

Effects of Yogic Activities and Recreational Exercises on Depression Among Climacteric Women

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Abstract

Purpose: This study aimed to examine the effects of a twelve week yogic activities and Recreational exercises on Depression among Climacteric women.

Methods: In this study 40 climacteric women were selected randomly from Jammu district to participate as subjects. The ages of the women fell in between 40 and 50 years. The review was designed with a pre-and post-test random collection strategy in which forty subjects were divided into four equal groups The Psychological parameters is to find out in this study. There were randomly assigned to one of four groups: Experimental Group-I (N=10; YOGA Group, Experimental Group-II (N=10, RECREATIONAL group), the Experimental Group-III (N=10; COMPOSITE group), Experimental-IV (N=10; CONTROL GROUP). The twelve week training program for Yoga, Recreational, Composite and Control group for Three days in a week over a period of Twelve weeks. Data were analyzed using repeated measures ANCOVA to assess group differences over time. Depression was used as an outcomes measures. Questionnaires were administered before and after one twelve weeks of intervention to evaluate the depression among climacteric women.

Results: There were forty volunteers climacteric women at the end of the study. Noteworthy findings include significant the mean for the yoga group was 21.4, the mean for recreational group was 27.69, the mean for composite group was 29.50, and the mean for control group was 30.5, (df 3 and 96), the post-test was therefore significant at the 0.05 level. The reduction in Depression severity in the yoga group was significant.

Conclusion: The practiced of yoga and recreational activities has been proven that yoga and recreational exercises might be positive and effective on reducing Depression in Climacteric women. The aim of this chapter is not only to determine the review literature only but also to evaluate the effects of yogic activities and recreational activities on Depression Climacteric women.

Keywords: Yogic activities, Recreational exercises, Depression, Climacteric women

Citation: Sapna Jamwal, Dr. Gaganpreet Kaur, Pravesh Yadav, Dar Furqan Ullah Faizy, Aman Alok. 2025. Effects of Yogic Activities and Recreational Exercises on Depression Among Climacteric Women. FishTaxa 37: 365-371

Introduction

Mostly we found that women use smaller amounts of drugs as compare to men but now a days with the regular use of medicines, harmful medications women experience many health as well as mental problems, mostly on their blood vessels, heart and brain. Due to this female suffer many menopausal problems. Sometimes early (pre -menopausal). On the other hand yoga. Yoga help to relieve stress, tension strength our mind and body, which ultimately help to prevent from prevent for psychosomatic disease like heart disease, heart stroke, bronchial asthma and obesity. Acc. to Patanjali yoga consists of eight steps or limbs which help for self-realization (Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi). Some women who were in menopause felt some discomfort due to the following symptoms and tried to treat the symptoms to a certain degree so that such treatment will lessens or even cure the symptoms, one of the treatment is Yoga (Cramer, Lauche, Langhorst, & Dobos, 2012). A 12-week intervention program involving bi-weekly sessions of yogic poses and stretching exercises can positively impact health and well-being during the climacteric period (P Vanithamani 2024).

With the regular practice of Recreational exercises helps to control our emotions, to create a positivity, and helps our body fit as well as our mind. Now a day's yoga become a universal. Addiction of drugs can harm an individual physiologically, psychologically, occupational, familial, socially, and genetically, and financial domains. Sometime individual experience psychological side effects when he/she trying to attempt quit like insomnia, anxiety, depression, fatigue, fear. These findings provide strong evidence that 12 weeks of moderate-intensity aerobic exercise do not alleviate VMS but may result in small improvements in sleep quality, insomnia, and depression in midlife sedentary women (B. Sternfeld, K. A Guthrie et al., 2014). (Veronica Colpani, Poli Mara Spritzer et al.,

2014) found a Cross-sectional study nested in a cohort of pre-, peri- and post-menopausal women in a city in southern Brazil. A study was conducted on 336 healthy women aged 45-55 years. Women assigned to the high physical activity group felt better and had less severe climacteric symptoms; 52.08% of the women had no climacteric symptoms. Regular physical activity is associated with less menopausal symptoms. It is important to encourage regular physical activity as it is beneficial to health and relieves menopausal symptoms (V Skrzypulec, J Dabrowska, A Drosdol 2010)

Sat Bir Khalsa (assistance professor of medicine at Harvard medical school and yoga in healthcare conference speaker) wrote a study on a small pilot program in India that featured yoga as the main intervention in its substance-abuse treatment, and told yoga Journal; ‘yoga is very effective at regulating the stress hormones cortisol and adrenaline..... It makes sense that if you’re less stressed, you may not be so quick to seek substance to cope’.

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low selfworth, disturbed sleep or appetite, low energy, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. (WHO, 1947). Participation in recreational activities helps to awareness, health promotion, increase peace and development and can empower positively to raise the self-confidence as well as self-esteem and increase the quality of life of climacteric women. The bio-psycho-social nature of menopause (Hunter and Rendall, 2007) demonstrates the need to understand how menopausal stage may affect the development of depression. The increased risk of depression during menopause has been attributed to biologically vulnerability, studies finding the association between greater variation in estradiol and FSH levels and higher depression symptoms (Freeman et al., 2004).

‘Yoga raises the levels of GABA, which has shown to reduce stress and anxiety, said Topfer.

Menopause is a controversy of all the women of all the menopausal age group. Menopause is one of the leading problem in our society. Menopause are a pain killer. During menopause women can effects many relations like personals, societal, family, friends, behavior problems, emotional distancing, isolation, depression, or fatigue, irritability, or change in mood, eating, or sleeping patterns and memory problems during menopausal. During menopausal insomnia is one of the major medical complaints. Lack of sleep decrease the physical as well as mental health care costs. Depression is higher in women as compared to men. Yoga has been widely adapted in western and eastern world. It is practiced in ancient times to improve the strength, flexibility, mental, physical as well as spiritual health of an individual.

Materials and methods

Participants

Forty menopausal women aged 40 to 50 from Jammu district though a convenient sampling participated in this training program. Every female trained three days over a period of twelve weeks. The groups were categorized into a one control group and three experimental group.

Study Design

This study used a pre-test and post-test design. The primary objective was to evaluate how yoga and recreational training reduced the depression among climacteric women over twelve weeks.

Training Protocol

The experimental group underwent the yoga, recreational training, while the control group were completely on rest. Only the experimental groups were performed the taining.

Yoga Training Program

Frequency: Three sessions per week (Monday, Wednesday, Friday)

Session Duration: 2 hours, including warm-up and cool-down.

Training Structure:

Warm-up (15 minutes): Low-intensity training and dynamic stretching.

Main Set (90 minutes): High-intensity intervals with progressively increasing intensity.

Cool-down (15 minutes): Moderate training and static stretching.

Table 1 Weekly training schedules and intensity (Yoga Group)

Week	Intensity	Exercise Name	Sets	Repetitions	Rest Between Reps	Rest Between Sets
1-2 week	50-60%	Suryanamaskar	2	2	20 seconds	3 minutes
		Anulom Vilom	2	2	20 seconds	3 minutes

2	3-4 week	60-70%	Paschimottanasana	2	2	1-2 minutes	3 minutes	Table
			Ustraasana	3	2	20 seconds	3 minutes	
			Sarvangasana	3	2	30 seconds	4 minutes	
	5-6 week	70-80%	Kapalbhati	2	2	1-2 minutes	3 minutes	
			Shavasana	3	3	20 seconds	3 minutes	
			Padamasana	2	2	20 seconds	3 minutes	
	7-8 week	80-90%	Om chanting	2	2	1-2 minutes	3 minutes	
			Suryanamaskar	2	2	15 seconds	3 minutes	
			Ustraasana	3	2	15 seconds	3 minutes	
	9-10 week	90-100%	Shavasana	3	3	1-2 minutes	3 minutes	
			Anulom Vilom	2	2	15 seconds	3 minutes	
			Sarvangasana	3	2	15 seconds	3 minutes	
	11-12 week	90-100%	Padamasana	2	2	1-2 minutes	3 minutes	
			Paschimottanasana	2	2	10 seconds	3 minutes	
			Kapalbhati	2	2	20 seconds	3 minutes	
11-12 week	90-100%	Om chanting	2	2	1-2 minutes	3 minutes		

Weekly training schedules and intensity (Recreational Group)

Week	Intensity	Exercise Name	Sets	Repetitions	Rest Between Reps	Rest Between Sets
1-2 week	50-60%	Cat and Mice	2	2	20 seconds	3 minutes
		Changing Seats	2	2	20 seconds	3 minutes
		Drop the Hanker chief	2	2	1-2 minutes	3 minutes
3-4 week	60-70%	Elimination Ball	3	2	20 seconds	3 minutes
		Tug of War	3	2	30 seconds	4 minutes
		Elephant walk relay	2	2	1-2 minutes	3 minutes
5-6 week	70-80%	Circle zigzag Relay	3	3	20 seconds	3 minutes
		Football Leg Cricket	2	2	20 seconds	3 minutes
		Sign & Action like Bird & Animal	2	2	1-2 minutes	3 minutes
7-8 week	80-90%	Cat and Mice	2	2	15 seconds	3 minutes
		Elimination Ball	3	2	15 seconds	3 minutes
		Circle zigzag Relay	3	3	1-2 minutes	3 minutes
9-10 week	90-100%	Changing Seats	2	2	15 seconds	3 minutes
		Tug of War	3	2	15 seconds	3 minutes
		Football Leg Cricket	2	2	1-2 minutes	3 minutes
11-12 week	90-100%	Drop the Hanker chief	2	2	10 seconds	3 minutes
		Elephant walk relay	2	2	20 seconds	3 minutes

		Sign & Action like Bird & Animal	2	2	1-2 minutes	3 minutes
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Table 3 Weekly training schedules and intensity (Composite Group)

Week	Intensity	Exercise Name	Sets	Repetitions	Rest Between Reps	Rest Between Sets
1-2 week	50-60%	Suryanamaskar	2	2	20 seconds	3 minutes
		Changing Seats	2	2	20 seconds	3 minutes
		Cat and Mice	2	2	1-2 minutes	3 minutes
3-4 week	60-70%	Paschimottanasana	3	2	20 seconds	3 minutes
		Drop the Hanker chief	3	2	30 seconds	4 minutes
		Anulom Vilom	2	2	1-2 minutes	3 minutes
5-6 week	70-80%	Elimination Ball	3	3	20 seconds	3 minutes
		Tug of War	2	2	20 seconds	3 minutes
		Ustraasana	2	2	1-2 minutes	3 minutes
7-8 week	80-90%	Sarvangasana	2	2	15 seconds	3 minutes
		Kapalbhati	3	2	15 seconds	3 minutes
		Elephant walk relay	3	3	1-2 minutes	3 minutes
9-10 week	90-100%	Circle zigzag Relay	2	2	15 seconds	3 minutes
		Shavasana	3	2	15 seconds	3 minutes
		Football Leg Cricket	2	2	1-2 minutes	3 minutes
11-12 week	90-100%	Om chanting	2	2	10 seconds	3 minutes
		Padamasana	2	2	20 seconds	3 minutes
		Sign & Action like Bird & Animal	2	2	1-2 minutes	3 minutes

Measurement Variables

- Mental Depression Scale using pre- and post-intervention.

Results

Data were analyzed using ANCOVA to compare pre-test and post-test results between the experimental and control groups. A significance level of $p < 0.05$ was considered statistically significant.

Table 4. Descriptive statistics for depression at post-test

Variable	Group	Mean	Std. Deviation	N
Depression	Yoga	21.4	5.18	10
	Recreational	27.65	4.97	10
	Composite	29.50	4.35	10
	Control	30.5	5.31	10

This table 4 illustrates the mean value of Depression of 12-week yoga, recreational group, composite group and control group. The decrease in depression rate indicate significant improvements in depression among climacteric women.

Table 5: Computation of analysis of Covariance of means of Yoga, Recreational, Composite and Control groups on depression

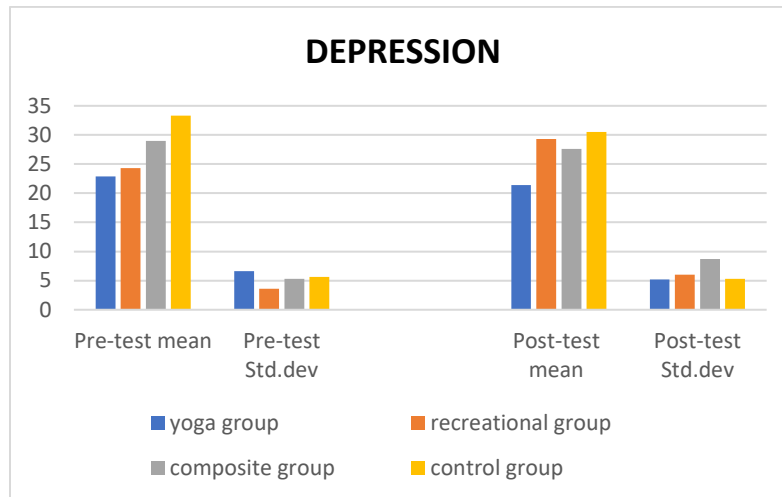
Adjusted Post-test means					Mean Difference	Required CI
Yoga Group	Recreational Group	Composite Group	Control Group			
21.099			30.01	8.91	11.3	
21.099	24.57			2.58		
21.099		29.659		7.669		
	24.57		30.01	5.44		
	24.57	29.659		5.089		
		29.659	30.01	0.441		

	Yoga Group	Recreational Group	Composite Group	Control Group	Source of Variance	Sum of Squares	df	Means Squares	F-ratio
Pre-Test Means	22.9	24.3	23.3	33.3	BG	2.31	3	1.15	
					WG	296.66	96	7.06	
Post-Test Means	21.4	27.65	29.50	30.5	BG	72.31	3	36.15	
					WG	158.80	96	3.78	
Adjusted Post-Test Means	21.099	24.57	29.659	30.01	BG	85.45	3	42.73	
					WG	80.51	95		

Table 6 Scheffe's post hoc test of depression between the Yoga Group, Recreational Group, Composite Group and Control Group.

Table 5 and Table 6 show significant improvement in Depression compared to Yoga group, Recreational group, Composite group and control groups and Table 6 supports these findings, showing that the differences in Depression between the Yoga group, Recreational Group, Composite Group and control groups fall outside the 95% confidence interval bounds. The mean difference for Yoga and Control Group was 8.91, Yoga and Recreational was 2.58, Yoga and Composite was 7.669 Recreational and Control was 5.44, Recreational and Composite was 5.089, and Composite and Control was 0.441, all are statistically significant.

Figure 1. Comparison of Depression between groups at pre-test and post-test.



The yoga and composite group exhibited a significant decrease in depression after the intervention, while the control group showed minimal change.

Discussion and findings

The study shows that a 12-week program significantly decrease the level of depression among the menopausal women on yoga and composite group. Previous studies shows how female suffer during menopausal period physiologically and psychologically and how yoga activities program are effective on menopausal women. If we discuss about yoga, yoga is the ancient program that people performs activity to remain fit and healthy, agile, psychologically fit, prevent from various chronic diseases etc.

Rong Liu, Xun Tang (2025) suggested in their study that a total of 17 studies were included in this meta-analysis. The results showed that exercise alleviated the depressive symptoms of menopausal women (SMD = -1.23; 95% CI, -2.21 to -0.24). In addition, exercise was found to reduce the depression (SMD = 11.45; 95% CI, -1.75 to -1.15), and depression assessed by the Center for Epidemiologic Studies Depression Scale (CES-D) (WMD = -5.76; 95% CI, -6.63 to -4.89) or Self-Rating Depression Scale (SDS) (WMD = -6.86; 95% CI, -9.24 to -4.49).

Lisna Anisa Fitriana, Lina Anisa Nasution, Irma Darmawati Elizabeth Ari Setyarin (2021) evaluates the effects of Exercises on Depression on Menopausal women. The Research subjects consisted of 34 menopausal women aged 45-65 years. Subjects were divided into two groups including exercise group (N=17) AND control group (N=17). The results showed that the physical exercises significantly decreased depression (p=0.013) compared to the control group. It concluded that regular exercises is effective in preventing and treating mood disorders that occurs during menopause.

Selin Yılmaz, Ismail Arslan, Duygu Yengil Taci (2021) evaluated the the effect of physical activity and depressive mood on menopausal symptoms in postmenopausal women. 51.6% (98 subjects) of the women had severe menopausal symptoms. 52.6% (100 subjects) women were physically inactive. They observed that depression inventory scores decreased as the level of physical activity increased (P < .001). The regular physical activity will contribute to alleviating the severity of menopausal symptoms.

Masoumeh Shohani, Gholamreza Badfar et al (2018) was investigated the effects of yoga on stress, anxiety and depression in women living in Ilam, Iran. This study was a Quasi-experimental study with pre- posttest. Hatha yoga exercises and training sessions were held for 4 weeks. 52 women with a mean age of 33.5 ± 6.5 were included for analysis. Depression, anxiety, and stress decreased significantly in women after 12 sessions of regular hatha yoga practice (P < 0.001). They concluded that yoga play an effective role in reducing stress, anxiety, and depression. Yoga can be used as complementary medicine.

Dr. Kumud V. Solanki suggested that Efficacy of Yoga and Meditation on Depression, Anxiety and Stress level of Post-menopausal Women. They ascertain the efficacy of yoga exercises and meditation on the depression, anxiety and stress level of post-menopausal women. The sample of 30 postmenopausal women was selected between age ranges of 45 to 55 years purposefully. Further, total sample was divided randomly into two categories i.e. experimental group (15) and control group (15). The present research takes into consideration the psychological test Anxiety, Depression and Stress Scale developed by Bhatnagar, P. et al. (2011). The positive impact of yoga exercises and meditation has been reported on the level of depression, anxiety and stress among post-menopausal women in the experimental group.

Limitations:

"One limitation of our study is the relatively long duration of the training intervention. Future research could extend the training period or examine the long-term retention of the Yoga, Recreational benefits. Furthermore, the subjects were old and not well-trained. Additionally, the study focused solely on Climacteric women.

Conclusion

In this study the researcher reviewed many in Depression literature in menopausal women. Various changes have been found how yoga activities were effective for female who were suffer from menopause. Because various studies have reported that yoga decrease the depression. Today's generations is totally attracted and depend on the modern technology devices. They spending most of the significant amount of time with devices rather than friends, physical activity. The modern technology affects the female as well as human life in different fields like education, personal relationships, life, and entertainment. Our study helps to motivate the today's generations/females towards the physical and mental health and are helpful for the emotional development of the young female generations. In this study the researcher were find how the yogic activities and recreational were effective for those who were suffer from menopausal period.

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