



Complementary, Alternative and Traditional Medicine in HIV Care



Questions

This Rapid Response investigates the evidence regarding the use of complementary, alternative and/or traditional medicine among people living with HIV. It also touches on its use by African, Caribbean and Black populations in Canada for treating HIV. The specific questions addressed include:

1. What is the evidence for the effectiveness of complementary, alternative and/or traditional medicine use among people living with HIV?
2. Are complementary, alternative and/or traditional medicines being used to complement or replace antiretroviral treatment?
3. Do complementary, alternative and/or traditional medicines interact with or counteract antiretroviral therapies?
4. With what frequency are complementary, alternative and/or traditional medicines being used by African, Caribbean and Black populations in Canada to treat HIV?
5. With what frequency are complementary, alternative and/or traditional medicines being used in Africa and the Caribbean to treat HIV?

Key Take-Home Messages

- Complementary and alternative medicine use among people living with HIV continues to be popular even though there are few methodologically rigorous studies documenting its effectiveness (1-5), and studies often report contradictory evidence as to the effectiveness of certain forms of this type of medicine. One systematic review of complementary and alternative medicine literature found that the quality of methods to evaluate outcomes in observational studies is limited with very few using evaluation tools that have been assessed for reliability and validity (5).
- People living with HIV self-report that complementary and alternative medicine is helpful in improving their quality of life with relatively few risk factors associated with their use (1;5;6). People living with HIV also self-report that complementary and alternative medicine use helps to prevent and alleviate symptoms related to HIV, as well as side effects of treatment (1;2;5).

EVIDENCE INTO ACTION

The OHTN Rapid Response Service offers HIV/AIDS programs and services in Ontario quick access to research evidence to help inform decision making, service delivery and advocacy. In response to a question from the field, the Rapid Response Team reviews the scientific and grey literature, consults with experts, and prepares a brief fact sheet summarizing the current evidence and its implications for policy and practice.

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- While some forms of complementary and alternative medicine do not interact with antiretroviral medications, herbal remedies have the highest potential for contraindications. The highest risk is in countries where complementary and alternative medicine is not regulated and herbal remedies are commonly used (6). While there is a low risk of interactions between complementary and alternative medicine and antiretroviral drugs, there is a potential that herbal complementary and alternative medicine use can interfere with improving health outcomes as it can affect how antiretroviral drugs are metabolized, creating early inhibition and decreasing the length of drug exposure (6;7).
- There is little research on the frequency of complementary and alternative medicine use in Africa and the Caribbean to treat HIV. However, the available research indicates that, in African countries with a strong traditional system of medicine, people living with HIV often seek treatment from traditional healers or take herbal medicines prior to accessing clinical care or starting antiretroviral drugs (3). Herbal medicine in Africa is used as both primary and secondary treatment for HIV, other infectious diseases and common health problems. In addition, rates of complementary and alternative medicine use measured in African American people living with HIV found similar rates of usage as people living with HIV in Ontario, with high rates of use in conjunction with Highly Active Anti-Retroviral Therapy (HAART).

The Issue and Why It's Important

While HAART treatment is highly effective at reducing viral load in people living with HIV, there are a number of symptoms associated with both the treatment and disease which could be addressed through complementary and alternative medicine, including comorbidities (e.g. cardiovascular, liver and renal diseases) and mental health issues (e.g. depression). Since the beginning of the HIV epidemic, complementary and alternative medicine has been popular among people living with HIV due to a lack of effective treatments early in the epidemic and a continued lack of access to HAART in low and middle-income countries (5). People living with HIV use complementary and alternative medicine for a variety of reasons, many related to the use of HAART (e.g. unsatisfactory and adverse effects, high cost and lack of availability) (8). Despite the popularity of complementary and alternative medicine, decisions by people living with HIV to utilize these types of therapies are often poorly informed (1).

In Canada, the rates of complementary and alternative medicine use among people living with HIV were found to be high. According to one study involving 104 people living with HIV, 70% used complementary and alternative medicine in 2003, 38% used a complementary and alternative medicine provider and 89% used micronutrients that included vitamins, minerals and multivitamins (1). Due to the potential interactions between complementary and alternative medicine and antiretroviral drugs and the potentially negative effects on adherence, it is important that more research be conducted on its use among the African, Caribbean and Black population. This will help health care providers be aware of popular types of complementary and alternative medicine and potential interactions, which they can then use to create a supportive environment where people living with HIV can disclose their complementary and alternative medicine use and be informed about their personal health choices.

While the majority of complementary and alternative medicine therapies do not have potential interactions with HAART, herbal remedies do have the potential for

contraindications that can negatively affect the health of people living with HIV. However, evidence about the types and magnitude of possible adverse effects is limited. For example, assessments of complementary and alternative medicine interactions with traditional herbs used by people living with HIV in Uganda identified hundreds of herbal treatments making it difficult to assess interactions between all forms of complementary and alternative medicine (9). As a result, there is a need for more pharmacokinetic studies to review the multitude of herbal remedies popular in African, Caribbean and Black communities to identify where there is the potential for drug interactions that can result in risk of treatment failure, viral resistance or drug toxicity (10). Furthermore, some studies have identified the importance of increasing the awareness of clinicians regarding complementary and alternative medicine both in terms of its potential to help alleviate symptoms related to HIV, treatment side effects (e.g. drug interactions and adherence issues) and its potential to improve conventional care (5;11). For example, milk thistle can be used to reduce hepatotoxicity related to long-term antiretroviral use, and garlic can improve the immune system, possessing both anti-microbial and lipid-lowering properties, on top of being an antioxidant. As well, African potatoes are said to have immune boosting properties that can improve health outcomes for people living with HIV (10). Until more research is conducted on the effectiveness and potential contraindications of herbal remedies from Africa and the Caribbean, it is important for clinicians to inquire about complementary and alternative medicine use among people living with HIV and caution patients on the potential unknown contraindications between plants and HAART regimes (4;6;9;12-14).

What We Found

Effectiveness of complementary and alternative medicine

Complementary and alternative medicine therapies are broken down into five broad categories: alternative medicine systems, mind-body interventions, biologically based treatments, manipulative and body-based methods, and energy therapies (15). Findings from studies on the effectiveness of complementary and alternative medicine are mixed. A systematic review found that the only effective complementary and alternative medicine interventions for people living with HIV were stress management-based with the rest having insufficient data to support them (4;13).

Despite the limited evidence for benefits of complementary and alternative medicine as part of HIV treatment, there remains a high frequency of use among people living with HIV (4;11). This level of use is likely explained, at least in part, by findings from studies that revealed high self-report scores related to complementary and alternative medicine in terms of its contributions to enhancements in quality of life and relief of specific symptoms, including fever, flu, pain, skin irritations, abdominal pain, nausea, diarrhea, pain, quality of sleep, appetite, increasing body weight, depression and other clinical outcomes (5;6). In addition, some findings have suggested that complementary and alternative medicine can assist in the treatment of comorbidities such as osteoporosis and atherosclerosis (1).

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Adherence to antiretroviral drugs in people living with HIV who use complementary and alternative medicine

There is very little research evidence available that documents complementary and alternative medicine use as having a negative effect on adherence to antiretroviral treatment. The evidence that is available is further limited by the fact that there are multiple variables which could affect adherence including accessibility of treatment. Complementary and alternative medicine can also be seen as an indicator for people living with HIV that they are taking a proactive approach to their health care. This type of medicine can also be used in combination with HAART if screened for potential interactions. One study, done in KwaZulu-Natal, South Africa, found that the use of complementary and alternative medicine had a negative effect on adherence (16) while another study found that disclosure of complementary and alternative medicine use was significantly associated with high adherence to HAART (17). In high-income countries like Canada, concerns about complementary and alternative medicine interfering with antiretroviral adherence are not supported in the literature identified in this summary. Complementary and alternative medicine has been found to be associated with people living with HIV who prefer a more holistic approach to their health (6). In fact, some research evidence suggests that once people living with HIV obtain access to HAART, there is a marked change in their use of complementary and alternative medicine. For others, herbal remedies are discontinued by some people living with HIV after they gain access to antiretroviral drugs (6).

Contraindications between complementary and alternative medicine and antiretroviral drugs

There is some research evidence suggesting that people living with HIV are often poorly informed regarding their decision to use complementary and alternative medicine, especially with respect to possible interactions with antiretroviral drugs (1). Complementary and alternative medicine is often used in conjunction with antiretroviral drugs, with the exception of countries where access to conventional treatment is less accessible (6).

Research on complementary and alternative medicine among people living with HIV in North America found that St. Johns Wart, Cat's Claw, Vitamin C and garlic may reduce concentrations of HAART in the blood, potentially reducing its effectiveness (5;10). Other studies which examined complementary and alternative medicine for HIV in Southern Africa found that Hypoxis hemerocallidea (African Potato), Sutherlandia frutescens (Cancer bush, Balloon pea), Cyphostemma hildebrandtii, Acacia nilotica (gum arabic tree, Babul/Kikar, Egyptian thorn, Sant tree, Al-sant or prickly acacia), Agauria salicifolia and Elaeodendron buchananii can interact with protease inhibitors and non-nucleoside reverse transcriptase inhibitors, affecting how they are metabolized by the liver and potentially decreasing concentrations of medications in the blood (7;10).

One qualitative study of complementary and alternative medicine in Uganda found that 103 different types of plants were identified as being used for HIV treatment based on interviews with 25 traditional healers (18). As such, there are myriad potential interactions with herbal forms of complementary and alternative medicine used in the African, Caribbean and Black community, and it is important that clinicians be aware of the pharmacokinetic properties of these types of medicine therapies and the potential contraindications with HAART (14).

Frequency of complementary and alternative medicine in the African, Caribbean and Black populations in Canada, Africa and the Caribbean

While we did not identify any studies about complementary and alternative medicine prevalence among people living with HIV in the African, Caribbean and Black community in Canada, we did identify one study conducted in the United States. That study found that 94% of African American people living with HIV used at least one form of complementary and alternative medicine, and that the majority of them used this type of medicine as a complementary therapy to HAART. However, more than half neglected to discuss their complementary and alternative medicine use with their doctor (14). Similarly, in Ontario, it was found that 77% of people living with HIV reported complementary and alternative medicine use, with nearly all patients reporting using it in conjunction with HAART (19). Studies conducted in high-income countries have found that complementary and alternative medicine use among people living with HIV is most popular with high-income earners, women, those with high education, as well as HIV risk groups, such as men who have sex with men and former or current drug users (2;6;19;20). Complementary and alternative medicine use has also been found to be most common with people living with HIV who are highly symptomatic with longer disease duration (21). While some studies show that in high-income countries, racial/ethnic populations are less likely than Caucasians to access complementary and alternative medicine (6), race and ethnicity was not found to be a factor influencing complementary and alternative medicine use in Canada. Another primary study comparing complementary and alternative medicine use found no difference between ethnicities (22) while other studies have found that differences in types of complementary and alternative medicine use in different ethnicities could be due to bias in the scientific literature (3).

In African countries, rates of complementary and alternative medicine use vary. Seven studies from Uganda, Zimbabwe and South Africa found that complementary and alternative medicine use among people living with HIV ranges from 36 to 68% (6). One study conducted in South Africa found that complementary and alternative medicine was used for pain relief (87.1%) and spiritual practices such as prayer to aid with stress relief (77.6%) (23). Unfortunately, we did not identify any research evidence that outlined frequency of complementary and alternative medicine use in the Caribbean.

While some research has found that complementary and alternative medicine use is most associated with Caucasians in high-income countries, some findings suggest that this may be due, at least in part, to low rates of disclosure of complementary and alternative medicine use among racial/ethnic minorities (12). In addition, women who identified as non-Hispanic, Black or other ethnicities were less likely to disclose their complementary and alternative medicine use (17). Given that measures and approaches to document complementary and alternative medicine use in ethnic populations may be flawed, some have outlined the importance of developing ethno-specific measures of complementary and alternative medicine use (24). One approach that has been suggested is to use qualitative ethno-specific measures that would identify the most popular therapies for a specific group (e.g. African, Caribbean and Black communities) and gather more accurate data about those specific therapies (25). It is also worth noting that therapies which are classified as complementary and alternative medicine in African, Caribbean and Black communities may be classified as coping strategies or substance use in quantitative surveys.

Factors That May Impact Local Applicability

Most quantitative research done on complementary and alternative medicine relies on study participants to report use or non-use but does not necessarily allow them the opportunity to self-identify therapies that they perceive to be complementary and alternative medicine (11), such as traditional healing from African, Caribbean and Black communities which may not be included in quantitative surveys.

What We Did

We searched the Cochrane Library to identify relevant systematic reviews using the following set of search terms: (complementary OR alternative or CAM or acupuncture) AND HIV. We also searched Medline by search for HIV (text term) AND Complementary Therapies (MeSH term as the focus of the record). Lastly, we conducted a related articles search in PubMed using three key articles that we had previously identified.(1;5;6)