

3.0 SCIENTIFIC LITERATURE

3.1 Table 1: SCIENTIFIC LITERATURE REVIEW OF YOGA AND SUBSTANCE USE

Sl. No.	Citation	Sample Size	Design	Variable	Results & Summary
1	(Mallik et al., 2019)	40 subjects (meditation group n=9, relaxation group n=10, TAU=21)	Quasi-experimental design without randomization 20 mins relaxation 4 times weekly for 1.5 month	i. Substance abstinence- Urinalysis ii. General psychological distress and dysfunction- GPDD Likert Scale	Type of treatment was a significant predictor of abstinence. Participants in the meditation condition, were more likely to maintain abstinence. Spiritually-informed approach may offer additive support to individuals in SUD treatment

2	(Hallgren , Romberg , Bakshi, & Andréasson, 2014b)	14 subjects (TAU n=9. Add on Yoga n=8)	Mixed method 10 sessions of yoga , 1.5h weekly	i.Alcohol consumption-timeline follow back (TLFB) method, DSM-IV ii Biomarkers: gamma-glutamyltransferase (GT) and carbohydrate-deficient transferrin (CDT) iii.Hospital Anxiety and Depression Scale, Quality of life- Sheehan Disability Scale iv.Perceived Stress Scale	Yoga was a feasible and well accepted adjunct treatment for alcohol dependence. No significant difference between groups Yoga seems to motivate an overall lifestyle change that discouraged routine heavy drinking. Yoga and related therapies have potential to improve substance use treatment outcomes
3	(Anju, Anita, Raka, Deepak, &	84 subjects (Experimental n = 55, control group n =29)	Randomized control trial 12hrs, 3 days	i.WHO Quality of life Brief Scale	SKY has significant increase in physical, psychological and environment domains but urine screen test results were negative When drugs, was not taken, the

	Vedamur thachar, 2015)				program had effective treatment prognosis in substance abusers
4	(Bowen et al., 2006)	173 (57 VM, 116 TAU) Follow up in 3 Months (29 VM,58TAU) 6 Months (27 VM, 51 TAU)	Randomized control trial 10 days course	i. The life orientation test ii. The brief symptom inventory iii. The white bear suppression inventory Drinking related locus of control scale iv. The short inventory of problems v. The daily drug taking questionnaire vi. The daily drinking questionnaire	Vipassana meditation participants showed decrease in alcohol- related problems and psychiatric symptoms as well as increase in positive psychosocial outcomes Vipassana meditation participants had significant improvement in psychiatric symptoms, controlling alcohol intake and higher levels of optimism.

5	(Glasner et al., 2017)	63 subjects (MBRP=31,HE=32)	Randomized control study,12 weeks	i. The Beck Depression Inventory ii. Beck Anxiety Inventory iii. The Addiction Severity Index	MBRP group had a positive impact on psychiatric severity score among patients with depression and anxiety disorders MBRP helped to reduce negative affect and psychiatric symptoms among stimulant-dependent adults
6	(Witkiewitz & Bowen, 2010)	168 subjects	Randomized control design (2hrs, 8 weeks)	i. Beck Depression Inventory ii. Penn Alcohol Craving Scale	MBRP therapy reduces substance use & craving MBRP provides evidence for incorporating mindfulness practice into substance abuse treatment

3.2 Table 2: Different yoga interventions used for substance abuse

S. No.	Author, Year	Details of yoga practice	Specifications
1	Bock (2012)	Vinyasa yoga 5 min of breathing exercises (pranayamas) and seated meditation 45 min of dynamically linked asanas 10 min of closing postures and a final seated meditation	Twice weekly for 8 weeks 3 and 6 months
2.	Elibero (2011)	Hatha yoga Breathing exercises, followed by a simple HY regime; asanas included bridge, forward bend, table, cow and cobra positions.	1 time 30 mins
3.	Marefat (2011)	Yoga Breathing exercises Meditation Relaxation for different physical conditions of clients Physical exercises	60-min sessions Three times a week for 5 weeks
4.	Raina (2001)	Asanas: Shavasana (5 min), Bhujangasana (2 min), Dhanurasana (2 min), Paschimothanasana (2 min), Sarvangasana (2 min), Chakrasana (2 min). Pranayama (5 min) Yoganidra (20 min)	49 minutes 6 days per week 8 weeks
5.	Sareen (2007)	15 min of meditation 10-min Warm-up of various yoga arm stretches and movements	1 hour Twice a week for 12 weeks

		Asanas Relaxation	
6.	Shahab (2012)	Pranayama recommended by Yoga Guru Swami Ramdev (Ramdev 2010)	10 min and within 24 hours
7.	Vedamurthac har (2006)	Ujjai Bhastrika Cyclic breathing Yoga Nidra	1 hour 4 weeks
8.	Shaffer (1997)	Centering/ breathing 6 min Warm-up exercise 2 min Yoga postures 35 min breathing 5 min relaxation 14 min	75 min 22 week
9.	Shu-mei Zhuang (2013)	Pranayama and stretching exercise 10 mins 30 minutes Asana: near-ear bow pose, mountain pose, raised arm pose, tree pose, half lotus, extended triangle pose, high-mighty pose, twisted triangle pose, stretched side- angle pose, twisted side-angle pose, virabhadra asanas, half- moon pose, side intense-pull pose, spread leg intense-pull pose, marichi poses, bow pose, and lotus pose. 10 minutes relaxation	50 minutes 5 days per week for 6 months

3.3 SUMMARY OF SCIENTIFIC LITERATURE REVIEW

The reviewed studies show that yoga and meditation can significantly aid in substance use disorder (SUD) treatment. Techniques like Sudarshan Kriya, Vipassana meditation, and Mindfulness-Based Relapse Prevention (MBRP) improved psychiatric symptoms, reduced cravings, and promoted abstinence. Yoga interventions, ranging from Vinyasa to Hatha yoga, varied in duration and intensity but consistently supported better physical and psychological health. Overall, yoga-based approaches serve as effective complementary treatments, fostering lifestyle changes and enhancing the overall well-being of individuals recovering from substance use.