

## Another View of the Mind–Body Relationship

*Smyth JM, Stone AA, Hurewitz A, Kaell A. Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis: a randomized trial. JAMA 1999;281:1304–9.*

### Study Overview

**Objective.** To determine if writing about stressful life experiences affects disease status in patients with asthma or rheumatoid arthritis.

**Design.** Randomized controlled trial, with an unbalanced design with 2 participants assigned to the experimental group for every 1 assigned to the control group to enhance exploration of the experimental group.

**Setting and participants.** Volunteer patients with asthma ( $n = 61$ , as confirmed by a physician with documentation of a reduction in expiratory function) or rheumatoid arthritis ( $n = 51$ , as confirmed by a board-certified rheumatologist with documentation of the patient meeting American College of Rheumatology criteria) who were being treated in community outpatient settings between October 1996 and December 1997.

**Intervention.** Patients were assigned to write for 20 minutes on 3 consecutive days per week after baseline assessment. Participants in the experimental group were asked to write about the most stressful event of their lives ( $n = 71$ ), and those in the control group were asked to write about emotionally neutral topics ( $n = 41$ ).

**Main outcome measures.** Pulmonary function of asthma patients was evaluated with spirometry following American Thoracic Society guidelines; the primary outcome measure was forced expiratory volume in 1 second ( $FEV_1$ ). Rheumatoid arthritis patients were clinically examined by a rheumatologist using a modified version of the interview used by Affleck and colleagues [1], which consists of assessments of diagnostic symptoms; global disease activity; symptom severity; distribution of pain, tenderness, and swelling throughout the affected joints; presence and severity of deformities; daily living capacity; and general psychosocial functioning. Assessments blind to experimental condition were conducted at baseline and at 2 weeks, 2 months, and 4 months after baseline.

**Main results.** At 4 months after treatment, asthma patients in the experimental group showed improvement in lung function: the mean percentage of predicted  $FEV_1$  improved from

63.9% at baseline to 76.3% at the 4-month follow-up ( $P < 0.001$ ); control group patients showed no change. Rheumatoid arthritis patients in the experimental group showed improvements in overall disease activity, with overall disease severity decreasing from 1.65 to 1.19 (28%) on a scale of 0 (asymptomatic) to 4 (very severe) ( $P = 0.001$ ); control group patients showed no change. Of all patients who completed the study, 33 (47.1%) of 70 patients in the experimental group had clinically relevant improvement, whereas 9 (24.3%) of 37 control patients had improvement ( $P = 0.001$ ).

### Conclusion

Patients with mild to moderately severe asthma or rheumatoid arthritis who wrote about stressful life experiences had clinically relevant, statistically significant improvements in health status at 4 months compared with similar control patients.

### Commentary

This study by Smyth and colleagues is limited because only 2 conditions were studied and outcomes were not evaluated past 4 months. Nevertheless, this study is the first to show that writing about stressful life experiences improves physician rating of disease status and objective measures of disease severity in chronically ill patients. Findings in previous similar studies have been based on patient self-report.

The results of this study are startling, but the causative mechanisms underlying the benefits associated with such patient activity are not established. One study has shown physiologic alterations in functional immune measures following a writing exercise, which may be responsible for the improvements [2].

### Applications for Clinical Practice

Modern Western medicine's approach to treating illness disconnects the mind from the body by focusing primarily on the pathophysiology of disease while often ignoring the body's psychophysiological responses to disease [3]. Perhaps it is time to direct attention to the mind's response to illness as well as the body's. In this study, a truly inexpensive, very limited mechanism to help patients cope with emotional distress was associated with a clinically significant improvement in physiologic outcomes. The results support the view

that limited interventions designed to improve a patient's management of emotional stress may have positive somatic impact and reduce the clinical and quality-of-life burden of chronic disease. More attention should be given to developing such interventions and evaluating their value.

### References

1. Afleck G, Tennen H, Urrows S, Higgins P. Neuroticism and the pain-mood relation in rheumatoid arthritis: insights from a prospective daily study. *J Consult Clin Psychol* 1992;60:119-26.
2. Esterling BA, Antoni MH, Fletcher MA, Margulies S, Schneiderman N. Emotional disclosure through writing or speaking modulates latent Epstein-Barr virus antibody titers. *J Consult Clin Psychol* 1994;62:130-40.
3. Spiegel D. Healing words: emotional expression and disease outcome. *JAMA* 1999;281:1328-9.

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