

## Depression and coping strategies among Vietnamese women living with HIV: A qualitative study

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### ABSTRACT

Women living with HIV (WLWH) are more likely to suffer from depression than seronegative women and are also more likely to suffer from depression than men living with HIV. There is limited depression research with WLWH in Vietnam. Twenty in-depth interviews with WLWH were conducted to identify pathways leading to depression and coping strategies for depression. Participants were recruited from an antiretroviral treatment clinic in northern Vietnam. Audio-recorded interviews were transcribed, translated, and analysed to identify key themes. All participants reported sudden loss of social support, debilitating depression, and suicidal ideation in the first six months after HIV diagnosis. While some were able to cope with their status after several months, others continued to struggle due to HIV-related stigma that was perceived as more isolating for WLWH than for men. Women who were able to effectively cope with depression found ways to re-establish connections to family and community. Interventions to improve mental wellbeing should link WLWH to mental health services immediately after diagnosis and address loss of support and stigma, as they contributed to the onset and persistence of depression after HIV diagnosis. Community-level HIV stigma reduction interventions may also help repair broken social bonds and foster new ones.

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## Introduction

The prevalence of depression among people living with HIV (PLHIV) is two to four times higher than the prevalence in the broader population (Nanni, Caruso, Mitchell, Meggiolaro, & Grassi, 2015). The link between HIV infection and depression may be explained by experiences of stigma, poor health, and the biological effects of the infection itself (Serafini et al., 2015). Depression can be particularly detrimental for PLHIV as it is associated with poor HIV treatment-related outcomes. Studies have found that low CD4 counts predict undiagnosed clinical depression and depression is associated with worsening the progression of HIV, even among people on antiretroviral treatment (ART; Amanor-Boadu et al., 2016; Elliott, Russo, & Roy-Byrne, 2002).

Women living with HIV (WLWH) are particularly vulnerable to depression. WLWH are four times more likely to suffer from depression than seronegative women and are also more likely to suffer from depression than men living with HIV (Morrison et al., 2002; Niu, Luo, Liu, Silenzio, & Xiao, 2016). Up to 10% of WLWH may attempt suicide while more than 30% experience suicidal

ideation (Catalan et al., 2011). Past work with WLWH has found that internalised and perceived stigma, shame, and discrimination may lead to depression, while receiving social support may reduce the risk of depression (Li, Lee, Thammawijaya, Jiraphongsa, & Rotheram-Borus, 2009; Rabkin, 2008; Simbayi et al., 2007).

As in other global settings, the prevalence of depression among Vietnamese WLWH is high, with prevalence estimates in recent studies ranging from 31% to 42% (Matsumoto et al., 2017; Thai et al., 2018; Tran et al., 2018). However, there has been limited research in Vietnam and Asia exploring factors that lead to onset of depression and coping strategies for depression among WLWH. This study explores the narratives of 20 WLWH in northern Vietnam to: (1) understand how depression is conceptualised; (2) identify pathways leading to depression; and (3) describe the strategies used to prevent and combat depression. Analyses are grounded in the WLWH's sociocultural contexts and experiences surrounding their HIV diagnoses. Study findings will help inform efforts to prevent and treat depression and improve HIV treatment-related outcomes among WLWH in Vietnam.

## Materials and methods

For this qualitative study, 20 in-depth interviews with WLWH were conducted. We recruited participants ages 18 years or older through care providers at an ART clinic in Thai Nguyen province, Vietnam. Thai Nguyen province is renowned for its green tea exports and is located 75 km from the capital city, Hanoi. Interested participants were connected to a trained study recruiter who obtained oral consent and screened the women for depression using the Patient Health Questionnaire-9 (PHQ-9) depression case-finding tool. The PHQ-9 has been widely used in multiple cultural contexts as a screening tool, including among women in Vietnam, with a score of 10 or above indicating probable depression (Niemi, Kiel, Allebeck, & Hoan, 2016). This cut-off score of 10 was used to identify two groups for the present study: 10 women with no probable depression, and 10 women with probable depression.

Two qualitative female interviewers with over 10 years of experience as ethnographers obtained written consent and conducted the 90–120 min interviews in private rooms. Interviews explored cultural expectations of women, experiences of receiving an HIV diagnosis and living with HIV, and depression before and after HIV diagnosis. Interviews were audio-recorded and interviewers also recorded field notes with their impressions and observations. The interviewers were trained in a standardised suicide risk assessment form to further assess suicidal thoughts expressed during the screening process or interview; however, no women in the study expressed current suicidal ideation. All women received referrals to HIV/AIDS support counselling at the end of the interviews. The consent, screening, and interview processes were completed in Vietnamese and participants were compensated the equivalent of \$10.00 USD for time and travel. The study protocol, consent forms, and interview guides received Institutional Review Board approvals from the University of North Carolina and the Thai Nguyen Center for Preventive Medicine.

The audio recordings were transcribed by interviewers, professionally translated from Vietnamese to English, and imported into NVivo version 11 for coding. Two investigators reviewed and summarised the transcripts and field notes to assess thematic saturation and to identify the themes for the creation of the codebook. Ten per cent of interview transcripts were coded by two investigators to assess inter-rater reliability, and discrepancies were discussed to further refine the codebook. After coding all transcripts, the investigative team discussed and agreed upon thematic patterns and key findings.

## Results

This paper explores the ways in which our participants conceptualise depression in relation to having HIV and the ways in which they cope with their depressive experiences. We first describe the general understandings of depression and the ways in which HIV leads to depression by interacting with

cultural expectations for women in Thai Nguyen, Vietnam. We then describe experiences of acute depression in the first six months after diagnosis and chronic depression due to living with HIV. Finally, we show ways in which women prevent and cope with depressed moods.

### **Participants and setting**

Participants lived within a 15-km radius from the study site and described their various communities as small, close-knit, and with a strong agricultural history. Demographics for the 20 women who participated in the study are shown in [Table 1](#). All widowed women reported that they had lost their husbands due to AIDS or an AIDS-related illness.

### **Conception of depression**

When asked if they had ever heard of depression, or ‘trầm cảm’, which is both the literal translation and clinical term for depression in Vietnamese, about half of the women said that they had never heard the term. Women who were familiar with the concept most often described it as an inability to relate or communicate and observed that it damages interpersonal relationships. One woman explained, ‘It is often said that depression and autism are similar ... A sort of neither sharing nor talking with anyone’ (Patient Identification [PID] 10, age 32, probable depression by PHQ-9 but not self-report). They further described it as wanting to live alone, and that to identify those who are depressed you must do it ‘through the communication’ for these people ‘do not want to talk ... they only want to close their door to be quiet, do not want to sing’ (PID 11, age 28, probably depression by PHQ-9 and self-report).

After discussing interpretations of depression, ethnographers provided the World Health Organisation (WHO) definition (WHO, 2014):

**Table 1.** Participant demographics ( $n = 20$ )

Characteristics	Percent or Mean
Age (years)	37 (range 28–49)
Highest education completed	
Primary school	10%
Middle school	45%
High school	20%
Unknown	25%
Employment status	
None	10%
Farming/agriculture	30%
Market/selling goods	45%
Other	15%
Marital status	
Married	40%
Widowed	35%
Divorced/separated	25%
Acquired HIV	
From husband	85%
Sexual partner other than husband	10%
Unknown	5%
Years with HIV	7 (range 2–14)
Years on ART	4 (range 1–9)
Probable depression (PHQ-9 score $\geq 10$ , $n = 10$ ):	
PHQ-9 total score	13 (range 10–21)
Self-reports being depressed ( $n = 4$ )	14 (range 11–21)
No probable depression (PHQ-9 score $< 10$ , $n = 10$ ):	
PHQ-9 total score	5 (range 0–9)
Self-reports being depressed ( $n = 3$ )	7 (range 6–8)

Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression can be long lasting or recurrent, substantially impairing an individual's ability to function at work or school or cope with daily life. At its most severe, depression can lead to suicide.

After hearing the definition, a few women said they never felt depressed themselves although they knew people who suffered from depression, most often children that suddenly became 'mute' due to bullying or being involved in a fight.

However, many other participants related personally to the WHO definition and shared that they had suffered from depression and suicidal thoughts in the past, most often after their HIV diagnosis. Women again emphasised that depression led to social isolation, describing not wanting to leave the home, speak with others, or participate in any group or community activities. Additionally, they described several common physical symptoms including dizziness, headaches, visual abnormalities, body aches, fatigue, and insomnia. Some also said that their depression 'generates disease,' with one woman saying that depression caused 'many diseases, stomach and liver, with a tumor, my body is very weak' (PID 02, age 35, probable depression by PHQ-9 and self-report).

### ***Depression, HIV, and disruption of gender roles***

To examine how sociocultural norms may shape depression, participants were asked about expectations of women in their community. When asked to describe a 'good and successful' woman, most explained that a good woman sacrifices her own needs for the needs of her children, husband, and extended family. In addition to the traditional duties of cooking, cleaning the home, taking care of the family, participants said that women today are also expected to contribute economically and financially. None of the women described these expectations as a burden, but rather as a fact of life. They also emphasised that a woman's duties in rural communities, such as in Thai Nguyen, are different than women living in cities, with rural women also being responsible for the wellbeing of their community. Women who are able to meet all expected standards are well-respected by their communities, and this achievement was linked with personal happiness and contentment.

When asked how they would describe a 'bad' woman, infection with HIV was overwhelmingly the most mentioned attribute, as well as the primary reason most participants did not classify themselves as good women. One participant stated, 'We have such disease like that, how could [we] be ideal anymore?' (PID 07, age 33, no probable depression by PHQ-9 and self-report). They explained that HIV/AIDS is a 'social disease' that brings shame to the family and interferes with completing household responsibilities due to loss of strength, having to take medications, and doctor's appointments. Participants often described feeling sad or depressed about being considered a 'bad woman' and many became emotional and distraught when explaining how HIV impeded their ability to adhere to these gendered and cultural expectations.

Many participants stated that living with HIV is much harder for women than it is for men due to women's care-taking responsibilities:

... In my family, I see that the men live simply, their living supplies are much more simpler than women. They do not involve much in family-taking activities such as cooking, washing ... For women it is more complicated, we have to take care of children and family issues. We feel it is harder, we have to be more alert. – PID 09, age 28, probable depression by PHQ-9 but not self-report

Most participants felt their performances as a wife and mother were scrutinised post-HIV diagnosis and described feeling immense stress to 'prove' their capabilities to their families and the community.

### ***Acute depression after diagnosis***

In the immediate six months after receiving their HIV diagnosis, the majority of participants described severe and unrelenting symptoms of depression. Some of these women said they were no longer depressed at the time of the interview and were also not classified as depressed by the

PHQ-9. Most participants had never experienced feelings of depression prior to HIV diagnosis, and women who had experienced depressed moods before diagnosis said that the sadness after learning their HIV status was 'stronger,' more 'tormenting,' and 'painful.' Half the women shared, unprompted, that in the first six months after being diagnosed they had recurrent suicidal thoughts. One woman explained, 'During the four months [after my diagnosis] I was always in that state of waiting to die, I was so sad, although the doctor said I would not die' (PID 09, age 28, probable depression by PHQ-9 but not self-report). These experiences occurred most commonly due to two reasons: (1) the initial shock of diagnosis and (2) the sudden loss of social support.

### ***Initial reaction to diagnosis***

Many participants shared that they entered a numb and 'unaware' state in the days to months after being diagnosed. Overwhelmingly, women discussed feelings of shame during this period. One woman described a period of three months afterwards where she did not leave the house, even for errands or work. She explained how she was feeling at the time:

I was afraid of people's eyes [and] I avoided all the interactions with other people or I [was] just scared of going out ... [I thought that] people would know that I was infected, or people could read my mind through seeing my eyes. – PID 10, age 32, probable depression by PHQ-9 but not self-report

Experiences of depression related to receiving HIV diagnoses were also closely tied with the testing of their children. Several women said that they experienced the worst depressed moods and suicidal thoughts while waiting for the results for their children. One woman explained that she was not able to speak, sleep, or eat before learning her daughter's status. Another woman described a plan to commit suicide together with her children by crashing her motorbike if they tested positive to spare them the shame and hardship associated with HIV infection. Those who had children test positive were overcome with debilitating guilt and anger in the first few months after their diagnosis. Of the 19 women who had children, nine had children living with HIV.

### ***Loss of support***

Acute depression post-diagnosis was further compounded by the loss of support that women experienced due to their newly positive HIV status. Community members and friends learned of their status most often after hospital staff and family members disclosed their diagnoses against their wishes. The immediate destabilisation of their support systems was most commonly due to fear and stigma, and often lack of support would persist even for women actively reaching out for help from friends and family.

... Then we realise about our friends, who is good, who is not good, losing all friends. Including my family members, no one has asked for my health status. Generally, in short, one word, Vietnamese people are increasingly insensitive ... No one inquires, including women ... I actively spoke out, I wished receiving the attention and help, but [no one] responded, thus I am very sad. – PID 04, age 40, depression by self-report but not PHQ-9

Themes of isolation reverberated through the interviews and were described as causing or reinforcing feelings of depression. One participant explained:

... I feel self-pity, I already live in a small pigsty hutch, how can people treat me like that? No one cares about me, no one cares about my living or death. Only my husband cared about me, then he died. I cannot count on anyone, alone, lonely ... Not counting how many days, it is in my mind all the time, always thinking about it, always thinking, 'How do I live now?' No housing, everyone spurns me, no money, unstable job, with illness, no one accepts me to work. – PID 13, age 42, probable depression by PHQ-9 and self-report

### ***Chronic depression due to HIV/AIDS***

For some, depression continued beyond the first six months after diagnosis. Participants who reported being depressed at the time of the interview or screened positive for probable depression most commonly described HIV stigma as the cause of chronic depression.

### ***Internalised stigma***

As discussed previously, many participants explained that having HIV branded them as a ‘bad woman’ in the community and that the internalised stigma from having HIV made them feel as though they could not participate as full community members by offering advice to others or by leading activities. They also described HIV as a ‘social evil’ that made them ‘dirty’ and ‘useless.’ They explained that the inferiority and shame led to a loss in confidence, reduced incentives to improve their economic and social situations, and pessimistic outlooks for the future. Women described thinking daily that they would ‘never be good’ and that this shame and stigma could leave ‘one unable to stand.’

### ***Perceived stigma***

Participants frequently described how anticipation of HIV-related stigma impacted their daily interactions. They were less likely to leave the house, make new friends, or enrol their children in activities to avoid the secondary stigma that they might face. Many also felt that women experienced harsher levels of HIV stigma than men. Although blame for HIV infections was often placed on men in the community and women were perceived to be ‘victims’ of their husbands’ indiscretions, public socialisation was seen as more acceptable for men living with HIV than for women. Specifically, participants said that women are expected to avoid community events:

Even in my home village, I find that men with HIV live normally. They participate in activities as usual ... it is easier for two men to talk. Among women it is more difficult to share, there is still a bigger gap among women than men ... After 10 years of living with HIV, only in the last few years [did I feel] I could integrate with others ... Through their attitude, we could feel that if we participated, they would be hesitant. – PID 09, age 28, probable depression by PHQ-9 but not self-report

### ***Experienced stigma***

After diagnosis, participants described experiencing social isolation from the community due to misinformation about HIV transmission. Families and community members stopped visiting participants’ houses and sharing meals for fear of contracting HIV. One participant recollected the challenges of starting an HIV support group in her community centre where, after many bureaucratic challenges, the village head revealed that villagers did not want to grant use of the centre due to fear of HIV transmission through sharing the common cups and dishes. When describing other examples of enacted stigma, the effects were particularly hurtful when they came from family members:

A man got into a traffic accident, his thigh was broken and nailed. His family members came to help him but they put on three layers of gloves. While seeing such actions, I think about it for dozen days. What would my family members act [like] when I am in the similar situation? – PID 11, age 28, probable depression by PHQ-9 and self-report

Women also experienced stigma at the common market, where they owned stands to sell food or goods. Several women said that rival stand owners disclosed their HIV statuses so that they would lose customers. This description of ‘being publicised,’ or unconsented disclosure, was a frequent theme in all narratives and as participants explained, was expected in their small communities.

These experiences of stigma were said to cause chronic depression as one participant shared, ‘In normal life we sometimes forget that we are HIV-infected. We are living a normal life. Then, the people may have some expressions making me think that, ‘Well, I am not common as others,’ and I feel sad’ (PID 09, age 28, probable depression by PHQ-9 but not self-report).

### ***Preventing and coping with depression***

Participants used a range of strategies to prevent onset of depression, cope with acute and chronic depressive symptoms, and overcome suicidal ideation.

### ***Preventative measures against depression***

Social support, in the form of talking to family or friends during moments of depression, was commonly mentioned as most helpful for fighting symptoms of depression. Other women said that they would spend time with their children when feeling an onset of sadness to consider the positive aspects of their lives. Most women explained that the best way to avoid feelings of depression was to have a sense of belonging either with their families or communities. Specifically, a sense of belonging meant they felt others ‘cared for them and their wellbeing’ and people did not treat them differently. These women often described support as the simple acknowledgement of them as ‘normal’ individuals. One woman explained that support could come in the form of a neighbouring food vendor asking what she would like for lunch and getting her a piece of hot fried cake. She noted, ‘Although it was small, it indicated that I am respected’ (PID 01, age 49, no probable depression by PHQ-9 and self-report).

### ***Overcoming acute and chronic depression***

Women who were depressed (by PHQ-9 or self-report) said positive social support helped overcome depressed moods temporarily. Women coping with depression drew on support specifically to process stigma and fears for the family’s future due to their HIV diagnosis. They also used their support systems for HIV-related financial assistance, including paying for ART and childcare or transportation when visiting the doctor. This contrasts with support provided for the group that did not experience depression, who described receiving broader social support from friends and family, with whom they did not discuss HIV/AIDS or use for HIV-related help.

Women who did not self-report being depressed often mentioned support groups as their form of HIV-related support. The support groups were community-based and comprised mostly WLWH. One woman explained why support groups were a helpful outlet:

[We] were strangers, one recommended [an]other [and] we came there to share ... We did not ask where they lived, but we know that they were [in] the same situation like us. Then we shared [about] children [and] we talked with each other what we thought in our heads freely ... [What] we could not share with our biological siblings and parents. – PID 19, age 34, probable depression by PHQ-9 but not self-report

Participants were introduced to HIV support groups by other PLHIV after hearing about their diagnoses through neighbourhood gossip and one woman formed her own support group. The groups usually met on a monthly basis, did social activities together, or had discussions about HIV and other related topics.

### ***Overcoming suicidal ideation***

To combat suicidal thoughts, participants overwhelmingly said that they ‘must live for my [their] children.’ They mentioned feeling unable to trust that their family members would adequately take care of the children if they were gone due to the stigma of having a mother with HIV or having HIV themselves. Some mentioned the sorrow and sadness they would bring to their parents and families as reasons they never committed suicide. Others said that they had family members that prevented them from committing suicide by initiating 24-hour watches:

At that time I was too depressed, I was not keen on anything. I truly intended to jump to the river ... My husband followed me very closely; he never took his eyes off me ... Before marriage my weight was 50 kg, at that time I was only 30 kg ... My husband was with me all day and night, even during the sleeping time or going to toilet, he never left me alone. – PID 14, age 28, no probable depression by PHQ-9 and self-report

## **Discussion**

Among WLWH, depression was most commonly experienced as a lack of social connection between the self and others. As discussed by our participants, social networks held both positive and negative attributes for women coping with their HIV diagnosis. Negative responses from friends, family, or

community members caused both acute and chronic depression through stigma and isolation and ultimately led to loss of support and internalised stigma and shame. In addition to the social impact, participants described reduced work capacity due to stigma and poor health, fear of dying, and the stress of HIV-infected children, which served to exacerbate depression. Coping mechanisms for depression and suicidality centred on re-establishing a sense of connectedness, whether through family, friends, the workplace, or through new relationships with others living with HIV.

Feminist relational theorists have highlighted the link between depression and stability of relationships, arguing that women can be more attuned to the quality of relationships and that intimate relationships are more likely to give women a sense of self (Jack, 1991; Jordan, 1997). Similarly, the participants in this study evaluated their mental wellbeing partially based on their roles and relationships as mothers, wives, and family members. Such gendered tendencies were further compounded by the broader cultural moral systems that these women inhabit, where collectivistic orientations to the self as an interdependent being take great importance (Markus & Kitayama, 1991). When values such as harmony and connectedness are more generally emphasised, and a gendered division of labour exists to maintain them, the full implications of stigma for WLWH in this context becomes evident.

In Vietnam, where such values take primacy, the family rather than the individual plays an integral role in decisions related to economics, the duties of each family member, and even healthcare (Boggiano, Harris, & Nguyen, 2015; Drummond, 2006). Traditionally, Vietnamese women are expected to sacrifice their own needs and be the care providers for their immediate and extended family members (Lundberg & Thu, 2011). Self-sacrifice in women has been associated with depression across many cultures (Jack & Ali, 2010). Our study also found these gender roles are central to the identity of participants and ideas of self-worth, with depressed moods being intricately tied to perceived lack of success in performing these roles, most often due to their HIV status. These orientations dictate that mental wellbeing is at least partly determined by success at fostering and maintaining healthy relationships.

Studies in the past have found higher prevalence of depression among WLWH when compared to men, but the reasons for this have not been clearly established (Murray, Naghavi, Wang, & Lozano, 2015). Participants in our study perceived differences in the amount of social stigma experienced by women when compared to men living with HIV, where women were subjected to more stigma and as a result were more socially restricted. This restriction discouraged participants from accessing the very social support that they identified as protective and helpful against experiencing depression. Future research should explore whether HIV stigma explains the relationship between gender and depression among PLHIV.

Our study found that the majority of participants, even those who did not self-report being depressed, were at risk for severe depressive symptoms and suicidal ideation during the acute period after diagnosis. A qualitative study in the United States investigated illness appraisals or the ways in which an ill person conceptualises the meaning of their illness, in people diagnosed with HIV in the past two months. They found several different groups of illness appraisals including stigmatisation, concerns about dying, and threats to identity; these groups significantly differed in the levels and trajectories of depressed mood (Moskowitz, Wrubel, Hult, Maurer, & Acree, 2013). In our study, while loss of support and shock were mentioned in the acute stage, concerns about stigma and fear of dying were typically mentioned when discussing chronic depression. These findings indicate that the factors associated with acute depression due to HIV diagnosis may vary related to person, environment, and culture, and that approaches to treatment must identify and address underlying illness appraisals. Further, the extreme distress of our participants in the acute stage after diagnosis underscores the importance of linking recently diagnosed women with mental health services.

Social support and stigma were highlighted as key factors that intersected to influence onset of depression. When suffering from acute or chronic depressive symptoms, participants described experiencing multiple forms of stigma from various sources, including, family, friends, and community members. Past work has demonstrated the complex relationships between social support,



stigma, and depression. Some studies have shown that internal and perceived stigma mediate the relationship between social support and depression, while others have found social support mediates the relationship between stigma and depression (Rao et al., 2012; Vyavaharkar et al., 2010). Future studies should deepen understanding of social support, stigma, and depression by examining the nature of these relationships across various sources of support and stigma (i.e. family, friends, community).

Finally, the inconsistency between the participants' PHQ-9 scores and self-reporting of depression requires further consideration. Among our participants, some women were classified as having probable depression by the PHQ-9 but did not self-report being depressed. Of note, each of these women endorsed depressed mood, anhedonia, or both as well as at least three other symptoms on the PHQ-9. There are several potential explanations for the differences between self-identifying as depressed and PHQ-9 scores. First, the WHO definition of depression, and in particular the label of 'mental disorder', may not have resonated with these women despite the presence of symptoms consistent with a major depressive episode. Second, these women may not have perceived their depressive symptoms as leading to significant impairment in daily life or functioning, a key criterion of a depression diagnosis that is not assessed by the PHQ-9 (although a supplemental question assessing functional impairment is sometimes added). A third possibility is that the PHQ-9 may not be best suited at assessing depression in this population. Though the PHQ-9 has been used in the past in Vietnam, it has not been validated against a diagnostic standard among Vietnamese women to date. Other studies with depression scales created specifically for the Vietnamese population have found culturally-specific factors and unique somatic complaints associated with depression similar to symptoms described in our study (Dinh, Yamada, & Yee, 2009; Kinzie et al., 1982). Perhaps a different psychiatric assessment for this population that incorporated these culturally influenced descriptions of depression may not have diagnosed these women as having probable depression. Research should be conducted to test and validate tools for measuring depressive symptoms among WLWH that capture how sociocultural norms influence conceptions of depression in this setting.

### ***Methodological considerations***

Our study had several limitations to consider. The participants were recruited using purposive sampling from an ART clinic through healthcare providers. As these women had already been in contact with the healthcare system regularly, they are not representative of all WLWH, and their engagement with the medical community may have positively or negatively impacted their experiences of social support and depression. We also separated women into two groups of 'no probable depression' and 'probable depression' which did not allow for sampling over a spectrum of PHQ-9 scores. Our study did not present a true comparison of the experiences of men and WLWH because we only interviewed women. Thus, we only present the self-reported behaviour and attitudes of WLWH and their perceptions of the differences in experience among men and women in Thai Nguyen. Finally, we asked women to subjectively self-report depression, which is influenced by the rapport between the interviewer and participant, health expectations, and individual factors (Guindon & Boyle, 2012).

### ***Intervention implications***

Our findings stress the importance of implementing multi-level interventions to prevent and treat depression among WLWH. Community- and family-level HIV stigma reduction activities are needed to prevent social marginalisation for WLWH. Past multi-level stigma reduction campaigns have largely involved educational and advocacy approaches and have had mixed success in reducing stigma (Rao et al., 2019). Many of these evaluations have not found or have not looked for effects of the interventions on the mental wellbeing of PLHIV (Sengupta, Banks, Jonas, Miles, & Smith, 2011;

Stangl, Lloyd, Brady, Holland, & Baral, 2013). Perhaps, as social connection was shown to be fundamental for our participants, the most effective multi-level interventions to address stigma and depression for WLWH would be initiatives that not only facilitate the building of new bonds within the community – such as disease-specific support groups – but also serve to rebuild those bonds that have been lost, directly engaging in the repair of the torn social networks of WLWH.

In addition to these community- and family-level activities, increasing access to counselling and mental health services for WLWH is critical, particularly in the period of time immediately after diagnosis when participants said they felt most vulnerable, depressed, and suicidal. Counselling and mental health services should address women's fears about their health, future, and children, and internalised stigma and shame.

## Conclusions

Depression, which was experienced as an inability to maintain meaningful social connections to others and suicidal thoughts, was a heavy burden for WLWH in Vietnam, both immediately after diagnosis and in the long-term. Interventions to improve the mental wellbeing of these women should address loss of support, shock of diagnosis, and stigma, as they contributed to the onset and persistence of depression after HIV diagnosis. Additionally, intervening with community-level interventions that reduce HIV stigma may help repair broken social bonds and foster new ones.

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## References

- Amanor-Boadu, S., Hipolito, M. S., Rai, N., McLean, C. K., Flanagan, K., Hamilton, F. T., & Nwulia, E. A. (2016). Poor CD4 count is a predictor of untreated depression in human immunodeficiency virus-positive African-Americans. *World Journal of Psychiatry*, 6(1), 128–135. doi:10.5498/wjp.v6.i1.128
- Boggiano, V. L., Harris, L. M., & Nguyen, D. T. (2015). Building connections while conducting qualitative health fieldwork in Vietnam: Two case studies. *International Journal of Qualitative Methods*, 14(4), doi:10.1177/1609406915619249
- Catalan, J., Harding, R., Sibley, E., Clucas, C., Croome, N., & Sherr, L. (2011). HIV infection and mental health: Suicidal behaviour – systematic review. *Psychology, Health and Medicine*, 16(5), 588–611. doi:10.1080/13548506.2011.582125
- Dinh, T. Q., Yamada, A. M., & Yee, B. W. (2009). A culturally relevant conceptualization of depression: An Empirical examination of the factorial structure of the Vietnamese depression scale. *International Journal of Social Psychiatry*, 55(6), 496–505. doi:10.1177/0020764008091675
- Drummond, L. (2006). Gender in post- Doi Moi Vietnam: Women, desire, and change. *Gender, Place & Culture*, 13(3), 247–250. doi:10.1080/09663690600700998
- Elliott, A. J., Russo, J., & Roy-Byrne, P. P. (2002). The effect of changes in depression on health related quality of life (HRQoL) in HIV infection. *General Hospital Psychiatry*, 24, 43–47. doi:10.1016/s0163-8343(01)00174-8

- Guindon, G. E., & Boyle, M. H. (2012). Using anchoring vignettes to assess the comparability of self-rated feelings of sadness, lowness or depression in France and Vietnam. *International Journal of Methods in Psychiatric Research*, 21(1), 29–40. doi:10.1002/mpr.1346
- Jack, D. C. (1991). *Silencing the self: Women and depression*. Cambridge, MA: Harvard University Press.
- Jack, D., & Ali, A. (2010). *Silencing the self across cultures: Depression and gender in the social World*. Oxford: Oxford UP.
- Jordan, J. V. (1997). *A relational perspective for understanding women's development. Women's growth in diversity: More writings from the Stone Center*. New York, NY: Guilford Press.
- Kinzie, J. D., Manson, S. M., Do, V. T., Nguyen, T. T., Bui, A., & Than, P. N. (1982). Development and validation of a Vietnamese-language depression rating scale. *American Journal of Psychiatry*, 139, 1276–1281. doi:10.1176/ajp.139.10.1276
- Li, L., Lee, S.-J., Thammawijaya, P., Jiraphongsa, C., & Rotheram-Borus, M. J. (2009). Stigma, social support, and depression among people living with HIV in Thailand. *AIDS Care*, 21(8), 1007–1013. doi:10.1080/09540120802614358
- Lundberg, P. C., & Thu, T. T. (2011). Vietnamese women's cultural beliefs and practices related to the postpartum period. *Midwifery*, 27(5), 731–736. doi:10.1016/j.midw.2010.02.006
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. doi:10.1037/0033-295x.98.2.224
- Matsumoto, S., Yamaoka, K., Takahashi, K., Tanuma, J., Mizushima, D., Do, C. D., ... Oka, S. (2017). Social support as a key protective factor against depression in HIV-infected Patients: Report from large HIV clinics in Hanoi, Vietnam. *Scientific Reports*, 7, 15489. doi:10.1038/s41598-017-15768-w
- Morrison, M. F., Petitto, J. M., Have, T. T., Gettes, D. R., Chiappini, M. S., Weber, A. L., ... Evans, D. L. (2002). Depressive and anxiety disorders in women with HIV infection. *American Journal of Psychiatry*, 159(5), 789–796. doi:10.1176/appi.ajp.159.5.789
- Moskowitz, J. T., Wrubel, J., Hult, J. R., Maurer, S., & Acree, M. (2013). Illness appraisals and depression in the first year after HIV diagnosis. *PLoS One*, 8(10), e78904. doi:10.1371/journal.pone.0078904
- Murray, C., Naghavi, M., Wang, H., & Lozano, R. (2015). Global, regional, and national age sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: A systematic analysis for the global burden of disease study 2013. *The Lancet*, 385(9963), 117–171. doi:10.1016/s0140-6736(14)61682-2
- Nanni, M. G., Caruso, R., Mitchell, A. J., Meggiolaro, E., & Grassi, L. (2015). Depression in HIV infected patients: A review. *Current Psychiatry Reports*, 17, 530. doi:10.1007/s11920-014-0530-4
- Niemi, M., Kiel, S., Allebeck, P., & Hoan, L. T. (2016). Community-based intervention for depression management at the primary care level in Ha Nam Province, Vietnam: A cluster-randomised controlled trial. *Tropical Medicine & International Health*, 21(5), 654–661. doi:10.1111/tmi.12674
- Niu, L., Luo, D., Liu, Y., Silenzio, V. M. B., & Xiao, S. (2016). The mental health of people living with HIV in China, 1998–2014: A Systematic Review. *PLoS One*, 11(4), e0153489. doi:10.1371/journal.pone.0153489
- Rabkin, J. G. (2008). HIV and depression: 2008 Review and update. *Current HIV/AIDS Reports*, 5(4), 163–171. doi:10.1007/s11904-008-0025-1
- Rao, D., Chen, W. T., Pearson, C. M., Simoni, J. M., Fredriksen-Goldsen, K., Nelson, K., ... Zhang, F. (2012). Social support mediates the relationship between HIV stigma and depression/quality of life among people living with HIV in Beijing, China. *International Journal of STD & AIDS*, 23(7), 481–484. doi:10.1258/ijsa.2009.009428
- Rao, D., Elshafei, A., Nguyen, M., Hatzenbuehler, M. L., Frey, S., & Go, V. F. (2019). A systematic review of multi-level stigma interventions: State of the science and future directions. *BMC Medicine*, 17, 41. doi:10.1186/s12916-018-1244-y
- Sengupta, S., Banks, B., Jonas, D., Miles, M. S., & Smith, G. C. (2011). HIV interventions to reduce HIV/AIDS stigma: A systematic review. *AIDS and Behavior*, 15(6), 1075–1087. doi:10.1007/s10461-010-9847-0
- Serafini, G., Montebovi, F., Lamis, D. A., Erbuto, D., Girardi, P., Amore, M., & Pompili, M. (2015). Associations among depression, suicidal behavior, and quality of life in patients with human immunodeficiency virus. *World Journal of Virology*, 4(3), 303–312. doi:10.5501/wjv.v4.i3.303
- Simbayi, L. C., Kalichman, S., Strebel, A., Cloete, A., Henda, N., & Mqeketo, A. (2007). Internalized stigma, discrimination, and depression among men and women living with HIV/AIDS in Cape Town, South Africa. *Social Science & Medicine*, 64(9), 1823–1831. doi:10.1016/j.socscimed.2007.01.006
- Stangl, A. L., Lloyd, J. K., Brady, L. M., Holland, C. E., & Baral, S. (2013). A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: How far have we come? *Journal of the International AIDS Society*, 16(3), 18734. doi:10.7448/ias.16.3.18734
- Thai, T. T., Jones, M. K., Harris, L. M., Heard, R. C., Hills, N. K., & Lindan, C. P. (2018). Symptoms of depression in people living with HIV in Ho Chi Minh City, Vietnam: Prevalence and associated factors. *AIDS and Behavior*, 22(Suppl 1), 76–84. doi:10.1007/s10461-017-1946-8
- Tran, B. X., Dang, A. K., Truong, N. T., Ha, G. H., Nguyen, H. L. T., Do, H. N., ... Ho, R. C. M. (2018). Depression and quality of life among patients living with HIV/AIDS in the era of universal treatment access in Vietnam. *International Journal of Environmental Research and Public Health*, 15(12), 2888. doi:10.3390/ijerph15122888

Vyavaharkar, M., Moneyham, M., Corwin, S., Saunders, R., Annang, L., & Tavakoli, A. (2010). Relationships between stigma, social support, and depression in HIV-infected African American women living in the rural Southeastern United States. *Journal of the Association of Nurses in AIDS Care*, 21(2), 144–152. doi:10.1016/j.jana.2009.07.008

World Health Organization. (2014). Depression. Retrieved from [http://www.who.int/mental\\_health/management/depression/en/](http://www.who.int/mental_health/management/depression/en/).