yes, Type: ______________
   
   0 = No

4. **Are you currently pregnant?**
   
   1 = Yes
   
   0 = No

5. **What is your current marital/relationship status?**

6. **When were you diagnosed with HIV?**
   
   Month___________, Year___________

7. **Are you currently taking ARVs? If yes for how long?**
   
   1 = Yes, Started: Month_______, Year___________
   
   0 = No

---

# Depression screening : PHQ-2

Over the past two weeks, how often have you been bothered by any of the following problems?

1. **Little interest or pleasure in doing things**
   
   0 = Not at all
   
   1 = Several days
   
   2 = More than half the days
   
   3 = Nearly every day

2. **Feeling down, depressed, or hopeless**
   
   0 = Not at all
   
   1 = Several days
   
   2 = More than half the days
   
   3 = Nearly every day
### Sexual Trauma Screener

I am going to ask you several questions about sexual experiences that may have been forced or unwanted. Thinking throughout your lifetime, as a child (12 years and under), an adolescent (13-17), or as an adult (18 until now) has anyone ever:

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
<th>If Yes: When did it happen (check all that apply):</th>
<th>If any adulthood: Is this on-going, or has it happened in the last year?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Touched you in a sexual way or made you touch them in a sexual way against your will?</td>
<td>1= Yes 0= No</td>
<td>1= childhood 2= adolescence 3= adulthood</td>
<td>1= On-going 2= Happened in past year 0= Not recent</td>
</tr>
<tr>
<td>2. Threatened to hurt you unless you did something sexual with them?</td>
<td>1= Yes 0= No</td>
<td>1= childhood 2= adolescence 3= adulthood</td>
<td>1= On-going 2= Happened in past year 0= Not recent</td>
</tr>
<tr>
<td>3. Forced you (physically, emotionally or with a weapon) to have sexual intercourse or other sexual activities against your will?</td>
<td>1= Yes 0= No</td>
<td>1= childhood 2= adolescence 3= adulthood</td>
<td>1= On-going 2= Happened in past year 0= Not recent</td>
</tr>
<tr>
<td>4. Have you had another unwanted or threatening sexual experience that is not named above?</td>
<td>1= Yes 0= No</td>
<td>1= childhood 2= adolescence 3= adulthood</td>
<td>1= On-going 2= Happened in past year 0= Not recent</td>
</tr>
</tbody>
</table>
Physical intimate partner violence: Revised Conflict Tactics Scale (CTS2)

I am now going to ask you about experiences you may have had with a sexual partner. Has a sex partner ever:

<table>
<thead>
<tr>
<th>Question</th>
<th>Ever</th>
<th>If yes: Has this happened in the last 6 months?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Threatened to hit or throw something at you?</td>
<td>1= Yes 0= No</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>2. Beat you?</td>
<td>1= Yes 0= No</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>3. Used a knife or a gun on you?</td>
<td>1= Yes 0= No</td>
<td>1= Yes 0= No</td>
</tr>
</tbody>
</table>
**NOTE:** This set of questions should be asked ONLY if a woman has answered yes to at least ONE question from above questions (Sexual trauma screener and CTS2)

### Traumatic symptoms screener: Breslau Short Screening Scale for PTSD

I am going to ask you several questions about these experiences that have caused any of the following problems in the past month:

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
</table>
| 1. Did you avoid being reminded of this experience by staying away from certain places, people or activities? | 1 = Yes  
0 = No |
| 2. Did you lose interest in activities that were once important or enjoyable? | 1 = Yes  
0 = No |
| 3. Did you begin to feel more isolated or distant from other people? | 1 = Yes  
0 = No |
| 4. Did you find it hard to have love or affection for other people? | 1 = Yes  
0 = No |
| 5. Did you begin to feel that there was no point in planning for the future? | 1 = Yes  
0 = No |
| 6. After this experience were you having more trouble than usual falling asleep or staying asleep? | 1 = Yes  
0 = No |
| 7. Did you become jumpy or easily startled by ordinary noises or movements? | 1 = Yes  
0 = No |
### Suicidality Screening: Beck Depression Index-II, Suicide item

I would like to ask you a few more questions about your feelings and related thoughts.

In the LAST MONTH have you had any of the following thoughts?

<table>
<thead>
<tr>
<th>Question</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you thought you would be better off dead or wish you were dead?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>2. Have you wanted to harm yourself or to hurt or to injure yourself?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>3. Have you thought about suicide?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>4. Do you have a suicide plan?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>5. Have you done anything to plan to harm or hurt yourself or to plan to end your life or kill yourself?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>6. Have you deliberately injured yourself without intending to kill yourself?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>7. In the last month, have you attempted suicide?</td>
<td>1= Yes 0= No</td>
</tr>
<tr>
<td>8. In your lifetime, have you attempted suicide?</td>
<td>1= Yes 0= No</td>
</tr>
</tbody>
</table>

**NOTE:** If the patient has answered yes to any of the questions above, the researcher should assess the severity of suicide ideation, and make immediate referrals, as needed.
<table>
<thead>
<tr>
<th><strong>Screening experience questions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tell me briefly how you felt about me asking you these questions?</td>
</tr>
</tbody>
</table>
| 2. *If she reported sexual trauma experiences:* Is this your first time talking about unwanted or forced sexual experiences?  
   1= Yes  
   0= No |
| 3. *If she reported physical abuse experiences:* Is this your first time talking about physical abuse/violence experiences?  
   1= Yes  
   0= No |
| 4. Do you think it's a good idea for us to ask these questions to all women in the clinic?  
   1= Yes  
   0= No |
| 5. Why / Why not? |
| 6. Would you feel comfortable with a nurse or counselor in the clinic asking you these questions?  
   1= Yes  
   Who would be best to ask?  
   0= No |
| 7. Why / Why not? |
| 8. Thinking about this experience you just went through, do you have any other thoughts and suggestions about how or where we could ask these questions? |
References


2. UNAIDS, HIV and AIDS estimates (2013). 2013, UNAIDS.


48. Myers, B., et al., Feasibility and Acceptability of Screening and Brief Interventions to Address Alcohol and Other Drug Use among Patients Presenting for Emergency


