



Geriatric Age – Boon or Bane – Role of Yoga for Geriatric Health and Healthy Ageing

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 21 Sept 2023	<p>Population ageing is a growing concern due to factors like life expectancy and declining reproduction rates, resulting in an increasing number of individuals aged 60 and above. These demographic faces healthcare issues, including decline in physiological reserve, chronic diseases, comorbidity, disability, frailty, and social challenges. Factors like education, socioeconomic status, gender, and residence also impact the elderly population. Geriatric assessment is crucial for developing an integrated care plan. Yoga, a popular approach, has shown positive outcomes in cellular ageing, physical mobility, psychological well-being, and cognitive deterioration. Yoga can contribute to treatment and prevention of geriatric disorders, improving management and overall health for the elderly population.</p>
CC License CC-BY-NC-SA 4.0	<p>Keywords: Ageing, Old Age, Disease, Geriatric healthcare, yoga, body and mind, medicine, Yoga therapy</p>

1. Introduction

Global ageing is a growing issue within the context of globalisation, driven by demographic disparities and the increasing number of individuals aged 60 and over. The 2009 United Nations Population Aging Report found that the percentage of individuals aged 60 and over in the world population increased from 8% in 1950 to 21% by 2050. This growth is influenced by extended lifespan and declining fertility rates, leading to a significant rise in adults within this age group. The field of gerontology examines the physiological and psychological transformations during the ageing process, while clinical gerontology or geriatrics provides care for the elderly.

The ageing process exhibits variability among individuals within a community, with the sanyas ashram theory influencing biological and socio-cultural systems. Technological advancements have influenced the elderly population's status and function. Healthcare issues require attention from society and the medical community, with older individuals often experiencing reduced physiological reserve, chronic diseases, comorbidity, disability, and social challenges. The senior demographic also faces vulnerabilities due to factors such as educational attainment, socioeconomic status, gender, and area of residence.

The cognitive, physical, and social functioning of the aged population vary, necessitating tailored care to individual needs and functional status. Geriatric assessments are a comprehensive approach to evaluating the physical, functional, and psychosocial aspects of older individuals, aiming to develop a cohesive care plan.

The Word Geriatric:

Geriatrics refers to healthcare and medical services tailored to the elderly and ageing population. The elderly population typically transitions into the elderly category at age sixty or above, but most don't require medical intervention until their seventies. Clinicians must provide care for complex medical and psychosocial issues, stemming from physical and mental impairments. These challenges can lead to ethical dilemmas. As individuals reach age 65, ageing-related issues increase, with mental and

physical health challenges being more prevalent. Conditions like arthritis, heart disease, anxiety, and depression are more prevalent among the senior population.

2. Materials And Methods

Based on an extensive review of scholarly literature pertaining to geriatrics, ageing, and the role of yoga in promoting healthy ageing, the present paper has been composed in order to address the challenges faced by the elderly population. The search technique primarily involved utilising globally recognised medical and Yoga related content resources, with a particular emphasis on the PubMed database. The terms employed in the article encompassed "Aged," "Geriatrics Assessments," "Depressive Symptoms," "Emotional Depression," and "Role of Yoga in Healthy Ageing." We examined scholarly articles from a diverse range of reputable magazines authored by famous scholars. References from various Books have also been taken. This study is a conceptual investigation that draws upon references derived from seminal literature, scholarly journals, Books and renowned publications on the subject of Ageing, Geriatric Population including their Health concerns and role of Yoga in management of the issues with elderly population and Healthy ageing.

3. Results and Discussion

What Is Ageing and What Causes Ageing & the Process of Aging

Ageing society refers to the demographic transition characterized by a significant proportion of the population reaching old age (65+) and advanced old age (80+). This societal phenomenon presents challenges such as declining health, loneliness, social isolation, and financial hardship. The primary theories of ageing include oxidative damage, abnormal proteins, faulty mitochondria, and somatic mutations. Oxidative damage occurs due to reactive oxygen species (free radicals) generated by cellular oxidative metabolism, which can cause harm to various cellular constituents. Abnormal proteins in cells and tissues are common during ageing, and selective proteolytic degradation is the primary mechanism for safeguarding against these proteins. Mitochondrial DNA is susceptible to mutational damage induced by free radicals, and somatic mutations can induce autoimmune reactions and contribute to age-related malignancies.

Life expectancy has increased globally due to biomedical advancements, public health improvements, and lifestyle improvements. Aging is a social phenomenon involving multiple stages from conception to death, with physical, mental, and social development occurring simultaneously throughout one's lifespan. Secondary aging is caused by modifiable factors like inactivity and poor food, while primary aging is caused by unavoidable cellular and molecular changes.

Ageing can be challenging due to fear of physical changes like diminished energy and hearing loss. Social context influences how people conceptualize aging, but accepting these changes as natural can make them less frightening. Both men and women face psychological challenges, with young adults taking on more responsibility and retirement becoming a goal for most working adults in the 21st century. Erik H. Erikson's eight-stage framework categorizes human development into eight stages, with each stage offering new challenges.

Is Ageing Considered a Disease?

Ageing is a complex and multifaceted issue that requires treatment and understanding. It encompasses a wide range of illnesses that collectively result in death. From a biological perspective, ageing is characterized by disruption of homeostasis and molecular damage. However, the concept of human health encompasses not only the absence of illness but also the attainment of physical and mental function characteristic of individuals of a specific age and gender. The process of ageing is considered a natural phenomenon and lacks pathological attributes. The evolutionary theory of ageing suggests that the process of ageing can be attributed to a decline in natural selection against negative mutations that impact an organism's well-being during later stages of life. This results in the accumulation of alleles with detrimental effects on reproductive success throughout early life. The importance of ageing's universality lies not in its classification as a sickness but in its recognition as a distinct type of ailment.

How to Treat Ageing

Gerontology has identified three objectives for enhancing the health and quality of life in older adults: compressed morbidity, stopped ageing, and decelerated ageing. Compressed morbidity aims to protect

against age-related diseases without interfering with the ageing process, while stopped ageing refers to the complete cessation or potential reversal of the ageing process. While halted ageing is unlikely, deceleration of ageing is a perspective on what is likely attainable. Animal models have provided valuable insights into the potential of therapies to decelerate the ageing process and prolong the emergence of age-related illnesses. These findings hold significant significance for future approaches to mitigating age-related illnesses.

Mistreatment and Abuse to Geriatric Population

Elder abuse is a significant social concern, as biological ageing often leads to a decrease in physical strength and resilience among elderly adults. These individuals rely on others for support, including domestic duties and basic functions like nourishment and personal hygiene. Elder abuse can manifest in various forms, including physical abuse, sexual abuse, psychological or emotional abuse, neglect, financial abuse, and self-neglect. The National Center on Elder Abuse (NCEA) identifies abandonment and self-neglect as types of abuse.

Recent studies in the United States have shown that a proportion of around 10% of elderly adults encounter instances of elder abuse. Some scholars argue that the true extent of this form of abuse may be more than what is now recognized. **Kohn and Verhoek-Oftedahl (2011)** found a higher incidence of verbal abuse among older women compared to older men.

Acierno's (2010) study found that 5.2% of participants reported financial abuse, 5.1% acknowledged neglect, and 4.6% experienced emotional abuse. The prevalence rates of physical and sexual abuse were 1.6% and 0.6%, respectively.

Previous research has focused on the carers responsible for delivering care to the elderly demographic, identifying the factors that contribute to occurrences of elder abuse. These challenges include limited expertise, simultaneous responsibilities, the duty of providing care for children, living with the dependent senior full-time, and experiencing stress, loneliness, and insufficient support.

Table: 1

Type of Abuse	Signs and Symptoms
Physical abuse	Symptoms of a vulnerable adult include bruises, black eyes, broken bones, untreated injuries, broken eyeglasses, overdose or underdose findings, sudden behaviour changes, and caregiver's refusal to allow visitors.
Sexual abuse	Evidence of trauma in the form of bruising in the vicinity of the breasts or genital area, the presence of venereal disease or genital infections without a clear cause, unexplained instances of vaginal or anal bleeding, the discovery of torn, soiled, or bloody underclothing.
Emotional/psychological abuse	Individuals experiencing distress or withdrawal may exhibit atypical behaviours reminiscent of dementia, such as rocking or sucking.
Neglect	Inadequate personal cleanliness practices, unaddressed pressure ulcers, insufficient water, and unclean bed linens.
Financial	The occurrence of abrupt modifications in banking procedures, the incorporation of supplementary individuals on bank cards, and the sudden alterations to testamentary dispositions.
Self-neglect	The presence of untreated medical issues, unsanitary living conditions, and inadequate access to essential medical aids such as dentures or spectacles.

The National Center on Elder Abuse (NCEA), a division of the U.S. Administration on Aging, also identifies abandonment and self-neglect as types of abuse. Table 1 shows some of the signs and symptoms that the NCEA encourages people to notice.

Importance of Elderly People in Family, Life and Society

"Listen to your elder's advice. Not because they are always right but because they have more experiences of being wrong." - Melchor Lim

Ageing is a natural process that shapes individuals' perception of the world. In India, older individuals have a deeply rooted tradition of respecting their elders through the customary practice of stroking their feet. However, in the 21st century, there has been a noticeable increase in the older population in

India, leading to a surge in abuse, harassment, and desertion against them. This has led to a growing trend among children to choose between leaving their parents in isolation or moving them to facilities dedicated to the care of older adults.

The elderly population plays a crucial role in preserving and maintaining customary and cultural values within a specific ethnic group or community. Educational initiatives focused on transmitting knowledge about these cultural aspects to younger cohorts have helped preserve India's unique traditions and cultures during colonization. They share similarities with the roots of a tree, serving as effective mentors, family mediators, and facilitators of personal growth and development. However, in contemporary society, there has been a shift in perception, with people viewing the elderly as a burden. This misconception is not aligned with reality, as the human brain undergoes continuous development, leading to better decision-making and emotional regulation abilities. Additionally, individuals may prioritize significant aspects of life, recognizing the importance of life's fundamental elements and the unique insights acquired through time.

Role of Yoga in Geriatric Health and Healthy Ageing

Geriatrics health is a medical discipline that focuses on providing healthcare services to older adults, particularly those in the decline stage beyond midlife. The primary objective is to promote the well-being of older adults through the prevention and treatment of diseases and disabilities. India is experiencing significant transformation, with a projected number of over 324 million older people by 2050. Yoga is a transcendent discipline that promotes the integrated development of the physical, mental, and spiritual dimensions of human existence. Yoga is highly beneficial for older persons, as it enhances muscular strength, flexibility, and serves as a preventive measure against aging and age-related ailments. Ancient texts on yoga have illustrated a comprehensive set of Yogic Kriyas that facilitate the maintenance of good health even in old age.

Yoga is considered a more therapeutic form of exercise due to its incorporation of active engagement between the mind and body. It exhibits many health consequences, with its most notable attribute being its inclusivity, catering to individuals of diverse age groups and varying physical abilities. Yoga has the potential to address various characteristics that contribute to an increased risk of falls in older adults, including compromised balance, reduced mobility, diminished strength, and limited flexibility. Despite its inherent spiritual nature, yoga has been employed in clinical settings for therapeutic intervention. In recent years, there has been a substantial increase in publications focusing on the clinical applications of yoga, with numerous studies exploring its effects on post-myocardial infarction recovery, menopausal symptoms, diabetes, and hypertension.

Geriatric Yoga Advantages

Yoga offers numerous benefits, including enhanced physical strength, self-assurance, posture, balance, mobility, and promoting a positive perspective. As individuals age, their daily tasks decrease, leading to a decrease in daily tasks and improved overall well-being. Yoga also helps manage blood pressure and sleep quality, allowing individuals to focus on their physical, mental, and respiratory aspects. It also promotes a sense of tranquillity and attentiveness, promoting self-indulgence and a balanced sleep pattern. Yoga also improves respiratory function, allowing individuals to effectively utilize their maximum lung capacity. It also improves cognitive function, circulation, and digestive system function. The intricate movement of the breath and body in yoga enhances blood flow throughout the body. Yoga also promotes cleansing properties, particularly in bending poses that compress the abdominal organs, which aid in the functioning of the digestive system and eliminate toxins. Anxiety and depression are common among the senior population, often due to factors like social isolation, loneliness, purposelessness, phobias, and unproductive perceptions. Yoga is an effective non-pharmacological intervention for mental health conditions, activating the peripheral nerve system and promoting rest and relaxation. Maintaining cognitive engagement and tranquillity through practices like controlled breathing and introspection can contribute to an extended duration of positive emotions and a heightened sense of well-being.

Yoga Asanas for Geriatric Health

Trikonasana: Trikonasana, also known as Triangle Pose, has been observed to have a beneficial effect on reducing heart rate, which is a common concern among the elderly population. It effectively

reduces adipose tissue in the abdominal and thigh regions, promoting a lean and healthy physique. Proper posture promotes stability and equilibrium, preventing fidgeting and discomfort. This asana serves to strengthen and elongate the upper and lower extremities, hence facilitating improved performance of daily tasks for elderly individuals.

Kati Chakrasana: The practise of Kati Chakrasana is known to provide relief from stiffness in the muscles of the back, shoulders, and neck. Maintaining physical flexibility is considered advantageous for elderly individuals as they go towards old life. This asana helps to strengthen the musculature of the dorsal region, including the back, neck, and shoulders. The practise of Kati Chakrasana enhances the expansion of the chest and promotes the continued development of lung capacity.

Baddha Konasana: The kidneys and bladder come to life with the practise Baddha Konasana. This asana reduces stress and weakness. It improves posture, and soothes sciatica. The regular practise improves the menopause process.

Shishuasana: This asana is a fantastic pain reliever for the back. By calming the sensory system, it also directs the blood flow. It relieves back tension and lessens back pain. It is a very common type of yoga asana that seniors practise.

Bhujangasana: Bhujangasana increases body adaptability, loosens the rigid lower back, stretches the muscles in the chest, abdomen, and shoulders to maintain them flexible, and, most importantly, strengthens the spine.

Shalabhasana: Shalabhasana improves flexibility by toning the muscles in the neck and back. It improves digestion by toning the digestive organs.

Pawanmuktasana: The Pawanmuktasana strengthens the muscles and massages the internal organs of the stomach and adjacent structures, releasing trapped gases and promoting further digestion. It strengthens the back muscles and tones the arms and leg muscles.

Yoga Nidra: Yoga nidra is a method for promoting physical, mental, and emotional relaxation. It involves a deeper level of attention, allowing the conscious mind to operate at a deeper level. This state of unwinding can improve memory, knowledge, creativity, and disposition. Yoga nidra is particularly beneficial for elderly individuals who often experience mental issues related to aging. Beginners should practice with guidance from an experienced yoga educator, and Shavasana should be polished before yoga asanas to avoid pain and stiffness.

Chair Yoga for senior citizens

Since these Asanas may be performed while seated in a chair, many seniors find this handy. It gives elders more flexibility so they can bend and touch their toes. Chair yoga poses with enormous advantages include the neck roll, Bitilasan, Paschimottanasan, Uttanasan, Utthita Parshva Konasana, and Virabhadrasana

Yoga therapy focuses on promoting social and mental health growth in older individuals through the incorporation of Yama, Niyama, and Yoga philosophy concepts. The practice of restorative, mild hatha Yoga, Asana, Pranayama, and Yoga Nidra enhances physical and mental resilience, strength, and balance. It helps mitigate accelerated ageing and addresses preexisting geriatric conditions. Yoga therapy also promotes self-empowerment, self-awareness, and vitality. It has been shown to improve muscle strength, flexibility, respiratory and cardiovascular function, aid in addiction recovery, lower stress, anxiety, depression, chronic pain, sleep patterns, and overall well-being.

4. Conclusion

The current state of health for older individuals has improved significantly compared to 150 years ago, but it also presents challenges such as socio-economic factors, medical issues, and the prevalence of age-related illnesses. The older population is experiencing a significant proportion of health-related challenges, and it is crucial to explore strategies for enhancing health during the ageing process. Scientific breakthroughs in ageing research offer the potential for comprehensive preventive medication for age-related disorders. A study by Levy (1996) found that both younger and older participants expressed similar mental associations with old age. The World Health Organization (WHO) report emphasizes the importance of an age-friendly environment, focusing on physical and

mental aspects. Yoga, a form of physical activity for older adults, has been found to be an optimal way to support the elderly in leading a respectful and independent life. Yoga promotes muscle softness, flexibility, mental acuity, attentiveness, relaxation, and muscle and joint strengthening. The implementation of a multi-faceted strategy can foster well-being and resilience, reducing the impact of age-related concerns. The concept of old age transcends chronological years and is contingent upon an individual's mental state. Incorporating yoga into the daily routine of older individuals is essential for healthy ageing and wellbeing of the geriatric population.

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