RESEARCH ARTICLE

Spirituality/Religiosity: A Cultural and Psychological Resource among Sub-Saharan African Migrant Women with HIV/AIDS in Belgium

Agnes Eboteb Arrey1 *, Johan Bilsen1, Patrick Lacor2, Reginald Deschepper1

1 Department of Public Health, Faculty of Medicine and Pharmacy, Vrije Universiteit Brussel, Brussels, Belgium, 2 Department of Internal Medicine and Infectious Diseases-AIDS Reference Center, Universitair Ziekenhuis Brussel, Brussels, Belgium

* aarrey@vub.ac.be

Abstract

Spirituality/religion serves important roles in coping, survival and maintaining overall well-being within African cultures and communities, especially when diagnosed with a chronic disease like HIV/AIDS that can have a profound effect on physical and mental health. However, spirituality/religion can be problematic to some patients and cause caregiving difficulties. The objective of this paper was to examine the role of spirituality/religion as a source of strength, resilience and wellbeing among sub-Saharan African (SSA) migrant women with HIV/AIDS. A qualitative study of SSA migrant women was conducted between April 2013 and December 2014. Participants were recruited through purposive sampling and snowball techniques from AIDS Reference Centres and AIDS workshops in Belgium, if they were 18 years and older, French or English speaking, and diagnosed HIV positive more than 3 months beforehand. We conducted semi-structured interviews with patients and did observations during consultations and support groups attendances. Thematic analysis was used to analyse the data. 44 women were interviewed, of whom 42 were Christians and 2 Muslims. None reported religious/spiritual alienation, though at some point in time many had felt the need to question their relationship with God by asking “why me?” A majority reported being more spiritual/religious since being diagnosed HIV positive. Participants believed that prayer, meditation, regular church services and religious activities were the main spiritual/religious resources for achieving connectedness with God. They strongly believed in the power of God in their HIV/AIDS treatment and wellbeing. Spiritual/religious resources including prayer, meditation, church services, religious activities and believing in the power of God helped them cope with HIV/AIDS. These findings highlight the importance of spirituality in physical and mental health and wellbeing among SSA women with HIV/AIDS that should be taken into consideration in providing a caring and healthy environment.
Introduction

Spirituality and religion can influence the way patients perceive health and disease and their interaction with other people [1–6]. Many patients are spiritual, and religious needs related to their disease can affect their mental health, and failure to meet these needs may impact their quality of life [7]. It is argued that it may be confusing to distinguish between spirituality and religion because of the ambiguous and personal meanings accorded to these concepts [4]. Spirituality is a broad concept with many perspectives and there is no consensus on a definition of this concept, only ambiguity as to how this concept is defined [8]. Spirituality is an inherent component of being human and it is subjective, intangible, and multifaceted. Spirituality and religion are often used interchangeably, but the two concepts are different. Some authors contend that spirituality involves a personal quest for meaning in life, while religion involves an organized entity with rituals and practices focusing on a higher power or God. Spirituality may be related to religion for certain individuals, but not, for example, for an atheist or yoga practitioners [8].

Similarly, some authors contend that spirituality refers to the "nearly universal human search for meaning, often involving some sense of transcendence" [9,10]. On the other hand, religion is "a set of beliefs, practices and language that characterises a community that is searching for transcendent meaning in a particular way, generally based upon belief in a deity"[10,11]. Spirituality/religion can take individual as well as collective forms. The concepts of spirituality and religiosity are not mutually exclusive and can overlap or exist separately[12]. However, prayer and meditation are often performed in solitude. Regular church attendance, religious belief or the influence of religious institutions are dwindling fast in recent years and there is also a tendency for people to believe without belonging to any religious affiliation in Western Europe and much of the developed world, irrespective of race and ethnicity [13,14]. Crockett & Voas (2006) and Voas & Crockett (2005) further assert that there is a generational decline in belief as well as religious belonging and attendance in Western Europe and much of the developed world[13,14]. On the other hand, in sub-Saharan Africa, many people still believe and belong to spiritual/religious institutions and religious plurality is common [15,16].

An increasing number of studies have examined the complexity and interdisciplinary connection between spirituality/religiosity, health and quality of life [17–19]. Recent global research and surveys have also shown that the spirituality and religious dimensions of patients’ lives need to be an integral part of patient management [20]. Spirituality/religion may differ for each person and may have a double-edged capacity that can enhance or damage health and wellbeing, especially among patients with chronic illnesses like mental disorders, cancer, diabetes, and HIV/AIDS [1,21–24].

Weathers et al 2011 give a conceptual definition of spirituality as “a way of being in the world in which a person feels a sense of connectedness to self, others, and/or a higher power of nature; a sense of meaning in life; and transcendence beyond self, everyday living and suffering” [25]. Conversely, Kaplan (2006) and Wood (1999) hold that spirituality is more than prayer, meditation, contemplation or personal reflection. It gives a sense of meaning to everyday life [26,27]. However, these scholars further assert that religion and spirituality have received increased interest in relation to serious illnesses in recent years [26,27]. Chaves (2015) conceptualized spirituality as support, relationship with the sacred, and transcendence. He also distinguished spirituality from religion, which is defined by religious affiliation, cultural affiliation and dogmas [28].

Religion and spirituality are related but distinct, as held by previous research where spirituality relates to interconnectedness with a transcendent being (spiritual perceptions) [29] and religiosity is the interpersonal and institutional engagement with a formal religious group,
doctrines and traditions (frequency of religious participation) [30]. For the purpose of this study, our working definition of spirituality ‘is personal belief in God or a Higher Power, that may include individual prayer, meditation and meaning in self’ and religion is defined ‘as organisational beliefs or adherence to institutionally based belief systems or dogma’. With reference to these definitions, we aim to reduce the line between spirituality and religion, especially as some phenomena associated with spirituality are essential elements of a broad conceptualisation of religion.

The widespread use of spirituality/religion in coping with serious medical and physical conditions has also been demonstrated in literature [31,32]. A number of previous studies have examined the relationship between spirituality, religious beliefs and activities and coping with physical illness in patients with chronic health conditions like heart disease, mental disorders, renal failure, diabetes, cancer, HIV/AIDS and several other physical conditions [32–35]. It has been previously reported high spirituality/religiosity help HIV/AIDS patients cope with their disease through engaging in behavioural change, reducing anxiety and other mental problems that could arise as a result of their HIV positive status [18,19].

Sub-Saharan Africa embraces a diversity of religions that prescribe moral behaviour and teachings [36]. There are many religions (Christianity, Islam, African indigenous religions) practiced by many sub-Saharan Africans (SSA) in African and wherever they happen to be, with Christianity being the largest religion [37,38]. As evidenced in literature spirituality/religion is multifaceted and has been a major influence on health beliefs and practices [34,39–42]. It is also argued that cultural norms and values as well as religion define the health-seeking strategies of many Africans [43]. Religious belief operates at every level of the society in sub-Saharan Africa (SSA) and spirituality has become a force for wholeness, healing and inner transformation, especially for those who are disillusioned by traditional institutional religions [37]. In many sub-Saharan African (SSA) countries experiencing a breakdown of political institutions, spirituality/religion can provide liberation and solace and religious discourse can also be seen as a remedy to reordering of power [37]. Many authors posit that for a majority of SSA especially women with HIV, spirituality has become a label for meaning, values, transcendence, hope and connectedness in most African societies [19,27,44–52].

It is increasingly agreed in literature that spirituality and religion are important to many people living with HIV/AIDS [53–56]. Religious organisations in most regions of Africa are often the key providers of care and support to people living with HIV/AIDS [50,57,58]. According to the WHO 2007 report, faith-based organisations own between 30% and 70% of health infrastructures in sub-Saharan Africa and these organisations play a great role in HIV/AIDS care and treatment [59]. Religion and strong adherence to religious principles are believed to protect against HIV/AIDS transmission and other illnesses and the failure of health policy makers to understand the influence of religion in HIV/AIDS treatment and care could seriously impede efforts to improve health services [50,60,61].

Access to antiretroviral therapy (ART) has greatly increased life expectancy after a positive HIV diagnosis and care for HIV/AIDS patients has significantly changed from treatment of a terminal to a manageable, chronic medical condition [62–65]. However, the quality of life of people living with HIV/AIDS, especially women from resource-limited countries, may be greatly impacted by poor functioning, dependency on others and negative mental health conditions such as depression, guilt, anxiety, the burden of keeping a secret [66], trauma from violent conflicts and rape [67], hopelessness, fear and suicidal ideation [68–72]. In addition, negative socio-economic phenomena such as stigma and discrimination, isolation, loneliness, divorce and intimate partner violence [73–78], maternal trauma [79] and uncertainty are
also challenges that may occur in life with HIV/AIDS that need more than medical care [80–86].

It has been demonstrated in literature that HIV is one of the most devastating illnesses of recent times, with profound effects on all aspects of life [87–89] and studies have shown that most persons with HIV/AIDS regard their spiritual as well as their physical health as important [90]. Most SSA women living with HIV/AIDS associate better health outcomes including self-confidence, coping, treatment adherence, longevity and coping skills to spirituality and religious involvement [91–94]. The integration of spirituality and religion in the care of patients with HIV/AIDS is important as patients face a series of challenges as a result of the diagnosis and management of the disease [45,95–99]. The World Health Organisation has stressed the need for spiritual care for patients as central and not peripheral to health [59]. The National Health Service Education for Scotland thus defines spiritual care as "that care which recognises and responds to the needs of the human spirit when faced with trauma, ill health or sadness and can include the need for meaning, for self-worth, to express oneself, for faith support, perhaps for rites or prayers or sacrament, or simply for a sensitive listener. Spiritual care begins with encouraging human contact in compassionate relationship, and moves in whatever direction need requires" [100]. Research has shown that religion and spirituality take a central place in the treatment and care of sub-Saharan Africans, in making sense of the illness and coping with HIV/AIDS [16,46,61,101–103].

The type of spirituality (negative or positive) adopted by a patient may have a critical impact on the course of the disease as reflected in previous studies [51,104,105]. It is argued that negative spirituality is when patients feel abandoned or punished by a higher power and positive spirituality means patients who firmly believe that God loves and forgives them despite their shortcomings [106]. Patients may adopt negative spiritual/religious beliefs in preference to conventional treatment that may be detrimental to health-seeking behaviours, treatment adherence, survival and quality of life [107]. For example, some HIV patients may refuse conventional treatment on the grounds that prayers and meditation will cure the virus.

Nonetheless, many HIV patients use spiritual/religious resources as enablers to stay in medical care [51,54,108]. Therefore, recognizing the type of spiritual beliefs of patients is important for holistic care and prevention by care providers [109,110]. It is also crucial for care providers to consider addressing the spiritual aspects of HIV/AIDS with SSA patients, in line with previous research that has examined the complex role of religion and spirituality in the health trajectories of patients [46,111,112]. Many studies have reported that sub-Saharan Africans with HIV/AIDS rely heavily on churches as spiritual resources, especially during the initial stage of adjusting to diagnosis, for wellbeing and longevity of life [99,113–115].

To better understand the importance of spirituality/religion as a source of strength, resilience and wellbeing among SSA migrant women with HIV/AIDS in Belgium, we need to consider the role that organised religion plays in health and illness among SSA. The dramatic transformation and salient popularity of Pentecostal and Charismatic Christianity highlights the relationship between spirituality/religion and health and wellbeing in the SSA communities, where belonging to and believing in the values of one or several Christian denominations is not uncommon [15,37,116]. The spiritual/religious diversity in SSA is mirrored among SSA migrants in a more secular Belgium and Western Europe [117–119]. With the above in mind, we have chosen to adopt the construct of spirituality/religiosity to include spiritual/religious needs identified and defined by the patients themselves, no matter how they understand it [7]. It is held by many authors that while physical assistance is given to HIV/AIDS patients, their spiritual needs should be addressed in order to provide holistic care in all stages of their illnesses [56,120,121].
2. Methods

This sub-study is part of a larger qualitative study on the experiences of SSA migrant women living with HIV/AIDS in Belgium. The decision to choose a qualitative approach was also based on its suitability to answer the research questions [122] and, moreover, to stress the relationship between spirituality/religion and the population studied [123]. Another reason for the choice of qualitative study is that it yields necessary information that can be helpful for decision making in healthcare and for individuals [124]. Some scholars also contend that qualitative research methods are typical approaches that are often used in anthropological and sociological research involving broadly stated questions about human experiences and realities studied through contact with people in their natural environments [125–128].

2.1 Study design

This is a qualitative study based on semi-structured interviews with SSA migrant women receiving HIV/AIDS treatment and care in Belgium, either identified by HIV/AIDS health care professionals from consultation lists or self-identified while attending HIV workshops as women living with HIV/AIDS. Follow-up interviews were conducted four months after the first interviews. In addition, their treating professionals were interviewed, observations were made during consultations and information from the hospital records as to their age and year of diagnosis was obtained to complement data. Where women refused to be interviewed, the HIV/AIDS healthcare providers systematically asked the patients their reasons for refusal. These reasons were communicated to the researcher who took note of the patients’ reasons.

2.2 Study population

Participants in this study were SSA women with HIV/AIDS and HIV treatment and care providers. All the women invited were adults, aged 18 years and above, speaking French or English and receiving treatment in Belgium. Only women originating from SSA who had been diagnosed with HIV/AIDS were included in the study. Patients only recently diagnosed, within a period of less than three months, were excluded because of the great emotional impact of finding out one is HIV positive.

2.2.1 HIV patients. The women were purposefully sampled from three sites:

1. The ARC in Brussels: HIV/AIDS treating experts purposefully selected patients meeting the criteria set for the study from the consultation list and informed them about the objectives of the study during consultations. Then they invited the patients to participate and later informed the researcher of the patient’s decision to participate or not. In the case of refusal to participate, the treating professionals communicated the reasons not to participate to the researcher who took notes of these reasons.

2. HIV workshops in Brussels: Self-identified HIV/AIDS patients receiving treatment and care from any of the AIDS Reference Centres were purposefully sampled through snowball techniques during HIV workshops in Belgium. During coffee breaks, the researcher approached some of the women and introduced the study to them. Those interested agreed to participate and referred the researcher to other women whom they believed would participate in the study.

3. Support group meetings: Two HIV support groups were selected for inclusion in the study. An HIV support group based in the AIDS Reference Centre at the Institute of Tropical Medicine in Antwerp and another HIV activist-run support group in Brussels were selected for their suitability to address the study’s aim.
2.2.2 Recruitment and inclusion criteria of HIV care providers. Only healthcare providers directly involved with the treatment and care of HIV patients were invited to participate in the study. HIV experts working within the ARC of the university teaching hospital in Brussels were recruited by means of a simple oral invitation by the researcher. Sampling for the study did not aim to capture a diversity of health professionals within the entire hospital and did not claim to be representative of each ARC, as the sample was small (n = 8). The main reason for including HIV experts in the study was to access a range of views and their experiences as practitioners with a range of different professional backgrounds. It was also necessary to corroborate, verify and explore in depth some issues emanating from the women’s narratives. Prior to the start of data collection, the head of the ARC invited the researcher to the staff weekly meeting and the purpose of the study was explained to them by the researcher. The HIV experts then agreed to facilitate recruitment of participants. No informed consent form was signed by any of the HIV experts. The sample of HIV experts consisted of five physicians, a HIV therapist nurse, a psychologist and a social worker. The sample reflected the range of different professionals present in any ARC in Belgium [129]. Healthcare providers from other health services required by women with HIV/AIDS were not included in the study.

2.3 Data collection and study procedure
Data collection for the study was done between April 2013 and December 2014. Health care professionals identified patients that met the inclusion criteria from the consultation list, informed them about the study and invited them to participate. The treating physicians briefly explained the aim of the study to patients. Participants recruited from HIV workshops were approached and invited by the researcher to participate in the study. In both cases where they agreed to participate, they signed the informed consent forms. Interview questions were focused on their relationship with God and the role of religion/spirituality since HIV diagnosis, allowing the participants to guide the conversation to a great extent. The interviewer asked probing questions following the trend of the conversation.

All interviews were conducted in French or English and recorded digitally. As regards observations, the treating physician asked patients if the researcher could be present for observations during consultations and notes were taken based on what was observed. For example, conversations about new illness symptoms, uses of medications, patients’ opinions on current treatment and side effects were noted by the observing researcher. Additionally, certain medical examinations such as blood pressure and weight were also noted. During the data collection phase, feedback from health care professionals as to participants’ reasons for accepting or refusing to be interviewed was also noted and included in the analysis process.

2.4 Data analysis
All interviews were transcribed verbatim in French or English. The transcriptions and field notes from observations were then reviewed and coded in preparation for thematic analysis. Open coding was used to retrieve themes in line with the study objective and an inductive process based on grounded theory was used to identify themes as they emerged from the data. This is also known as the “bottom-up approach” [130,131]. Themes related to the topic were identified by constant comparison until saturation was reached. Two researchers (AEA and RD) read and analyzed several interviews and then compared and discussed their findings until there was consensus about the codes and their meaning [132]. In this study, the use of thematic analysis was important in the identification of new themes that recurred in the data and that could eventually produce a bigger picture leading to general explications [133]. Quotations from the data were presented with any potential identifiers removed.
2.5 Ethical statements

Signed informed consent was obtained from each patient in conformity with the decision of the Ethics Committees. The confidentiality of participants was respected by removing all identifying elements (country of origin, names, place of residence) from data in order not to compromise the anonymity of the study participants. Culturally sensitive words or questions related to sexual orientations and practices (homosexuality, lesbianism, or transgender) were omitted in the data collection process. Participants were free to withdraw from the study at any time. There was no financial compensation. Oral consent was also obtained from HIV care providers, who also facilitated patient selection. The Ethics Committees of the Universitair Ziekenhuis Brussel (Approval number B.U.N. 143201215911) and the Institutional Review Board (IRB) of the Institute of Tropical Medicine, Antwerp, Belgium (Approval number IRB/AB/ac/141) approved the study. The authors are prepared to submit a scanned copy of the IRB or Ethics Committee Approval at any stage of the publication.

3. Results

3.1 Characteristics of participants

This sub-study is part of a larger study that explored the challenges experienced by SSA women living with HIV/AIDS and the coping strategies they employed to cope and live well with the disease. Of the 116 invited to participate in the study, 72 refused to be interviewed and 44 accepted. The large number of women who declined to be interviewed revealed confidentiality concern, distrust of the SSA diaspora, no envisaged cure for patients, fear of stigma and discrimination, and simply not being prepared to talk about HIV/AIDS as reasons to decline active participation. None of the women who refused to participate evoked spirituality/religion as a reason for declining participation. Table 1 shows the demographic characteristics of 44 study participants. Participants’ ages ranged from 20–67 years. They had migrated from 15 countries in sub-Saharan Africa and reasons for migrating were diverse. Thirty-two patients had been diagnosed HIV positive more than 10 years ago at the time of the interview. Thirty-eight patients found out their HIV-positive status in Belgium and 6 already knew that they were infected with HIV before leaving Africa. A majority of the women were employed or employable. All but 9 were sexually active and reported inconsistent condom use.

3.2 Spiritual/religious characteristics of participants

Forty-two women were practicing Christians and two were Muslims. About 62% of the Christians indicated they were Catholic Christians and 38% said they were Protestants/Revivalist Christians. One woman reported converting from Islam to Christianity, without giving any details as to why she changed religion, after her diagnosis. None of the women reported disclosing their HIV-positive status to anyone in the religious organizations to which they belong. Most participants indicated that spirituality was an important part of their lives. They reported attending religious services more than once a week and participated in church activities. One Christian woman indicated spiritual independence and individuality. She did not seek support by attending church regularly, but said that she did pray and meditate a lot. All the participants reported daily non-organized activities such as prayer and meditation for a greater connection with God. A few indicated fasting when it was convenient.
Table 1. Demographic details of study participants (n = 44).

| Variable                        | Frequency |
|---------------------------------|-----------|
| **Age**                         |           |
| 20–29 years                     | 5         |
| 30–39 years                     | 11        |
| 40–49 years                     | 15        |
| 50+ years                       | 13        |
| **Education**                   |           |
| University                      | 12        |
| High school                     | 9         |
| Secondary school                | 17        |
| Primary school                  | 1         |
| Informal                        | 1         |
| Unknown                         | 4         |
| **Mode of transmission**        |           |
| Heterosexual                     | 38        |
| Homosexual                       | 0         |
| Service-related                  | 1         |
| Perinatal                        | 1         |
| Unknown                          | 4         |
| **Have children**               |           |
| Yes                             | 35        |
| No                              | 9         |
| **Probable place of infection** |           |
| Belgium                         | 5         |
| Country of origin               | 39        |
| **Employment status**           |           |
| Employed                        | 23        |
| Unemployed/jobseekers           | 13        |
| Retired                         | 4         |
| Disability                      | 4         |
| **Disclosure status**           |           |
| HIV treating staff              | 44        |
| Other health care professionals | 30        |
| Intimate partner only           | 25        |
| Family                          | 18        |
| Friends                         | 10        |
| Children                        | 9         |
| **Civil status**                |           |
| Married                         | 24        |
| Single with partner             | 11        |
| Single/widowed without partner  | 9         |
| **Support group adherence**     |           |
| Members                         | 19        |
| Non-members                     | 25        |
| **Reported Religion**           |           |
| Christians                      | 42        |
| Muslims                         | 2         |

doi:10.1371/journal.pone.0159488.t001
3.3 Overview of findings

A majority of the women spoke of their close personal relationship with God; most often before the question was put to them of whom they felt supported them in living with HIV/AIDS. The women discussed two common themes: strong faith and belief in God and spiritual/religious coping with illness and treatment. Many women believe that God heals in different ways and using antiretroviral therapy is a way God uses to heal them through the wisdom of the care providers. Table 2 summarises some reasons why many women combine spirituality/religiosity resources and ART in their HIV/AIDS trajectory to live a good quality life and age well. These women looked on spirituality/religiosity as a vital resource to self-regulate life with HIV/AIDS.

3.3.1 Strong faith and belief in God. Reporting a relationship with and connection to God, a higher spiritual being, with a higher power was common among the women. Some women reported being connected to God or Jesus or the Holy Spirit. Connectedness with God was individual for those who believe in God. For example a woman described this connectedness that summarized participants’ beliefs about their spiritual self and God:

When I go for my daily walk, I listen to music and think of God. I believe in miracles. I never believed I was going to live to the age of 50 when I was diagnosed HIV positive 20 years ago. 10 years ago the doctors gave me up for dead when I was admitted to the emergency section of the hospital. The treating professionals were just waiting to pronounce me dead any minute. Then my pastor came and prayed for me in the hospital and left. You may say it’s psychological but no. There is a God that does things. It is my personal belief. It encouraged me to fight. Lord, let there be miracles.

(P3, age 50)

Most of the women described how their spiritual beliefs, practices or experiences changed and they discussed becoming closer to God as a result of their HIV disease. Most of the women expected a miracle to happen and that they would be cured or a cure would soon be found. A participant commented:

I am a devout Catholic. I believe in God and follow my religious practices. I was about 15 years old when I was forcibly married to an abusive 70-year-old. At 19 I was diagnosed HIV positive in Africa [Africa replaces name of country] after prolonged suffering from repeated diarrhoea, fever, loss of pregnancies and the death of my baby. One day, I escaped and ran to my parish priest who took me to the hospital because I was very sick and almost dying. My husband, a traditional medicine man, had refused to take me to the hospital. I never went back to his home. I was given refuge in a home that cared for abused girls. It was not safe for me to remain there because of the aggressiveness of my husband. The priest and his organization helped me to travel to Belgium. We have medications that we can take and survive. You must always have hope. I strongly believe in God and I always say that a miracle

Table 2. Reasons for combining ART and God’s healing powers.

| Reason                                                                 | Description                                                                 |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Prayer and meditation alone cannot heal HIV/AIDS                     |                                                                             |
| Better physical and mental health and wellbeing as a result of ART   |                                                                             |
| Little or no cost in obtaining ART. Free access to ART and God       |                                                                             |
| Some diseases can be treated without medications but not HIV/AIDS    |                                                                             |
| Non-adherence is equivalent to not obeying God and refusing a second chance |                                                               |
| Remaining independent to pursue goals                                |                                                                             |

doi:10.1371/journal.pone.0159488.t002
will happen. You must always hope and science has progressed a lot. We hope that one day we will be free of this illness.

(P1, 23 years)

For a majority of the participants, HIV diagnosis and other significant and stressful life events like genocide and the killing of very close family members, rape and intimate partner violence resulted in a reflection and increase in spirituality and perceived closeness to God. One woman perceived surviving genocide as her “second chance” to be connected to God.

I’m a Protestant with big faith (laugh). . . I witnessed the massacre of my brothers and father. The diagnosis did not change my beliefs because I was already a believer. Perhaps it has helped me to endure the shock. Perhaps and I don’t doubt it. It is not because my belief and faith have increased, I say it’s because my God will do something. The disease has been diagnosed, ok, I have a powerful God. My belief added something to life, to the way I have handled the issue.

(P2, 42 years)

3.3.2 Spiritual/religious coping with illness and treatment. Prayers, meditation and religious activities were the most common coping strategies reported by most participants to integrate illness and treatment into their lives. A majority of the women reported that praying and creating a connection with God helped them to accept, adjust and pursue a normal life. An illustration of this comment:

After testing for HIV, the doctor counselled me on what to expect if the results were positive . . . I pray a lot, a fast a lot and I believe that nobody can do anything except God. I was in great shock when the doctor told me that I’m HIV positive. I told myself I will not die if God does not want me to die, even when the doctors say you are going to die. I strongly believe in my God. The only thing I think of here is my heaven. I want God to accept me for who I am. God made me not to think a lot about my illness. Nothing can happen without God’s power. I thank God that I am in Belgium and receive good care. I advise all women with HIV to take their medications as they have been asked to and also believe in God. These two things—medications and prayers—are very important.

(P13, age 41 years)

Another participant commented on her relationship with God:

“I am a believer and nothing has changed concerning my relationship with God”.

(P40, age 52 years)

Some Christians with strong Pentecostal underpinnings will refuse or encourage treatment, even if it is free, based on their beliefs that only God can cure HIV/AIDS. Opposition to a strong spiritual/religious belief that only prayers and mediation are enough to cure a life-threatening illness like HIV was illustrated by a participant.

I’m in the process of divorcing after 5 years of marriage because of what I believe is the difference in integrating spirituality into my life with HIV. My husband is a very strong believer who thinks that a cure for HIV will come from God and not through medical
treatment. It may be possible to be cured without medications, but I’m a realist myself. It would be stupid to think that you would be cured without taking medications. My husband wanted me to stop taking medications and only pray and fast, which I refused. He believes that God cures all illnesses. I have to take my medications even when I pray and fast.

(P23, age 31 years)

Spirituality/religiosity was commonly mentioned as the main source of psychological support among study participants.

I am a Christian and in 1982 I accepted Jesus Christ as my saviour and after the death of my husband in 1989 I decided not to go against my Christian teaching by having another man. If you have a relationship with God he will be present in the everyday challenges you encounter and not only when there is illness. If you surrender yourself to the Almighty God you will feel better because He is the one that does all. If you are with our Almighty God, Jesus Christ, life is calm and you take life as it is. There are ups and downs of life but you must trust in God. . .who has given the intelligence to scientists to continue searching for new and more effective HIV treatments. We must treat ourselves. . .despite the fact that death is the way to God.

(P21, age 65 years)

No participant reported any case of negative spiritual/religious coping and complete rejection of medical treatment in favour of prayers and meditation. However, a few cases of negative coping that privileged spiritual/religious coping through prayers, fasting and meditation over HIV therapy were reported by some HIV care providers in the case of other patients who receive treatment and care at the AIDS Reference Centre. One care provider reported:

I think another difference between an African woman and a European woman is their religion. African patients are religious. They go to church and everything. I have got a few who stopped medication because the pastor said ‘you are healed and you don’t have to take medications’. They just have to fast and not take medications. I don’t see this with European ladies.

(HIV therapist)

4. Discussion

This study explores spirituality/religion as a source of strength, resilience and wellbeing among sub-Saharan African (SSA) migrant women with HIV/AIDS in Belgium. Our findings have revealed that a striking proportion of participants (about 98%) indicated that spirituality/religion was a very important resource in their lives. In this study, about 96% of participants (n = 42 of 44) revealed that they were Christians and 4% were Muslims. Strikingly, this pattern mirrors HIV/AIDS prevalence rates among women in sub-Saharan Africa, a predominantly Christian region [134]. On the other hand, research has found low HIV prevalence in the growing Muslim population in SSA [135,136]. We found that most of the women in the study used spiritual/religious strategies like prayer, meditation and engaging in religious activities to buffer life stressors caused by HIV/AIDS and to adhere to ART. Many study participants reported that they prayed and meditated and always asked for divine intervention whenever they took their medications.

There is evidence from our study to suggest that although spirituality and religiousness appear to be different, they are not independent. All participants (except one who indicated
only being spiritual) considered themselves both spiritual and religious in their belief in God or a Higher Power, frequent prayers, meditation, fasting, church membership and church attendance. Thus combining the spiritual/religious strategies of prayer/meditation and conventional treatment helped them cope with overall life with HIV/AIDS, consistent with some studies that described the importance of spirituality and religion in patients with chronic illness [7,137–139].

Taking medication is an individual responsibility and survival with HIV/AIDS depends on taking ART [140] and adhering to ART [141]. Research suggest that some religious beliefs and doubts about antiretroviral therapy among SSA migrant women and men may be culture specific, where faith-based healing is propagated by leaders of these faith communities. It is argued that health-related spiritual beliefs like calling on God or a higher power for protection and asking God or that power to take control of health is common among patients with life-threatening diseases like cancer, mental illness, and HIV/AIDS [107]. Patients who accept such beliefs will not overtly reject ART when offered, but most often will not adhere to treatment and will report miraculous healing. Our findings also suggest that high spirituality/religiosity may lead to voluntary or involuntary discontinuation of ART on the part of the patient due to pressure from a stronger spiritual/religious intimate partner (interview with P23, age 31) or pastor. This finding is consistent with previous research in the UK on reported deaths of three SSA women who stopped their ART on the grounds that prayers cured them of HIV/AIDS [142]. These participants, like the minority in our study, disengaged with ART because of their beliefs that were incompatible with conventional medicine. This paper also revealed that apart from the woman who identified her husband as a barrier to her adherence to treatment, most women were reluctant to identify the churches they attended and the pastors involved. Those who believed in faith-based healing described themselves simply as Christians.

Nonetheless, we do not suggest that the problem of faith-based healing affects a large number of SSA women but, if it occurs, it can have disastrous health consequences. Overall, our study revealed that spirituality/religion is very important to Christians as well as Muslim SSA women with HIV/AIDS. The most striking difference between Christian and Muslim participants was the large number of HIV/AIDS infected women among Christians as compared to Muslims. Healthcare providers should be aware of these findings in the treatment and care of HIV/AIDS infected SSA migrant women.

This study has a number of limitations. Firstly, the sample size comprised only those who agreed to be interviewed. The views of the majority (62%) on the subject could not be reported for the patients selected and invited to participate in the study refused. Therefore the findings are explication of spirituality/religiosity as a resource used in coping by HIV-positive sub-Saharan African migrant women in Belgium. However, sample size is less relevant in qualitative research and so the sample size is this study is adequate and we believe that saturation was achieved through the data collection methods and sample size used in this study [143–145].

Secondly, apart from the two participants who reported being Muslims, we could not report the existence of a plurality of religions among Christian participants: how many women were of the Catholic, Pentecostal/Charismatic, Protestant or other Christian denominations. In literature, dualism or plurality of religions is not uncommon among many SSA Christians. Christianity in sub-Saharan Africa denotes a tremendous diversity and this Christian sample may not be representative of different Christian denominations that exist [37,97]. Similarly, no reports were made suggesting that any participants belonged to indigenous African religions, or to other religious sects and cults. As evident from the research literature, Christian influence predominates in SSA and common practices often take the form of religious syncretism whereby people may regularly partake in Christian rituals and continue to maintain traditional beliefs and rituals [37,61,119,146–148]. However, traditional African religious norms, beliefs or
rituals did not emerge in the interviews during discussions about spirituality/religiosity and illness treatment. The syncretic belief system was not revealed in our study. Further research is needed in Belgium on the impact of traditional African religious syncretism in combining different attitudes about treating HIV/AIDS.

Thirdly, potential bias in qualitative research is not uncommon because the research methods depend on the perspectives, skills, training, knowledge and experience of the researcher. There might have been bias in not including culturally-sensitive words or phrases that could denote sexual orientation of the participants, such as homosexuality, lesbianism and transgender, during the data collection process. Sexuality, sex and sexual orientations other than heterosexuality remain a subject of taboo among many sub-Saharan Africans no matter where they happen to live [149–152]. Fourthly, reports by the women may present only positive perspectives and reports of challenges may not be fully accurate, given that we could not measure spirituality/religiosity by purported attendances of religious services, organized or unorganized praying, fasting, meditation and religious activities.

It is plausible that many of these experiences may apply to other SSA migrant women living with HIV/AIDS in Belgium and that our findings could therefore foster a better understanding of the importance of spirituality/religion for SSA women with HIV/AIDS. We cannot pretend that the findings are a strict representation of the general HIV/AIDS population, but, the use of purposive sampling, triangulation and constant comparisons are pragmatic approaches used to assess validity and generalizability. The term generalisation or transferability refers to the degree to which results of qualitative research can be generalised or transferred to other situations, settings or contexts [153]. Importantly, for the purpose of this sub-study, the understanding of complex human psychosocial issues like spirituality/religion is more important than generalisability or transferability of results [154]. Furthermore, generalisation can be perceived as the “fit” between the cases “within and out” of the study, allowing representation and explication based on interpreting the original data [155]. In addition, the clear description of the sampling procedures and selection criteria provided makes generalisation achievable. Detailed information about the research sites is also provided in terms of the procedures undertaken to achieve the aims of the research. To enhance the validity of this qualitative research, different methods to collect data were used: interviews, observations and document analysis.

Despite these limitations, this study is the first to study spirituality/religiosity as a resource and its vital role among SSA migrant women with HIV/AIDS in Belgium. These findings highlight the importance of spirituality/religiosity among SSA migrant women and ways in which they express their spirituality/religiosity and how the women give context to their lives with HIV/AIDS. The study further provides insights into the perceived role of spirituality/religiosity in illness, health and healing, consistent with previous research [45,95,156]. Nonetheless, integrating spirituality and religion in health and professional training has met with difficulties because most healthcare professionals lack the training on how to deal with the spiritual/religious dimension of health and disease [157]. Some authors further argue that spirituality/religion are incompatible with the concept of health [158].

There is an entire body of literature supporting the benefits of spiritual/religious coping in persons with chronic illnesses like HIV/AIDS [34,54,159]. Our study findings further confirm the very important role spirituality/religiosity play in the management of life stressors [160] and the overall physical and mental health and wellbeing of HIV-infected SSA migrant women, consistent with previous research [6,112]. This study also revealed that strong faith and belief in God can help the HIV-infected women cope with their illness and stay on medications as they strongly believe that their treatment trajectory is determined by God. Most participants indicated that if God had wanted them to die of HIV/AIDS, he would not have made it
possible for them to be in Belgium, where they get free treatment and care. Access to free antiretroviral therapy (ART) has made living with HIV/AIDS for these women less disastrous, especially for those who can tolerate the therapy. This assertion came especially from women originating from SSA countries where sexual violence had been used as a weapon of war and millions of people had died in internal violent conflicts [161,162]. Their spirituality/religiosity permitted them to step back and look at their lives from different perspectives. They perceived that God had forgiven them and had given them a second chance, which they must not abuse. These women revealed that they were happy to be alive, though living with a terrible disease that sometimes causes shame [163–165].

Spirituality/religion as an incentive towards treatment adherence is highlighted in our study, as participants developed a positive self-image, self-care, positive health behaviours and self-esteem. Furthermore, the participants reported that ART and strong faith and belief in God had reduced their worries of imminent death and coping with other HIV/AIDS-related illnesses that they are confronted with. The participants believed that they do their part, that is to take their medications, and God will do his part, which is to make them feel well and happy. This combination of ART and God’s hands in the healing trajectory of women with HIV/AIDS has been reported in previous studies [166]. This finding provides support to previous research holding that strong faith and belief in God enable HIV positive SSA migrant women to worry less about dying [167]. We found that participants saw spirituality/religion as connection to God, and not to the religious communities to which they belong, for fear of stigmatization and discrimination. Interestingly, not disclosing HIV positive status to any religious leader indicated their connectedness only to God or a higher being.

Future research should focus on HIV-infected women who abandon HIV care for religious/spiritual reasons and later return to restart ART when they are in a serious and critical condition. There is a need for an in-depth understanding of the major reasons for this and the process they undergo in refusing or restarting medical care.

5. Conclusions and Relevance to Clinical Practice

The findings of this study illustrate the necessity for researchers, clinicians and policy makers to recognise the many meanings and relevance attributed to spirituality/religiosity by SSA migrant women in the Belgian context. This study demonstrates that when SSA migrant women become ill with HIV/AIDS, they tend to heavily rely on spirituality, religious beliefs and practices in order to relieve stress, maintain hope and a sense of control, meaning and purpose in life, as has been found in previous studies of patients with chronic illnesses [45,98,168,169]. Our study concludes that spirituality/religiosity among SSA migrant women can help them cope better with the experience of living with HIV/AIDS. However, there is also the possibility of high spirituality/religiosity as an incentive or a barrier to treatment adherence among SSA women living with HIV/AIDS. Despite the diversity of faiths, healthcare providers should learn details of specific religious perspectives by talking and listening to SSA women with HIV/AIDS as proposed in other studies [34,170–172].

Several studies have shown that the doctor-patient relationship is more than the provider-consumer model, for healthcare providers not only supply services desired by the healthcare consumers but engage patients in negotiations that persuade and push them to adhere to treatment [105,174]. When spirituality/religiosity becomes a hindrance to therapy adherence, care providers should be aware of and acknowledge the possible co-existence of spirituality/
religiosity and ART adherence among many SSA women. Care providers should use examples of patients who combine spirituality/religiosity and conventional treatment to persuade and counsel "divine-healing" oriented patients to remain in medical care and continue treatment. From this study, spiritual/religious involvements enable SSA women with HIV/AIDS to cope better and experience mental/psychological wellbeing despite their negative health outcomes if antiretroviral therapy is disengaged.

6. Recommendations

Patients and health caregivers can benefit from organized spiritual/religious interventions despite sensitive cultural differences. Healthcare providers should improve their practical approaches with HIV patients by considering ways to assess and identify how spirituality serves as a basis for giving meaning to the patient’s experience of HIV. Religious and spiritual coping should be assessed and encouraged, without pressurising patients, early in treatment in order to help patients who express the use of religious/spiritual resources to cope. Spiritual/religious coping techniques and appropriate interventions, including discussing religious/spiritual beliefs, referral to pastoral and humanist counsellors and psychotherapy to address religion/spirituality, should be incorporated into treatment plans.

Acknowledgments

Firstly we would like to thank all the sub-Saharan African migrant women who agreed to participate in the study. Secondly, we are also grateful to the HIV care team at the AIDS Reference Centre for their assistance in the recruitment process. We also thank the coordinators of the support groups for people living with HIV/AIDS who obtained permission from group members to allow the first author to be present during their meetings.

Author Contributions

Conceived and designed the experiments: AEA. Performed the experiments: AEA. Analyzed the data: AEA JB RD. Contributed reagents/materials/analysis tools: AEA JB PL RD. Wrote the paper: AEA. Read and approved the final manuscript: AEA JB PL RD.

References

1. Post BC, Wade NG (2009) Religion and spirituality in psychotherapy: a practice-friendly review of research. J Clin Psychol 65: 131–146. doi: 10.1002/jclp.20563 PMID: 19132737
2. Puchalski CM (2001) The role of spirituality in health care. Proc (Bayl Univ Med Cent) 14: 352–357.
3. Szaflarski M (2013) Spirituality and religion among HIV-infected individuals. Curr HIV/AIDS Rep 10: 324–332. doi: 10.1007/s11904-013-0175-7 PMID: 23996649
4. Tu MS (2006) Illness: an opportunity for spiritual growth. J Altern Complement Med 12: 1029–1033. doi: 10.1089/acm.2006.12.1029 PMID: 17212575
5. Tuck I (2012) A critical review of a spirituality intervention. West J Nurs Res 34: 712–735. 0193945911433891 [pii];doi: 10.1177/0193945911433891 PMID: 22309991
6. Zou J, Yamanaka Y, John M, Watt M, Ostermann J, Thielman N (2009) Religion and HIV in Tanzania: influence of religious beliefs on HIV stigma, disclosure, and treatment attitudes. BMC Public Health 9: 75. 1471-2458-9-75 [pii];doi: 10.1186/1471-2458-9-75 PMID: 19261186
7. Koenig HG (2009) Research on religion, spirituality, and mental health: a review. Can J Psychiatry 54: 283–291. PMID: 19497180
8. Tanyi RA (2002) Towards clarification of the meaning of spirituality. J Adv Nurs 39: 500–509. 2315
9. Hall DE, Koenig HG, Meador KG (2004) Conceptualizing "religion": How language shapes and constrains knowledge in the study of religion and health. Perspect Biol Med 47: 386–401. S1529879504303868 [pii]; PMID: 15247504
10. Astrow AB, Puchalski CM, Sulmasy DP (2001) Religion, spirituality, and health care: social, ethical, and practical considerations. Am J Med 110: 283–287. S0002934300007087 [pii]. PMID: 11247596

11. Sulmasy DP (2002) A biopsychosocial-spiritual model for the care of patients at the end of life. Gerontologist 42 Spec No 3: 24–33. PMID: 12415130

12. Mytko JJ, Knight SJ (1999) Body, mind and spirit: towards the integration of religiosity and spirituality in cancer quality of life research. Psychooncology 8: 439–450. doi: 10.1002/(SICI)1099-1611 (19990910)8:5<439::AID-PON1241>3.0.CO;2-L [pii]. PMID: 10559803

13. Voas D, Crockett A (2005) Religion in Britain: Neither Believing nor Belonging. Sociology 39: 11–28.

14. Crockett A, Voas D (2006) Generations of Decline: Religious Change in 20th-Century Britain. JOURNAL FOR THE SCIENTIFIC STUDY OF RELIGION 45: 567–584.

15. Camette J and King R (2005) Selling Spirituality: The Silent Take Over of Religion. 2 Park Square, Milton Park, Abingdon, Oxfordshire, OX14 4RN: Routledge. 207 p.

16. Sovran S (2013) Understanding culture and HIV/AIDS in sub-Saharan Africa. SAHARA J 10: 32–41. doi:10.1080/17290376.2013.807071 PMID: 23895330

17. Bussing A, Baumann K, Hvidt NC, Koenig HG, Puchalski CM, Swinton J (2014) Spirituality and health. Evid Based Complement Alternat Med 2014: 682817. doi: 10.1155/2014/682817 PMID: 24616739

18. Abu-Raiya H (2013) On the links between religion, mental health and inter-religious conflict: a brief summary of empirical research. Isr J Psychiatry Relat Sci 50: 130–139. PMID: 24225441

19. Adams J, Trinitapoli J (2009) The Malawi Religion Project: Data collection and selected analyses. Demogr Res 21: 255–288. doi: 10.4054/DemRes.2009.21.10 PMID: 20072664

20. D’Souza R, George K (2006) Spirituality, religion and psychiatry: its application to clinical practice. Australas Psychiatry 14: 408–412. APY2314 [pii];doi: 10.1111/j.1440-1665.2006.02314.x PMID: 17116082

21. Pargament KI, Lomax JW (2013) Understanding and addressing religion among people with mental illness. World Psychiatry 12: 26–32. doi: 10.1002/wps.20005 PMID: 23471791

22. Bonelli RM, Koenig HG (2013) Mental disorders, religion and spirituality 1990 to 2010: a systematic evidence-based review. J Relig Health 52: 657–673. doi:10.1007/s10943-013-9691-4 PMID: 23420279

23. Gall TL (2004) The role of religious coping in adjustment to prostate cancer. Cancer Nurs 27: 454–461. PMID: 15632786

24. Harrison MO, Edwards CL, Koenig HG, Bosworth HB, Decastro L, Wood M (2005) Religiosity/spirituality and pain in patients with sickle cell disease. J Nerv Ment Dis 193: 250–257. 00005053-200504000-00005 [pii]. PMID: 15805821

25. Weathers E, McCarthy G, Coffey A (2015) Concept Analysis of Spirituality: An Evolutionary Approach. Nurs Forum. doi: 10.1111/nuf.12128

26. Kaplan SA, Calman NS, Golub M, Ruddock C, Billings J (2006) The role of faith-based institutions in addressing health disparities: a case study of an initiative in the southwest Bronx. J Health Care Poor Underserved 17: 9

27. Kaplan SA, Calman NS, Golub M, Ruddock C, Billings J (2006) The role of faith-based institutions in addressing health disparities: a case study of an initiative in the southwest Bronx. J Health Care Poor Underserved 17: 9

28. Mytko JJ, Knight SJ (1999) Body, mind and spirit: towards the integration of religiosity and spirituality in cancer quality of life research. Psychooncology 8: 439–450. doi: 10.1002/(SICI)1099-1611 (19990910)8:5<439::AID-PON1241>3.0.CO;2-L [pii]. PMID: 10559803

29. Dein S (2005) Spirituality, psychiatry and participation: a cultural analysis. Transcult Psychiatry 42: 526–544. PMID: 16570516

30. Greenfield EA, Vaillant GE, Marks NF (2009) Do formal religious participation and spiritual perceptions have independent linkages with diverse dimensions of psychological well-being? J Health Soc Behav 50: 196–212. PMID: 19537460

31. Hodge DR, Horvath VE (2011) Spiritual needs in health care settings: a qualitative meta-synthesis of clients’ perspectives. Soc Work 56: 306–316. PMID: 22308663

32. Koenig HG, Larson DB, Larson SS (2001) Religion and coping with serious medical illness. Ann Pharmacother 35: 352–359. PMID: 11261534

33. Kremer H, Ironson G (2014) Longitudinal spiritual coping with trauma in people with HIV: implications for health care. AIDS Patient Care STDS 28: 144–154. doi: 10.1089/apc.2013.0280 PMID: 24601735

34. Larson DB, Koenig HG (2000) Is God good for your health? The role of spirituality in medical care. Cleve Clin J Med 67: 80, 83–80, 84. PMID: 10680272
35. Levin JS, Larson DB, Puchalski CM (1997) Religion and spirituality in medicine: research and educa-
tion. JAMA 278: 792–793. PMID: 926846
36. Dew RE, Daniel SS, Koenig HG (2007) A pilot study on religiousness/spirituality and ADHD. Int J Ado-
lesc Med Health 19: 507–510. PMID: 18348425
37. Ellis S, ter Haar G (1998) Religion and politics in sub-Saharan Africa. Journal of Modern African Stud-
ies 36: 175–201.
38. Huwelmeier G (2013) Creating and refining boundaries—church splitting among Pentecostal Viet-
namese migrants in Berlin. Integr Psychol Behav Sci 47: 220–230. doi: 10.1007/s12124-012-9225-8
PMID: 23264035
39. Agadjanian V, Yabiku ST (2014) Religious Affiliation and Fertility in a Sub-Saharan Context: Dynamic
and Lifetime Perspectives. Popul Res Policy Rev 33: 673–691. doi: 10.1007/s11113-013-9317-2
PMID: 26500383
40. Dein S, Pargament K (2012) On not praying for the return of an amputated limb: conserving a relation-
ship with God as the primary function of prayer. Bull Menninger Clin 76: 235–259. doi: 10.1521/bumc.
2012.76.3.235 PMID: 22988900
41. Muula AS (2010) “I can’t use a condom, I am a Christian:” salvation, death, and… naivety in Africa.
Croat Med J 51: 468–471. PMID:20960597
42. Yeatman SE, Trinitapoli J (2008) Beyond Denomination: The Relationship between Religion and
Family Planning in Rural Malawi. Demogr Res 19: 507–510. PMID: 18348425
57. Agadjanian V, Menjivar C (2011) Fighting down the scourge, building up the church: organisational constraints in religious involvement with HIV/AIDS in Mozambique. Glob Public Health 6 Suppl 2: S148–S162. doi: 10.1080/17441692.2011.598869 PMID: 21787253

58. Manzou R, Schumacher C, Gregson S (2014) Temporal dynamics of religion as a determinant of HIV infection in East Zimbabwe: a serial cross-sectional analysis. PLoS One 9: e86060. doi: 10.1371/journal.pone.0086060; PONE-D-13-27552 [pii]. PMID: 24465868

59. WHO (2007) Faith-based organizations play a major role in HIV/AIDS care and treatment in sub-Saharan Africa.

60. Agha S, Hutchinson P, Kusanthan T (2006) The effects of religious affiliation on sexual initiation and condom use in Zambia. J Adolesc Health 38: 550–555. S1054-139X(05)00279-X [pii];doi:10.1016/j.jadohealth.2005.04.012 PMID: 16635766

61. Lagarde E, Enel C, Seck K, Gueye-Ndiaye A, Piau JP, Pison G, et al. (2000) Religion and protective behaviours towards AIDS in rural Senegal. AIDS 14: 2027–2033. PMID:10997408

62. Litwinczuk KM, Groh CJ (2007) The relationship between spirituality, purpose in life, and well-being in HIV-positive persons. J Assoc Nurses AIDS Care 18: 13–22. S1055-3290(07)00106-9 [pii];doi:10.1016/j.janc.2006.12.003 PMID: 17587068

63. Mahungu TW, Rodger AJ, Johnson MA (2009) HIV as a chronic disease. Clin Med 9: 125–128.

64. Montaner JS, Lima VD, Harrigan PR, Lourenco L, Yip B, Nosyk B, et al. (2014) Expansion of HAART coverage is associated with sustained decreases in HIV/AIDS morbidity, mortality and HIV transmission: the "HIV Treatment as Prevention" experience in a Canadian setting. PLoS One 9: e87872. doi: 10.1371/journal.pone.0087872; PONE-D-13-46406 [pii]. PMID:24533061

65. Smith MK, Powers KA, Muessig KE, Miller WC, Cohen MS (2012) HIV as a chronic disease. Clin Med 9: 125–128.

66. Smith RA, Niedermyer AJ (2009) Keepers of the Secret: Desires to Conceal a Family Member's HIV-Positive Status in Namibia, Africa. Health Communication 24: 459–472. doi: 10.1080/10410230903023501 PMID: 19657828

67. Shannon K, Leiter K, Phaladze N, Hlanze Z, Tsai AC, Heisler M, et al. (2012) Gender inequity norms are associated with increased male-perpetrated rape and sexual risks for HIV infection in Botswana and Swaziland. PLoS One 7: e28739. doi: 10.1371/journal.pone.0028739; PONE-D-11-05193 [pii]. PMID: 22247761

68. Bateganya MH, Amanyeiwe U, Roxo U, Dong M (2015) Impact of support groups for people living with HIV on clinical outcomes: a systematic review of the literature. J Acquir Immune Defic Syndr 68 Suppl 3: S368–S374. doi: 10.1097/QAI.0000000000000519; 00126334-201504151-00013 [pii]. PMID: 25768876

69. Dixon D, Cruess S, Kilbourn K, Klimas N, Fletcher MA, Ironson G, et al. (2006) Social Support Mediates Loneliness and Human Herpesvirus Type 6 (HHV-6) Antibody Titers. J Appl Soc Psychol 31: 1111–1132. doi: 10.1111/j.1559-1816.2001.tb02665.x PMID: 20407593

70. Heckman TG, Heckman BD, Kochman A, Sikkema KJ, Suhr J, Goodkin K (2002) Psychological symptoms among persons 50 years of age and older living with HIV disease. Aging Ment Health 6: 121–128. doi: 10.1080/13607860220216709a PMID: 12028880

71. Kalichman SC, Sikkema KJ, Somlai A (1996) People living with HIV infection who attend and do not attend support groups: a pilot study of needs, characteristics and experiences. AIDS Care 8: 589–599. doi: 10.1080/09540129650125542; YGFLG7EH4DFHHQ3 [pii]. PMID: 8893909

72. Mundell JP, Visser MJ, Makin JD, Forsyth BW, Sikkema KJ (2012) Support group processes: Perspectives from HIV-infected women in South Africa. Qual Res Psychol 9: 173–187. doi: 10.1080/14780887.2010.500350 PMID: 22514790

73. Kralik D, Brown M, Koch T (2001) Women’s experiences of ‘being diagnosed’ with a long-term illness. J Adv Nurs 33: 594–602. jan1704 [pii]. PMID: 11298195

74. Haour-Knipe M (2009) Families, children, migration and AIDS. AIDS Care 21 Suppl 1: 43–48. doi: 10.1080/09540120902923071 PMID: 22380978

75. Harling G, Tsai AC, Subramanian SV (2015) Intimate partner violence and HIV: embracing complexity. Lancet Glob Health 3: e313. S2214-109X(15)00009-1 [pii]; doi:10.1016/S2214-109X(15)00009-1 PMID: 26001574

76. Ibrahim F, Anderson J, Bukutu C, Elford J (2008) Social and economic hardship among people living with HIV in London. HIV Med 9: 616–624. HIV605 [pii] doi:10.1111/j.1468-1299.2008.00605.x PMID: 18557949

77. Brown DC, BeLue R, Aihienibuwa CO (2010) HIV and AIDS-related stigma in the context of family support and race in South Africa. Ethnicity & Health 15: 441–458. doi: 10.1080/13557858.2010.486029
78. Jacobs RJ, Kane MN (2010) HIV-Related Stigma in Midlife and Older Women. Social Work in Health Care 49: 68–89. doi: 10.1080/00981380903018140 PMID: 20077320

79. Shannon MT (2015) HIV-infected mothers’ experiences during their infants’ HIV testing. Res Nurs Health 38: 142–151. doi:10.1002/nur.21646 PMID: 25739368

80. Anderson JM, Blue C, Lau A (1991) Women's perspectives on chronic illness: ethnicity, ideology and restructuring of life. Soc Sci Med 33: 101–113. PMID: 1887274

81. Bernays S, Rhodes T, Barnett T (2007) Hope: a new way to look at the HIV epidemic. AIDS 21 Suppl 5: S5–11. doi:10.1097/01.aids.0000298097.64237.4b; 00002030-200710005-00002 [pii]. PMID: 18090269

82. Bernays S, Rhodes T, Jankovic TK (2010) “You should be grateful to have medicines”: continued dependence, altering stigma and the HIV treatment experience in Serbia. AIDS Care 22 Suppl 1: 14–20. 924970074 [pii];doi:10.1080/09540120903499220 PMID: 20680856

83. Beyrer C, Baral SD, Weir BW, Curran JW, Sullivan PS (2014) A call to action for concentrated HIV epidemics. Curr Opin HIV AIDS 9: 95–100. doi:10.1097/COH.0000000000000043; 01222929-201403000-00002 [pii]. PMID:24499807

84. Bird ST, Bogart LM, Delahanty DL (2004) Health-related correlates of perceived discrimination in HIV care. AIDS Patient Care STDS 18: 19–26. doi:10.1089/108729104322740884 PMID: 15006191

85. Brashers DE, Neidig JL, Reynolds NR, Haas SM (1998) Uncertainty in illness across the HIV/AIDS trajectory. J Assoc Nurses AIDS Care 9: 66–77. PMID:9436169

86. Floyd S, Crampin AC, Glynn JR, Mwenebabu M, Mnkhondia S, Ngwira B, et al. (2008) The long-term social and economic impact of HIV on the spouses of infected individuals in northern Malawi. Trop Med Int Health 13: 520–531. TMI2030 [pii];doi:10.1111/j.1365-3156.2008.02030.x PMID: 18298606

87. Bongaarts JP, Pelletier F, Gerland P (2011) Global Trends in AIDS Mortality International Handbook of Adult Mortality. In: Rogers RG, Crimmins EM, editors. Springer Netherlands. pp. 171–183.

88. Coovadia HM, Hadingham J (2005) HIV/AIDS: global trends, global funds and delivery bottlenecks. Global Health 1: 13. 1744-8603-1-13 [pii];doi:10.1186/1744-8603-1-13 PMID: 16060961

89. Piot P, Abdool Karim SS, Hecht R, Buse K, Stover K, Resch S, et al. (2015) UNAIDS-Lancet Commission: Defeating AIDS-advancing global health. The Lancet.

90. Tuck I, McCain NL, Elswick RK Jr. (2001) Spirituality and psychosocial factors in persons living with HIV. J Adv Nurs 33: 776–783. jan1711 [pii]. PMID:11298215

91. Kremer H, Ironson G (2009) Everything changed: spiritual transformation in people with HIV. Int J Psychiatry Med 39: 243–262. PMID: 19967898

92. Pearce MJ, Koenig HG, Robins CJ, Nelson B, Shaw SF, Cohen HJ, et al. (2015) Religiously integrated cognitive behavioral therapy: A new method of treatment for major depression in patients with chronic medical illness. Psychotherapy (Chic) 52: 56–66. 2014-45468-001 [pii];doi:10.1037/a0036448

93. Szaflarski M (2013) Spirituality and religion among HIV-infected individuals. Curr HIV/AIDS Rep 10: 324–332. doi:10.1007/s11904-013-0175-7 PMID: 23996649

94. Mueller PS, Plevak DJ, Rummans TA (2001) Religious involvement, spirituality, and medicine: implications for clinical practice. Mayo Clin Proc 76: 1225–1235. S0025-6196(11)62799-7 [pii];doi: 10.4065/76.12.1225 PMID: 11761504

95. Cotton S, Puchalski CM, Sherman SN, Mrus JM, Peterman AH, Feinberg J, et al. (2006) Spirituality and religion in patients with HIV/AIDS. J Gen Intern Med 21 Suppl 5: S5–13. JGI642 [pii]; doi: 10.1111/j.1525-1497.2006.00642.x PMID: 17083501

96. Dalmida SG, Koenig HG, Holstad MM, Wirani MM (2013) The psychological well-being of people living with HIV/AIDS and the role of religious coping and social support. Int J Psychiatry Med 46: 57–83. PMID: 24547610

97. Garner RC (2000) Safe sects? Dynamic religion and AIDS in South Africa. J Mod Afr Stud 38: 41–69. PMID: 18386417

98. Hamilton JB, Moore AD, Johnson KA, Koenig HG (2013) Reading the Bible for guidance, comfort, and strength during stressful life events. Nurs Res 62: 178–184. doi: 10.1097/NNR.0b013e31828f8c816; 00006199-2013030500-00005 [pii]. PMID: 23636344

99. Kremer H, Ironson G (2009) Everything changed: spiritual transformation in people with HIV. Int J Psychiatry Med 39: 243–262. PMID: 19967898

100. NHS Education for Scotland-Mersey Care (2009) Spiritual Care Matters: An Introductory Resource for all NHS Scotland Staff.
101. Liddell C, Barrett L, Bydawell M (2006) Indigenous beliefs and attitudes to AIDS precautions in a rural South African community: an empirical study. Ann Behav Med 32: 218–225. doi: 10.1207/s15324796abm3203_7 PMID: 17107294

102. Rankin SH, Lindgren T, Rankin WW, Ng'Oma J (2005) Donkey work: women, religion, and HIV/AIDS in Malawi. Health Care Women Int 26: 4–16. W1580FAD7ADFUX6B [pii]; doi: 10.1080/07399330590885803 PMID: 15764458

103. Steglitz J, Ng R, Mosha JS, Kershaw T (2012) Divinity and distress: the impact of religion and spirituality on the mental health of HIV-positive adults in Tanzania. AIDS Behav 16: 2392–2398. doi: 10.1007/s10461-012-0261-7 PMID: 22797930

104. Ironson G, Stuetzle R, Fletcher MA (2006) An increase in religiousness/spirituality occurs after HIV diagnosis and predicts slower disease progression over 4 years in people with HIV. J Gen Intern Med 21 Suppl 5: S62–S66. JG1648 [pii]; doi: 10.1111/j.1525-1497.2006.00468.x PMID: 17083505

105. Parsons SK, Cruise PL, Davenport WM, Jones V (2006) Religious beliefs, practices and treatment adherence among individuals with HIV in the southern United States. AIDS Patient Care STDS 20: 97–111. doi: 10.1089/apc.2006.20.97 PMID: 16475891

106. Jones A, Cohen D, Johnstone B, Yoon DP, Schopp LH, McCormacke G, et al. (2015) Relationships Between Negative Spiritual Beliefs and Health Outcomes With Heterosexual Medical Conditions. Journal of Spirituality in Mental Health 7: 135–152.

107. Kremer H, Ironson G, Porr M (2009) Spiritual and mind-body beliefs as barriers and motivators to HIV-treatment decision-making and medication adherence? A qualitative study. AIDS Patient Care STDS 23: 127–134. doi: 10.1089/apc.2008.0131; 10.1089/apc.2008.0131 [pii]; PMID: 19133751

108. Tarakeshwar N, Vanderwerker LC, Paulk E, Pearce MJ, Kasl SV, Prigerson HG (2006) Religious coping is associated with the quality of life of patients with advanced cancer. J Palliat Med 9: 646–657. doi: 10.1089/jpm.2006.9.646 PMID: 16752970

109. Aldridge D (1991) Spirituality, healing and medicine. Br J Gen Pract 41: 425–427. PMID: 17772929

110. Coleman CL, Eller LS, Nokes KM, Bunch E, Reynolds NR, et al. (2006) Prayer as a complementary health strategy for managing HIV-related symptoms among ethnically diverse patients. Holist Nurs Pract 20: 65–72. 00004650–200603000-00006 [pii]; PMID: 16518152

111. KuIis S, Hodge DR, Ayers SL, Brown EF, Marsiglia FF (2012) Spirituality and religion: intertwined protective factors for substance use among urban American Indian youth. Am J Drug Alcohol Abuse 38: 444–449. doi: 10.3109/00946765.2012.670338 PMID: 22554065

112. Tarakeshwar N, Khan N, Sikkema KJ (2006) A relationship-based framework of spirituality for individuals with HIV. AIDS Behav 10: 59–70. doi: 10.1007/s10461-005-9052-8 PMID: 16489416

113. Ironson G, Solomon GF, Balbin EG, O'Cleirigh C, George A, Kumar M, et al. (2002) The Ironson-Woods Spirituality/Religiousness Index is associated with long survival, health behaviors, less distress, and low cortisol in people with HIV/AIDS. Ann Behav Med 24: 34–48. PMID: 12008793

114. Pargament KL, Ano GG (2006) Spiritual resources and struggles in coping with medical illness. South Med J 99: 1161–1162. doi: 10.1097/01.smj.0000242847.40214.b6 PMID: 17100054

115. Woodard EK, Richard S (2001) God in control: women's perspectives on managing HIV infection. Clin Nurs Pract 10: 233–250. PMID: 11881941

116. Meyer B (2004) Christianity in Africa: From African Independent to Pentecostal-Charismatic churches. Annual Review of Anthropology 33: 447–474. doi: 10.1146/annurev.anthro.33.070203.143835

117. Bache RA, Bhui KS, Dein S, Korszun A (2012) African and Black Caribbean origin cancer survivors: a qualitative study of the narratives of causes, coping and care experiences. Ethn Health 17: 187–201. doi: 10.1080/0963662X.2006.971069. doi: 10.1007/s10461-005-9052-8 PMID: 16489416

118. Bussing A, Ostermann T, Koenig HG (2007) Relevance of religion and spirituality in German patients with chronic diseases. Int J Psychiatry Med 37: 39–57. PMID: 17645197

119. Fakoya I, Johnson A, Fenton K, Anderson J, Nwokolo N, Sullivan A, et al. (2012) Religion and HIV diagnosis among Africans living in London. HIV Med 13: 617–622. doi: 10.1111/j.1468-1293.2012.01031.x PMID: 22796318

120. Amuzie R, Jones M (2012) A systematic review: the role of spirituality in reducing depression in people living with HIV/AIDS. Br J Gen Pract 62: 68. doi: 10.3399/bjgp12X625049

121. Vermandere M, Lepeleire JD, Van MW, Warmenhoven F, Thoonsen B, Aertgeerts B (2013) Spirituality in palliative home care: a framework for the clinician. Support Care Cancer 21: 1061–1069. doi: 10.1007/s00520-012-1626-1 PMID: 23064866

122. Bryman A (1988) Doing Research in Organisations.

123. Denzin KN, Lincoln YS (1988) Strategies of Qualitative Inquiry.
124. Nöstlinger CM, Gordillo V, Borms R, Murphy C, Bogner J, Csepe P, et al. (2008) Differences in perceptions on sexual and reproductive health between service providers and people living with HIV: a qualitative elicitation study. Psychol Health Med 13: 516–528. 904593129 [pii];doi:10.1080/135480701842941 PMID: 18942006

125. Maxwell J. A (2012) Qualitative Research Design: An Interactive Approach: An Interactive Approach. Los Angeles: SAGA.

126. Creswell J. W (2013) Qualitative Inquiry & Research Design: Choosing among Five Approaches. SAGA Publications Ltd.

127. Dingwall R, Murphy E, Watson P, Greatbatch D, Parker S (1998) Catching goldfish: quality in qualitative research. Journal of Health Services Research and Policy 3.

128. Bruyn S. T. (1966) The Human Perspective in Sociology: The Method of Participant Observation. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 307 p.

129. Justice Belgium (1967) Belgium. Royal decree n°78 of November 10th 1967.

130. Pettigrew S.F (2000) Ethnography and Grounded Theory: a Happy Marriage? Advances in Consumer Research 27: 256–260.

131. Miles M. J. and Huberman A. M. (1994) Qualitative data analysis: an expanded source book. California: SAGE Publications. 337 p.

132. Braun V, Clarke V (2006) Using thematic analysis in psychology. Qualitative Research in Psychology 3: 77–101. doi: 10.1191/1478088706qp063oa

133. UNAIDS (2014) Global Report 2014: UNAIDS report on the global AIDS epidemic. 1–212.

134. Gray PB (2004) HIV and Islam: is HIV prevalence lower among Muslims? Soc Sci Med 58: 1751–1756. doi: 10.1016/S0277-9536(03)00367-8; S0277953603003678 [pii]. PMID: 14990375

135. Speakman S (2012) Comparing the Impact of Religious Discourse on HIV/AIDS in Islam and Christianity in Africa. Vanderbilt Undergraduate Research Journal 8: 1–7.

136. Cole SR, Hernan MA, Robins JM, Anastos K, Chmiel J, Detels R, et al. (2003) Effect of highly active antiretroviral therapy on time to acquired immunodeficiency syndrome or death using marginal structural models. Am J Epidemiol 158: 687–694. PMID: 14507605

137. Adongo PB, Phillips JF, Binka FN (1998) The influence of traditional religion on fertility regulation among the Kassena-Nankana of northern Ghana. Stud Fam Plann 29: 23–40. PMID: 9561667

138. Agadjanian V (2013) Religious denomination, religious involvement, and modern contraceptive use in southern Mozambique. Stud Fam Plann 44: 259–274. doi: 10.1111/j.1728-4465.2013.00357.x PMID: 24006073
149. Nordling L (2014) Homophobia and HIV research: Under siege. Nature 509: 274–275. 509274a [pii]; doi: 10.1038/509274a PMID: 24828173
150. Nordling L (2015) African academics challenge homophobic laws. Nature 522: 135–136. 522135a [pii]; doi: 10.1038/522135a PMID: 26062487
151. Parker R (2009) Unintended consequences: evaluating the impact of HIV and AIDS on sexuality research and policy debates. Cad Saude Publica 25 Suppl 2: S251–S258. S0102-311X200901400007 [pii]. PMID: 19684932
152. Arrey AE, Bilsen J, Lacor P, Deschepper R (2015) Sexual Behaviour among Sub-Saharan African Migrant Women with HIV/AIDS in Belgium: A Qualitative Study. International Journal of Health Sciences & Research (IJHSR) 5: 479–490.
153. Lincoln Y. S. and Guba E. G. (1985) Naturalistic Inquiry. Newbury Park: Sage Publications.
154. Marshall MN (1996) Sampling for qualitative research. Fam Pract 13: 522–525. PMID:9023528
155. Ritchie J, Lewis J (2003) QUALITATIVE RESEARCH PRACTICE: A Guide for Social Science Students and Researchers.
156. Cohen HL, Thomas CL, Williamson C (2008) Religion and spirituality as defined by older adults. J Gerontol SoC Work 51: 284–299.
157. Sloan RP, VandeCreek L (2000) Religion and medicine: why faith should not be mixed with science. MedGenMed E43. v02.n04/mgm0804.sloan/mgm0804.sloan [pii]. PMID:1104489
158. Paley J (2009) Religion and the secularisation of health care. J Clin Nurs 18: 1963–1974. JCN2780 [pii]: doi:10.1111/j.1365-2702.2009.02780.x PMID: 19638056
159. McCormick DP, Holder B, Wetsel MA, Cawthon TW (2008) Spiritualty and HIV disease: an integrated perspective. J Assoc Nurses AIDS Care 12: 58–65.
160. Leserman J, Ironson G, O’Cleirigh C, Fordiani JM, Balbin E (2008) Stressful life events and adherence in HIV. AIDS Patient Care STDS 22: 403–411. doi:10.1089/apc.2007.0175 PMID: 18373416
161. Mills EJ, Nachega JB (2006) HIV infection as a weapon of war. Lancet Infect Dis 6: 752–753. S1473-3099(06)70635-1 [pii]; doi:10.1016/S1473-3099(06)70635-1 PMID: 17123891
162. Mills EJ, Singh S, Nelson BD, Nachega JB (2006) The impact of conflict on HIV/AIDS in sub-Saharan Africa. Int J STD AIDS 17: 713–717. doi:10.1258/095646206778691077 PMID: 17062170
163. Duffy L (2005) Suffering, shame, and silence: the stigma of HIV/AIDS. J Assoc Nurses AIDS Care 16: 13–20.
164. Ehini JE, Anyanwu EC, Donath E, Kanu I, Jolly PE (2005) AIDS-related stigma in sub-Saharan Africa: its contexts and potential intervention strategies. AIDS Public Policy J 20: 25–39. PMID: 17260567
165. Goudge J, Ngoma B, Manderson L, Schneider H (2009) Stigma, identity and resistance among people living with HIV in South Africa. SAHARA J 6: 94–104. PMID: 20485849
166. Johnson KS (2006) "You just do your part. God will do the rest." spirituality and culture in the medical encounter. South Med J 99: 1163. PMID: 17100055
167. Krause N, Emmons RA, Ironson G (2015) Benevolent Images of God, Gratitude, and Physical Health Status. J Relig Health. doi:10.1007/s10943-015-0063-0
168. Gall TL (2003) The role of religious resources for older adults coping with illness. J Pastoral Care Counsel 57: 211–224. PMID: 12875128
169. Harris ST, Koenig HG (2015) An 81-year-old woman with chronic illnesses and a strong faith. J Complement Integr Med. doi:10.1515/jcim-2015-0004; /j/jcim.ahead-of-print/jcim-2015-0004/jcim-2015-0004.xml [pii].
170. Hodge DR, Salas-Wright CP, Wolosin RJ (2014) Addressing Spiritual Needs and Overall Satisfaction With Service Provision Among Older Hospitalized Inpatients. J Appl Gerontol. 0733464813515090 [pii]; doi: 10.1177/0733464813515090
171. Lo B, Ruston D, Kates LW, Arnold RM, Cohen CB, Faber-Langendoen K, et al. (2002) Discussing religious and spiritual issues at the end of life: a practical guide for physicians. JAMA 287: 749–754. jsc10142 [pii]. PMID: 11851542
172. Puchalski CM (2007) Spirituality and the care of patients at the end-of-life: an essential component of care. Omega (Westport) 56: 33–46.
173. Puchalski CM, Post SG, Sloan RP (2009) Physicians and patients’ spirituality. Virtual Mentor 11: 804–815. virtualmentor.2009.11.10.oped1-0910 [pii]; doi: 10.1001/virtualmentor.2009.11.10.oped1-0910 PMID: 23206948
174. Tanyi RA, McKenzie M, Chapek C (2009) How family practice physicians, nurse practitioners, and physician assistants incorporate spiritual care in practice. J Am Acad Nurse Pract 21: 690–697. JAAN459 [pii]; doi: 10.1111/j.1745-7599.2009.00459.x PMID: 19958420