

ROLE OF BHRAMARI PRANAYAMA IN PREVENTION AND PROMOTION OF MENTAL HEALTH - A REVIEW

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ABSTRACT

Background -In today's era lifestyle of people has become very mechanical. Everyone is running in a rat race for target achievement, which results in stress. This stress further effects on physical as well as mental health of an individual. Mental health is the balanced development of emotional attitudes and personality which live harmoniously with all society or community. Mental disorders are characterized by alternation in thinking, mood or behaviour associate with impaired functioning. Mental and behavioural disorders are found in all age groups, and the prevalence rate is about 10%. To overcome these problems, everyone should concentrate on prevention and promotion of health. For physical health healthy diet, daily regimen, seasonal regimen & exercise etc. are the preventive major, and for prevention of mental health *Sadvrittapalan*, application of *Acharrasayana*, *yoga* & meditation practises are essential. Yoga consists of eight processes, in this *Pranayam* is very important to achieve control on *Indriyas* that is sense organs. *Bhramari Pranayam* is one of significant type of *Ashtakumbhaka* & very easy to practice. Vibrations produced due to humming sound of *Bhramari Pranayam* affects directly on the hypothalamus of the brain, causing a resonance in mind which relieves stress and produces calmness and happiness in the whole body. This article deals with the role of *Bhramari Pranayama* in prevention and promotion of mental health to provide a better solution. **Aim** - To study the role of *Bhramari Pranayama* in prevention and promotion of mental health.

Setting & Design – Literary study. **Material & Methods** - The present investigation is based on primary & secondary sources of data mainly collected from literature studies of various *Ayurvedic Samhitas* & texts as well as numerous published research articles. **Results & Conclusions** This study illustrates that *Bhramari Pranayama* plays an important role in prevention of mental health as well as curative effects on mental disorders like stress, anxiety depression. According to *Ayurveda*, regular practice of *Bhramari Pranayama* decreases the *Raja* and *Tamadosha* and increases *Satvaguna*, which further helps to build mental health. There is a considerable scope to study the effect of *Bhramari Pranayam* through clinical trials to develop the present study.

Keywords: *Bhramari pranayam*, prevention & promotion, Mental health.

INTRODUCTION

The WHO stress that mental health is "more than just the absence of mental disorders or disabilities." Peak mental health is about not only avoiding existing conditions but also looking after ongoing wellness and happiness. Mental health is an active state of internal equilibrium. Mental health indicates cognitive, emotional and behavioural well-being—mental health influence on daily routine, relationships as well as physical health. *Maharishi Patanjali* has advocated *Ash-tangyoga* for curative as well as preventive aspects for all physical and mental disorders. Out of these eight, *Bhramari Pranayam* is more effective exercise for the brain due to its humming sound, vibration is produced which affects the hypothalamus of the brain directly causing a resonance in mind, and it fills the whole body with calmness and happiness. Thus, *Bhramari Pranayam* helps to improve our mental health. There are many studies on the effect of *Bhramari Pranayam* on various systems, but there are only a few studies present on stress, anxiety, depression and other mental disorders.

Material & Methods- The present investigation is based on primary & secondary sources of data mainly collected from literature studies of various *Ayurvedic samhitas* & Yoga texts as well as numerous published research articles.

Review of Health & Mental Health as per Ayurveda & Modern Science:

As per WHO, health is defined as a state of complete physical, mental, social and spiritual well-being and not merely the absence of disease or infirmity. A sound mind in a sound body has been recognized as a social,

ideal for many centuries. Further WHO described Mental health as, "It is a state of well-being in which an individual realizes his or her abilities, can cope with the normal stresses of life, can work productively, and can make a contribution to his or her community."⁽¹⁾

Ayurveda explained health as a – *Samadosha, samagnichha, Samdhatumalakriya, Prasannatemendriya Manah, Swasthaettebhiyate. Su su15\41*. According to *Sushruta*, man is said to be *Swastha* whose *Doshas, Agnis, Dhatus*, and *malas* in the state of equilibrium along with mental, sensory, and spiritual pleasantness and happiness. Physiological variations of *Doshas* occur as daily, seasonal, age, food. *Jatharagni* and *Bhutagni* are responsible for proper digestion of food. *Dhatvagnis* are accountable for the nourishment of dhatus, equilibrium state of *Agni* leads to the appropriate formation of body tissue, and disorder of *Agni* leads to different diseases. Equilibrium state *Dhatus* and *Mala* is essential for the maintenance of health and prevention of diseases. A pleasant state of the soul, sense organs and mind are defined as health. *Atama* means *Jivatma* or *Karma Purusuh* who experiences all feelings like pleasure, pain etc. Even though the soul is devoid of blemishes as he is in association with the body, he experiences good and bad effects. Suppression of mental urges like desire, hatred, greediness, passion, following principals of *Sadvritta, Achararasayana* and *Yoga* help to keep the mind healthy. Thus, one can prevent psychological, somatic and psychosomatic disorders.⁽²⁾

Veekaro dhatoo vaishyamyam samyam, prakrutee, vruchyatey! Sukhyasadhnyakum Arogyam, Veekaro, Dukhmevachya! (CS 9/4) Abnormal state of *dhatus*, which

produces unhappiness is a disease, and a balanced state which provides happiness is *Prakriti* or Health, i.e. *Arogya*. Thus, to prevent mental health diseases, one should adopt daily seasonal regimens, proper diet, *Yoga*, *Pranayama* and meditation. Suppression of psychological urges like desire, hatred, greediness, passion, following principles of *Sadvritta*, *Acharrasayan* and *Pranayam* helps to keep the mind healthy. Applying these, one can prevent psychological, bodily and psychometric disorders⁽³⁾ *Avidya*, *Asmita*, *Raga*, *Dvesha*, *Abhinivesha* are the five “*Klesha*”^[4] factors which can cause trouble in our day to day life. For diminishing these *Kleshas*, we should try to moderate the emotions in our daily life. These *Kleshas* constitute particular behaviour or mental state of that individual, such as aggressiveness, irritability, and rebelling nature. This type of personality has an inbuilt habit of developing stress, anxiety, and depression. The cultivation of *Satvik* character, i.e., pure, noble, and honest, and selfless attitude, is the need of the hour for ideal mental health. *Maharshi Patanjali* has advocated four essential things to be observed viz. Friendship, compassion, joy, and forgiveness. *Abhyasa* and *vairagya* are also vital to deal with stressors^[5]. *Pranayama* has been assigned a vital role in *Asthanga Yoga* and is very beneficial for keeping sound mental health. Out of these eight *Pranayamas*, *Bhramari Pranayama* brings stability, calm the mind, and improves blood circulation, effective for insomnia, instant way to relieve tension, anger, anxiety. *Bhramari* helps in increasing the concentration of the brain by humming sound, which is produced during the breathing, gives more interest to the subject for the practice in the *Pranayama*.^[6] Mental and behavioural disorders are found in people of all regions and all age groups. In India, as per the survey of mental health, the morbidity rate is 18-20 per thousand populations^[7]. Thus, the present study was carried out for the effect of *Bhramari Pranayama* on mental health. Current therapies available for the management of mental diseases are valid, but the problem of tolerance and physical dependence on their prolonged use, lots of side effects may occur. Therefore, the drugless and time effective *Bhramari Pranayama* is beneficial to reduce the symptoms of mental diseases. In Ayurveda, the interrelation

between mind and body is described in detail. The physical illness leads to disturbance in mental function, and mental disturbances lead to physical disorder^[8]. While describing psychological disorder, *Acharya Charaka* has quoted word *Chittodvega* along with *Kama*, *Krodha*, *Moha*. It is a more applicable term to illustrate the whole mental state.^[9] Therefore, *Chittodvega* is included in *Manasroga* and compared with a mental disorder. In this review, we want to explore the relationship between the stress, anxiety and depression included as mental health

Factors affecting mental health -

Lobha, *Shoka*, *Bhaya*, *Krodha*, *Abhimana*, *Nairlajja*, *Irsha*, *Atiraga*, *Abhidya*.^[10] Not having control over *Dharaniyavega* is one of the reasons for *Manas Roga*. One whose mind is inflicted by passion, anger, greed, exhilaration, fear, confusion, exhaustion, grief, anxiety, excitement etc^[11]. Antagonistic (*Viruddhaahar*), defective (*Dushtabhojan*), and contaminated food (*Asuchibhojan*), an insult to Gods, teachers, and *Brahmnas*, mental shock due to fear. are also the causes of *Manasvikar-Himsa* (torture), *Steya* (robbing), *Anyathakama* (unlawful sex), *Paisunya* (harsh speech), *Anrtavacana* (untruth), *Sambhinnaalapa* (speech causing separation), *Vyapada* (quarrel), *Abhidya* (jealousy), *Drgviparyaya* (misunderstanding).^[12] Always follow *dashvidhapapkarma* is one more cause for *manas vikar*. Not following *Dincharya*, *Ratricharya*, *Rutucharya*, *Sadvritta*, *Achar rasayan* *Aharvidhivisheshayatan*, *Dwadashaharpravichar* is a more important factor for having *manas vikar*.

Mental disorder according to Ayurveda- *Moha* (confusion), *Shoka* (grief), *Vishada* (anguish), *Abhyasuya* (jealousy), *Irshya* (envy), *Bhaya* (fear), *Aswapna* (insomnia), *Chittodvega* (anxiety), *Tandra* (stupor), *Dainya* (meanness of inferiority complex), *Atinidra* (excessive sleep), *Harsha* (exhilaration), *Bhrama* (confusion), *Kama* (desire), *unmada* (psychosis), *Krodh* (anger), *Apasmar* (epilepsy), *Lobha* (greed) *Apatanaka patantrak*, *Mada* (ignorance), *Attatvaabhinivesh* (obsessive *Mana*(pride) syndrome), *Ashabdashravan* (auditory hallucination), *Madatyaya* (alcoholic psychosis), *Sanyasa* (coma), *Bhayaj* and *Shokajaatisara*, *Kamaj* and *Shokajjvara*^[13].

Preventive measures of mental health- Following *Dincharya, Ratricharya, Rutucharya, Achar Rasayan, Sadvrittapalan* by intake of *Sattvikahara*, Practicing *Ashtangyoga (Yama, Niyam, Asan, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi)* [14] Acharya has mentioned *Pranayama* plays a vital role to reduced *Sharirik* and *mansikvikar*.

Pranayama means a voluntary and temporary pause in the movement of the breath; it is the door between the physical existence and the spiritual path. [15]

Regular practice of *Pranayama* removed the covering on the light of Knowledge and mind is prepared to focus on a particular subject like *Dharana*. [16]

Bhramari Pranayama- *Bhramari Pranayama* is one of the best breathing exercises mainly for the brain. *Bhramari* is a Sanskrit word that is derived from '*Bhramar*' the black Indian bumblebee. It describes the characteristic humming sound which is produced while exhaling. [17]

The procedure of *Bhramari Pranayama-Purvakarma*- Sit in any comfortable *Sukhasan* position with an erect spine and stable mind, relax the body. Keep the eyes closed throughout the practice. The practice of *Puraka Rechaka* for ten rounds *Pradhankarma*. It should be practised with *Shanmukhi* mudra. Close the ears with the thumb, index finger on the forehead and middle fingers on eyes and ring fingers on nostrils and little fingers on above lips. Inhale (*Puraka*) slowly and deeply through both nostrils. Listening to the sound of the breath. After inhalation do *kumbhaka*, by keeping the mouth closed, *Rechaka* (exhale) should be done gently, making a pleasant, slow-pitch humming sound like a Bumblebee. Feel the vibration all over the body and mind. It refreshes the mood by inducing positive energy and real happiness. It is one round, and one should practice it from five rounds up to twenty rounds as per own capacity. *Pachyatkarma* Then do the ten rounds of *Puraka & Rechaka* for Relaxation.

Matra and Kala- Practice of *Puraka and Rechaka*, i.e., 1:2 *Matara Bhramari Pranayama Matra -Puraka 12 Matra Kumbhak Matra Rechaka 24 Matra*. This is *awarmatra*. *Kala* - 4 times in a day. In morning, afternoon, evening, and midnight [18].

Benefits of Bhramari Pranayama – While a quick force of inhalation (*Puraka*) one should produce high pitch humming sound like that of a male bee while doing (*Rechaka*) exhalation, a humming sound is produced like that of a female bee. It fills the body and mind with positive energy and real happiness. *Bhramari* forms vibration in the brain, and it calms the mind, relieves cerebral tension, relieves stress & anxiety. Disparates anger, lowers blood pressure, bolsters the health of the heart, Strengthens & improves the voice induced Sound sleep. [19]

Factors affecting Mental Health as per Modern Aspect

Childhood abuse, trauma, or neglect, social isolation or loneliness, experiencing discrimination and stigma, social disadvantage, poverty or debt, bereavement (losing someone close to you), severe or long-term stress, having a long-term physical health condition, unemployment or losing your job, homelessness or poor housing, being a long-term caregiver for someone, drug and alcohol misuse, domestic violence, bullying or other abuse as an adult, significant trauma as an adult, such as military combat, being involved in a serious incident in which you feared for your life, or being the victim of a violent crime, physical causes – for example, a head injury or a neurological condition such as epilepsy can have an impact on your behavior and mood. Although lifestyle factors including work, diet, drugs and lack of sleep can all affect your mental health, if you experience a mental health problem, there are usually other factors as well. [20]

Warning signals of poor mental health- Always worried, poor concentration, sadness, short-tempered, regular insomnia, Wide fluctuations in mood, feelings of guilt or low self-worth, afraid without cause. Without physical cause, numerous aches and pains.

Mental Disorders According to Modern aspects- Alzheimer's disease, Dementia, delirium, harmful use of alcohol, opioid dependence syndrome, Schizophrenia, mood disorders, effective bipolar disorders, depressive episode, generalized anxiety disorder, behavioural syndrome, and physical factor, e.g. Eating disorder

ders and sleep disorders., Mental retardation, Emotional disorders, hyperkinetic disorders, conduct disorders, unspecified mental disorders.^[21]

RESULTS AND DISCUSSION

The data obtained from various texts books and review articles about the effect of *Bhramari Pranayama* on mental health, all studies show the curative as well as the preventive effects of *Bhramari Pranayama* on stress, anxiety, depression. Even though the reviews are very few, it creates a floor for further research in this field. There is a vast area unexplored on the effects of *Bhramari Pranayama* on mental disorder. On that aspect, [Vialattle et al. 2008] EEG studies have shown increased theta activity, and paroxysmal gamma waves following the *Bhramari Pranayama* bring positive thoughts and feelings of happiness^[22]. The regular practice of *Bhramari Pranayama* increased parasympathetic tone, decreases sympathetic activity, and improves cardiovascular and respiratory functions, reduced the effect of stress and strain on the body and improves mental and physical health.[*Bhargava* et al 1998, *Thangavel* et al 2014]^[23] Previously studies [*Jain* et al 2011 and *Rampalliwar* et al 2013] have mentioned that *Bhramari Pranayama* also reduces cardiovascular reactivity to stress[cold pressure test] by inducing parasympathetic predominance and cortico- hypothalamic medullary inhibition^[24]. [Diwakar pal et al 2016] found that the experimental group[doing [*Bhramari Pranayama*] improved to reduce anxiety levels than the controlled group^[25]. [*Shrivastav* et al 2016] have mentioned that *Bhramari Pranayama* stimulates the reflex of the Autonomic nervous system and, in turn, the level of noradrenaline and neurotransmitters in the nervous system increase with a deeper breath and resonate while exhaling. This secreted noradrenalin helps to decrease the level of neurohormones responsible for stress, anxiety, and aroused mental state in deeper form through biofeedback mechanism.^[26]

CONCLUSION

Acharya Charak stated that *Raja and Tama* are the chief pathogenic factors of mind, and due to them, a lot of *manas vikar* are produced. The regular practice of

Bhramari Pranayama decreases the *Raja and Tamadosha* and increases *Satwaguna*. From the above discussion, it is concluded that the daily practice of *Bhramari Pranayama* produces acoustic vibrations, and this vibration could have a significant impact on brain tissues. It is an excellent stretching exercise by one's voice. It influences multiple systems in the body like respiratory, autonomic nervous systems; hence its effects on total emotional status as well as mental disorders like stress, anxiety, and depression. Thus, more clinical trials are essential to study the effect of *Bhramari Pranayama* on mental health. Therefore, *Bhramari Pranayama* is a crucial part of our daily stressful life for preventive as well as curative aspects for mental health.

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