

Effect Of Yoga Therapy On Quality Of Life Among Perimenopausal Women In Selected Community Khurda Odisha

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Abstract: *Background: The women during the Pre and post-menopause period experience a wide range of menopausal symptoms that jeopardize their lifestyle and they have to cope physically, psychologically, socially, and spiritually. Aim: The study is planned to find out the effect of yoga therapy on quality of life among perimenopausal women in two selected community Khurda district, Odisha. Methods and material: A quasi-experimental study with a pre-test post-test control group design was adopted for this study. Through a self-structured checklist on symptoms of perimenopause, about 120 perimenopausal women aged between 40-50 years were identified having perimenopausal symptoms. The yoga training was provided to the study group. Post-test was conducted after 30 days. Result: The mean age of women was 46 years. The mean score in the psychosocial domain was highest (57.8) among all the domains. The symptom of depression scored the highest (30%) among all the tests. In the control group, the post-test mean score of QOL was 84.93 ± 3.96 and 85.76 ± 2.67 experimental group was 74.52 ± 13.31 and 59.9 ± 10.5 which was statistically significant. In the experimental group, the pre-test and post-test mean scores of QOL were 74.52 ± 13.17 and 59.9 ± 10.5 which was statistically extremely significant. The mean post-test quality of life among perimenopausal women in the control and experimental group was 85.76 ± 3 and 59.9 ± 10.5 respectively and found statistically significant ($p < 0.0001$). The quality of life was found significantly associated with the parity of women. Conclusion: The current study evident that, yoga therapy is effective in improving the quality of life among perimenopausal women. The physical and psychosocial symptoms reduced among women to a significant level after receiving yoga and women were physically and psychologically stronger than before. Hence yoga is a recommended measure in the reduction of symptoms in perimenopausal women.*

Keywords: Yoga therapy, Quality of life, Perimenopausal women.

Introduction:

In the twenty-first century with increase longevity of life span, women expend one-third of their life on menopause, which is an adjustment process and a new biological state of life.^{1, 2, 3, 4} Although it is a normal physiological process of life women experience so many problems like hot flashes, night sweats, insomnia, mood disturbances, impairment of memory, bone and joint pain, lack of concentration, nervousness, depression. The duration, severity, and impact of these symptoms vary from person to person. Some people have severe problems that affect their personal & social functioning as well as their quality of life. The vasomotor symptom is a common problem experienced by the women throughout

menopause both in early & post-menopause.^{5, 6,7,8,9} The woman comes across various physical and psychological problems which are associated with the changing level of depletion of estrogen hormone.¹⁰ Regular exercise with a diet rich in calcium and protein and relaxing self from stress are some benefits to manage health issues that arise during menopause and to prevent the complications found during postmenopausal days. However, yoga, meditation, different types of relaxation techniques, biofeedback, guided imagery, and breathing exercises are some methods to manage stress and help women to adjust with the problems associated with menopause and the aging process of their life.¹²

Yoga is a primordial comprehensive art of living and assists people to overcome several health problems including menopause.^{13, 14} Yoga has been recognized as an effective technique for relaxation and stretching of muscle in the body which helps to increase oxygen and circulation of blood to all the tissues & cell present in the body and optimize the function of the specific system of the body.^{15, 16} For health promotion the menopausal women should need lifestyle modifications, like daily exercise and practicing yoga is nonpharmacological way to reduce the problems associated with menopause, and improving the QOL.¹⁷

In India, most of the women do not know what are the changes take place in their bodies mostly after the age of 45 years and they spend their life by fighting with the problems associated with perimenopause. Therefore it is very much necessary to develop different integrated comprehensive approach to control perimenopausal problems to improving their quality of life

Methods and material: A quasi experimental study with pretest & posttest control group design was adopted for this study Women aged between 40-50 years were considered as sample. A survey was conducted through self structured checklist on symptoms of perimenopause to identify numbers of women available with perimenopausal symptoms Premenopause and perimenopause are sometime used interchangeably. A total of 120 women were identified on basis of presence of at least 60% of symptoms. A moderate effect size was assumed with help of reviewing previous studies, so it was considered as 0.5. The statistical power was 80%. The sample size obtained by Cohens' power analysis and it was 119. So 120 sample were selected conveniently, The exclusion criteria were history of hysterectomy and presence of medical disorders. Those were able to follow and perform yoga program, they were identified and 60 were selected each for control and experimental group. The tool was prepared in two sections. The demographic section addressed the background data of women including age, parity, level of education, occupation, menstrual history, duration of perimenopausal symptoms. The second section was the Self structured perimenopausal QOL interview schedule. Various standardized scales both generic and specific questionnaires related to QOL in menopausal women were reviewed. Different dimensions mentioned in the questionnaires were also assessed. The first scale reviewed was 36-item SF-36 which is a set of generic, coherent, and easily administered quality-of-life measures and a form of health survey and rely upon self-reporting by patient. The second tool was menopause specific quality of life questionnaire (MENQOL) which assess health-related quality of life in the immediate post-menopausal period. The World Health Organization's Quality of Life Questionnaire (WHOQoL-bref) was also reviewed for inclusion of any item. Finally a self structured perimenopausal QOL interview schedule was prepared which included four domains of health; vasomotor, psychosocial, physical & sexual. The vasomotor consisted 3 items, the psychosocial with 8 items, physical was of 11 items & one item in sexual domain. On a 5-point Likert scale the score ranged from 1, 'not at all' to 6 'Extreme amount'. In this tool minimum score was 23 and maximum score was 115 and the scores were divided as, 23- 53(20-46%) for high quality of life; 54- 84 (47-73%) considered as moderate quality of life; 85-115 ($\geq 74\%$) considered as low quality of life. The tools was translated into Odia language and again retranslate to English by the language experts. The study was approved by the hospital Research Ethics Committee. The researcher got training on yoga which included yogasana, pranayama, breathing exercise and meditation. **Pranayama & breathing exercise** consisted of Nadhisodhana Pranayama and Sitali Pranayama, anulomvilum, kapalbhati and it was for 10-15minutes. **Yogasana** consisted of Tadasana, ardhakatichakrasana, Bhadrasana, Paschimothasana, Bhujangasana, Ardhasalabhasana and Shavasana. Each asana was for one minute except savasana, which was of 5 minutes, so with total duration of 10-12 minutes. For meditation,

it was asked to chant “Om” for 3-5 minutes. For three sessions (meditation, pranayam & breathing exercise and yogasanas) total time required was 30- 40 minutes per day .The women in study group were taught yoga with video and asked to practice for 30-45 minutes per day for 30 consecutive days under the supervision of researcher and same time the control group listened some spiritual music. Informed consent was prepared. The tool was validated by various experts. The content validity index was 0.97. The tool was tested with 20 participants to check the reliability. The calculated correlation coefficient cronbach alpha value was 0.86. Permission was taken from competent authorities for final data collection. Written and Verbal consent was taken from the participants. After four weeks the women were asked to respond in the self reported response sheet.

Result

Table 1 Demographic variables of perimenopausal women

Variable	Control group		Experimental group	
	Percentage		Percentage	
Age				
40-45 Years		57		60
46-50 Years		43		40
Educational status				
Illiterate		27		16
Primary		33		27
Higher secondary		20		30
Graduate & above		20		27
Occupation				
Employed		13		07
House wife		87		93
Menstrual history				
Regular				
Irregular		37		43
No menstruation		63		57
		Nil		Nil
Duration of symptoms				
1-30 days				
31-60 days		23		20
61-90 days		27		33
> 90 days		23		17
Parity		27		30
Nulliparous				
Primiparous		Nil		Nil
Multiparous		43		40
Grand multiparous		57		60
		Nil		Nil

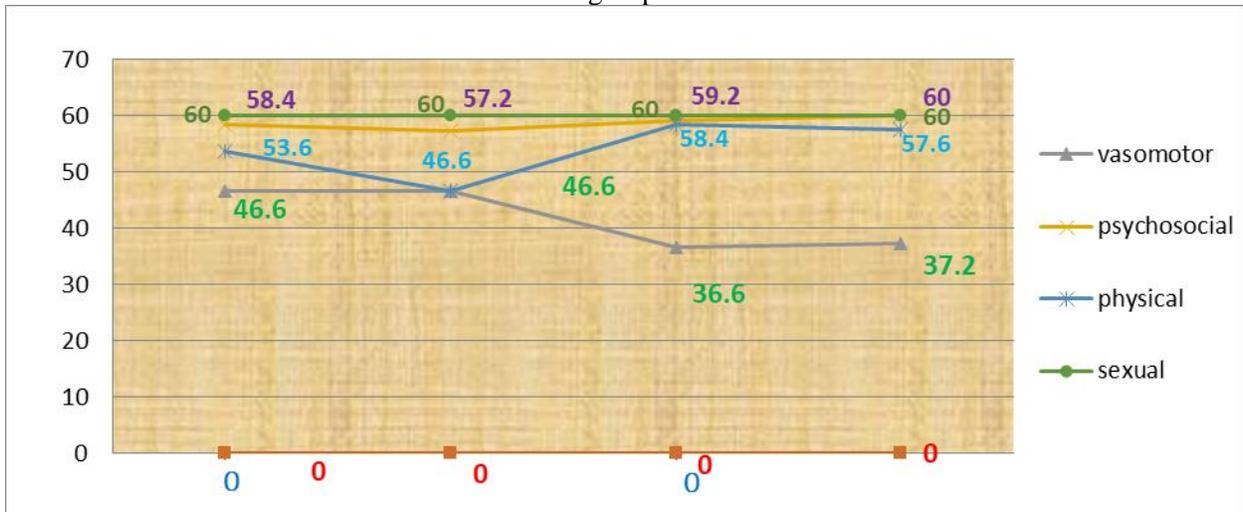
The study found 57% of women from 40-45 years of age group with 60% from control group. In literacy few (16% vs 27%) were illiterate and graduated (27% vs 20%) in experimental and control group respectively. Most of them were housewives (93% vs 87%) in experimental group and control group respectively. Whereas 63% had irregular menstruation in control group and in experimental group it was 57%.

Table 2. Comparison of pre test and post test level of quality of life in perimenopausal women in both the group

	Quality of life	Experimental group		Control group	
		n	%	n	%
Pre test	High quality of life	Nil	Nil	Nil	Nil
	Moderate quality of life	40	67	34	57
	Low quality of life	20	33	26	43
Post test	High quality of life	34	57	Nil	Nil
	Moderate quality of life	26	43	16	27
	Low quality of life	Nil	Nil	44	73

Before providing yoga in experimental group 67% of women had moderate QOL & 33% had low quality & nobody had high QOL. But after yoga 57% had high QOL and 43% had moderate quality of life & nobody had low QOL. Similarly in control group 57% had moderate QOL & 43% had low QOL in pre test score and after one month also 27% had moderate QOL and maximum (73%) women had low quality of life in post test score.

Fig 1: Comparison of perimenopausal symptoms in domain wise between experimental group and control group.



In experimental group, before yoga the mean score of vasomotor domain was 46.6, psychosocial domain 58.4, physical domain 53.6 & sexual domain 60. But after yoga the mean score of vasomotor domain was 46.6, psychosocial domain 57.2, physical domain 46.6 & sexual domain 60. In control group the mean

score in pre test and post test invasomotor 36.6 vs 37.2, psychosocial domain 59.2 vs 60, physical domain 58.4 vs 57.6 & sexual domain 60 vs

Table 3. Effect of yoga therapy on quality of life among perimenopausal women in control & experimental group

Group	Mean ± SD	SE	t test	<u>P value</u>
Exp(pretest)	74.5 ± 13.31	1.36	10.66	0.0001
Exp(posttest)	59.9 ± 10.5			
Cont(Pretest)	84.93 ± 3.96	0.71	1.16	0.25
Cont(Posttest)	85.76 ± 2.67			

This shows a significant difference between pre-test (74.52±13.17) and post-test mean score (59.9±10.5) of quality of life in experimental group at p value < 0.0001. In control group the pre-test & post-test mean score of quality of life was 84.93±3.92 and 85.76±3 and the difference is not significant (p value =0.25)

Table 4. Chi square analysis of quality of life with selected socio-demographic variables

Demographic variables	Chi square value	P value
Age	0.58	0.44
Educational status	0.58	0.90
Occupation	0.07	0.79
Menstrual history	0.42	0.51
Duration of symptoms	3.06	0.38
Parity	3.72	0.05*

The quality of life has significant association only with parity (p = 0.05).

Discussion

The present study revealed that yoga therapy improved the quality of life of perimenopausal women. Incongruence with our study result Gayathry N also reported higher score in quality of life after yoga therapy to perimenopausal women.¹⁸ A related study on yoga therapy among nursing students conducted

by SukanyaRaghunathan also revealed that yoga therapy is quite effective in enhancing quality of life of those students.¹⁹

The present study also reported about significant difference in quality of life score after 7 days of yoga practice (mean pretest score 74.5 ± 13.31 < posttest score 59.9 ± 10.5 with $p < 0.0001$) in experimental group. Similar level of significance was reported from the study of Jayabharati in Tamil Nadu, India, where there was a significant difference found between the study & control group with regards to physical, psychological, social & environmental domains of QOL after yoga therapy. Here the overall mean score on the study group was 31.58 vs 1.61 in the control group.²⁰ This study shows that before intervention the quality of life of perimenopausal women was low quality of life but after intervention the quality of life was improved to moderate and high quality of life. The perimenopausal women those who are not taking any intervention, gradually their quality of life was worsen in comparison with experimental group. Many studies reported that after yoga therapy there was an increased quality of life and a decreased perimenopausal symptoms among the women.^{21,22,23,24,25.}

In this study it was also observed that in vasomotor domain 60% of women reported hot flushes, 97% reported sweating, and 77% complained of night sweats. Gayathry Nayak, reported hot flushes in 36.6% of women in her study.¹⁸ The most common symptoms women reported during perimenopause are hot flashes, sweating and palpitation.²⁵

In psychosocial domain all the women were anxious, nervousness and depressed. Majority (83%) of them experienced poor memory and most (93%) of them had feelings of impatience and felt loneliness and they were unhappy and dissatisfied with personal life also. Biswajit L. Jagtap reported about depressive disorder in 31% of cases and few were anxious.²⁶

worn out 141 (67.5%), decrease in physical strength and stamina 134 (64.1%), muscles and joint pain 115 (55.0%),

In physical symptom most of them (80%) had decreased sleep with ache in head & neck, decreased physical strength and stamina in 93%, and feelings of lack of energy & changes in body appearance in 87%, low backache in 53% and frequent urination in 20%. So all of them were dissatisfied with physical health. In congruence with this result Nabarun Karmakar reported about varying physical symptoms such as feeling tired, decreased physical strength & energy in 93% of women.²⁷

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In the quality of life in sexual domain, it was found in that all the women were unsatisfied. Thilagavathy Ganapathy in her study similarly highlighted about the sexual problems among 26.4% women, mostly the changes found in sexual drive (30.7%) even vaginal dryness (30%), and avoided intimate contact (18.6%) with their partners.²⁸

The current study used yoga as treatment as yoga is as safe as usual care and exercise. Cramer H showed that in experimental group, before and after yoga there was no decrease in mean score in vasomotor domain.²⁹ Compared to control group, the yoga group demonstrated reduction in vasomotor symptoms (SMD = -0.45; 95% CI -0.87 to -0.04) as reported in a systematic review conducted by Holgar C and

vasomotor symptom improved ($p=0.02$) as reported in the study by Susan DR in contrast to the present findings.³⁰

It was found from this study that the QOL is associated with parity of women which is consistent with the result of Ensiyeh Jenabi³¹ & Abdulbari Bener³²

The study again revealed that in experimental group, before yoga the mean score of vasomotor domain was 46.6, psychosocial domain 58.4, physical domain 53.6 & sexual domain 60. After yoga the mean score of vasomotor domain was 46.6, psychosocial domain 57.2, physical domain 46.6 & sexual domain 60. In control group the mean score of vasomotor domain was 36.6, psychosocial domain 59.2, physical domain 58.4 & sexual domain 60 in pre test score and after one month interval the mean score of vasomotor domain was 37.2, psychosocial domain 60, physical domain 57.6 & sexual domain 60 in post test score. The finding is in accordance with the study result of Mohamed HA, where the overall scores of menopausal quality of life in sexual domain 3.19 ± 1.99 & psychosocial domain 2.94 ± 1.45 .³³

Conclusion

The women in their perimenopausal period suffered from various health related problems including vasomotor, psychosocial, physical and sexual which in turn affected their quality of life. Yoga is a safe, scientific and convenient method to practice to reduce the symptoms of menopause and this study found yoga, a quite effective practice that improved a lot in psychosocial and physical health and quality of life. Hence this can be recommended for this group to optimize their health with regular practice and lessen the burden on herself and to her family.

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