

Evaluation of a yoga program for back pain

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Objective: This study tested the hypothesis that participants in a therapeutic yoga program for back pain would show improvements in back pain, back-related functionality, symptoms, mood, quality of life, and back pain medication.

Methods: Participants were adults with a complaint of chronic back pain who participated in a yoga program for back pain. Subject back pain complaints included neck/shoulder problems, buttock pain, muscle spasm, spondylolistheses, sciatica/leg numbness, scoliosis, postural alignment, lack of flexibility and strength, herniated disc, and knee pain. The 12-week program consisted of weekly group yoga classes in the Krishnamacharya Healing Yoga Foundation (KHYF) tradition and included asana, pranayama, core strengthening, meditation, bhavana (visualization), and sound. Participants also practiced regularly at home. Self-report questionnaires at baseline, 12 and 24 weeks included two Likert scale questions assessing back pain intensity and bothersomeness, the modified Roland-Morris Disability Scale (RMDS), Profile of Mood States (POMS), Perceived Stress Scale (PSS), SF36 Health Survey, and an exit questionnaire. Statistical significance was evaluated with a one-sample *t*-test.

Results: A total of 25 subjects completed participation in the program, with 22 completing both baseline and end-program questionnaires and 19 completing follow-up questionnaires. Significant improvements from pre- to posttest were observed on RMDS (change score (CS) = -4.3, $p < .001$), pain intensity (CS = -4.6, $p < .001$), amount of pain (CS = -1.9, $p < .001$), bothersomeness (CS = -1.9, $p < .001$), physical functioning (CS = -4.7, $p < .001$), physical limitations (CS = -3.4, $p = .003$), general health (CS = -0.3, $p < .036$), and POMS total mood disturbance (CS = -4.9, $p = .004$). These changes are considered clinically significant improvements. There was no significant change on perceived stress or use of medication. The pre/post changes remained at follow-up, some becoming stronger. Two new improvements reached or approached significance at follow-up: vigor (CS = 6.4, $p < .001$) and medication (CS = -0.5, $p = .083$). Qualitatively, subjects most often reported improvements in strengthening of their back, flexibility, stress, and posture.

Conclusion: The results demonstrated that KHYF yoga classes lead to significantly improved symptoms and quality of life for adult sufferers of a very broad range of back pain disorders.