Complementary Healthcare Practices

Department Editor

Kathleen Krebs, BS, RN

Stress Management for Gastrointestinal Disorders The Use of Kundalini Yoga Meditation Techniques

David Shannahoff-Khalsa

t is well known that stress exacerbates the symptoms of irritable bowel syndrome (IBS) and other functional gastrointestinal (GI) disorders. Drossman et al. (1999) hypothesized that functional GI disorders result from the dysregulation of "brain-gut" neuroenteric systems. They suggest the primary origin of functional GI disorders is not a disease of any GI organ or the brain, but the interaction of both. These disorders may, therefore, benefit from techniques that can alter the activities of the central nervous system (CNS), autonomic nervous system (ANS), and enteric nervous system (ENS).

Recently, Kundalini Yoga meditation techniques (Shannahoff-Khalsa et al., 1999) have been demonstrated to have a dramatically beneficial effect on obsessive compulsive disorders (OCD), one of the most disabling of the anxiety disorders (Rapoport, 1990). OCD has a lifelong prognosis and is estimated to be the fourth most common psychiatric disorder following phobias, substance abuse, and the major depressive disorders. OCD is twice as common as schizophrenia and panic disorder (Rasmussen & Eisen, 1990). OCD often begins during childhood or adolescence, has a lifetime prevalence rate of 2.5% to 5.0% (Rasmussen & Eisen, 1990), and has proven to be refractory to traditional insight-oriented psychotherapy (Jenike, 1990). Also, 40% to 60% of patients exhibit only minimal improvement or no change with serotonin reuptake inhibitors alone (Goodman, 1992). As many as one-third are unimproved after apparently adequate drug treatment (Goodman, 1992), yielding a drugtreatment-resistant patient (Goodman, et al., 1992). In addition, medication in responders produces only a 30% to 60% symptom reduction and patients tend to remain chronically symptomatic to some degree despite the best of pharmacologic interventions (Jenike, 1992).

These OCD statistics are similar to those of IBS and other GI disorders for incidence and treatment success rates. While Kundalini Yoga meditation techniques have not yet been tested specifically for IBS or other GI disorders, they have a longstanding history over thousands of years as therapies for stress management, anxiety disorders, and a wide range of other psychiatric disorders (Shannahoff-Khalsa, 1991). The intent here is to help familiarize therapists and clinicians that may want to increase their repertoire of tools in the alternative medicine domain for the treatment of "brain-gut" disorders.

GASTROENTEROLOGY
NURSING
Copyright 2002
by Society of
Gastroenterology Nurses
and Associates

TABLE 1

Technique 1 "Tuning In"

- Sit with a straight spine and with the feet flat on the floor if sitting in a chair.
- Put the hands together at the chest in "prayer pose" —
 the palms are pressed together with about 10–15 lbs of
 pressure between the hands. It is not intense. The area
 where the sides of the thumbs touch rests on the sternum with the thumbs pointing up (along the sternum),
 and the fingers are together and point up and out with
 a 60° angle to the ground.
- The eyes are closed and focused at the "third eye" (imagine a sun rising on the horizon).
- A mantra is chanted out loud in a 1.5 breath cycle. Inhale first through the nose and chant "Ong Namo" with an equal emphasis on the *Ong* and the *Namo*. Then immediately follow with a half breath inhalation through the mouth and chant "Guru Dev Namo" with approximately equal emphasis on each word. The "O" in *Ong* and *Namo* are each a long "O" sound. The "Dev" sounds like *dave*, a long "a" sound. The practitioner should focus on the experience of the vibrations which these sounds create on the upper palate and throughout the cranium while letting the mind be carried by the sounds into a new and pleasant mental space. This should be repeated a minimum of three times. We employed it in our therapy for about 10–12 times to enhance its usual effects.

Overview of the Techniques

While there are 11 techniques in the meditation protocol specific for OCD (Shannahoff-Khalsa, 1997), including a breathing pattern specific for treating OCD (not listed below), these techniques can be employed for the stress-related exacerbation conditions of GI disorders. Several are described here. In addition to these, in the OCD-specific protocol, there is a 3-minute technique to help individuals learn to manage fears, a 5-minute technique for turning negative thoughts into positive thoughts, a technique that only requires a few breaths to help meet mental challenges, and an 11-minute technique for tranquilizing the angry mind.

Whether practicing in a group or by oneself, the first technique, "tuning in" is always employed. Tuning in helps to induce a meditative state of mind and can provide the individual with the experience of being in a womb of blissful healing energy, especially when practiced beyond the minimum requirement of three repetitions (Table 1). This technique helps to create a meditative state of mind and is always used as a precursor to the other techniques. There is no upper time limit for this technique; the longer the better.

Techniques 2, Spine Flexing, and 3, Shoulder Shrug (Table 2), are also used to help induce an energized and positive state of being that can help the patient when engaging in the other techniques. These techniques increase metabolism, uplift the spirit, and induce the healthy glandular changes that give the energetic experience of

TABLE 2

Techniques 2 & 3 for Vitality

Technique 2. Spine Flexing

- This technique can be practiced while sitting either in a chair or on the floor in a cross-legged position. If you are in a chair, hold the knees with both hands for support and leverage. If you are sitting cross-legged, grasp the ankles in front with both hands.
- Begin by pulling the chest up (like you are standing at "attention") and slightly forward, inhaling deeply only through the nose at the same time. Then exhale only through the nose as you relax the spine down into a slouching position. Keep the head up straight, as if you were looking forward, without allowing it to move much with the flexing action of the spine. This will help prevent a whip action of the cervical vertebrae. All breathing should only be through the nose for both the inhalation and exhalation.
- The eyes are closed as if you were looking at a central point on the horizon, the "third eye," a point equivalent to where the nose and eye brows meet. Your mental focus is kept on the sound of the breath while listening to the fluid movement of the inhalation and exhalation. Begin the technique slowly while loosening up the spine
- Eventually, a very rapid movement can be achieved with practice, reaching a rate of 1–2 times/second for the entire movement. A few minutes are adequate in the beginning. Later, there is no upper time limit.

Food should be avoided just prior to this exercise.

- If a feeling of lightheadedness develops, stop momentarily.
- Be careful to flex the spine slowly in the beginning.
- Relax for 1–2 minutes when finished.

Technique 3. Shoulder Shrug

- While keeping the spine straight, rest the hands on the knees if sitting in a cross-legged position or with hands on the thighs if on a chair.
- Inhale and raise the shoulders toward the ears, then exhale, relaxing the shoulders down. All breathing is again only through the nose.
- Eyes should be kept closed and focused at the third eye. Mentally focus on the sound of the inhalation and exhalation. Continue this action rapidly, building to three times/second for a maximum time of 2 minutes.
- This technique should not be practiced by individuals who are hyperactive or have overactive thyroids.

vitality. These are helpful precursors to the other techniques. They help set the mood and increase metabolism.

Techniques 4, 5, and 6 (see Table 3) are all useful for managing anxiety, emotional stress, and mental tension—conditions that are believed to play an elementary role in the disturbance of the "brain-gut" connection. Technique 4 for reducing anxiety, stress, and mental tension is a powerful technique that induces a calm and quiet mind within minutes. It works even if you are feeling absolutely insane. In fact, in ancient times it was used to treat insanity. It can also be used to curb a restless and stressed

TABLE 3

Techniques 4, 5, & 6 for Reducing Anxiety, Stress, and Mental Tension

Technique 4

- · Sit and maintain a straight spine.
- Relax the arms and the hands in the lap.
- Open and focus the eyes on the tip of the nose even though you cannot see it. When you are unsure about where this is, start by placing the tip of your index finger on the very end of your nose. You will not be able to see the tip of your finger, but this tip is the area for your visual focus. You can only see the sides of the nose and they will appear blurred while focusing on the tip.
- Open the mouth as wide as possible, slightly stressing the temporal-mandibular joint, your jaw joint; touch the tongue tip to the upper palate where it is hard and smooth in the upper center.
- Breathe continuously through the nose only, while making the respirations slow and deep. Mentally focus on the sound of the breath; listen to the sound of the inhalation and exhalation.
- · Remember to keep the eyes focused, the jaw stretched, and the tongue on the upper palate throughout.
- In the beginning, remembering to do everything correctly is often challenging. Maintain this pattern for at least 3–5 minutes with a maximum of 8 minutes on the first trial. With practice, this technique can be practiced for 31 minutes maximum.

Technique 5

- Sit and maintain a straight spine.
- The hands are in front of the chest at the heart level. The left hand is 2 inches away from the chest and the right is about 2 inches behind the left (4 inches away from the chest), the left fingers point to the right and the right palm faces the back of the left hand with the right fingers pointing to the left. The *thumbs* of both hands point *up straight*, but without applying tension in the thumbs. They are in a relaxed upward posture.
- The eyes are open and focused on the tip of the nose (see Technique 4).
- The breathing pattern is through the nose only. Inhale, keeping the breath in as long as possible; then exhale and keep the breath out as long as possible without creating undo discomfort at any stage. The inhalation and exhalation phases are short. It is only the "hold in" and "hold out" stages that are stressed.
- When finished, inhale while still maintaining the eye and hand posture and then tense every muscle in the body for about 10 seconds. Exhale and repeat two times.
- Build the capacity for this technique to a maximum time of 15 minutes. Avoid this exercise if you have high blood pressure
 or are pregnant.

Technique 6

- · Sit as described in Technique 5.
- Eyes are open and focused on the tip of the nose (see Technique 4) during the entire exercise (even between breaths).
- Attempt to pull the nose down toward the upper lip by actually pulling the upper lip down over the upper front teeth using the muscles of the upper lip.
- The mouth is left open during this exercise while keeping constant tension on the upper lip. This upper lip tension is maintained during and throughout all six rounds and during the intervals between.
- There are three steps to this exercise.
 - Step 1. Start with the hands and arms up and out to the sides at about 60 degrees above parallel. Inhale deeply and tightly clench the fists (this also produces tension in the arms and shoulders) and slowly pull them down toward the abdomen, the navel point region, like a moving isometric excise.
 - Step 2. Remember to keep the breath in, eyes focused, and upper lip pulled down, maintaining the tension in the fists, arms, and shoulders. Bring the shoulders up toward the ears tensing the shoulders and neck as they go up.
 - Step 3. Exhale and relax (but keep the upper lip pulled down and the eyes at the tip of the nose). Repeat the entire sequence six times.
 - Avoid this exercise if you have high blood pressure or are pregnant. This short exercise is claimed to be so effective, that if done correctly, it can bring relief to the most tense person.

mind and to bring an inner stillness and extraordinary experience of mental silence and well-being.

Technique 5 helps to alleviate emotional stress. Yogis also claim it helps rejuvenate the nervous, glandular, and cardiovascular systems. This technique helps build respiratory capacity. The more slowly and deeply you breathe, the more relaxed you will be. Technique 6 takes about 75 seconds once learned and helps strip away any

residual mental tension, especially after employing techniques 4 and 5. It can also be used independently.

Summary

Techniques in this protocol are from the system of Kundalini Yoga as taught by Yogi Bhajan (Master of Kundalini Yoga). They have a long-standing history of use for the

management of stress, anxiety, and a wide variety of psychiatric and other disorders. While they have not been rigorously tested for the treatment of IBS or other functional GI disorders during modern times, they are likely to prove beneficial for helping the GI patient manage the daily stress that is often found to exacerbate and perhaps perpetuate the symptoms and conditions of the functional bowel or "braingut" disorders. Helping a patient to manage stress and achieve a profound sense of relaxation is likely to tend to the "brain" side of the "brain-gut" disorder, and thus help reduce these inter-system disorders.

References

- Drossman, D.A., Creed, F.H., Olden, K.W., Svedlund, J., Toner, B.B., & Whitehead, W.E. (1999). Psychological aspects of the functional gastrointestinal disorders. *Gut*, 45(suppl. 2), 1125-1130.
- Goodman, W.K., McDougle, C.J., & Price, L.H. (1992). Pharmacotherapy of obsessive compulsive disorder. *Journal of Clinical Psychiatry*, 53, 29-37.
- Goodman, W.K., McDougle, C.J., Barr, L.C., Aronson, S.C., & Price, L.H. (1993). Biological approaches to treatment-resistant obsessive compulsive disorder. *Journal of Clinical Psychiatry*, 54, 16-26.
- Jenike, M.A. (1990). Psychotherapy of the patient with obsessive compulsive personality disorder. In M.A. Jenike, L. Baer, W.E. Minichiello (Eds.). Obsessive-compulsive disorders: Theory and management. St. Louis: Mosby-Year Book.
- Jenike, M.A. (1992). Pharmacologic treatment of obsessive compulsive disorders. Psychiatric Clinics of North America, 15, 895-919.
- Rapoport, J.L. (1990). The waking nightmare: An overview of obsessive compulsive disorder. *Journal of Clinical Psychiatry*, *51*, 25-28.

- Rasmussen, S.A., & Eisen, J.L. (1990). Epidemiology of obsessive compulsive disorder. *Journal of Clinical Psychiatry*, 51, 10-13.
- Shannahoff-Khalsa, D.S. (1991). Stress technology medicine: A new paradigm for stress and considerations for self-regulation. In M. Brown, G. Koob, C. Rivier (Eds.). Stress: Neurobiology and neuroendocrinology (pp. 647-686). New York: Marcel Dekker.
- Shannahoff-Khalsa, D.S. (1997). Yogic techniques are effective in the treatment of obsessive compulsive disorders, In E. Hollander & D Stein (Eds.). Obsessive-compulsive disorders: Diagnosis, etiology, and treatment (pp. 283-329). New York: Marcel Dekker.
- Shannahoff-Khalsa, D.S., Ray, L.E., Levine, S., Gallen, C.C., Schwartz, B.J., & Sidorowich, J.J. (1999). Randomized controlled trial of yogic meditation techniques for patients with obsessive compulsive disorders. CNS Spectrums: The International Journal of Neuropsychiatric Medicine, 4(12), 34-46.

About the Department Editor: Kathleen Krebs, BS, RN, is the new editor of the Complementary Healthcare Practices column. Kathleen has received clinical training in Mind/Body Medicine from Harvard University's Mind/Body Medical Institute under the medical direction of Dr. Herbert Benson. In her role at Allegheny General Hospital's Integrated Medicine Program, Kathleen provides instruction in stress management, mind/body medicine, and healthy lifestyle strategies, and helps to integrate conventional and natural therapies for patients with acute and chronic conditions. Kathleen works with a large gastroenterology practice at Allegheny General Hospital and has been a member of SGNA since 1998.

About the Author: David Shannahoff-Khalsa is Director, The Research Group for Mind-Body Dynamics, Institute for Nonlinear Science (mail code 0402), University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0402 (e-mail dsk@ucsd.edu). Contact the author for more information about the use of Kundalini Yoga meditation techniques.