



CONCEPTUAL FRAMEWORK FOR PHYSICAL, PSYCHOLOGICAL AND EMOTIONAL WELL BEING ON PATIENTS WITH CERVICAL SPONDYLOSIS

Parimala Sunil, Dr. Aishwarya Jadeja, Research Scholar, Assistant Professor, Ashtanga Yoga, Lakulish Yoga University, Ahmedabad, Gujarat, India

ABSTRACT

Cervical spondylosis is a common degenerative condition that significantly affects an individual's overall health and quality of life. Health is not limited to the absence of disease but encompasses three essential dimensions: physical, psychological, and emotional well-being. In patients with cervical spondylosis, physical symptoms such as chronic neck pain, stiffness, restricted mobility, and sleep disturbances often extend beyond bodily discomfort, influencing mental resilience and emotional stability. Therefore, addressing only the physical aspect provides an incomplete understanding of patient health. So, the framework incorporates yoga as a holistic intervention strategy. Yoga is included not only as a physical practice but as a comprehensive approach to health. In particular, the principles of Bhakti Yoga and Karma Yoga are considered as pathways to enhance emotional regulation, acceptance and adaptive coping. By integrating these dimensions, the proposed framework emphasizes a holistic and patient-centered approach to managing cervical spondylosis.

Keywords: Cervical, spondylosis, yoga, medical

I. INTRODUCTION

1.1 Definition

Cervical spondylosis is defined as the structural degeneration within the neck region of the spinal column. In this process, the herniation of intervertebral discs, the overgrowth of vertebral bones, or the thickening of the supporting spinal ligaments—either individually or combined—can compress the delicate spinal cord or the nerve roots that enter and exit it. This produces localized pain and a variety of other neurological symptoms, culminating in cervical spondylosis, which is most common among middle-aged and elderly individuals.

1.2 Symptoms

- **Radiating Pain:** Pain around the shoulder blades that frequently shoots down the arm and into the fingertips. Usually worsens during daily activities like standing, sitting, sneezing, coughing or tilting the head backwards.
- **Muscle Weakness:** Progressive loss of strength in muscles makes difficult to raise the arms or keep a firm grip on objects.
- **Cervical Stiffness & Headaches:** Restricted neck movement increases the pain alongside headaches usually at the back of the head.
- **Paresthesia:** Sensations of tingling and numbness in the shoulders and arms, though they can occasionally manifest in the legs.
- **Severe Autonomic Dysfunctions:** In advance cases there is loss of bladder or bowel control, alongside abnormal reflex responses.
- **Radiculopathy:** Triggering sharp, shooting pain that travels down into one or both arms. (Ravisankar et al., 2015).

1.3 Causes and Risk Factors

- **Heavy Load Bearing:** People who are frequently carrying heavy weights directly on top of the head or on the shoulders.
- **Asymmetrical Postures:** Performing professional work that forces the body into a one-sided bending position for extended period of time without shifting to the opposite side.
- **Poor Sleep Ergonomics:** Adopting improper sleeping positions or using excessively soft pillows and mattresses.
- **Awkward Recreational Postures:** Watching television in awkward angles that place continuous strain on the neck muscles.
- **Travel-Related Strain:** Sleeping in an upright, sitting position during long-distance travel.
- **Digital Device Strain:** Using the mobile phones for extended durations, repeatedly keeping the neck in a forward bending position.
- **Unsupportive Seating:** sitting without any proper support forces the spine to bend, creating constant mechanical pressure over the cervical area (Ravisankar et al., 2015).

II. LITERATURE REVIEW

Epidemiological evidence suggests that specific segments of the population face an elevated risk of developing cervical spondylosis as a result of distinct occupational demands, poor ergonomics, and modern lifestyle choices.

2.1 Individuals Engaged in Extensive Use of Digital and Multimedia Devices

The contemporary era of increased use of digital technologies has made advancement in computer and information systems, allowing the people worldwide to communicate effortlessly without any boundaries. As a result, digital platforms, electronic devices, internet connectivity, and virtual gaming have become foundational elements of contemporary society (Durak, 2020).

In spite of having many benefits to retrieve information through digital technologies, the increased use of it has significantly affected many aspects of human life. Socially, it has been associated with isolation, depression, and conflicts in families and psychologically, it has been linked to cyberbullying and addiction to internet use and online gaming. As a result, virtual space are more dominant part of daily life than physical surroundings (Durak, 2020).

Now, physical impact includes the “smartphone face” or “tech neck” in which people adopt poor ergonomic habits such as slouching, forward-leaning torso posture causing misalignment in cervical spine. The muscles, nerves and joints in this region gets strained and trigger pain in the neck, shoulder blades and radiates down the arms. This can also lead to structural deviation of the spinal column with over extended awkward and static posture. (Neupane et al., 2017).

2.2 Surgeons Exposed to Prolonged Operative Postures

Musculoskeletal pain is a common complaint among medical practitioners. Especially orthopedics, requires prolonged static standing while performing surgeries combined with physical manipulation leading to extreme exhaustion and bodily pains. An empirical study proves that there is 97% of musculoskeletal discomfort among orthopedics in a single day while performing surgery. The frequently affected parts are the neck, spine, feet and shoulders.

In an another study focusing on arthroplasty specialist the occupational musculoskeletal discomfort is associated with professional burnout, decreased personal happiness, increased irritability, sleeplessness and alcohol consumption. This state of burnout is strongly correlated with career dissatisfaction and severe psychological challenges, including an increase in clinical medical errors, major depression, and suicidal ideation (Brown et al., 2022).

2.3 Integrative Yogic Interventions for Physical and Psychological Stress

To systematically counteract these interconnected physical, psychological, and emotional crises—such as professional burnout, interpersonal isolation, clinical depression, and chronic irritability—the application of Karma Yoga, Bhakti Yoga, and Classical Yoga offers a holistic remedy.

Karma Yoga – *Karma* means to act, execute, or perform. It signifies any form of action—encompassing physical deeds, mental activity, spoken word, and exercise of will. According to Bhagavad Gita Karma Yoga acts as systematic moral and spiritual discipline. One of the most profound axioms of Bhagavad Gita is the sacred verse “*Karmanyevādhikāraste mā phaleṣu kadācana*” (Gītā 2.47). which says that every human being has the right to act but do not hold any right over the fruits of those actions. This is the core principal of karma yoga. An individual has to execute his duties without psychological attachment (*Niṣkāma Karma*).

According to Gita, attachment (*āśakti*) does not lead to healthy emotional connection, but rather an ego-driven attachment towards personal benefits, status or reward. This egoic attachment causes anxiety, restlessness, depression and moral disorientation (Gītā 2.62–2.63). So, the *Gītā* advocates detachment (*vairāgya*), an internal state of freedom where one performs duties without the fear of failure or a craving for praise.

Therefore, if we apply these principles of karma yoga in contemporary social and professional environments, it helps in building profound emotional resilience and encourages balanced, objective decision-making, psychological composure. Leaders and professionals who embrace this mindset consistently exhibit humility and maintain strong ethical integrity, even when confronted with severe professional challenges (Kumar, 2025).

Bhakti Yoga - Bhakti yoga is the path for emotional transformation. The individual who practices Bhakti yoga increasingly reside in a state of pure, unconditional devotion towards the divine. To access this unconditional love, he chants the names of his favorites deities such as Rama, Krishna, Durga etc. or he sings the devotional songs of the divine. In doing so, he completely forgets himself, the egoic self, the concept of “I” or “mine” and gets completely transcended to the universal love.

‘*Iśwarapranidhāni*’ - The practitioner completely surrenders himself, his entire existence to the divine. This helps him in affective transformation and profound behavioral changes. His life becomes steady by performing goodwill to all living beings, viewing and interacting with the world with unconditional love and doing selfless service. This becomes intrinsic aspect of his nature. He believes all human beings and external existence share the same divine origin – “*Vasudeva Kutumbakam*”, meaning the entire world is one interconnected family. (Varma, n.d.).

Classical Yoga - Classical yoga is originated in ancient India and it is widely practiced in western countries as holistic approach towards mental and physical wellbeing. Although it encompasses multiple dimensions, its main practices include physical posture (asanas), controlled breathing techniques (pranayama) and meditation (dhyana). There is scientific evidence about the therapeutic benefits of yoga, demonstrating the physical health, muscular strength, stamina and flexibility. Not only that there are also reductions in

stress, anxiety and depressive symptoms. And also improvement in better quality sleep and healthier social relationships.

Therapeutic yoga has been shown to be an effective approach in rectifying poor postural habits and structural misalignments. A study by Brown & Wellman (2022), empirical work by Rai & Yoga (2021) indicates that regular yogic practice can address the postural abnormalities and structural correction. This structural correction is achieved by increasing the strength of essential muscle groups and systematically enhance overall flexibility.

Supporting these findings, Selvakumar & Yoga (2019) found that development of joint flexibility through specific yoga practice is important for maintaining proper body alignment and reducing the risk of injury (as cited in Brown & Wellman, 2022). Furthermore, well-structured yoga programs, such as Sunjeevan Yoga, has shown to enhance bodily awareness and improve overall posture in body positioning (Pandit, 2020, as cited in Brown & Wellman, 2022). The physical recovery of yoga is further enhanced by its integrated mind–body approach. Alaguraja & Yoga (2017), as cited in Brown and Wellman (2022), reported that combining physical movements (asanas) with focused mental awareness (with deep breathing) helps in creating harmony between mind and body. This integration helps in improving the posture over long periods of time.

Overall, the above findings suggest that the combined practice of Karma, Bhakti Yoga and Classical yoga gives us a comprehensive therapeutic approach for cervical spondylosis. Together, they promote both physical well-being such as improved posture, flexibility, body alignment and psychological well-being such as stress, anxiety and depression.

III. OBJECTIVE

To construct an integrative conceptual framework that synthesizes biomedical understanding of cervical spondylosis with yogic philosophical constructs and therapeutic applications.

To provide a theoretical and clinical model that can guide interdisciplinary rehabilitation strategies combining yoga with psycho-spiritual approaches.

IV. DISCUSSION

Role of Bhakti, Karma and Classical yoga in overall well being

Bhakti yoga - Bhakti Yoga and performing pooja rituals have been recognized for their capacity to enhance mental, physical, and spiritual well-being. According to Venkatesh et al., 2025, Bhakti yoga helps in stress reduction, emotional regulation, mental health benefits and musculoskeletal health. Chanting, singing devotional songs, praying helps in activating the parasympathetic nervous system, reduces the cortisol levels and promotes relaxation. The act of surrender in Bhakti yoga, “*Ishwarapranidhanani*” nurtures positive emotions like love, compassion and gratitude thus enhancing the emotional regulation. A 2021 study reveals the reduction in anxiety levels after practicing Bhakti yoga for 8 weeks thus supporting mental health benefits (Verma). While performing Pooja, physical activities we perform, sitting in asana, the namaskar mudra and doing sashtanga namaskara will all help in reducing muscle stiffness in lower back, pelvic muscles and increases the mobility in all joints of body thus promoting the musculoskeletal health.

Karma yoga - “Sri Krishna tells Arjuna that he who controls the senses— passionately beats them down into submission and reins them in, as we do a horse— and sits meditating on Him, self-controlled, is a man established in samadhi.”(Gandhi, 1980). Rastogi and Pati (2015) say that the karma yogi has to make conscious effort in controlling his sensory inputs in senseless indulgence. If left unchecked, it can lead to restlessness of mind, agitates the nervous system and clouds the decision making. “Worldly people are generally elated by success and depressed by failure. Elation and depression are attributes of mind. If you want to become a real Karma Yogi in the right sense of the term, you will have to keep a balanced mind at all times, in all conditions and under all circumstances.” (Sivananda, 1995). A person who is in the state of equipoise (sthithapragnya) is undisturbed by happiness or sadness. He is always in the state of equilibrium.

He makes continuous effort to remain mentally equipoised and tolerates the sensory distractions. So, he is always in the state of psychological equilibrium with focused, stable mind and great intellect. (Rastogi and Pati (2015))

Classical yoga – “Yoga is the science of deep breathing, concentration, meditation and self-control” (Roy,1910, p.114). it consists of physical exercises(asanas), breathing exercises(pranayama) and relaxation techniques such as shavasana, yoga nidra. By practicing yoga every day, the body is physically active, mind is focused and stress is reduced. It helps in strengthening the muscles of our arms, back, legs and other parts. In a study conducted among daily yoga practitioners, Pandey (2021) reported that musculoskeletal problems like back pain, muscle pain, joint pain and neck pain is reduced by 33.3. percent. Thyroid, throat problems, anxiety issues, fear and stress are cured 100 percent, headache or migraine problems are cured 70.59 percent. (Pandey, 2021).

V.CONCLUSION

Cervical spondylosis is not merely a degenerative cervical spine disorder but a multidimensional health condition affecting physical functioning, psychological stability, and emotional balance. Traditional management strategies focusing exclusively on structural pathology provide incomplete relief and may fail to address the cyclical interaction between pain, stress, and emotional disturbance.

The conceptual framework proposed in this paper integrates biomedical understanding with Classical Yoga, Karma Yoga, and Bhakti Yoga to create a holistic model of care. Physical rehabilitation through postural correction and muscle strengthening is complemented by psychological resilience cultivated through action without attachment and emotional transformation fostered through devotion and surrender.

By harmonizing body, mind, and emotion, this integrative model moves beyond symptomatic management toward comprehensive well-being. It offers a patient-centered, ethically grounded, and philosophically informed approach that can guide interdisciplinary rehabilitation strategies. Future empirical validation of this framework may establish it as a structured integrative model for chronic musculoskeletal disorders, contributing meaningfully to both rehabilitative science and yogic therapeutic research.

The conceptual framework proposed in this paper highlights a cyclical mechanism:

- Physical pain → psychological stress and maladaptive cognition
- Psychological distress → emotional instability
- Emotional disturbances → increased muscle tension and altered pain perception
- Increased pain → further disability and psychological burden

VI. REFERENCES

- [1] Brown, S., & Wellman, J. (2022). Yoga as a therapeutic intervention for cervical spine stress in medical professionals. *Journal of Orthopedic Ergonomics*, 14(2), 112–119.
- [2] Brown, S., Smith, J., & Davis, R. (2022). Musculoskeletal pain, ergonomics, and burnout among practicing orthopedic surgeons and residents. *The Journal of Bone and Joint Surgery*, 104(12), 1055–1063.
- [3] Durak, H. Y. (2020). Modeling of variables related to digital disease types: Smartphone addiction, netlessphobia, and phubbing. *Current Psychology*, 39(6), 2169–2182.
- [4] Gandhi, M. K. (1980). *The Bhagavad Gita*. Orient Paperbacks.
- [5] Kumar, R. (2025). Leadership and emotional resilience: The contemporary application of *Niṣkāma Karma* in professional spaces. *International Journal of Vedic Studies*, 8(1), 45–58.
- [6] Neupane, S., Ali, U. T. I., & Mathew, A. (2017). Text neck syndrome: Systematic review. *Imperial Journal of Interdisciplinary Research*, 3(7), 141–148.

- [7] Pandey, N. (2021). A study on the impact of yoga on daily yoga practitioners. *The Journal of Madhyabindu Multiple Campus*, 6(1), 67–77.
- [8] Rastogi, A., & Pati, S. P. (2015). Towards a conceptualization of Karma Yoga. *Journal of Human Values*, 21(1), 51–63. <https://doi.org/10.1177/0971685815579985>
- [9] Ravisankar, P., Manjusha, K., Laya Sri, V., Rajya Lakshmi, K., Vijay Kumar, B., Pragna, P., Avinash Kumar, K., & Srinivasa Babu, P. (2015). Cervical spondylosis – Causes and remedial measures. *Indo American Journal of Pharmaceutical Research*, 5(8).
- [10] Roy, B. K. (1910). Hindoo missionaries in America. *New Thought Magazine*, 19(3), 109–115.
- [11] Sivananda, S. (1995). *Practice of Karma Yoga*. The Divine Life Society.
- [12] Varma, K. (n.d.). *The psychology of Bhakti Yoga: Emotional transformation and the psychic being*. Sri Aurobindo Ashram Publications.
- [13] Venkatesh, U. S., Kumar, A., Kaur, R., Upadhyay, V. K., Dixit, R., Kumar, S., Bali, S., Kumar, B. S., & Krishna, K. V. V. S. (2025). Exploring the role of Bhakti and Pooja practices in enhancing mental, physical and spiritual health well-being. *International Journal of Pharmaceutical Sciences*, 3(1), 250–264. <https://doi.org/10.5281/zenodo.14604928>
- [14] Verma, A. (2020). Breathing techniques in Bhakti: A respiratory perspective. *International Journal of Breath Science*, 14(2), 56–64.

