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## A comparative study of pilates exercises versus conventional balance training on balance and fear of fall in community dwelling elders

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### ABSTRACT:

**Background:** Major areas of concern in elderly people are multiple medical and psychological problems. Impaired balance leads to difficulty in walking and causes falls which leads to functional decline. Thus balance assessment, training and fall prevention becomes major aim in counteracting these age related functional decline and aid in prolonging independence. Pilates exercise helps in improving strength and flexibility which may benefit in improving balance and fear of fall. Hence objectives of this study was to assess effects of pilates exercises versus conventional balance training (CBT).

**Methodology:** In this experimental study, 30 community dwelling elders with 60 to 70 years of age were selected. After ethical approval from institutional ethical committee, written informed consent was taken from all participants. Participants having any neurological problems or musculoskeletal problems leading to balance loss were excluded. Two groups were made, Group A (Pilates) and Group B (CBT). Intervention was given for 3 days/week for 4 weeks. Tandem walk, limits of stability and fear of fall were assessed pre and post intervention.

**Result:** End sway during tandem walk was significantly improved more in Group A than B as  $p=0.013$ , but speed, step width and limits of stability did not show any significant difference in both groups ( $p>0.05$ ). When fear of fall was compared, pilates exercises improved fear of fall more than CBT ( $p<0.001$ ).

**Conclusion:** Pilates exercises can be included as a regular exercise protocol for improving balance and fear of fall in elderly which can ultimately improve functional independence.

### Biography:

Manisha Rathi is a Professor at Dr. D. Y. Patil College of Physiotherapy and has completed her PhD from Dr. D. Y. Patil University, Pune. In her 22 years of professional practice in physiotherapy she developed keen interest in treating elderly people from the community and preventing any major disability development in them. She has more than 35 publications in reputed Journals. She was invited as a resource person for many national conferences

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