

Translational Research

at the USMC Center for Advanced Operational Culture Learning (CAOCL)

A Preliminary Analysis of the Impact of Project Welcome Home Troops' Power Breath Workshop on the Lives of Participants Suffering from Post-Traumatic Stress and Other Stress Related Conditions.

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1. Introduction:

Although statistics and specific definitions may vary, it is well known that large numbers of service members returning from Operation Iraqi Freedom (OIF)/Operation Enduring Freedom (OEF) have been diagnosed with post-traumatic stress (PTS)¹ and other stress-related conditions. In addition, there are significant numbers of veterans from more distant wars, such as Vietnam, as well as military family members who are suffering.

Traditional treatment options for PTS range from medication to various types of psychotherapy. And while they can be effective in certain cases, more often than not they are expensive and fall short in terms of both access to and the quality of care.² Moreover, it is increasingly apparent that there is “no one size fits all” approach when it comes to treating stress or PTS, with their myriad symptoms that manifest themselves differently in different individuals. Therefore, it is worthwhile to investigate alternative low cost approaches to see if they do – or can – make a positive difference in people’s lives. One such alternative approach is Project Welcome Home Troops’ (PWHT) Power Breath Workshop (PBW).

¹ For example, see Tanielian, Terri and Jaycox, Lisa eds. 2008. *Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences and Services to Assist Recovery*. Santa Monica, CA: Rand Center for Military Policy Research. http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG720.pdf, accessed June 22, 2015.

Also see, Ballenger J.C. et al. 2000. Consensus statement on posttraumatic stress disorder from the International Consensus Group on Depression and Anxiety. *Journal of Clinical psychiatry*, 61 Supplement, 5:60-6. In this study, unless specifically stated in a source, the term PTS is used – rather than the earlier, more stigmatizing Post Traumatic Stress Disorder (PTSD).

² As just one example, according to a study conducted by RAND, only about half of veterans with PTS seek treatment, and of those, only about half receive treatment that could be considered “minimally adequate.” For the full report, see: http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG720.pdf, accessed June 22, 2015.

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PWHT is a program of the International Association for Human Values (IAHV), a UN-affiliated non-governmental organization that “offers programs to reduce stress and develop leaders so that human values can flourish in people and communities.”³ Since 1997 the IAHV has been providing training in stress and trauma relief to groups such as survivors of ‘natural’ disasters (e.g. the Indian Ocean Tsunami), prisoners, and inner city youth. However, as increasing numbers of veterans returned from Iraq and Afghanistan suffering from apparent stress-related issues, IAHV saw a gap and decided to develop training geared specifically to members of the military. Thus in 2006, with help from the National Veterans Foundation, PWHT and the PBW were born.⁴

The PBW is a flexible five to seven day program (three to four hours per day) created for veterans, active military personnel, and family members suffering from symptoms that may be associated with PTS – such as anxiety, anger, insomnia, and depression. Through the PBW, PWHT aims to train participants (at no cost to them or their organization) in techniques to release stress and restore peace of mind. These techniques focus primarily on a particular series of breath control exercises – or pranayama – called Sudarshan Kriya Yoga (SKY), supplemented with stretching, gentle yoga poses, and small group discussion.

2. Project Description and Research Methodology:

Purpose

The purpose of this study is to explore the PBW. More specifically, it sets out to better understand what PWHT says the PBW is and does; what it actually is and may do; what participants say about the workshop; how they use – or do not use – the techniques and ideas they learn; and how their participation in the workshop impacts – or does not impact – their lives.

This research does not attempt to make definitive claims about the Power Breath Workshop. It is a deep dive into two iterations of the workshop and is designed to make transparent some of the possibilities that can arise from attending the workshop and set the stage for further research and analysis.

Sample

Due to timing and ease of access, a workshop held in Washington D.C. between January 22 and 26, 2015 (Workshop A) was chosen as the primary site for data collection. A second workshop held also in D.C. from June 1 to 5, 2015 (Workshop B) was used as a secondary site.⁵

Workshop A was run by two facilitators from PWHT. There were fifteen participants to include the researcher herself. The researcher started by explaining her research and asking for volunteers. Of the

³ “About IAHV,” 2014 International Association for Human Values, accessed June 15, 2015, <http://www.iahv.org/us-en/about-us/> IAHV is funded by donations and provides its programs, to include PWHT, at no cost to participants or organizations.

⁴ “Project Welcome Home Troops, About Us,” 2014 Project Welcome Home Troops, a Project of the International Association for Human Values, accessed June 15, 2015, <http://www.projectwelcomehometroops.org/about-us/>

⁵ When data analysis was almost complete, an opportunistic informal interview was also conducted with one participant from a workshop held in Fredericksburg, VA from June 11 to 15, 2015. The purpose was to triangulate the researcher’s lines of reasoning, identify any potential red flags, and minimize the chances of any important points being missed.

fourteen available individuals in the workshop, all but two agreed to participate in the research. Out of these twelve, two turned out to be ‘teacher trainers’ who had participated in the workshop many times and were not there for themselves. One participant also dropped out of the workshop after only two days and then refused contact. These individuals were excluded, and the researcher ended up with nine participants from Workshop A.

Workshop B was run by two different PWHT facilitators. There were five participants to include the researcher herself. Again the researcher explained her research but this time emphasized that she was attending for comparison and clarification purposes, as well as to participate and that, due to timing and the need to wrap up analysis, she was not recruiting additional volunteers.

The participants in Workshops A and B come from all branches of the US military as well as the National Guard. Some are veterans, some are still active duty, and most, but not all, have been deployed to take part in conflicts ranging from Vietnam through to OIF/OEF. There were also several spouses and a couple of health service providers present. Participants range in age from early twenties to sixties.⁶

Data Collection

Data collection included multiple methods: documentary and literature reviews; participant observation; and phone and in person interviews – with different targets: PWHT staff members and facilitators and PBW participants – and for different purposes: to establish background, gain perspective, and track change.

Data collection was conducted in stages: In Stage One, before attending the workshop, the researcher talked to members of PWHT and read widely on the PBW and the sorts of techniques it uses in order to learn as much as possible about the workshop. In addition, the researcher conducted background documentary research on stress and PTS in order to make sense of the different ways in which they are understood.

In Stage Two, the researcher interviewed participants prior to and early on in Workshop A to find out about what had brought them to the PBW, any symptoms of stress they felt they were experiencing, how they had been dealing with these symptoms up until then, what they hoped to get out of the workshop, and their feelings about participating. The researcher also interviewed the facilitators about their goals for the workshop.

In this stage the researcher also conducted participant observation. This involved participating fully in all aspects of Workshop A, talking with workshop participants and facilitators about their experiences, and taking notes on what took place on each day of the workshop.

In the third stage, the researcher conducted a series of four follow-up interviews with participants over the phone and/or in person. Depending on the participants’ schedules, the first set took place immediately after Workshop A up until several days later. Questions focused on what the participants thought of the workshop overall, what they thought of the homework questions and small group discussions, what they experienced during the breathing and/or meditation, whether they had noticed

⁶ Throughout this report, to reduce identifying information, when referring to individual workshop participants and PWHT facilitators, the male gender is used.

any changes in themselves since the start of the workshop, to what they attributed these changes, and whether they intended to continue with the breathing exercises.

About a week after Workshop A, the researcher conducted a second set of follow up interviews, and then about a month afterwards a third set was conducted. Three months after Workshop A, the concluding set of follow up interviews took place. Many of these final interviews were conducted in person. The questions were tailored to each individual and were dependent on how they had responded to the prior sets of follow up questions. Overall, the goal was to establish whether the participants felt they were still experiencing any benefit from the workshop and, if so, how and why, and to what extent they were keeping up with the breathing exercises.

In the fourth and final stage, the researcher participated in and observed Workshop B. At this point she did not recruit any further participants. Instead, the time was used to interview the two facilitators and answer various questions that had arisen since Workshop A. In addition, Workshop B was a good opportunity to experience the PBW as instructed by two different facilitators.

Analysis

The researcher fleshed out and typed up participant observation and interview notes as soon as practical to maximize the retention of contextual details and nuance. Using an ongoing productive analysis approach,⁷ the material was then analyzed for its thematic and more general content, as well as for how it compared with knowledge garnered about the workshop from PWHT literature and facilitator interviews. Under the productive analysis approach, analysis is conducted concurrently with data collection to allow the researcher to use the results of initial analyses to inform and direct later data collection.

In order to actually conduct the analyses, the researcher reviewed and annotated notes and interview transcripts several times. This process had three main purposes: The first was to pick out key issues or lines of questioning for inclusion or emphasis in later interviews; the second – specifically for participant interviews – was to rework their conversations into coherent narratives; and the third was to develop a coding scheme into which data could be regrouped into central themes. Given the divergent nature of the participants' stories and experiences, this last goal was particularly challenging.

A Note about Participant Observation, a Qualitative Research Method

Participant observation is a qualitative research method that involves the researcher going beyond simply observing and interviewing participants to becoming an actual participant in their lives and activities. The goal of participant observation is to build trust in order to gain authenticity.

By becoming an active member of the community, the [researcher] need no longer be a somewhat formidable 'scientific' stranger, but can become a trusted friend. By doing insofar as is feasible, whatever it is that the people under study are doing, he or she can have a first-hand experience of what such activity means to the people themselves.⁸

⁷ Lofland, John. and Lyn H. Lofland. 1984. *Analyzing Social Settings, A Guide to Qualitative Observation and Analysis*. California: Wadsworth Publishing Company.

⁸ Crane, Julia and Michael Angrosino. 1984. *Field Projects in Anthropology*. Illinois: Waveland Press: 64.

With qualitative research methods and especially participant observation, there can be no pretense at objectivity. In this instance, from the moment the workshop participants learned about the research project, became acquainted with the researcher, and then agreed to become research subjects, new understandings, relationships, and group dynamics developed. These became part of the research context and could not be ignored. Instead, by acknowledging their existence and addressing them head on, the researcher went out of her way to try to minimize the impact of her presence on the workshop and its participants. First, she used the workshop facilitators as gate keepers to introduce her to the group and shape her presence and the research as a positive endeavor that was aimed at helping members of the armed services. Second, she presented herself as a full workshop participant, no different or better than anyone else, equally willing to reveal her vulnerabilities and fears, and with real personal reasons for attending beyond just her research. Finally, she actively looked out for those times that participants were behaving in particular ways – for example, practicing the breathing exercises or attending follow up sessions – because they knew that the researcher was present and/or would ask questions about this topic. These experiences were not considered aberrations, but instead were actively built into the analysis of what takes place during and after the workshop and what prompts participants to behave in certain ways and not others.

3. Discussion:

Conceptualizations of PTS and Stress

Although the term PTS is used widely, especially in the media, and is often assumed to be commonly understood, it refers to complex processes, actions, symptoms, and ways of thinking that are not yet fully comprehended, let alone agreed upon. What is established, however, is that PTS is stress-related, and that stress, and being stressed, are real conditions.

PWHT defines PTS as an anxiety disorder that develops as a result of exposure to a traumatic event and is characterized by three categories of symptoms: (1) Recurring intrusive thoughts related to the trauma (e.g., flashbacks, dreams); (2) Avoidance of stimuli associated with the trauma, emotional numbness, and social withdrawal; and (3) Symptoms of physiological arousal such as hyper-vigilance, exaggerated startle response, anxiety, difficulty sleeping, irritability, and hyper-reactivity.⁹ This definition fits with the Veterans' Affairs' (VA) understanding of PTSD, which it states can occur after someone goes through a traumatic event and can become a real disorder if the stress reactions do not go away or disrupt that person's life.¹⁰ Symptoms include all those described by PWHT as well as negative changes in beliefs and feelings towards oneself and others.¹¹

There are various different approaches to understanding stress that correspond broadly with differences in academic and theoretical orientation.¹² Although typically thought of as competitive and contradictory, this researcher suggests that these different approaches can be understood as complementary – each offering a different perspective with a different primary focus.

⁹ Veterans and Trauma, 2014 Project Welcome Home Troops, a Project of the International Association for Human Values, accessed June 15, 2015, <http://www.projectwelcomehometroops.org/veterans-and-trauma/>

¹⁰ "PTSD: National Center for PTSD. What is PTSD?" US Department of Veterans Affairs, accessed August 11, 2015, <http://www.ptsd.va.gov/public/PTSD-overview/basics/what-is-ptsd.asp>

¹¹ Ibid.

¹² Some of these different approaches are detailed below.

The neuropsychological view is perhaps the most common way of conceiving of stress. According to this approach, stress occurs when a person's autonomic nervous system (ANS) becomes overstimulated. The ANS is the part of the nervous system that functions independent of conscious awareness. It involves the unconscious regulation of organs and system functions that maintain basic operations within the body – for example, heart rate, respiration rate, blood pressure, perspiration, diameter of the pupils, etc. The ANS has two components: the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS). Simply stated, the SNS prepares the body to fight, flee, or freeze in frightening or tense situations, whereas the PNS prepares the body to rest and digest in relaxing situations. The SNS becomes dominant in states of fear or anxiety as indicated by increased heart rate and respiration, cold, pale skin, dilated pupils, and increased blood pressure. The PNS becomes dominant in states of rest and relaxation as indicated by decreased heart and respiration rates, warm, flushed skin, normally reactive pupils, and decreased blood pressure. According to this model, stress is an imbalance between the parasympathetic and the sympathetic nervous systems during resting states, or the improper predominance of one over the other in particular situations.¹³

The neuropsychological approach is not the only way of conceiving of stress. Another approach is the 'personal social' perspective. Research conducted on resilience in the U.S. Marine Corps¹⁴ suggests that stress and resilience are rooted in choices actively made by individuals based on (1) their cultural values – what is important and meaningful to them – and (2) concepts – their understanding of what is happening or happened at any moment in time. According to this approach, a person has to first understand what is going on in a situation and then attach a value to it; without this, there can be no stress. Stress occurs when there is a failure to maintain a value orientation. For example, a person may perceive they have acted in a way that makes them no longer a 'good' Marine or soldier or a person may perceive that they have no control over a situation and that this is very bad. By extension, resilience is regaining or maintaining a value orientation. For example, a person may choose to believe that they acted in the best way they could, given the information they had, and therefore can hold onto their self-image as 'good' or a person may choose to believe that it doesn't matter that they lack control.¹⁵ Thus, stress is individual, social, dynamic, and context dependent, something that develops not simply as a response to a shocking event, but rather out of "attempts to live value-oriented lives in communities of people among whom you want to be counted as a member, and the right kind of member."¹⁶ Symptoms may include all those listed by PWHT and the VA and more.

These two approaches to understanding stress appear very different. However, this researcher believes there may be a 'third way' that integrates the two. In the neuropsychological view, the focus is on the nervous system (or brain) and the triggers (traumatic experience, traumatic memories, fear, etc.) that create overstimulation, imbalance, and stress. In the personal social view, the focus is on the whole person, one's beliefs, values, and understandings and the choices one makes that create (or do not

¹³ Moore, Monique et al. 2011. *Mind Body Skills for Regulating the Autonomic Nervous System*. Arlington, VA: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

¹⁴ Tortorello, Frank and William Marcellino. 2012. *CAOCL-TECOM Resilience Research Project Final Report*. Quantico, VA: USMC Center for Advanced Operational Culture Learning.

¹⁵ Ibid.

Tortorello, Frank. 2014. "Stress and Resilience in the U.S. Marine Corps." *Marine Corps Gazette* 98(6): 30-33.
Frankl, Viktor E. 2006. *A Man's Search for Meaning*. Boston, MA: Beacon Press.

¹⁶ Tortorello, Frank and William Marcellino. 2012. *CAOCL-TECOM Resilience Research Project Final Report*. Quantico, VA: USMC Center for Advanced Operational Culture Learning.

create) stress. In the third integrative view, if you argue that the brain/nervous system experiences trauma and produces stress, this is not wrong, but you are leaving out a key component. You are ignoring human agency. A person has to first understand their experience as fearful, immoral, disturbing, etc. before a stress response is produced. Therefore, according to this ‘third way’, as a result of a particular experience, a person makes a choice to think a certain way or to believe certain things. This thought process may trigger an imbalance in the nervous system and brain that results in a stress response.

Discussions with PBW facilitators¹⁷ suggest that in general they – and PWHT – have a mixed neuropsychological personal-social understanding of the mechanisms of stress. For example, initially strictly following the neuropsychological approach, the facilitators variously state that stress is an overstimulation of the nervous system that impairs its functioning (i.e. something gets ‘broken’) and that stress is an imbalance between the sympathetic and parasympathetic parts of the nervous system. In the case of PTS, they invoke trauma – or some kind of exposure to or involvement in a traumatic event – as a causal agent, and then – beginning to move away from a strict neuropsychological model – suggest that trauma is anything a person sees, does, or experiences that over stimulates the nervous system such that it leaves ‘residue’ that prevents a person from physically, emotionally, and/or psychologically living fully in the present moment. Several facilitators then point out that an event or experience may be traumatic to one individual and not to another and suggest that differences may have to do with past experiences, physiology, and cultural background. This emphasis on individual and group variation invokes different values and understandings and so provides a bridge to the more explicitly personal-social understanding of stress described above.

The Power Breath Workshop - What PWHT says the PBW is and does

In order to gain access to formal curriculum and other materials used by facilitators to lead the PBW, PWHT requires that you participate in the ‘faculty-trainer course.’ Unfortunately, this is time intensive and quite expensive. Therefore, the researcher did not have access to these materials and could not conduct any kind of in-depth exploration of formal workshop design, processes, and goals. However, various materials are available online on the PWHT website and these provide what might constitute a semi-official description of the Power Breath Workshop and what it is said to achieve.

In a program summary downloadable from the PWHT website, the Power Breath Workshop is described as follows:

The Power Breath Workshop is a mind-body resilience-building program for returning veterans. It offers practical breath-based tools that decrease the stress, anxiety and sleep problems that many returning veterans experience. A cornerstone of the Power Breath Workshop is the SKY (Sudarshan Kriya Yoga) Practice, a set of empirically validated breathing techniques. Through rhythmic breathing patterns, the SKY Practice brings deep mental and physical relaxation which research suggests can reduce symptoms of anxiety, anger, insomnia and depression. Through interactive discussions, the Power Breath Workshop also teaches resilience and empowerment strategies, and develops self-awareness, connectedness and community. Our trainers are experienced facilitators who draw upon veterans’ existing strengths and wisdom to support them in returning to their natural, healthy state. Knowledgeable about military culture with

¹⁷ In person interviews with PBW facilitators, January 26, June 3, and June 4, 2015.

extensive experience in breathing and mind-body techniques, our trainers guide the workshop with the attitude of mutual learning and respect. The program is interactive and facilitated in an open and supportive environment where veterans can share their life experiences if they wish and think about how their values shape their life.¹⁸

In interviews conducted with four PBW facilitators,¹⁹ the facilitators were asked what they saw as the goals of the PBW and what they hoped participants would get out of attending. Their responses – listed below – reveal just how much they believe the PBW can achieve:

- the release of stress and of traumatic memories;
- a glimpse of peace;
- healing;
- the ability to finally let go;
- a sense of well-being;
- a sense of relief;
- a sense of camaraderie;
- the ability to become part of ‘the community’ again;
- the ability to sleep at night;
- improved, ‘more natural’ relationships;
- themselves back; and
- a ‘coming home.’

The facilitators also emphasized, however, that the PBW is an intensely personal experience, and outcomes vary depending on the individual, their life experiences, their symptoms, and the extent to which participants open themselves up to the ideas and breathing techniques presented during the workshop and then keep up with the breathing techniques afterwards.

A Brief Introduction to Pranayama

As stated above, a cornerstone of the PBW is SKY, a specific type of yogic breathing technique or pranayama. Various studies suggest that yogic breathing techniques, to include SKY, have a beneficial effect on balancing the autonomic nervous system, on brain function, and on regulating stress and emotions.²⁰ However, the exact mechanisms involved are not clearly understood and cannot be easily elaborated on using purely western scientific language.

¹⁸ “Project Welcome Home Troops Power Breath Workshop, IAHV, “accessed June 15, 2015, <http://www.projectwelcomehometroops.org/wp-content/uploads/2013/12/Veterans-Trauma.pdf>

¹⁹ Interviews conducted in person, January 22, June 3, and June 4, 2015.

²⁰ Brown, R.P. and P.L. Gerbarg. 2005. Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety and Depression: Part 1 – Neurophysiological Model. *The Journal of Alternative and Complementary Medicine* 11(1): 189-201.

Zope, S.A. and R.A. Zope. 2013. Sudarshan Kriya Yoga: Breathing for Health. *International Journal of Yoga* 6 (1): 4-10.

Moore, Monique et al. 2011. *Mind Body Skills for Regulating the Autonomic Nervous System*. Arlington, VA: Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury.

Pranayama (familiar to some through yoga) is a Sanskrit word that can be translated as expansion (ayama) of the breath or life force (prana).²¹ Pranayama derives from Ayurveda, a five thousand year old system of natural healing with origins in South Asia. According to Ayurveda, our health is achieved through a holistic balance among environment, body, mind, and spirit. When these facets are out of balance, we experience illness, stress, or other physical symptoms. Ayurvedic treatments are designed to restore and maintain balance and, depending on the individual's situation, may include anything from prescribed changes in diet, lifestyle, and physical activities to pharmaceutical or herbal remedies, pranayama, meditation, or psychotherapy.²²

In the United States and other Western countries, there is increasing interest in holistic approaches to health and wellbeing as complimentary to the western medical tradition with which most are familiar. This is particularly true in the field of stress relief with growth in the ayurvedic practices of yoga, pranayama, and meditation, as well as the traditional Chinese practice of acupuncture.

Without delving deeply into Ayurveda as well as the fields of physiology and brain science, it is impossible to suggest in detail how and why pranayama works and the many ways in which it may contribute to overall health. However, suffice it to say, it is widely believed that pranayama stimulates the parasympathetic nervous system, calming the mind and bringing about feelings of relaxation and emotional well-being.

Sudarshan Kriya Yoga (SKY)

The type of pranayama taught at the PBW is SKY. SKY comprises a sequence of four specific yogic breathing techniques – Ujjayi, bhastrika, the chanting of Om, and Sudarshan Kriya. During all components, participants sit either on a cushion on the floor cross legged or with their legs folded under or on a chair. Eyes are closed, and spine is erect. Breathing is through the nose, and participants are instructed to focus on their breathing. This breath work is followed by meditation and rest.²³

Ujjayi means victorious breath. In SKY, the first component, three stage breathing, consists of slow ujjayi against airway resistance. Mild airway resistance is maintained throughout inspiration and expiration by a slight contraction of the laryngeal muscles and partial closure of the glottis, creating a soft sound in the back of the throat.²⁴ In the Power Breath Workshop, this process is taught by instructing participants to say “aaaaaah” as they might if they had just quenched their thirst on a very hot day by drinking a large glass of their favorite soft drink in one huge gulp. Participants are then instructed to practice making this same resulting sound in the back of their throat while breathing out through their nose, mouth shut, and then while breathing in through their nose, mouth shut. This is ujjayi.²⁵ In SKY, ujjayi is practiced in breath cycles consisting of four phases – inspiration, end inspiration breath holding,

²¹ For more information on pranayama, see “The Art of Living, Yoga and Pranayama,” The Art of Living, accessed July 8, 2015, <http://www.artofliving.org/yoga/breathing-techniques/yoga-and-pranayama>

²² For more information on Ayurveda, see “WebMD Ayurvedic Medicine,” WebMD, accessed July 8, 2015, <http://www.webmd.com/balance/guide/ayurvedic-treatments> and “Ayurveda, The Science of Life,” The Chopra Center, accessed July 8, 2015, <http://www.chopra.com/our-services/ayurveda>

²³ Brown, R.P. and P.L. Gerbarg. 2005. Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety and Depression: Part 1 – Neurophysiological Model. *The Journal of Alternative and Complementary Medicine* 11(1): 189-201.

²⁴ Ibid.

²⁵ Observation Notes, Power Breath Workshop, Washington D.C., January 22-26, 2015.

expiration, and end expiration breath holding. The time ratio of the four phases is 4:4:6:2.²⁶ The three stages of breathing refer to the fact that hands are placed in three different places on the body. In the first stage, hands are held flat, just above the hips, palms down, hands parallel to the floor. In the second stage, hands are held flat at chest level, with thumbs under the arm pits, palms down, hands parallel to the floor. In the third stage, elbows point upwards towards the sky and palms are placed on the shoulder blades, biceps by the ears, chin slightly tucked. There are eight to ten ujjayi breath cycles in each stage, followed by twenty seconds of rest after each stage. During rest, hands are placed in the lap with palms open and facing upwards.²⁷

The second component of SKY is bhastrika or bellows breath, a technique in which breath is forcefully inhaled then exhaled through the nose using strong abdominal muscle contractions.²⁸ Participants start by holding their fists up by their ears, elbows in by their ribs. During the inspiration, arms go straight up and palms open with fingers extended towards the sky. During the expiration, elbows come back down to touch the ribs again while hands close. Three rounds of bhastrika with fifteen to twenty breath cycles are each followed by about twenty seconds rest. Again, during rest, hands are placed in the lap with palms open facing upwards.²⁹

After bellows breath, Om is chanted three times using a prolonged expiration and a fifteen second rest after each chant.³⁰

The fourth component is Sudarshan Kriya, a form of cyclical breathing in which there is no pause between inspiration and expiration and the inspiration and expiration phases are approximately equal. Three different rates of breathing are used – slow (8-14 cycles per minute), medium (30 cycles per minute) and fast (150-180 cycles per minute). The number of breaths, intensity, and exact sequence of cycles vary depending on whether Sudarshan Kriya is done with an instructor or as a short take home practice (three repetitions of twenty slow, forty medium and forty fast cycles).³¹ During the Power Breath Workshop, Sudarshan Kriya is practiced using a recording in which the chant ‘So Hum’ (all this is that; what is inside is outside) directs the rhythm of breathing; participants inhale on So, exhale on Hum.

To conclude, SKY ends with at least a five minute period of rest. This may be preceded by an optional period of meditation – guided or unguided.³²

²⁶ Brown, R.P. and P.L. Gerbarg. 2005. Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety and Depression: Part 1 – Neurophysiological Model. *The Journal of Alternative and Complementary Medicine* 11(1): 189-201.

²⁷ Observation Notes, Power Breath Workshop, Washington D.C., January 22-26, 2015.

²⁸ Brown, R.P. and P.L. Gerbarg. 2005. Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety and Depression: Part 1 – Neurophysiological Model. *The Journal of Alternative and Complementary Medicine* 11(1): 189-201.

²⁹ Observation Notes, Power Breath Workshop, Washington D.C., January 22-26, 2015.

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³¹ Ibid.

³² Observation Notes, Power Breath Workshop, Washington D.C., January 22-26, 2015.

According to Brown and Gerbarg, “the psychophysiological state achieved with SKY practice is one of calmness and alertness. Practitioners often describe feeling peaceful, clear minded, happy, focused and connected to others.”³³

What takes place during a PBW?

In very general terms, the PBW involves learning and practicing the series of controlled SKY breathing techniques – or pranayama – described above. Breathing sessions get progressively longer and deeper each day.

At the beginning of the first session, time is devoted to introductions (facilitators, participants, and PWHT), expectations, to include punctuality, no guns, giving 100%, confidentiality, and respect, and various lifestyle suggestions for the duration of the workshop, such as avoiding caffeine and alcohol, eating a plant-based diet, getting a little extra rest, and drinking lots of water. Expectations mark the beginning of an acculturation process that gradually introduces the participants to new – and sometimes very different – ideas, while at the same time recognizes their military backgrounds and the sorts of things that are likely to make them uncomfortable. This is elaborated on below.

Participants arrive at the workshop with varying degrees of knowledge, understanding, and skepticism regarding what they are about to experience. In order to counter any uncertainty or opposition, throughout the workshop the facilitators work very hard to show an understanding of military culture to help make the participants feel comfortable in the workshop setting. The extent to which they are effective at this varies depending on the facilitators. For example, one facilitator was able to give the impression they were well-versed in military culture by emphasizing a requirement to arrive early in order to be on time and using expressions like “there is no I in team,” “leave no man behind,” and “voluntold” to stress commitment and responsibility to the group. On the other hand, another facilitator invoked the frequently quoted military term, “hurry up and wait” as participants sat around waiting for a late arriving member of the group. Unsurprisingly, this fell flat as the term was being used in the wrong context.³⁴ In all branches of the military, punctuality is key, and training does not wait for one late participant. Thus, by waiting around – rather than starting on time – the facilitator in this instance conveyed a lack of understanding of military culture.

Given that the PBW is built around breathing techniques, early on the facilitators provide a cursory discussion of ‘the breath.’ Without saying so explicitly, they draw on the Aryurvedic tradition and ideas from the sub-disciplines of meditation and mindfulness to state that people are most content when they can maintain ‘present moment awareness.’ What they mean by this is you can achieve a much more peaceful state of mind when your whole body – to include your mind – is focused on the present as opposed to being focused on events/issues either in the past or future. They then go on to state that our breath can be used to develop and maintain present moment awareness. This is a common principle of mindfulness or meditation training and a relatively easy concept for anyone to experience for themselves. When you focus your mind on your breathing – perhaps by counting breaths or focusing on the ‘in’ and the ‘out’ – it is very hard for your mind to also be focused on something in the past or the

³³ Brown, R.P. and P.L. Gerbarg. 2005. Sudarshan Kriya Yogic Breathing in the Treatment of Stress, Anxiety and Depression: Part 1 – Neurophysiological Model. *The Journal of Alternative and Complementary Medicine* 11(1): 189-201.

³⁴ This term reflects the large amount of time members of the military report sitting around and waiting for something to happen, especially when deployed. It does not reflect an acceptance of tardiness.

future. In a related vein, the facilitators explain how our breath is part of our ANS and hence is linked to our emotions. They add that it is the only part of our ANS that we can control and that we can learn particular patterns of breath that will bring us to a calm centered place regardless of what is happening in our lives. Finally, the facilitators emphasize that our breath is important for supplying our bodies with oxygen and energy, that eighty percent of our toxins leave our body through our breath, that on average we only use one third of our breathing capacity, and that we can be trained to use much more.

During the workshop the different facilitators provide varying degrees of explanation as to the 'why' behind the specific breathing techniques they present. After talking with the facilitators, some of their hesitancy appears to relate to the complexity of the subject matter, as well as to the unfamiliar Aryurvedic language that would have to be employed if the facilitators were to provide depth. The facilitators are constantly aware of the need to make the participants comfortable and to not alienate them by spending too much time on seemingly unconventional ideas and language that they might not understand and/or about which they may have negative pre-conceived ideas. In addition, according to one facilitator, the workshop is short, and many of the participants do not have a long attention span, and so time is better spent on learning the breathing techniques than on explaining why/how they work. However, many participants from Workshop A contradicted this assumption by stating after the workshop that they would have preferred significantly more explanation.

Although each PBW is slightly different depending on the specific group of participants, the facilitators leading the workshop, and the time available, each daily session consists generally of the following elements:

1. Check in
 2. Discussion
 3. Gentle stretching and yoga – [varies depending on time and facilitators]
 4. Learning and practicing controlled breathing exercises
 5. Closing – to include home practice
 6. Post session nourishment
-
1. Check in – Each session begins with a welcome and check-in that involves welcoming everyone back to the workshop and going around the circle of participants to see how everyone is doing, how everyone slept, and whether homework has been done (breathing and journaling exercises). Any experiences or questions relating to the home breathing exercises are discussed at this point. As the workshop progresses, check in gets longer as participants become more comfortable and more willing to open up and share.
 2. Discussion – Following check in, either in small groups (depending on class size) or as a whole, participants discuss specific questions they have been asked to think and journal about. According to PWHT facilitators, these questions are designed to promote self-reflection and introspection, build trust and a sense of belonging, illustrate that others' have similar burdens, and encourage personal growth. Questions include:
 - a. What do you take responsibility for in your life?
 - b. What do you not take responsibility for?
 - c. What do you want to start, stop, or change in your life?
 - d. How long have you been on this planet?
 - e. How long would you like to remain on this planet?

- f. What would you like to achieve between now and then?
- g. When have you been a victim?
- h. When have you been a culprit?
- i. What have you lost from going to war / your military experience?
- j. What have you gained from going to war / your military experience?
- k. What do you most want to regain in your life?
- l. When I came to this course, I was feeling...
- m. During the course, I experienced...
- n. Now I am feeling...

Discussions vary day to day and workshop to workshop depending on the questions asked and the specific participants – their experiences, the bonding that has taken place, and their willingness to be open with each other. On the very last day, significant time is set aside for each participant to tell their life story. This is done in carefully selected small groups and with a time limit of usually fifteen minutes per person. The facilitators stress the need for honesty and trust, but no explanation is provided as to the purpose of this activity.

3. Stretching and Yoga – Depending on how much time has been spent in discussion (which varies, depending on participants), a period of time may then devoted to basic stretching and gentle yoga. Mats are provided, and the facilitators provide instruction.
4. Controlled breathing exercises – According to the facilitators, the most important aspect of the PBW is the time devoted to learning and practicing SKY, the controlled breathing exercises or pranayama described above. As the workshop progresses, new techniques are gradually introduced, and the exercises become longer and deeper. Some time is set aside at the end of each breathing session to provide feedback, share, troubleshoot, and ask questions.
5. Closing – At this time facilitators outline the homework for the next day and encourage the participants to adopt various lifestyle suggestions for the duration of the workshop, to include getting extra rest, drinking lots of water, abstaining from caffeine, etc. On the last day (and sometimes the second to last day) some instruction is provided on the post-course home practice.
6. Post session nourishment – After each session the facilitators provide a space for participants to relax and refuel before they depart. According to the facilitators, this is important because the breathing exercises can be emotionally draining and may produce intense experiences. Some time may be needed before participants get into their cars and drive. This is also a good time for group bonding.

Towards the end of the workshop (second to last and last session), the facilitators start to talk about long term home practice and follow-up sessions. Participants are given a CD on which one of the facilitators leads a SKY breathing session, and the participants are told that all they have to do is follow along and that, if they want to experience long term benefits from the breathing, they should practice daily. The SKY breathing session consists of Ujjayi, bhastrika, the chanting of Om, and Sudarshan Kriya followed by ten minutes or more of rest as described in detail above. The whole sequence takes about 45 minutes to complete. Of note is the fact that the take home CD does not include the recording of ‘So Hum’ that the participants get used to experiencing when doing Sudarshan Kriya during the workshop. Instead there is just a ten minute blank space on the CD for them to do this part of the practice on their own. The official reason given for this by facilitators is that the participants do not need the recording; once they have learned the Sudarshan Kriya rhythms and practiced with the recording twice, those

rhythms are internalized. In addition, the take home practice only calls for ten minutes of Sudarshan Kriya whereas during the workshop, using the recording, it is practiced for much longer. In separate interviews, two facilitators added that participants are not given a recording because it could be misused. They said that it can be dangerous to do frequent long sessions of Sudarshan Kriya – although they did not elaborate as to why. Therefore, the facilitators prefer that participants practice doing short sessions on their own without the recording and return for group follow-up sessions, ideally once a week, during which the recording is used. Nevertheless, many of the participants asked for the recording and repeatedly expressed discontent (to the facilitators and the researcher) both with being refused and with the explanation as to why.

This research suggests that the weakest part of the workshop is the time spent discussing and illustrating how participants can regularly incorporate SKY breathing techniques into their lives. In Workshop A the facilitators did acknowledge they ran out of time and, therefore, had to cut this part of the workshop short. However, in Workshop B even less time was given over to discussing and explaining home practice despite the fact that there was no such time crunch.

It can safely be assumed that most PBW participants are suffering from some kind of stress symptoms; otherwise why would they be attending the workshop? In addition, the participants of Workshops A and B lead very busy lives, many are very scattered, and most do not have strong self-discipline. Therefore, if PWHT expects or even hopes participants like these will take up SKY breathing on a daily basis post-workshop, much more is needed to help them incorporate the new regime into their already busy lives. For a start, much more time should be dedicated to discussing with the group how to implement behavior change. Then short term goals should be developed along with milestones and incentives. Finally every effort should be made to ensure a weekly follow-up session exists, starting within a day or two of the workshop, before the group dynamic and sense of community start to break down. And then participants should be actively and regularly encouraged to attend – through phone calls and emails from the facilitators that continue for many weeks after the workshop. The researcher found that many participants are very forgetful and need to be reminded over and over of the follow up location and time if there is any hope they will attend. In addition, they need to know that others are paying attention to them and their practice and that the facilitators truly care – long beyond the end of the actual workshop itself.

With Workshop A, attempts were made to organize a weekly follow-up session with an individual who was introduced to the group during the last session. However, indecision over a location delayed their start. In the end the workshop venue itself was chosen, even though, being in the middle of DC, it is relatively hard for many participants to get to. Unfortunately, due to the delay, by the time follow up sessions started the participants had stopped practicing the breathing exercises on their own at home and were no longer a cohesive group. Therefore, attendance was extremely poor – so poor in fact that after a couple of sessions in which the researcher actively recruited participants, follow-ups were discontinued.

With Workshop B, one of the facilitators was much more adamant that follow up sessions would happen and would start right after the workshop was over in the same location. This worked out a little better, although it took several weeks before anyone from Workshop A was invited. And due to the fact that

Workshop B was very small, attendance was very low, so low that at the time of writing this report it is unclear whether they will be continued.³⁵

Participant Experiences

Since Workshop A was the primary site for data collection, unless otherwise stated, the following discussion of participant experiences relates to participants who attended Workshop A.

When the participants arrived at the workshop, they were in very different 'places' mentally. For example, some reported they had no idea why they were there; others were extremely skeptical; still others were quite open; some were uncomfortable; others came with enthusiasm and great hope; and almost all had very little idea of what to expect. Perhaps unusually, although presenting with different issues and symptoms, the majority of participants had been recruited by one primary care physician.

The range of issues and symptoms the participants presented with was extremely wide and included both mental and physical manifestations of stress as well as other ailments. The following is a list of the symptoms and issues (in alphabetical order) as reported to the researcher by participants:

- Alcoholism
- Anger
- Anxiety
- Chronic Pain Syndrome
- Depression
- Diabetes
- Feeling stressed all the time
- Gastrointestinal problems
- Hashimoto's Disease
- Headaches
- High blood pressure
- Identity issues
- Irregular heart beat
- Loneliness
- Migraines
- Neurological problems
- Panic attacks
- Perfectionism
- Problems sleeping
- Sleep apnea
- Stress aggravated fiber myalgia
- Weight problems
- Workaholism

³⁵ Conversations with participants of other PBWs suggest that weak follow ups are more the norm than an aberration.

As stated above, of the 15 total participants from Workshop A, nine have been followed and interviewed in depth for the purposes of this research. Without fail, all of those interviewed described the workshop itself in overwhelmingly positive terms, and of note, they have continued to do so each time they have been interviewed over the three month follow up period. The types of words they use to describe the workshop include very positive experience; got a lot out of it to carry me forward; very helpful; beneficial; well worth it; excellent; a tool in my tool kit; an arrow in my quiver; very interesting; effectual; something different; exactly what I needed; and it works. In addition, the participants have described the workshop facilitators in generally positive terms. The types of words they use include did a good job; they were not shut down for being non-military; they could relate to you; intuitive; and made a good team - one of them being very comforting, patient, and understanding, the other very strict.

As far as how the workshop itself impacted them specifically, the participants have a variety of different things to say. During the workshop and in the days immediately following, one or two said they were sleeping better; most others said the opposite. Almost all participants expressed that it brought them a sense of calm and/or peace and relaxation. Certain individuals also said they no longer felt anxious; they felt happier, less bitter, negative, and cynical, and had a brighter outlook. This is unsurprising. By practicing the breathing exercises, participants increase their present moment awareness, which, as explained above, makes it more difficult to get caught up in one's thoughts about either the past or the future – the source of much of our stress. In addition, after the breathing exercises, time is devoted to rest – of which something most people in our 24/7 society do not get enough. Resting, by its very nature, will help participants feel better.

There is another very basic aspect of the workshop that promotes short term feelings of wellbeing – group connectedness. Participants come to the PBW as individuals with individual issues that they feel are making them stressed. Over the few days they participate, they slowly become a group. Gradually the workshop becomes a trusted sacred space where participants feel safe enough to share and slowly they become connected to each other by – what they come to realize – are not so dissimilar stories. Through discussion and reflection, burdens that seemed so individual and insurmountable begin to morph into obstacles that potentially can be overcome, and out of this hope arises, along with general feelings of positivity.

Finally, during the SKY breathing sessions and rest periods immediately following, several participants had very intense emotional and visual experiences. According to the facilitators, this is not unusual; in fact, it is expected. It is one of the beneficial effects of the breathing and is one reason why they emphasize doing long SKY breathing sessions in a monitored environment with a trained facilitator present. Depending on their individual situation, several participants – to include the researcher – saw visions; experienced life altering revelations; felt weight physically being lifted from them; smelled very specific identifiable odors; received reassuring messages from loved ones; and/or experienced a sense of letting go. Although it is hard to make sense of these experiences using Western scientific language, they were explained by one of the facilitators as the beginning of a process of release for those with deeply buried trauma, a process that is facilitated by the SKY breathing.

In the longer term, the workshop also impacted – and continues to impact – the participants. However, its effects are hard to generalize and appear to vary depending on participants' frames of mind and

openness to the workshop, whether they keep up the breathing exercises, their past experiences, their particular stress symptoms and issues, and how they process different aspects of the workshop.

For a start, beyond about a week after the workshop, the vast majority of participants were not practicing the breathing exercises on a regular basis. There are a couple of main reasons for this. First, the exercises are relatively time consuming and so require a person to have a high level of self-discipline. Second, the workshop itself did a poor job of providing participants with techniques that would help them incorporate the exercises into their already busy, stressful lives. That said, for the period of time that participants did keep up the breathing, they reported a real deep sense of calm, regardless of what was going on in their lives. Again this is unsurprising; they were experiencing increased present moment awareness. Another effect of being more in the present is that participants reported being better able to respond (much more calmly and patiently) to stressful situations, as opposed to (unconsciously and negatively) reacting. This was made manifest most often in their family relationships which they reported were more pleasant, calmer, less angry, more positive, etc. Drawing also on the workshop discussions, one individual pointed out that they were now able to see what was most important to them *now* (their family) and (with increased present moment awareness) give that the attention and respect it deserved. This effect of being better able to respond rather than react appears to be learned and thus to last well beyond when the participants give up practicing the breathing.

Unfortunately, those individuals who came to the workshop very skeptical have tended not to see any substantive long term benefit. And this is despite the fact that during and immediately after the workshop they only had praise for what they had experienced. For example, one participant fully admitted on the last day of the workshop that on coming in he had been extremely skeptical, that initially he had not put his whole self into it, but that he had been wrong, and that the workshop – though not always fun – had been a positive experience and that he was glad he came. This short term mind opening, however, did not last. Within a week after the workshop, skeptical participants were not practicing the breathing (for the reasons discussed above) and had slipped right back into their very busy, stressful lives with very little change from before the workshop. Their minds had been cracked open a little, but the opening was not wide enough and not well enough supported for them to be able to sustain it on their own.

There are three specific ways in which the most participants report that the workshop is impacting them, even despite the fact they have not been practicing the breathing. First, individuals state that, because of the workshop, they now have a toolkit they can bring out and use anytime they need it. If they are in a stressful situation or are beginning to experience their typical stress symptoms, they feel confident they know what they can do – breathe. However, only one participant reports putting this into practice successfully.³⁶ As stress starts to build, it is much easier to remember and then commit to breathing when maintaining a regular breathing or meditation practice. Therefore, it is unclear whether at crunch time the majority of participants would ever actually be able to do this. It seems, instead, that most participants are using this line of reasoning as a justification to themselves for not maintaining a regular breathing practice; after all, if they think they know what they have to do, they can just do it when they need it.

³⁶ Note - this participant kept up practicing the breathing exercises daily for much longer than any other participant and has used the breath as a toolkit successfully once.

Second, and perhaps more importantly, the PBW appears to open the door to other non-invasive, potentially healing opportunities the participants would not otherwise have considered. Regardless of how open their minds were, almost all participants came to the workshop with no experience of yoga, breathing exercises, meditation, mindfulness, or the like. However, those who came willing to try and open to the possible benefits of whatever they were to encounter, left not only having had a positive calming experience, but also open to other such opportunities. Thus, for example, one participant decided to take up yoga after the workshop; another is exploring Tai Chi; one participant has embraced a Mindfulness Stress Based Reduction (MSBR) class; and several have become interested in and begun exploring various meditation practices. In most cases these individuals would not have taken these roads were it not for the PBW.

Finally, in certain cases, there appears to be a long term effect for some of the individuals who encountered profound revelations, visions, and the like during the workshop breathing sessions. More details will be discussed in the case study section below, but suffice it to say these experiences seem to help individuals change their way of thinking about past events, which, if you subscribe to the personal-social view of stress, or the 'third way', helps them to get to the root cause of their problems.

On the flip side, it is impossible from this research to make a direct link between the PBW and improvement in any of the participant's physical ailments. Participants have not reported any great improvements. Also, participants are doing other things – such as taking medications, making diet and lifestyle changes, going to counseling, etc. – to try to directly impact some of their symptoms. In addition, participants have not been doing the breathing exercises regularly.

Case Studies

The following section provides an analysis of the experiences of five Workshop A participants.³⁷ The purpose of this section is to highlight the individuality of the PBW experience and to provide some sense of the range of possible outcomes.

Presenting this information carries a certain amount of risk. All human beings are meaning makers and people's lives, thought processes, and decisions are individual and never entirely logical. The analyses below are the researcher's informed attempt to create narrative out of what the participants reported and experienced. The participants – as well as others - are free to make whatever meaning they choose from these analyses, a process which may impact their individual stress reduction journeys in potentially unanticipated ways.

Participant 1 (P1)

P1 is a military spouse with two young children. Prior to the workshop, P1 was sad, anxious, and tearful. He reported bouts of anxiety during which he experienced symptoms ranging from "feeling awful, very low" to "heart doing funny things, like skipping a beat," which then caused him to worry about his heart, to "waking up constantly through the night feeling stressed" to "waking up feeling like his body is turned on, like electricity, like cortisol is being pumped through body, legs feel like there is electricity pumping through them."

³⁷ All quotes in this section are derived from interviews conducted with the five case study participants.

P1 stated that these periods of anxiety lasted a week or two at a time and then would go away, only to return a few months later. In the intervening period, P1 would worry that another bout was coming. Although he could not figure out any common trigger (distant but tragic news stories on TV; spouse getting ready to deploy; darkness; isolation; fear of snow...), it appears a common thread could be fear and perceived lack of control. P1 said that his anxiety held him back from doing and organizing things for himself and his family because he would worry he would not be able to handle it.

In order to deal with his anxiety, P1 had tried mindfulness meditation. This provided some relief, but he was never able to get into a routine. Eventually, after worrying he would not be able to perform his professional and personal roles in life, P1 went to see his primary care physician who suggested the PBW. P1 went into the PBW excited and hopeful and with an open mind.

During the five days of the workshop, P1 reported feeling very calm on the inside, at peace dealing with his children, and had a much brighter outlook. P1 said this was the first time he had done something for himself in a long time. In the week afterwards, P1 reported feeling amazing, “super-duper happy,” and even thought “I have a future again.”

At the end of PBW, when asked by the researcher how often participants should do the breathing exercises (it was not made very clear), one of the facilitators responded, “well, how happy do you want to be?” This resonated with P1 who vowed to breathe daily. P1 was also incentivized by a promise of a meditation class offered by PWHT only to those participants who kept up the breathing for 40 days. And he wanted to do whatever he could to prevent “that horrible feeling” coming back.

P1 kept up the breathing exercises daily for forty days, although towards the end of this time period it was clear his routine and self-discipline were beginning to slip. Over these forty days, P1 felt very calm on the inside regardless of what was going on around him – a reflection of increased present moment awareness. The bouts of anxiety also did not return, and P1 reported feeling empowered and unencumbered.

After forty days, especially when it became apparent that the meditation class was not going to materialize (a fact that made him feel very disappointed and let down), P1 stopped breathing regularly. The justification he gave was that he now had a “safety net” or a “tool kit” he could use should “that horrible feeling” seem like it was going to return. It did not, and P1 felt in control, despite his life becoming more and more hectic. The deep inner calmness that came from practicing regular breathing did dissipate, and P1 stated that he wanted to do the breathing exercises again regularly. However, he had trouble mustering the self-motivation and noted this was a pattern and true also in other areas of his life. When the researcher spoke to P1 three months after the workshop he had still not had a single bout of anxiety since before attending the PBW. However, when the researcher contacted P1 briefly five months after the workshop, P1 reported having one anxiety attack. But he said it was shorter and that he had successfully used the breathing techniques as a tool kit; after two rounds of the SKY breathing his anxiety was gone.

Participant 2 (P2)

P2 is active duty military and single. P2 came to the PBW dealing with anger and fear related to past abuse and reporting symptoms of anxiety, depression, and loneliness as well as identity issues. P2 was informed about the PBW by his primary care physician and came with the hopes of finding his center, coming to peace with what he had been through, and bringing more of who he really is back to the surface. P2 was highly skeptical, expected the workshop to be a “hippy granola thing,” and readily admitted that on the first day did not really put much of himself into it. However, by the second day he was beginning to get more out of it so decided to apply himself more fully. And on the third day during the rest period after SKY breathing, he experienced his mind emptying completely and afterwards felt more peaceful inside. He stated that he wished he could learn to do this at home.

At the end of workshop, P2 stated to the group that typically he makes snap judgments about things and usually he is right; however, in the case of the PBW he had been wrong. He had come to the workshop very skeptical, but to his surprise, he had got a lot out of it. He said it had not always been fun but that he was glad that he had come.

During and in the immediate period after the workshop, P2 reported experiencing more moments when he was happier and a couple times where he felt like his old self; his “many many many years ago self; bubbly cheery, caring, with a less bitter view of the world; less cynical and negative.” However, these feelings of wellbeing did not last.

P2 leads a busy, stressful life. He is very unhappy with his work environment and reports that usually he gets home from work late, very tired, and just takes his dog out, eats dinner, and goes to bed. P2 has not kept up with the breathing exercises, and although mentioning that he might use them to reorient himself when he has a really bad week, at this point he has not followed through on this.

P2 carries a lot of guilt – blaming himself for not doing the breathing and for letting his emotions get in the way. P2 has been seeing a therapist for some time and soon after the PBW his therapist recommended getting back into the breathing. The therapist also recommended a mindfulness meditation phone app. P2 tried it out a few times and said he liked it because he has a terrible memory and it sends reminders to practice mindful breathing, to be mindful, etc. P2 also said it “makes me take that moment out, to not think and to ask, why am I so angry? It helps me be in the moment, clears my head and calms me back down.” P2 mentioned that he probably would not have tried out the app if he had not attended the PBW. However, despite the benefits it appears to bestow, P2 has not kept up with using the meditation app regularly. Unfortunately for P2, both breathing exercises and a meditation practice take discipline to maintain and in order to experience sustained benefit – to include experiencing higher levels of present moment awareness and calm and being able to respond to experiences rather than just react – momentum has to first be established. And for this, consistency of practice is key.

Three months after the workshop P2 reported that he felt about the same as he had before attending. And again he emphasized that (at least in his mind) it was his fault. He said there was no reason why he had not been practicing the breathing exercises or using the meditation app except that he was very busy and “back in the mindset of not wanting to do anything.” P2 also reported high levels of stress and not sleeping well. Symptoms of depression appeared still to be present.

On a more positive note, P2 reported being introduced to the self-defense system 'Krav Maga' and enjoying it and feeling empowered. P2 is transitioning out of the military very soon and hoping for less stressful circumstances in the future which in his mind may help him to get out of his "mind funk."

Participant 3 (P3)

P3 is retired military and married with adult children. Prior to the workshop, P3 came across as a bit suspicious, jumpy, and quick to anger. He had thoroughly checked out the researcher before letting her into his house and described himself as the type of person who does not go out much and spends a lot of time in the basement watching Fox News, listening to Mark Levin, drinking coffee, and yelling at the TV. He volunteered that he knew this was not good for him.

Prior to the workshop, P3 had not sought employment since retiring from the military. There are a variety of possible reasons for this. For several years he acted as caregiver to a sick family member, and although he did not want to openly admit it, he gave the impression that in his mind this became an excuse not to get a job. In his mind he is a procrastinator and has too much time on his hands. Although he does not agree, he reported that his spouse thought he was depressed.

P3 came to the PBW with identity issues. He was in the military for over thirty years and his military career was his life. He retired because of cuts and not because he wanted to, and since that time he seems to have been struggling with his role in life. To add to this, although – in his words – he sent many guys into combat, he never personally served in a combat zone. This fact clearly makes him uneasy and is a stressor. For example, he stated several times that he would like to work or help out at the VA, but he feels he is not worthy and wouldn't have anything to offer them. "I was in the [military] thirty years yet I never got shot at... I don't feel like I deserve to be helping those guys because I never went anywhere." As another example of his unease, P3 talked about how a kid he had recruited had died at boot camp due to a type of bacterial meningitis. At some level P3 believes he stayed in the military to make up for this kid's death; he stayed in because this kid could not. But now, after the fact, he is left wondering if his service was good enough to live up to the kid's legacy.

P3 was introduced to the PBW by his primary care physician who had identified high blood pressure and felt he had a lot of stress. Prior to the workshop, P3 was put on blood pressure medication and – influenced strongly by his family and a desire not to have to take multiple medications – he started making healthier food choices. He said he began eating oatmeal for breakfast, instead of his usual egg and bacon, and was surprised that he liked kale. He added, however, that he had always resisted this kind of eating as it did not fit with his military identity.

When his primary care physician first mentioned the PBW, P3 resisted. However, when the word yoga was used, he began to come around as both his spouse and one of his children do yoga. Nevertheless at the start of the workshop, P3 remained skeptical. "I didn't know how much it would work or what I would be able to achieve."

During the workshop, P3 reported that each time he did any meditation it was very relaxing and that each session the meditation got deeper; he never thought he would hear himself say such things. After the Sudarshan Kriya he experienced meditation that was especially deep and peaceful. P3 did not report experiencing any profound revelations or visions during the SKY breathing.

From the start of the workshop and for a period of over a month afterwards, P3 was very serious about following the lifestyle suggestions made by the facilitators. He swore off all coffee, drank green tea, cut back significantly on alcohol, and made a conscious effort to eat healthy, to include cutting down on meat. Three months after the workshop, although he had returned to drinking coffee, he said he was maintaining the other dietary changes and, in some ways, felt he had “gone to the dark side!” During this three month time period, P3’s blood pressure went down, which he credited to the PBW and his lifestyle changes, although he reported that his wife insisted it was the medication. From a purely observational stand point, P3 appeared to the researcher to have lost some weight. In addition, each time she interviewed him he came across as more relaxed, well turned out, and calm. This was starkly different from the first time she interviewed him prior to the workshop.

One week after the workshop P3 was still practicing the breathing regularly. However, at the one month mark he reported having stopped the previous week and only started up again because the researcher was coming to visit. He said he felt great and that he had stopped because, “maybe he didn’t need it?” At the three month mark he had not re-started the breathing, but said that he did not see the need for it. “The workshop taught me a set of skills that I can use when I am feeling stressed out or overcome. They are a tool for my toolbox. I have them if I need to use them.” He did also volunteer, however, that they would probably help more if they were done all the time.

Most significantly, throughout the three month period following the workshop, P3 reported that he was a lot less jumpy at home and that his relationships were improved. He said that he was not negatively reacting to people but instead was “slow to speak, thinking about everything, and not raising his voice, more patient and more focused on what is most important now.” It appears he has become more present. Three months after the workshop he said “I am in a much better place now than before going to the workshop. I don’t stress out on things like I used to. I relax. I appreciate what I have.” He also added, “I am able to put myself in a peaceful place.” He attributes this all to attending the PBW.

On the job front, P3 has made some progress but admits he is still a big procrastinator. At the encouragement of a friend, he has converted his military resume into a civilian resume and has been applying for several government jobs. Although he continues to mention a desire to work at the VA specifically, this does not seem to be something he can actually follow through on. P3 also has a bachelor’s degree that is incomplete. There is not much he has to do to finish up, and he wants to finish – especially since one of his children just graduated. But he has not yet been able to take that bridge. The fact that the jobs he is applying for require experience rather than a degree does not help his motivation in this area.

Participant 4 (P4)

P4 is an articulate, deep thinking OIF veteran. P4 came to the PBW after he had spent over ten years struggling with a myriad of different stress-related issues. At the time of the workshop, P4 was on many medications, including those for depression, anxiety, pain, and sleep.

P4 has a PTSD diagnosis and reported that he was offered counseling in the period immediately following his deployment to Iraq. However, in his words, he “acted out a lot, drank heavily, bottled up [his] feelings, didn’t sleep and was always on edge.” In retrospect he says he did not have the necessary skills to cope with returning home. “The [military] winds us up, sends us out into combat, but doesn’t wind us down again. We are left with no idea how to be normal, maintain our relationships etc. How not to always be on guard.” As just one example, P4 reported that when he first got home he quickly racked

up eleven speeding tickets. "I wasn't ready to look at the speedometer. I was used to being part of a convoy and just following the truck in front and looking out for IEDs. I wasn't even aware of speed."

After going to rehab and successfully dealing with alcoholism, P4 turned to workaholism and perfectionism as a way to constantly be busy and so avoid confronting his feelings. The side effects of this "unhealthy coping mechanism," he says, are "really high anxiety, being irritable, stressed out, not being able to sleep."

Over the years P4 has been to anger management and individual therapy and, in his own words, has made "a lot of progress." However, this is relative. P4 reported that, in the three years leading up to the PBW, his stress symptoms turned physical. He began experiencing

severe headaches, physical anxiety, [his] heart beating fast a lot, a lot of trouble sleeping despite being on a lot of meds, gastrointestinal problems including cramping and an upset stomach, neurological problems including muscles tingling, and pain and tightness in [his] neck and shoulders. Pain meds wouldn't work, PT wouldn't work...

In the six month period prior to the workshop, things got progressively worse, and P4 ended up in the hospital. He had a lot of tests for specific things, but they all came back negative. Finally, two weeks prior to the workshop P4 was diagnosed with stress caused and/or stress aggravated fiber myalgia and chronic pain syndrome. Several doctors commented that the many medications he was on were only treating his symptoms, not the core of the problem. At that point P4 realized he needed to change something drastically. He decided to take six weeks off work to really deal with his issues.

P4 heard about the PBW from a counselor just a couple days before it started. At the time, he was also beginning to try out acupuncture and about to start a Mindfulness Based Stress Release (MBSR) class and Cognitive Processing Therapy all through the VA.

P4 states that he came to the workshop dealing with survivor's guilt as well as a deep seated feeling that he does not deserve to have anxiety or his PTSD diagnosis. To provide some context, as stated above, P4 was deployed to Iraq during OIF. However, after only two and a half months he was granted compassionate reassignment and returned to the U.S. to take care of a terminally ill family member, leaving the rest of his unit to serve out their tour in Iraq. Moreover, while deployed, P4 notes, "I didn't have my Humvee blown up, I didn't go through much. I've heard of traumatic experiences that are one hundred times worse [than mine]. I don't have a right to feel the way I do." He adds, "I know that is not a healthy way to feel." P4 also feels a level of guilt for being part of what he now believes was a "totally inappropriate, wasted war." At the same time, he feels victimized and drastically changed by all that he was exposed to.

P4 is also dealing with apparent fear and control issues. P4 describes his deployment overall as "very scary" and parts of it as "absolutely terrifying." Specifically, he says his unit did not have the right equipment, to include body armor, ammunition, and radios, and as a result he experienced many instances of isolation and fear. Before they deployed, P4's unit was told to go to Walmart and buy two way radios and extra batteries. Once in the desert, he says their issued communication equipment was useless, and to make things worse, they were only allotted half their quota of ammunition. P4 strongly questions the leadership, judgment, and decision making capabilities of his unit command. In one particular incident, in an apparent attempt not to "waste time," his convoy pulled over for the night on one side of the road instead of going into the designated encampment with security and fences on the

other side of the road. His leadership did not put anyone on security detail, and no one was required to stay awake to keep a lookout. Nothing happened, but P4 was terrified and left wondering why he was the only person bothered by the situation. He experienced many other such “baffling situations” while deployed.

P4 also came to the workshop struggling to process two incidences of almost having to kill someone. “I had a human being in my sites and my gun off the safety. It is something significant for a human being to have another human being in their sites. To wonder, am I going to have to kill someone? Am I going to get killed? Just thinking about it is eye opening.” Despite being a trained member of the military, the concept of having to kill someone clearly conflicts in certain ways with his value system.

During the PBW, P4 had several experiences which he described as intense, painful, and helpful all at the same time. During one particular SKY breathing session, he saw a vivid image of himself running through a field with his dog. His (now deceased) Mom and Dad were both there, and they said to him, “It’s time to move on and get better.” P4 has repeatedly described this image as being enormously meaningful to him. According to P4, the vision then,

Jumped into a rapid fire experience of three different things that were especially troubling during my deployment. Survivor’s guilt [from returning home early on compassionate leave] – which I processed as “you left one important mission for another, did what you needed to do.” Driving by a burning Humvee (with a person still inside) – processed it as “I was in a moving convoy, the person was likely dead already, there were people there, there was nothing I could do. It was disturbing, but no reason to feel guilty.” And there was another one that I processed a different way and that is still healing.

This series of visions was particularly profound and seems to have helped P4 de-conflict various deep seated issues that had been plaguing him for many years. Of particular note is that one week after the workshop P4 stated categorically,

Even if I never did power breathing again, I know that as a combat veteran I had a transformative experience in the workshop that helped me come to terms with my trauma in a different way and that I have benefit from the experience that will last long term because I understand it in a different way and I have a better mind set.

In the following months P4 has continued to agree with this statement.

P4 did not keep up the breathing exercises regularly, in part because he found them hard and less beneficial without the recording from the workshop to guide him. However, he did say that he occasionally mixed them into the daily breathing and meditation exercises he had started doing as part of the MBSR class he was taking.

Beyond the benefit described above, P4 discussed how the workshop has helped him become more aware of how his behaviors impact others. In all aspects of his life, P4 is a very regimented individual who likes to be in control and feels the need to prepare for every possible contingency. And until recently he has felt that others should be the same way. However, through listening to a military spouse and a child of a military officer talk in the workshop, he began to see more clearly what an impact these kind of behaviors and expectations can have on relationships. After describing an incident when his unrealistic standards ruined an evening with friends, he said, “Most people are not going to have that

kind of military precision and shouldn't have to... Not everyone needs to be that regimented and I need to accept that – for myself and for others, especially if I want to have normal meaningful relationships.”

In coming to the workshop, P4 stated that he wanted to learn how to “come down. How to not constantly be in a frenzy, how to find some peace and just be and relax, rather than constantly feeling the need to do something.” Although he has not achieved this goal yet, perhaps because he has not kept up with the breathing exercises, he does report that these days he is slightly less on edge.

Participant 5 (P5)

P5 was active military at the time of the PBW and is now retired after 28 years of service. P5 did not want to retire. He said he likes the culture and the people and would rather stay, but was “thrown out.” P5 came to the PBW because his primary care physician sent him. At the time he had no real idea what the workshop was about or why he was being sent. In hindsight, he says he was depressed and thinks perhaps his physician recognized that. He had gained weight, has high blood pressure, and according to his physician is under a lot of stress. He also appears to be dealing with significant identity and anger issues.

P5 has always wanted a family but, due to his age, now thinks this is extremely unlikely. P5 lost his first spouse very tragically during their pregnancy. Then his second partner walked out on him before they could start a family. Although at some level he can rationalize and has come to terms with the death of his first spouse, he is very bitter about the ending of his second marriage. “It hit me like a ton of bricks, blew me away. I had no idea there was a problem.”

P5 is clear: In his eyes the ending of his second marriage represents failure, and he is most angry about losing the potential to have a family. He sees himself as successful in his military career, successful in his interactions with his nieces and nephews, successful in other jobs, but,

None of it is the same as being a parent, having a family... I know I'm a good person. I will find [partner]. But probably not have a child. I have [hundreds of mugs] on my wall – from all my foreign trips. But there is no one to give a shit. I have always wanted to have a family. Now that is all gone.

Before his spouse left, P5 had created a roadmap for his retirement that was focused around parenthood and his spouse's career. Without that, at the time of the workshop, he was unsure of how to see himself as a person and of his role in society.

P5 comes across as quite religious, and, in the aftermath of his first spouse's death, he converted to Catholicism after twice experiencing an intense and profound sense of energy and pure love and the message that “you will be OK” while sitting in front of a statue of the Virgin Mary.

P5 is very keen to emphasize that the PBW came at a time when he really needed it, and he believes it has helped him significantly. Specifically, he credits it with alerting him to the fact he had a problem, helping him figure out what this problem was (after all in his mind he must have a problem or why would the doctor have sent him?), and accelerating the healing process. Once at the workshop P5 went through an introspective process of figuring out why he was there. He realized he was stressed by his life situation, angry at his spouse for leaving, and concerned that he didn't know how he was going to fit into society in the future. Then he spent some time figuring out his options. After a couple days he

decided he could “wait until I get out of the military and use vengeance [on his ex-spouse]; ask the Lord to deal with it; or go see a counselor.” However, interestingly, immediately after the workshop he said he had never been given a chance to choose. During one of the SKY breathing sessions, his anger came up very viscerally. He said he was fighting it and “almost couldn’t lay there for the anger,” but then it just dissipated, and he was left with a sense of “just gotta let it go.” He cautioned he didn’t know if the anger would come back. But he called that night his “epiphany night” and said “there was a certain release... An emotional letting go. I knew logically I had to [let go]. But this was emotional. A turning point.”

During the three months after the workshop, it appeared to the researcher that P5’s anger ebbed and flowed. During good times and especially busy times, he seemed to be able to put it aside. However, when work related challenges arose, it bubbled back to the surface, and he started talking again about vengeance against his spouse. In a particularly dark depressed period a couple months after workshop, he pulled over to the side of the road crying and said, “Lord I need some help!” According to P5, almost immediately everything then changed. P5 was offered and accepted a good post-retirement job very close to his extended family; various current work related issues got cleared up; and family members came to visit for the first time. His depression lifted, and his anger abated.

Although, to the researcher, it does not appear that the roots of P5’s anger and depression have actually been dealt with, he has developed a unique narrative around how the PBW has helped him. According to P5 the workshop alerted him to the fact that he had a problem; the breathing exercises and discussions gave him the time and space to do the work to identify the problem; and he solved the problem – God gave him a job, along with the confidence to move forward. When asked what he thinks would have happened if the workshop had not seemed useful or if he had not attended, he says, “I wouldn’t have got a job because I would have been more depressed, it would have been longer before I asked the Lord for help and I would not have wanted to see my family until I solved my problems. The workshop sped up my healing process and woke me up.” When asked how he thinks things might have played out if the workshop had helped him get over his depression, but he hadn’t got a job, he says, “It wouldn’t have happened.”

P5 was never able to really commit to doing the breathing exercises daily or even at the same time most days. Despite being initially very enthusiastic, a busy work schedule coupled with a high degree of flux in the months leading up to retirement made any kind of routine very challenging. One week after the workshop he said he was breathing two days out of three. However, three months afterwards he could only say he was doing “some, three times a week,” and it was quite unclear what “some” amounted to.

4. Recommendations and Conclusion:

Regular practice of SKY breathing requires planning, prioritization, and self-discipline; it is much more complex than invasive treatments like ‘popping a pill.’ However, due to underlying stress issues and very busy work schedules and lives, these skill sets are often in short supply. As a result, despite high initial levels of motivation and enthusiasm, according to this research, many workshop participants are not able to suddenly adopt a new routine of breathing exercises.

A good analogy that several participants brought up is a gym membership. Everyone knows that getting regular exercise is good for you and that having a gym membership can facilitate this. However, despite talking about it, having good intentions and even paying ‘good money,’ many people do not use their

gym memberships. If PWHT really wants to see the PBW maximize its potential for stress reduction and healing, this research recommends that PWHT build into the PBW curriculum a significant block of content focused on how to implement behavior change and how to adopt and integrate new routines into busy lives. Further, this research supports a recommendation that PWHT significantly bolster its program of post-workshop follow-ups, to include a uniform structure and a much more consistent long term 'no one can be allowed to fall through the cracks' commitment to participants. If PWHT is truly committed to veterans in the ways that it advertises, post-workshop follow-ups must become a core part of the program.

In a related vein, many participants commented that PWHT comes across as placing too much emphasis on quantity versus quality and long term commitment to the participants. The researcher also noticed an organizational drive to increase numbers, e.g., numbers of workshops held this year versus last year, and numbers of participants served. PWHT is a small organization with very few paid employees, and while it is admirable to want to serve more and more veterans, it is important to first put the structures and personnel in place to be able to do so well.

This research recommends PWHT create and implement a much more developed outreach and engagement strategy. The recent hiring of a 'veteran national liaison' to build connections in the community and recruit participants is a positive step. However, it is not enough. PWHT schedules and holds workshops all over the United States. At the very least, a series of paid 'regional veteran liaisons' are needed to build relationships in local areas, tap into local veteran and military networks, recruit participants, locate suitable venues, and find and train individuals all over the region who can be responsible for running immediate follow-up sessions once workshops are over. The PBW is an incredible resource. But, in the words of one participant, the current 'parachute in, parachute out' approach is not the best way to maximize benefit.

This research suggests that the PBW can provide valuable help to veterans, active military personnel, and family members struggling with stress-related issues. It is free to participants and non-invasive, provides opportunity for introspection and connection, and teaches a 'breathing regimen' that can be practiced daily in order to increase present moment awareness and in some cases bring to the surface and release deeply held traumatic memories. Results suggest that participants can benefit from simply attending the workshop without doing much if any follow up; they may change their own thought processes and/or become more present, and healing may be set in motion. However, this research also suggests that benefits are likely to be much greater if participants continue to practice the breathing techniques regularly once the workshop is over. It appears that most participants do not. Unfortunately, as stated above, this is the workshop's greatest weakness.