"It's When the Trees Blossom": Explanatory Beliefs, Stigma, and Mental Illness in the Context of HIV in Botswana

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Abstract

Mental illness is a common comorbidity of HIV and complicates treatment. In Botswana, stigma impedes treatment of mental illness. We examined explanatory beliefs about mental illness, stigma, and interactions between HIV and mental illness among 42 adults, from HIV clinic and community settings, via thematic analysis of interviews. Respondents endorse witchcraft as a predominant causal belief, in addition to drug abuse and effects of HIV. Respondents describe mental illness as occurring "when the trees blossom," underscoring a conceptualization of it as seasonal, chronic, and often incurable and as worse than HIV. Consequently, people experiencing mental illness (PEMI) are stereotyped as dangerous, untrustworthy, and cognitively impaired and discriminated against in the workplace, relationships, and sexually, increasing vulnerability to HIV. Clinical services that address local beliefs and unique vulnerabilities of PEMI to HIV, integration with peer support and traditional healers, and rehabilitation may best address the syndemic by facilitating culturally consistent recovery-oriented care.

Keywords

explanatory models; stigma; syndemic; mental illness; Botswana; qualitative

Introduction

Botswana has one of the highest rates of HIV in the world, and the epidemic has widespread impacts on health care and society. Studies have estimated a 21.9% overall HIV prevalence rate, with rates as high as 60% in some population groups (UNAIDS, 2016). HIV and mental illness have been described as syndemic, conditions that commonly co-occur and mutually reinforce risks of each other (Singer & Clair, 2003). Global studies have revealed rates of mental illness up to 50% among people living with HIV (PLHIV; Brandt, 2009). Studies have identified poor mental health as a factor contributing to behaviors associated with transmission of the virus, including low rates of condom use, intimate partner violence, and substance use (Siemieniuk, Krentz, & Gill, 2013), yet mental illness presents a treatable comorbidity, which could potentially affect HIV outcomes among individuals and transmission within communities. Botswana has ensured nationwide access to antiretroviral therapy (ART) for affected individuals since 2002. However, the impact of ART has been limited by

patient adherence, which has correlated locally with poor mental health (Do et al., 2010).

Syndemics, such as mental illness and HIV, can be sustained both by biological processes (e.g., inflammation impairing neuropsychiatric function) and by social processes (Singer & Clair, 2003). Social processes, such as stigma, can perpetuate a syndemic because stigma

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experienced as a result of one medical condition can predispose an individual to hostile social conditions that increase the risk of developing additional conditions. Stigma limits effective care of both HIV and mental illness and has been associated with poor quality of life, stress, interference with recovery, and shorter life span (Pescosolido, Martin, Lang, & Olafsdottir, 2008).

Stigma has been described as a "cultural disease," rooted in local values and power dynamics; thus, interventions to mitigate its effects must vary across countries, conditions, and cultures (Keusch, Wilentz, & Kleinman, 2006). A review of over 100 studies assessing mental health stigma identified a lack of cultural specific approaches to stigma in the global literature and vast underrepresentation of studies from Africa (Link, Yang, Phelan, & Collins, 2004).

A limited literature describing beliefs about mental illness and associated stigma in Southern Africa has described negative stereotypes of people experiencing mental illness (PEMI), including dangerousness (Kapungwe et al., 2010) and perceptions that PEMI make minimal contributions to the community (Mayeya et al., 2004), despite these societies' strong communalist values (Jensen & Gaie, 2011; Sabone, 2009). Studies have identified unique causal beliefs for mental illness including witchcraft (Egbe et al., 2014; Kapungwe et al., 2010; Mayeya et al., 2004; Mbanga et al., 2002) and possession by ancestors (Kapungwe et al., 2010; Sabone, 2009). However, more universal causal beliefs of mental illness such as stress, relationship problems (Hugo, Boshoff, Traut, Zungu-Dirwayi, & Stein, 2003), and drug abuse (Kapungwe et al., 2010) have also been commonly cited as causes of mental illness by African respondents. This limited literature has scarcely addressed the role of mental illness stigma with respect to HIV risk, despite the infection's extraordinary prevalence and impact in the region.

In recent decades, increased attention has been given to improving access to evidence-based mental health services around the world, particularly, in populations with a high HIV burden (Becker & Kleinman, 2013; Patel et al., 2011; Prince et al., 2007). However, given the marginalization PLHIV already experience, qualitative investigations to better understand community perceptions of and reactions to mental illness are critical to effectively scale up evidence-based mental health services and integrate such services with HIV care. As stigma varies across cultures, delineation of the culture-specific mechanics of stigma is a prerequisite to effectively addressing stigma. As stigma is embedded in cultural beliefs, characterization of local conceptual models of mental illness can provide a rich basis for understanding fundamental roots of stigma processes. Given high rates of mental illness and HIV comorbidity in Botswana (Opondo et al., 2018), we were particularly interested in how the stigma to mental illness in Botswana influences HIV-related vulnerabilities. Secondarily, the presence of parallel traditional and western healing systems create a variety of options for mental health care that are not yet particularly well understood (Sabone, 2009). Therefore, investigation of explanatory beliefs and related stigma could inform mental health services planning.

Research Questions

This study considered three main research questions:

> **Research Question 1:** What are local explanatory models of mental illness—what are believed to be the causes, typical signs and symptoms, typical course of illness, and effectiveness of treatment? How do explanations of mental illness compare with those of HIV?
> **Research Question 2:** What are the characteristics of stigma to mental illness in Botswana—what labels, stereotypes, and discrimination affect PEMI? How does stigma affect the ability of PEMI to fulfill social roles in the local context?
> **Research Question 3:** What beliefs are expressed about how the experience of mental illness affects vulnerability to contracting HIV and vice versa?

Although these three questions address three discrete aims, they are inextricably linked as stigma and discrimination are embedded in cultural beliefs about illness.

Conceptual Guideposts

Kleinman's (1980) explanatory model (EM) framework provides a means to understand how illnesses are understood in different contexts, including beliefs about why an illness begins, how it affects someone, how it may progress, and how it may be treated. Discrepancies between the views of patients and clinicians can impede effective care (Kleinman, Eisenberg, & Good, 1978) and different EMs (e.g., whether a disease is caused by genetics or a curse) have been found to relate to type and extent of stigma (Carter, Read, Pyle, & Morrison, 2017; Charles, Manoranjitham, & Jacob, 2007). Therefore, by characterizing indigenous conceptualizations of illness etiology, course, and treatment and by investigating how they relate to stigma-related labeling and stereotypes, culturally specific underpinnings of stigma can be identified. Secondarily, EMs may help inform understanding of health-related behaviors. The EM framework can help clinicians to elicit patients' viewpoints and tailor care to what matters most in the context of their lives (Kleinman & Benson, 2006). EMs have also been useful in understanding variations in care-seeking behaviors within underserved groups (e.g., Ying, 1990) and in clarifying

factors influencing patient satisfaction and quality of patient–clinician relationships across ethnic groups in multicultural settings (McCabe & Priebe, 2004).

Bolstering our examination of stigma concepts, Link and Phelan's (2001) conceptualization of stigma provides a useful framework that integrates psychological and social processes to more completely describe how stigma influences affected individuals. In Link and Phelan's model, a person is labeled as different, via formal diagnosis or display of symptoms, and then these labels are cognitively linked to negative stereotypes embedded in cultural beliefs. The affected individuals subsequently experience status loss and discrimination, which can result in poor outcomes, related to preexisting social, economic, and political power dynamics.

Method

Setting

Gaborone (population ~200,000) is the capital and largest city in Botswana, a land-locked middle-income country in Southern Africa (total population ~2 million). Citizens of Botswana are referred to as "Motswana" (singular) and "Batswana" (plural), and the national language is Setswana. Since 2002, Botswana has ensured fully government-funded ART for people with HIV, provided by nursing and paraprofessional teams in more than 500 villages throughout the country.

Botswana's entire population is served by one psychiatric hospital, located in Lobatse, in the southern part of the country, with only 7.1 acute psychiatric hospital beds, and 0.29 psychiatrists per 100,000 people (Seloilwe & Thupayagale-Tshweneagae, 2007; World Health Organization [WHO], 2015). In addition, psychiatric clinics attached to 13 general hospitals and district health units are staffed by psychiatric nurses who provide patient education and treatment. Since the 1970s, attempts to integrate mental health care into primary care have been viewed as having limited efficacy. Thus, the provision of mental health care has remained predominantly institution-based, rather than community-based, with limited funding and high relapse rates (Seloilwe & Thupayagale-Tshweneagae, 2007). A system of traditional healers exists in parallel with the Western medical system and is also frequently consulted for mental illness.

Data Collection

Data for this article focus on responses referring to mental illness from a larger study designed to describe culture-specific aspects of stigma to HIV and mental illness in Botswana. We conducted in-depth interviews in Gaborone from June 12-29, 2017. Semistructured in-depth interview guides were derived from previous studies using Link's Devaluation–Discrimination stigma framework (Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). Bilingual (English and Setswana) and English-speaking members of the research team facilitated interviews, all lasting 60-90 min, with assistance from a Setswana-speaking translator.

Adult HIV-seropositive respondents were recruited from a public clinic in Gaborone that provides ART at no cost to patients. A second group of respondents, whose HIV statuses were not elicited, were recruited from a public shopping area and a local community center. The purpose for the bifold population sampling was to derive perspectives from patients embedded in long-term biomedical care as well as those who likely had less experience with medical care. We attempted to balance participants by gender. Due to time constraints, five of the interviews did not reach the mental illness items in the interview guide. These transcripts were thus excluded from the present analysis, resulting in 42 total transcripts. Participants' (n = 42) ages ranged from 21 to 70 years. Table 1 summarizes participant characteristics.

Interviewers explained the study's purpose and methods to participants and obtained written and verbal informed consent that was approved by the ethics committee of the Botswana Ministry of Health and Wellness (PMH 5/79 282-1-2017), and the Institutional Review Boards of the University of Botswana (UBR/RES/IRB/GRAD/1617) and the University of Pennsylvania (823407). Interviewers met with participants in private meeting rooms in the hospital and community center. Participants were first presented with a set of statements about perceptions of discriminatory behaviors toward PLHIV in their communities. They were then asked a separate but similar set of questions about PEMI, which were the focus of these analyses. The interviews concluded with a few items inquiring about whether HIV or mental illness was considered "worse to have" and perceived interactions between the two conditions. Interviewers were trained to probe related topics raised by respondents, particularly, responses suggesting what was important to personhood as a man or woman in Botswana. All interviews were audiotaped. At the end of the interview, participants were compensated 50 BWP (US$5) for their time.

Analytic Strategy

Setswana transcripts were translated into English and transcribed from the recordings by a bilingual Motswana translator. A bilingual member of the research team compared audio recordings with transcripts to verify thorough and accurate translation and transcription, with a few early transcripts being retranscribed to capture

Table 1. Participant Demographics.

Variable	ID Clinic	Community	Total
Participants	21	21	42
Men	10	12	22
Women	11	9	20
Age (*M, SD*)	45, 8.0	32, 10.8	38.8, 11.4
Older than 34 years	18	6	24
Younger than 35 years	3	13	16
Missing	0	2	2
Education			
Greater than Form 1	11	16	27
Less than Form 1	8	1	9
Missing	2	4	6
Employed	7	7	14
Self-employed	3	1	4
Temporary employment	3	2	5
Unemployed	6	8	14
Missing	2	3	5
Married	3	1	4
Partnered[a]	10	7	17
Widowed	1	0	1
Single	6	11	17
Missing	1	2	3
Christian	16	7	23
Other	2	2	4
None	2	10	12
Missing	1	2	3
Number of Children (Mean, *SD*)	1.9, 1.3	1.7, 1.1	1.8, 1.2
No children	3	3	6
Missing	1	2	3

[a]"Partnered" refers to individuals who are not officially married but are in a long-term relationship, which may involve children or cohabitation.

appropriate level of detail. To gain initial familiarity with the data, transcripts were read by team members, and then an initial set of codes were developed by open thematic analysis (Braun & Clarke, 2006). Members of the research team met six times early in the coding process to agree upon and refine a coding protocol, compare readings of the data, and identify emerging themes, through inductive thematic analysis (Braun & Clarke, 2006). Eventually, a coding protocol consisting of five main codes and 69 subcodes was agreed upon by consensus and continual discussion and applied to remaining transcripts. Coding and intercoder agreement calculations were facilitated by NVivo 11, a qualitative research software package for textual analysis. The first 10 transcripts were double coded. Disagreements were resolved via consensus with postdiscussion Kappa achieving a high rate of agreement, with Kappa ranging from 0.77 to 0.93. Once this acceptable level of agreement was achieved, a single coder proceeded to code all remaining transcripts with second coders coding a random selection of 20% of remaining transcripts to ensure continued codebook reliability, resulting in Kappa ranging from 0.59 to 0.74.

The second phase of analysis involved reorganizing the first level codes into the components of the EM and Link & Phelan stigma frameworks and rereading the data to look for connections between different components. Several authors continually discussed the relationships in the data determined in this second phase of analysis. In particular, coauthors who grew up in Setswana culture or have worked extensively in local mental health and the study's translator were relied upon to determine appropriate interpretation of data expressing local terms and culturally specific ideas. Finally, NVivo was used to compare data between the clinic and community respondents for selected codes.

Establishment of Rigor

The methods outlined above were implemented to ensure trustworthiness of the scientific data. Accuracy of data was established by sampling a diverse and sufficiently large group of respondents and by comparing findings to prior literature. Accuracy of analysis was determined by double coding the data and checking interpretation of passages, particularly, in verifying indigenous terms of "mental illness," with team members embedded in Setswana culture. Credibility was established by reporting beliefs that were repeated by more than one respondent and by reporting the number of respondents who held various beliefs as supporting evidence for illustrative quotations.

Results

Results are organized into three sections. The first section addresses our first question, by describing local EMs of mental illness, including beliefs about etiology, natural course of illness, and treatment. The second section addresses the second question, by describing characteristics of stigma in Botswana, including the processes of labeling, stereotyping, and discrimination. The final section addresses our third question by describing interactions between mental illness and HIV, including beliefs about how each condition can increase risks of the other and comparisons about which condition is less socially desirable in Botswana.

Research Question 1: Explanatory Model of Mental Illness

Etiology of mental illness. Respondents offered a range of explanations for why mental illness occurs including witchcraft, drug abuse, and wishes of the ancestors. Mental illness, substance use, and suicide following HIV diagnoses were also frequently described and are presented in the "Mental illness after HIV" section below. Less frequently offered explanations included mental illness can "just happen" for unidentifiable reasons ($n = 5$), psychological trauma ($n = 4$), brain injuries ($n = 4$), stress ($n = 4$), and genetic inheritance ($n = 3$).

Witchcraft. Witchcraft was commonly cited as a local causal belief for mental illness by a majority ($n = 30$) of respondents. There were no substantial differences between the HIV clinic respondents' and community respondents' views of witchcraft, with substantial portions of both groups endorsing it as a commonly held explanation for mental illness. Some respondents qualified that although their community related mental illness to witchcraft, they *personally* did not believe witchcraft causes mental illness ("Most people believe it is witchcraft, but I know it is just a disease"). Within witchcraft, two divergent themes emerged. The first theme, social transgression-associated, was mentioned by 14 respondents (9 men, 5 women) who stated that a person could be bewitched as a result of transgressions, including theft, trespassing, and extramarital affairs. Some respondents stated this occurred when property, such as a bed used for an affair, was "traditionally protected" by *muti* (traditional medicine). This transgression-associated witchcraft was associated with strong culpability for the mental illness:

> Though not always so, most people think having mental illness is a result of witchcraft. Batswana believe that a person with mental illness must have stolen from someone, was deviant or something. (Female, community)

> Our grandfathers, they use this witchcraft to take care of their cattle, the *kraal*, where they put cattle. So when a stranger from another village, come steal their cows, aha, before they finish eating the meat, they are mentally disturbed. (Female, clinic)

The second theme, jealousy, was reported by nine respondents (7 men, 2 women) who stated that a successful person could be bewitched by someone who envied their education, career, or wealth. Unlike transgression-associated witchcraft, witchcraft attributed to success was said to be less prone to social condemnation:

> Ah, they will say they have been bewitched because he brings money into the family, has been bewitched because he is rich and he drives different cars, he is bewitched because he is well read! (Female, community)

In contrast, only one respondent personally endorsed witchcraft as a cause of HIV, with a minority ($n = 10$) stating that some people in their community held this belief. Respondents from the HIV clinic group definitively rejected witchcraft as an explanation for HIV, but suggested that beliefs in witchcraft were held by others who had not accepted their HIV status ("Those who have not accepted their status associate HIV to witchcraft and do not access medical services"). In addition, one respondent suggested that presentations of HIV with neuropsychiatric symptoms were more likely to be labeled as witchcraft:

> A person may have been bewitched because, sometimes before a person get tested, there are times when the virus disturbs your mind, they will then not take them to the doctors instead they will take them to the *sangomas* (traditional healers). (Male, clinic)

Drug abuse. In total, 12 respondents (7 men, 5 women) stated that mental illness was caused by drug abuse, with *ganja* (marijuana) specifically mentioned. Drug abuse seemed to be more associated with a disease model than other causes, described as "sick due to drugs" and "brain damage":

> Some would go overseas and get mental illness due to drug abuse. (Female, clinic)

> R: At times it (mental illness) could be due to alcohol and drug abuse, I: They could have had an overdose? R: Yes, and they end up damaging their brain. (Male, clinic)

Drug abuse as the cause is related to blame and loss of social status:

> If people know you did something that you can be blamed for, like drug abuse despite being warned against it, that could cause your reputation to be damaged. (Male, clinic)

The wishes of the ancestors. Several respondents ($n = 9$) described a traditional belief that mental illness develops when one ignores a call from the ancestors to devote oneself to becoming a traditional healer:

> There is this thing where maybe there was a traditional healer in your family, and maybe that traditional healer passes away, someone in the family has to replace that person, and usually it's a calling, so when you don't answer to that calling, they are saying that is when you can go mad. (Male, community)

However, the vast majority of respondents denied that mental illness was due to disobeying the wishes of the ancestors (14 of 25 who responded to the question), stating that only a minority of people in their community held this causal belief.

Prognosis and treatment of mental illness

Chronicity and seasonality. Many respondents (*n* = 15) described mental illness as a chronic and incurable condition, prone to lifelong relapses of symptoms:

> Yes, . . . they believe the condition is still there. People do not believe in complete treatment of mental illness, they believe it is always there. (Male, community)

A few respondents (*n* = 3) described mental illness as being understood locally as occurring "when the trees blossom," indicating an interminable, cyclical, relapsing and remitting conceptualization of mental illness:

> Having mental illness . . . there are times when the trees blossom and that is when the mental situation really changes. (Male, clinic)

> This illness is commonly associated with blossoming of trees, no one is ever completely healed even when they are on medication, it is an on-and-off disease not like the one we have [HIV]. (Female, clinic)

Treatability and capacity for recovery. Respondents had mixed opinions about the prognosis of mental illness; several (*n* = 6) stated that it was incurable, whereas several others (*n* = 7) suggested it could be healed. Nearly, all of the respondents who suggested mental illness could be healed (*n* = 6) were from the HIV clinic group. A few respondents (*n* = 5) noted that, in some cases, mental illness could be improved with (Western) medications but expressed concerns that the available medications were only partially effective. One respondent described an episode of mental illness being cured by traditional healers:

> Some would become naked and some will respond well to medication. (Male, clinic)

> Mental Illness, is more challenging because even when taking medication there are high chances of a relapse, unlike HIV where you get ARV treatment and could live longer. (Female, community)

> When you have mental illness, even when you get treatment, there will always be issues with the memory. (Female, community)

One respondent attributed the poor prognosis of mental illness to low treatment adherence:

> They [patients with HIV] will recover. I: But the one with mental illness . . . ? R: Yes, they can get medication and just put it there and not take it. Then there won't be any improvement. (Male, community)

A few respondents (*n* = 5) cited psychiatric hospitalization as being responsible for noticeable improvement in symptoms ("People who have been to a mental hospital come out better and less violent"). However, two respondents noted that patients could deteriorate after returning home from the hospital:

> We only have a mental hospital in Lobatse where people are treated and when they are discharged they come back to these families, and when they have these episodes the families find them dangerous as they are aggressive and it becomes overwhelming to the families. (Female, clinic)

The generally negative views toward the prognosis of mental illness contrasted with generally optimistic views about the prognosis of HIV:

> Currently a person living with HIV is better because he/she is not ill. This person can even prosper in life, they even get more knowledgeable on HIV issues with time because the mind will not be affected. They lead a normal life, as long as they adhere to the lifelong treatment. You are even able to advise your children on how to avoid infection. (Male, clinic)

Research Question 2: Mental Illness Stigma

Labeling of PEMI. Respondents were asked questions about "*bolwetsi jwa thaloganyo*," which translates to English as "mental illness." Although this neutral term indicating "mental illness" was used in queries about stigma, respondents most commonly responded using the more colloquial term "*setsano*," which roughly translates to "a person who is mad" and is used to describe various kinds of behavior that deviate from societal norms. Other labels, including "*difaendi*," a slang term for mental illness associated with shame and "*ba haphegile*" meaning "different," were used to justify discriminating against PEMI. Labels used in the Setswana language thus coalesced around describing a mental problem that indicated erratic or deviant behavior.

Stereotyping of PEMI. People with mental illness were commonly characterized as dangerous (*n* = 40), cognitively impaired (*n* = 18), unpredictable (*n* = 13), not trustworthy (*n* = 11), sick (*n* = 9), and unkempt (e.g., naked or improperly dressed; *n* = 8). Less commonly, they were also described as begging for resources (*n* = 2), hungry/feeding in scorned ways (*n* = 6), destructive or disruptive (*n* = 6), unhygienic (*n* = 3), idle/loitering/wandering (*n* = 5), uncontrollable (*n* = 2), vulgar or insulting (*n* = 4), and having unusual sleep patterns (*n* = 2).

Dangerous. A majority of respondents viewed PEMI as dangerous to others and themselves. However, some noted that dangerousness varies across individuals, with some PEMI being calm:

These people are very unpredictable and can be very dangerous, to the fact that they can even murder, they can murder someone. These people most of the time they are being taken to Lobatse [psychiatric hospital]. (Male, community)

Some respondents noted that dangerousness among PEMI is provoked (e.g., when others belittle them) and depends on how others in the community treat them. The stereotype of dangerousness was associated with workplace and marriage discrimination.

Cognitively impaired. PEMI were commonly described as cognitively impaired, unaware of their surroundings, unable to complete daily tasks, and unable to protect themselves from HIV ("Because, you have mental illness, you don't have any idea what is happening around you. You are just like a little kid.").

Perceived cognitive limitations led respondents to suggest that PEMI were not seen as suitable for marriage, had limited work opportunities, and were susceptible to being taken advantage of sexually.

Not trustworthy. A few respondents said PEMI *could* be trusted like others *if* they appeared healed. However, most respondents felt PEMI could not be trusted because they were likely to relapse and become threatening or disruptive. Lack of perceived trustworthiness, due in part to explanatory beliefs regarding chronicity and poor treatability, was described as negatively affecting work opportunities, friendships, and marriage opportunities:

> Having been a patient at a mental institution is like being an ex-convict from prison, you will never be trusted, you are seen to be always unpredictable. (Male, clinic)

Unkempt presentation. Eight female respondents described PEMI as prone to nakedness, and three others commented on poor hygiene of PEMI. These characteristics are described by several respondents as having a negative impact on the person's status and indicative of severe mental illness:

> They can maybe respect this one with HIV cause those ones are always clean, but those ones who are mad, can go the whole month, barefooted, dirty, no bathing, taking food from the dustbins, which is no good. (Female, clinic)

Behaviors and discrimination toward PEMI

Workplace discrimination. The majority of respondents ($n = 30$) stated that mental illness would have a negative impact on a person's ability to work. Many respondents stated that PEMI would not be hired, even if they were qualified for the job, because they would be thought likely to have a relapse and could therefore become disruptive in the workplace, again showing how beliefs about chronicity and symptom control result in discriminatory social consequences. Other respondents noted that PEMI whose symptoms were under control or who presented medical records attesting to their recovery could find employment. Some stated that PEMI would be hired but only by certain employers, such as Ipelegeng Projects (government-funded job creation programs) or would be limited to simpler jobs that would be safer and help prevent relapse:

> Sometimes if he/she was operating a machine, they end removing him/her from operating the machine . . . They may give him/her a simple job. (Male, community)

One respondent noted that her employer altered the pay structure to try to prevent the employee from exacerbating his mental illness:

> At Ipelegeng where l work, there is one who is mentally ill, just recently he got sick and they felt he should not be engaged, rather they have resorted to giving him food coupons instead of cash after realizing that when he gets cash, he buys alcohol which they assume worsens his mental illness. (Female, clinic)

Marriage discrimination. A majority of respondents ($n = 24$) noted that people who have had mental illness could not or would rarely be married. Again, the belief that mental illness was incurable and the person was prone to relapse was the most commonly cited reason. Others expressed concern about the ability of PEMI to fulfill their roles as caregivers in their families, due to cognitive limitations, or the impact of the stigma to mental illness on their spouses:

> [She] will have a relapse. And again, marriage is a "home," a home is "bearing children," a home is "taking care," these innocent people, live on their own spirit—she can't iron, she can't cook and do laundry for the children . . . (Female, clinic)

In contrast, 12 respondents said mental illness had no effect on one's ability to get married, particularly, if symptoms resolved, as the mental illness could then be ascribed to stress. One person noted that men would marry a woman with a history of mental illness, but women would rarely marry such a man because of perceptions that men are less likely heal than women. A few respondents noted that a man's ability to be married depended on his financial resources more than his mental illness history:

> After, when he is okay, when he is from Lobatse, he is okay. I think if the guy has got cows, he can go pay "*lobola*" [bride price], he will marry. (Female, clinic)

Women, as you know, they never accept a man who has disabilities, except only when they know that the man is a lecturer, or this man is a lecturer, if he gets sick l could get some benefits. They rely on benefits. (Male, community)

A couple of respondents noted that a woman's ability to be married depended on her ability to maintain the household:

Yes, l believe a woman is still a woman for as long as she has recovered and able to carry out the household chores. (Female, community)

Research Question 3: Interaction Between HIV and Mental Illness

Susceptibility of PEMI to HIV. In total, 10 respondents (7 men, 3 women) suggested that PEMI are at elevated risk of contracting HIV because they are vulnerable to being used by others for sex:

Yes, especially ladies who are mentally disturbed, you find that men they just abuse them sexually without using protection or condoms. (Male, community)

Most of these respondents ($n = 7$) suggested that women are particularly vulnerable compared with men, although one respondent also noted that men with mental illness were also at risk of sexual exploitation by older women. This concern was expressed in similar numbers by respondents from the HIV clinic ($n = 6$) and the community ($n = 4$).

A total of 11 respondents (6 men, 5 women) believed that PEMI were at elevated risk of contracting HIV due to cognitive impairments that limit their ability to understand and implement HIV harm reduction approaches:

They are not able to take care of themselves and take precautionary measures against infection like a normal person would. (Male, clinic)

Yes, they are because they wouldn't know if they are having protected or unprotected sex. (Male, community)

Mental illness after HIV. In total, 12 respondents (8 men, 4 women) gave examples of mental illness, suicide, or substance abuse among PLHIV. Respondents reported that PEMI sometimes experience mental distress in response to gossip about their having HIV and difficulty accepting the diagnosis, with five respondents describing gossip as sometimes leading to suicide and another attributing it to "get[ting] depressed":

I: How does gossip affect PLHIV? R: They would have low self-esteem, lose hope, feel less important in the society, even go to the extent of committing suicide because they don't feel worthy. (Male, community)

Three respondents described people developing symptoms of mental illness after HIV:

He ended up mentally disturbed as we speak. He is a mental patient on AIDS treatment. He is now mentally ill. (Male, clinic)

Several respondents noted alcohol abuse by PLHIV, noting that it often impeded treatment.

View that mental illness is "worse to have" than HIV. Many respondents (35 of 37 who were asked the question) stated that HIV is better to have than mental illness because HIV has effective and accessible treatment, whereas mental illness is highly susceptible to relapse, perceived cognitive impairment, dangerousness, and other functional impairments, such as not being able to work or poor hygiene, which threaten social standing:

It's only that mentally ill people, l don't understand them, whether they can be cured or what because it depends on the season, sometimes they are okay, sometimes they are not okay. I don't know [if medication for mental illness is available in the community], but HIV treatment, it is all over. Many people they know it. (Male, community)

Mental Illness is worse, because your reputation is affected. If you lose a job, you are not able to carry out your normal household chores, but you could lead a normal life even with HIV if you adhere to treatment. (Male, community)

Only two respondents believed it was preferable to have mental illness rather than HIV. One community respondent stated that mental illness was better because it was not a contagious threat to the rest of the community. An HIV clinic respondent stated that mental illness was better because it did not require the strict medication adherence that HIV requires.

Discussion

We investigated causal beliefs about mental illness, perceptions of people with mental illness, and interactions between mental illness stigma and HIV among adults in Botswana. Respondents describe a local EM (Research Question 1) in which mental illness is thought to be chronic and incurable, described locally as occurring "when the trees blossom," with mixed beliefs about efficacy and availability of treatment. Respondents predominantly attribute mental illness to witchcraft, which one can become victim to by social transgression or jealousy of one's social success. Mental illness is additionally attributed to drug abuse and effects of HIV but rarely to the wishes of the ancestors. In the context of this local explanatory framework, elements of stigma including

labeling, stereotyping, and discrimination were observed (Research Question 2). Setswana labels indicating "mental illness" signified having a mental problem that manifested in bizarre and deviant behaviors, many of which were reminiscent of psychosis in Western contexts. Although the terms psychosis or schizophrenia were not explicitly used by respondents, many respondents' use of *setsano* suggested that "mental illness" in Botswana is commonly understood as a single entity analogous to "madness" (Seloilwe & Thupayagale-Tshweneagae, 2007). In turn, PEMI were widely stereotyped as dangerous, cognitively impaired, and not trustworthy. As a result, respondents perceive that PEMI suffer from discrimination in work and marriage. Finally, PEMI are viewed as being at elevated risk of contracting HIV due to sexual exploitation and cognitive impairment, and HIV is seen as a possible precipitant of poor mental health, suicide, and substance use (Research Question 3).

Theoretical Implications

Explanatory beliefs have implications for both care-seeking behaviors and stigma. Prior studies of witchcraft and other traditional beliefs in Botswana found a distinction between "Tswana diseases" and "European diseases" (Haram, 1991; Steen & Mazonde, 1999). "Tswana diseases" were thought to be culturally specific to Botswana and therefore not believed to be comprehensible to Western medicine. Diseases considered "difficult" were more likely to be considered "Tswana" diseases and deemed to require traditional healing (Haram, 1991). Similar dichotomization of illness has been reported in other African countries (Okello & Neema, 2007). However, when symptoms were deemed treatable, such as for tuberculosis and leprosy, Western medicine might be sought to treat symptoms, in parallel with traditional medicine, to address what was believed to be the underlying cause (e.g., witchcraft; Kumaresan & Maganu, 1994; Steen & Mazonde, 1999). Beliefs in traditional causes of illness have been noted to have decreased over time in Botswana (Steen & Mazonde, 1999); however, our data show these beliefs still predominate to explain mental illness, likely considered a "difficult" Tswana disease. Unlike leprosy, tuberculosis, or HIV, hopes that Western medicine can control symptoms of mental illness seem guarded. Interestingly, respondents from the HIV clinic group were more likely to suggest that mental illness could be healed, a result in concert with the theory that contact with medical care transforms individuals' understandings of their health conditions (Angel & Thoits, 1987). Although a small sample, this raises the question whether significant experience with Western health care for one condition (e.g., HIV) may influence perceptions of biomedical care for mental illness as well, through assimilation to a culture of biomedicine.

In the Link and Phelan's (2001) framework, stereotypes and discrimination flow from the labeling of difference. Link and Phelan suggest that stereotypes are mediated by culture but do not address in depth how culture intersects with the cognitive and behavioral domains of stigma. Other theorists contend that illness labeling, however, is inseparable from culture, which defines what is "abnormal" (Angel & Thoits, 1987). For example, one culture may ascribe hallucinations to a divine gift and value the affected individual, whereas another may relate the same symptoms to wrongdoing. As a result, culture positively or negatively influences stigma through labeling as indigenous terms for mental illness may convey harmful or protective social effects by eliciting deeply held cultural scripts (Yang et al., 2010). In the present study, mental illness was most commonly labeled "*botseno*," a severe term denoting madness, as well as "*ba haphegile*" denoting uniqueness, resulting in discrimination. The culturally rich EM framework and cognitively and behaviorally useful Link and Phelan framework can be seen to intersect with one another to better understand the precipitants of discrimination, by considering how cultural *beliefs about illness*, via indigenous labels, contribute to the *stereotypes about people* with illness within a particular cultural context.

In our study, labeling of PEMI as "*botseno*" was linked to widespread beliefs that such a condition is caused by witchcraft and is chronic and incurable ("when the trees blossom"), which underlies many of the pejorative stereotypes and discrimination faced by PEMI. Furthermore, witchcraft, in most cases, was associated with blame and culpability (e.g., one becomes bewitched for social transgressions). The stereotype of the condition as chronic and incurable clearly brings about other stereotypes, of dangerousness and lack of trustworthiness, which were used to justify discriminatory behaviors in the workplace, marriage, and other spheres. As noted above, cultural beliefs are influenced by contact with other cultures, such as biomedicine, and although EMs for other illnesses, such as HIV and tuberculosis, may have moved away from witchcraft in recent decades, mental illness may still be strongly related to traditional beliefs due in part to the limited scope of biomedical mental health treatments available.

Finally, a significant literature has established HIV, mental illness, and substance use as a "syndemic" of commonly co-occurring conditions reinforced by deleterious social conditions in the United States (Singer & Clair, 2003). Evidence suggests that a syndemic of mental illness and HIV in southern Africa has developed (Bernard, Dabis, & De Rekeneire, 2017), but the particular nature of the social conditions reinforcing the syndemic are not yet well established. Our study provides preliminary evidence how stigma and stereotypes linked

to mental illness may predispose PEMI to increased HIV risk, through direct means, such as sexual abuse, and less direct means, such as predisposing PEMI to discrimination and unemployment, which have previously been associated with increased HIV risk in southern Africa (Kalichman et al., 2006). Furthermore, stereotypes of PEMI seem to be reinforced, in part, by structural discrimination against PEMI, in the form of limited investment in mental health resulting in few treatment options.

Implication of Causal Beliefs on Clinical Practice

The results suggest several intriguing community beliefs about mental illness that, if addressed with patients and families, could improve engagement in care, attitudes about recovery, and subsequent outcomes (Carter et al., 2017). The local view that mental illness occurs "when the trees blossom" can be a starting point for conversations. On one hand, this belief represents a seemingly futile view of mental illness, that it is bound to relapse and recurs despite treatment. Concern about relapse was associated with social harm, as it was cited as justification for workplace and marriage discrimination. Although some conditions can persist throughout life and thus benefit from lifelong treatment, other common conditions, such as PTSD, while sometimes chronic, can other times result in full recovery (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). Even large proportions of patients with schizophrenia experience significant symptomatic and functional recovery (Lally et al., 2017; Warner, 2009). Therefore, psychoeducation that emphasizes the heterogeneity of mental illness could help distinguish an individual patient's condition from the local label of mental illness that is broadly applied and associated with negative attitudes, to promote recovery-oriented behaviors (Seloilwe & Thupayagale-Tshweneagae, 2007). Specifically, clinicans can discuss with patients to what extent "when the trees blossom" applies, in order to facilitate appropriate views about future treatment needs.

Given such widespread beliefs that mental illness is a result of witchcraft, it is important that these beliefs be addressed with patients, but not necessarily directly challenged. The historical legacies of missionaries and colonialism have resulted in tensions between indigenous and Western healers that could be exacerbated by rejection of traditional beliefs (Sabone, 2009). Although witchcraft-centric explanations for HIV were associated with high levels of discrimination and stigma in southern Africa, which were found to be significantly reduced following adoption of biomedical treatment (Kalichman & Simbayi, 2004; Wolfe et al., 2008), numerous studies in Western settings have found mixed results about the impact of biogenic explanations on mental illness stigma. At their worst, "mental illness is an illness like any other" models increase perceptions that people with mental illness are dangerous, and mental illness labels have been found to increase stigma among family members (Kvaale, Haslam, & Gottdiener, 2013; Yang & Singla, 2011). Belief in witchcraft has been associated with seeking care from traditional healers in South Africa, which may delay effective biomedical treatment (Burns, Jhazbhay, & Emsley, 2011; Burns & Tomita, 2015).

Although promoting biomedical causal beliefs may lead to unintended stigmatizing effects, promoting access to biomedical treatment could have a significant positive impact on people's lives. Community-based mental health treatment in Botswana is scarce. Although *some* therapies of traditional healers may be effective in reducing symptoms (Raguram, 2002), such care has been associated with lengthening delays to biomedical evaluation and treatment of psychosis and more severe negative symptoms at initial presentation (Burns et al., 2011). A large body of evidence supports that early treatment of psychosis can improve function and reduce relapses, thus decreasing the duration of untreated psychosis has become an explicit focus of psychosis intervention programs worldwide (Goff et al., 2017). In parallel, access to quality biomedical care that reduces signs and symptoms of disease has been associated with profound reductions in stigma to HIV/AIDS (Castro & Farmer, 2005) and epilepsy (Kleinman et al., 1995) and positively transformed the lived experience of patients who, prior to availability of effective biomedical care, suffered debilitating discrimination and low quality of life.

Ultimately, outcomes may be improved if clinicians seek to understand patients' causal beliefs and integrate these views with their biomedical treatment to enhance therapeutic alliances and treatment engagement (Dixon, Holoshitz, & Nossel, 2016). Stigma in care settings has been found to be mitigated when treatment aligns with explanatory beliefs (Sercu & Bracke, 2017). Peer support and traditional healers could be utilized to facilitate treatment engagement. Peer-delivered services in early treatment of mental illness have been associated with greater engagement than traditional case management in the United States and may prove particularly effective in a setting with skepticism about biomedical treatment (Dixon et al., 2016). Peer support models are well understood in the local health system as they became a critical part of HIV treatment in the region (Mwai et al., 2013). In addition, traditional healers have been found effective partners to biomedical HIV/AIDS efforts in southern Africa—willing to learn how to counsel patients about biomedical options while also using their cultural expertise and traditional practices to respond holistically to traditional beliefs (King & Homsy, 1997). Given the widespread nature of traditional beliefs about mental

illness in this study and the scarcity of trained biomedical mental health professionals, partnerships between traditional healers and biomedicine may be the most effective way to extend a community mental health infrastructure. However, a recent study across multiple African countries identified distrust and perceptions of superiority as significant factors limiting such collaboration and suggested government recognition and mutual acceptance of responsibility for patients as pathways toward better collaboration (van der Watt et al., 2017).

Implications for Integrated HIV and Mental Health Care

Respondents revealed a concerning perception that PEMI are at increased risk of contracting HIV due to sexual exploitation. The stereotype of cognitive impairment among PEMI seems to lead to discriminatory sexual abuse, which results in increased HIV risk. These findings are consistent with recent local epidemiologic data, which showed that women admitted to an inpatient psychiatric unit were twice as likely to be infected with HIV (53%) as the general population (Opondo et al., 2018). The perceived sexual exploitation of PEMI in a context of structural discrimination against PEMI, in the form of limited mental health care, underscores the need to expand mental health services to address the HIV–mental illness syndemic.

The unique risks for HIV contraction among PEMI present an opportunity for sexual health promotion efforts in the mental health setting. Interventions such as safety planning and role-playing, used to prevent sexual violence against women with intellectual disabilities, have had promising results (Barger, Wacker, Macy, & Parish, 2009). Interventions focusing on assertiveness, condom skills training, and condom provision have been found effective in overcoming cognitive limitations among PEMI associated with HIV risk (Senn & Carey, 2008).

In the present study, we observed that HIV, and its associated stigma, increases risks for mental illness. Respondents noted numerous instances of mental illness and substance use disorders developing after HIV diagnosis, often precipitated by discrimination. Integrated care models involving mental health providers and HIV clinicians have been shown to help normalize stigmatizing attitudes about mental illness and provide care targeted to the complex needs of patients (Farber et al., 2012; Soto, Bell, & Pillen, 2004). Peer support and care navigators can be utilized to deliver antistigma interventions and monitor the mental health and substance use of patients with new HIV diagnoses who are at high risk of being lost to care, such as patients described by respondents in this study who discontinued ARVs due to alcohol abuse.

Implications for Policy

Antistigma interventions have been identified as a global mental health priority to promote social recovery from mental illness (Patel, 2014). Yang and colleagues (2007) suggest intervening on processes that threaten what makes life matter in the social sphere. Working and earning an income makes life matter to men in Botswana. However, respondents provided numerous examples of discrimination against men labeled with mental illness, including not hiring them and limiting them to rudimentary tasks. The ability for men who have experienced mental illness to work could be promoted by several interventions. Explicit legal protections for people with a history of mental illness from employer discrimination, like those in place for government positions for people with HIV, could prevent men being arbitrarily passed over for jobs (International Labour Organization, 2014; Jacobson & Greenley, 2001). In addition, vocational rehabilitation for severe mental illness has been shown to improve function in the workplace and self-image and could be especially valuable in Botswana to preserve the ability for men with mental illness to fulfill the cultural expectation to work (Twamley, Jeste, & Lehman, 2003; Warner, 2009).

Limitations and Questions for Further Research

Although the present study advances understanding of mental illness stigma in Botswana, the results must be considered in light of several limitations. First, nearly half (47.5%) of the country's population lives within 70,000 square kilometers (12% of the total national land) surrounding Gaborone (Statistics Botswana, 2014), and respondents were recruited from only two sites in the urban south of the country. Results reflect a purposive sample at those urban sites and may not generalize to rural villages. Second, mental illness, in the Western biomedical sense, encompasses a heterogeneous constellation of conditions with varying symptoms and degrees of impairment. The study used the core label of "mental illness," which was interpreted in various ways by respondents to label bizarre and deviant behavior. Depression was rarely mentioned. Depression is referred to locally as "*go gatelelwa ke maikutlo*," meaning "under intense pressure of emotions" but may not have been included by respondents due to its understanding as a problem of living, rather than an illness. Further studies are needed to better delineate local distinctions between forms of mental suffering and implications for stigma and care-seeking. Third, the study required translation and transcription and was conducted by a multicultural team, thus resulting in potential for cross-cultural misunderstandings or loss of nuances, particularly, with

respect to the labeling of mental illness (Chidarikire, Cross, Skinner, & Cleary, 2018). We attempted to ensure validity by clarifying interpretation of results and statements with coauthors embedded in local culture.

This study was the first that we are aware of to assess causal beliefs and stigma to mental illness in Botswana and one of the first studies in sub-Saharan Africa to explicitly address stigma with respect to an HIV–mental illness syndemic. The EM framework was a critical foundation for this study. In a complex context with indigenous and external influences, the model enables appreciation of multiple coexisting belief systems about causes, course, and treatment of illness. By elucidating the beliefs about illness that underlie labels and stereotypes, the EM framework provides a rich context from which to develop a more culturally nuanced understanding of stigma. Future studies can work to address the culturally specific elements of stigma described above. As a second point of interest, the EM framework could be useful in better understanding how explanatory beliefs affect care-seeking behaviors locally. By placing a greater emphasis on the relationships between specific etiology and treatment beliefs, future studies could utilize the model to provide further understanding of how beliefs influence clinical interactions.

The views expressed by community members help delineate the nature of external mental illness–related stigma locally. However, stigma interventions could be better informed by eliciting the views of key stakeholders, including mental health service users, family members of PEMI, health care workers, and policy makers. Interventions aimed at the internalized stigma of PEMI and their family members may be most effective at reducing suffering. Understanding the interest of policy makers in mental health is critical to investment in community mental health programs (Mascayano, Armijo, & Yang, 2015). However, previous studies have found stigma occurs more or less equally across stakeholders (Saraceno et al., 2007).

Conclusion

We present one of the first in-depth studies to assess community perceptions of and discrimination toward PEMI in Botswana, with an emphasis on interactions between mental illness stigma and HIV. Pessimistic cultural beliefs about mental illness, in a setting with limited effective biomedical treatment for mental illness, result in multiple forms of discrimination, which likely increase HIV risk. We suggest that mental illness stigma and its outcomes may be reduced through improved access to community mental health care that may transform EMs, psychoeducation that addresses local beliefs such as mental illness occurring "when the trees blossom," collaboration between

biomedical and traditional health services, clinical services that address the unique sexual health needs of mental health patients and mental health needs of HIV patients, and policies that promote work opportunities as a critical component of recovery from mental illness. Further studies are needed to investigate beliefs and internalized stigma among people with mental illness, particularly, those with comorbid HIV.

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