



Mindfulness-based therapy for people living with HIV



Question

What is the use and benefit of mindfulness-based interventions for people living with HIV/AIDS?

Key Take-Home Messages

- ◆ Findings from five systematic reviews evaluating mindfulness-based interventions (MBIs) – specifically mindfulness-based cognitive therapy (MBCT) and mindfulness-based stress reduction (MBSR) – have found beneficial effects on mental health status including depression, depressive relapse, anxiety, distress and mood symptoms.
- ◆ Several single studies (small randomized controlled trials and pilot studies) have found that MBSR programs have small to moderate effects in reducing stress and anxiety and in stabilizing or improving CD4 counts in people living with HIV.
- ◆ MBSR has also been found to contribute to positive results in enhancing the perception of available social support and self-reported well-being among participants.
- ◆ MBCT has also been found to increase momentary positive emotions and teach patients with long-term history of depressive symptoms to capitalize on the natural rewards in day to day life.

The Issue and Why It's Important

Mindfulness-based interventions (MBIs) are psychological therapies focused on the cultivation of self-regulated attention, acceptance and openness to experiences gained through reflective structured exercises/practices like meditation or yoga.(1-5) MBIs are highly participatory in nature and delivered as combination of group and individualized sessions over a short period of time. MBI research has grown in recent years and now includes a number of randomized controlled trials (RCTs) (2;3;6-9) showing benefit in preventing relapse in recurrent depression; treatment of depression and anxiety disorders, and reducing depression, anxiety, stress generalized anxiety, chronic fatigue,

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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panic disorder, social anxiety; and maladaptive coping in chronic medical conditions like cancer, and chronic pain.

Most commonly used MBIs include mindfulness-based stress reduction (MBSR) and cognitive therapy (MBCT). MBSR is focused on enhancing ability to manage long- and short-term stress and to cope with pain and anxiety and (2) MBCT is designed to assist with chronic depression and depressive relapse while re-orienting the patients' relationships with their own emotions.(10) Other interventions such as acceptance and commitment therapy (ACT) and dialectical behavioural therapy (DBT) may also apply mindfulness techniques in teaching patients to acknowledge and accept thoughts and emotions without judgment or reaction.

Considerable research suggests that people living with HIV/AIDS suffer from elevated anxiety and feel more distressed as compared to the general population. (11) However many of these disorders remain unidentified and untreated throughout regular care. For this Rapid Response we assessed the use and benefit of mindfulness-based interventions and in particular, MBBT in people living with HIV/AIDS.

What We Found

We found six systematic reviews investigating the effects of MBCT and MBSR on mental health status including depression, depressive relapse, anxiety, distress and mood symptoms.(1;6;12-15) The key findings from each of the systematic reviews are outlined in the list below.

1. In an analysis of 21 randomized control trials evaluating the effects of MBSR and MBCT, Fjorback et al. (2011) found in the majority of studies that MBSR improved mental health status as compared to those on a waiting list and those receiving active control. They also found that MBCT reduced the risk of depressive relapse in two studies comparing it to wait-list control but that it was equally effective in two other studies comparing it to an active control.(6)
2. An analysis of six RCTs evaluating the effects of MBCT for preventing relapse or recurrence of major depressive disorder found a significant reduction in relapse/recurrence as compared to participants receiving treatment as usual or placebo. More specifically, the review found that the relapse rate for MBCT was 36%, compared to 63% for control conditions.(14)
3. In a systematic review by Hofman et al. (2010), findings aggregated from 39 studies found that MBIs were moderately effective at improving anxiety and mood symptoms.(12)
4. A systematic review including eight RCTs evaluated the effects MBSR on the mental health of adults with chronic somatic diseases and found small effects on levels of depression, anxiety and psychological distress.(1)
5. A meta-analysis of evaluating the efficacy of MBCT for psychiatric patients with major depressive disorder found MBCT to be significantly better than usual care and that use of MBCT could be helpful in reducing residual depressive symptoms and some anxiety disorders.(13) However, the review also noted that the included studies had several methodological limitations and therefore the findings should be interpreted with caution.
6. A systematic review of 18 studies evaluated the efficacy of MBSR in the treatment of chronic illnesses (by helping them effectively cope with their

diseases). Based on the limited evidence available, the review found that MBSR improved the condition of patients with chronic illnesses (e.g., cancer, hypertension, diabetes, HIV/AIDS and chronic pain) by helping them cope with a broad array of clinical issues.(15)

While each these systematic reviews noted that additional evaluations are needed they also assert that MBIs (including MBCT and MBSR) can improve mental health, prevent depressive relapse and are promising treatments for mood and anxiety problems in clinical populations. To supplement the findings from the systematic reviews, we outline below findings from additional single studies related to evaluating MBSR and MBCT interventions.

Mindfulness-Based Stress Reduction (MBSR)

Physiological response to MBSR

MBSR programs have been found to be effective in reducing stress and anxiety and have elicited positive physical outcomes in people living with HIV. We identified four studies that investigated physiological and immune responses to Mindfulness Meditation programs and MBSR in people living with HIV. A recent RCT with 76 participants compared MBSR to participants on a wait list and found reduced frequency, severity and distress from symptoms resulting from anti-retroviral therapy (ARTs).(3) In addition, two small studies (one a RCT and one a pilot study) found that HIV positive participants receiving MBSR (2) or practicing mindfulness meditation (4) over the course of 8 weeks stabilized or increased their CD4 counts. Participants in the pilot study reported that group sessions, yoga and meditation as having a positive effect on their psychological status.(4) The small RCT by Creswell et al. (2009) found MBSR to be more effective in maintaining CD4 levels as compared to a one day seminar focused CD4 and T-lymphocyte cell maintenance, with the latter intervention resulting in declines in CD4 counts after treatment.(2)

Lastly, Holzel et al. (2011) evaluated the effect of MBSR on brain grey-matter density with 16 healthy, meditation-naïve participants by assessing anatomical magnetic resonance images obtained before and after the eight-week MBSR program. After the intervention, significant increases in participants' mindfulness scores and grey-matter concentration within the left hippocampus were observed. As noted by the study, the increased grey-matter concentration may reflect improved function in regulating emotional responding and possibly enduring changes in brain structure supportive of improved mental functioning. (16)

Social support and self-reported well-being

MBSR has also demonstrated positive results in enhancing patient's perception of available social support and self-reported well-being.(7;17) A recent RCT comparing MBSR to participants receiving treatment-as usual found that MBSR reduced avoidance and improved positive affect in HIV+ gay men who had previously reported difficulty in coping with their HIV and suffered from moderate to severe distress. The study also found that the positive effects from MBSR were sustained at 6 month follow up.(7) Another study found that delivering social supports to HIV+ people was effective in reducing the impact of stigma on mood but also noted that there can be a number of barriers to assembling individuals for group-based interventions such as the one evaluated in their study.(17) Lastly, a pilot study of MBSR groups with 33 urban youth found that most (n=26, 79%) attended the majority of sessions and were

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considered 'program completers'. All of the 'program completers' were African American, 77% were female and 11 were HIV-positive. The study found that after completing the MBSR groups, participants had significant reductions in hostility, general discomfort and emotional discomfort and qualitative data found perceived improvements in interpersonal relationships (including less conflict), school achievement, physical health, and reduced stress.(5)

Mindfulness-based cognitive therapy (MBCT)

Each of the MBCT articles reviewed for this response employed MBCT programs in accordance with the delivery Model developed by Segal et al (10) (with slight modifications to accommodate treatment groups) and were taught by experienced MBCT therapists and practitioners.

We were unable to identify any published articles of studies evaluating the use of MBCT for people living with HIV but we did identify a presentation given at the 2011 International Workshop on HIV and Aging in Baltimore, United States. The presentation provided results related to the quality of life at three- and six-months following delivery of MBCT to 40 HIV+ men and women and found that participants reported benefits related to stress, anxiety, perceived physical status and quality of life as a result of the skills learned through MBCT.(18)

Preventing sustaining depressive recurrence and relapse

MBCT has also been established as a promising intervention for prevention of recurrent depression in patients who are presently depressed as well as those in remission.(9;14) As noted in the section outlining findings from systematic reviews as well as in a recent RCT by van Alderen et al. (2012), those receiving MBCT consistently report decreased worry and rumination and increased levels of mindfulness skills compared with patients receiving treatment as usual. (9;14) A study by Mathew et al. (2010) also found long-term benefits among 39 MBCT participants that were observed between one and 12 months, 13 and 24 months and 25 and 34 months.(19) Specifically the study found large effects on depression scores, which decreased significantly over time. In general, the study found that those who continued to practice the skills acquired in an MCBT course were more likely to manage their depression.(19) Moreover, the study found that higher levels of mindfulness at follow-up resulted in lower levels of rumination. However, another recent randomized controlled trial found that among depressed patients with either stable or unstable clinical remission of depressive symptoms, MBCT offered roughly the same protection against relapse as maintenance antidepressant pharmacotherapy (as compared to placebo).(10)

Patient experience, perception, acceptability

MBCT has also been found to increase momentary positive emotions and teach patients with long-term history of depressive symptoms to capitalize on the natural rewards in day-to-day life. For example, a recent RCT found that MBCT compared to control was associated with significant increases in appraisals of positive emotion and enhanced ability to boost momentary positive emotions by engaging in pleasant activities.(8) The study further suggested that given the role of positive emotions in resilience against depression, MBCT may contribute to protecting against depressive relapse.(8)

Another study conducted interviews with 20 people at 12-months following their participation in MBCT classes.(20) The interviews asked participants to reflect on what aspects of MBCT program they found most helpful, meaningful and difficult. Control, acceptance, relationship and struggle emerged as four

overarching themes that had high importance and impact on day-to-day management of emotions. Specifically, participants who learned to take the time to care for their own needs and approach situations without negative thinking reported that they were better able to problem solve and express themselves. Two of our four over-arching themes – acceptance and control – were particularly dominant in participants’ accounts and were often explicitly described as being linked to improved well-being.(20)

MBCT in cancer care

This intervention has also been applied in cancer care settings as a means of assisting patients in coping with the “psychological journey” associated with cancer diagnosis, treatment and the difficulties this can cause in life.(21) For these patients, reported severity of depression and anxiety were significantly reduced while scores in overall mindfulness increased over time.(21)

Factors That May Impact Local Applicability

Studies reviewed for this rapid response were conducted in North American or high-income country with the exception of one pilot study by Jam et al. (2010). Participants were recruited from hospitals, community-based organizations and various clinical treatment programs and were provided treatment or learning from accredited professionals in institutional and community settings. Access to similar resources, expertise and facilitation would be required to achieve similar efficacy in Ontario.

What We Did

We conducted targeted searches in March 2012 to supplement a list of relevant literature sent to us as part of this rapid response request. Specifically, we searched the Cochrane Library for additional systematic reviews and Medline for primary literature published since 2009 (to find additional literature published since the systematic reviews were conducted) using the following combination of search terms: (mindfulness-based OR mindfulness based) AND (cognitive therapy OR stress).