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"I Felt Like a New Person." The Effects of Mindfulness Meditation on Older Adults With Chronic Pain: Qualitative Narrative Analysis of Diary Entries

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Abstract: **To identify the effects of mindfulness meditation on older adults with chronic low back pain (CLBP), we conducted a qualitative study based on grounded theory and used content analysis of diary entries from older adults who had participated in a clinical trial of an 8-week mindfulness meditation program. Participants were 27 adults ≥65 years of age with CLBP of at least moderate severity and of at least 3 months duration. We found several themes reflecting the beneficial effects of mindfulness meditation on pain, attention, sleep, and achieving well-being. Various methods of pain reduction were used, including distraction, increased body awareness leading to behavior change, better pain coping, and direct pain reduction through meditation. Participants described improved attention skills. A number of participants reported improved sleep latency as well as quality of sleep. Participants described achieving well-being during and after a meditation session that had immediate effects on mood elevation but also long-term global effects on improved quality of life. Several themes were identified related to pain reduction, improved attention, improved sleep, and achieving well-being resulting from mindfulness meditation that suggest it has promising potential as a nonpharmacologic treatment of chronic pain for older adults.**

Perspective: ***Community-dwelling older adults with chronic low back pain experience numerous benefits from mindfulness meditation including less pain, improved attention, better sleep, enhanced well-being, and improved quality of life. Additional research is needed to determine how mindfulness meditation works and how it might help with other chronic illnesses.***

Key words: *Qualitative research, meditation, back pain, aging, mindfulness.*

Pain is a universal human experience that conventional medicine has been challenged to satisfactorily treat. This is especially true among older adults who are highly likely to experience chronic pain from such common disorders as osteoarthritis. Yet, therapy for older adults can be limited by intolerable side effects from the most commonly used medications to treat pain such as nonsteroidal anti-inflammatory drugs and opiates.[27,29] This unfortunate reality leaves physicians with limited treatment choices that often lead them to advise their patients to learn to live with pain.

Pain has long been known to be a multidimensional experience. The early work of Melzack et al[18,19] was the first to describe this, proposing sensory, affective, and

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cognitive-evaluative components to the pain experience. Mindfulness meditation is a mind-body therapy that may be able to affect the experience of pain on all 3 of these components. This possibility has led investigators to study mindfulness meditation for the treatment of pain, beginning with the early work of Kabat-Zinn.[12] It has been found to reduce the intensity of pain as well as to increase mood and function.[1,10]

There are few first-person accounts that exist in the literature that describe what an individual experiences while learning mindfulness meditation,[5,8,13,16,17] and none focus on an older population of chronic pain patients and how they use it to alleviate pain. Why is this important? Because personal descriptions of the experience of applying mindfulness meditation to reduce pain, as well as other unknown effects, can provide insight into possible mechanisms of effect and help generate hypotheses for quantitative research methods. Given the early stage of research on mindfulness meditation and its effect on pain, studies that reveal patterns and themes and generate hypotheses for future research are timely.

In this context, we conducted a content analysis of meditation diaries written by older adults with chronic low back pain during their participation in a clinical trial of mindfulness meditation. The original trial randomly assigned 37 community-dwelling older adults to an 8-week mindfulness meditation program or to a wait-list control group. The control subjects were crossed over into the meditation program after the intervention group completed the classes. Diaries from all 27 participants who completed the program were available for analysis. We found that the program was feasible in older adults, that participants meditated an average of 4 days a week for 30 minutes a session, and that coping as measured by acceptance of pain and self-reported physical function was significantly improved at the completion of the program.[22] These quantitative findings do not describe the means by which participants used mindfulness to work with pain or other effects of meditation. Since the diary entries revealed a rich depth of experience, our objective was to identify themes that best described or commonly suggested participants' experience of applying mindfulness meditation to pain as well as to their daily lives, which would complement the quantitative analysis.

Table 1. Characteristics of Study Participants

Characteristic	*n = 27*
Age, mean ± SD	74.3 ± 5.3
Gender, n	
Male	13
Female	14
Ethnicity, n	
White	24
African American	1
Asian	2
Education, n	
High school graduate	5
Technical school	4
Some college	4
College	8
Master's or greater	6
Religion, n	
Catholic	15
Jewish	9
Protestant	1
Other	2
Income, n*	
$10,000–$29,999	10
$30,000–$59,999	9
$60,000 or greater	3
Marital status, n	
Single	3
Married	15
Separated/divorced	3
Widowed	6
Low back pain cause, n	
Osteoarthritis	23
Spinal stenosis	6
Fibromyalgia	1
Not sure	4
Medications, n	
Opioids	5
Other analgesics	21
None	3

*Not all participants chose to disclose their income.

Materials and Methods

Participants

The sample consisted of 27 older adults (Table 1) with chronic low back pain (CLBP) who had participated in a trial of mindfulness meditation modeled on the mindfulness-based stress reduction (MBSR) program and who had filled out a daily diary about their experience [27/37 (73.0%) of trial participants completed the meditation program and filled out diaries]. The mean number of participants who handed in a diary every week (1 page per week) was 18 (range, 10–26). The first 3 weeks, 26, 22, and 23 participants, respectively, handed in a diary. The following 4 weeks, 16, 16, 15, and 13 participants, respectively, handed in a diary, and the last week, 10 participants handed in a diary. Including their comments about the class at 3-month follow-up, there were 742 lines of text available for analysis (see reference for trial details).[22] The 10 participants who did not participate in the meditation program were not significantly different ($P > .05$) in age, gender, ethnicity, education, religion, income, or marital status than participants who completed the 8-week program.

All participants were included if they (1) were 65 years of age or older, (2) had intact cognition (Mini-Mental Status Exam >23), (3) had CLBP, defined as moderate pain occurring daily or almost every day for at least the previous 3 months, and (4) spoke English. Participants were excluded if they (1) had previously participated in a mindfulness meditation program or (2) had "red flags" suggestive of serious underlying illness (eg, malignancy, infection, unexplained fever, weight loss or recent trauma) causing their pain.