THE EFFECTS OF YOGA ON SINGING

ABSTRACT

There are many intimate connections between yoga and singing. Yoga, breathing, relaxation and meditation techniques are beneficial in order to deal with problems such as anxiety, stress, depression and body pains related to tension. Yoga helps to soothe nervous system, release physical tension and to connect body, mind and soul together. Singing is a process in which one needs to relax and find a path to the heart and mind, just like yoga. The health of the body and mind is related to the health of the voice. Also, the singing process may cause anxiety due to the pressure of a successful production on the stage. Yoga practices enhance the voice users/musicians/singers/patients to relax and focus on the self, to release the unnecessary tension in the body, to be self-confident and to achieve success consciously. This paper searches the fundamentals of yoga, its history, philosophy and main types, as well as the studies relating to singing and yoga. The results show that there are several works looking for the effects of yoga and meditative practices on performance skills. They all show that yoga has positive effects on the general well-being, psychological and physiological health, and the mood of the musicians/singers/patients/voice users. Yoga practice helps social interaction and builds positive relationships for the advantage of ensembles, disregarding the competition that many singers face. Further studies may search the effect of yoga on patients with nodules, polyps and other vocal cord problems, as well as investigating the effects of different types of yoga on a long-term basis.

Keywords: Yoga, singing, breathing, meditation, performance.

1. INTRODUCTION

The difficulty of finding a balanced and disciplined inner calm has increased incrementally in the 21st century’s fast-paced world (Shannon and Town, 2013: 75). One looks for a method to help herself/himself deal with the problems of everyday life. The fundamental importance of the body to art is well-known by both singers and singing teachers. However, the incorporation of body-use disciplines such as Feldenkrais Method, Alexander Technique, Pilates or Body Mapping into teaching by voice
pedagogues has only been in the past several decades. Being practised for centuries, yoga is the oldest of all these disciplines.

Yoga is a branch of Indian philosophy representing a holistic and systematic approach to living. It is a set of practices and principles designed to provide well-being and health via the integration of breath, body and mind. It promotes balance between spiritual, physical, social and psychological aspects. In yoga, self-realization, purification and a higher level of consciousness are emphasized (Collyer, 2018: 41). Key principles of yoga are integrated into warm-ups, cool-downs, vocal endurance, range extension, articulatory movements, vocal projection strategies for singers and people who use their voices occupationally. Body alignment, body relaxation and breath coordination are applied during speaking and singing tasks via yoga methods (Lloyd, Hoffman-Ruddy, Silverman & Lehman, 2017: 511-518).

Yoga means “to yoke” together with the different sides of oneself; body, mind and spirit (Binnie, 2014: 133-135). The health of the mind and the body is directly entwined with voice health (Sataloff, 2006). Thus, the ability to perform optimally is determined by the health and the well-being of the singer (Peckham, 2010). A successful singer is not only physically flexible with perfect breath control, but also psychologically open and aware of the emotions (Binnie, 2014: 133-135). Both yoga and singing are based on the concepts of control, awareness and the use of the breath. Both find it necessary to have a flexible and strong body for endurance and freedom. Mental concentration and the ability to coordinate body and soul are required by both. They are natural partners leading to the expression of the soul and knowledge (Carman, 2011).

2. BENEFITS OF YOGA

Being an experiential tool pointing to spiritual, mental and physical states of a person (Greschner, 2012: 237), yoga has many beneficial effects. Yoga postures and breathing techniques are known to decrease stress, pain and depression, as well as improving autoimmune and cardiovascular conditions (Smith, Hancock, Blake-Mortimer & Eckert, 2007: 77-83). After yoga practice, healthy adults have reported that they had an overall sense of wellness, significant improvements in dynamic muscular strength and diastolic blood pressure, flexibility, the endurance of trunk and upper body (Field, 2011: 1-8), and improved pulmonary function (Abel, Lloyd & Williams, 2013: 185-190). The main physical disciplines of it are overall muscular strength, alignment, concentration and body awareness through breath control (Kuhn, 2006: 32).

Meditation and yoga can soothe musculoskeletal and mood problems, as well as supporting physical and cognitive performance. Professional musicians and singers go through high levels of anxiety and stress related to performance and have musculoskeletal disorders. Yoga and meditation are beneficial for musicians who go through these problems (Khalsa, Shorter, Cope, Wyshak & Sklar, 2009).

As a low-cost self-help approach to well-being, yoga is applied in substance abuse treatment programs, health promotion programs, as a complementary treatment for diseases such as depression, cancers, asthma, coronary heart disease, HIV/AIDS, and traumatic brain injury. Philosophically, yoga brings union and calmness to the body. Internal energy is combined with cosmic energy, and thus better mental control, physical health and at last self-realization are provided. If one practices yoga, she/he is provided with improved cardiovascular endurance, digestion, weight control and immune system. Mentally, decision-making skills are improved, and intellectual enhancement is observed. Yet, one must be careful while applying yoga techniques in order to avoid physical injuries such as ligament and muscles sprains, cartilage tears or back and neck pain (Sharma, 2020).

3. HISTORY OF YOGA AND TYPES OF YOGA

The literature on yoga points out that it began 3000-5000 years ago in the Indus valley. It is agreed that the word ‘yoga’ comes from the Sanskrit word ‘Yuj’, meaning to yoke, unite or join body mind and heart. The research on the history of yoga is ongoing, yet it is thought that the origins of root come from Hinduism, Buddhism and Jainism (Collyer, 2018: 42). Yoga Sutra is a 2000-year-old yoga philosophy by the Indian sage Patanjali. It is the earliest written record of yoga which also provides for all the modern yoga known (Nichols, 2018). British colonialism in India changed some of the ideas, philosophies and practices of yoga between cultures (Collyer, 2018: 42). Yoga is now a product of deeply collaborative interaction between Europeans and Indians since the beginning of the modern era.
The educated society of India re-examined their religious traditions in relation to the new power and trade connections (Newcombe, 2009: 986-1002). An appeal for postural yoga appeared in the 1920s first in India, later in the West (Nichols, 2018). Far from being a fixed concept of practices, yoga has been evolving since the beginning (Alter, 2004).

The philosophy of yoga uses the imagery of a tree with roots, trunk, branches, blossoms and fruits in order to convey its spiritual message (Nichols, 2018). The goal of the person helps her/him to decide which branch she/he should follow (Nichols, 2018; Sharma, 2020). One of the later-age branches of yoga is Hatha yoga, the path of physical and mental self-discipline that primes the mind and the body. Raja yoga is the path of wisdom to self-realization and it consists of meditation and disciplinary steps called “the eight limbs” of yoga. It is codified by Patanjali in the classic text Yoga Sutras. It is taught in the order of posture, breath and phonation, parallel to singing teaching in voice lessons. Karma yoga, being the path of action, is designed to free the future from selfishness and negativity. Bhakti yoga, being the path of devotion, is the way to cultivate tolerance and acceptance, as well as channelling emotions. Jnana yoga is the wisdom branch, developing intellect through study. Tantra yoga is about building a relationship, the path of ceremony and ritual. Gyana yoga is the path of knowledge, Mudra yoga is the path of channelling life force, and Chakra yoga is the path of energy forces (Nichols, 2018; Sharma, 2020). These chakras are positioned at ascending points along with the spine and the neck. Moliterno points out the chakras in his book, focusing on tension blockages which are acting as obstacles to creativity. Postures and asanas, as being old techniques in yoga, balance the chakras and provide the body to become more efficient for communication and singing (Moliterno, 2008: 45).

The Vini yoga tradition was found in the 1980s’ USA by Gary Krafstow. He evolved his approach from India, studying with T.K.V. Desikachar and T. Krishnamacharya who are the founders of Western yoga as well as B. K. S. Iyengar. Vini yoga accepts the uniqueness of every student and emphasizes a practice focusing on self-awareness, beginning from the point the student starts the voyage. The practices and postures that are right for each specific person are carefully adapted for every specific day (Krafstow, 1999). Vini yoga is interested in self-discovery and awareness. Carman chooses Vini yoga in her practices for singers because it enhances everyone from all yoga experiences, sizes, ages and shapes, regardless of physical ability (Carman, 2011). Teachers of Vini yoga are required to be experts on yoga therapy and anatomy (Nichols, 2018).

Another popular type of yoga in the West is Kundalini yoga, which simplifies the physical exercises (Nichols, 2018). It is strongly associated with Hatha yoga yet is presented as an independent approach (Whicher, 1998: 6). Meaning coiled like a snake, it is a system of meditation aiming to release imprisoned or coiled energy in the body. A typical class begins with chanting and ends with singing. In between the two, it includes asana, pranayama (breathing techniques), balancing the central nervous system and endocrine system, mudras (bodily techniques) and meditation (Nichols, 2018; Sharma, 2020). The Kundalini style of yoga points out the benefit of spine energy, which is both psychic and physical, affecting both the spirit and the body (Lloyd, et al., 2017: 511-518). The fundamental meditation technique includes performing a formless contemplation at different points such as hypothalamus and pituitary glands (Sharma, 2020). A common way of teaching Kundalini yoga is to awaken the kundalini at the lowest chakra, and to guide it all through the central channel for unification with the absolute consciousness at the highest chakra which is located at the top of the head (Devananda, 1999).

Lister incorporates Kundalini and Iyengar styles of hatha yoga in her book Yoga for Singers: Freeing Your Voice and Spirit Through Yoga (Lister, 2011). The Iyengar style of yoga puts emphasis on the ideal body posture alignments via prop usage (Lloyd, et al., 2017: 511-518). Lister adds references from well-known popular, classical and music theater artists who explain how yoga affected their performance careers and lives positively (Lister, 2011).

4. GENERAL APPLICATION OF YOGA INTO SINGING EXERCISES

Yoga has essential benefits for singing. Good singing requires the main physical disciplines that yoga provides such as breath control, awareness of the body, concentration and strength. For a regular warm up before singing, one can introduce some basic elements of yoga. The yoga postures enhance breathing and resonance, contributing to the expansion of the rib cage, firm abdominal muscles and strengthen the
diaphragm. Some of the humming chants practiced during yoga may be added to vocal exercises for resonance and tone development (Kuhn, 2006: 32).

In both yoga and singing experiences, students learn best by mixing styles of visual, auditory and kinesthetic process, which includes feeling and doing. In a normal yoga class, the teacher tries to make the students experience all these aspects of yoga (Binnie, 2014: 133-135).

Lloyd and his coworkers suggested a vocal yoga program which brings together the knowledge of vocal health, performance, pedagogy, respiratory and laryngeal physiology. These concepts are beneficial for the behavioral treatment of hyper-functional voice production and provide recovery from vocal injury. Traditional voice therapy strategies are combined with traditional yoga practice movements, meditation, postures and breathing techniques. These voice therapy strategies include laryngeal massage, yawn-sigh, resonant voice, flow phonation or semi-occluded vocal tract exercises (Lloyd, et al., 2017: 511-518).

4.1. Centering

In order to enhance singing, the first step in a yoga practice is to center the mind. The singer’s/patient’s focus and attention should be on the breath and body relaxation. The relaxation should be conscious; the tensed regions in the body should be detected and relaxed as much as possible. During inhalation, the lower rib cage and the abdominal regions should be expanded; they should be contracted passively in exhalation. Breath coordination is improved by ratio breathing, that is inhaling for several counts and exhaling for another number of counts (Lloyd, et al., 2017: 511-518).

4.2. Warming Up

The body is allowed to stretch gently, via stretching exercises for the neck, chest, back and shoulders. In order to bring awareness of the spine and energy centers, body alignment and posture exercises should be applied. The singer/patient bends forward and rolls up slowly into a standing position. One is advised to focus on chakras, energy centers on the body, and concentrate on the freedom along the length of the spine (Lloyd, et al., 2017: 511-518).

During vocal production, the jaw may be tense and imbalanced. Therefore, gentle stretching of the jaw by gliding the hand palms from the cheekbones to the tip of the chin is applied, as well as a gentle circular massage along the jawline (Lloyd, et al., 2017: 511-518). Also, the neck is a typical site of muscle tension in patients with vocal problems. For a more relaxed neck, one needs to do laryngeal massage which combines circular massage with lateral movement of the larynx as well as gliding downward motion (Roy and Bless, 1998: 175-179).

Vocal activities should begin with easy and gentle ones. Yawn sigh, easy tongue or lip trills and hum are performed with a few notes in a limited range. The articulators are loosened by the repetition of the sound “blah” like a sigh in order to relax the jaw and the tongue progressively. Using a low impact breathy or low volume voice by giving minimum effort, words and phrases may be pronounced with a light conversational voice.

4.3. Balance and Endurance

It is crucial to maintain balance during vocal production. In order to reach the most efficient voice, resonant voice strategies are applied. Nasal vowels and consonants may be produced by sustained and gliding hums and chanting (Verdolini-Marston, Burke, Lessac, Glaze & Caldwell, 1995: 74-85). A sensation of vibration is cultivated at the lips, in the oral cavity and in the facial region. The vocal productions should be done at normal levels of loudness and pitch. During this time, the throat region should be relaxed, and any sense of constriction from it should be eliminated (Ruddy, Lewis & Lloyd, 2013).

After these practices, one may introduce projected or louder voices by using the least amount of vocal effort. The loud voice should be balanced, instead of being too breathy or too tight. The airflow should be continuous and relaxed (Lloyd, et al., 2017: 511-518). In order to stretch the tissues of the vocal folds, range extension exercises are beneficial. When the tissues stretch, the mucosal region covering the vocal folds heal and voice is warmed up easily. At this point, semi-occluded vocal tract exercises
with vocal glides and sustained pitches may be applied (Titze, 2006: 448-459). Some other tasks involved may be exhalation of a steady airflow and production of a vibrant, balanced and easy voice via adding tongue and lip trills, closed vowels such as i and u, as well as blowing into various diameter straws. Moreover, one may practice *Messa di Voce* exercise, which provides breath control and coordination, teaching a singer how to produce loud voice by relaxation and ease (Lloyd, *et al*., 2017: 511-518). A soft and single pitch voice is produced, and the volume and loudness are increased gradually. The exercise finishes with a soft and piano volume again. All these mentioned exercises are applied throughout the voice lesson/practice considering in mind that balance is the most crucial concept.

### 4.4. Cooling Down

Every intense workout requires a cooling down period, in which the warming up exercises can be repeated. These exercises are humming, vocal sighs and articulator relaxing exercises. The voice production must return to an easy and normal vocal effort following the high volume and pitches with extremes of vocal range. The breath must relax consciously and progressively, breathing in and out through the nose in a comfortable position. The singer must scan the body for tension mentally and release the tightness during exhalation. The end of the vocal yoga practice may be guided by imagery to facilitate ease. The length of vocal yoga depends on the personality of the singer/patient. If one has a more anxious trait, the duration of the centering or warming up can be longer. Someone who loses focus easily can speed up the centering and pass to the active warming up in order to gather the attention (Lloyd, *et al*., 2017: 511-518).

### 5. METHODS

In this study, yoga, its history, its philosophy and types of yoga were explained, as well as doing qualitative research about the studies involving yoga in their singing programs and experimental works regarding vocal productions.

### 6. RESULTS

Studies and methods on singing in relation to yoga try to build focus, as well as establishing coordinated body strength and alignment. The main goal is to decrease the tension and open the mind to creative possibilities, which can all be done through a deep connection with body and mind (Lloyd, *et al*., 2017: 511-518). Vocal Yoga is a flexible practice which may change according to the voice user. The approach of a younger and an older person to yoga and the production of voice may change over time. It is crucial to be aware of these evolutions and to make the necessary practical adjustments if needed (Kandoğan and Seifert, 2005: 655-660).

Professionals who use their voice express negative emotional responses when they go through a vocal disorder. These adverse responses may trigger visible tension at laryngeal biomechanics, use of false vocal fold phonation, long-term contraction of laryngeal strap musculature. Study of voice and its rehabilitation requires breath coordination. Focused breathing and relaxation techniques provided through yoga should be actively applied to be freed of these physical results of psychological anxiety. Identification of maladaptive patterns of breathing or explicit instructions of a coordinated breath feeling is not enough. Here the most vital part of it is experiential awareness rather than conceptual. Being aware of breathing by relaxation and reflection is supportive for a well-learned technique (Lloyd, *et al*., 2017: 511-518).

Another concept that is essential in voice rehabilitation is mindfulness. The relaxation of the body and the release of the tension can be achieved through a quiet mind (Smith, Amutio, Anderson & Aria, 1996: 63-90). One needs to be aware of physiological mishaps and bodily misalignment that cause voice problems. Healthy voice production is driven by exhaled air. Free exhalation can be done via proper posture and body alignment during all voice-producing tasks. Posture has physiological effects on a wide range of systems such as respiration, phonation, gastrointestinal, cardiovascular and swallowing (Šipinková, Hahn, Meyer, Tadlanek & Hajek, 1997: 173-179). Wrong positions of the posture may lead to chronic body pain (Meziat Filho, Coutinho & e Silva, 2015: 425-433).
Hutton, having obesity and hypertension problems himself as a classical singer, concludes in his doctorate thesis that yoga was beneficial to mental and physical health. Especially asana is advised to practice for stronger body alignment, greater body awareness, improved respiration, better focus and relief of stress (Hutton, 2014).

The benefits of meditation and yoga for young adult musicians were evaluated in a study of the 2-month program by Khalsa and his coworkers. 15 musicians practiced yoga and meditation daily, 15 musicians had a yoga lifestyle and another 15 were the control group with no practice. Both yoga groups practiced three meditation or Kripalu yoga classes every week. The yoga lifestyle group additionally had discussion sessions. Both yoga groups showed a decrease at music performance anxiety and general depression, tension and anger compared to the control group. However, they did not show any change at performance-related musculoskeletal disorder, sleep or stress (Khalsa, et al., 2009: 279).

According to another study, 24 undergraduate and graduate conservatory students who are instrumentalists and vocalists did a 9-week yoga practice in order to find out its effect on reducing music performance anxiety. They had fourteen 60-minute yoga classes twice a week and a short home practice daily. 17 of the students attended the post-intervention evaluation. Music performance anxiety of the participants who completed the measures at both pre- and post-intervention evaluations decreased significantly. In the following 7- to 14- months improvements were maintained. The comments of the participants about the program were positive and beneficial (Stern, Khalsa & Hofmann, 2012: 123-128).

As a singing teacher for forty years and a yoga practitioner for twenty years, Carman connects singing and yoga in her teachings with a systematic approach. She herself discovered yoga while searching for answers to life’s purpose and deeper questions. She explains that the questions can be answered only by being quiet and at rest, finding a focus inward and becoming acquainted with oneself. She incorporates physical movement with sound in order to bridge the gap between breathing, phonation and physical postures. As an immensely powerful source, the mind of a singer sometimes may disrupt the progress. Thus, Carman focuses on heart and mind, providing a well-rounded approach to the mental and physical practice of singing and yoga. Some of the practices involve spoken vowel sounds and humming. During the mental practices of yoga, in order to reduce performance anxiety, the singer must train the mind to be in the present moment, to ignore distractions, negative feelings and thoughts. All the great performers are successful at being in the moment. Meditation techniques enhance the singer to involve with inner silence and stillness, to know oneself and to be powerful. Another point that Carman presents is that participation in yoga classes designed specifically for singers gives advantages such as building a community without competition, developing a sense of ensemble for group musical performances and encouraging good practice habits (Carman, 2011).

Carman’s book is divided into sections of Body, Breath, Mind, Heart and Performer. Every section describes practice and posture connecting to singing. The body section describes the postures or movements called asanas, and their anatomical explanation, the relevance to the singer, difficulty levels and risks. The breath section includes a table explaining the functions of breath mentally, physically and spiritually in relation to yoga, singing and life (Carman, 2011). Especially, Pranayama practices are useful for the singer since they allow better support and longer phrases for the voice, increase lung capacity and function, and calm downstage fright by stimulation of relaxation (Binnie, 2014: 133-135). The mind section of the book explains how the breath affects the nervous system and the emotions. Concentration, the balance between being focused/strong and aware/open are emphasized. According to this section of the book, a yoga practice can help one to leave behind the samskaras, meaning unhelpful habits. New ones are formed based on positive intention, leading the singer to her/his aims. The heart section of the book points out the more spiritual aspects of yoga practice, with mindfulness meditation, which affects the brain, the stress response and the emotional reactivity positively. The performer section which is the last one in the book connects the relaxation of yoga practices before and after performances of a singer, pointing out a balanced and long professional career (Carman, 2011). Carman also adds instructions on how to sing vowel sounds or foreign language words while moving and practicing asana in order to help memorization and increase the singer’s moving and singing ability at the same time on the stage (Binnie, 2014: 133-135).
Fanning brought together the ideals of bel canto singing with yoga principles. She was inspired by other works balancing the voice and the body using yoga and bel canto. In her work, she focuses on building control and coordination of the body and the mind, leading to control over the voice and freedom (Fanning, 2011).

Another professional incorporating yoga postures and vocal education is Lyle, focusing on respiratory exercises for singing and speech, as well as providing beneficial exercises for balanced voice production. She also adds other body alignment techniques such as Alexander, Tai Chi and Feldenkrais in her book *Vocal Yoga: The Joy of Breathing, Singing and Sounding* (Lyle, 2014).

In overall, a vocal yoga program combining the knowledge of vocal health, performance, pedagogy, respiratory and laryngeal physiology would be satisfactory. These concepts are beneficial for the behavioral treatment of hyper-functional voice production and provide recovery from vocal injury. Traditional voice therapy strategies are combined with traditional yoga practice movements, meditation, postures and breathing techniques.

7. **CONCLUSION AND DISCUSSION**

Voice health is intricately related to the body and mind health. The optimal performance is dependent on the well-being and the health of a singer. Thus, physical and mental health is crucial in order to cope with the pressure and anxiety of performing. Yoga is a beneficial practice, combining mind, body and soul together and focus the performer on the inner self. Yoga brings calmness and union to the body from a philosophical basis. Many studies involving yoga in voice practices were done, showing that yoga and other meditative techniques relax the performer/singer/patient and increase the success on the stage, as well as the general well-being. Yoga is helpful while dealing with problems such as anxiety, depression, HIV/AIDS, cancer, stress, asthma, cardiovascular and autoimmune diseases. Yoga and other meditative techniques improving the quality of breath, the ease and the relaxation of the body and the soul will continue to be integrated into the performance studies and sciences, as long as people continue to search for new ideas and develop their psychological and physical aspects.

In future works, yoga principles may be incorporated into voice therapy protocols of patients with hyper-functional voice disorders. Speech-language pathologists and otolaryngologists may be involved in the evaluations of the patients. Vocal yoga durations and the numbers of the lessons may be increased for better and more successful results. Patients with space occupying laryngeal pathologies such as generalized oedema, vocal polyps, contact ulcers, or vocal nodules may be involved in studies with yoga practices combined with pharmacological and medical treatments. The combination of methods and cures have the potential to enhance voice quality and increase the patients’ overall well-being in relation to qualified voice production.

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