

Research article (Award paper)

Effect of integrated approach of yoga therapy on loneliness in elderly: An interventional study

Manorama Panigrahi, Prativa Shree, Dinesh Prasad Swain

Department of Yogic Science and Naturopathy, Department of Health, and Wellness Sri Sri University, Godisahi, Cuttack, 754006, Odisha, India

Corresponding authors: **Prativa Shree**. Email: prativa.s@srisriuniversity.edu.in**Dinesh Prasad Swain**. Email: dinesh@srisriuniversity.edu.in**ABSTRACT**

Introduction and Aim: A person must be adaptable and learn new coping mechanisms to deal with the changes that are common to these stages of life to cope with the changes that come with getting older. But various research also give evidence that loneliness, depressions are very much common during old age which is a significant contributor to suicide and suicide attempts. Incorporating Integrated Approach of Yoga Therapy, one can able to reestablish the link between his mind, body with the present moment, alleviates loneliness, and boosts self-esteem. The objective of the study to know the effect of integrated approach of yoga therapy on loneliness of elderly people.

Materials and Methods: The study was carried out by the researcher taking 50 older people between the age group of 60 to 80 following the inclusion and exclusion criteria and through purposive sampling method. The study was done by using one sample group for pre and post-test assessment. All the participants had undergone a practice session of 12 weeks in the nearby Temple premises. They were instructed to lead regular lives while taking their medications as prescribed and to maintain a healthy eating pattern. The UCLA questionnaire was used to evaluate loneliness before and after practice.

Results: After regular three months practice, the UCLA scale showed significantly decreasing trend. The sample average of the pre- and post-test data showed significant differences enough to be statistically relevant.

Conclusion: Adopting IAYT into their regular lifestyle, seniors can reduce their loneliness and enhance self-esteem.

Keywords: Integrated approach of yoga therapy; loneliness; self-esteem; UCLA questionnaire; old age.

INTRODUCTION

Ageing is a continuous process. It starts with the conception in mother's womb and ends in death. It is purely a time related process. Finally, it closes along with the end of the life. As a result, in human development, ageing is an unavoidable process in which structural and functional alterations accumulate over time. It is a process to grow old to older. The youthful stage of life is more exciting and enjoyable as you become older. The middle and old age phases, however, can be a little challenging because of physical deterioration, wrinkling of the skin, and graying of the hair. Ageing signifies the end of a person's lifespan, a time when they reflect on their experiences, reflect on their past successes, and start to wrap up their life's journey. A person must be adaptable and learn new coping mechanisms to deal with the changes that are common to this stage of life to cope with the changes that come with getting older (1) There is emerging evidence that societal and psychological factors have a substantial impact on how well people age. The ability to age more successfully is positively correlated with a person's religious convictions, social connections, self-efficacy, socioeconomic level, and coping

mechanisms, among other factors, according to various research on ageing. But various research also give evidence that loneliness, depressions are very much common during old age. These factors further lead to many physical and psychological issues in elderly persons. Chronic loneliness can have negative effects on one's health. According to Green *et al.*, it is one of the three main causes of depression and a significant contributor to suicide and suicide attempts (2). According to a study Hansson *et al.*, loneliness is associated with inadequate psychological adjustment, unhappiness with family, and lack of satisfaction with interpersonal connections (3). Loneliness can be defined as a inability to recognize the purpose in one's own life (4). Further definitions of loneliness include 'feeling isolated and a subjective yet unfavorable sense of lacking social interactions' (5).

Although loneliness has been linked to dementia, diabetes, depression, anxiety, and heart disease, but the exact cause is not yet ascertained. The loss of a spouse or close friend, social isolation after leaving a job or a familiar area, and social disengagement are a few of the common life-changing events that are considered as leading to loneliness in older individuals. The elderly age group is most likely to

report the highest rates of loneliness because of their increased likelihood of experiencing such losses.

One significant difference between loneliness and solitude, a pleasant state of seclusion, is that the former does not always require the "physical presence" of other people. Due to the Corona virus Disease 2019 (COVID-19) pandemic and the ensuing social isolation, research on loneliness and related remedies has lately increased along with the resurging academic discourse on psychological health. Travel restrictions, health worries, quarantine laws, COVID-acceptable conduct, and xenophobia have all 'frenzied speed of modern society to a grinding halt and essentially destroyed the wings of unrestricted social connection' (6). Due to the increased mortality and morbidity associated with ageing, as well as judgmental prejudices, older individuals are now required to isolate themselves from the outside world in order to lower their chance of developing infections. Because of the COVID risk, most old age residential homes and old age homes have long-term ban of the visitors to follow the rule of the social distancing. So, a person's experience of having inadequate social connections can lead to the subjective, undesirable emotion of loneliness (7). To describe the elements that contribute to loneliness, two causal models are most frequently utilized. The first paradigm attributes loneliness to a lack of social connections and other external factors, whereas the second explanatory model talks about internal factors including personality and psychological characteristics.

As people age, the likelihood of experiencing age-related losses is increased. The chance of loneliness would rise if these losses made it more challenging to maintain or develop desirable interactions. Many people experience loneliness for a variety of reasons, including living alone, having distant family members, having fewer connections to their tradition of origin, or not being able to actively participate in community activities. When this occurs together with physical deterioration, alienation and unhappiness are significant side effects. According to research, loneliness has a negative effect on a person's health as they get older. Researchers found that loneliness had a negative impact on health and caused it to deteriorate as people aged (8). According to the Centre for Disease Control and Prevention, loneliness that results from social isolation might raise the risk of early mortality from all causes, especially after middle age (9). Additionally, it worsens quality of life and raises morbidity, with depression and anxiety commonly acting as intermediaries. Loneliness raises the chance of being admitted to the hospital, lengthens stays for patients with chronic illnesses, and raises the frequency of hospitalizations in old age.

In our country, the percentage of people over 60 is steadily increasing. Almost every article on geriatric care begins by noting how, within the next few decades, this number will double and triple. According to the 2004, NSSO of India condition of ageing survey, 3.68 million women and 1.23 million men are allegedly living alone and experiencing loneliness. There are various therapies have been proposed and formulated by sociologists and psychologists for years to combat loneliness, but lifestyle changes that can address the loneliness of daily living have been overlooked. Communication with elderly, empathy, and perception of social support are also not yet properly emphasized.

To combat the loneliness of old age, there are alternatives to the conventional methods that need to be looked at. In India, the elderly is frequently seen as 'intelligent, experienced, and mature', in contrast to the western idea of fighting ageing and its problems. In long-term ageing research, it has been found that accepting ageing is one of the elements of healthy longevity, which boosts resilience and one's sense of self-esteem. These two elements can lessen loneliness as we age. According to Eastern philosophy, it is also hard to transition between ages and integrates into the social environment, both of which are necessary to prevent feeling lonely. One can change themselves to acquire true pleasure, life fulfillment, and peace of mind (10,11). Further, the authors just outline the potential alternatives to follow and make no specific recommendations. Each person must ultimately decide for themselves whatever path they want to take although none is mandatory. To understand the pathways to mitigate the effect of loneliness, the Indian Tradition of Yogic lifestyle, spirituality, and teaching are very much helpful to develop a sense of connection to others.

Numerous studies have been done to support the benefits of regular yoga practise on both physical and mental health. Through its many approaches, yoga aids in reestablishing the link between our minds, our bodies, and the present moment. One of the techniques is Integrated Approach of Yoga Therapy. "According to the integrated approach to yoga therapy (IAYT) a concept created by Swami Vivekananda *Yoga Anusandhana Samasthana* (S-VYASA), 'the foundation of all psychosocial disorders is in the mind; this generates an internal imbalance due to long-term stressful and demanding situations of life' (12). "Gross imbalances are caused by strong likes and dislikes at the psychological level (*Manomaya Kosa*), conflicts across value systems (*Vijnanamaya Kosha*), and intense surges of uncontrolled excessive speed of emotional responses to these demanding conditions (*Pranamaya and Annamaya Kosas*). IAYT slows down the loop of uncontrolled speed of thoughts (stress) through several techniques. The techniques use the principle

of “successive stimulations followed by progressive relaxation and the rest” to correct the imbalances. These techniques promote “mastery over the mind” and harmonize the disturbances at each of the five levels (*PanchaKosa*; figure 1; 12-15)

So, *Pranamaya kosha* is the channel through which disturbances created in *Manomaya kosha* reach the *Annamaya kosha* (physical layer). Therefore, it becomes necessary to operate at all these levels of existence in order to heal these psychosomatic illnesses. The integrated approach of yoga therapy simultaneously can tackle all the psychosomatic disorders by balancing the disturbances at different levels, by different yogic techniques.

I. Practices at *Annamaya-kosha* level: The Physical Layer- (To alleviate physical symptoms of the disease).

1. Yogic diet 2. *Kriyas* 3. Loosening exercises (*shithilikaran vyayama*) 4. *Yogasanas*

II. Practices at *Pranamaya kosha* level: the layer of prana- (To alleviate random agitation in pranic flow in *Pranamaya kosha*)

1. Breathing practices 2. *Pranayama*

III. Practices at *Manomaya kosha* level: the psychological layer- 1. *Dharana*, 2. *Dhyana* 3. *Bhakti yoga* 4. Emotional culture/ devotional songs

IV. Practices at *Vijnanamaya kosha* level: the layer of wisdom-

1. *Jnana* 2. Lecture 3. Yogic counselling

V. Practices at *Anandmaya kosha* level: layer of bliss-

1. Working in blissful awareness 2. *Karma yoga*

The integrated approach of yoga therapy incorporates techniques that touch on all facets of our existence in addition to treating issues at the bodily level. So, the present research was undertaken to study the effect of integrated approach of yoga therapy to manage the loneliness of elderly people.

The objective of the study to know the impact of integrated approach of yoga therapy on loneliness of elderly people.

MATERIALS AND METHODS

Subjects

Fifty older people between the ages of 60 and 80 made up the sample (30 men and 20 women) were selected from the Kalinganagar housing society of Bhubaneswar following the inclusion and exclusion criteria. The questionnaires were given to these older people after being personally approached to them. The subjects were selected through purposive sampling method.

Inclusion and exclusion criteria

1. Having no sign of diseases like Alzheimer's, Parkinson's, and severe dementia
2. Not less than 60 years and not more than 80 years
4. Not alcoholic or smoker
5. Not in severe depression
6. Not suffering from paralysis other severe chronic diseases

Criterion measures

UCLA's (University of California, Los Angeles) devised and updated aloneliness scale (Russell *et al.*,) The UCLA Loneliness scale is devised in such a way that it has taken 10 items with negative wording and 10 items with positive wording which exhibits strongest correlations with a series of questions made specifically about loneliness. High discriminative validity exists for the scale's improved form. With an alpha coefficient of 0.94, the updated loneliness scale likewise exhibits strong internal consistency.

Experimental design

The subjects were first approached individually, and a relationship was built with them. The subjects were required to complete the questionnaire that was provided at the inception of the practice session. The typical instructions were presented on top of each questionnaire, and the respondents were asked to rate themselves under the choice that they believed applied to them. They were made aware that there were no rights or wrong answers. They were encouraged to ask questions if they encountered any difficulties. They were instructed to return the questionnaires once they had answered all the questions. The test was given in roughly 30 minutes.

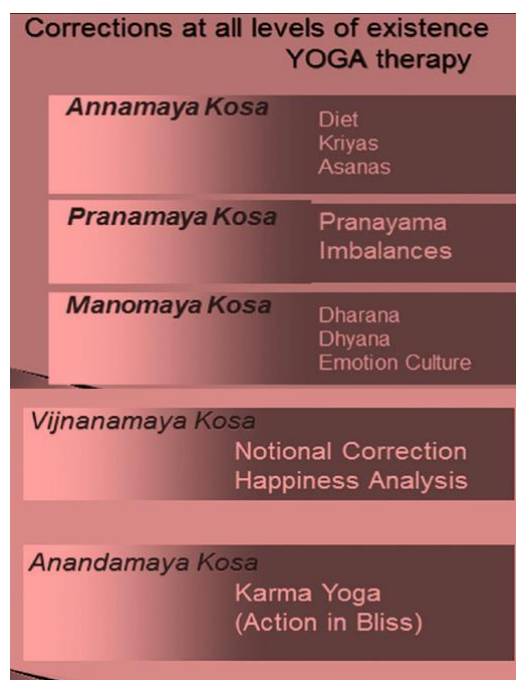


Fig. 1: Panchakosha model OF IYAT

The present study was done by using one sample group for pre and post-test assessment. All the participants had given details of their medical history and consent letter to go for a practice session of 12 weeks 6 days in a week in the nearby Radhakrishna Mandir premises. On Sunday, seva had given to The Mandir. Prior permission of Mandir trustees had also taken for 3 months to carry out the study. The subjects were asked to come to the Mandira Hall, sharp at 6Am with their mat and sit silently for Morning Prayer. After Morning Prayer for 2 minutes the practice session started with the following yogic module.

1. 10-minute lectures about IAYT, food, emotion culture, concepts, and how to deal with loneliness according to yogic principles.
2. Loosening Exercise (15 minutes)
3. Jogging-5 minutes
Tadasana (5 rounds), *Tiryak Tadasana* (5 Rounds), *Kati chakrasana* (5 rounds)-10 minutes
4. *Surya namaskar*-6 rounds-10 minutes
5. *Savasna*-4 minutes
6. Yogic Breathing in *Savasana*-3 minutes
7. *Anulom Vilom Pranayama*-5 minutes
8. Om chanting-3 minutes
9. Cyclic meditation (25 minutes)
10. Participating in Mandir *Arati*

11. Evening *Satsanga* twice in a week
12. Cleansing the mandir premises and surrounding on Sunday

Totally 90 minutes schedule was followed. All participants were asked to sign a register before departure.

Collection of data

Before the starting of the session, the demographic data of all the participants were collected in proper format with their medical history. They had submitted UCLA questionnaires duly filled up to the researcher. After the 12 weeks of practice session, again the participants were asked to fill up the same questionnaire to assess the improvement. Then the collected data were converted to quantitative data. Among the participants 6 participants left the session due their health issues and some other problems. So, total 44 participants were participated in the program till the end of the session.

Statistical analysis

Data was converted into a numerical score and then subjected to appropriate statistical analysis using the Mean, S.D., and test of significance (t-test). The ‘t’ test was used to interpret, analyse, discuss, and draw conclusions from the pre-test and post-test data. The entire calculation was carried out using Excel2010.

Table 1: Mean and SD of pre and post test data of loneliness scale

Variables	Test	Mean±S.D.	t value	P value
UCLA questionnaire	Pre-Test	47.85±8.33	2.4213,	0.01757
	Post-Test	43.75 ±7.12		Statistically Significant

RESULTS

From table 1, it was observed that mean score and standard deviation (SD) of pretest and post test data of Loneliness scale of 44 elderly people were 47.85 with std deviation ± 8.33 and 43.75 with std dev ± 7.12 respectively. The p-value equals 0.01757, ($p(x \leq T) = 0.9912$). It means that the chance of type I error (rejecting a null hypothesis) is small 1: 0.0175 (1.76%). The smaller the p-value the more it supports hypothesis 2. The test statistic T equals 2.4213, which is not in the 95% region of acceptance: [-1.9879: 1.9879]. $x_1 - x_2 = 4$, is not in the 95% region of acceptance: [-3.2841: 3.2841]. The standard deviation of the difference, S' equals 1.652, is used to calculate the statistic. In other words, the difference between the sample average of pretest data and post test data is big enough to be statistically significant.

DISCUSSION

When people enter the old age, a lot of negativities enter their minds, particularly during the retirement years. It is not unnatural, but what could initially appear to be a minor mood fluctuation could quickly

develop into a persistent state of mind that ultimately becomes a serious mental illness like depression, anxiety disorder, social isolation, which is termed as loneliness, low self esteem etc. The mind is a chaotic vortex of fancies, misunderstandings, and oscillations. The tensions from job, home, and interpersonal interactions build up in the mental body's consciousness state. The body which is exposed to an individual's abnormal behavior may undergo psychological and behavioral changes as a result. The integrated approach of yoga therapy works positively on all the levels of human existence thus helps to establish harmony in all aspect of life. In longterm ageing research, it has been found that accepting ageing is one of the elements of healthy lifespan, which boosts resilience and one's sense of self. These two elements can lessen loneliness as we age. According to Eastern philosophy, it is also hard to transition between ages and integrates into the social environment, both of which are necessary to prevent feeling lonely. Change in oneself can also lead to ultimate pleasure, life contentment, and mental tranquilly (16). According to Swami

Vivekananda Yoga Anusandhana Samasthana (S-VYASA) and the integrated approach to yoga treatment (IAYT) philosophy, the root of all psychosocial diseases lies in the mind, which creates an internal imbalance because of persistently stressful and demanding life circumstances. Strong psychological likes and dislikes (*Manomaya Kosa*), conflicts between value systems (*Vijnanamaya Kosha*), and powerful, uncontrollable, excessively rapid emotional responses to these demanding conditions (*Manomaya Kosa*) are to blame for imbalances at large levels (*Pranamaya* and *Annamaya Kosas*). IAYT employs a variety of strategies based on the idea of 'successful stimulations followed by progressive relaxations and rest' to address the issue of imbalances in each *kosa*. IYAT also encourages 'mastery over the mind' and balances the disruptions at each of the five levels (*panchakosa*; 17). Therefore, the study's researcher used a variety of yoga practices at each level in accordance with the IYAT concept to control loneliness in the study's senior patients.

As per the study the findings were as follows:

1. The statistics as per UCLA questionnaire revealed that there was a significant impact of integrated approach of yoga therapy on the mindset of elderly.
2. They expressed their improvement in social relation, which help them to reduce their loneliness a greater extent.

From the above research it could be ascertained that by incorporating yoga and yogic activities in old age, elderly people could develop the ability to live independent life and being active in social activities. Hence, based on the result the yoga will significantly improve the quality of life and alleviate loneliness at a greater extent.

CONCLUSION

After analyzing the findings, we can draw the conclusion that IYAT techniques are important at all levels of human existence, but particularly on the psychosocial level. Three months of practice revealed major mental transformations in them, which also made them feel less alone. However, the results and conclusions were based on a smaller sample size and under fewer demographic circumstances. Therefore, the validity of the findings will need to be supported by a thorough investigation.

ACKNOWLEDGEMENT

The authors would like to thank The Kalinganagar Radhakrishna Temple authority for providing them the opportunity to conduct this study in the temple premises. They would also like to thank all participants for their individual and collective contribution in completing this study.

CONFLICT OF INTEREST

None declared.

REFERENCES

1. Warnick, J., Listening with different ears: Counseling people over sixty. Ft. Bragg CA: QED Press. 1995.
2. Green, B. H., Copeland, J.R., Dewey, M. E., Shamra, V., Saunders, P.A., Davidson, I., et al., Risk factors for depression in elderly people: A prospective study. Acta Psychiatr Scand.. 1992; 86(3): 213-217.
3. Hansson, R.O., Jones, W. H., Carpenter B. N., Remondet, J. H. International Journal of Human Development. 1987; 27(1): 41-53.
4. Heinrich, L.M., Gullone, E. The clinical significance of loneliness: A literature review. 2006: 695-718.
5. Bekhet, A.K., Zauszniewski, J.A., Nakhla, W.E. Loneliness: A concept analysis. Nursing Forum. Vol. 43. Malden, USA: Blackwell Publishing Inc. 2008.
6. Bekhet, A.K., Zauszniewski, J.A., Nakhla, W.E. Social isolation in Covid-19: The impact of loneliness. Int J Soc Psychiatr. 2020; 66: 525-527.
7. Singh, A., Misra, N. Loneliness, depression and sociability in old age. Ind Psychiatry J. 2009 Jan-Jun; 18(1): 51-55.
8. Heikkinen, R., Berg, S., Avland, K. Depressive symptoms in late life. Journal of Cross Cultural Gerontology. 1995; 10: 315-330.
9. Centers for Disease Control and Prevention., Loneliness and Social Isolation Linked to Serious Health Conditions. Available from: <https://www.cdc.gov/aging/publications/features/lonely-older-adults.html>.
10. Saraswathi, T.S., Mistry, J., Dutta, R. Reconceptualizing lifespan development through a Hindu perspective. L. A. Jensen (Ed.), Bridging cultural and developmental approaches to psychology: New syntheses in theory, research, and policy. Oxford University Press. Oxford. 2011; 276-300.
11. Muktibodhananda, S. Hatha Yoga Pradipika, Chapter 2, Verse 2. Munger,; Yoga Publication Trust; 1974.
12. Nagarathna, R., Nagendra, H. Integrated Approach of Yoga Therapy for Positive Health, Bangalore: Swami Vivekananda Yoga Samsthana,; 2008.
13. Krishnamoorthy, S. Concept of Anxiety According to Ancient Indian Scriptures. SYASA, Bangalore: M.Sc (Yoga)- Dissertation. 2007.
14. Pathak, M., Pandey, A. Yoga Nidra – An Efficient Adjuvant For Geriatric Health Care. World Journal of Pharmaceutical Research. 2015; (4)2: 1131-1137.
15. Gupta, P.K., Kumar, M., Kumari, R., Deo, J.M. Anuloma-Viloma Pranayama and Anxiety and Depression among the Aged. Journal of the Indian Academy of Applied Psychology., 2010,; 36(1): p. 159-164.
16. Banerjee, D. Loneliness in older people: Spiritual practices as an alternative pathway to action, a treatise from India. J Geriatr Ment Health. 2021; ; p. 63-69.
17. Villacres, M.C., Jagannathan, A., Nagarathna, R., Ramakrishna, J. Decoding the integrated approach to yoga therapy: Qualitative evidence based conceptual framework.. Int J Yoga, 2014; 7: 22-31.