



Yoga and Positive Psychology as a Practice Tool in the Biological Processes

Shashi Gupta¹, Research Scholar,
Guide Dr. Sandeep Dongore¹,

¹DEPARTMENT OF YOGA AND NATURAL HEALTH SCIENCE
SJJTU, Jhunjhunu.

Abstract

The background of this paper was Yoga and Positive Psychology as a practice tool in the biological processes. The paper aimed to review the concept of biological processes and the interconnection of these physical processes with the mental wellbeing of an individual. This qualitative analysis also reviewed the importance of yoga and the growing field of positive psychology being adapted by multiple health care organisations and practitioners as a practice tool for the betterment of both physical and mental health. This research paper analysis was that yoga and adaptation of the components of positive psychology in an individual's lifestyle can help in boosting physical wellbeing. Yoga has proved to be a good treatment plan in ailments of many health problems and heart diseases.

Keywords: Biological processes, yoga, positive psychology, wellbeing, cardiovascular diseases

Introduction

Humans as living beings work on the mechanism of biological processes that take place within them. These biological processes can simply be defined as processes that help living organisms to survive and mould their abilities to interact with their surrounding environment. The fundamental processes of any life form incorporate organisation, metabolism, responsiveness, movements and lastly reproduction. But humans who represent the foremost complex form of life, have extra necessities apart from these basic processes, for instance development, respiration, digestion and the excretion process. All of these biological processes are intertwined. Every bit and part of the human body, starting from the tiny cell to the whole-body structure, works in a harmonious rhythm. This rhythm of functioning of the human body is very much essential for a stable balance, resulting in the healthy living of a person. Life threatening disease like cancer and person's death is the cause of disturbance in these biological processes (SEER Training Modules, 2022).

Mental wellbeing and physical wellbeing are closely integrated. Analysis has reported consonant interdependent link between deficient mental wellbeing (as depression, anxiety, stress) and expanded threat of intractable health disorders and maladies like overweight, hyperpnea, diabetes mellitus and cardio-respiratory disorders. Furthermore, people recognised with health-related issues are reported to be more prone to mental issues (Luppino et al., 2010), which might be a contributor to their future health issues (Moussavi et al., 2007). The traces left behind by the ancient Indian civilization shows that people of that era had better mental and physical wellbeing in comparison to the present civilization. The major cause of this healthy wellbeing of ancient people was their positive and healthy mind, uses of

yogic practices and their lifestyle which helped them to be resilient to mental and physical illness. Today, with the increasing threat of mental and health issues has led us to adapt those ancient yogic and psychological practices to deal with this ever-growing problem. Today, yoga is progressively being applied in yoga clinical for a wide array of psychological and physiological health problems, especially problems related to stress and worries, and has displayed a very promising viability (Riley & Park, 2015). At present, not only yoga that's being practised for the well-being of health but also psychology is being more popularised among people in maintenance of healthy wellbeing. Most of the research examines the pair of mental and physiological wellbeing from the angle of disease by concentrating on the ill physical or impeding performance of physiological health.

Yoga is not a newly developed practice; its roots are attached to the ancient era. Yoga is a very old mind-body application which comprises breathing techniques, various body stances and traditional practice of meditation. Whereas, Positive psychology is a newly introduced field in psychology, it centres upon the examination of human development and capacities, it offers few similitudes with the fundamental standards of yoga as a behavioural application to upgrade an individual's production and involvement (Butzer et al., 2016).

Yoga practised in this modern era sums up numerous prospects of yoga which permit every individual to acknowledge alterations in life; this encompasses various components for instance: YAMA (ethical code). Few of these components of yoga are interlinked with the theories that have successfully grabbed the focus on hypotheses and research basis in the field of positive psychology. For instance the two major elements of yoga, Yama and Niyama which are defined as self-restraint, will power and self-consciousness can be perceived as associated with the idea of 'flow' in positive psychology. The concept flow means being completely engrossed or consumed to the present minute. Although in the practice of flow an individual is detached from his own self but remains conscious of the present minute and is able to balance the optimum degree of command in the task completion (Csíkszentmihályi, 2008). In the course of practising yoga, one is capable to escalate self-awareness and focus and is able to reach mindfulness and state of meditation. Likewise, in positive psychology, it strives to escalate mindfulness and at the same time also improves wellbeing and generates self-awareness and makes one aware of their surrounding environment, as well as regulates mind and emotions (Levine, 2000).

From past few years, it's been observed that there is hike in disorders like progeria (premature ageing syndrome), heart and blood vessel diseases (heart disease), multiple sclerosis (cerebral palsy, poliomyelitis, paralysis, debilitation, debility, decrepitude etc.), fibrosis's (Chronic Fatigue Syndrome), prehensile dementia (Alzheimer). Along with medicines, experts have established that practice of yoga, mind-body therapy can be a useful substitute for the medication method (Mohammad et al., 2019). In numerous researches it has appeared that yoga boosts the redox wellbeing of physical health whose instability has been well demonstrated to be a reason for various health problems. The effect of yoga on autoimmune or monogenic disorders has displayed that it back-pedal memory loss, decreases uneasiness, sadness and tension or stress, all being the symptoms of acute and chronic disorders (Mohammad et al., 2019). Evidence has been found that along with yoga, and the awareness and adaptation of the elements of positive psychology helps in balancing the physical wellbeing of an individual. The central core of positive psychology which is named PERMA, which encapsulate five poles of well-being of an individual i.e. positive sensations or emotions, commitment, connections or relationships, meaning and achievement (Butzer et al., 2016). There is amassing proof which justifies that positive emotions bestow advantage to a person far more than just the internal attitude of feeling joy or happiness. Higher degrees of the positive influence are linked with way better circumstantial and future healthy wellbeing possibilities (Pressman et al., 2005), regardless of many other studies and well known impact on wellbeing are considered. There are few probable passageway through which well-being of

positive psychology may bestow superior wellbeing possibilities; the positive impact of the elements of positive psychology has been related with sound ways of life; which can be a general heredity substratum that impacts positive affect and wellbeing or health; exchangeable, positive influence can be a pseudonym scale for many other psychosocial components which impact wellbeing of an individual, for instance social back or support and different coping techniques. There's moreover emerging proof that there's a coordinate passageway between positive influence and wellbeing, including decreased psychophysiological stimulation of neuroendocrine, autonomous, resistant and fiery passageways (Dockray & Steptoe, 2010). Wong (2011) proposed that components of positive psychology circulate around the differentiation between assimilation of happiness and meaning of life, which was termed as hedonic motivation, that may be a guide to different prognosis regarding one's basic principles, life pathways and decisions, ultimate concerns, style of living, unique attributes and all this eventually leading to health or wellbeing (Ivtzan & Papantoniou, 2014). In this review paper, we will try to understand the application of yoga and positive psychology as tools in understanding and examining biological processes.

Literature Review

The most prominent health issues that world population is facing today are the threat of chronic disorders. The range of these long term disorders, numerous debilitating states, and the economic pressure that they force, have been rigorously reported (Derryberry, 2004). According to the past collected data, the major cause of health problems today are linked with psychological issues like stress, anxiety, depression and many more due to unhealthy and stressful lifestyle and socio-environment. Various researches and studies have proved that mind and body are connected with each other and work in an alignment. Misbalance in mental health can lead to poor physical health and can be the onset of many life threatening disorders. To aid this growing rate of various health issues, clinicians and health practitioners have started the application of traditional yoga and psychological therapies to help individuals to maintain a healthy mind and body.

Yoga and Positive Psychology as a practising tool in Biological Processes:

Yoga is centred on the 'internal' happening that takes place within an individual. The legitimate practice of yoga demands self-analysis (introspection), meditation (reflection), intense application of one's self. It's a bridge that connects an individual to his thoughts, emotions, principles, assumptions, allowing oneself to explore deeper and his actual self. In accordance with this concept it's difficult to perceive yoga and psychology as two different entities. In any case, as near as the association is between yoga and psychology, it is indeed more closely connected to the subfield of positive psychology (Ackerman, 2022). The bond between yoga and positive psychology is very well built; however at the beginning, the yoga began with little difference, but now has become a very general practice adapted in the West as a set out to improve health (Ivtzan & Papantoniou, 2014). Plenty of research has been organised on the effect of yoga on psychological health. The overall conclusion is that yoga has various positive impacts on one's psychological health that is far beyond from the impacts of other low- to- medium- effects of physiological activities and these effects are probable due to the chemical reactions in the brain (Grazioplene, 2012).

Today, one of the causes of health problems is 'Stress'. Aldwin(2007) proposed that stress generally means, 'the type of events experienced by an individual, caused from interaction between individual and his environment, from either over arousal or can be due to under arousal, resulting which individual suffers from psychological or physiological stress' (Riley & Park, 2015). Stress is interpreted as a state of where there is a huge discrepancy between the expected responsibility of an individual and capability of an individual to fulfil those responsibilities (Bloom et al., 1985). It been reported to be one of major cause of many mental disorder, is found to be related to depressive episodes and also to be one of the main

causes of temporality and prevalence of cardiovascular disease (Karasek et al., 1981; Wang, 2005).

Recent analysis on the 'effect of yoga on stress' shows that around 25 of 35 issued articles presented a remarkable decrease in degree of stress after the practice of yoga (Li & Goldsmith, 2012). Many aspects of psychology have been introduced as a pathway through which yoga reduces stress.

The sacred holy book of Hindu, Bhagwat Gita promotes us to do work without thinking of its outcome. When we attach ourselves with the outcome it results in a rise of stress, rivalry, and anger or even hatred. These negative emotions of stress gives birth to heart problems, mood disorders like depression and suicidal tendencies. Positive psychology in aid to these negative emotions works upon the components and elements that lead an individual to pleasant and satisfactory life (Kumar & Kumar, 2013). Positive psychology is being highly popularised in the therapy and diagnosis of health problems. Positive psychology unlike other fields of psychology, works upon the positive aspects to balance a healthy wellbeing. As it has been evidently proved that a healthy mind leads to a healthy body therefore, positive psychology works upon the positive effect which can help an individual to a peaceful mind resulting in a stress free mind and protecting the body from various acute and chronic diseases. Positive psychology studies how happiness and well-being can be enhanced. It includes empirical research and study concerning the individual strengths and social-environment in the advancement of satisfactory wellbeing. The central pillars of positive psychology are happiness (contentment), hope (desire), creativity (originality) and wisdom (insight) (Carr, 2013). Understanding and promoting the concept of happiness and the wellbeing of an individual are the central core of positive psychology (Seligman, 2002). Identification of the contributory factors of happiness is not an easy task (Diener, 2000; Diener & Suh, 1999). Positive psychology is focused on two variants of well-being i.e., Eudaimonic and Hedonic. Positive feelings and emotions like happiness and satisfaction, comes under hedonic wellbeing, it works upon the aspects that make life pleasant or unsatisfactory (Diener et al., 1999; Kahneman et al., 1999). Although both concepts of wellbeing are distinct in nature but in the process of operationalization of positive affect in research both wellbeing compliments each other. The option which measure to use for analysis might be dependent on the conceptual model which being examined, in consideration of how they are link to the biological systems, the benefits and drawbacks should be kept in consideration (Kashdan et al., 2008; Scollon et al., 2009). There is a possibility that the sum of hedonic mood measures are also the eudemonic proxy measures (Diener, 2009). But, that doesn't mean they both lead to same biological pathway, hedonic wellbeing and Eudaimonic wellbeing can have distinct or can have same impact on biological pathways (Ryff et al., 2004) and keeping up the contextual and practical qualification between both the wellbeing might be essential in comprehending the real nature of affiliation of positive wellbeing and biology (Dockray & Steptoe, 2010). The impulse to analysis the biological relates of the positive impact arise from the relation of positive wellbeing with physical wellbeing, and research and studies has proven that mental health is connected to physical wellbeing. Changes in the cardiovascular mechanism, particularly in exhalation of heart beat and blood pressure, signifies ordinary reactions to challenge. The passage to bridge the positive impact and cardiovascular mechanism is resolved by the kind of emotional depth experienced by an individual. Some of the positive impactful conditions are, happiness, that signifies the condition of electrification (arousal), results in rise of activities in cardiovascular system, particularly the heat beats and blood pressure, accordingly many other positive emotions, for instance contentment with one's life, may be related lower cardiovascular reactivity. Therefore, the intensity of arousal and degree of feeling or emotion is an important benefactor of positive affect and the activation of biological processes (Dockray & Steptoe, 2010).

Practice of mindfulness is a progressively well-known therapeutic approach for diagnosing physiological problems and mental disorders. Using therapeutic approaches with instruments recognizable to cognitive behavioural practitioners, the disciples and use of mindfulness provides assurance for introducing various fundamental components of positive psychology. It is suggested that the intervention of mindfulness stimulates positive alteration by reinforcing metacognitive skills and by altering schemes related to feelings, wellbeing and health problems (Hamilton et al., 2006).

Conclusion

Existence of living organisms from single cell organisms (bacteria) to complex forms (humans) is dependent upon biological processes. Biological processes enable living organisms to survive and mould their abilities to interact with their environment. Studies have shown these biological processes are intertwined with the psychological processes and both are interdependent on each other. Present-day, we are at threat of pre-existing and new variants of acute and chronic disorders. According to the analysis, the practising of traditional yoga and adapting the components of positive psychology in an individual's lifestyle can help in boosting physical wellbeing. Many clinician and healthcare practitioners have started the application of yoga and positive psychology in therapeutic intervention, which has shown promising results in ailment of many health problems like cardiovascular diseases and asthma. Today yoga and positive psychology has become popularised intervention tools for biological processes.

References

1. Bhavanani, A. B. (2011). Understanding the science of yoga. *Int. Sci. Yoga J*, 1, 334-344.
2. Bloom, B. S., Knorr, R. S., & Evans, A. E. (1985). The epidemiology of disease expenses: The costs of caring for children with cancer. *Jama*, 253(16), 2393-2397.
3. Bonura, K. B. (2011). The psychological benefits of yoga practice for older adults: Evidence and guidelines. *International Journal of Yoga Therapy*, 21(1), 129-142.
4. Buffart, L. M., van Uffelen, J. G., Riphagen, I. I., Brug, J., van Mechelen, W., Brown, W. J., & Chinapaw, M. J. (2012). Physical and psychosocial benefits of yoga in cancer patients and survivors, a systematic review and meta-analysis of randomized controlled trials. *BMC cancer*, 12(1), 1-21.
5. Butzer, B., Ahmed, K., & Khalsa, S. B. S. (2016). Yoga enhances positive psychological states in young adult musicians. *Applied psychophysiology and biofeedback*, 41(2), 191-202.
6. Carr, A. (2013). *Positive psychology: The science of happiness and human strengths*. Routledge.
7. Csikszentmihalyi, M., & Csikszentmihaly, M. (1990). *Flow: The psychology of optimal experience* (Vol. 1990). New York: Harper & Row.
8. de Melo Reis, R. A., Isaac, A. R., Freitas, H. R., Macedo de Almeida, M., Schuck, P. F., Ferreira, G. C., ... & Hara Trevenzoli, I. (2021). Quality of life and a surveillant endocannabinoid system. *Frontiers in Neuroscience*, 1409.
9. Derryberry M. (2004). Today's health problems and health education. 1954. *American journal of public health*, 94(3), 368–371. <https://doi.org/10.2105/ajph.94.3.368>
10. Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American psychologist*, 55(1), 34.
11. Dockray, S., & Steptoe, A. (2010). Positive affect and psychobiological processes. *Neuroscience & Biobehavioral Reviews*, 35(1), 69-75.

12. Grant, N., Wardle, J., & Steptoe, A. (2009). The relationship between life satisfaction and health behaviour: a cross-cultural analysis of young adults. *International journal of behavioral medicine*, 16(3), 259-268.
13. Hamilton, N. A., Kitzman, H., & Guyotte, S. (2006). Enhancing health and emotion: Mindfulness as a missing link between cognitive therapy and positive psychology. *Journal of Cognitive Psychotherapy*, 20(2), 123.
14. <https://positivepsychology.com/benefits-of-yoga/>
15. Innes, K. E., Bourguignon, C., & Taylor, A. G. (2005). Risk indices associated with the insulin resistance syndrome, cardiovascular disease, and possible protection with yoga: a systematic review. *The Journal of the American Board of Family Practice*, 18(6), 491-519.
16. Ivtzan, I., & Papantoniou, A. (2014). Yoga meets positive psychology: Examining the integration of hedonic (gratitude) and Eudaimonic (meaning) wellbeing in relation to the extent of yoga practice. *Journal of bodywork and movement therapies*, 18(2), 183-189.
17. Jerath, R., Edry, J. W., Barnes, V. A., & Jerath, V. (2006). Physiology of long Pranayamic breathing: neural respiratory elements may provide a mechanism that explains how slow deep breathing shifts the autonomic nervous system. *Medical hypotheses*, 67(3), 566-571.
18. Karasek, R., Baker, D., Marxer, F., Ahlbom, A., & Theorell, T. (1981). Job decision latitude, job demands, and cardiovascular disease: a prospective study of Swedish men. *American journal of public health*, 71(7), 694-705.
19. Kubzansky, L. D., Boehm, J. K., & Segerstrom, S. C. (2015). Positive psychological functioning and the biology of health. *Social and Personality Psychology Compass*, 9(12), 645-660.
20. Kubzansky, L. D., & Thurston, R. C. (2007). Emotional vitality and incident coronary heart disease: benefits of healthy psychological functioning. *Archives of general psychiatry*, 64(12), 1393-1401.
21. Kumar, A., & Kumar, S. (2013). Karma yoga: A path towards work in positive psychology. *Indian journal of psychiatry*, 55(Suppl. 2), S150.
22. Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: Foundations of hedonic psychology*. Russell Sage Foundation.
23. Lee, O. Y. (2006). Psychosocial factors and visceral hypersensitivity in irritable bowel syndrome. *The Korean journal of gastroenterology= Taehan Sohwagi Hakhoe chi*, 47(2), 111-119.
24. McCorry, L. K. (2007). Physiology of the autonomic nervous system. *American journal of pharmaceutical education*, 71(4).
25. Mohammad, A., Thakur, P., Kumar, R., Kaur, S., Saini, R. V., & Saini, A. K. (2019). Biological markers for the effects of yoga as a complementary and alternative medicine. *Journal of Complementary and Integrative Medicine*, 16(1).
26. Mol, S. S., Arntz, A., Metsemakers, J. F., Dinant, G. J., Vilters-Van Montfort, P. A., & Knottnerus, J. A. (2005). Symptoms of post-traumatic stress disorder after non-traumatic events: Evidence from an open population study. *The British Journal of Psychiatry*, 186(6), 494-499.

27. Ospina, M. B., Bond, K., Karkhaneh, M., Tjosvold, L., Vandermeer, B., Liang, Y., & Klassen, T. P. (2007). Meditation practices for health: state of the research. *Evidence report/technology assessment*, (155), 1-263.
28. Post, R. M. (1992). The psychobiology of dysphoric mania. *Clinical neuropharmacology*, 15(Part A), 624A-625A.
29. Pressman, S. D., & Cohen, S. (2005). Does positive affect influence health? *Psychological bulletin*, 131(6), 925.
30. Riley, K. E., & Park, C. L. (2015). How does yoga reduce stress? A systematic review of mechanisms of change and guide to future inquiry. *Health psychology review*, 9(3), 379-396.
31. Seligman, M. E. (2002). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.
32. SEER Training Modules, Cancer registration & Surveillance Modules. U. S. National Institutes of Health, National Cancer Institute. 21, April. 2022 <<https://training.seer.cancer.gov/>>.
33. Smith, K. B., & Pukall, C. F. (2009). An evidence-based review of yoga as a complementary intervention for patients with cancer. *Psycho-Oncology: Journal of the Psychological, Social and Behavioural Dimensions of Cancer*, 18(5), 465-475.
34. Telles, S., Sayal, N., Nacht, C., Chopra, A., Patel, K., Wnuk, A., & Anand, A. (2017). Yoga: Can It Be Integrated with Treatment of Neuropathic Pain. *Integrative Medicine International*, 4(1-2), 69-84.
35. Tomb, D. A. (1994). The phenomenology of post-traumatic stress disorder. *Psychiatric Clinics*, 17(2), 237-250.
36. Vancampfort, D., Vansteelandt, K., Scheewe, T., Probst, M., Knapen, J., De Herdt, A., & De Hert, M. (2012). Yoga in schizophrenia: a systematic review of randomised controlled trials. *Acta Psychiatrica Scandinavica*, 126(1), 12-20.