Yoga and Psychological Well-being in the Post Pandemic Scenario – A Descriptive Study

Dhivya Priya Bhavanani, Ananda Balayogi Bhavanani, Padmashanti Nilachal & Rajasekaran Balaji

Institute of Salutogenesis and Complementary Medicine, Sri Balaji Vidyapeeth, Puducherry

COVID-19 pandemic negatively impacted the psychological wellness of people worldwide. Yoga is reported to have a holistic impact on various psychological parameters, enhancing overall wellbeing. It empowers individuals to establish inner balance including physical, psychological, social, and at spiritual levels. This study is aimed to evaluate relationship between practice of Yoga and Psychological Wellbeing among various individuals during post pandemic scenario. For this, an online survey using non-probability convenient sampling was conducted using the snowball technique and the primary data was gathered from 215 participants. 109 respondents were regular Yoga practitioners, with 85% having over five years' experience. Remaining 106 had no recent experience with Yoga in last five years. Regular Yoga practice led to higher Psychological Wellbeing scores, with median total scores of 101 (range of 67,122) as compared to 88 (range of 50,114) in non-yoga practitioners. Differences were statistically significant (p< 0.001) in domains such as autonomy, environmental mastery, personal growth, positive relations, and self-acceptance. This study provides evidence that Yoga practice improves Psychological Wellbeing, combating post-pandemic stress, and suggests widespread adoption for cost-effective self-care for the betterment of humanity.

Keywords: Yoga, Psychological Well-Being, Pandemic, Wellness, Covid-19

Coronaviruses are a complex category of viruses that infect a wide range of animals and can cause mild to severe respiratory illnesses in humans (Yuki et al., 2020). SARS-CoV and MERS-CoV, which cause fatal respiratory infections, first appeared in humans in 2002 and 2012 (Singh et al., 2021). In 2019, SARS-CoV-2 emerged, leading to the COVID-19 pandemic, posing a new public health concern. SARS-CoV-2, a novel coronavirus, arose in the Chinese city of Wuhan at the end of 2019 and triggered an outbreak of unusual viral pneumonia. COVID-19, a highly transmissible virus, rapidly spread globally, posing an extraordinary public health threat. The respiratory system was severely damaged by COVID-19, even resulting in death (Ruan, 2020). However, not only our physical health was compromised but other dimensions of health were also severely affected. Mental health all over the globe was severely affected during this pandemic. The COVID-19 pandemic triggered a concomitant mental health pandemic worldwide leading to fear, anxiety, and depressive states in most of the population (Pappa et al., 2020; Saladino et al., 2020). Therefore, there was a need of psychological wellbeing, which is defined as the most favourable functioning of a human being, resulting in positive emotions, happiness, and satisfaction. Psychological well-being is not just contentment or positive emotions, but rather multidimensional (Ryff & Keyes, 1995).

During and after the pandemic there were many issues which people of all ages faced (Samsudin et al., 2021). Due to quarantine and social distancing, individuals exhibit emotional instability, irritation, insomnia, depression, and post-traumatic stress symptoms following the pandemic (Brooks et al., 2020; Pappa et al., 2020). This leads to a long-term impact of anxiety, anger, depression, alcohol abuse, and behavioural changes such as avoiding crowds and washing hands cautiously. In addition, COVID-19 survivors had much inferior quality of life after the pandemic (Rogers et al., 2020; Woodyard, 2011).

Yoga plays an indispensable role in the management of holistic health, and it played a vital role during the pandemic (Büssing et al., 2012; Nagendra, 2020). In that situation, practicing various tools and principles of Yoga helped a large majority of population (Büssing et al., 2012; Bhavanani, 2017). Originated in India, Yoga is a nonpharmacological mind-body medicine that encourages healthy living through Asanas (postures), Pranayama (awareness based yogic breathing) and Dharna-Dhyana (concentration and meditation) practices along with many life-style modification practices like Aahar-Vihar and Achar-Vichar. Yogic practices have the potential to boost the body's immunity and provide a disease-free homeostatic state (Visweswaraiah & Telles, 2004). During the pandemic, Yoga not only improved infection and reduced symptoms in pulmonary diseases but also helped in the management of various mental disorders (Basu-Ray et al., 2022; Venugopal et al., 2022). India experienced significant adverse outcomes during COVID-19, including stress, anxiety, depression, and sleep disturbances (Singh et al., 2021). People practicing Yoga showed positive results in both physical and mental dimensions. Practicing Yoga improved pulmonary function to a greater extent along with reduction in local inflammation (Venugopal et al., 2022) along with significant reduction in anxiety and depression level in COVID-19 patients (Jenefer Jerrin et al., 2021).

Yoga has proved to be beneficial in the effective management of COVID-19 during pandemic and it continued to show its effects during the post pandemic scenario as well (Basu-Ray et al., 2022; Kathirvel, 2020). Salutogenic approach of Yoga makes it unique, individualized, and holistic (Jenefer Jerrin et al., 2021). Stress-related psychosocial factors can increase inflammatory responses, which can lead to tissue damage and even death, and lower immunity to infections. Yoga can mitigate this by increasing vagal stimulation (Hendriks et al., 2017). Therefore, making Yoga, an excellent evidence-based therapeutic tool for the management of post-covid syndrome, thereby promoting physical, mental, and social well-being. To understand this relationship better the following study has been conducted. This study was undertaken with the aim of evaluating the relationship between practice of Yoga and Psychological Wellbeing among various individuals during the post pandemic scenario.

Aim:

To evaluate the relationship between practice of Yoga and Psychological Wellbeing among various individuals during the post pandemic scenario.

Hypotheses:

Practitioners of Yoga would have better Psychological Well-Being than non-practitioners in the post pandemic scenario.

Method

Techniques:

An online survey was done using nonprobability convenient sampling, and the snowball technique was adopted to acquire primary data.

Sample:

This study included 215 participants, including 109 regular Yoga practitioners, with the majority (85%) having more than five years of experience. The remaining 106 have no recent Yoga experience in the last five years.

Measures:

To determine the psychological well-being of the participants, the 18-item version of the Ryff Scale was utilized. This theoretically grounded instrument assesses the multiple facets of psychological well-being and happiness namely autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance.

This questionnaire consists of a Likert scale of 1 to 7 displaying the response options and checking the rate of agreement or disagreement with the statements provided. A higher score indicates a higher level of psychological well-being. Each of the six domains yields a final score for that respective domain. The final scores of the domains yield a total score ranging between a minimum of 18 to a maximum of 126 points determining the psychological well-being of the participant (Ryff & Keyes, 1995). Psychological

well-being comprising of six core dimensions measured by this scale are as follows:

Self-acceptance: It is the enduring a positive attitude toward one's own self that enables acceptance of their good and bad qualities. It helps one to accept one's past and present in a positive manner.

Positive relations with others: Reference to the effort to establish trustworthy, satisfying, and heartful interpersonal relationships with others. The main characteristics include empathy, affection, intimacy, concern, and welfare for others.

Autonomy: The ability to regulate the way of thinking and behaving in particular ways from within possessing high self-determination and independent nature. Evaluation is done on oneself based on their own standards of what is acceptable or not.

Environmental mastery: The sense of mastery over and competence with one's own environment further fosters the capacity to choose, create or control opportunities suiting one's needs.

Purpose in life: The understanding of the meaning of one's own existence in this world along with the required set of goals to achieve, the direction of travel, and finalizing objectives for better living.

Personal growth: The comprehension that one is growing and expanding at all levels of being to accept breakthroughs, new experiences, perceived improvement, attainment of higher self-knowledge, and realization of one's own

potential. This feeling should continue for more expansive and effective growth on a continuum.

Each of the above dimensions indicates the meaning of a high well-being score in that respective part. There are six corresponding meanings for low scores as well, mostly the opposite of the above.

Procedure:

To collect primary data, an online survey was conducted utilising non-probability convenient sampling using the snowball technique. This information was gathered from the participants via Google Forms, which were distributed via social media platforms. The required instructions were provided, and participant's consent was obtained before the questionnaire presentation for this study.

Data Analysis:

Statistical analyses of total scores and those of all six domains in both groups were done using JASP statistical software (version 0.16.4). As the data failed to pass the normality testing by Shapiro–Wilk method, p values were calculated by applying the Mann-Whitney U-test between groups.

Results

The results are depicted in Table 1.

From this descriptive study and Table 1, it can evidently be noticed that the Psychological Well-Being scores were higher among those practicing Yoga on a regular basis. With the non-parametric method being followed, the median (IQR) total scores in Yoga and non-Yoga

Table 1: Comparisons between Yoga (n=109) & non-Yoga (n=106) groups by Ryff test for Psychological Well-Being in six domains, namely: Autonomy (D1), Environmental Mastery (D2), Personal Growth (D3), Positive Relations with Others (D4), Purpose in Life (D5) & Self-Acceptance (D6).

	D1	D2	D3	D4	D5	D6	Total
Yoga	17	17	19	17	15	18	101
(n=109)	(6,21)	(7,21)	(9,21)	(6,21)	(7,21)	(8,21)	(67,122)
Non-Yoga	15	14	16	13.5	14	15	88
(n=106)	(5,21)	(5,21)	(6,21)	(5,21)	(7,21)	(5,21)	(50,114)
p Value	0.021	< 0.001	< 0.001	< 0.001	0.131	< 0.001	< 0.001

Data for 215 participants expressed as median (range of min, max) and actual p values given by Mann-Whitney U-test between groups.

groups were 101 (67 to 122) and 88 (50 to 114) respectively. The difference between the two groups was statistically significant (p< 0.001). Each of the following domains had statistically significant differences namely, autonomy (p< 0.05), environmental mastery (p< 0.001), personal growth (p< 0.001), positive relations with others (p< 0.001), and self-acceptance (p< 0.001). In the purpose of life domain, there was a small, statistically non-significant difference.

Discussion

In the practice of Yoga, the most pursued ones are Asana, Pranayama, and Dhyanam. Regular practice of Yoga enables the development of a characteristic comprising positivity, independence, and self-determination. It additionally helps to increase resistance against social and external pressures. A wholesome attitude of what one is thinking, saying, and enacting is governed. Hence, the higher score in the autonomy domain for the Yoga group members is evident.

The higher score for the Yoga group members in the Environmental Mastery domain too is understandable as both the practice and philosophy of Yoga enable either the development or improvement or both with a sense of management through complete mastery and competence of the environment. Specially, Pranayama helps to take control and appropriately make effective usage.

Yoga enables continuous growth inside and out in every being. Being a Yoga practitioner and open to new experiences helps one to realize their potential and cultivate new attitudes and behaviours for the better. The goal of Yoga speaks well for the higher score for Yoga group members in the Personal Growth domain as it is self-actualization (Samadhi). Yoga leads to spirituality. It leads from a chaotic state of mind (Kshipta) to focussed mind (Ekagra) where there is an increase in the positive qualities i.e., Sattva Guna.

In the fourth domain of Positive Relations with others, the Yoga group members acquired a higher score owing to Yoga enabling the development of attitudes like strong empathy, affection, intimacy, understanding, and compromising. The sense of thinking for others

too leads to strong trustworthy relationships with people around. This is defined as Maitri (Friendship), Karuna (Compassion), Mudita (Happiness) and Upeksha (Indifference) in Yogic text (Srivastava, 2012).

The members belonging to the Yoga group achieved a higher score in the sixth domain of self-acceptance which is explained clearly by the positive attitudes towards self and readiness to accept whether something is good or bad which is ensured and enabled by the practice and philosophy of Yoga. The fourth evolutionary observance (Niyama) is Self-knowledge (Swadhyaya) in Ashtanga Yoga guides everyone through the journey of understanding who we are, what is good and bad, and accepting that and constantly trying and improving (Srivastava, 2012).

Of the six domains, the only domain that had a non-significant statistical difference is the fifth namely the purpose of life. Here, members of the Yoga group who have studied and are practicing the Yoga philosophy may answer from a yogic perspective which isn't accepted to be on the higher side of the measurement scale. Of the three questions from this domain, two of them numbers 7 and 10 have different connotations from a yogic point of view. Living in the present is emphasized a lot in the philosophy of Yoga. Yoga develops awareness of the present moment. Maharishi Patanjali says how every moment (Kshana) is important and to be lived to the best level. Hence, for the 7th statement, "I live life one day at a time and don't really think about the future", most of the Yoga group members have opted for the strongly agree option which carries the lowest score on the measurement scale. Similarly, the concept of Santhosha implying contentment is given much importance in relation to whatever is done in life or even with one's overall life. Within the same context, many of the practitioners of Yoga have picked the strongly agree option to the 10th statement, "I sometimes feel as if I've done all there is to do in life", which is also graded as the lowest score on the scale according to this scale.

Limitations:

The study is subject to a few limitations. As purposive sampling was used by the snowball

method in an online survey, it is open to personal subjectivity. Also, a representative sample of the population couldn't be obtained because it was conducted through social media contacts. Therefore, external validation was also not possible.

Conclusions

Psychological well-being is an essential characteristic of every individual to develop happiness in life, enhance understanding and have satisfaction and acceptance of life. This study establishes preliminary evidence that regular Yoga practice maintenance enhances the psychological well-being among practitioners. Better Yoga practice better is the psychological well-being of that individual. Yoga is indeed an effective and efficient tool that works on all levels of being, viz. physical, mental, social, and spiritual levels. It enables practitioners to be at ease with themselves and develops resilience towards the stresses and strains of daily life in this post-pandemic scenario. Yoga being an umbrella of various powerful practices, may be suggested to be an open-to-all, cost-effective, and self-care kit towards the ultimate wellbeingharmony state of humans using a holistic, do-ityourself, and salutogenic approach.

This study reports that Yoga affects psychological well-being in individuals, as evidenced especially during the time frame of the post-pandemic scenario. Further studies may be carried out using causal experimentation methods to prove it more evidently. The verifying of the various levels may be measured before and after the implemented intervention of Yoga to be more specific. Various other holistic interventions along with Yoga may be implemented side-byside for newer findings. Longitudinal and crosssectional studies in this area of research could be done and carried out under expert guidance of respective professionals of the respective intervention techniques to gain clarity and better understanding.

References

Basu-Ray, I., Metri, K., Khanra, D., Revankar, R., Chinnaiyan, K. M., Raghuram, N., Mishra, M. C., Patwardhan, B., Sharma, M., Basavaraddi, I. V., Anand, A., Reddy, S., Deepak, K. K., Levy, M., Theus, S., Levine, G. N., Cramer, H., Fricchione,

- G. L., & Hongasandra, N. R. (2022). A narrative review on Yoga: a potential intervention for augmenting immunomodulation and mental health in COVID-19. *In BMC Complementary Medicine and Therapies, Vol.* 22(Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s12906-022-03666-2.
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet (London, England)*, 395(10227), 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8.
- Büssing, A., Michalsen, A., Khalsa, S. B. S., Telles, S., & Sherman, K. J. (2012). Effects of Yoga on mental and physical health: a short summary of reviews. Evidence-Based Complementary and Alternative Medicine: ECAM, 2012. https://doi. org/10.1155/2012/165410.
- Hendriks, T., De Jong, J., & Cramer, H. (2017). The Effects of Yoga on Positive Mental Health Among Healthy Adults: A Systematic Review and Meta-Analysis. *Journal of Alternative and Complementary Medicine (New York, N.Y.), 23*(7), 505–517. https://doi.org/10.1089/ACM.2016.0334.
- Nagendra, HR. (2020). Yoga for COVID-19. International Journal of Yoga, 13(2), 87. https://doi.org/10.4103/IJOY.IJOY_27_20.
- Jenefer Jerrin, R., Theebika, S., Panneerselvam, P., Venkateswaran, S. T., Manavalan, N., & Maheshkumar, K. (2021). Yoga and Naturopathy intervention for reducing anxiety and depression of Covid-19 patients A pilot study. *Clinical Epidemiology and Global Health*, *11*, 100800. https://doi.org/10.1016/J.CEGH.2021.100800.
- Kathirvel, N. (2020). Post COVID-19 pandemic mental health challenges. Asian Journal of Psychiatry, 53, 102430. https://doi.org/10.1016/J. AJP.2020.102430.
- Mental Health and Wellbeing Through Yoga Ministry of Ayush. (n.d.). Retrieved August 9, 2023, from https://moayush.wordpress.com/2017/05/09/mental-health-and-wellbeing-through-Yoga/
- Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V. G., Papoutsi, E., & Katsaounou, P. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and metaanalysis. *Brain, Behavior, and Immunity, 88*, 901– 907. https://doi.org/10.1016/J.BBI.2020.05.026.

- Rogers, J. P., Chesney, E., Oliver, D., Pollak, T. A., McGuire, P., Fusar-Poli, P., Zandi, M. S., Lewis, G., & David, A. S. (2020). Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. *The Lancet Psychiatry*, 7(7), 611–627. https://doi.org/10.1016/S2215-0366(20)30203-0/ATTACHMENT/D90EAA9C-7687-49BC-847D-F2CAE0228966/MMC1.PDF.
- Ruan, S. (2020). Likelihood of survival of coronavirus disease (2019). *In The Lancet Infectious Diseases, Vol. 20*(Issue 6), pp. 630–631. Lancet Publishing Group. https://doi.org/10.1016/S1473-3099(20)30257-7.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal* of Personality and Social Psychology, 69(4), 719–727. https://doi.org/10.1037//0022-3514.69.4.719.
- Saladino, V., Algeri, D., & Auriemma, V. (2020). The Psychological and Social Impact of Covid-19: New Perspectives of Well-Being. Frontiers in Psychology, 11. https://doi.org/10.3389/ FPSYG.2020.577684.
- Samsudin, A. D., Jaafar, A., Idaham, N. I., & Mohamed Jali@Yunos, M. H. (2021). The Effect of COVID-19 Pandemic on Psychological Wellness among Dental Students of a Malaysian Public University. Ulum Islamiyyah, 87–97. https://doi.org/10.33102/UIJ.VOL33NO3.323.

- Singh, R. K., Bajpai, R., & Kaswan, P. (2021). COVID-19 pandemic and psychological wellbeing among health care workers and general population: A systematic-review and meta-analysis of the current evidence from India. *Clinical Epidemiology and Global Health, 11*, 100737. https://doi.org/10.1016/J.CEGH.2021.100737.
- Suresh Chandra Srivastava. (2012). Patanjali Yoga Sutras with Vyasa Bhashya. Chaukhambha Surbharati Prakashan.
- Venugopal, V., Venkateswaran, S. T., Poornima, R., & Maheshkumar, K. (2022). Recommendation of Yoga and naturopathy intervention for the effective management of post covid syndrome. *Journal of Ayurveda and Integrative Medicine*, 13(3), 100617. https://doi.org/10.1016/J. JAIM.2022.100617.
- Visweswaraiah, N. K., & Telles, S. (2004). Randomized trial of Yoga as a complementary therapy for pulmonary tuberculosis. *Respirology (Carlton, Vic.)*, 9(1), 96–101. https://doi.org/10.1111/J.1440-1843.2003.00528.X.
- Woodyard, C. (2011). Exploring the therapeutic effects of Yoga and its ability to increase quality of life. *International Journal of Yoga, 4*(2), 49. https://doi.org/10.4103/0973-6131.85485.
- Yuki, K., Fujiogi, M., & Koutsogiannaki, S. (2020). COVID-19 pathophysiology: A review. *Clinical Immunology*, 215, 108427. https://doi.org/10.1016/J.CLIM.2020.108427.

Dhivya Priya Bhavanani, Department of Psychology, SSS Shasun Jain College for Women, University of Madras, Tamil Nadu. Email: dpbhavanani21@gmail.com

Ananda Balayogi Bhavanani, Director, ISCM, Sri Balaji Vidyapeeth, Pillayarkuppam, Pondicherry-607402. Email: iscm@sbvu.ac.in; yognat@gmail.com (Corresponding Author)

Padmashanti Nilachal, Ph.D. Scholar, Institute of Salutogenesis & Complementary Medicine (ISCM), Sri Balaji Vidyapeeth (SBV) Deemed-to-be University, Pondicherry, India. Email: nilachal.padmashanti@gmail.com

Rajasekaran Balaji, Assistant Professor, SoYT, ISCM, Sri Balaji Vidyapeeth, Pillayarkuppam, Pondicherry-607402. Email: drbalajirajasekaran@gmail.com