



Managing Stress of Aging: The Role of Yoga

Dr. S.HASEENA

Post Doctoral Fellow, Dept. of Psychology, Sri Venkateswara University, Tirupati, Andhra Pradesh, India

Prof. L.K.REDDY

Professor, Dept. of Psychology, Sri Venkateswara University, Tirupati, Andhra Pradesh, India

ABSTRACT

The older adults experience a number of new and unfamiliar stressors. It is important to understand the types of stressors during this stage of life and help them to cope better for a healthy aging. Stress comes in two basic flavors, physical and emotional - and both can be especially taxing for older people. Various researches show evidence regarding the practice of yoga to improve physical fitness and function in older adults. Yoga interventions show beneficial trends for the general aging population. Yoga could quite possibly be one of the best anti-aging practices one can do. The present study aims to study the impact of practice of yoga on stress of aging. 60 older adults were consulted and administered the Perceived stress scale developed by Cohen, Kamark and Mermelstein (1983). The stress levels were studied in relation to the duration of practice of yoga (from more than one year and less than one year), status of health, age and gender of the respondents and their present occupational status. Results show that Yoga practice has a positive impact on reducing stress among older adults.

KEYWORDS

Aging Stress, Yoga practices.

Introduction:

Human development is a lifelong growth process comprised of different stages. Each stage of development has markers which indicate students' abilities to perform various tasks. Aging adults are vulnerable to the effects of a negative emotional state. Stress comes in two basic flavors, physical and emotional -- and both can be especially taxing for older people. The impacts of physical stress are clear. As people reach old age, wounds heal more slowly and colds become harder to shake. A 75-year-old heart can be slow to respond to the demands of exercise. And when an 80-year-old walks into a chilly room, it will take an extra-long time for the body temperature to adjust.

Emotional stress is more subtle, but if it's chronic, the eventual consequences can be as harmful. At any age, stressed-out brains sound an alarm that releases potentially harmful hormones such as cortisol and adrenaline. Ideally, the brain turns down the alarm when stress hormones get too high. Chronic stress has been shown to contribute to the development of Alzheimer's disease, and recent research has shown that greater stress may be the reason that some women's brains age more prematurely than men's.

Interest in yoga is growing, especially among older adults. Yoga — a mind-body practice — is considered one of many types of complementary and integrative health approaches. Yoga brings together physical and mental disciplines that may help one to achieve peacefulness of body and mind. This can help to relax and manage stress and anxiety. Yoga has many styles, forms and intensities. Hatha is one of the most common styles of yoga, and older adults like its slower pace and easier movements. The core components of yoga are:

- **Poses.** Yoga poses, also called postures, are a series of movements designed to increase strength and flexibility. Poses range from lying on the floor while completely relaxed to difficult postures.
- **Breathing.** Controlling one's breathing is an important part of yoga. Yoga teaches that controlling one's breathing can help to control body and quiet the mind.
- **Meditation or relaxation.** Meditation may help to learn to be more mindful and aware of the present moment without judgment.

Kaitlyn P. Roland, Jennifer M. Jakobi, and Gareth R. Jones (2011), in a comprehensive search yielded 507 studies; with yoga styles and measurement outcomes. Studies reported moderate improvements for gait (*ES* = 0.54, 0.80), balance (*ES* = 0.25–1.61), upper/lower body flexibility (*ES* = 0.25, 0.70), lower body strength (*ES* = 0.51), and weight loss (*ES* = 0.73, 0.99). Yoga may engender improvements in some components of fitness in older adults. An emerging trend is the recommendation of yoga as an alternative medical therapy. Fourteen million people in the United States (6.1% of the population) have had a doctor or therapist suggests yoga as a therapeutic tool, and 45% of adults surveyed believe yoga is a beneficial adjunct therapy for traditional medical treatment (Macy, 2008). Participation in yoga by the older adults has tripled in the last 4 years.

Yoga has a beneficial effect of maintaining body flexibility and strength, which are important for preventing falls and subsequent loss of independence (Chen et al., 2008; Chen & Tseng, 2008, DiBenedetto et al., 2005). The beneficial effects of yoga on lower leg (Chen et al., 2008; Van Puymbroeck et al., 2007) and ankle (DiBenedetto et al., 2005) strength and balance measures (Brown et al., 2008; Morris, 2009; Oken et al., 2006) suggest improved mobility and lowered risk for falls. Future studies examining the effects of yoga on physical function, specifically those that maintain or improve functional independence, in older adults are justified.

The health benefits of yoga: The potential health benefits of yoga include:

- **Stress reduction.** A number of studies have shown that yoga may help reduce stress and anxiety. It can also enhance the mood and overall sense of well-being.
- **Helps in Anti aging:** Because of its low to no impact, yoga is a great way exercise without causing possible damage to the body. The best thing about yoga is stress reduction, by calming the mind and body. Yoga is possibly one of the best anti-aging practices one can do.
- **Improved fitness:** Practicing yoga leads to improved balance, flexibility, range of motion and strength.
- **Management of chronic conditions:** Yoga helps to reduce risk factors for chronic diseases, such as heart dis-

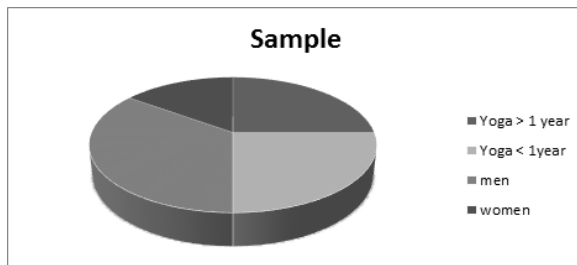
ease and high blood pressure. Yoga also helps to alleviate chronic conditions, such as depression, pain, anxiety and insomnia.

- **Memory and age:** Science says there's a physiological explanation for the feelings of calm experienced during yoga work outs. In a recent study conducted by Thomas Jefferson Medical College in Philadelphia, yoga was shown to reduce cortisol levels, the so-called stress hormone. Elevated amounts of cortisol may add to age-related memory problems.
- **Pain:** Yoga is effective in relieving back pain. A University of Washington study recommends yoga or stretching once a week for 3 months to alleviate symptoms.
- **Sleep:** Although the brain's natural sedative melatonin decreases with age, an Indian study found that yoga practiced daily for three months increased melatonin levels.

Objectives of the study:

- 1) To study the levels of stress among various groups of older adults.
- 2) To study the impact of Yoga practice on managing stress among older adults.

Sample: 60 older adults of age group between 55 years to 75 years constituted the sample of the present study. Of the 60 older adults, based on the duration of practice of yoga two groups of 30 each was taken (Group A – from more than one year and Group B less than one year). The data was collected from three Yoga centers in Tirupati – Body and Soul, Sanjeevani and Patanjali Yoga therapy center. 23 participants have residential yoga practitioners.



Tools: Perceived stress scale (PSS) developed by Cohen, Kamark and Mermelstein (1983) was used to assess the levels of perceived stress in the subjects. The scale has 14 items that asks the participants to rate a series of feelings and thoughts during the past one month on a 5-point scale from 0 (never) to 4 (very often). The scores for the PSS are obtained by reversing the scores on the seven positive items and then summing the scores on all 14 items. The PSS has adequate internal and test-retest reliability as well as validity. Higher scores on the stress scale indicate greater levels of stress. Besides, the other social characteristics of the subjects such as, age, gender, health status, period of practicing yoga exercises and occupational status, were collected using the general data sheet.

Results: Scores for PSS ranged from 6 to 38 (Mean = 15.26 for aged practicing yoga for more than a year and M = 19.96 for aged practicing yoga for less than a year). The yoga practice (>1year and <1 year), Status of health (Good/Poor), Age of the subjects (55-65years/66 and above), Occupational status of the subjects (working/not working) and gender (male/female). The scores of the subjects on their Perceived stress are presented in Table 1.

Table 1: Scores on Perceived stress:

Variable	Component	N	Mean	S.D	't' test
YOGA	>1year	30	15.26	7.10	2.04 *
	< 1 year	30	19.98	10.95	

Status of Health	Good	43	13.75	6.42	4.84 **
	Poor	17	25.90	9.65	
AGE	55-65 years	48	17.12	9.43	0.73 @
	66 years above	12	19.38	9.71	
OCCUPATIONAL STATUS	Working	31	17.07	9.21	0.57 @
	Not Working	19	18.61	9.94	
GENDER	MEN	42	16.01	8.64	1.99 *
	WOMEN	18	21.38	10.42	

The above shows a significant difference ('t' value of 2.04) in the stress levels between the two groups of older adults who practice yoga. Older adults who have been practicing yoga exercised since a year or more have considerably lower stress than the elderly who have started the yoga recently. The perceived stress levels also vary among the older adults with respect to their status of health and gender. Older women perceive greater stress than the older men.

Findings of the study:

1. There is significant difference between the older adults practicing Yoga for more than a year and older adults who are practicing yoga for less than a year, with respect to their perceived stress.
2. Older adults with good health and poor health differ significantly with respect to perceived stress.
3. Perception of stress significantly differs in older men and women, older women perceive greater stress than older men.

Discussion:

Participants in the current study mentioned that many things caused them stress. Some of the frequent mentioned stressors included: health problems, death, family problems and dependence. All these findings are consistent with Choi and Jun's (2009) study. Older adults reported that being patient and accepting, feeling blessed and lucky, being independent as much as possible, having spousal or family support, staying busy, having faith, being open-minded, trying new things, and reminiscing had helped in regard to cope with stress. Being angry, feeling the need to retaliate or argue, being negative, and avoidance were reported to have hindered them when they were trying to cope with stress. The highest reported stressors for older adults dealt with family, health and death of the loved ones.

Limitations:

The most obvious limitation of the present study is the sample size. The sample was also restricted to volunteers from different Yoga centers and older adults at home practicing yoga. It would be beneficial to increase the population for future research to in order to increase diversity. Future research may benefit from exploring relationship between Yoga, resilience and perceived stress.

Suggestions:

1. Recruiting experienced yoga practitioners for aged people in order to reduce stress.
2. Standardization of interventions would be of benefit in determining effect of various yoga practices on stress.

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