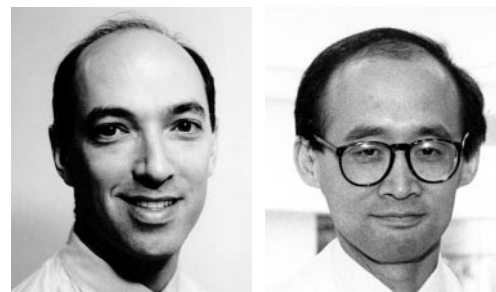


Editorial

Patient Self-Management in Arthritis? Yes, More Research!



Arthritis self-management holds potential for patients with chronic arthritis. Numerous educational programs have been developed to teach patients self-management techniques for a variety of chronic conditions. The broad goals of such programs are to enhance a patient's adherence to a self-management program and thus improve patient outcomes. Many of these self-management education programs have been tested in controlled trials, and some studies suggest that self-management education programs do improve patient outcomes. Such results have prompted interest by the Institute of Medicine¹, the Agency for Healthcare Research and Quality², and a variety of health care delivery systems to examine self-management education programs as a means to improve patient outcomes. Some health care delivery organizations have already adopted self-management education programs as a method for improving patients' clinical outcomes and satisfaction with care while reducing health care resource use.

Studies of arthritis self-management education programs encouraged us to forge a partnership with our state Arthritis Foundation to conduct an effectiveness trial of the Arthritis Self-Help Course³. This trial, reported recently in *The Journal*⁴, showed that persons with osteoarthritis or rheumatoid arthritis who attended the course experienced no significant reductions in pain, disability, or health care resource use or increases in self-efficacy compared with a group that received only the manual but no course.

The trial was conducted in the setting of an organized network of primary care physicians similar to an independent practice organization (IPO), a common delivery system seen in managed care. Within this network, regional practice organizations ("practice sites") provide infrastructure and quality improvement tools to individual doctors. We disseminated the trial through such practice sites, which were paired based on patient volume. One practice from each pair was then randomly assigned into intervention (arthritis self-help classes) or control (arthritis self-help manual without classes).

In the accompanying editorial, Fries and colleagues point out some aspects of the trial methods worth discussing⁵. We

decided to break strict randomization when a large intervention site dropped out of the study, and a large control site was reassigned to the intervention group. This allowed for balance between intervention and control arms in study numbers; we also hoped that it would provide a beneficial intervention (the arthritis self-help class) to more participants. This decision should not preclude a valid comparison between intervention and control groups since we had no *a priori* reasons to believe the intervention would be more or less effective in any particular site. As well, we controlled for baseline differences between the intervention and control patient populations, ensuring comparability in the comparisons.

As noted above, we elected to compare the arthritis self-help class to an active comparison group, the manual without class. An active comparison group allowed for easier recruitment of controls and, in our estimation, for a more meaningful comparison of the arthritis self-help class. If others are to spend the resources organizing and teaching the class, one should be able to demonstrate its superiority to disseminating the manual without the class.

Fries and colleagues also question the "fidelity" of the class as taught in the context of the trial we report. As the developers of the arthritis self-help class, they are the experts; it is possible that the class was not taught precisely to their specifications. While we have no objective data to support the integrity of the classes taught in the trial, they were all facilitated by the statewide trainer for the arthritis self-help class from the Arthritis Foundation. She has trained dozens of other teachers, taught over 50 different self-help classes, and attended numerous workshops on the arthritis self-help class. If we are to question her ability to teach the class as outlined by Lorig and Fries³, the potential to successfully transfer the class needs to be assessed.

We agree with Fries and colleagues that the arthritis self-help course is an interesting "treatment" to consider offering patients with arthritis. Similar to drug treatments, it must be rigorously evaluated in controlled trials. However, unlike drug treatments, which are largely homogenous as regulated by the US Food and Drug Administration, arthritis self-

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management education programs may not have consistent effects. Before confidently recommending arthritis self-management education programs, such as the arthritis self-help course, referring physicians need evidence that such a course is beneficial when conducted in a “real world” setting, such as our trial. After observing the largely negative results in the trial noted above⁴, to better understand whether our trial was the outlier, we undertook a pooled analysis of studies of arthritis self-management education⁶.

Standard metaanalytic techniques were employed that accounted for the heterogeneity between studies. As reported at the American College of Rheumatology National Meeting in 2001, the structured review found a very small trend toward improvements in pain and disability associated with prior trials. The summary effect sizes for the random effects models were 0.12 for pain (95% confidence interval CI 0.00–0.24) and 0.07 for disability (95% CI 0.00–0.15). These results overlap zero and thus are not statistically significant. If we assume that statistical significance would be achieved with greater numbers of studies (and patients), these effect sizes suggest that arthritis self-management education programs have a very small benefit. One review article observed summary effect sizes of 0.21 for pain and 0.10 for disability; however, these analyses included no adjustments for the significant heterogeneity between studies⁷.

The “negative” results of the trial we conducted and the very small trend toward benefit observed in the meta-analysis should *not* be seen as a reason to dismiss the arthritis self-help class or self-management education programs altogether; rather, these data should be seen as a sobering testament to the difficulty of improving patient outcomes through education. There is considerable interest in such programs and they are generally well received by patients; however, they require substantial resources to disseminate. During the trial, we employed a fulltime research assistant who identified potential patients using billing diagnoses, coordinated recruitment letters with primary care physicians, organized class sites including transportation, and followed up with patients interested in attending. Even outside the trial setting, we have found that organizing and teaching the arthritis self-help class was extremely labor intensive.

The last chapter has not been written on arthritis self-management education programs. We encourage others to test their value in a variety of settings. As the medical community has recently had to interpret the “negative”

results from trials of hormone replacement therapy for heart disease and arthroscopy for knee osteoarthritis^{8,9}, rigorous evaluations of arthritis self-management education programs will help clarify their role in future treatment.

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