

Effect of Yoga on Somato-Vegetative Symptoms of Menopausal Women and its Association with Demographic Variables among Yoga and Non-Yoga Groups

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Abstract

As longevity increases, the population of menopausal age group women is rising in India as elsewhere. According to the Indian Menopausal Society, the number of menopausal women is around 43 million. Fortunately, menopause is now better understood and more openly discussed than ever before. This study sought to assess and compare the effect of Yoga on somato-vegetative menopausal symptoms of women before and after administration of Yoga between Yoga and Non-Yoga groups and to associate the post-test somato-vegetative menopausal symptoms with the selected demographic variables in two groups. It had a true experimental design involving random assignment to treatment group and control group. The study was conducted between June 2015 and July 2016 among menopausal women coming in selected Sub Centres in two Primary Health Centres. The sample size was 120 each in Yoga group and Non-Yoga group. There were 12 drop outs in the Yoga group. The study adopted cluster sampling technique with randomisation. Majority (61.1%) of them experienced mild somato-vegetative symptoms and significant (34.3%) of them experienced moderate level of somato-vegetative symptoms after post-test in the Yoga group. The study showed a reduction in menopausal somato-vegetative symptoms in Yoga group of menopausal women thus proving Yoga intervention to be effective. Women in menopause showed a positive attitude towards performing Yoga as they found it safe in their home settings.

Key words: Menopause, Somato-vegetative symptoms, Yoga

Objectives

The study was set with following objectives.

1. To assess and compare the effectiveness of Yoga on somato-vegetative of symptoms of menopausal women before and after administration of Yoga between Yoga and non-Yoga groups.
2. To find out the association of post-test somato-vegetative menopausal symptoms with the selected demographic variables in Yoga and non-Yoga groups of menopausal women.

Hypothesis

Hypothesis 1: There will be significant difference in the menopausal symptoms before and after Yoga among the Yoga and non-Yoga group.

Null Hypothesis Ho2: There will be no significant difference in the menopausal symptoms before and after Yoga among the Yoga and non-Yoga groups.

Hypothesis 2: There will be significant association between selected demographic variables and menopausal symptoms before and after administration of Yoga among the Yoga and non-Yoga groups.

Middle age is that time of life when each passing day makes one feel two days older; it is relatively a difficult, stressful and uncomfortable period. One is neither old nor young and hence gets sandwiched between the two great generations and suffers from blues (BWHB, 2006).

In this study, the researcher served mainly as a guide helping women in post-menopause to monitor their own health. Yoga not only tones and conditions the body's exterior, but they also work wonders internally. Its benefits include long, lean muscles, correct posture, improved breathing, improved sleep, enhanced digestion, better circulation, a relaxed nervous system and a fortified immune system (Hudson, 2001; Gupta et al, 2010; Aaron & Muliyil, 2002). Regular Yoga practice improves physical health by enhancing circulation of oxygenated blood in the body, retraining the sense organs thereby inducing serenity and calmness of mind.

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Null Hypothesis HO2: There will be no significant association between selected demographic variables and menopausal symptoms before and after administration of Yoga among the Yoga and non-Yoga groups.

Earlier, menopause was thought of as a disaster happening to women and they got psyched into using hormones even before the 'mishappening' like menopause would strike them. When the studies were performed, HRT did not appear to be as safe and beneficial as it was made out to be (Bouchez, 2005).

The regular practice of Yoga not only makes the body strong and flexible; it has been scientifically proved that Yoga improves the functioning of the respiratory, circulatory, digestive and endocrine systems. There are asanas which involve slow non-jerky movements of ligaments, muscles and joints which strengthen them scientifically and energise every part of the body. Hence Yoga is for therapeutic use (Ravishankar, 2013; Kapil, 2013).

Yoga advances one's inherent power in a balanced manner. It offers the ways to achieve complete self-realisation. Yoga has entered into our everyday lives and has aroused a worldwide awakening and approval in the last few decades. Experts of modern medical sciences are realising the role of these techniques in the prevention and mitigation of diseases and promotion of health (Osho, 2004; Kamal, 2013).

It provides protection against osteoporosis, cardiovascular disease and sleep disturbances. Peri-Menopausal women can achieve a much better quality of life if they practice Yoga regularly (Liu & Gass, 2006; Ojeda, 1998).

Yoga as a mind-body intervention can help manage menopausal symptoms in a natural way. It serves as the best alternative to the chemical-based hormone replacement therapy without adverse effects.

Review of Literature

A cross sectional study by Abou-Raya et al (2016) determined the frequency and severity of menopausal symptoms among Egyptian women using the Menopause Rating Scale as a screening tool for identification of menopausal symptoms. A total of 540 women (aged 40-65 years) were recruited in this study. Most frequently reported symptoms were joint and muscular discomfort (501, 92.8%) followed by urogenital symptoms (460, 85.2%). A significant association was found between the number of menopausal symptoms and working status of participants ($r=0.504$, $p=0.005$), number of children ($r=0.474$, $p=0.042$), and body mass index ($r=0.544$, $p=0.006$).

A cross-sectional community-based study was conducted among 100 postmenopausal women aged 40 – 65 years by Kulkarni et al, (2016). The results revealed that the mean age at menarche and menopause was 13.45 ± 1.72 years and 46.7 ± 5.2 years, respectively. The most common post-menopausal symptom was joint pain (92%) followed by physical and mental exhaustion (84%), depression (76%), irritability (73%), hot flushes, and night sweats (65%). There was a noteworthy positive correlation between age of the women, duration of life after menopause, and postmenopausal symptoms.

Lampio et al (2016) conducted a follow-up study on predictors of sleep disturbance in 81 women with menopausal transition. The baseline variables were associated with impaired sleep quality at follow-up: depressive symptoms increased the risk of nocturnal awakenings (OR 1.16 (95% CI 1.02-1.32), $p=0.025$), morning tiredness (OR 1.22 (95% CI 1.06-1.40), $p=0.007$), daytime tiredness (OR 1.24 (95%CI 1.06-1.44), $p=0.007$) and propensity to fall asleep during work or leisure time (OR 1.18 [95% CI 1.01-1.37], $p=0.036$).

Lim et al (2008) studied the prevalence of Vitamin D inadequacy in post-menopausal women in Eastern Asia. Dietary deficiency and inadequate exposure or reactivity to sunlight (due to lifestyle choices, cultural customs and/or aging) were identified as important risk factors for vitamin D inadequacy.

A study by Woods et al (2014) assessed the effects of mind-body therapies on symptom clusters during the menopause transition. Physical activity/exercise trials (six) yielded mixed results; only one significantly reduced hot flushes and mood symptoms. Of two relaxation therapy trials, only mindfulness-based stress reduction training reduced sleep and mood symptoms and had within-group treatment effects on hot flushes. Yoga (one trial) significantly reduced hot flushes and improved cognitive symptoms more than exercise, and also had within-group effects on sleep and pain symptoms.

Buchanan et al (2017) studied the effects of Yoga and aerobic exercise on actigraphic sleep parameters in menopausal women with hot flashes. Finding Lasting Answers for Symptoms and Health (MsFLASH) network conducted the study among 186 late transition and post-menopausal women aged 40-62 years with hot flashes. Women were randomised to Yoga, supervised aerobic exercise, or usual activity. Changes in the actigraphic sleep outcomes from baseline to weeks 11-12 were small, and none differed between groups. In an analysis, women with baseline Pittsburgh Sleep Quality Index higher than 8 had significantly reduced TST-CV following Yoga compared with usual activity.

Methodology

Experimental research approach was selected for the study; it was true experimental design to test a treatment involving random assignment to treatment group and control group as the study.

Tools used: Demographic variable proforma, standardised Menopause Rating Scale developed by Lother AJ Heinemann, Berlin Center for Epidemiology and Health Research, which is a Likert scale with 11 items and 5 rating points meeting psychometric norms. There are three domains / sub-scales included in this scale. They are somato-vegetative domain – 4 items, psychological domain – 4 items and urogenital domain – 3 items. The items under Somato-vegetative domain are Hot flushes, Heart discomfort, Sleep problems and Joint & muscular discomfort.

Reliability & validity

All the tools including the standardised tools were pre-tested, and translated into Tamil using forward backward translation. Reliability of Menopause Rating Scale by the author, Lother AJ Heinemann for overall symptoms is 0.80 and for somato-vegetative sub domain is – 0.73. Reliability analysis was performed on the Menopause Rating Scale with Cronbach's alpha which was overall 0.81, and for somato-vegetative subscale 0.712. The constructed tools were given to experts for content validity. Opinions and suggestions were obtained from the experts in the field of community medicine, community health nursing, gynaecology, obstetrics and gynaecological nursing and Yoga.

Intervention protocol: The Yoga therapy module is developed by the researcher on the basis of Patanjali and Hatha Yoga to address the menopausal symptoms with suitable practice of Warm ups (Hand and Leg stretches)

Asanas (body postures): Includes Ardha Kadi-chakrasana, Pada Hasthasana, Udhana Padasana, Pavanamuktasana, Makarasana, Bujangasana, Salabasana, Janusirasana, Balasana, Utiana Bandha

Cool Down Asanas: Pranayama - Nadi Shudhi (alternate nostril) and Sheethali through tongue), Dhyana (concentrates breath in meditative pose in Ardha Padmasana or Sukhasana) and Shanthiasana (deep relaxation in corpse pose).

The Yoga practices were demonstrated by the researcher and the subjects performed the same in front of the researcher. The intervention was planned for 6 weeks which began by collecting the baseline data, teaching and practising respective protocol for 60 minutes every day for 6 days in a week. The follow-up and post-interventional data were assessed after 6 weeks of practice. The data

were first collected for the control (non-Yoga) group and then for the experimental (Yoga) group.

The study was conducted between June 2015 and July 2016 among menopausal women coming under selected Sub Centres in two Primary Health Centres of Thiruvallur District namely Thiruverkadu PHC and Naravarikuppam PHC in Southern part of India.

Total sample size was 240, out of which 120 samples were assigned to Yoga group and 120 samples to Non – Yoga group from selected sub centres of two selected Primary health centres who fulfilled the inclusion criteria. There were 12 drop-outs in the Yoga group and hence the final sample size was 108 in Yoga and the non-Yoga group sample size remained the same. The sample size was estimated with the help of the On line Calculator based on the standardised Menopause Rating Scale (MRS) developed by Lother AJ Heinemann.

Sampling technique: The study adopted cluster sampling technique with randomisation.

Ethical Considerations: The study was conducted after obtaining the clearance from Institutional Ethics Committee, Apollo Hospitals, Chennai. Permission was also obtained from Health Services, Thiruvallur District to utilise the Subcentres.

Results

The data presented in Table 1, Fig 1-3 show that majority of the menopausal women (85.2%, 85.8%) were married and living with spouse, educated upto primary & high school (44.4%, 40.8%), homemakers (77.8%, 77.5%), moderate workers (51.9%, 55.9%), having family monthly income of less than Rs. 15,000 (47.2%, 40%), consuming mixed diet (74.1%, 70.0%), living in nuclear family (75.9%, 83.3%) and Hindus (85.2%, 74.2%) in Yoga and non-Yoga group respectively. There was no statistically significant difference ($p > 0.05$) between the groups. Hence, they are comparable and homogenous groups.

Table 2 shows that the mean age at natural menopause was 46.9 ± 4.0 years and 47.0 ± 3.5 years in Yoga and non-Yoga group respectively. The difference between them was not statistically significant ($p > 0.05$). Similarly, the mean current age (52.9 ± 6.3 and 52.8 ± 6.2) and duration of menopause (6.1 ± 5.2 and 5.9 ± 5) were also not statistically significant ($p > 0.05$). Hence it can be inferred that the two groups were comparable and homogenous in respect of their age-related demographic variables.

Effect of Yoga on menopausal symptoms in somato-vegetative domain among Yoga and Non-Yoga groups

Fig 3 illustrates that most of the women had severe

somato-vegetative symptoms (63.9%, 66.7%) in the pre-test in Yoga and non-Yoga groups respectively. Whereas majority (61.1%) of them experienced mild somato-vegetative symptoms and significant (34.3%) of them experienced moderate level of somato-vegetative symptoms after post-test in the Yoga group.

The mean values in somato-vegetative domain of Yoga group before Yoga was 9.2 ± 2.2 and after Yoga was 3.9 ± 1.5 (Table 3). The mean improvement was 5.3 ± 1.4 and the same was statistically very highly significant ($p < 0.001$). Hence the null hypothesis that H01 there will be no significant difference in the menopausal symptoms before and after Yoga among the Yoga and non-Yoga groups of menopausal women, was rejected.

There was significant association between nature of menstrual cycle before menopause and menopausal symptoms (MRS) at $p < 0.05$ level of significance in the post test among both Yoga and non-Yoga groups of menopausal women. Other demographic variables did not show any significant association. Hence the Null hypothesis H02 that there will be no significant association between selected demographic variables and menopausal symptoms before and after administration of Yoga among the Yoga and non-Yoga groups of menopausal women was partially rejected.

Discussion

Assessment of Demographic Characteristics of the menopausal women

With regard to marital status, as majority are married and living with spouse, it is understood that rural women are adjustable. Women may also be

able to share their sorrows and health problems to their spouses. This is the period their children are out of the family either for job or get married. Menopausal women living with their spouse get time again to have a better understanding as they age. Education helps them lead a quality life after the intervention by continuing the practice of Yoga. Where education is deficient, women in menopause may not be interested to practice Yoga, they may view it as a burden or pain. House wives, being at home make them perceive the menopausal symptoms often, as they are not always engaged. Moreover, at midlife as home makers they may feel lonely. At the same time, there is opportunity for them to socialise, share their views with their spouse, and with neighbourhood. Their nature of work and activity also contribute to the menopausal symptoms. Menopausal symptoms like joint pain and muscular pain set in due to decreased activity. Those who could already carry out some work were able to perform Yoga with flexibility and as Yoga is executed in groups, menopausal women who perform Yoga influence others who lack flexibility. Consumption of mixed diet helps us understand that there is calcium intake through sea foods like fish, milk and others. On the contrary, taking mixed diet can put the menopausal women at risk for obesity and drop in oestrogen also has the tendency to cause weight gain.

As majority of the menopausal women were living in nuclear families, the experience of 'empty nest syndrome' adds fuel to fire. Moreover, they have people in the family to socialise. On the contrary, nuclear family may also facilitate the menopausal women to take rest when they need and even help her schedule time to practise Yoga at home. A woman has privacy to modify or manage her routine in nuclear family. Although many Hindus opted to be part of the study, the Christians did show interest in learning and practicing Yoga and were part of the study. The reason might be that Yoga has its roots in India and hence they might have shown preference to it.

The results were consistent with a recent pan-India survey of Indian Menopause Society

Table 1: Frequency, percentage and Chi square values of demographic variables (categorical) among the Yoga and Non-Yoga group of menopausal women for homogeneity

Demographic variables	Components	Yoga group (n=108)		Non-Yoga group (n=120)		χ^2	df	Significance
		F	%	F	%			
Educational status	Illiterate	29	26.9	30	25.0	0.943	3	$p > 0.05$
	Primary & High School	48	44.4	49	40.8			
	Hr Secondary	19	17.6	27	22.5			
	UG and PG	12	11.1	14	11.7			
Occupation	Home maker	84	77.8	93	77.5	0.592	3	$p > 0.05$
	Self employed	13	12.0	12	10.0			
	Employed	10	9.3	13	10.8			
	Others	1	0.9	2	1.7			
Nature of Work	Sedentary	40	37.0	39	32.5	0.533	3	$p > 0.05$
	Moderate	56	51.9	67	55.9			
	Heavy	11	10.2	13	10.8			
	Others	1	0.9	1	0.8			

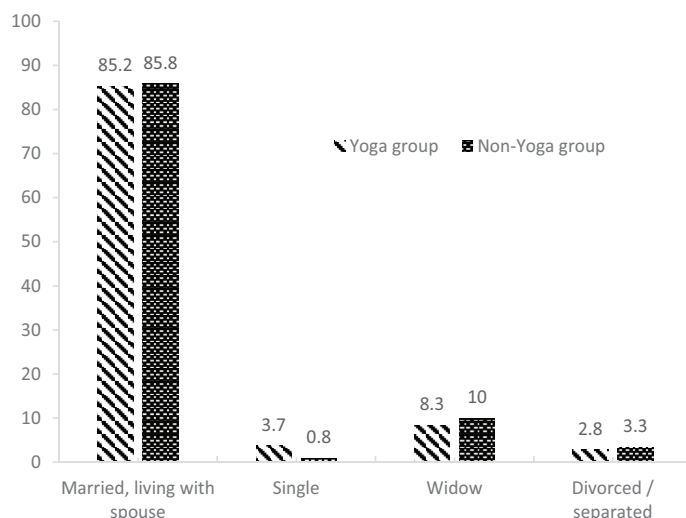


Fig 1: Percentage distribution of marital status of menopausal women.

by Ahuja et al (2016) which revealed that most of the menopausal women were married (93.1%), majority were homemakers (77.4%) and majority of them were Hindu (82.9%) and a significant percentage of them were on mixed diet (45.4%). Similar results were revealed in a study by Suramanjary (2016) which showed that majority of menopausal women were in nuclear family (68%) and a significant percentage of menopausal women were primary and high school educated (44%). The results were also similar to a study by Dutta et al (2012) conducted in rural Poonamallee block of Thiruvallur district which showed that majority of the menopausal women were married (86.2%).

It is obvious that menopausal women in this study have attained natural menopause at more or less the right age in both Yoga and non-Yoga group. This also shows that there is no evidence of early or delayed menopause in the study indicating normal physiological process. The duration of menopause is obtained by subtracting current age with age at natural menopause. The present

study indicates that all women were in postmenopausal period from early to late post-menopause. The menopausal symptoms were clearly seen at these stages. It was not so difficult to convince the menopausal women to practice Yoga and thereby reduce the symptoms although there was reluctance initially with regard to venue and time.

Most of the women had severe somatic symptoms (63.9%, 66.7%) in the pre-test in Yoga and non-Yoga groups respectively. Whereas majority (61.1%) of them experienced mild somatic symptoms and significant (34.3%) of them experienced moderate level of somatic symptoms after post-test in the Yoga group.

Women spend approximately one-third of their lives post-menopause. The main purpose of Yoga intervention is to help them lead an active and healthy life during perimenopause and continuing into post-menopause.

The menopausal symptoms in somato-vegetative domain (hot flashes, heart discomfort, sleep problems, joint and muscular discomforts) were scored individually and then combined for the purpose of statistical scoring.

Hot flashes: Hot flashes appear to be one of the first signs of peri-menopause and may continue for two years into post-menopause (possibly longer for some women). The increase and perception of heat within the body is a hot flash. The feeling of heat can be in the upper part of the body (face, neck, and upper torso). Hot flashes are accompanied by perspiration. When this occurs during sleep, it is night sweat. A smaller temperature change will cause the body to try to cool itself by dilating blood vessels in the skin, resulting in flushing and perspiration (Gupta et al, 2010; Bouchez, 2005).

Menopausal women who performed Yoga regularly have reported fewer and less severe hot flashes than did non-Yoga group of menopausal women. Studies also suggest that those with higher physical activity levels had fewer hot flashes than did less physically active women. Also, relaxation techniques are beneficial. In cool down Yoga, menopausal women performed Nadishuddhi Pranayama, Sheethali Pranayama, Dhyana and Shanthi asana which appears to potentially reduce the frequency of hot flashes by slow deep breathing from the abdomen (paced respiration). Sheethali Pranayama, being a body coolant Pranayama is known to produce tremendous benefits on the body and mind (Andiappan, 2013; Iyengar, 2009).

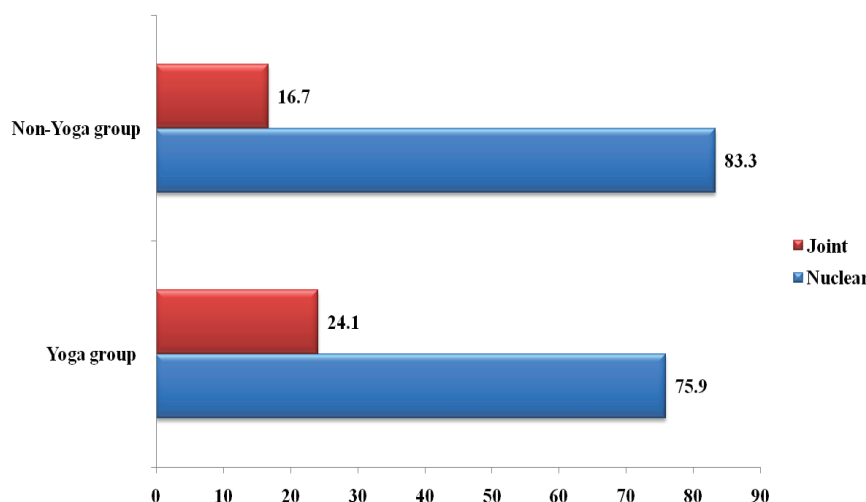


Fig 2: Percentage distribution of family type of menopausal women.

Table 2: Mean, standard deviation & 't' value of age-related demographic variables (continuous) among the Yoga and non-Yoga group of menopausal women for homogeneity.

Demographic variables (continuous)	Yoga Group (n=108)		Non-Yoga Group (n=120)		t-value	df	Significance
	Mean	SD	Mean	SD			
Age at natural menopause	46.9	4.0	47.0	3.5	0.126	226	p>0.05
Current age	52.9	6.3	52.8	6.2	0.087	226	p>0.05
Duration of menopause (in years)	6.1	5.2	5.9	5.0	0.199	226	p>0.05

Table 3: Mean, standard deviation and 't' value showing the effect of Yoga in controlling menopausal symptoms in somato-vegetative domain within groups among Yoga and non-Yoga group (N = 228).

Variable	Groups	Pre-test		Post-test		Improved		t-value	df	Significance
		Mean	SD	Mean	SD	Mean	SD			
Somato vegetative symptoms	Yoga (n=108)	9.2	2.2	3.9	1.5	5.3	1.4	39.682	107	p<0.001
	Non-Yoga (n=120)	9.4	1.9	9.6	1.7	0.2	1.1	1.960	119	p>0.05

Heart discomfort: Women experiencing symptoms of heart discomfort could manage them by following Yoga techniques like Warm ups, Asanas and Cool down. Yoga allows the heart to slow down in a controlled manner, helping to avoid negative changes in the heart rhythm. Yoga prevents sudden drop in blood pressure, which can occur when activity is stopped abruptly, unlike exercise. The cool down Yoga techniques slowly return the body to pre-exercise levels as observed with breathing frequency and heart rate.

In this study, reduction of heart discomfort is evidenced by practising Nadishuddhi Pranayama, Sheethali Pranayama, Dhyana and Shanthiasana. The cool down is the finishing touch to complete Yoga (Iyenger, 2009; Sundaram, 2009).

Sleep problems: Findings were similar to those of Buchanan et al (2017) wherein baseline values of

help manage the sleep related problems in menopausal women. These Yoga techniques promote sleep by relaxation response. Regular and sustained practise could make changes in the sympathetic nervous system. Stress is relieved and therefore mind gets quiet and calm resulting in peaceful sleep with less or no interruptions. Stress is reduced as Nadishuddhi Pranayama clears the blockage in pranic flow. Sheethali Pranayama cools the whole body and purifies the blood thereby promoting rest and sleep. Dhyana or Meditation increases calmness of mind, steadiness which controls anxiety and inner restlessness and mood changes. Shanthiasana gives rest to the whole body, also gives a sense of wellbeing and rejuvenates the body and mind (Ravishankar, 2013).

Joint and muscular discomforts: Warm ups and Yogasanas like hand and leg stretches, asanas, work

on the ligaments, muscles and joints through slow non-jerky movements scientifically. They alleviate muscular and joint discomforts when initiated and performed earlier. Telang & Chakravarthy (2012) conducted a study at the fertility research centre and Max Healthcare centre to evaluate

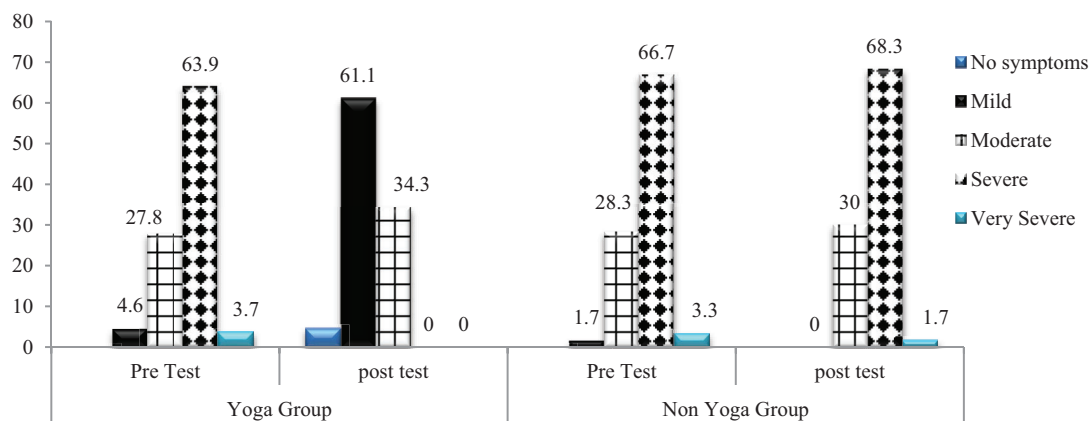


Fig 3: Percentage distribution of pre-and post-test levels of menopausal symptoms in somato-vegetative domain among Yoga and Non-Yoga groups of menopausal women.

Table 4: Association between demographic variables of Yoga and non-Yoga group of menopausal women with their MRS in post-test

Demographic variables	Category	Yoga group (n=108)					Non-Yoga group (n=120)				
		≤M	>M	χ ²	df	Sig	≤ M	>M	χ ²	df	Significance
Age (years)	<60	62	25	0.205	1	p>0.05	56	43	0.968	1	p>0.05
	60+	16	5				12	9			
Duration (years)	≤ 4 (M)	37	16	0.302	1	p>0.05	42	27	1.168	1	p>0.05
	>4 (M)	41	14				26	25			
Marital status	Married	64	28	1.383	1	p>0.05	58	45	0.038	1	p>0.05
	Others	14	2				10	7			
Educational status	<Hr Sec	57	20	0.435	1	p>0.05	45	34	0.008	1	p>0.05
	Hr Sec +	21	10				23	18			
Occupation	Home Ma	60	24	0.119	1	p>0.05	51	42	0.562	1	p>0.05
	Others	18	6				17	10			
Nature of work	Sed & mod	68	28	0.362	1	p>0.05	61	45	0.592	1	p>0.05
	Heavy	10	2				7	7			
Family income	<15000	44	13	1.487	1	p>0.05	41	31	0.006	1	p>0.05
	15000 +	34	17				27	21			
Food habit	Vegetarian	21	3	3.590	1	p>0.05	17	11	0.24	1	p>0.05
	Others	57	27				51	41			
Family type	Nuclear	57	25	1.247	1	p>0.05	55	45	0.679	1	p>0.05
	Joint	21	5				13	7			
Religion	Hindu	66	26	0.072	1	p>0.05	52	37	0.435	1	p>0.05
	Others	12	4				16	15			
Nature of menses before menopause	Regular	25	3	5.486	1	*p<0.05	21	6	6.323	1	*P<0.05
	Irregular	53	27				47	46			

the effect of Yoga on post-menopausal women who practised regularly. There were 50 patients in each of 3 groups, (A,B,C – HRT, Calcium and Yoga) with a total of 150 patients. It was found that the bone mineral density was significantly higher in women in group C (Yoga) as compared to group A with a confidence interval of 99% (p=0.0023) and higher than group B with a confidential value of 99% and p value of 0.0009. Other symptoms also were significantly lesser in women who practice Yoga regularly. It was concluded by this study that Yoga scores over plain calcium supplements and HRT managing menopausal symptoms and preventing osteoporosis.

A systematic review was undertaken by Stefanopoulou & Grunfeld (2016) on mind-body interventions for vasomotor symptoms in healthy menopausal women and breast cancer survivors. Mind-body therapies are commonly recommended to treat vasomotor symptoms, such as Hot Flushes and Night Sweats (HFNS). Outcome measures included HFNS frequency and/or severity or self-reported problem rating at post-treatment. The methodological quality of all studies was systemati-

cally assessed using predefined criteria. Findings suggest that interventions like breathing and relaxation techniques, and CBT, can be beneficial for alleviating vasomotor symptoms.

Implications

Nursing education: Nurses could learn and integrate the knowledge of Yoga in the clinical care settings. Nursing curriculum does not emphasise on menopausal health in the undergraduate curriculum. Students could be motivated to conduct mass awareness programmes, rally and street plays to create awareness to midlife women.

Nursing practice: Community health nurses can identify and suggest strategies to women in

natural menopause. Yoga as a Complementary and Alternative Medicine has proved to have great scope in its application in various clinical and community scenarios – muscular and joint pain, insomnia, hot flashes.

Independent Yoga practice: Yoga can be learnt by nurses so that they can help menopausal women overcome the symptoms in the community. Yoga education will aid nurses to be confident, stress free in their work settings helping them provide competent care.

Menopause practitioner: Just like doctors specialising in certified menopause practitioner course under Indian Menopause Society, there needs to be a certification course for nurses where they can provide counselling services and complementary and alternative therapies.

Nursing administration: Nurse leaders and nurse administrators should encourage the use of evidence-based complementary therapies in patient care. Nurses should take initiative in collaborating with policy makers to create national policies for

utilising Yoga techniques during menopause.

Nursing research: More researches could be designed on menopausal health-related aspects and strategies to overcome them have to be experimented.

Recommendations

A community-based descriptive study could be conducted to assess the prevalence of menopausal symptoms with a larger sample size. An experimental study to assess the effectiveness of Yoga on menopausal symptoms could be done for a longer duration. A pan-India study could be done to identify the presence and severity of menopausal symptoms in different regions of India. A meta-analysis could be done on the effectiveness of Yoga on menopausal symptoms.

Conclusions

There was reduction in somato-vegetative menopausal symptoms in Yoga group of menopausal women thus proving it to be effective when compared to non-Yoga group of menopausal women. The study concluded that Yoga therapy is effective in managing the distressing peri-menopausal symptoms. Community health nurses are the major force in public health setting working at various levels of prevention for health promotion, specific protection, early identification and treatment, disability limitation and rehabilitation (Allender, 2010). Yoga can alleviate the sufferings of the mid-life women at all levels of prevention.

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