



CAP Lung Cancer Medical Writers' Circle

Tailoring Mindfulness-Based Therapies During Lung Cancer Treatment

from the Patients Viewpoint

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Complementary and alternative medicine (CAM) modalities as supportive tools to help manage psychological and physical symptoms have grown increasingly popular in recent years.¹⁻³ Mindfulness-based therapies are a form of CAM that have shown early promise in helping decrease emotional distress and improve quality of life for patients with cancer.^{4,5} Mindfulness is a learned process that with practice helps individuals develop a stronger awareness of momentary experience; including the awareness of one's thoughts, emotions, physical sensations, and activities in the environment, with an open and accepting attitude of nonjudgement.⁶ Mindfulness-based therapies use mind-body practices of meditation and breath work, and gentle yoga exercises to strengthen personal capacity to manage symptoms and stressors.⁶⁻⁹ While mindfulness-based therapies have increasingly been used in cancer groups, there has been little research that has evaluated mindfulness-based therapy for patients with lung cancer. Further, there is little research that has investigated the benefits of mindfulness-based therapies during active cancer treatment, a time when health related quality of life can be particularly challenged.⁵ Three studies that included small samples of patients with lung cancer reported that the mindfulness-based therapy resulted in significant improvement in anxiety¹⁰⁻¹¹, depression,¹⁰ cancer-related fatigue,¹² and perceived quality of life¹⁰ for the overall group of patients.

Mindfulness-based therapies incorporate meditation practices, disciplined exercises to regulate attention and increase awareness of stream of consciousness, to enhance perceived well-being.⁶ Deep

breathing exercises may reduce tension by activating the parasympathetic nervous system.¹³ The slow regulated breathing exercises used in mindfulness exercises help balance the body's sympathetic and parasympathetic nervous system responses, which calms physical reactivity to stress and promotes relaxation.^{6,13} The gentle yoga exercises that are also used in mindfulness-based therapies promote physical strength, flexibility, and balance.^{6,14} Building the capacity to move mindfully and slowly without strenuous overexertion, may offer a promising choice of physical activity for cancer patients.¹⁴

The benefits of meditation stem from increasing self-awareness, learning self-regulatory skills to manage thoughts and emotions, and improving the capacity to accept life experiences as they occur.⁶
^{8,13,15-16} The most common mindfulness-based therapy is the standard Mindfulness-Based Stress Reduction (MBSR) program modeled on the Kabat-Zinn curriculum that incorporates an 8-week course where participants meet for a group session weekly and also participate in an all-day retreat.⁶ Mindfulness-Based Cognitive Therapy is similar to MBSR but places strong emphasis on learning strategies to recognize and disengage from dysfunctional thought patterns such as rumination and worry that contribute to depression and anxiety disorders.⁷ Cultivating mindfulness teaches patients to recognize and accept negative emotions, thoughts, and body sensations by directing attention towards the experience, rather than reactively avoiding the negative experience which is a natural tendency.^{7,17}

A lung cancer diagnosis and treatment can negatively impact quality of life in many life domains.¹⁸⁻²¹ Patients may experience distressing physical and emotional symptoms, and breathing difficulties such as dyspnea.²²⁻²³ Further, patients with lung cancer who are actively receiving medical treatment may require more intensive symptom management.²⁴ Thus, self-care strategies to manage distressing physical and emotional symptoms and to improve quality of life are of utmost importance.²⁵

Because there is little research that has examined the use of mindfulness-based therapies for patients undergoing treatment for lung cancer, we conducted focus groups with patients who had undergone treatment for lung cancer about their perceptions relative to using mindfulness-based therapy.²⁶ Focus groups provide an opportunity to better understand patients preferences, opinions, and needs for specific programs and resources.²⁷⁻²⁹ While focus group findings cannot be generalized, they can provide

essential information that can be considered for the development of a targeted therapy. Eleven participants (6 women and five men) ranging in age from 51 to 79 years who had undergone treatment for lung cancer, were recruited from a community based hospital and participated in audio taped focus group sessions. The focus group discussions entailed eliciting patient perceptions of mindfulness in terms of symptom management, including benefits and barriers to this therapy and ways the therapy may need to be adapted to serve patients in treatment.²⁶

None of the participants reported ever having tried mindfulness meditation, and several participants did not know what mindfulness meditation was. Some participants indicated using breathing exercises due to dyspnea symptoms. One participant had done yoga in the past. Two participants expressed concern about using complementary non-medical therapies. Importantly, some participants discussed using or past use of breathing and thought management techniques that reminded them of mindfulness-based therapy.

Participants identified perceived barriers to participation in a mindfulness-based program. These barriers included transportation issues with needing to travel to a group site, inability to drive following surgery, difficulties with bad weather, financial problems with cost of participation, other medical conditions that reduce physical functioning such as emphysema and arthritis, lack of interest or willingness, feeling overwhelmed, forgetfulness and memory problems, and time commitment.

Five participants (45%) indicated a desire to participate in a mindfulness-based therapy, and others stated that they might consider it. Participants identified that finding supportive strategies to help with symptoms that impaired their function and life quality would be beneficial. Several participants indicated that they had poor respiratory function and that mindfulness strategies should be targeted towards managing dyspnea. There were also discussions about perceptions of stigma for having an illness that is often associated with smoking behaviors. Participants described having problems with insomnia, and negative thoughts and emotions such as worry, anxiety, and guilt.

Participants were interested and motivated to offer suggestions for developing a mindfulness-based therapy for patients with lung cancer. Participants suggested offering a shortened trial therapy (less

than the full 8-week standard protocol). Other participants indicated location and time of treatment flexibility would boost interest in trying the therapy. For example, convenient times and locations that could be voluntarily chosen such as a home based therapy, and even virtual sessions were discussed. Participants identified that co-morbid conditions such as arthritis and reduced physical function would make modifications of the physical component necessary. Further, participants suggested that targeting mindfulness training towards management of specific symptoms commonly experienced by patients with lung cancer that carried potential to improve their quality of life would be important.

Mindfulness-based therapies while taking focused training and time to learn are cost-effective in that they teach patients to develop personal strategies to self-regulate responses to physical and psychological experiences. As a supportive therapy for managing psychological distress and other complaints,^{8,15} mindfulness-based interventions may be uniquely suited to assist with management of symptoms and stressors that negatively impact quality of life of patients with lung cancer. Mindfulness-based strategies require few resources to implement, and may be a supportive resource that patients can practice in a broad range of settings.

It is essential that a mindfulness-based program for patients with lung cancer consider duration of the session and limiting factors such as endurance and patient's functional status in its design phases. For example, driving to a group site at a specified location and time may be burdensome for patients who live in rural areas and must travel long distances by car. Using the input from the focus group participants, our team at Michigan State University is currently examining the feasibility of a home-based mindfulness therapy on symptom and health-related quality of life outcomes for patients in treatment for lung cancer.

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