Reference:

Waelde, L. C., Thompson, L., & Gallagher-Thompson, D. (2004). A pilot study of a yoga and meditation intervention for dementia caregiver stress. *Journal of Clinical Psychology, 60*, 677-687.

Abstract:

Those providing care for a family member with dementia often suffer from a number of adverse effects, including higher levels of anxiety, depression, and anger. In this study, twelve female dementia patient caregivers (four Caucasians and eight Latinas, with an average age of 56 years) participated in a six-week program of yoga, meditation, breathing exercises, guided imagery, and mantra repetition called *Inner Resources*. Measures of depression, anxiety, self-efficacy, caregiving burden, and subjective improvement were obtained one week before and one month after the intervention. Depression, anxiety, and perceived self-efficacy measures improved significantly; change in depression level was correlated with adherence to the program. Some 70% or more of participants noted a subjective improvement in activity level, physical pain, sleep problems, depression, frustration, energy level, and overall well-being. Some 50% or more of participants noted improvement in fatigue, stress, physical illnesses, and anger. Comparison with baseline assessments obtained two years earlier for eight of the participants indicated that improvement was not merely due to the passing of time. The results of the study indicate that the *Inner Resources* program may be useful for decreasing symptoms of stress and depression.

Reference:

Telles, S., Joshi, M., Dash, M., Raghuraj, P., Naveen, K. V., & Nagendra, H. R. (2004). An evaluation of the ability to voluntarily reduce the heart rate after a month of yoga practice. *Integrative Physiological & Behavioral Science, 39*, 119-125.

Abstract:

A number of studies have been conducted to investigate whether yoga practitioners can voluntarily control involuntary physiological functions. This study was conducted in order to determine whether newcomers to yoga could reduce their heart rate voluntarily after a 30-day yoga program. Two groups with twelve volunteers each (two females and ten males, age range 20 to 40 years) were studied. One group received training in yoga poses and other yoga techniques, while the second group continued with their normal activities. Assessments were performed on days 1 and 30, during which baseline heart rate and the lowest heart rate achieved during a six-minute test period were recorded. The yoga group showed significant decreases in both baseline heart rate (a mean of 70.1 bpm on Day 30 versus 80.7 bpm on Day 12) and lowest heart rate (a mean of 63.3 bpm on Day 30 versus 72.3 bpm on Day 1), while no significant changes were recorded in the control group. Both the yoga and control groups used conscious slowing of the breathing and conscious relaxation of the muscles to reduce heart rate. The results support the idea that yoga aids in the voluntary reduction of heart rate, which has implications for stress management.

Reference:

Harinath, K., Malhotra, A. S., Pal, K., Prasad, R., Kumar, R., Kain, T. C., Rai L., & Sawhney, R. C. (2004). Effects of hatha yoga and Omkar meditation on cardiorespiratory performance, psychologic profile, and melatonin secretion. *Journal of Alternative and Complementary Medicine, 10,* 261-268.

Abstract:

Studies have demonstrated that yoga improves cardiorespiratory, thermoregulatory, and psychologic functions, as well as stress-induced disorders such as anxiety, depression, insomnia, hypertension, bronchial asthma, diabetes and coronary artery disease. The purpose of this study was to determine the effect of yoga and meditation on cardiorespiratory performance, psychologic profile, and melatonin secretion. Thirty males age 25 to 35 years were randomly divided into two groups of 15. The control group underwent routine army physical training for one hour in the morning and one hour in the evening. This training consisted of body flexibility exercises, slow running, and games. The yoga group performed a combination of hatha yoga poses, breathing exercises, and Omkar meditation for one hour in the morning and one hour in the evening. Measurements assessed before and after three months of training included heart rate, blood pressure, mean arterial pressure, respiratory rate, forced vital capacity, forced expiratory volume in one second, forced expiratory volume percentage, peak expiratory flow rate, maximum voluntary ventilation, orthostatic tolerance, anxiety, depression, and well-being. Venous blood samples were also drawn at 8 AM, 12 PM, 1 PM, 2 PM, 12 AM, 2 AM, 3 AM and 4 AM in order to determine melatonin levels. In the yoga group, systolic blood pressure, diastolic blood pressure, and mean arterial pressure all decreased significantly, while orthostatic tolerance increased significantly. The yoga group also exhibited significant increases in forced vital capacity, forced expiratory volume in one second, forced expiratory volume percentage, maximum voluntary ventilation, and peak expiratory flow rate. There were no changes in anxiety or depression in either group, but well-being improved in the yoga group. The yoga group also exhibited higher levels of melatonin at 2 AM, 3 AM, and 4 AM. The levels of melatonin in the yoga group were correlated with well-being scores. This study shows that yoga and meditation cause changes in respiratory performance, autonomic balance, and well-being, as well as increases in melatonin secretion, which may improve psychological well-being.