



DR. SUSHMA PAL

Researcher

My Contact

- ✉ sushmaarsh@gmail.com
- ☎ 7060772253
- 📍 D/O Mamchand Pal, 206 Nehru Nagar, Gali no.4 Garh road, Gandhi ashram, Meerut, UP-250002

Education

- University of Patanjali, Haridwar
Ph.D. in Yoga science
Topic : Neurophysiological effects of alternate nostril yoga breathing
Completed in 2023
- UGC -
NET
qualified in 2018, 2019
- University of Patanjali, Haridwar
M.Sc in Yoga science
Completed in 2014
- C.C.S University, Meerut
B.Sc. with PCM
Completed in 2012
- U.P. Board
Intermediate (12th)
Completed in 2008
- U.P. Board
High School (10th)
Completed in 2006

About Me

I am deeply passionate about the ancient wisdom of yoga and its invaluable relevance in today's world. This passion led me to pursue a Ph.D. and M.Sc. in yoga science, where I can apply these insights in a modern context.

My career began as an assistant scientist, driven by a desire to bridge the gap in addressing contemporary physical and mental health issues. Over the years, I have steadily progressed to my current role as a scientist, gaining valuable experience, expanding my studies, and contributing through numerous research publications.

My research focuses on the effects of yoga on health, with a special emphasis on its impact on mental well-being. My Ph.D. thesis explored the neurophysiological effects of alternate nostril yoga breathing, shedding light on the remarkable benefits of this ancient practice.

I am dedicated to furthering the understanding of yoga's transformative potential and am eager to bring my knowledge and passion to the role of a Researcher.

Professional Experience

Scientist at Patanjali Research Foundation (Trust)
Jan 2023 – Present

Key responsibilities:

- Manuscript preparation/review
- Supervising to juniors
- statistical analysis using SPSS software
- Data cleaning/scoring/arranging

Assistant Scientist at Patanjali Research Foundation (Trust)
May 2016 - Dec 2022

Key responsibilities:

- Data acquisition in various equipments like Natus, ATUS (Neurotravel), Biopack student lab
- Familiar with ECG, EEG, EP & TCD for steps including from participants preparation to data recording

Soft Skill

- Observation
- Decision making
- Communication

Research Publications (Relevant author is cited as Pal.S.)

1. Pal. S., Telles, S. & Balkrishna, A. (2022). Changes in brain waves during silent repetition of OM: A crossover study from India. *Journal of Religion and Health*, 2022 10.1007/s10943-022-01687-2.
2. Pal, S., Sharma, S. K., Singhal, A., & Telles, S. (2022). Smartphone Excessive Use, Sleep, and Beliefs about Well-being in University Students who Practice Yoga Compared with Those with No Experience of Yoga. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 47(2), 292–295.
https://doi.org/10.4103/ijcm.ijcm_601_21
3. Kala, N., Pal, S., Sharma S.K., Telles, S., & Balkrishna, A. (2021). Mirror tracing task in yoga practitioners and non-yoga practitioners: A cross-sectional comparative study. *Indian Journal of Physiology and Pharmacology*; 65(2):127.
4. Pal, S., Kala, N., Telles, S. & Balkrishna A. (2018). Neurophysiological Changes Determined by the EEG with Yoga Breathing Practices: A Mini Review. *EC Neurology*, 10(9).
5. Sharma, S. K., Pal, S., & Telles, S. (2020). Yoga and Weight Management: A Narrative Review. *Handbook of Research on Evidence-Based Perspectives on the Psychophysiology of Yoga and Its Applications*, 283-303.
6. Telles, S., Pal, S., Sharma, S.K., Singh, A., Kala, N., Balkrishna, A. (2018). The association between the lipid profile and fasting blood glucose with weight related outcomes in healthy obese adults. *BMC research notes*, 11(1): 383.
7. Telles, S., Pal, S., Gupta., R.K., and Balkrishna, A. (2018). Changes in reaction time after yoga bellows type breathing in healthy female volunteers. *International Journal of Yoga*, 11(3):224-230.
8. Telles, S., Sharma, S. K., Kala, N., Pal, S., Gupta, R. K. & Balkrishna, A. (2018). Twelve Weeks of Yoga or Nutritional Advice for Centrally Obese Adult Females. *Front. Endocrinol*, 9:466.
9. Sahu, R., Pal, S., Kala, N. (2017). Effect of pragraha-yoga exercise on hypercholesterolemia among obese female volunteers. *Yoga & Human values Edited book*, 94-99.
10. Pal, S., Kala, N., Sharma, S. K., Telles, S., and Balkrishna, A. (2019). The impact of alternate nostril yoga breathing on attention and autonomic balance. 'Yoga for health and therapy' hand book.79. (Abstract in conference proceedings)
11. Pal, S., Sharma, S. K., Kala, N., Telles, S., and Balkrishna, A. (2018). Effects of three months of yoga on body composition in females with abdominal obesity. *Indian J Physiol Pharmacol*,62(5): 110(Abstract in conference proceedings).
12. Pal, S., Gupta, R.K., Telles, S., and Balkrishna, A. (2018). Effect of yoga bellows type breathing and breath awareness on state anxiety in healthy female volunteers. *Abstract book of IPSC*. (Abstract in conference proceedings).
13. Pal, S., Kala, N., Sharma, S. K., Telles, S., and Balkrishna, A. (2017). A Pilot study to assess the effects of yoga bellows type breathing on attention. *Indian J Physiol Pharmacol*,61 (5): 190. (Abstract in conference proceedings).
14. Pal, S., Yadav, A., Telles, S., and Balkrishna, A. (2016). Effect of Yoga bellows type breathing and breath awareness on state anxiety and reaction time. *Indian J Physiol Pharmacol*, 60 (5): 124. (Abstract in conference proceedings)

Conference/Seminar Presentations

1. Participated in Poster Presentation in Conference on Yoga for Health and Therapy Organized by Patanjali Research Foundation (A division of patanjali yogpeeth), Haridwar, India, March 2019.
2. Participated in oral Presentation in 65th Annual Conference of Physiologists and Pharmacologists of India, Gauhati Medical College, Assam, 2019.
3. Participated in oral Presentation in 64th Annual Conference of Physiologists and Pharmacologists of India, Manipal University, 2018.
4. Participated in Poster Presentation in 63rd Annual Conference of Physiologists and Pharmacologists of India, JIPMER, 2017.
5. Participated in Poster Presentation in 62nd Annual Conference of Physiologists and Pharmacologists of India, AIIMS, Patna, 2016.

Conference/Seminars Attended

1. Attended virtual CME on Autonomic Function Tests: An Update organized by All India Institute of Medical Sciences-Bhathinda, 2022.
2. Attended 66th Annual Conference of Physiologists and Pharmacologists of India, ESIC Medical College, Faridabad, 2021.
3. Attended webinar on Yoga for Health & Well Being organized by Centre for Consciousness Studies, Dept of Neurophysiology, NIMHANS, 2021.
4. Attended 65th Annual Conference of Physiologists and Pharmacologists of India, Guwahati, Assam 2019.
5. Attended a Conference on Yoga for health and therapy at Patanjali Research Foundation, 2019.
6. Attended 64th Annual Conference of Physiologists and Pharmacologists of India, Manipal University, 2018.
7. Attended 63rd Annual Conference of Physiologists and Pharmacologists of India, JIPMER, 2017.
8. Attended 62nd Annual Conference of Physiologists and Pharmacologists of India, AIIMS Patna, 2016.

Workshops Organized

1. Organized a workshop on "advanced research methods for post graduates in complementary and alternative medicine" at University of Patanjali, 2018.
2. Organized a workshop on "Research on yoga: methodology and measurements" at University of Patanjali, 2017.

Workshops Attended

1. Attended virtual webinar organized by Yoga Adhayan Kendra, Central University of Himachal Pradesh, from 7th June to 14 th June, 2023.
2. Participated in workshop on Autonomic Function Test in Yoga Research: An update includes AFTs and HRV at Patanjali Research Foundation, Haridwar, 2023.
3. Participated in workshop on generating positivity: a scientific approach at Patanjali research foundation, Haridwar, 2018.
4. Participated in workshop on advanced research methods for post graduates in complementary and alternative medicine at Patanjali Yogpeeth, Haridwar, 2018.
5. Participated in workshop on Research on Yoga: methodology and Measurements at Patanjali Yogpeeth Haridwar, 2017.
6. Participated in workshop on the science of Pranayama: A Presentation Based on Scientific evidence at Patanjali Yogpeeth, Haridwar, 2016.
7. Participated in National Workshop on Yoga and Alternative Therapies at Department of Human Consciousness and Yogic Science Gurukul Kangri Vishwavidyalaya, Haridwar, 2014.

Achievements

1. Life time member (no. 2934) of Association of Physiologists and Pharmacologists of India (APPI), AIIMS, New Delhi, India.
2. Member of Institutional Ethics Committee at Patanjali Research Foundation, Patanjali Yogpeeth, Haridwar.
3. Qualified UGC-NTA National Eligibility Test in December 2017 and July 2018
4. Certified yoga teacher by the National Cadet Corps, trained to instruct "4 Delhi girls BN NCC" for participation in International Day of Yoga events.