SSM - Mental Health 2 (2022) 100166

Contents lists available at ScienceDirect

SSM - Mental Health

journal homepage: www.journals.elsevier.com/ssm-mental-health

Explanatory models of psychotic-like experiences in rural Burkina Faso: A qualitative study among indigents and their community

Émilie Pigeon-Gagné [a,*], Teodora Vigu [b], Kadidiatou Kadio [c,d], Emmanuel Bonnet [e], Valéry Ridde [f]

[a] Université Du Québec à Montréal, 405 Sainte-Catherine Est Street, Montréal, Québec, Canada, H2L 2C4
[b] Université Du Québec en Outaouais, 283 Alexandre-Taché Blvd, Gatineau, Québec, Canada, J8X 3X7
[c] Institut de recherche en sciences de la santé (IRSS) du Centre National de la Recherche Scientifique et Technologique (CNRST), 03 BP 7192, Ouagadougou, Burkina Faso
[d] Fellow Pilote African Postdoctrorat Academy - PAPA, Goethe University Frankfurt, Germany
[e] IRD, UMR 215 Prodig, 5, cours des Humanités, F-93 322 Aubervilliers Cedex. Paris, France
[f] Université Paris Cité, IRD, Inserm, Ceped, F-75006 Paris, France

ARTICLE INFO

Keywords:
Psychotic-like experiences
Indigents
Burkina Faso
Explanatory models of illness
Universal health coverage

ABSTRACT

Background: In Sub-Saharan Africa, psychiatric care for severe mental disorders is scarce. This is especially true for people living in chronic poverty in rural areas. The way in which people with psychotic manifestations are socially perceived and treated remains under-researched, limiting the possibility of adapting services to their needs.
Methods: In May 2017, 29 semi-structured individual interviews with indigent people reporting psychotic-like experiences and 8 focus groups with members of their community were conducted in the rural region of Diébougou (Burkina Faso). Indigents were questioned on their subjective interpretation regarding these experiences. Community members were asked about their perceptions of people manifesting psychotic-like experiences. A thematic analysis was carried out.
Results: Three distinct conceptions of psychotic-like experiences were identified. First, these experiences were often understood as a reflection of a mental disorder involving evil supernatural entities. Second, some people were considered as possessing a faculty that conferred supernatural powers that could be used for healing purposes. Finally, psychotic-like experiences might also reflect a temporary disturbance for which no significant repercussions were raised.
Conclusions: This study suggests that certain manifestations qualified as psychotic according to the biomedical nosology seem to be considered differently from communities' perspectives. These experiences were frequently interpreted as being personal and not requiring medical attention or even as socially valuable faculties. Although psychotic-like experiences were not always perceived negatively, people who experienced them were reluctant to talk about them. This suggests that a form of stigmatization is associated with psychotic-like experiences.

1. Introduction

In most sub-Saharan African countries, health care is associated with fees that must be paid by patients at the time of medical consultation. Direct payment at health facilities represents a significant barrier limiting individuals' ability to seek medical and psychosocial help (Hanson et al., 2022; Levesque et al., 2013). This economic barrier is even more constraining for the poorest, which is why policies exempting indigents from direct payment and providing them free care packages have been adopted.

Unfortunately, in many countries, several obstacles affect the implementation of these policies (Kadio et al., 2014; Lohmann et al., 2022; Louart et al., 2021). This is the case in Burkina Faso where criteria for the identification of indigent individuals are not formalized at the national level although an exemption policy was adopted in 2009 (Ridde et al., 2018). To identify indigents in a socially coherent manner, some 15 years ago, an action-research approach was first designed in the rural communities of Ouargaye region, then tested in urban areas before being implemented in 10 regions of the country (Beaugé et al., 2020; Ridde et al., 2010a; Ridde et al., 2014). This process made it possible to develop a community-targeting approach. The idea behind this intervention was to offer, in a second time, free care packages for indigents.

---

* Corresponding author.
E-mail addresses: pigeongagne.emilie@gmail.com (É. Pigeon-Gagné), vigu.teodora@gmail.com (T. Vigu), kadioka@gmail.com (K. Kadio), emmanuel.bonnet@ird.fr (E. Bonnet), valery.ridde@ird.fr (V. Ridde).

https://doi.org/10.1016/j.ssmmh.2022.100166
Received 5 August 2021; Received in revised form 10 October 2022; Accepted 12 October 2022

Subsequent studies conducted among this population have highlighted socio-demographic characteristics illustrating the precariousness of people identified as indigents. According to these studies, the indigents are often elderly, widowed, or single people without children, with poor health conditions (e.g., visual and motor limitations, chronic health problems) and a low utilization of healthcare services due to a lack of financial possibilities (Atchessi et al., 2014; Kadio et al., 2014; Ouédraogo et al., 2017; Pigeon-Gagné et al., 2017; Ridde et al., 2010b; Ridde & Sombie, 2012).

To provide services to indigents in rural areas where few healthcare facilities are available, it is necessary to better understand their needs, including mental health needs. As it is the case in the other countries of the region, mental health has been little examined, and almost not at all for this subpopulation. This gap in the literature has concrete and significant impacts on the lives of the estimated 11% of Burkina Faso's populations living under extreme poverty line (Ministry of Health of Burkina Faso, 2018). Although it had been extensively documented that poverty and deprived living conditions are associated with poor mental health outcomes (Brandt et al., 2019; Burns and Esterhuizen, 2008; Lund et al., 2010; Mirza et al., 2019), this had not drawn a lot of attention in Burkina Faso.

To our knowledge, only two studies focusing on mental health had been conducted (by our team) among indigents in West Africa. Both highlighted an alarming level of psychological distress, namely anxious, depressive, somatic, psychotic manifestations, as well as a low utilization of available healthcare services (Pigeon-Gagné et al., 2017; Porfilio-Mathieu et al., 2022). Psychotic manifestations in particular might reflect the presence of a severe pathology and can be distressing for individuals who experience them and for their families, especially considering the possible stigmatization and social isolation associated with them. In these two studies, 25,5% (in 2015) and 19,5% (in 2017) of individuals reported at least one psychotic manifestation. However, even though these proportions are high and might reflect an important need for mental health care, the tools currently available to assess mental health symptomatology are based on western biomedical nosology and not validated in specific cultural contexts, like in Burkina Faso. Therefore, these results might also refer to non-pathological experiences or might be manifestations of non-psychotic pathologies (e.g., epilepsy, dementia) (Beavan et al., 2011).

The influence of culture on the prevalence, the expression and the phenomenology of mental health disorders and psychological distress has been widely documented (Bauer et al., 2011; Kirmayer and Ryder, 2016; Lambrecht and Taitimu, 2012; Okulate and Jones, 2003; Vega and Lewis-Fernandèz, 2008). The content of delusions as well as auditory and visual hallucinations appear to be particularly sensitive to the cultural context in which individuals evolve (Larøi et al., 2014; Luhrmann et al., 2015; Mosotho et al., 2011). Studies conducted in non-western countries reveal that explanatory models of psychosis are diverse and involve supernatural etiologies (Bhikha et al., 2012; Fainzang, 1985; Lim et al., 2015; Napo et al., 2012; Patel, 1995; Sorsdahl et al., 2010; van Duijl et al., 2014).

Moreover, the way psychological distress is perceived, expressed, and interpreted varies widely from a context to another. Research in sub-Saharan Africa has shown that the way psychotic manifestations are understood by patients is tied to the social representations of these manifestations, which have a significant impact on help-seeking behaviors (Chidarikire et al., 2014; Lilford et al., 2020). In various settings, patients seek help from traditional, religious, and biomedical resources when they present psychotic-like experiences (Chidarikire et al., 2018; James et al., 2018). It is also documented that explanatory models of illness adopted by family and community members could either lead to protective and inclusive practices, or to exclusion and various types of abuses (Patel, 1995; Read et al., 2009).

In rural Burkina Faso, mental health services are scarce, people suffering from serious mental disorders are often marginalized, and the way psychotic manifestations are perceived and expressed remains unknown, thus limiting the possibility to develop culturally relevant care. In this context, it is crucial to gain knowledge on explanatory models of psychotic-like experiences to obtain a basis from which to reflect on a decentralized and realistic care provision.

In this study, we aim at getting a first insight from indigents and communities on explanatory models of psychotic-like experiences in rural Burkina Faso.

2. Method

2.1. Setting

This study was carried out in the Diébougou region in south-west Burkina Faso. This region is part of the Bougouriba province and has a population of about 42,000 inhabitants. People live mainly in rural areas and belong to the Lobi, Dagara, Gan, Birifor, Pwe and Djan ethnic groups (Burkina Faso National Institute of Statistics and Demography, 2012). Agriculture constitutes the main economic activity.

2.2. Procedures

This study is part of a sequential mixed-method research aiming at documenting psychotic-like experiences, care utilization and help-seeking behaviors among an indigents' population. The research includes a cross-sectional design and an applied qualitative design.

In February 2017, a phase of exploratory quantitative data collection was carried out in 10 randomly selected villages in the Diébougou region (Fig. 1) where 424 indigents were interviewed regarding their mental health status. Of these 424 people, 58 reported at least one of the four psychotic-like experiences examined in this survey: seeing things or people that other people cannot see, hearing voices or noises that other people cannot hear, feeling on a mission that others cannot understand, and feeling that the mind is controlled by supernatural forces or that the body is possessed by a spirit. The duration and frequency of these experiences, as well as help-seeking behaviors were also assessed.

In complement to this quantitative study, to gather information on explanatory models of these manifestations, two methods were deployed: individual interviews (II) with indigents and focus group discussions (FGD) with community members. In May 2017, four investigators (master students in sociology) who had been involved in the quantitative data collection, who spoke the main local language (Dioula), who had tacit knowledge of the sociocultural dynamics and who were familiar with vernacular expressions, attended a three-day training. This training covered theoretical foundations of explanatory models of the illness (Kleinman, 1980), guidelines for conducting FGD and semi-structured qualitative interviews, and appropriation of the interview canvas.

2.3. Participants

Of the 58 people reporting at least one psychotic-like experience, 17 could not be interviewed for the following reasons: refusal to participate (6), absence from home (5), illness (5) and death (1). Of the 41 people interviewed, 12 interviews were incomplete and were discarded for the following reasons: refusal to answer some questions, lack of understanding of the questions, confusion in the answers provided, or negation of the previously reported psychotic-like experience.

A total of 29 interviews lasting between 30 and 90 min were considered completed and were analyzed. The length of the interviews varied according to the number of psychotic-like experiences reported as well as to the ability of the respondent to provide in-depth answers to the interviewer. Also, some interviews had to be conducted with the presence of an interpreter since some participants did not fluidly speak Dioula, which had an impact on the length of the interviews. When this was the case, the interpreter was chosen by the participant and was informed of the confidential nature of the interview. The participants (15 women and 14 men) were aged between 40 and 96 years old (mean age:

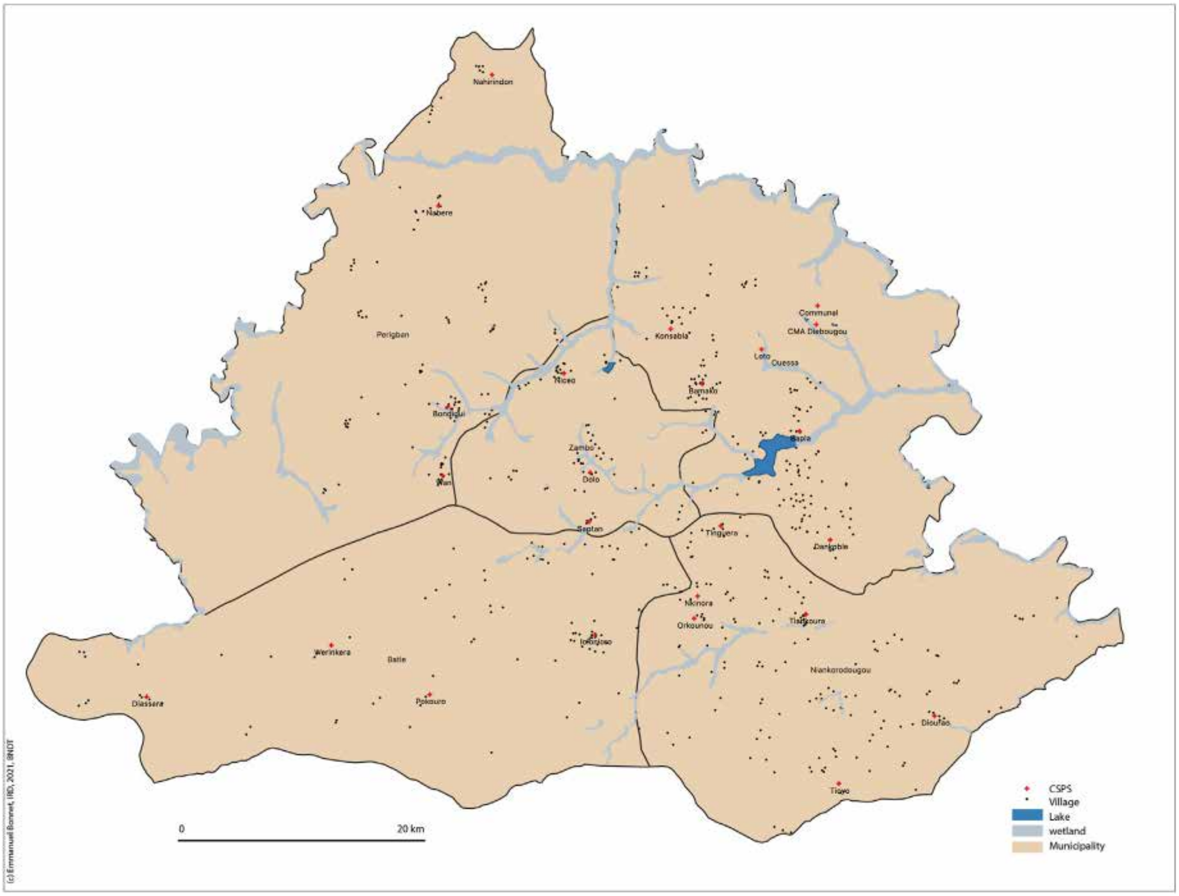

Fig. 1. Geographic distribution of indigent households in Diébougou region.

57.2 years). After oral consent was obtained, the interviews took place in the participant's residence to ensure confidentiality.

FGD (8) were organized in 4 of the 10 villages. Participants were recruited by key informants (community health workers, head nurses, local elected leaders). Villagers were informed of the holding of a focus group in which they were free to participate. The groups were composed of 7–11 people aged 22–66 years (mean age: 42.3 years) mainly working as farmers or as vendors in the informal sector. Men and women were met in separate groups. People in positions of power in the community were not included. A total of 78 people participated in 90-min FGD. Characteristics of participants are presented in Table 1. After written consent was obtained, the interviews took place in public places easily accessible to participants and where there were no sources of distraction.

2.4. Instruments

For both the II and the FGD, the creation of the canvas was inspired by the McGill Illness Narrative Interview (MINI) (Groleau et al., 2006). The choice of questions and their formulation were made in collaboration with local partners (socio-anthropologists and mental health professionals).

A semi-structured II canvas was developed to suit the reality of the indigent population (no formal education, living in precarious conditions). This canvas was subdivided into three sections: 1) explanatory models of illness (designations, meanings, etiologies); 2) help-seeking behaviors (formal and informal resources); 3) social support and exclusion (relationships with family and community members). Each section comprised two open-ended questions to allow the person to express freely, followed by follow-up questions inspired by the MINI protocol.

The canvas for the FGD contained two sections that tackled explanatory models of mental disorders, first from an inductive perspective, and

Table 1
Participants' sociodemographic characteristics.

	Individual interviews (II)	Focus group discussions (FGD)
Gender		
Women	51,7%	47,4%
Men	48,3%	52,6%
Age		
20-30	0,0%	15,4%
30-40	3,4%	21,8%
40-50	31,0%	33,3%
50-60	24,1%	19,2%
60-70	17,2%	10,2%
70-80	17,2%	0,0%
80 +	6,9%	0,0%
Ethnic group		
Lobi	69,0%	79,5%
Djan	31,0%	20,5%
Education		
None	89,7%	40,1%%
Primary	10,3%	59,9%
Marital status		
Single	41,4%	34,6%
Married	34,4%	59,0%
Widowed	24,1%	6,4%
Religion		
Animist	100,0%	91,0%
Catholic	0,0%	9,0%
Economic situation		
Income	20,7%	75,6%
No income	79,3%	24,4%

Table 2
Main characteristics of the explanatory models of psychotic-like experiences.[a]

	Djinn Illness	Supernatural gift	Temporary disturbance
Participants' characteristics	Gender: 8/10 women Mean age: 64 years	Gender: 9/10 men Mean age: 59 years	Gender: 6/9 women Mean age: 54 years
Etiologies	Difficult life event Transgression of ancestral rules	Divine or supernatural inheritance at birth	Contact with death or with immaterial world
Manifestations	Talking to yourself Wandering Being restless Being aggressive Sobering Being frightened Fainting Having tremors or convulsions	Frequently having divinatory visions Being able to predict the future Voluntarily engaging in a dialogue with ancestors	Temporarily having premonitory dreams and/or divinatory visions
Consequences	Social dysfunction Exclusion Need for sacrificial rituals and other traditional treatments Reluctance to talk	Responsibility towards the community Considered to have a healing power Reluctance to talk	No significant consequences Reluctance to talk

[a] These categories refer to overarching phenomena rather than specific terminologies employed by participants. Because interviews were not only conducted in Dioula, we have chosen to present them in this way to limit translation biases.

then from a deductive perspective. First, participants were invited to discuss in their terms their conceptions of mental disorders through open-ended questions. The discussion was guided by two investigators focusing on explanatory models of the illness as well as on the available resources in the community. Second, participants were asked specifically about their understanding of the four psychotic-like experiences under study. Participants were invited to respond freely, and the investigators often asked for examples to support their statements. They also asked follow-up questions to stimulate discussion, to encourage the involvement of all participants, and to highlight areas of tension or contradiction in the discourse.

2.5. *Data analysis*

During fieldwork, a debriefing was done daily to highlight the salient impressions, non-verbal and contextual observations, as well as the difficulties encountered in data collection. II and FGD were audio-recorded and translated into French during transcription process by the interviewers. An immersion phase with the material first took place during which the members of the research team read the verbatims, noted their first impressions and discussed them as a team. In this phase of analysis, segments of the verbatims where we identified misunderstandings from participants, were excluded from the analysis.

The data were then organized according to an inductive descriptive thematic analysis (Paillé and Mucchielli, 2016) with the support of NVivo12 software. We first coded the II segments. The material from the FGD was then coded and integrated in the analysis to add depth or contrast to the individual narratives. Since the material from the FGD did not focus much on concrete situations, the statements were less precise regarding the interpretations of the different psychotic-like experiences. The observation notes were then integrated to nuance some results. Triangulation of the data made it possible to integrate the recurrent themes and subthemes identified in all data sources. Three distinct meanings of psychotic-like experiences emerged from this analysis. The themes and subthemes were then recoded for each of these meanings according to an inter-judge agreement based on their association with the following rubrics: etiologies, meanings, manifestations, and consequences.

3. Results

Psychotic-like experiences were understood - by both the indigents and community members - as related to three phenomena. In the II, indigents interpreted their experience as being the result of: a djinn illness (10 participants), a supernatural gift (10 participants), or a temporary disturbance (9 participants). These categories also emerged from participants in FGD as representing three distinct popular conceptions associated with the psychotic-like experiences. The main results are summarized in Table 2.

3.1. *Djinn illness*

The most common and detailed phenomenon was a kind of illness caused by “djinns",[1] bad ones. According to the participants, this phenomenon would affect men and women differently. Women would be prone to be affected following a tragic life event (e.g., death of a child, difficult childbirth, repudiation). Men would become affected after a passage through the bush (in certain areas where access is prohibited) where they inadvertently encountered a djinn, which was considered a transgression of customary rules. Once in contact with these entities (sometimes described as invisible entities, sometimes as faceless human beings), people reported being regularly visited, talked to, followed, given instructions, or even hit by them:

> *If it starts for you, you'll see, you'll dance well! If the djinn tells you to go to the pond at night, you'll go. My djinn, the day he tells me to go down to the pond, I go down there, if he tells me to go back the same day, I go back there. It's no fun. He talks to me. This djinn problem is a disease. It is serious, the day it takes me, when I get up in the morning, I can't do anything. He hit me when I get up in the morning, I can't do anything.*
>
> (II, Indigent woman, 67-years old, Poyo)

Individuals affected by this condition were described as confused and as “mixed up in their head” making them easily recognizable. They would talk alone, wander and get lost in the bush, be restless or aggressive, be unable to function in daily life, be frightened for no reason, cry, faint or shake uncontrollably. A wide variety of manifestations related to visits or attacks by djinns were considered as being the first stage in the development of a mental disorder:

---

[1] Participants used the term “djinabana” (Dioula) or “maladie de génies" (French). These expressions can be translated in English as "djinns' illness”. Djinns refer to a general category of supernatural entities.

> *There is a disease that comes from djinns, my son's wife has it. When it starts, she falls on the floor and stays there for two days. Her body becomes hard and she gets restless. When the disease starts, she talks alone and often she bites her teeth together. If you give her water, she asks her djinns if she should drink it. Often, she refuses. She talks with them, you as a normal person you cannot understand what they say to each other.*
>
> *This woman, she is not totally mad yet … Some people are completely mad. For the crazy person, the djinns that he sees make him run far away and talk in a way that you don't understand … because he's not talking to you. The vision [auditory hallucinations] is the first stage madness. If it's come and you don't deal with it, you become mad.*

(Women FGD, Sorindigui)

According to the participants, it was essential to seek care from traditional healers to make sacrifices to chase away evil entities. Several indigents reported the impossibility for them to complete the necessary healing rituals due to a lack of economic means. As a result, they frequently chose not to tell anyone about their difficulties because they feared they would be identified as mentally ill, which would lead to a risk of being shunned, rejected, or discriminated against:

> *People say I'm crazy. They tell me that I don't belong here, to leave the yard and settle somewhere else. Often, they don't talk to me, they just pass by without talking to me. People don't respect me since they went for the consultation and knew it was a djinn disease. They've all turned their backs on me, nobody wants to come near me. Even my family have run away from me, I don't know why. And since the disease has been going on for a long time and I can't afford to buy a chicken to make a sacrifice, I'm on my own.*

(II, Indigent man, 50-years old, Tansié)

3.2. *Supernatural gift*

The second conception evoked to explain psychotic-like experiences referred to an ability, an aptitude or a disposition transmitted to certain people (especially men) at birth. The mechanisms of transmission were not made explicit by the participants and when asked to comment on them, they remained vague and imprecise. The formulation used was that it was “a gift from God”. They suggested that it was a faculty that one would develop in childhood after receiving the gift. However, for some, this faculty could fade with time.

People with this gift are said to be able to have premonitory dreams, to be in contact with “good” supernatural entities (e.g., djinns, ancestors, souls) through dreams or inanimate objects (fetishes) that “show them the way”, that guide them. These people thus contend that they have divinatory abilities allowing them to communicate with the supernatural world through sacrificial rituals, to ask for good harvests, to help community members experiencing difficulties or to cure certain diseases. These individuals were therefore considered to be healers or sorcerers:

> *To me, they're djinns, but good ones. When I see them, they help me to solve a problem. Whether it's to settle a conflict in a village or if it's to gather administrative documents, everything goes well. They are good. At least they are not bad djinns, like the ones that cause madness. Seeing them is not a problem. They show me a path that other people can't understand. If I see something in a dream, it can happen for real. For example, if I have a dream about something bad that will happen to someone, I can call them and tell them. If there are sacrifices to be made, I tell them; maybe that will allow the person to avoid a bad situation. […] If I see that there is a sacrifice to be made, I can do it myself if it pleases God and the djinns. Then, everything can be right again.*

(II, Indigent man, 46-years old, Obro)

People who considered themselves to have this gift mentioned the importance of following the path shown to them and respecting their destiny, otherwise their gift could be turned against them. These participants mentioned that they did not talk about their visions or premonitions to those around them because they feared they would not be believed, and be blamed for a negative incident in the community or losing their gift:

> *My only problem is that I can't explain to anyone. They're good djinns, they come to chat with me, and they show me clues. I must listen to them. I can't fight them. Since they tell me not to talk about my gift, that's why I can't explain to anyone. They forbid me to tell anyone about it. The day I'm going to explain it to someone is the day I'm about to die.*

(II, Indigent man, 70-years old, Diourao)

3.3. *Temporary disturbance*

Psychotic-like experiences were also associated with an inexplicable and supernatural phenomenon to which participants did not attribute any specific significance. Rather, it was described as a neutral phenomenon with no marked consequences for the people experiencing it. According to this view, it was possible for a “normal person” to encounter immaterial entities (e.g., djinn, soul of a deceased person) sporadically and temporarily because of a very specific, time-bound situation (e.g., funerals):

> *It may also be because someone close to you is about to die, he will come and present his soul to you before he leaves. You can see him. You think it's the person, but it's not him but rather his soul presenting itself to you before death comes. The day the person dies you can no longer see the visions. It is not only the soul of the dead, but also the djinns because they are at the origin of its death. It can happen to anyone; it only lasts a while and then it leaves you. Once the soul is gone, you go back to your life as before.*

(Men FGD, Tansié)

A person could also encounter some entities after seeing a healer without this being the presage of a disease or associated with a gift. Rather, it was understood as a possible delayed effect of a healing ceremony:

> *Those who are not born with visions can get it from the marabouts. The marabout puts products in water and then he calls you to have a look. If you look, you will see what's going to happen tomorrow and the day after tomorrow. And you are a normal person!* […] *Afterwards, you're sitting down making tô* [local meal] *and what you will see a djinn putting his hand on yours to make you remember that he's there. It's nothing! It only lasts a while, it's the marabout's powers that are with you, but only for a little while.*

(Women FGD, Bonfesso)

Although this type of phenomenon was considered as an experience that could affect anyone, some people seemed uncomfortable talking about it openly. Participants feared they would not be believed, be laughed at, or be categorized as having a “djinn disease”. For this reason, indigents reported that they did not talk about these phenomena with those around them:

> *Djinns have come from time to time, they talk to me and I hear what they tell me … It happened only two times several years ago* [before her son died and after her husband died]*, so I don't see the point of telling anyone because it's not a disease. I don’t mind. I'm afraid people would make fun of me, that's why I don't talk about it.*

(II, Indigent woman, 42-years old, Tansié)

4. Discussion

This study is the first to have focused on psychotic-like experiences in Burkina Faso and the first to have explored the perspective of indigents living with mental health challenges in this country. In this qualitative study a total of 107 persons were interviewed to complement results of the only two existing quantitative studies on indigents' mental health in West Africa (Pigeon-Gagné et al., 2017; Porfilio-Mathieu et al., 2022). This study contributes to building a base of understanding of mental health needs in a context where this issue has drawn very little attention. The lack of mental health research in Burkina Faso considerably limits the development of a comprehensive provision of psychosocial and psychiatric services for common and severe mental disorders. This is especially true for vulnerable and marginalized populations, such as indigents who live in chronic poverty who are, thus, more likely to experience mental health difficulties related to their socio-economic conditions (Brandt et al., 2019; Burns and Esterhuizen, 2008; Lund et al., 2010; Mirza et al., 2019).

We found that auditory and visual hallucinations, delusions, and depersonalization – as labeled by western psychiatry - were all associated with supernatural explanatory models in Diébougou region which is consistent with previous research conducted in Sub-Saharan Africa (Bhikha et al., 2012; Lim et al., 2015; Napo et al., 2012; Patel, 1995; Sorsdahl et al., 2010; van Duijl et al., 2014). Psychotic-like experiences were both understood by indigents and community members as manifestations of a contact with spirits. The supernatural entity of "djinn" appeared to be common for people reporting psychotic-like experiences and was not questioned by community members. On the contrary, djinns seem to represent a shared cultural referent, crucial to the interpretation of a set of unusual phenomena (Bonnet, 1988; Egrot, 2002; Fainzang, 1985; Jaffré and de Sardan, 1999; Khalifa and Hardie, 2005; Zempleni, 1985). Among Lobi and Birifor, the existence of supernatural entities is recognized and their interaction with humans is critical to the balance of the community (Bidima, 2008). Thus, supernatural experiences were not considered pathological in themselves. As elsewhere, this was associated with ancestral customs and animistic worldviews that are deeply rooted in this society (Abou et al., 2019; Mianji and Semnani, 2015; Nathan, 2005; Orobator, 2018). Because in animistic worldviews the material and immaterial worlds are inseparable, it is common for humans to have contact with invisible entities such as spirits and ancestors. In that context, psychotic-like experiences are thus understood from a perspective that greatly differs from the mainstream western worldview.

In our study, psychotic-like experiences were related to three distinct etiological theories. Only one of them was considered as an early sign of mental illness. When it was the case, the emphasis was on a detailed description of specific manifestations, whereas these were evoked in vague and abstract ways when a psychopathology was not suspected. We found that the manifestations per se did not lead to the identification of a mental disorder. Rather, it was the adoption of deviant behaviors that seemed to enable community members to determine who are suffering from a mental perturbation. This echoes findings from other parts of Sub-Saharan Africa where mental health disorders are associated with overt physical and behavioral signs (e.g., aggressive behavior, speech impairment, carelessness) and where mental illness is only suspected in individuals exhibiting these visible and obvious manifestations (Audu et al., 2013; Barke et al., 2011; Deribew and Tamirat, 2005; Franke et al., 2019; Kyei et al., 2014; Monteiro and Balogun, 2013; Sorsdahl and Stein, 2010; Ventevogel et al., 2013). In his classic study, Edgerton (1966), highlighted that psychosis was related to nudity among the four tribes with whom he conducted his investigation. He also observed that hallucinations were socially not associated to psychosis, which could be explained by the fact that these manifestations are not sufficiently visible. This also seems to be the case in our study since hallucinations were not identified as signs of mental disorders by respondents.

Beside this conception, psychotic-like experiences were interpreted as common grieving or healing experiences or even as socially valuable faculties. Previous anthropological works in non-western contexts have described that in these settings, spirit possession is common and represents a culturally appropriate way to express distress that is not necessarily interpreted as pathological (Hammond-Tooke, 1989; Igreja et al., 2010; Lee, 1969; Neuner et al., 2012; Ngubane, 1977). For example, van der Zeijst et al. (2021) showed that spirit possession and its manifestations in rural South Africa could be interpreted as a sign of madness as well as an ancestral calling that could lead to the apprenticeship of becoming a healer if they were consistent with cultural expectations. Thus, when individuals act in a way that respects social codes, it seems that psychotic-like manifestations fall on a fluid continuum more than representing an indicator of a specific pathology (Castillo, 2003; Mianji and Semnani, 2015). In this sense, it is interesting to reflect on the protective effect of cultural signifiers in explaining the appearance of atypical manifestations (Chidarikire et al., 2020; Corin, 2003). Possibly, some indigents explained pathological experiences by referring to the socially shared idea that they have a supernatural gift while these same people were potentially considered mentally ill by their community.

In Burkina Faso, economic barriers to access psychiatric facilities delay seeking help from these structures (Pigeon-Gagné et al., 2022; MHBF, 2018). Our results suggest that seeking mental healthcare is not only limited by economic barriers but is also only envisaged once a person manifests obvious, chronic, and disturbing signs of a severe mental disorder. Access to care for psychotic illnesses in that specific region thus seems impaired by conditions of approachability, acceptability, and affordability (Levesque et al., 2013). In other words, apart from financial constraints, it seems that help-seeking behaviors toward either health facilities or traditional resources are greatly determined by the ability of the individuals to perceive a need for care and to seek help in a culturally accepted manner. In rural settings, mental health services are very limited which could have an impact on the communities' perception of the possibility to provide care and treatment to psychotic conditions.

Like others, our results reveal that people experiencing psychotic-like manifestations report a mistrust in talking openly about their experiences with their relatives (Barke et al., 2011; Dako-Gyeke and Asumang, 2013). A previous study in Burkina Faso revealed that indigents struggling with mental disorders were excluded within their own families and were not accorded the same moral status as other family members (Kadio et al., 2014). In our study, this mistrust can be linked to the fact that some people refused to participate potentially because they feared they might be identified as being mentally ill, which could have significant social repercussions (Nxumalo and Mchunu, 2017; Shibre et al., 2001; Quinn, 2007). Our results highlight that men are considered to have access to socially valued supernatural faculties and, on the contrary, that similar experiences when expressed by women tend to be interpreted as a djinn illness. In the region, mental health disorders are highly stigmatized, but the dynamics underlying this stigma remain understudied. It seems that gender has a major role to play, but the lack of research limits the possibility to interpret this result that would gain to be further investigated.

In the larger study, we were interested into documenting psychotic manifestations and understanding help-seeking behaviors in a culturally sensitive way. On one hand, the quantitative study indicated that 19,5% of the sample reported at least one psychotic-like manifestation, which seemed alarmingly high. On the other hand, the present qualitative study reveals that the initial tool does not differentiate between individuals presenting a psychotic symptom and those who do not. Since no standardized screening tool aiming to assess the prevalence of mental disorders is validated and adapted to the reality of rural Burkina Faso, we have designed an instrument in collaboration with local collaborators. Despite these precautions, it seems that this tool does not permit the identification of individuals in need of psychiatric care. This study shows the importance of rethinking the use of standardized tools based on biomedical nosology as well as the necessity of integrating ethnographic approaches into global mental health research in order to avoid pathologizing culturally relevant experiences.

In west African rural settings, traditional healers and informal networks act as pillars of care (Ae-Ngibise et al., 2010; Gureje et al., 2015; Sorsdahl et al., 2009; Wang et al., 2007). In such a context, one way to facilitate the identification of people suffering from psychotic disorders would be to rely on the collaboration between health facilities and traditional healers who hold culturally rooted knowledge.

4.1. Limits

Some limitations must be raised. From the initial sample of 58 people, only 29 could be met for an interview. It is possible that the people who were not part of our sample were those with active and severe psychotic symptoms, whose testimony would have provided a better understanding of their experience. It is possible that these individuals refused to participate by distrust related to a delusional state or by fear of social stigmatization. Also, several interview segments had to be excluded from the analytical process since some questions were misunderstood. These misunderstandings suggest that the questions were not always adapted to the cultural context of the study, and/or could be explained by the fact that the sample was constituted of elderly people who may have cognitive declines. Finally, the fact that the interviews were not always conducted in Dioula and that interpreters were needed is to be associated with the sometimes-rough translation employed to describe the phenomena. The lack of an exact translation limits the possibility to identify nuances in the social understanding of psychotic experience which is, by definition, subtle, and difficult to grasp.

5. Conclusion

This study highlights three ways of conceiving psychotic-like experiences in rural areas in south-west Burkina Faso. Although some manifestations are accepted and socially valued by communities, a form of stigmatization seems to affect indigents who present psychotic-like experiences. This study provides insights for the development of instruments that would be more adapted to the reality of people experiencing social exclusion. This study also suggests that mental health research should continue to be conducted among this population. With a better understanding of the mental health needs of the indigents, specific services could be included in the package covered by user fee exemption measures. This would be in line with Burkina Faso's desire to commit to universal health coverage.

Ethical standards

This project has received ethical approval from the Ministry of Health of Burkina Faso (2017-01-008). The authors assert that the study was conducted in conformity with the Helsinki Declaration standards. Only individuals who volunteered participated in the interviews, once the objectives, risks and benefits were explained. Due to the economically precarious context, no financial compensation was offered to the participants. Financial compensation could have compromised free consent.

Financial support

This work was supported by the Canadian Institutes of Health Research (CIHR), which funded the program (ROH-115213s) “Community research studies and interventions for health equity in Burkina Faso”.

CRediT authorship contribution statement

Pigeon-Gagné Émilie: Conceptualization, Investigation, Formal analysis, Supervision, Writing - original draft, Writing - review & editing. **Teodora Vigu:** Formal analysis, Writing – review & editing, Visualization. **Kadidiatou Kadio:** Conceptualization, Writing - review & editing. **Emmanuel Bonnet:** Conceptualization, Visualization, Writing - review & editing. **Valéry Ridde:** Project administration, Conceptualization, Funding acquisition, Methodology, Supervision, Writing - original draft, Writing - review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

We thank the interviewers who collected the data and AGIR organization that coordinated the training and data collection. We would also like to thank the village authorities who participated in the recruitment of participants and facilitated the fieldwork.

References

Abou, S. Y., Soedje, K. M. A., Tine, J. A. D., Kandji, D., Tourke, K., & Thiam, M. H. (2019). Les aspects de prise en charge traditionnelle chez les patients suivis en hospitalisation psychiatrique au CHNU FANN avant leur hospitalisation. *Revue Africaine de Médecine Interne, 6*(1–2), 38–44.

Ae-Ngibise, K., Cooper, S., Adiibokah, E., Akpalu, B., Lund, C., Doku, V., & MHAPP Research Programme Consortium. (2010). Whether you like it or not people with mental problems are going to go to them": a qualitative exploration into the widespread use of traditional and faith healers in the provision of mental health care in Ghana. *Int. Rev. Psychiatr., 22*(6), 558–567. https://doi.org/10.3109/09540261.2010.536149

Atchessi, N., Ridde, V., & Zunzunégui, M. V. (2014). Is the process for selecting indigents to receive free care in Burkina Faso equitable? *BMC Pub. Health, 14*(1), 1–10. https://doi.org/10.1136/bmjopen-2016-013405

Audu, I. A., Idris, S. H., Olisah, V. O., & Sheikh, T. L. (2013). Stigmatization of people with mental illness among inhabitants of a rural community in northern Nigeria. *Int. J. Soc. Psychiatr., 59*(1), 55–60. https://doi.org/10.1177/0020764011423180

Barke, A., Nyarko, S., & Klecha, D. (2011). The stigma of mental illness in Southern Ghana: attitudes of the urban population and patients' views. *Soc. Psychiatr. Psychiatr. Epidemiol., 46*(11), 1191–1202. https://doi.org/10.1007/s00127-010-0290-3

Bauer, S. M., Schanda, H., Karakula, H., Olajossy-Hilkesberger, L., Rudaleviciene, P., Okribelashvili, N., Chaudhry, H. R., Idemudia, S. E., Gscheider, S., Ritter, K., & Stompe, T. (2011). Culture and the prevalence of hallucinations in schizophrenia. *Compr. Psychiatr., 52*(3), 319–325. https://doi.org/10.1016/j.comppsych.2010.06.008

Beaugé, Y., Ridde, V., Bonnet, E., Souleymane, S., Kuunibe, N., & De Allegri, M. (2020). Factors related to excessive out-of-pocket expenditures among the ultra-poor after discontinuity of PBF: a cross-sectional study in Burkina Faso. *Health Econ. Rev., 10*(1), 1–11. https://doi.org/10.1186/s13561-020-00293-w

Beavan, V., Read, J., & Cartwright, C. (2011). The prevalence of voice-hearers in the general population: a literature review. *J. Ment. Health, 20*(3), 281–292. https://doi.org/10.3109/09638237.2011.562262

Bhikha, A. G., Farooq, S., Chaudhry, N., & Husain, N. (2012). A systematic review of explanatory models of illness for psychosis in developing countries. *Int. Rev. Psychiatr., 24*(5), 450–462. https://doi.org/10.3109/09540261.2012.711746

Bidima, Y. (2008). Corps visible, corps invisible. La symbolique du corps dans les rituels funéraires des Lobi du Burkina Faso. *Journal des anthropologues. Association française des anthropologues, 112–113*, 75–110. https://doi.org/10.4000/jda.713

Bonnet, E. (1988). Désordres psychiques, étiologies moose et changement social. *Psychopathologie Afr., 22*(3), 293–325.

Brandt, L., Henssler, J., Müller, M., Wall, S., Gabel, D., & Heinz, A. (2019). Risk of psychosis among refugees: a systematic review and meta-analysis. *JAMA Psychiatr., 76*(11), 1133–1140.

Burkina Faso National Institute of Statistics and Demography (BFNISD). (2012). Recencement général de la population et de l'habitation 2006 du Bukina Faso. https://www.insd.bf/index.php/publications?id=141. (Accessed 15 June 2021).

Burns, J. K., & Esterhuizen, T. (2008). Poverty, inequality and the treated incidence of first- episode psychosis. *Soc. Psychiatr. Psychiatr. Epidemiol., 43*(4), 331–335. https://doi.org/10.1007/s00127-008-0308-2

Castillo, R. J. (2003). Trance, functional psychosis, and culture. *Psychiatry, 66*(1), 9–21. https://doi.org/10.1521/psyc.66.1.9.20285

Chidarikire, S., Harris, D. M., & Skinner, I. K. (2014). A cultural paradox: understanding the experience of living with schizophrenia in sub-saharan Africa. *Australian College of Mental Health Nurses 40th International Mental Health Nursing Conference–Honouring the Past, Shaping the Future, 23*, 1–45.

Chidarikire, S., Cross, M., Skinner, I., & Cleary, M. (2018). Treatments for people living with schizophrenia in Sub-Saharan Africa: an adapted realist review. *Int. Nurs. Rev., 65*(1), 78–92. https://doi.org/10.1111/inr.12391

Chidarikire, S., Cross, M., Skinner, I., & Cleary, M. (2020). An ethnographic study of schizophrenia in Zimbabwe: the role of culture, faith, and religion. *J. Spirituality Ment. Health, 22*(2), 173–194. https://doi.org/10.1080/19349637.2018.1531366

Corin, E. (2003). À l'ombre de la psychose… des tracés en creux aux marges de la culture. *Cah. Psychol. Clin., 21*, 197–218. https://doi.org/10.3917/cpc.021.0197

Dako-Gyeke, M., & Asumang, E. S. (2013). Stigmatization and discrimination experiences of persons with mental illness: insights from a qualitative study in Southern Ghana. *Soc. Work. Soc., 11*(1), 1–14.

Deribew, A., & Tamirat, Y. S. (2005). How are mental health problems perceived by a community in Agaro town? *Ethiop. J. Health Dev., 19*(2), 153–159. https://doi.org/10.4314/ejhd.v19i2.9985

Edgerton, R. B. (1966). Conceptions of psychosis in four east african societies 1. *Am. Anthropol., 68*(2), 408–425.

Egrot, M. (2002). La divination comme lieu de rencontre entre maladie et religion en pays mossi (Burkina Faso). In R. Massé, & J. Benoist (Eds.), *Convocations thérapeutiques du sacré* (pp. 447–475). Paris: *Karthala (Collections Médecines du Monde)*.

Fainzang, S. (1985). *L'intérieur des choses : maladie, divination, reproduction sociale chez les Bisa du Burkina Faso* (p. 204). Paris: L'Harmattan.

Franke, M. L., von Lersner, U., Essel, O. Q., Adorjan, K., Schomerus, G., Gómez-Carrillo, A., Tam Ta, T. M., Böge, K., Mobashery, M., Dettling, M., Diefenbacher, A., Angermeyer, M. C., & Hahn, E. (2019). The relationship between causal beliefs and desire for social distance towards people with schizophrenia and depression: results from a survey of young Ghanaian adults. *Psychiatr. Res., 271*, 220–225. https://doi.org/10.1016/j.psychres.2018.11.030

Groleau, D., Young, A., & Kirmayer, L. J. (2006). The McGill Illness Narrative Interview (MINI): an interview schedule to elicit meanings and modes of reasoning related to illness experience. *Transcult. Psychiatr., 43*(4), 671–691. https://doi.org/10.1177/1363461506070796

Gureje, O., Nortje, G., Makanjuola, V., Oladeji, B. D., Seedat, S., & Jenkins, R. (2015). The role of global traditional and complementary systems of medicine in the treatment of mental health disorders. *Lancet Psychiatr., 2*(2), 168–177. https://doi.org/10.1016/S2215-0366(15)00013-9

Hammond-Tooke, W. D. (1989). *Rituals and Medicines: Indigenous Healing in South Africa*. r. Paper books. Johannesburg: Ad. Donke.

Hanson, K., Brikci, N., Erlangga, D., Alebachew, A., De Allegri, M., Balabanova, D., Blecher, M., Cashin, C., Esperato, A., Hipgrave, D., & Kalisa, I. (2022). The Lancet Global Health Commission on financing primary health care: putting people at the centre. *Lancet Global Health, 10*(5), e715–e772.

Igreja, V., Dias-Lambranca, B., Hershey, D. A., Racin, L., Richters, A., & Reis, R. (2010). The epidemiology of spirit possession in the aftermath of mass political violence in Mozambique. *Soc. Sci. Med., 71*(3), 592–599. https://doi.org/10.1016/j.socscimed.2010.04.024

Jaffré, Y., & de Sardan, J. P. O. (1999). *La construction sociale des maladies: les entités nosologiques populaires en Afrique de l'Ouest* (p. 374). Paris: Presses universitaires de France. https://doi.org/10.4000/apad.466

James, P. B., Wardle, J., Steel, A., & Adams, J. (2018). Traditional, complementary and alternative medicine use in Sub-Saharan Africa: a systematic review. *BMJ global health, 3*(5), Article e000895. https://doi.org/10.1136/bmjgh-2018-000895

Kadio, K., Ridde, V., & Samb, O. M. (2014). The difficulties of access to health care for indigent living in non-poor households. *Santé Publique, 26*(1), 89–97.

Khalifa, N., & Hardie, T. (2005). Possession and jinn. *J. R. Soc. Med., 98*(8), 351–353. https://doi.org/10.1177/014107680509800805

Kirmayer, L. J., & Ryder, A. G. (2016). Culture and psychopathology. *Current Opinion in Psychology, 8*, 143–148. https://doi.org/10.1016/j.copsyc.2015.10.020

Kleinman, A. (1980). *Patients and Healers in the Context of Culture: an Exploration of the Borderland between Anthropology, Medicine, and Psychiatry* (p. 448). Berkeley: University of California Press.

Kyei, J. J., Dueck, A., Indart, M. J., & Nyarko, N. Y. (2014). Supernatural belief systems, mental health and perceptions of mental disorders in Ghana. *International Journal Of Culture And Mental Health, 7*(2), 137–151.

Lambrecht, I., & Taitimu, M. (2012). Exploring Culture, Subjectivity and Psychosis. In J. Geekie, P. Randal, D. Lampshire, & J. Read (Eds.), *Experiencing Psychosis: Personal and Professional Perspectives* (pp. 44–54). London: Routledge. https://doi.org/10.4324/9780203806500.

Larøi, F., Luhrmann, T. M., Bell, V., Christian, W. A., Jr., Deshpande, S., Fernyhough, C., Jenkins, J., & Woods, A. (2014). Culture and hallucinations: overview and future directions. *Schizophr. Bull., 40*(Suppl. l_4), S213–S220. https://doi.org/10.1093/schbul/sbu012

Lee, S. G. (1969). Spirit possession among the Zulu. In J. Middleton, & J. H. M. Beattie (Eds.), *Spirit Mediumship and Society in Africa* (pp. 128–155). London: Routledge and Kegan.

Levesque, J. F., Harris, M. F., & Russell, G. (2013). Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *Int. J. Equity Health, 12*(1), 1–9.

Lilford, P., Rajapakshe, O. B. W., & Singh, S. P. (2020). A systematic review of care pathways for psychosis in low-and middle-income countries. *Asian Journal of Psychiatry, 54*, Article 102237. https://doi.org/10.1016/j.ajp.2020.102237

Lim, A., Hoek, H. W., & Blom, J. D. (2015). The attribution of psychotic symptoms to jinn in Islamic patients. *Transcult. Psychiatr., 52*(1), 18–32. https://doi.org/10.1177/1363461514543146

Lohmann, J., Koulidiati, J. L., Robyn, P. J., Somé, P. A., & De Allegri, M. (2022). Why did performance-based financing in Burkina Faso fail to achieve the intended equity effects? A process tracing study. *Soc. Sci. Med., 305*(115065). https://doi.org/10.1016/j.socscimed.2022.115065

Louart, S., Bonnet, E., Kadio, K., & Ridde, V. (2021). How could patient navigation help promote health equity in sub-Saharan Africa? A qualitative study among public health experts. *Global Health. Promot., 28*(1_suppl), 75–85.

Luhrmann, T. M., Padmavati, R., Tharoor, H., & Osei, A. (2015). Differences in voice-hearing experiences of people with psychosis in the USA, India and Ghana: interview-based study. *Br. J. Psychiatr., 206*(1), 41–44. https://doi.org/10.1192/bjp.bp.113.139048

Lund, C., Breen, A., Flisher, A. J., Kakuma, R., Corrigall, J., Joska, J. A., Swartz, L., & Patel, V. (2010). Poverty and common mental disorders in low and middle income countries: a systematic review. *Soc. Sci. Med., 71*(3), 517–528. https://doi.org/10.1016/j.socscimed.2010.04.027

Mianji, F., & Semnani, Y. (2015). Zār spirit possession in Iran and African countries: group distress, culture-bound syndrome or cultural concept of distress? *Iran. J. Psychiatry, 10*(4), 225–232. PMC4801492.

Ministry of Health of Burkina Faso (MHBF). (2018). Annuaire statistique. http://www.cns.bf/IMG/pdf/annuaire_ms_2017.pdf. (Accessed 15 June 2021), 2017.

Mirza, A., Birtel, M. D., Pyle, M., & Morrison, A. P. (2019). Cultural differences in psychosis: the role of causal beliefs and stigma in White British and South Asians. *J. Cross Cult. Psychol., 50*(3), 441–459. https://doi.org/10.1177/0022022118820168

Monteiro, N. M., & Balogun, S. K. (2013). Urban and rural perceptions of mental illness in Ethiopia. *IOSR J. Humanit. Soc. Sci., 8*(3), 43–51. https://doi.org/10.9790/0837-0834351

Mosotho, L., Louw, D., & Calitz, F. J. W. (2011). Schizophrenia among Sesotho speakers in South Africa. *Afr. J. Psychiatr., 14*(1), 50–55. https://doi.org/10.4314/ajpsy.v14i1.65473

Napo, F., Heinz, A., & Auckenthaler, A. (2012). Explanatory models and concepts of West African Malian patients with psychotic symptoms. *Eur. Psychiatr., 27*(S2), S44–S49. https://doi.org/10.1016/S0924-9338(12)75707-3

Nathan, T. (2005). The Djinns: a sophisticated conceptualization of pathologies and therapies. In R. Moodley, & W. West (Eds.), *Integrating Traditional Healing Practices into Counseling and Psychotherapy* (p. 26). Thousand Oaks, United States: SAGE Publications Inc.. https://doi.org/10.4135/9781452231648.n3

Neuner, F., Pfeiffer, A., Schauer-Kaiser, E., Odenwald, M., Elbert, T., & Ertl, V. (2012). Haunted by ghosts: prevalence, predictors and outcomes of spirit possession experiences among former child soldiers and war-affected civilians in Northern Uganda. *Soc. Sci. Med., 75*(3), 548–554. https://doi.org/10.1016/j.socscimed.2012.03.028

Ngubane, H. (1977). *Body and Mind in Zulu Medicine: an Ethnography of Health and Disease in Nyuswa-Zulu Thought and Practice*. London: Academic Press.

Nxumalo, C. T., & Mchunu, G. G. (2017). Exploring the stigma related experiences of family members of persons with mental illness in a selected community in the iLembe district, KwaZulu-Natal. *Health SA Gesondheid, 22*(1), 202–212. https://doi.org/10.1016/j.hsag.2017.02.002

Okulate, G. T., & Jones, O. B. E. (2003). Auditory hallucinations in schizophrenic and affective disorder Nigerian patients: phenomenological comparison. *Transcult. Psychiatr., 40*(4), 531–541. https://doi.org/10.1177/1363461503404004

Orobator, A. E. (2018). *Religion and Faith in Africa: Confessions of an Animist* (p. 144). Orbis Books.

Ouédraogo, S., Ridde, V., Atchessi, N., Souares, A., Koulidiati, J. L., Stoeffler, Q., & Zunzunegui, M. V. (2017). Characterisation of the rural indigent population in Burkina Faso: a screening tool for setting priority healthcare services in sub-Saharan Africa. *BMJ open, 7*(10), Article e013405. https://doi.org/10.1136/bmjopen-2016-013405

Paillé, P., & Mucchielli, A. (2016). In *L'analyse qualitative en sciences humaines et sociales* (fourth ed., p. 424). Armand Colin.

Patel, V. (1995). Explanatory models of mental illness in sub-Saharan Africa. *Soc. Sci. Med., 40*(9), 1291–1298. https://doi.org/10.1016/0277-9536(94)00231-H

Pigeon-Gagné, É., Hassan, G., Yaogo, M., & Ridde, V. (2017). An exploratory study assessing psychological distress of indigents in Burkina Faso: a step forward in understanding mental health needs in West Africa. *Int. J. Equity Health, 16*(1), 1–11. https://doi.org/10.1186/s12939-017-0633-8

Pigeon-Gagné, É., Yaogo, M., Saïas, T., Hassan, G., & Bambara, J. (2022). Itinéraires thérapeutiques et accès aux soins en santé mentale : une ethnographie au Burkina Faso. *Santé Publique, 34*, 299–307. https://doi.org/10.3917/spub.222.0299

Porfilio-Mathieu, L., Pigeon-Gagné, É., Dagenais, C., & Ridde, V. (2022). Prevalence and determinants of mental health among an indigent population in rural Burkina Faso: a cross-sectional study. *J. Global Health Rep., 6*, Article e2022017. https://doi.org/10.29392/001c.33820

Quinn, N. (2007). Beliefs and community responses to mental illness in Ghana: the experiences of family carers. *Int. J. Soc. Psychiatr., 53*(2), 175–188. https://doi.org/10.1177/0020764006074527

Read, U. M., Adiibokah, E., & Nyame, S. (2009). Local suffering and the global discourse of mental health and human rights: an ethnographic study of responses to mental illness in rural Ghana. *Glob. Health, 5*(1), 1–16. https://doi.org/10.1186/1744-8603-5-13

Ridde, V., Haddad, S., Nikiema, B., Ouedraogo, M., Kafando, Y., & Bicaba, A. (2010b). Low coverage but few inclusion errors in Burkina Faso: a community-based targeting approach to exempt the indigent from user fees. *BMC Publ. Health, 10*(1), 1–8. https://doi.org/10.1186/1471-2458-10-631

Ridde, V., Leppert, G., Hien, H., Robyn, P. J., & De Allegri, M. (2018). Street-level workers' inadequate knowledge and application of exemption policies in Burkina Faso jeopardize the achievement of universal health coverage: evidence from a cross-sectional survey. *Int. J. Equity Health, 17*(1), 1–13.

Ridde, V., Rossier, C., Soura, A. B., Bazié, F., & Kadio, K. (2014). A community-based approach to indigent selection is difficult to organize in a formal neighbourhood in Ouagadougou, Burkina Faso: a mixed methods exploratory study. *Int. J. Equity Health, 13*(1), 1–11. https://doi.org/10.1186/1475-9276-13-31

Ridde, V., & Sombie, I. (2012). Street-level workers' criteria for identifying indigents to be exempted from user fees in Burkina Faso. *Trop. Med. Int. Health, 17*(6), 782–791. https://doi.org/10.1111/j.1365-3156.2012.02991.x

Ridde, V., Yaogo, M., Kafando, Y., Sanfo, O., Coulibaly, N., Nitiema, P. A., & Bicaba, A. (2010a). A community-based targeting approach to exempt the worst-off from user fees in Burkina Faso. *J. Epidemiol. Community Health, 64*(01), 10–15. https://doi.org/10.1136/jech.2008.086793

Shibre, T., Negash, A., Kullgren, G., Kebede, D., Alem, A., Fekadu, A., Fekadu, D., Medhin, G., & Jacobsson, L. (2001). Perception of stigma among family members of individuals with schizophrenia and major affective disorders in rural Ethiopia. *Soc. Psychiatr. Psychiatr. Epidemiol., 36*(6), 299–303. https://doi.org/10.1007/s001270170048

Sorsdahl, K., & Stein, D. J. (2010). Knowledge of and stigma associated with mental disorders in a South African community sample. *J. Nerv. Ment. Dis., 198*(10), 742–747. https://doi.org/10.1097/NMD.0b013e3181f4b2d7

Sorsdahl, K., Stein, D. J., Grimsrud, A., Seedat, S., Flisher, A. J., Williams, D. R., & Myer, L. (2009). Traditional healers in the treatment of common mental disorders in South Africa. *J. Nerv. Ment. Dis., 197*(6), 434–441. https://doi.org/10.1097/NMD.0b013e3181a61dbc

Sorsdahl, K. R., Flisher, A. J., Wilson, Z., & Stein, D. J. (2010). Explanatory models of mental disorders and treatment practices among traditional healers in Mpumulanga, South Africa. *Afr. J. Psychiatr., 13*(4), 284–290. https://doi.org/10.4314/ajpsy.v13i4.61878.

van der Zeijst, M., Veling, W., Makhathini, E. M., Susser, E., Burns, J. K., Hoek, H. W., & Susser, I. (2021). Ancestral calling, traditional health practitioner training and mental illness: An ethnographic study from rural KwaZulu-Natal, South Africa. *Transcult. Psychiatr., 58*(4), 471–485. https://doi.org/10.1177/1363461520909615

van Duijl, M., Kleijn, W., & de Jong, J. (2014). Unravelling the spirits' message: a study of help- seeking steps and explanatory models among patients suffering from spirit possession in Uganda. *Int. J. Ment. Health Syst., 8*(1), 1–13. https://doi.org/10.1186/1752-4458-8-24

Vega, W. A., & Lewis-Fernández, R. (2008). Ethnicity and variability of psychotic symptoms. *Curr. Psychiatr. Rep., 10*(3), 223–228. https://doi.org/10.1007/s11920-008-0037-y

Ventevogel, P., Jordans, M., Reis, R., & de Jong, J. (2013). Madness or sadness? Local concepts of mental illness in four conflict-affected African communities. *Conflict Health, 7*(1), 1–16. https://doi.org/10.1186/1752-1505-7-3

Wang, P. S., Aguilar-Gaxiola, S., Alonso, J., Angermeyer, M. C., Borges, G., Bromet, E. J., Bruffaerts, R., De Girolamo, G., De Graaf, R., Gureje, O., & Haro, J. M. (2007). Use of mental health services for anxiety, mood, and substance disorders in 17 countries in the WHO world mental health surveys. *Lancet, 370*(9590), 841–850. https://doi.org/10.1016/S0140-6736(07)61414-7

Zempleni, A. (1985). *La maladie et ses causes. L'ethnographie : Causes, origines et agents de la maladie chez les peuples sans écriture* (pp. 13–44). Paris: Société d'ethnographie.