

(Presentation, 2002 annual meeting of the American Psychosomatic Society, March 16-20, 2002, Barcelona, Spain)

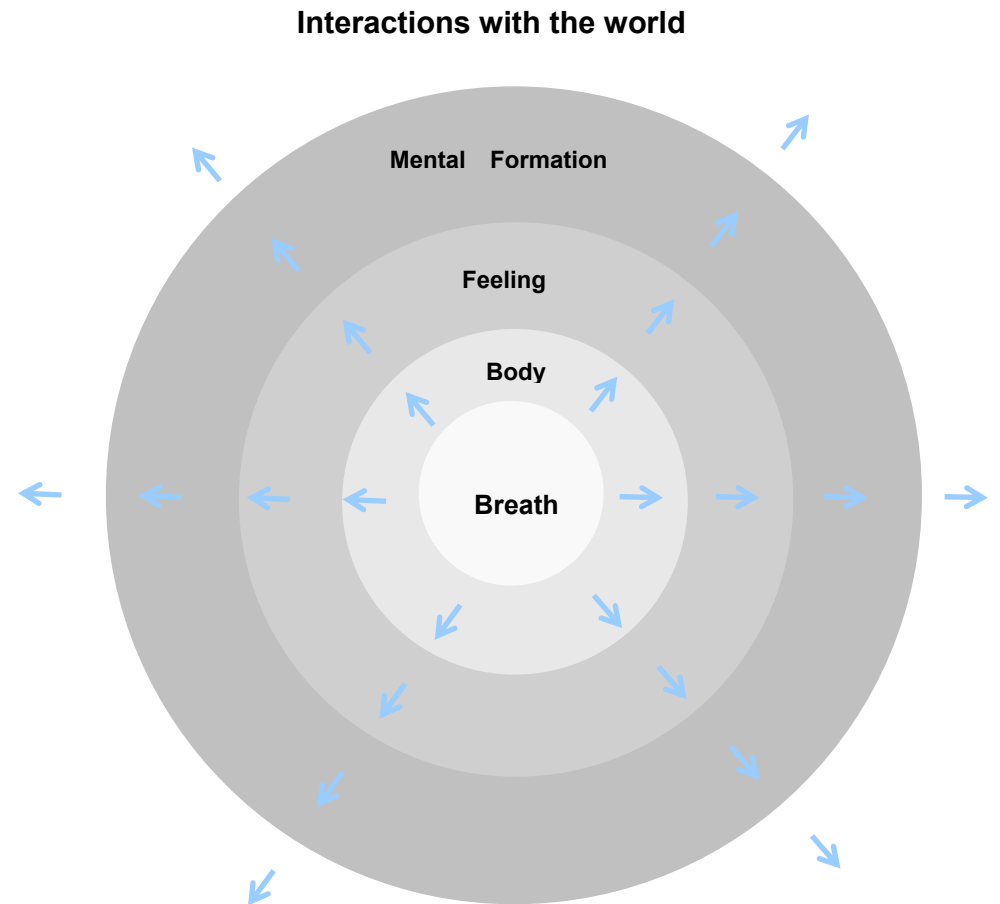
BUDDHIST PSYCHOLOGY'S POTENTIAL CONTRIBUTION TO PSYCHOSOMATIC MEDICINE: EVIDENCE FROM A MINDFULNESS PROGRAM FOR FIBROMYALGIA

Correspondence: Dr. Paul Grossman, Freiburg Institute for Mindfulness Research, Konradstrasse 32, 79100 Freiburg, Germany
Email: BreathingSpace@t-online.de

INTRODUCTION

- Buddhist psychology proposes a systematic program of introspective psychosomatic awareness of immediate experience for the reduction of suffering associated with a wide range of psychosomatic conditions.
- This approach called mindfulness training or insight meditation, aims at the progressive development of non-judgmental, sustained attention to moment-to-moment mental content and processes within the range of conscious perception.
- Empiric and non-esoteric, it can be seen as an application of naturalistic observation to one's own perceptible, immediate psychophysical experience; its all about dispassionate paying attention.
- Buddhist texts and experts claim that enhanced awareness and acceptance of ongoing experience will:
 1. relieve psychological and physical distress
 2. improve mood states, physical energy and coping with the stress of pain
- Fibromyalgia is a intractable syndrome of chronic, severe pain and mental distress (marked by diffuse pain, psychological trauma, anxiety & depression).

Systematic Training of Sustained Attention



We examined Buddhist claims by employing an 8-week program of mindfulness training with fibromyalgia patients (compared to an active control procedure).

Participant Characteristics

METHODS

Subjects

54 females (mean, 52 ± 8 years) with fibromyalgia entered the study (medical diagnosis according to American College of Rheumatology criteria).

- 35 Ss completed mindfulness program (MP) (4 dropouts)
- 13 Ss in active social support control group (CP) (2 dropouts)

Group Interventions (quasi-randomized)

Mindfulness Program:

- Adapted from mindfulness-based stress reduction program of J. Kabat-Zinn
- Practice of mindfulness in a range of conditions: from repose to mindful Yoga to daily life situations
- 8 weekly 2.5 hour sessions
- Daily 45-min homework assignments
- Experienced instruction with many years of mindfulness practice and teaching

Social Support Control Procedure:

- Designed to control for nonspecific effects
- Active social support, fibromyalgia physical exercises & progressive relaxation
- Same structure and amount of homework
- Led by independent, experienced group therapist

	Mindfulness Group	Control Group
N	35	13
Age (yrs)	54.4 ± 8.3	48.8 ± 9.1
Yrs ill	13.8 ± 6.1	9.9 ± 6.9
Severe trauma reported	51%	53%
Mobbing	51%	46%
Depressive/ Anxious	60%	61%

Measurement Instruments (all validated)

Quality of Life Profile for Chronic Disease (Siegrist)

- General Functioning
- Ability to Enjoy & Relax
- Positive Affect
- Negative Affect
- Social Functioning

Hospital Anxiety & Depression Scale

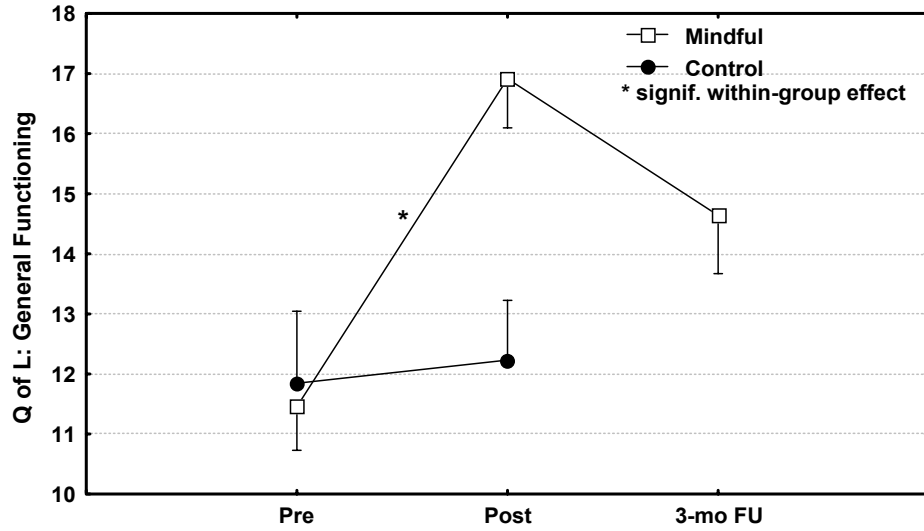
Pain Rating Scale (Schmerzempfindungsscala)

- Somatic Component
- Affective Component

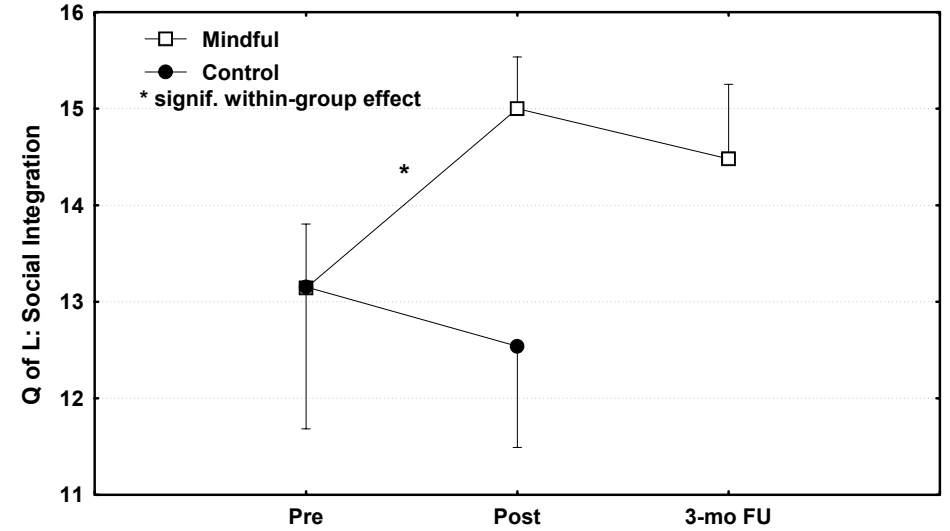
Coping with Pain Inventory (Fragebogen z. Schmerzregulation; Schermelleh-Engel)

- Competence
- Anxiety
- Depression
- Resignation
- Avoidance

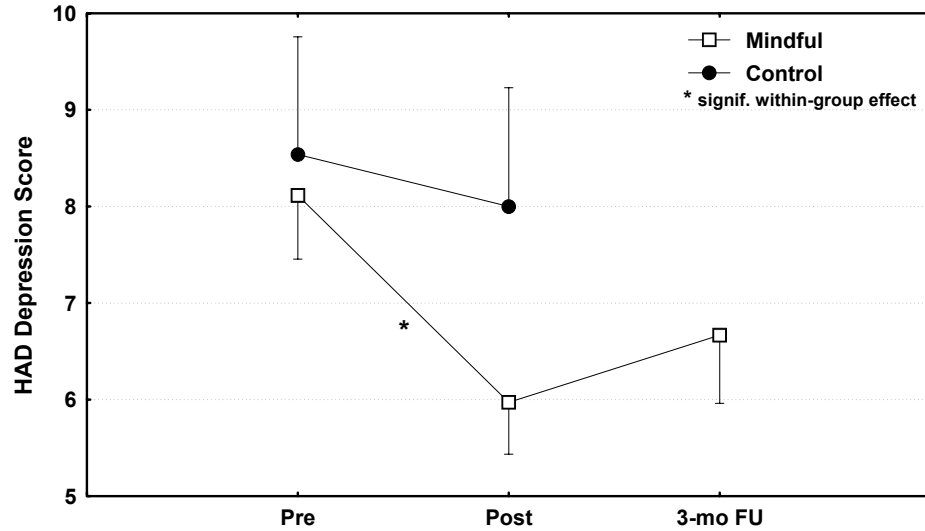
General Physical Functioning
Pre to Post Interaction Effect $p < .0005$



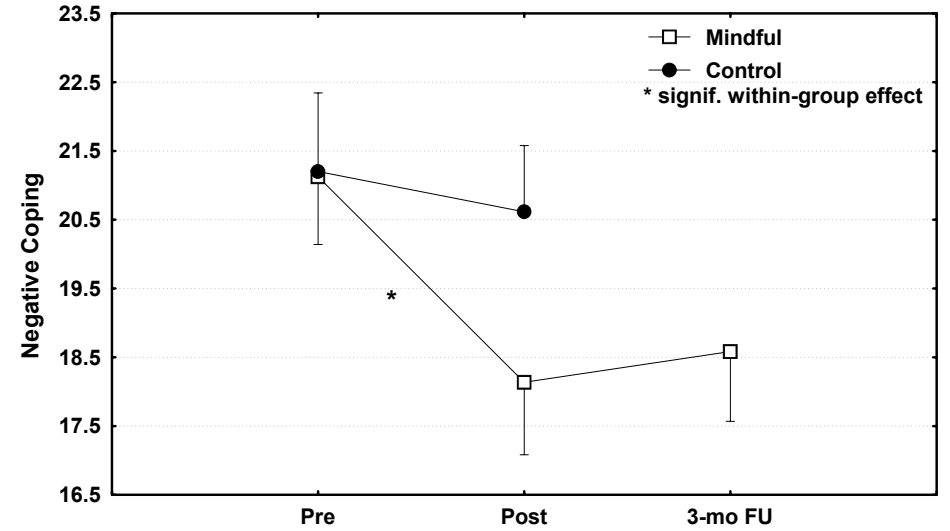
Social Integration
Pre to Post Interaction Effect $p < .0003$



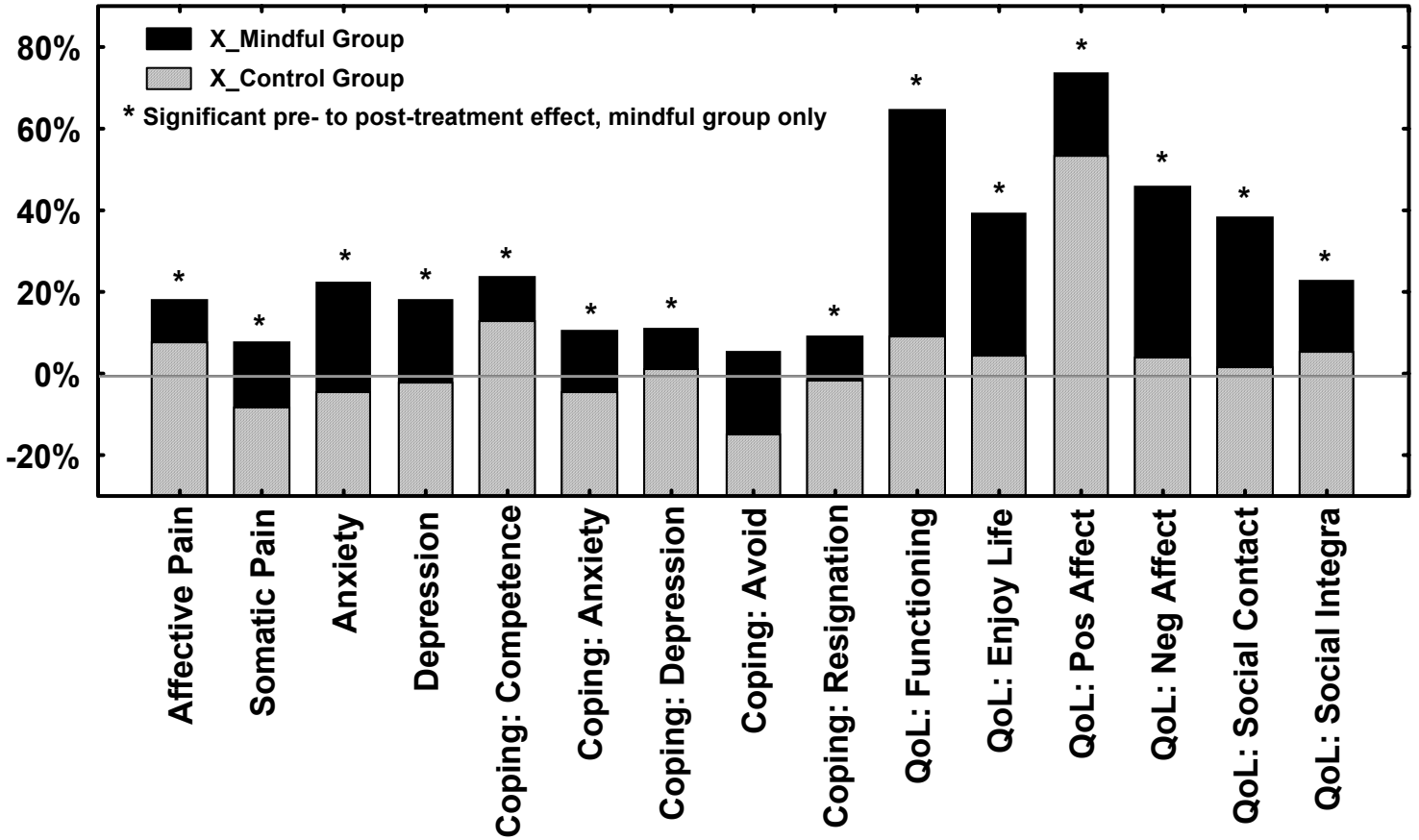
Depression
Pre-Post Interaction Effect $p < .05$



Negative Coping with Pain
(Decreasing score indicates improved coping)

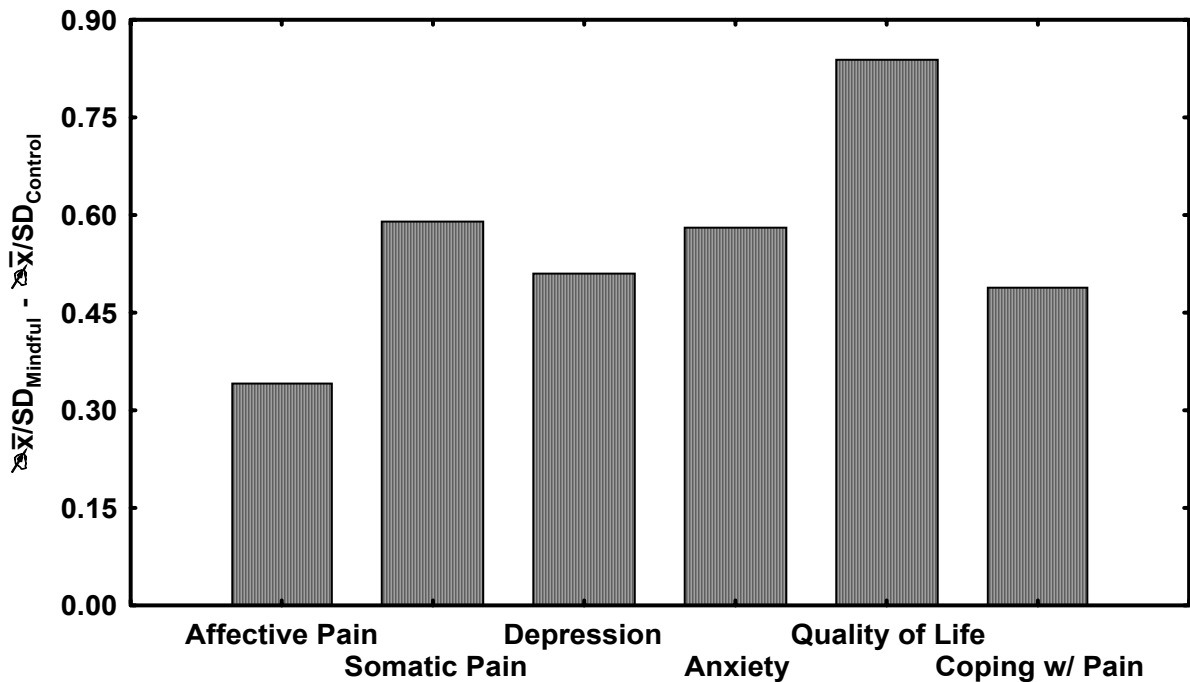


Group Differences in % Change of Dependent Measures



Effect Sizes of Mindfulness Training

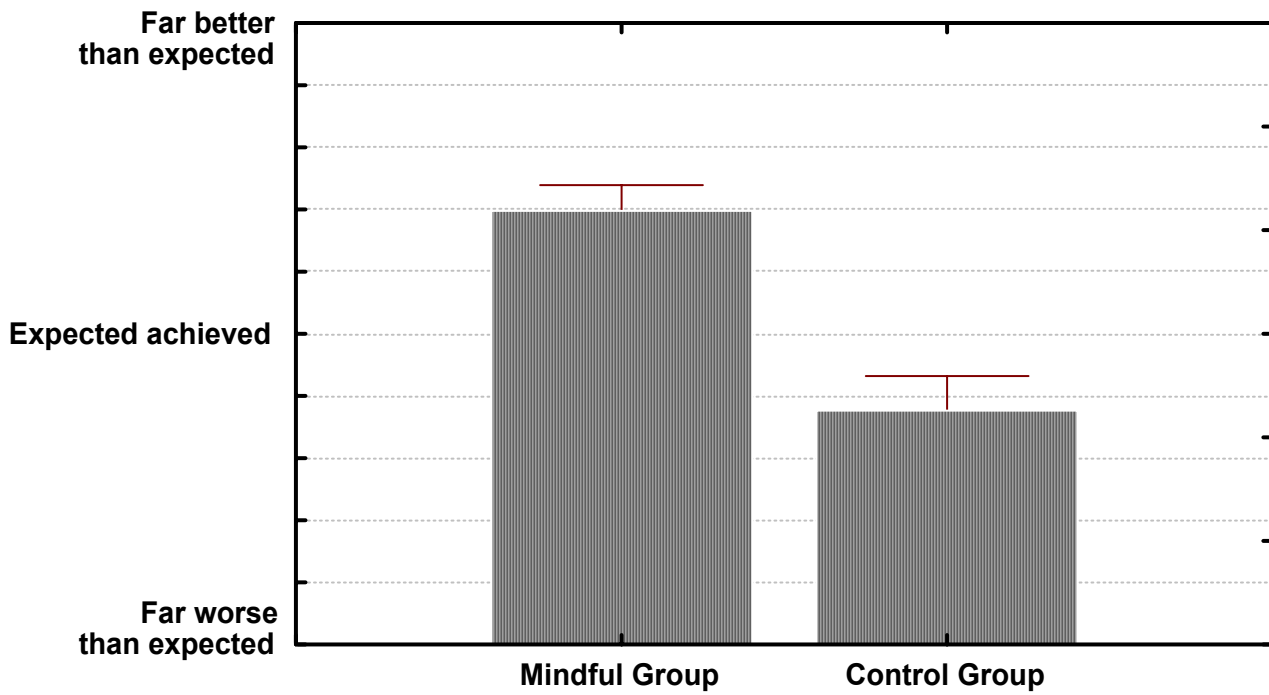
(effects additional to control group)



Average Personalized Goal Attainment

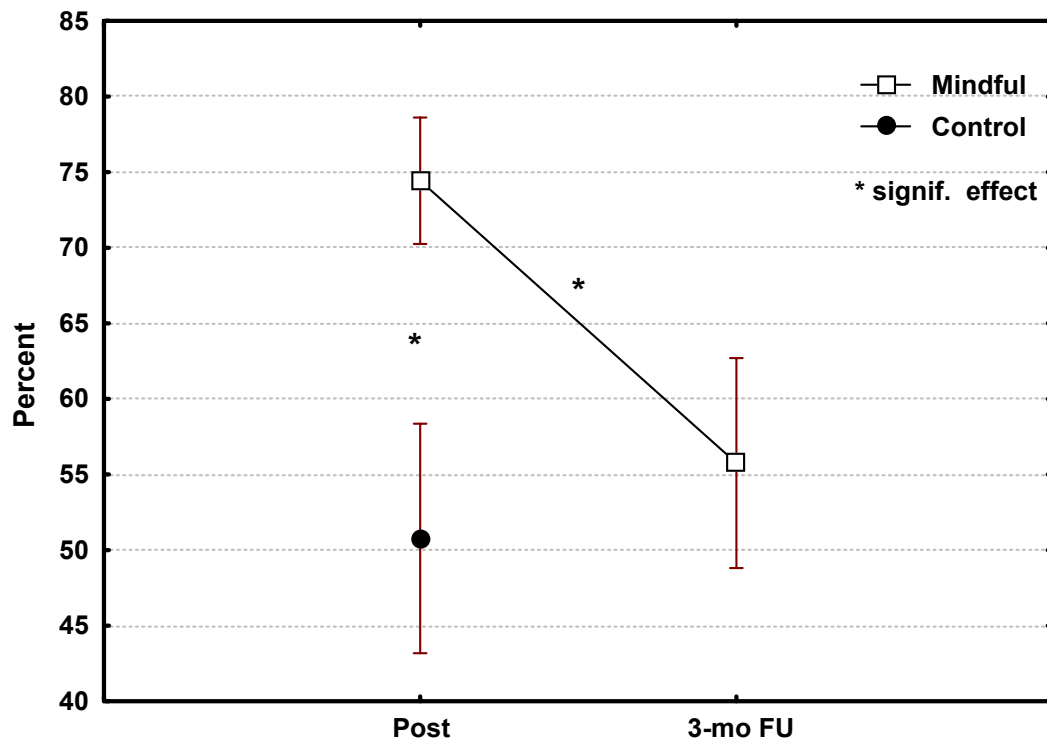
(E.g. pain reduction, reduced fatigue, better coping)

$p < .00003$



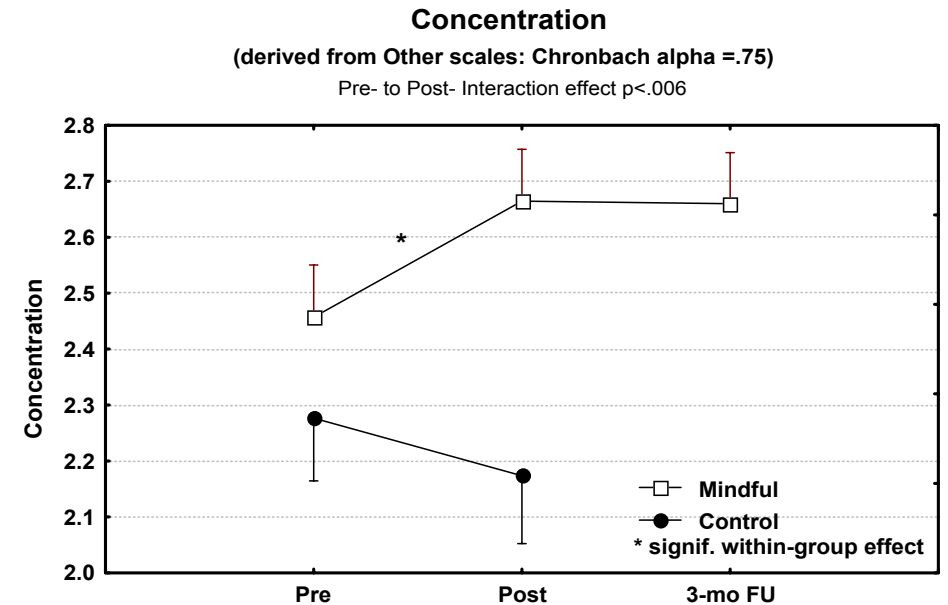
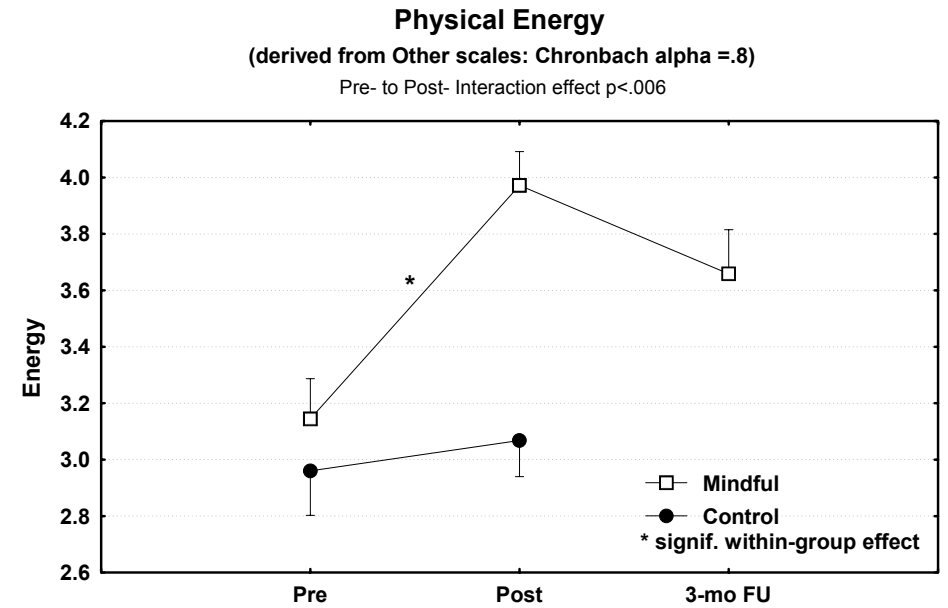
Reported Compliance

(Estimated percentage of homework performed)



CONCLUSIONS

- An 8-week program of mindfulness training appeared to improve a broad range of quality of life and other psychometric indices of functioning among a group of female fibromyalgia patients.
- These effects were not seen in a small comparison group who received an intervention comparable in social support, gentle exercise and relaxation, but lacking a mindfulness component.
- Pre- to post-treatment effect sizes were relatively strong for the mindfulness group, even though the comparison group received an active intervention that aimed at controlling non-specific factors.
- These results are in support of Buddhist claims that enhanced awareness of momentary experience promotes positive affect, more balanced coping responses and improved concentration and energy.
- Although there were no significant decreases among the mindfulness subjects from post-intervention to 3-month followup, there was a general decline in positive effects. This may suggest that the mindfulness program should be extended in time or supplemented by regular post-course sessions.
- Because this investigation was not randomized and constituted a rather small sample size, our findings are merely suggestive and should be further validated in a larger randomized, preferably multi-site, study.



Published Abstract in Journal, Psychosomatic Medicine 2002, and presented at annual meeting of American Psychosomatic Society, Barcelona, Spain, March, 2002

BUDDHIST PSYCHOLOGY'S POTENTIAL CONTRIBUTION TO PSYCHOSOMATIC MEDICINE: EVIDENCE FROM A MINDFULNESS PROGRAM FOR FIBROMYALGIA

Paul Grossman, Freiburg Institute for Meditation Research, Freiburg, Germany and Ulrike Tiefenthaler, Psychology, University of Vienna, Vienna, Austria, Paul Grossman

Buddhist psychology proposes a systematic program of moment-to-moment awareness of experience--also called mindfulness training--for the reduction of suffering associated with a wide range of psychosomatic conditions. Specific claims are that development of enhanced nonevaluative awareness of ongoing mental processes promotes improved concentration and vigor, positive affect, a greater sense of calm, and a more equanimous, less reactive mode of coping with adverse events. Tests of these assertions should be of interest to the field of psychosomatic medicine, where affective and coping responses are increasingly recognized as integral elements of disease progression. Our quasi-randomized study examined effects of an 8-week program of awareness training for female patients with fibromyalgia: 25 patients who underwent the program were compared to a treatment-as-usual, wait-list control group of 15 patients. Self-report measures were from standardized and validated German inventories. Positive affect was derived from scales of positive mood, sense of connectedness to others, and absence of depression and negative mood; calmness was operationalized in terms of ability to relax and enjoy life, and a relative absence of anxiety; equanimous coping was indexed by relative lack of disability, and positive coping responses to physical pain; concentration and vigor were each derived from reliable subscales of items. ANOVA's revealed that patients trained in awareness improved on all dimensions. Effect sizes for improvements (Cohen d's) were as follows: concentration, .79 ($p=.001$); vigor, 1.04, $p<.00006$) positive affect, .90 ($p=.001$); calmness, 1.04 ($p=.00006$); equanimous coping, .95 ($p=.0006$). These results support Buddhist theory regarding benefits derived from development of enhanced awareness of mental states and suggest the utility of this method when applied to chronic pain disorders such as fibromyalgia.