



XAVIER
UNIVERSITY

Perceived illness disability, experiential avoidance, mindfulness, and acceptance in chronic illness patients: Does fibromyalgia present a unique opportunity for ACT?

Stephanie Parazak, B.A., Abbie Beacham, Ph.D. & Stacy Lorenz, M.A. Xavier University, Cincinnati, OH

INTRODUCTION

Fibromyalgia (FM) is a chronic illness (CI) characterized by widespread, chronic musculoskeletal pain, abnormal pain processing, fatigue and sleep disturbance (Wolfe et al., 2013). Worldwide, the average prevalence of FM is 2.7%; this disorder affects about three times more women than men (Queiroz, 2013). FM patients report significant life impairment related to their illness and low quality of life, rating their general and health-related quality of life as significantly poorer in comparison to patients diagnosed with other chronic illnesses (Bennett et al., 2007; Picavet & Hoeymans, 2004).

Although Acceptance and Commitment Therapy (ACT) is an empirically supported treatment for general chronic pain (Vowles & Thompson, 2011), less is known with regard to FM patients specifically. Because FM is unique to other pain disorders due to an unpredictable symptom course and reduced quality of life (Picavet & Hoeymans, 2004), further investigation is indicated to gain a better understanding of FM patients' disability experience and potential areas for intervention using an ACT framework.

The purpose of this study was to investigate differences between FM patients and patients with other CIs with regard to perceived disability as well as key ACT constructs such as experiential avoidance, mindfulness, and acceptance.

METHOD

Participants and Procedure:

We recruited participants via online support groups for chronic illnesses. Of the total sample (N=577), 15.4% (N=89) reported being diagnosed with FM, while 84.6% (N=488) had a CI other than FM. For both FM and general CI participants, mean age was about 53 years; participants were well educated (FM M=14.99, CI M=15.43), primarily female (FM= 91.0%, CI= 78.4%), Caucasian (FM= 89.5%, CI= 89.5%), and married (FM= 53.6%, CI= 60.7%). However, FM patients reported a higher number of total CIs than did CI patients without FM [$F(1,524)=9.82, p<.01$]. Comorbidities are summarized in figure 1.

Measures:

Perceived Illness Disability Inventory (PID): The PID was adapted from the Pain Disability Index to make it inclusive of all chronic conditions, not just pain. Self-reported illness interference is assessed in the following life domains: family/home responsibilities, recreation, social activities, occupation, sexual behavior, self-care, and life-support activity. Items are rated on a 0 ("no disability") to 10 (total disability) scale (Pollard, 1984).

Acceptance and Action Questionnaire (AAQ): The AAQ (Hayes et al., 2004) includes 16 items loading onto a single factor total score designed to measure experiential avoidance. Items are rated on a 1 (never true) to 7 (always true) scale with higher total scores reflecting greater experiential avoidance.

Mindful Attention Awareness Scale (MAAS): The MAAS consists of 15 items designed to measure of a single-factor construct of mindfulness (Brown & Ryan, 2003). Each of the items is rated on a 6-point scale from 1 (almost always) to 6 (almost never) and summed; a higher total score indicates a higher level of mindfulness.

Chronic Illness Acceptance Questionnaire (CIAQ): The CIAQ (Beacham, Linfield, Kinman, & Payne-Murphy, Revision under review) was adapted from the Chronic Pain Acceptance Questionnaire (CPAQ; McCracken et al., 2004). Twenty items are rated on a 0 ("Never true") to 6 ("Always true") scale to produce a two-factor structure: Activity Engagement and Pain Willingness. All CPAQ items were retained in the development of the CIAQ, and analyses revealed item loadings on the same two-factor structure as the CPAQ.

Figure 1. Reported comorbid chronic illness diagnoses in fibromyalgia patients and patients diagnosed with other chronic illnesses.

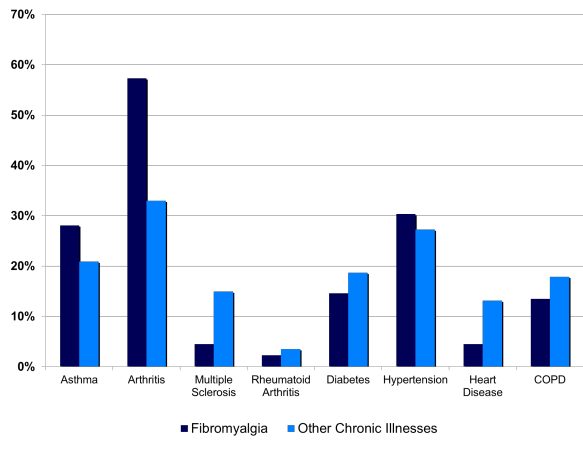
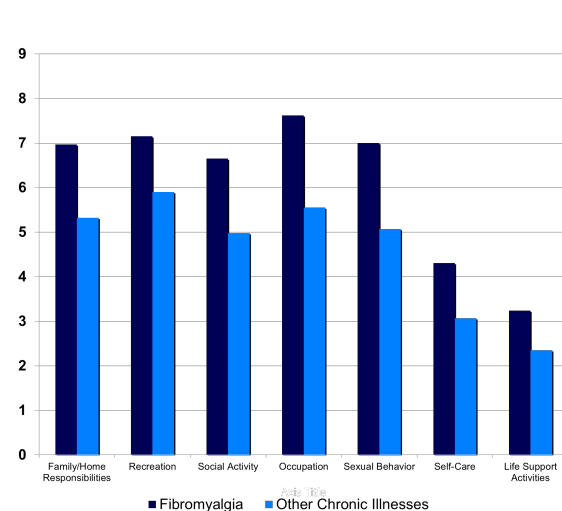


Figure 2. Areas of perceived disability in fibromyalgia patients and patients with other chronic illnesses.



NOTE: 0 = No Disability to 10 = Total Disability

RESULTS

Because FM patients rated their average pain level (previous week) as significantly higher (M=5.93, SD=2.0) than did patients with other CI diagnoses (M=5.22, SD=1.85), ANCOVAs were utilized to evaluate the potential benefit of ACT in FM patients specifically by conducting between groups comparisons of relevant theoretical variables in FM patients versus patients with other CIs, controlling for average pain level in the last week.

There were significant overall differences between FM patients and other CI patients, with FM patients reporting greater overall Perceived Illness-related Disability [$F(1,213)=5.88, p<.05$] and in all specific domains (All $p's <.05$). See Figure 2.

Similarly, there were significant overall differences between FM patients and other CI patients, with FM patients reporting higher levels of experiential avoidance [$F(1,213)=5.68, p<.05$] and lower CI Acceptance – Activity Engagement [$F(1,213)=8.83, p<.01$].

DISCUSSION

The present study results indicate that, even when accounting for pain levels, persons suffering from FM may view themselves as more disabled in multiple domains than do other CI patients. The group differences extend to lower levels of CI acceptance - activity engagement and higher levels experiential avoidance compared to patients with other CIs. It is possible that diffuse pain and discomfort, coupled with low predictability of symptom severity and course, may be contributors to these differences.

These results are consistent with a recent RCT treatment using ACT which significantly reduced perceived disability in FM patients compared to a control group (Olsson et al., 2012) and another RCT which found that psychological inflexibility mediates outcomes for FM patients (Wicksell et al., 2013). These results, coupled with those of the present study, suggest that differences in disability between FM and other CI patients may relate to a lack of acceptance-based skills. As such, FM patients appear to have particular potential for intervention using an ACT model to improve functional and psychological outcomes.

REFERENCES

- Beacham, A.O., Linfield, K., Kinman, C.R. & Payne-Murphy, J. (Revision under review) The Chronic Illness Acceptance Questionnaire: Confirmatory Factor Analysis and Prediction of Perceived Disability in an Online Chronic Illness Support Group Sample. *Journal of Contextual and Behavioral Science*.
- Bennett, R.M., Jones, J., Turk, D.C., Russell, I.J., & Matalana, L. (2007). An internet survey of 2,596 people with fibromyalgia. *BMC Musculoskeletal Disorders*, 8, 27.
- Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848.
- Hayes et al. (2004). Measuring Experiential Avoidance: A preliminary test of a working model. *The Psychological Record*, 54, 553-578.
- Lawrence, R.C., Felson, D.T., Helmick, C.G., et al. (2008). Estimates of the prevalence of arthritis and other rheumatic conditions in the United States, part II. *Arthritis & Rheumatology*, 58(1), 26-35.
- Olsson, G.L. et al. (2012). Acceptance and commitment therapy for fibromyalgia: A randomized controlled trial. *Scandinavian Journal of Pain*, 3, 173-198.
- Picavet, H.S.J., Hoeymans, N. (2004). Health related quality of life in multiple musculoskeletal diseases: SF-36 and EQ-5D in the DMC3 study. *Annals of Rheumatic Diseases*, 63, 723-729.
- Pollard, C. (1984). Preliminary validity study of the Pain Disability Index. *Perceptual and Motor Skills*, 59(3), 974.
- Queiroz, L.P. (2013). Worldwide epidemiology of fibromyalgia. *Current Pain and Headache Reports*, 17(8), 1-6.
- Vowles, K. E., & Thompson, M. (2011). Acceptance and Commitment Therapy for chronic pain. In L. M. McCracken (Ed.) *Mindfulness and acceptance in behavioral medicine: Current theory and practice* (pp. 31-60). Oakland: New Harbinger Press.
- Wicksell, R.K. et al. (2013). Acceptance and commitment therapy for fibromyalgia: A randomized controlled trial. *European Journal of Pain*, 17, 599-611.
- Wolfe, F., Braher, E., Hinz, A., & Hauser, W. (2013). Fibromyalgia prevalence, somatic symptom reporting, and the dimensionality of polysymptomatic distress: Results from a survey of the general population. *Arthritis Care & Research*, 65(5), 777-785.