"The course was very beneficial for me uncovering things about myself that I never realized had been bothering me. It helped me be at peace with myself from issues, feelings and the things that I participated in at war... Through that I have been able to come to peace with some of the things that I did and the way I felt about them. I wish I could have learned this breathing 40 years ago." - Noel, Vietnam Combat Veteran

Research on SKY Breathing Practice

Despite advances in traditional therapy and drug-based treatments, a recent study shows that only 50% of patients who complete such treatments recover (Ballenger et al., 2000). There is a critical need for alternate approaches to the anxiety, trauma, rage, sleeplessness, and other side-effects of war. More and more VA hospitals and community veteran centers are turning to mind-body practices such as breathing, yoga and meditation. Preliminary research results are promising and many veterans claim that these practices have been extremely helpful.

About SKY (Sudharshan Kriya Yoga)

The Power Breath Workshop is a mind-body resilience building program for returning veterans. SKY (*Sudarshan Kriya Yoga*), the cornerstone of the Power Breath Workshop described above, has been shown to reduce anxiety, depression and stress, and to increase self-reported optimism and well-being (Brown and Gerbarg, 2005; Kjellgren, Bood, Axelsson, Norlander, & Saatcioglu, 2007; Janakiramaiah, 2000).

SKY and PTSD

The University of Wisconsin-Madison has recently completed a study evaluating our program with veterans recently returned from Iraq and Afghanistan. The scientists are in the process of preparing the data for publication. Preliminary results suggest that the Power Breath workshop may help reduce post-traumatic stress, anxiety and sleep problems and that the benefits persist over time. Several news channels have covered this research and interviewed the researchers and veteran participants, highlighting some of the research findings. To view these videos, please find them on our website (www.projectwelcomehometroops.org). For more information on the Wisconsin findings, we can put you in touch with the head researchers there upon request.

In addition, a recently published study suggests that SKY helps reduce PTSD symptoms in non-veteran patients with PTSD stemming from the 2004 Tsunami. The researchers found that participants benefited equally from SKY alone as from a combination of SKY and exposure therapy when compared with a wait-list control (Descilo et al., 2009). Research has also shown that SKY is effective for other disorders such as depression and that it increases well-being.



Summary of Research Findings on Breathing Techniques

Controlled respiration exercises are aimed at reducing anxiety and arousal by bringing the body to a physiologically relaxed state (Feuerstein & Miller, 1998). Emotion regulation research shows that respiration and emotion are tightly linked psychological processes (Boiten et al. 1994) and that emotions produce particular rhythms of breath which, when replicated, can induce that emotion (Phillippot, 2002). Research suggests that controlled respiration exercises bring immediate, experienced effects among psychiatric patients (Brown & Gerbarg, 2009). Controlled breathing interventions have resulted in decreased depression (Murthy et al., 1998; Pilkington et al., 2005) and anxiety (Clark and Hirschman 1990). Controlled respiration exercises also appear to reduce pain thresholds (Zautra et al., 2010) and to alleviate withdrawal symptoms in smokers (McClernon et al., 2004). Studies suggest that the effects of controlled respiration techniques on stress and anxiety may be due to respiration's effects on physiological indicators of autonomic balance including increased tone in the vagus nerve (Raghuraj et al., 1998; Raghuraj & Telles, 2008). Controlled breathing exercises have also been shown to reduce pain thresholds (Zautra et al., 2010) and withdrawal symptoms in nicotine dependence (McClernon et al., 2004).

Summary of Research Findings on Sudharshan Kriya

Sudarshan Kriya is a controlled respiration technique taught in the workshops offered by the Art of Living Foundation and the International Association for Human Values. Its effects have been studied in open and randomized trials, both in healthy populations and in populations with psychopathology. Research suggests that Sudarshan Kriya may reduce depression, anxiety, and stress, and that it increases well-being, optimism, and mental focus (Bhatia et al., 2003; Janakiramaiah et al., 2000; Kjellgrenet al., 2007; Kochupillai et al., 2005; Murthy et al., 1998; Vedamurthachar et al., 2006) and that it can help improve emotion regulation (Gootjes et al., 2011). These effects may be mediated by benefits to the immune system (Kochupillai et al., 2005) and improvements in the antioxidant defense mechanisms (Sharma et al., 2003; Sharma et al., 2008).

With regards to post traumatic stress, a recent study suggests that Sudarshan Kriya helps reduce the symptoms of post-traumatic stress disorder (Descilo et al., 2009) and helps curb addictive behavior such as substance abuse (Brown & Gerbarg, 2005; Kochupillai et al., 2005).

Breathing exercises may be counter-indicated for certain health conditions. In these cases, our instructors are trained in teaching alternate and adapted versions of the exercises. It is always advised to check with your health provider when engaging in any new change to your health regiment.

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