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Does Yoga Practice Improve Balance in Older Adults?

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Does Yoga Practice Improve Balance in Older Adults?

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Results

<table>
<thead>
<tr>
<th>Author/year</th>
<th>Type of Yoga</th>
<th>Duration/Frequency of Yoga</th>
<th>Balance Outcome Measure(s)</th>
<th>Impact of Yoga on Balance</th>
</tr>
</thead>
</table>
| Nicket al., 2015 | Hatha with emphasis on 
Pavanamuktasana and 
balance movements | 1 hour classes 2x/week for 8 weeks | Berg Balance Scale (BBS) | Significant (p<0.05) improvement in BBS scores as compared to control |
| Sarnavasanamurthy et al., 2014 | Asanas, parasyama, yoga nirda | 30 min classes 2x/week for 14 weeks | Functional Reach Test (FRT), single leg stance (SLS), postural sway/dynamic posturography | Improved BBS and decrease in fall incidence after yoga, but not significant (p>0.495) |
| Meng et al., 2014 | Vinyasa style | 1 hour classes 2x/week for 12 weeks | SLS, Activities-Specific Balance Confidence 
Scale (ASC), Fullerton Advanced Balance Scale (FABS), Multidirectional Reach Test (MDRTE) | Significant improvement in all outcome measures (p<0.05) |
| Hakim et al., 2010 | Not mentioned | 8 weeks | Standing balance portion of Short Physical Performance Battery (SPPB) and SLS | Significant improvement in balance scores for yoga group (p<0.04) and one leg stance eyes closed (p<0.02) |
| Tiedemann et al., 2013 | Iyengar | 1 hour 2x/week and HEP 10 - 20 min poses 2x/week for 12 weeks | BBS, ABC | Statistically significant improvement (p<0.003) for the Berg |
| Tsutsumi et al., 2011 | Glenmore Ageless Therapeutic/Yoga Program | 90 min 1x/week and HEP 30 min 3x/week yoga DVD for 13 weeks | | |
| Setzer et al., 2010 | Focus on balance | 75 min 2x/week for 12 weeks | SLS | SLS duration improved significantly by an average of 2.8 (p<0.015) |
| Chen et al., 2010 | Silver yoga | 15 min 2x/week for 8 weeks | SLS | SLS balance did not significantly improve (p>0.05) |
| Carroll et al., 2011 | Anusara yoga | Participants who regularly 
participate in yoga (start date could have been recent or years) | Questionnaire of subjective improvement of balance and posture | Mean improvement: 88.8%; between 90-95% of participants reported improved balance |

Discussion

Key points
- Yoga programs can be used to improve balance in older adults
- Participation in yoga programs led to improvements in quality of life, functional strength, and performance of ADLs.

Balance
- Exercise programs that include endurance, balance, and strengthening components are recommended to recommend to reduce fall risk.
- Yoga programs can improve balance in older adults, which can reduce risk of falling.

Clinical Relevance

Evidence shows
- Exercise programs that include endurance, balance, and strengthening components are recommended to reduce fall risk.
- Yoga programs can improve balance in older adults, which can reduce risk of falling.

How clinicians can use the results
- Incorporate yoga poses in their treatment plans.
- Educate patients on how to utilize yoga programs to maintain and improve balance once formal physical therapy treatment is completed.
- Clinician should only recommend yoga programs that are safe and appropriate for the older adult population.

Future Research
- Yoga is an emerging alternative therapy which has been proven to have several physiological benefits. Future research is recommended in order to determine the following:
  - Appropriate duration and length of a yoga program to achieve significant improvements on balance measures
  - Effects of sound versus standing yoga on balance in the older adult population
  - Effects of balance on a novice yoga practitioner compared to an expert practitioner
  - Impact of yoga on strength, flexibility, cardiovascular and pulmonary health, mental health, and neurological conditions (e.g. multiple sclerosis, Alzheimer’s, Parkinson’s)

References


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