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## Effect of selected yoga asana intervention on the aspects of quality of life- (Physical health, psychological status, social relationships and environment health) of female Elderly citizens

**Kripesh Karmakar and Dr. Gaurav Pant**

### Abstract

**Background:** Quality of life (QOL) can be defined as a psychological and physical condition that causes one to expand effort to satisfy required level standard of living. It is the perceived quality of an individual's daily life, that is, an assessment of their well-being or lack thereof. This includes all emotional, social, and physical aspects of the individual's life. According to health-related quality of life (HRQOL) it is an assessment of how the individual's well-being may be affected over time by a disease, disability, or disorder.

**Aims:** The main purpose of this study is to find the Effect of Selected Yoga Asana Intervention on the aspects of Quality of life- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens.

**Setting and Design:** Thirty female elderly citizens were taken as the subjects for the study. The age of the subjects ranged from 60-80 years. The design used for the study was pre-post design. Stratified sampling technique was used for the subject's selection.

**Methods:** The current study was performed on the aspects of Quality of Life- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens; pre and post data for the study were assessed on the scoring and norms according to the WHOQOL-Bref questionnaire were used. Yoga Intervention including Yoga Prayer, Surya-Namaskar, Selected Yoga Asana and Relaxation were used for a period of 6 Weeks intervention.

**Statistical Analysis Used:** Dependent *t*-test was used for comparing the means of pre and post data between both the groups.

**Results:** Though there was no significant level of change on the aspects of Quality of Life- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of female elderly citizens, after 6 weeks Selected Yoga Asana Interventions, yet no improvement observed in the aspects of Quality of Life of Female Elderly Citizens after the end of Selected Yoga Asana Interventions.

**Conclusions:** The results conclude that the Selected Yoga Asana Intervention for a period which is more than 6 weeks may have significant level of change on the aspects of Quality of Life- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens.

**Keywords:** Selected yoga asana interventions, aspects of quality of life- (physical health, psychological status, social relationships and environment health).

### Introduction

#### Yoga

Today yoga is being applied in various fields of human interest i.e. health, cure and prevention of injuries, sports performance, body relaxation and above all the development of physical fitness, which is the key pre-requisite factor needed for sports performance in different sports activities. As far as physical body of man is concerned many studies show that practices of yoga make the body strong, flexible and had improved performance. Yoga also improves general fitness along with psychological demands concerned with human being. Yoga has been proved to give mental equilibrium to an individual or sports person.

Modern physical educators are interested in human performance in a variety of sports and games. The study of physical fitness has an important and valuable place in modern society due to its close relation to every area of life.

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Yoga is a method by which one can remove ignorance and attain union with the supreme self.

The yoga is the ultimate technique which produces a marvelous change in the life style. The sentiment of dissatisfaction egotism, anger, greediness, attachment etc. are the root cause of crime, when a person being aware and conscious by yoga practice recognizes its basic nature and suffering gained by the ill statement then a change appears in his mind and he live a decent social life, Which is full of softness, piousness, friendliness and happiness.

From past history time all lands, asceticism has been the greatest ideal of spiritual life. In Indian religions, yoga (from Sanskrit word meaning “yoking” or “joining”) is “the means or techniques for transforming consciousness and attaining liberation (Moksha) from karma and rebirth (samara)”. It is “a practice by means of which a spiritual seeker strives 1) to control nature to make the soul fit for union with the Over soul (the true Self; Atman-Brahman; “God”, and 2) to attain union with God and thus the liberation of the soul from the rounds of rebirth and death”.

It is all things to all people. It is about getting to know yourself. Integrating the many aspects of ourselves and putting us in control of our minds; the effects are holistic, bringing about health awareness and a change of attitude towards ourselves and the world around us. The beauty of Yoga is that it is accessible to everyone, as the session can be adapted to each person’s level of fitness or state of health.

Yoga, being a science of spirituality through meditation, can make him free from worldly sorrows, submerge him in the God, and get him eternal bliss. Also, regular practice of yoga can take him towards the higher echelons of health and fitness. Every individual can perform yogic exercises as they don’t need any special infrastructure and equipments. “Yoga is not an ancient myth but most valuable inheritance of the present. It is essential need of today and culture of tomorrow”.

### Quality of Life

QOL is characterized for being a multidimensional concept, able to be operational by innumerable ways and validated in a consensual form, by a group of people representing a diversity of specific points of view. It is only experienced when basic needs are satisfied and when there are same opportunities to live in community.

Quality of life is a construct used by many different disciplines. This is one of the features that make attendance at quality of life conferences so interesting and challenging. Each discipline has its own received wisdom as to how to describe the information that defines their area of interest. So when a construct like ‘Quality of life’ is incorporated into these different disciplinary contexts, it emerges in forms that are biased towards each discipline.

The quality of life concept is, today, influencing decisively the programs development, the offer of services and supports, the strategies for intervention and innumerable investigations at evaluation systems level. This concept has been receiving, in the last decades, a special attention at health’ and other services level, due to variety of these, of the resulting quality of life and the imperious emergence to empower the level of life of persons with Intellectual and Developmental Disability (DD.) QOL concept attends to human needs of people with developmental disabilities. Although it is important that service systems and schools contribute to learning process, is more important its action in the improvement of quality of life of the people they serve.

The quality of life as related to Yoga, seem to be important

reasons. People start Yoga practice in the first instance. In day to day life, the desire to live a longer life is the reason behind many of our activities as we pay attention to health and good life in many forms, all having more or less a hidden agenda that of living longer. However, longevity and quality of life are much related to one another as two aspects of the same desire, the quality of life (as intensity of life experience) being a qualitative progression of longevity. The main issue is the quality of life experience that attracts also the longevity as a component of quality of life. Yoga sees longevity as a component, or more exactly a result of Yoga practices.

In March 2005 the Scottish Executive commissioned Centre for Cultural Policy Research (CCPR) to undertake research to define “quality of life” (QOL) in the context of culture, arts and sport and explore ways in which the impact on QOL and sense of well-being through participation in cultural or sport interventions can be identified and measured, both in social and economic terms. A literature review was required to inform the Executive’s thinking on the social and economic measurement of QOL and well-being, and to provide the basis for an exploratory “think-piece”. The remit was to review the literature published since 1995.

The concept of pushing morbidity towards the years of older age is becoming increasingly popular and producing good results with promotion of healthy lifestyles and preventive programmes. In literature mentioned that many program such as exercise groups, yoga, Tai Chi that contribute to decrements of aging and the burden of illness are potentially responsive to preventive interventions for the geriatric population to ensure better quality of life (QOL). Yoga can be used safely to improve the quality of life. Yoga might be also considered to be a facilitator for physical activity, emotional well-being when applied by professionals and tailored to the needs of individuals. We believe that such studies will contribute much to QOL especially in elderly.

### Aspects of Quality of Life

#### Physical Health

Physical health is critical for overall well-being and is the most visible of the various dimensions of health, which also include social, intellectual, emotional, spiritual and environmental health. Some of the most obvious and serious signs that we are unhealthy appear physically. Addressing this dimension is crucial for anyone attempting to sustain overall health and wellness. Physical health consists of many components; here is a brief list of the key areas that should be addressed:

- **Physical activity:** Includes strength, flexibility, and endurance
- **Nutrition and diet:** Includes nutrient intake, fluid intake, and healthy digestion
- **Drugs:** Includes the abstinence from or reduced consumption of these substances
- **Medical self-care:** Includes addressing minor ailments or injuries and seeking emergency care as necessary
- **Rest and sleep:** Includes periodic rest and relaxation, along with high quality sleep

#### Psychological Status

Psychological status- (psychology) a mental condition in which the qualities of a status are relatively constant even though the state itself may be dynamic-“a-manic state” mental condition, mental state, psychological Condition.

Cognitive state, state of mind the state of a person's cognitive processes. Psychology is the scientific study of mind and

behavior. The word “psychology comes from the Greek words “psyche, meaning life, “logos, meaning explanation. Psychology is a popular major for students, a popular topic in the public media, and a part of our everyday lives. Television shows such as Dr. Phil feature psychologists who provide personal advice to those with personal or family difficulties. And many people have direct knowledge about psychology because they have visited psychologists, for instance, school counselors, family therapists, and religious, marriage, or bereavement counselors.

**Social Relationships**

Humans are naturally social. Yet, the modern way of life in industrialized countries is greatly reducing the quantity and quality of social relationships. Many people in these countries no longer live in extended families or even near each other. Instead, they often live on the other side of the country or even across the world from their relatives. Many also delay getting married and having children. Likewise, more and more people of all ages in developed countries are living alone, and loneliness is becoming increasingly common. In the UK, according to a recent survey by the Mental Health Foundation, 10% of people often feel lonely, a third have a close friend or relative who they think is very lonely, and half think that people are getting lonelier in general. Similarly, across the Atlantic, over the past two decades there has been a three-fold increase in the number of Americans who say they have no close confidants. There is reason to believe that people are becoming more socially isolated.

**Environment Health**

Environmental health comprises of those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social, and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.

**Hypothesis**

There may be a significance change in the level of aspects of Quality of Life of female elderly citizens.

**Methods**

**Subjects and Sampling**

Thirty (30) female elderly citizens were selected (15 Experimental and 15 Control Group) from Mauli Old Age Home and Seva Sushruksha Kendra, Kundan Nagar, Dhankawadi, Pune, behind Gaurav Medical Hall (Maharashtra state). The age group of the subjects ranged 60-80 years.

Stratified sampling technique was used for the collection of the subjects.

Research Design:

Experimental Group and Control Group were used for conducting the present study.

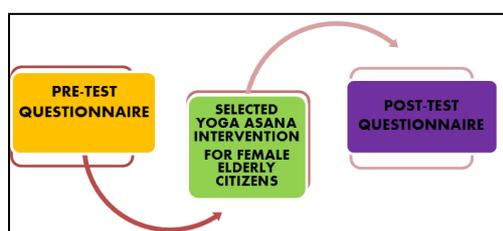


Fig 1

**Tools Used**

WHOQOL-BREF (JUNE 1997) U.S. VERSION, UNIVERSITY OF WASHINGTON SEATTLE, WASHINGTON UNITED STATES OF AMERICA (updated by Marvin Oliver on -1/10/2014), it is a 26 (Twenty-Six) set of questions to measure the Quality of Life (QOL) of old age people. WHOQOL-BREF was developed by WHO on-10/12/2015 at 4:14PM but, it was further developed by Marvin Oliver on- 1/10/2014. WHOQOL-BREF was meant for both male and female of old age group (60 years and above people) for the measurement of their quality of life in respect of 4 (four) areas or aspects of quality of life namely: Physical Health, Psychological, Social relationships, Environment. Coefficient of reliability is > 0.70 and validity is < 0.60.

**Procedure**

Pre-training test was conducted on both groups before starting the training program. And the test was conducted through the questionnaire on both groups. The training program was of six weeks with six days a week except Sunday. The subjects were divided into two groups i.e. Control Group (N=15) and Experimental Group (N=15). After six weeks of training the post training test was conducted. And the test was conducted through questionnaire on both groups.

**Results**

The data was collected on 30 subjects before and after six week Selected Yoga Asana Intervention on the aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of female elderly citizens, was analyzed by comparing the means of Pre and Post Tests of Experimental group and Control group and was again statistically analyzed by applying the Dependent-‘t’ test to check the significant difference among selected variable and also to check the level of significance. Therefore, separate tables and graphs have been drawn for each item as follows:

**Section-1**

This section deal with the description statistical analysis and Dependent-‘t’ test applied on data collected from selected subjects during Pre-Test of the aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of female elderly citizens, between Experimental and Control groups.

**Table 1:** The Tabular Presentation of the Aspects of Quality of Life (QOL) - (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens during Pre-Test of Experimental Group and Pre-Test on Control Group, Age 60-80 years Descriptive Statistics

Group	N	Mean	SD	S.E	DF	MD	Cal. t.
Experimental	15	89.6	13.13	3.39	28	1.2	0.392
Control	15	88.4	10.69	2.76			

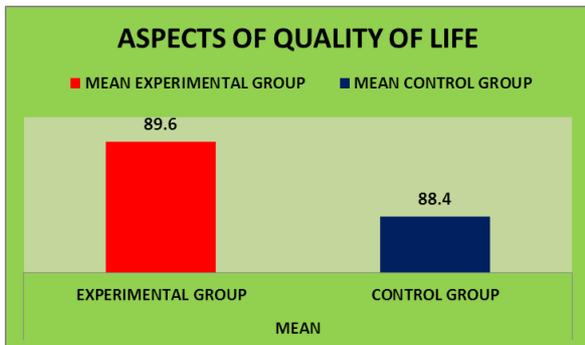
Mean, S.D, S.E, M.D, T’ Ratio of the Aspects of Quality of Life of Female Elderly Citizens

Tabulated-‘t’ value required to be significant at 0.05 level of confidence with 28 degree of freedom was 1.701.

Table No.1 reveals that there is no significant difference in the aspects of Quality of Life of female elderly citizens between Pre-tests of experimental group and control group. To check significant difference between Pre-test of experimental group and control group the data was again analyzed by applying

dependent-‘t’ test. Therefore, after applying dependent-‘t’ test it was found that there was no significant difference between Pre-test of Experimental Group and Control Group of female elderly citizens, because value of calculated-‘t’ is 0.392 which is less than value of tabulated-‘t’ is 1.701 at 0.05 level of confidence.

Graphical Representation of the Aspects of Quality of Life (QOL)-(Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens, during Pre-Test of Experimental Group and Pre-Test of Control Group Age 60-80 Years  
Aspects of Quality of Life- (Pre-Test)



**Graph 1:** Mean of Experimental Group: 89.6 and Mean of Control Group: 88.4

**Section 2**

This section of the chapter deal with the descriptive statistical analysis and Dependent-‘t’ test applied on data collected from selected subjects during Post-Test of the aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens, between Experimental and Control groups.

**Table 2:** The Tabular Presentation of the Aspects of Quality of Life (QOL) - (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens during Post-Test of Experimental Group and Post-Test on Control Group, Age 60-80 years Descriptive Statistics

Group	N	Mean	SD	S.E	DF	MD	Cal. t.
Experimental	15	89.93	11.54	2.98	28	0.6	0.456
Control	15	88.93	15.36	3.96			

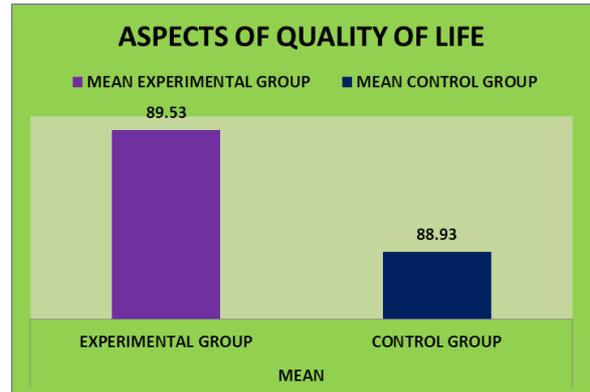
Mean, S.D, S.E, M.D, T’ Ratio of the Aspects of Quality of Life of Female Elderly Citizens

Tabulated-‘t’ value required to be significant at 0.05 level of confidence with 28 degree of freedom was 1.701.

Table No.2 reveals that there is no significant difference between Post-test score of female elderly citizens of experimental group and control group. To check significant difference between Post-test of female elderly citizens of experimental group and control group, the data was again analyzed by applying dependent-‘t’ test. Therefore, after applying dependent-‘t’ test it was found that there is no significant improvement observed between Post-test of experimental group and control group because value of calculated-‘t’ is 0.456 which is less than tabulated-‘t’ is 1.701 at 0.05 level of confidence, which shows that there is no improvement on Experimental Group after six weeks of Selected Yoga Asana Intervention.

Graphical Representation of the Aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly

Citizens, during Post Test of Experimental Group And Post Test of Control Group Age 60-80 Years  
Aspects of Quality of Life- (Post-Test)



**Graph 2:** Mean of Experimental Group: 89.53 and Mean of Control Group: 88.93

**Discussion and Conclusion**

The results of the study indicate that through there was no statistically significant difference and no significant improvement in the level of the aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens after six weeks of Selected Yoga Asana Intervention at 0.05 level of confidence, yet there was no significance difference occurs to draw a assertive conclusion, because no significant improvement was there and this happens due to the short term duration of period, because during their old age period they are unable to maintain the same level of Quality of Life as they used to maintain before, as they are dependent on children’s. During their old age the level of their Quality of Life declines which needs a long period to increase their Quality of Life because they are in the age group of 60-80 years. At this period of age group 60-80 years the physical and psychological state of body and mind declines at a higher rate which needs a longer period to increase their aspects of Quality of Life. The results conclude that if the Yoga Intervention continuous for long term duration of period (such as- 3months, 6 months, 1 Year etc.) then there may be improvement and significant change in the level the aspects of Quality of Life (QOL)- (Physical Health, Psychological Status, Social Relation Ships and Environmental Health) of Female Elderly Citizens.

Wolff *et al.* (2013) [15] conducted a study to find out the effects of two yoga interventions on blood pressure and quality of life in patients in primary health care diagnosed with hypertension. Adult patients (age 20–80 years) with diagnosed hypertension were identified by an electronic chart search at a primary health care center in southern Sweden. In total, 83 subjects with blood pressure values of 120–179/≤109 mmHg at baseline were enrolled. The patients underwent standardized blood pressure measurement at the health care center and they completed a questionnaire on self-rated quality of life (WHOQOL-BREF). There were three groups: 1) yoga class with yoga instructor (n=28); 2) yoga at home (n=28); and 3) a control group (n=27). The participants were matched at the group level for systolic blood pressure. After 12 weeks of intervention, the assessments were performed again. At baseline a majority of the patients (92%) were on antihypertensive medication, and the patients were requested not to change their medication during the study. The yoga class group showed no improvement in blood

pressure or self-rated quality of life, while in the yoga at home group there was a decline in diastolic blood pressure of 4.4 mmHg ( $p < 0.05$ ) compared to the control group. Moreover, the yoga at home group showed significant improvement in self-rated quality of life compared to the control group ( $p < 0.05$ ). In conclusion a short yoga program for the patient to practice at home seems to have an antihypertensive effect, as well as a positive effect on self-rated quality of life compared to controls.

Oken *et al.* (2006) [10] conducted to determine the effect of yoga on cognitive function, fatigue, mood, and quality of life in seniors. Randomized, controlled trial comparing yoga, exercise, and wait-list control groups. One hundred thirty-five generally healthy men and women aged 65-85 year. Participants were randomized to 6 months of Hatha yoga class, walking exercise class, or wait-list control. Subjects assigned to classes also were asked to practice at home. Outcome assessments performed at baseline and after the 6-month period included a battery of cognitive measures focused on attention and alertness, the primary outcome measures being performance on the Stroop Test and a quantitative electroencephalogram (EEG) measure of alertness; SF-36 health-related quality of life; Profile of Mood States; Multi-Dimensional Fatigue Inventory; and physical measures related to the interventions. One hundred thirty-five subjects were recruited and randomized. Seventeen subjects did not finish the 6-month intervention. There were no effects from either of the active interventions on any of the cognitive and alertness outcome measures. The yoga intervention produced improvements in physical measures (e.g. timed 1-legged standing, forward flexibility) as well as a number of quality-of-life measures related to sense of well-being and energy and fatigue compared to controls. There were no relative improvements of cognitive function among healthy seniors in the yoga or exercise group compared to the wait-list control group. Those in the yoga group showed significant improvement in quality-of-life and physical measures compared to exercise and wait-list control groups

Thus, the current research concludes that the continuous practice or long term duration of Selected Yoga Asana Intervention may have improvement and significant change in the level of aspects of Quality of Life of Female Elderly Citizens.

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