Benefits of Kundalini Yoga Kirtan Kriya
For Alzheimer's and Dementia Patients and Caregivers

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According to The Alzheimer's Research and Prevention Foundation (ARPF) Alzheimer's disease (AD) affects 5.4 million Americans, and millions more world-wide. With the aging babyboomer population, it is predicted this number with reach over 16 million in the US alone by the year 2050. Carrying the brunt of this epidemic are women, both as caregivers and patients. Women in their 60's are twice as likely to develop AD than their male counterparts (Khalsa, 2015b). ARPF has done extensive research on an exercise called Kirtan Kriya that, when done for as little as 12 minutes a day, can provide benefits to those suffering with AD, and their caregivers. Some of the Kriya's benefits include: Improved cerebral blood flow, improved sleep quality, reversal of memory loss, reduction in stress and depressive symptoms, no side effects or costs, and significant activation in anatomical areas of the brain, to name but a few (Khalsa, 2015b). This paper will share what makes up Kirtan Kriya, starting with its roots in Kundalini yoga, and outline its components and benefits. Though briefly mentioned above, detailed research findings were not included simply due to paper length limitations. Should anyone be interested I would be happy to share my findings and their sources.

Kundalini Yoga

Called the Yoga of Awareness, Kundalini Yoga is a tool designed to allow one to experience their soul. The practice is considered a 'technology' that, through precise and conscious actions, strengthens the nervous system, balances the glandular system, increases lung

capacity, and balances the body, mind, and soul. These effects are achieved through a specific combination of breath, mantra, mudra, eye focus, and posture ("Kundalini Yoga," n.d.). Brought to the west by master teacher Yogi Bhajan in 1969, Kundalini has become a widely-practiced form of yoga world-wide. Yogi Bhajan stated, "Kundalini Yoga is the science to unite the finite with Infinity, and it's the art to experience Infinity in the finite" ("Kundalini Yoga," n.d., para. 1). Kundalini is not a religion, but rather a nondenominational and universal practice available to everyone.

Kirtan Kriya and Components

Definition and Origin

The word *Kirtan* means song, and *kriya* refers to a specific sets of movements. Kriya's are used in the Eastern meditation tradition to facilitate healing by bringing the body, mind, and emotions into balance (Khalsa, 2015a). In Kundalini Yoga, kriyas affect the body, mind, and spirit simultaneously via a specific sequence which initiate physical and mental change ("Kriya," n.d.). One purpose of kriya is to prepare for entering a deeper meditative state. Kirtan Kriya is unique, in that it is both a kriya and meditation in one, described as a '12-minute singing meditation' which has proven to produce a variety of benefits. This simple exercise can be completed in as little as 12 minutes, meaning this effective practice can be done in a short time span, without cost, and no side effects, making it a wonderful and effective option for all ages. Kirtan Kriya brings together several actions: Mantra (singing or chanting), Voice (different than mantra), Mudra (finger movements), and Visualization. "Hence, it is a multi-faceted multisensory exercise that engages the whole brain and increases cerebral blood flow" (Khalsa,

2013, p. 12). By looking at each of these facets individually one can then see the profound effects that combing them into one exercise can potentially provide.

Mantra

> Mantras are not small things, mantras have power. They are the mind vibration in relationship to the Cosmos. The science of mantra is based on the knowledge that sound is a form of energy having structure, power, and a definite predictable effect on the chakras and the human psyche. ("Mantra," n.d., para. 1)

Everything is vibration, and vibrates at specific frequencies. Happiness, anger, joy, and sorrow all vibrate at their own frequency. When chanting mantra, one is invoking the positive energy and vibration held in those syllables ("Mantra," n.d.). It has been said that one does not need to understand the words, or the meanings, in mantras, as their power lies in the way these words stimulate the acupressure points on the roof of the mouth when chanted ("Mantra," n.d.). According to Kundalini Yoga tradition, the use of the tongue during KK chanting stimulates the 84 acupuncture meridian points on the roof of the mouth. This is done in such a way that a signal is sent to the brain, and hypothalamus, helping rejuvenate the brain by increasing critical brain chemicals like dopamine, norepinephrine, and acetylcholine (Khalsa, 2013). The origins of the mantra Sa Ta Na Ma are rooted in one of the most ancient mantras, Sat Nam, which translates to "true identity" or "my true essence". Sa Ta Na Ma is Sanskrit, and when translated means ("Mantra," n.d.):

- Sa = Birth
- Ta = Life
- Na = Death

- Ma = Rebirth

Voice

In addition to the mantra/words chanted, the use of voice is also an important factor in the Kirtan Kriya. The three volumes of voice used represent the three languages of consciousness ("Kirtan Kriya," n.d.):

- Out loud = Human, the world
- Whispering = Lovers, the longing to belong
- Silent = Divine, infinity

Numerous definitions and reasons for chanting in varied voices exist, however a prevalently accepted definition is; Chanting out loud represents action, whispering symbolizes the inner mind, and silence honors one's spiritual voice ("Sa ta na ma," n.d.).

Mudra

Mudra is a term with many meanings. Most commonly associated with specific finger and hand positions, there can also be eye positions, body postures, and breathing techniques called mudras (Hirschi, 2016). Mudras are used to represent a symbol, a seal, or a gesture which, when used properly, engage certain parts of the brain and body, producing both physical and mental effects. Kundalini Yoga expert Lothar-Rudiger Lutge states, "Kundalini Yoga assumes that every area of the hand forms a reflex zone for an associated part of the body and brain. In this way we can consider the hands to be a mirror for our body and our mind" (Hirschi, 2016, p. 3). Much research has been done validating the relationship between the fingers and hands with corresponding parts of the body. Ilse Middendorf, a respiratory therapy expert, has shown a

direct correlation between specific fingers corresponding to areas in the lungs (Hirschi, 2016). Additional research validates the ends of the nerve paths found in the hands and feet occupy a large area in the brain, even larger than that of the arms and legs (Hirschi, 2016). This information shows that mudras, when practiced consciously, activate large areas of the brain, which is of particular interest to those in the field of Alzheimer's and Dementia research. There are specific mudras used in the Kirtan Kriya (Appendix A). When chanting each syllable, you move the fingers as described in the instructions. Mild pressure should be exerted to create the desired effect, seal, in the mudra. There are slightly varied definitions of the benefits ascribed to each mudra from different sources, and schools of thought. Below are listed the 'widely/commonly accepted' benefits associated with each mudra/finger position ("Sa Ta Na Ma meditation," 2015).

- SA = connect tip of the thumb and tip of index finger (Jupiter finger), said to bring knowledge and release us from limitations. Also, believed to empower the nervous system, stimulate the pituitary gland and endocrine system.
- TA = connect tip of the thumb and tip of middle finger (Saturn finger), increasing patience, wisdom and purity. Also, believed to increase the space element in the body, improve intuition and detoxify body through elimination and relieve congestion.
- NA = connect tip of the thumb and tip of ring finger (Uranus or Sun finger), increases the body's earth element, bringing vitality and aliveness. Helps decrease the fire element in the body, increase endurance and strength, and have positive effects on organs and bones.

- MA = connect tip of the thumb and tip of the pinky finger (Mercury finger) to clear communication. Reduces the water element in the body, reduce water retention, runny nose, loose bowels and challenges associated with excessive hormones.

Visualization

Many of the kriyas and meditations in Kundalini Yoga specify a visualization and/or specific focal point for the eyes (whether open or closed). "Directing the gaze physically impacts the optic nerve as it travels from the eyes to the center of the brain" ("Eye Focus," n.d. para. 1). These eye positions result in variable pressure being exerted by the optic nerve to the brains gray matter, and to major glands in the body ("Eye Focus," n.d.). Visualization employs not only a focal point for the eyes, but also a mental image to accompany the kriya. When practicing the kriya one is to visualize energy coming down from above and entering in the middle/top of the head, proceeding straight down into one's brain, and at mid-point changing to a lateral direction, coming out of in the middle of the forehead (in the area referred to as the 'third eye' between the eyebrows). This pattern can best be visualized as following the path of a capital letter "L", and making a sweeping motion like a broom, entering at the top, sweeping down to the middle of the brain/head, then moving outward and forward via the third eye/brow point. The visualization is done in a continual pattern, on the beginning of every syllable the energy comes in, and on the "a" of every syllable it moves out via the third eye, continually moving. Some also like to visualize this as a stream of white light, entering on the top and moving out through the brow point. It is believed that this visualization technique is activating the pineal and pituitary glands, both important glands in those afflicted with Alzheimer's and Dementia ("Eye Focus," n.d.).

Conclusion

Kirtan Kriya's ability to engage the senses, awaken the brain, and enliven one's energy via mantra, voice, mudra, and visualization make it a wonderfully beneficial, and easily accessible tool for anyone to use. Research has validated the many medical, physical, and mental benefits available to those with Alzheimer's or Dementia, and their caregivers who practice this technique. Due to time constraints the many research findings I have found have not been detailed in this paper, however I would be happy to share findings if interested. With the massive population growth of the elderly on the near horizon this practice needs to reach those whom can benefit from its profoundly powerful technology.

References

Hirschi, G. (2003). *Mudras: Yoga in your hands*. Newburyport, MA. Weiser Books.

Khalsa, D. S. (2013). Kirtan Kriya yoga meditation: A new dimension in Alzheimer's prevention. *Arizona Geriatrics Society, 18*(2), 12-16. Retrieved from https://www.arizonageriatrics.org/assets/2013/2013FallJournal/azgsjournal%20web%2010-17-13.pdf

Khalsa, D. S. (2015a). Stress, meditation, and Alzheimer's disease prevention: Where the evidence stands. *Journal of Alzheimer's Disease*, *48*, 1-12. doi:10.3233/JAD-142766

Khalsa, D. S. (2015b). *Yoga and Medical Meditation™ as Alzheimer's prevention medicine* [White paper]. Retrieved http://www.alzheimersprevention.org/downloadables/White_Paper.pdf

Kriya. (n.d.). Retrieved from https://www.3ho.org/kundalini-yoga/kriya

Mantra. (n.d.). Retrieved from https://www.3ho.org/kundalini-yoga/mantra

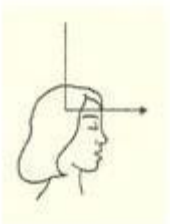
Mudra. (n.d.). Retrieved from https://www.3ho.org/kundalini-yoga/mudra

Appendix A:

Kirtan Kriya Meditation Instructions

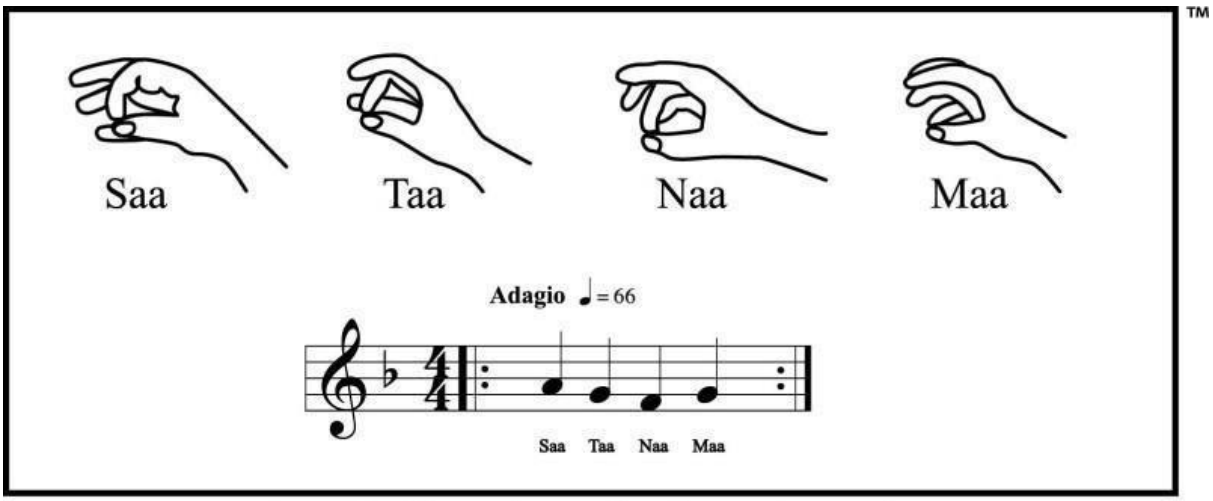
If you would like to practice the Kirtan Kriya singing exercise, here are the basic steps, as found on the Alzheimer's Research and Prevention Foundation website:

- Repeat the Saa Taa Naa Maa sounds (or mantra) while sitting with your spine straight (you can be in a chair with your back straight, not resting on chair back, or sitting on the floor with legs crossed, in 'easy pose').
- If possible, your focus of concentration is the L form (see illustration below), while your eyes are closed. With each syllable, imagine the sound flowing in through the top of your head (while chanting first letter of each word), and out the middle of your forehead (your third eye point, while chanting the 'aa' of each word).



- L Form of Concentration
- For two minutes, sing in your normal voice. • For the next two minutes, sing in a whisper.
- For the next four minutes, say the sound silently to yourself.
- Then reverse the order, whispering for two minutes, and then out loud for two minutes, for a total of twelve minutes.

- To come out of the exercise, inhale very deeply, stretch your hands above your head, and then bring them down slowly in a sweeping motion as you exhale.
- The finger positions, are very important in this kriya (see illustration below).
- On Saa, touch the index fingers of each hand to your thumbs.
- On Taa, touch your middle fingers to your thumbs.
- On Naa, touch your ring fingers to your thumbs.
- On Maa, touch your little fingers to your thumbs.



This particular set of instructions is taken directly from the Alzheimer's Research and Prevention Foundation website (http://alzheimersprevention.org/research/12-minute-memory-exercise/), however the instructions given are universal. Any Kriya created by Yogi Bhajan is to be kept in its exact format, and not to be altered in any way.

References for Research
(Research findings omitted due to paper length restrictions)

Eyre, H.A., Acevedo, B., Yang, H., Siddarth, P., Van Dyk, K., Ercoli, L., … Lavretsky, H. (2016). Changes in neural connectivity and memory following a yoga intervention for older adults: A pilot study. *Journal of Alzheimer's Disease, 52*(2016), 673-684. doi:10.3233/JAD-150653

Lavretsky, H., Epel, E. S., Siddarth, P., Nazarian, N., St Cyr, N., Khalsa, D. S., Irwin, M. R. (2013). A pilot study of yogic meditation for family dementia caregivers with depressive symptoms: Effects on mental health, cognition, and telomerase activity. *International Journal of Geriatric Psychiatry, 28*(1), 57. doi:10.1002/gps.3790

Moss, A., Wintering, N.A., Roggenkamp, H.C., Khalsa, D.S., Waldman, M.R., Monti, D., & Newberg, A.B. (2012). Effects of an 8-week meditation program on mood and anxiety in patients with memory loss. Journal of alternative and complementary medicine, 18(1), 48-53. doi:10.1089/acm.2011.0051