The Effectiveness of Chair Yoga in Older Adults: A Literature Review

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Abstract: <u>Background</u>: Chair yoga is a form of yoga that can be done while the patient is sitting or while he is standing by using a chair as the supportive device. This modification allows seniors with fear of fall and impaired balance to practice safely. Chair yoga (CY) is a type of yoga that can be done anywhere, anytime, and can be practiced while sitting in any chair except the one with wheels⁽¹⁾. The purpose of the study was to find whether Chair Yoga is effective in improving the mobility, functional independence and improving the quality of life of older adults. <u>Objective</u>: The objective of the study is to review the literature for finding the effectiveness of Chair yoga in improving the quality of life in older adults.22articles were selected with the terms Chair yoga techniques used. <u>Results</u>: The data were tabulated according to the type of study, number of participants in the study, the condition being treated, treatment given, outcome measures and results. Out of 21 articles, 18 articles says that chair yoga is effective than other therapeutical treatment. They say that it is more effective in elderly and lower extremity problems. <u>Conclusion</u>: This review found mixed responses to the outcome measures used for chair yoga techniques. These contrasting results reveal the need for future research. This may help researchers to conduct research using chair yoga for older adults and further develop protocols to enhance better interpretations and the need for Evidence - Based Information.

Keywords: Chair yoga, Geriatric.

1. Introduction

Yoga is a system of exercises that aim at training the consciousness by creating harmony between the body and the spirit for a state of perfect spiritual insight and tranquillity to promote control of the body and mind. Yoga was taken from the Sanskrit core 'Yuj, ' which means join or attach (2). Yoga was recommended as a form of "total solution" exercise for seniors by the National Recreation and Park Association. Though yoga has shown dramatic improvements in functions among seniors, it also has undesirable side effects since older adults generally have lesser strength and balance and a greater prevalence of osteoarthritis (3). So, older adults are at a of developing musculoskeletal and neurological complications when practicing on a mat. Chair yoga is a form of yoga that can be done while the patient is sitting or while he is standing while by using a chair as the supportive device ⁽¹⁾. It can be done anywhere using any stable chair, except those with wheels. There is no specific yoga chair. Chair yoga can become an ideal intervention for seniors because of its cost - effective nature and because the patient does not need to engage in strenuous activity. For older adults with physical limitations who are force to be constantly seated for prolonged periods chair yoga can make them move, find awareness of the body, be more productive and happier. There is no specific yoga chair, any stable chair can be used except those with wheels as it might slip. Chairs can be seated for support, use during standing poses for balance, or used as a prop for modifying poses. A mat is not mandatory, but sometimes it is recommended that the mats be prepared for any wear and tear (placing the chair on the mat). Small non - slip pads can be placed under the chair to avoid placing the chair on the mat to reduce damage to the mat. Most yoga classes incorporate bare feet as part of the experience, but by no means it is necessary. If there are orthotics in the shoes that will support the feet and arches, the subjects can keep their shoes on.

The need of the study firstly should fulfill the inclusion criteria and furthermost as many articles must be reviewed on chair yoga in older adults with outcomes on mobility and functional independence. Articles must be reviewed on the technique for Extensive research.

The objective of the study includes:

- To review the literature to find the effectiveness of Chair yoga in improving mobility.
- To review the literature to find the effectiveness of chair yoga in improving Functional independence.
- To review the literature to find the effectiveness of chair yoga in improving Quality of Life.

2. Methodology

2.1 Literature Search Methodology

Online search engines used to collect journals were Google Scholar, Pub Med, and Science direct. The authors identified articles based on the keywords. The articles were collected in full text. A total of 67 articles were identified, out of which 21 were selected for review based on exclusion and inclusion criteria.

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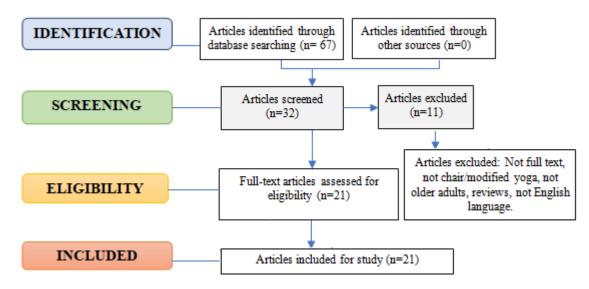
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2.2 Study Selection Data extraction

The data which was collected were tabulated based on the sample size, treatment given, outcome measures used, the results obtained were arranged in chronological order.

Inclusion criteria: (1) published in English language only; (2) Chair and Modified Yoga; (3) published in peer review journals only; (4) Human participants were studied.



2.3 Literature Evaluation

Review of Literature

| Sl. No | Author | Year & Journal | Study design | Participants | Condition | Treatment | Control Group | Outcome measures | Results |
|-----------|---|---|---|--------------|--|-----------------------|-------------------------------|--|---|
| 1 | David Saurez Iglesias, et. al | 2021 & Disability and Rehabilitation | A pre - and post - testing control group | 34 | Neurodisability | Chair - based yoga | Usual care | HRQOI (WHOQol- BREF), MAIA | Chairbased Yoga is safe and effective in adults with neurodisability. |
| 2 | Kevin F. Boehnke, et. al ⁽⁵⁾ | 2020 & Elsevier Inc | Single arm pre/post clinical trial. | 26 | Adults with self - identified chronic pain | Chair yoga | | PROMIS - Fatigue, PROMIS - Sleep Disturbance, PROMIS - Physical functioning short form with mobility aid users, HADS. | CY is safe and suitable |
| 3 | Juyoun g Park, et. al | 2020, Experimental Gerontology | Experimental study | 131 | OA | Chair Yoga | HEP | WOMAC pain | Participants with higher baseline FI shown decline in WOMAC and pain interference. No greater decline in FI for CY compared to HEP. |
| 4 | Yumik o Otsuka- Sakum a, et. al ⁽⁷⁾ | 2020, Journal of Japan Health Medicine Association | Nonrandomi zed compara tive study | 22 | Physical function in older female adults. | СҮ | No exercise program | BMI, sit - and - reach test, handgrip dynamom eter | No significant change seen. |
| 5 | Juyoung Park, et. al ⁽⁸⁾ | 2019 & American Journal of Alzheimer's | RCT | 31 | Dementia | Chair Yoga | Music intervention, CBE | MMSE, RASS, Mini PPT, SPPB, TUG, BMI, handheld | Effective in improving QoL. |

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| | | | | 51 | IIF (2022): 7.9 | 42 | | | |
|----|---|--|--|----|---|---|--------------------------------|---|---|
| | | Diseases and other dementias | | | | | | dynamometer, HADS, Cohen – Mansfield Agitation Inventory- Short Form, QOL - alzheimer's disease, PSQI, Eps worth sleep Quality index | |
| 6 | Ching - Teng Yao, et. al ⁽⁹⁾ | 2019 & Topics in Geriatric Rehabilitation | Quasi - Experim ental | 31 | Low physical activities | Chair Yoga | Regular daily activities | BMI, short Portable Mental Status Questionnaire, Wellbeing Question naire, 30second bent arm lateral raise test, handgrip test, back scratch test, chair sit - and - reach test, 8 - ft up - and go - test. | Chair yoga training provides a simple and inexpensive exercise program that improves the functional fitness and wellbeing effectively. |
| 7 | Yoga Kerpati , et. al ⁽¹⁰⁾ | 2018 | Quasi - experimental study | 42 | Functional status of older adults | Chair yoga with spiritual intervention | С | FIM | It's a preventive measure against functional decline. Recommended with higher frequency. |
| 8 | Ruth McCaf frey, et. al ⁽¹¹⁾ | 2017 & Holistic Nursing practice | Two arm, randomi zed, controll ed trial | 85 | OA | Chair Yoga | HEP | PROMIS, WOMAC , BBS, LISTA - SF | CY showed significant improvem ents on pain interferenc e, function, and quality of life. |
| 9 | Garry A. Tew, et. al ⁽¹²⁾ | 2017, BMC Geriatrics | Randomised controlled pilot trial | 52 | Sedentary at risk for mobility limitation | Chair yoga | Education | SPPB, health status, Warwick - Edinburgh Mental Well Being Scale, feasibility, adverse events and interviews | CY group scored more and showed perceived benefits. |
| 10 | Saeko Ikai et. al ⁽¹³⁾ | 2017, Journal of psychiatri c research | Single blinded randomi zed controll ed trial | | Physical fitness in patients with psychiatri c disorders | Chair yoga | С | Anteflexion in sitting, strength, MFES, QoL, psychopatholog y and function. | CY has positive contributi ons in inprovoing the physical fitness. No change in psychopathology. |
| 11 | M. Karydaki, et. al ⁽¹⁴⁾ | 2017, Inernational Journal of Kinesiology & Sports Science | RCT | 49 | Mild cognitive impairment | Chair Yoga | Cognitive activities | MMSE, PSQI, BBS and SFT. | No significant differences between the groups. However, CY is feasible, safe & well accepted. |
| 12 | G. Furtad o, et. al ⁽¹⁵⁾ | 2016 &Complem entary Therapies in Clinical | Comparative study | 35 | Institution alised older adults | Chair Yoga | - | Lawton Instrumen tal Activities of Daily Living | Chairyoga improves the subject's perception and maintain the PF |

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| | Schaff, et. al | Topics in Geriatric | Study | | sis, cancer, knee pain, hip | | | | significan t |
| | | Rehabilitation | | | replaceme nt surgery, high blood pressure, heart disease, back pain, pinched nerves, limited shoulder mobility, diabetes, neuropath , stress, and depression. | | | | improve ments in senior citizens. |
| 20 | Mary Lou Galanti no, et. al ⁽²³⁾ | 2012 & International Journal of Yoga | Pilot study | 20 | Seniors at risk for Falls or had fall in the past 6 months. | Chair Yoga | - | TUG, SPPB, BBS, FR, Modifird SR, TFES, HADS, BPI, QOL | Chairyoga program showed Improvements in seniors with fear of fall. |
| 21 | Juyoung Park, et. al ⁽²⁴⁾ | 2011, Holistic Nursing Practice | Pilot study | 21 | OA | Chair Yoga | Reiki & HEP | WOMAC and Center for Epidemiologic Studies Depression Scale. | CY showed significant increase in physical function, decrease pain and improve QoL. |

3. Discussion

This review includes studies from 2011 - 2022 and it provides evidence of the use of chair yoga for different diagnoses. The review in the literature supports the use of chair yoga as an intervention to improve quality of life in older adults.18 of the studies had positive results. The findings suggest that chair yoga is safe, feasible and cost effective. It is more effective in elderly and lower extremity problems. Further studies should also explore the use of chair yoga in neurological, orthopaedical, cardiopulmonary & gynaecological conditions in different populations. Further research can also be done to standardized the chair yoga program as per frequency, intensity and time (FIT) prescription.

4. Results

Out of 21 articles, 18 articles stated that chair yoga is effective than other therapeutical treatment. They say that it is more effective in elderly with lower extremity problems.2 articles supported use of chair yoga in older adults as it is safe and feasible.

5. Conclusion

The literature review analysed the effects of chair yoga for older adults. The wide range of reviews used to demonstrate that chair yoga can be a choice of treatment for older adults and its primary importance to have evidence for these. The guidelines given in this review will help us to achieve higher quality results and to determine the true effectiveness of chair yoga as a treatment for older adults. Acknowledgement: I thank God for giving me the strength as well as all the teachers who have shared their expert knowledge in guiding me to complete this review.

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