



## Yoga for Psychiatric Groups – Literature Review

### Summary of Main Findings

Recent studies have shown that yoga is an effective intervention for psychiatric patients across many areas including anxiety, depression, fear of falls, quality of life, and more.

One study found that psychiatric patients participating in yoga showed a significant reduction in anxiety symptoms after their first yoga session, with 47% feeling less afraid and 76% feeling more relaxed (Bukar et al., 2019). The patients planned to use both yoga and meditation as coping skills after being discharged, and some of the patients who did not participate during their hospitalization still recognized both as ways for coping with their anxiety symptoms.

Another study also showed that yoga, as well as coherent breathing, is linked to significant reductions of depressive symptoms in those with Major Depressive Disorder both on and off antidepressant medications (Streeter et al., 2017). Additionally, chair yoga was found to have improved the flexibility, muscle strength, fear of falls, and quality of life of participants and these improvements were sustained for another 6 weeks after the intervention. As stated in this study, patients with chronic psychiatric disorders generally need to receive antipsychotics for years, and these medications may render patients susceptible to falls as a side effect. This study suggests that chair yoga is important and effective in treating this side effect (Ikai et al., 2017). Some studies included patient feedback similar to those noted by The Yoga Foundation, such as "I've never been so relaxed in my whole life", "I think we should do this all day long", and "It got all the anxiety out of me!".

One patient with a history of assaultive behavior was eager to attend yoga and celebrated with his hands in the air every time. Another patient described yoga as the only time he gets one hour of peace. A woman diagnosed with Bipolar Disorder claimed she felt less manic every time she attended yoga. Based on the recent findings as well as the feedback from patients, it is clear that yoga is an effective intervention and is important for improving the mental and physical health of psychiatric patients.

#### **(Not included in this summary but valuable):**

- A patient who was constantly tormented by the voices in his head described yoga as "the only time I get one hour of peace." There was one occasion where this patient had a notable increase in heart rate (110) and blood pressure (148/97) secondary to agitation before he attended yoga. His vital signs were taken again after yoga and had returned to baseline without using anxiolytics. Yoga was the only group activity he had attended.

- A mother, whose son suffered his first psychotic break and was introduced to yoga in the unit, saw yoga as an opportunity to reconnect with her son, stating "perhaps this is something we can do together as a family."

## List of Studies

### 1. East meets west in psychiatry: Yoga as an adjunct therapy for management of anxiety. (2019)

**Link:** <https://www.sciencedirect.com/science/article/pii/S0883941718304795>

#### **Abstract**

Purpose: Provide yoga for coping and symptom management in a locked, adult inpatient psychiatric unit. Design: Hatha yoga was offered to inpatients with mood disorders and/or psychosis 3 times per week in this evidence-based practice change project. Impact on sleep was examined using recorded sleep hours. Anxiety symptoms were assessed using 6 of the 7 symptoms recorded on the Generalized Anxiety Disorders (GAD) 7. Sustainability of benefits was examined. A self-assessment was conducted at discharge to determine acquisition of new coping skills. Results: No difference in sleep hours or interruptions was noted. A statistically significant increase in the total anxiety scores ( $z = -1.9815$ ,  $p = 0.02385$ ) and sustainability of benefits ( $z = -2.0894$ ,  $p = 0.03662$ ) between the first and second yoga class were observed. A positive change from baseline in sustainability of symptoms for 'less anxiety' ( $k = 0.108$ ) and 'more relaxed' ( $k = 0.083$ ) was found. There was a significant increase in utilization of yoga ( $p = 0.0015$ ) and meditation ( $p = 0.013$ ) as coping mechanisms at discharge. Conclusions: Adults in an acute inpatient psychiatric unit who participated in yoga practice identified yoga and meditation as newly-acquired coping mechanisms and reported significant improvement in anxiety symptoms with sustained benefits ranging from half day to full day.

#### **Findings**

- The adults in an acute inpatient psychiatric unit who participated in yoga showed a significant reduction in anxiety symptoms after their first yoga session. When looking at the 6 different anxiety symptoms in the study, 47% of the patients felt "less afraid" and 76% felt "more relaxed" after participating in yoga.
- There was a significant increase in the total anxiety score when the first and second sessions were compared, as well as the same trend observed in the sustainability of half day to full day yoga benefits reported on the first session (39%) versus the second (54%), and these findings indicate a dose response to yoga in improving anxiety symptoms.
- Initially, 47 out of 121 questionnaires indicated some patients experienced no benefit to anxiety symptoms, but later they reported benefits that were sustained from 1 hour to a full day.
- The patients identified both yoga and meditation as coping skills that they planned to use after being discharged. Some patients did not participate during hospitalization, but still identified both as means to cope with their anxiety symptoms.

#### **Patient Testimonies**

- A patient that had a history of assaultive behavior was eager to attend yoga and celebrated with his hands up in the air every time.
- A patient who was constantly tormented by the voices in his head described yoga as "the only time I get one hour of peace." There was one occasion where this patient had a notable increase in heart rate (110) and blood pressure (148/97) secondary to agitation before he

attended yoga. His vital signs were taken again after yoga and had returned to baseline without using anxiolytics. Yoga was the only group activity he had attended.

- A middle-aged woman diagnosed with Bipolar Disorder, who was admitted to the hospital in a restless, elevated, and pressured state claimed she felt "less manic" every time she attended yoga.

- A mother, whose son suffered his first psychotic break and was introduced to yoga in the unit, saw yoga as an opportunity to reconnect with her son, stating "perhaps this is something we can do together as a family."

- Following discharge, patients had requested a referral list of yoga groups. A referral list for yoga within the general community was prepared to be used in discharge planning and aftercare.

Bukar, N. K., Eberhardt, L. M., & Davidson, J. (2019). East meets west in psychiatry: Yoga as an adjunct therapy for management of anxiety. *Archives of Psychiatric Nursing*, 33(4), 371–376. <https://doi.org/10.1016/j.apnu.2019.04.007>

## 2. Symptoms improve after a yoga program designed for PTSD in a randomized controlled trial with veterans and civilians. (2020)

**Link:** <https://psycnet.apa.org/fulltext/2020-27310-001.html>

### **Abstract**

**Objective:** Although yoga shows promise as a treatment for posttraumatic stress disorder (PTSD), there are few randomized controlled trials that demonstrate significant benefits for individuals with PTSD. The present study addresses this need by comparing the effects of a holistic yoga program (HYP) to that of a wellness lifestyle program (WLP) on PTSD symptom severity with a randomized clinical trial. **Method:** The sample consisted of 209 participants (91.4% veterans; 66% male; 61.7% White) who met diagnostic criteria for PTSD at baseline. Participants were randomly assigned to attend one of the 2 weekly interventions for 16 weeks. The HYP consisted of yoga instruction, while the WLP consisted of didactics, discussions, and walking. PTSD severity was measured using the Clinician Administered PTSD Scale (CAPS-5) and the PTSD Checklist (PCL-5). **Results:** Analyses revealed that the HYP reduced PTSD severity measured by the CAPS-5 significantly more than the WLP at treatment end (mean difference = -5.4, effect size = 0.46,  $p < .001$ ), but not at 7-month follow up (mean difference = -0.9,  $p = .603$ ). Similarly, the HYP reduced PTSD severity measured by the PCL-5 significantly more than the WLP at treatment end (difference = -6.0,  $p = .001$ ), but not at 7-month follow up (mean difference = -1.0,  $p = .682$ ). **Conclusion:** Yoga may be an effective intervention for PTSD in addition to standard treatments. Future yoga trials should consider adding a social component to interventions or booster classes to maintain effects long term.

### **Impact Statement**

**Clinical Impact Statement**—Posttraumatic stress disorder (PTSD) affects 7–12% of the population and has damaging consequences. This trial tested a holistic yoga program (HYP) against a wellness lifestyle program (WLP). Participants ( $N = 209$ ) were randomized to HYP or WLP and completed two gold standard measures of PTSD symptom severity before and after programs. PTSD symptoms significantly improved for both groups, with a significant advantage for those in HYP. Although significant differences between groups were not maintained at 7-

month follow up, improvement in symptom severity was still detected for both groups. This suggests that yoga is beneficial to people with PTSD as an adjunct to treatment.

### **Findings**

- The holistic yoga program (HYP) resulted in a larger, statistically significant reduction in PTSD symptoms than the wellness lifestyle program (WLP) as assessed by clinician interview and participant self-report at the end of treatment.
- HYP resulted in greater statistically significant improvements than WLP on the following secondary outcomes: overall sleep quality at treatment end; self-assessed stigma, attention regulation, body listening, emotional awareness, and self-regulation at midtreatment and treatment end; and self-assessed trusting, mental health status, depression, anxiety, spirituality, and self-compassion at midtreatment.
- HYP participants lost a small amount of treatment end gains at the 7-month follow up, which occurred 3 months after treatment end. This is likely due to a drop off of practice after the treatment ended.

Davis, L. W., Schmid, A. A., Daggy, J. K., Yang, Z., O'Connor, C. E., Schalk, N., Do, A.-N. L., Maric, D., Lazarick, D., & Knock, H. (2020). Symptoms improve after a yoga program designed for PTSD in a randomized controlled trial with veterans and civilians. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi.org/10.1037/tra0000564.supp> (Supplemental)

### **3. Effects of yoga on patients in an adolescent mental health hospital and the relationship between those effects and the patients' sensory-processing patterns. (2014)**

**PDF Link: <file:///Users/Ashley/Downloads/jcap.12090.pdf> (copy and paste link)**

#### **Abstract**

**Problem:** This study investigated the effects of yoga as a sensory regulation tool in reducing adolescent distress in an acute care psychiatric hospital. **Methods:** This was a descriptive, correlational pre-intervention/post-intervention design conducted in a mental health hospital over 5 months from mid-January to mid-June 2012. The population consisted of a convenience sample of 75 adolescent mental health unit inpatients and partial-hospitalization patients 12–18 years of age who participated in two or more yoga sessions. Patient charts provided *Diagnostic and Statistical Manual of Mental Disorders-IV* Axes I-V diagnosis, gender, and age. Dependent variables were pulse and Subjective Units of Disturbance Scale scores, which were recorded before and after each yoga class. The Adult/Adolescent Sensory Profile (AASP) provided a measure of patient sensory-processing preference levels that were related to the pulse and Subjective Units of Disturbance Scale results. **Findings:** Yoga sessions significantly improved patient pulse and self-reported distress ratings regardless of gender or sensory profile levels. **Conclusions:** This article contributes to research on the therapeutic effects of yoga as a sensory regulation intervention in the treatment of psychiatrically hospitalized adolescents. Yoga has the potential to help adolescents in an acute care psychiatric hospital learn to soothe themselves, to regulate their emotions, and to find relief from emotional distress while hospitalized.

## **Findings**

- Results showed that yoga was an effective intervention in the psychiatrically hospitalized adolescent population.
- There was a significant reduction in patient distress and anxiety, indicated by lowered pulse and SUDS scores.
- The improvement in the patients' moods after participating in a yoga class was consistent over gender and all the Adult/Adolescent Sensory Profile (AASP) sensory-processing preference levels.
- The findings support the study hypothesis that adolescent patients at every sensory-processing preference level would benefit from the breathing, balancing, strengthening, stretching, and relaxing effects yoga has on the nervous system.

## **Patient Comments**

"I've never been so relaxed in my whole life."

"I think we should do this all day long."

"It got all the anxiety out of me!" \_\_\_\_\_

Re, P., McConnell, J. W., Reidinger, G., Schweit, R., & Hendron, A. (2014). Effects of yoga on patients in an adolescent mental health hospital and the relationship between those effects and the patients' sensory-processing patterns. *Journal of Child and Adolescent Psychiatric Nursing*, 27(4), 175–182. <https://doi.org/10.1111/jcap.12090>

## **4. Treatment of Major Depressive Disorder with Iyengar Yoga and Coherent Breathing: A Randomized Controlled Dosing Study. (2017)**

**Link:** <https://www.semanticscholar.org/paper/Treatment-of-Major-Depressive-Disorder-with-Iyengar-Streeter-Gerbag/f88a6fcb0e2b9639be232a385da5031a0608cce2>

### **Abstract**

**Objectives:** The aims of this study were to assess the effects of an intervention of Iyengar yoga and coherent breathing at five breaths per minute on depressive symptoms and to determine optimal intervention yoga dosing for future studies in individuals with major depressive disorder (MDD). **Methods:** Subjects were randomized to the high-dose group (HDG) or low-dose group (LDG) for a 12-week intervention of three or two intervention classes per week, respectively. Eligible subjects were 18–64 years old with MDD, had baseline Beck Depression Inventory-II (BDI-II) scores  $\pm 14$ , and were either on no antidepressant medications or on a stable dose of antidepressants for  $\pm 3$  months. The intervention included 90-min classes plus homework. Outcome measures were BDI-II scores and intervention compliance. **Results:** Fifteen HDG (M<sub>age</sub> = 38.4 – 15.1 years) and 15 LDG (M<sub>age</sub> = 34.7 – 10.4 years) subjects completed the intervention. BDI-II scores at screening and compliance did not differ between groups ( $p = 0.26$ ). BDI-II scores declined significantly from screening (24.6 – 1.7) to week 12 (6.0 – 3.8) for the HDG (–18.6 – 6.6;  $p < 0.001$ ), and from screening (27.7 – 2.1) to week 12 (10.1 – 7.9) in the LDG (–17.7 – 9.3;  $p < 0.001$ ). There were no significant differences between groups, based on response (i.e., >50% decrease in BDI-II scores;  $p = 0.65$ ) for

the HDG (13/15 subjects) and LDG (11/15 subjects) or remission (i.e., number of subjects with BDI-II scores <14;  $p = 1.00$ ) for the HDG (14/15 subjects) and LDG (13/15 subjects) after the 12-week intervention, although a greater number of subjects in the HDG had 12-week BDI-II scores  $\leq 10$  ( $p = 0.04$ ). Conclusion: During this 12-week intervention of yoga plus coherent breathing, depressive symptoms declined significantly in patients with MDD in both the HDG and LDG. Both groups showed comparable compliance and clinical improvements, with more subjects in the HDG exhibiting BDI-II scores  $\leq 10$  at week 12.

### **Findings**

- Participation in an intervention composed of Iyengar yoga and coherent breathing is associated with a significant reduction in depressive symptoms for individuals with Major Depressive Disorder (MDD), both on and off antidepressant medications.
- The high dose group (HDG) and low dose group (LDG) showed no significant differences in compliance or in rates of response or remission after participating in the Iyengar yoga and coherent breathing intervention.

Streeter, C.C., Gerbarg, P.L., Whitfield, T.H., Owen, L., Johnston, J., Silveri, M.M., Gensler, M., Faulkner, C., Mann, C., Wixted, M., Herson, A.M., Nyer, M.B., Brown, E.R., & Jensen, J.E. (2017). Treatment of Major Depressive Disorder with Iyengar Yoga and Coherent Breathing: A Randomized Controlled Dosing Study. *Journal of Alternative and Complementary Medicine*, 23, 201 - 207.

## **5. Effects of chair yoga therapy on physical fitness in patients with psychiatric disorders: A 12-week single-blind randomized controlled trial. (2017)**

**Link:** <https://www.sciencedirect.com/science/article/pii/S002239561730273X>

### **Abstract**

**Introduction:** Since falls may lead to fractures and have serious, potentially fatal outcomes, prevention of falls is an urgent public health issue. We examined the effects of chair yoga therapy on physical fitness among psychiatric patients in order to reduce the risk of falls, which has not been previously reported in the literature. **Methods:** In this 12-week single-blind randomized controlled trial with a 6-week follow-up, inpatients with mixed psychiatric diagnoses were randomly assigned to either chair yoga therapy in addition to ongoing treatment, or treatment-as-usual. Chair yoga therapy was conducted as twice-weekly 20-min sessions over 12 weeks. Assessments included anteflexion in sitting, degree of muscle strength, and Modified Falls Efficacy Scale (MFES) as well as QOL (quality of life), psychopathology and functioning. **Results:** Fifty-six inpatients participated in this study (36 men; mean  $\pm$  SD age, 55.3  $\pm$  13.7 years; schizophrenia 87.5%). In the chair yoga group, significant improvements were observed in flexibility, hand-grip, lower limb muscle endurance, and MFES at week 12 (mean  $\pm$  SD: 55.1  $\pm$  16.6 to 67.2  $\pm$  14.0 cm, 23.6  $\pm$  10.6 to 26.8  $\pm$  9.7 kg, 4.9  $\pm$  4.0 to 7.0  $\pm$  3.9 kg, and 114.9  $\pm$  29.2 to 134.1  $\pm$  11.6, respectively). Additionally, these improvements were observable six weeks after the intervention

was over. The QOL-VAS improved in the intervention group while no differences were noted in psychopathology and functioning between the groups. The intervention appeared to be highly tolerable without any notable adverse effects. Conclusions: The results indicated sustainable effects of 20-min, 12-week, 24-session chair yoga therapy on physical fitness. Chair yoga therapy may contribute to reduce the risk of falls and their unwanted consequences in psychiatric patients.

### **Findings**

- A total of 24 sessions of chair yoga intervention over 12 weeks improved the flexibility, degree of muscle strength, fear of falls, and QOL (quality of life) of the participants at week 12 compared to the control group. These improvements were sustained for another 6 weeks after the intervention was over.

- A significant improvement in the Modified Falls Efficacy Scale (MFES) assessment of approximately 15% was observed in patients with chronic psychiatric disorders, following the 12-week chair yoga therapy, which were sustained for another 6 weeks.

→ This study states that patients with chronic psychiatric disorders generally need to receive antipsychotics for years, and these medications may render patients susceptible to falls as a side effect. The findings suggest that yoga is important and effective in treating this side effect.

Ikai, S., Uchida, H., Mizuno, Y., Tani, H., Nagaoka, M., Tsunoda, K., Mimura, M., & Suzuki, T. (2017). Effects of chair yoga therapy on physical fitness in patients with psychiatric disorders: A 12-week single-blind randomized controlled trial. *Journal of Psychiatric Research*, 94, 194–201. <https://doi.org/10.1016/j.jpsychires.2017.07.015>

## **Other Articles**

### **1. Why More Psychiatrists Are Recommending Yoga. (7 Dec. 2019)**

#### **Summary**

<https://www.psychologytoday.com/us/blog/green-psychiatry/201912/why-more-psychiatrists-are-recommending-yoga>

### **2. 5 Ways Yoga Can Benefit Your Mental Health. (24 Jan. 2019)**

#### **Summary**

<https://www.psychologytoday.com/us/blog/silencing-your-inner-bully/201901/5-ways-yoga-can-benefit-your-mental-health>

### 3. 5 Ways to Implement Yoga in Psychotherapy

#### Summary

<https://societyforpsychotherapy.org/5-ways-implement-yoga/>

