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Using Mindfulness-Based Stress Interventions to  
Improve Chronic Pain in Clients with Fibromyalgia

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Abstract

The effects of mindfulness-based stress reduction on clients who experience chronic pain due to fibromyalgia are examined. Benefits include decreased symptoms of anxiety, depression, and chronic pain. The current literature indicates that the use of mindfulness-based interventions reduces and improves functioning in a variety of mental health issues such as fibromyalgia (Baer, 2003). This paper will examine the impact of mindfulness-based interventions in the treatment of fibromyalgia and the hypothetical use of mindfulness-based stress reduction on ataque de nervios (attack of nerves).

### Fibromyalgia Defined

Fibromyalgia is a chronic rheumatic pain disorder that is characterized by chronic unexplained pain, symptoms such as fatigue, unrestorative sleep, body stiffness, numbness or tingling, and cognitive impairment (Weissbecker, Salmon, Studts, Floyd, Dedert, and Sephton, 2002; Golenberg, 2002). According to the National Center for Chronic Disease Prevention and Health Promotion (2005), 5.0 million adults are affected by fibromyalgia. Depression is common among this population and causes severe distress that may decrease the quality of life (Grossman, Gilmer, Raysz, & Kesper, 2007).

Fibromyalgia has been characterized as a debilitating disorder that may be triggered by psychological or physical stress (Weissbecker, et al. 2002). Statistics indicate that due to the disabling nature of this illness only 60% of those afflicted with fibromyalgia work full-time, and out of the 60%, 55% report impaired job performance (Wolfe et al., 1995 as cited in Weissbecker, 2002).

Treatment predominately consists of antidepressants or anti-inflammatory agents, exercise, and psychotherapeutic procedures, which have all met with limited success (Grossman et al., 2007). The poor response to medical treatment and the disabling nature of fibromyalgia also contributes to the diagnosis as a source of stress. In addition, since fibromyalgia syndrome “has not been met with widespread acceptance, patients often face demeaning skepticism about the validity of their condition” (Weissbecker, et al., 2002, p. 298), which also contributes to the probability of a client experiencing increased stress and depression. Depression and dysthymia are commonly found in clients with fibromyalgia, which can increase the intensity of pain the client experiences (Epstein et al., 1999 in Weissbecker, et al., 2002).

### The Use of Mindfulness-Based Stress Reduction on Chronic Pain

The current empirical literature indicates that mindfulness based interventions are showing clinically significant improvements in the treatment of chronic pain, depression, and anxiety (Baer, 2003; Krasner, 2004; Carmody & Baer, 2007; Zautra, Davis, Reich, Nicassio, Tennen, Finan, Kratz, Parrish, & Irwin, 2008). Mindfulness assists the client to take charge of their lives again, by shifting the locus of control they feel they have lost back to them. This helps give clients a sense of empowerment over their illness.

Chronic pain can impair life functions by adding demands on clients that require them to alter their daily lives. Chronic pain is associated with higher negative moods that elevate a depressive mood and in turn decrease functioning (Zautra, et al., 2008).

DeVellis, Lewis, & Sterba (as cited in Zautra, et al., 2008) assert that, “preserving rewarding social relationships and other satisfying pursuits in spite of pain and other distressing symptoms may be essential to sustaining psychological well-being and physical functioning” (p. 408). The support of relationships and pursuing avenues of treatment that will help to relieve chronic pain can be achieved. As an example, Carmody and Baer (2008) completed a study using students attending the University of Massachusetts Medical School to ascertain if a mindfulness-based intervention correlated with improvement in psychological functioning and a decrease in reported symptoms.

The participants in the study consisted of adults (mean age 47.05) with chronic pain, anxiety, illness-related stress, and personal and employment-related stress. Participants attended an informational session prior to beginning the 8-week mindfulness-based stress reduction (MBSR) intervention sessions. The participants were asked to complete pre- and post- program

questionnaires to assess the success of the intervention. Questionnaires measured the five facets of mindfulness: observing, describing, non-judging of inner experience, non-reactivity to inner experience, and acting with awareness. Each item was rated using a Likert scale ranging from 1 (never or rarely) to 5 (very often or always true). Participants also maintained logs to record the number of minutes, formal and informal, that they practiced the use mindfulness each day.

The results indicated that physiological symptoms, psychological symptoms, and perceived stress levels all significantly decreased. These results are not unusual, as additional studies demonstrating similar results using mindfulness-based interventions have emerged in the literature (Brown & Ryan, 2003; Carlson & Garland, 2005; Baer, 2003; Grossman, et al., 2007; & Zautra, et al., 2008). In particular, the use of mindfulness-based stress reduction has been successfully examined as an intervention that focuses on psychosocial adjustment to and coping with the chronic dysfunction that fibromyalgia creates (Weissbecker et al., 2002; Grossman, et al., 2007; Sephton, Salmon, Weissbecker, Ulmer, Floyd, Hoover, & Sudts, 2007).

#### Mindfulness-Based Interventions for Fibromyalgia

Incorporating positive cognitive appraisals of life experiences establish flexible coping mechanisms that help to increase the tendency to view the world as manageable and understandable (Weissbecker, et al., 2002). The use of mindfulness-based stress reduction (MBSR) has been examined by Grossman et al. (2007), which found that the use of MBSR not only successfully reduced subjective experiences of chronic pain, but the findings also appeared to indicate pain reduction after three years was maintained. Additional studies also indicated that participants noted a marked reduction in depressive symptoms that persisted for two months following the intervention, for both cognitive and somatic symptoms (Sephton, et al., 2007). The

use of MBSR promotes a strategy that is effective and encourages self-observation, acceptance, and thoughtful responses to pain. It helps the client to disconnect from the pain which fibromyalgia causes (Sephton, et al., 2007; Grossman, et al., 2007).

### Future Consideration

The empirical literature that examines mindfulness-based interventions is promising. As the research increases on the use of mindfulness-interventions, studies can begin to review the effects on disorders that afflict specific diverse populations, such as *ataque de nervios* (attack of nerves), known among Puerto Ricans. *Ataque de nervios* can vary widely, but common symptoms are uncontrollable shouting, attacks of crying, trembling, heat in the chest rising to the head, suicidal gestures, and seizures or fainting episodes (Keough, Keough, Kiara, Timpano, and Schmidt, 2009). Commonly it follows a distressing event, such as personal conflicts, anger, grief, or disruption of family systems. Similar presentations of symptoms are seen with individuals who experience panic attacks (Keough, Kiara, Timpano, and Schmidt, (2009).

Mindfulness-based interventions could be an effective intervention to assist clients who experience *ataque de nervios*. The use of mindfulness-based interventions could help this population develop a new way of responding, rather than simply reacting, and could help to create more adaptive responses to stress. Using mindfulness-based stress reduction interventions will help promote well being, as it requires a group interaction format, which culturally will help to sustain the participant's involvement. Puerto Rican populations value a sense of familial involvement and a sense of community. Utilizing a group format intervention such as mindfulness-based stress reduction will present a sense of community and will help to promote sustained engagement with this population (Garcia-Preto, 2005).

## Conclusion

Overall the results of the studies that focus on treatment of fibromyalgia using MBSR have all shown successful results. The benefits that clients obtain will enable them to live more productive lives that will enhance their psychological and physical functioning. The use of MBSR offers techniques, practices, and perspectives that are learned and can be applied to everyday life (Grossman, et al., 2007). The key to success with mindfulness training in reduction of chronic pain with clients who are diagnosed with fibromyalgia is “not aimed at symptom reduction, but more fundamentally toward altering how perceptible mental processes and content are experienced, toward greater awareness, acceptance, and tolerance of the unavoidable vagaries of life” (Grossman, et al, 2007, p. 232).

Further research using mindfulness-based interventions should be explored with culturally diverse populations that experience culture-specific illnesses. The role of somatization as a culturally meaningful expression of psychological distress within diverse cultures needs to be further explored. Incorporating the use of mindfulness-based interventions may prove beneficial and provide many with relief and hope.

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