

Table I - Characteristics of the experimental studies included in this review

Author/year (Country)	Sample	Participants	Intervention protocol
Figuroa <i>et al.</i> 2012 [19] (United States)	IG: 5 CG: 5	Women Age: 18 - 35 years Health condition: overweight and obese (BMI > 25 kg/m ² < 40 kg/m ²)	IG: Training on a vibrating platform with a frequency of 25 -30 Hz, 1-2 mm in amplitude, 3x/week, for 6 weeks. Series duration: 30 - 60 s. Rest periods: 60-30 s. Subjects wore a weight vest at 5% and 10% of their body weight during weeks 5 and 6, respectively. Dynamic exercises: 3 sec eccentric / 2 sec concentric for each repetition, considering 180° as total knee extension. Exercise 1: semi-squat with knees at 120° Exercise 2: semi-squat with 120° knees and wide base Exercise 3: Calf raise with maximum plantar flexion Static exercises: Exercise 1: Isometric squat with knees at 120° Exercise 2: Isometric squat with 120° knees and wide base Exercise 3: Calf raise with maximum plantar flexion 4 weeks washout period CG: instructed not to perform any type of physical exercise during the 6 weeks of duration
Figuroa <i>et al.</i> 2013 [20] (United States)	IG: 15 CG:13	Women Age: 53 - 59 years Health condition: prehypertension or stage 1 hypertension, overweight or obesity (BMI >25 kg/m ²), postmenopausal	IG: Training on a vibrating platform, 3x/week, for 6 weeks. The vibration frequency ranged from 25-35 Hz, amplitude of 1mm. The number of sets and duration of each exercise varied progressively, respectively, from 1-2 and from 30 to 45 seconds. The duration of the recovery periods between sets was kept at 60 seconds. Dynamic exercises: 3 sec eccentric / 2 sec concentric for each repetition, considering 180° as total knee extension. Exercise 1: Squat with knees at 90° with feet in line Exercise 2: Squat with knees at 120° with feet in line Exercise 3: Calf raise with maximum plantar flexion Static exercises: Exercise 1: Isometric squat with knees at 90° with feet in line Exercise 2: Isometric squat with knees at 120° with feet in line Exercise 3: Isometric calf contraction with maximum plantar flexion CG: instructed not to perform any type of physical exercise during the study period

Pleguezuelos <i>et al.</i> 2013 [21] (Spain)	IG: 26 CG: 25	Men Age: 59 - 80 years Health condition: severe COPD	IG: Warm-up (10 minutes): exercises for upper and lower limbs and spine, Training with WBV with a frequency of 35 Hz and 2 mm of amplitude + static squat with 30° of hip flexion and 55° of knee flexion, with the upper limbs holding the platform bars, 6 sets of 4 repetitions of 30 seconds, with 60 s of rest between each set. Cool-down: Stretches (10 minutes) 18 sessions, 3x/week, for 6 weeks. CG: general recommendations on physical activity and lifestyle (Mediterranean Diet + at least 30 min of moderate-intensity walking daily)
Furness <i>et al.</i> 2014 [22] (Australia)	IG: 16 CG: 11	Both genders Age: 65 - 79 years Health condition: moderate COPD	IG: Training on a vibrating platform, with a frequency of 25 Hz, 2 mm of amplitude, 2x/week, for 6 weeks. Static semi-squat posture (knees bent at ~55°) 2-week washout period CG: Sham training on a vibrating platform, with characteristic noise, without vibration, 0 mm amplitude, 2x/week, for 6 weeks. Static semi-squat posture (knees bent at ~44°)
Braz Júnior <i>et al.</i> 2015 [4] (Brazil)	IG: 11 CG: 11	Both genders Age: 54 - 72 years Health condition: COPD	IG: 10 minutes of stretching for upper and lower limbs Vibration platform training: 3x/week for 12 weeks. Static semi-squat posture (120-130°), with feet 20 cm apart, upper limbs slightly flexed in support. Weeks 1-4: 30 s of WBV at 2 mm, 60 s of standing rest, total duration 10 minutes Weeks 5-8: 60 s of 4 mm WBV, 60 s of standing rest for 20 minutes Weeks 9-12: 60s of 4mm WBV, 60s of standing rest for 20 minutes All subjects participated in the intervention group and the control group, with a 3-month washout period. CG: no intervention
Figuerola <i>et al.</i> 2015 [23] (United States)	IG: 24 (12 with high ankle SBP, 12 with normal ankle SBP) CG:12	Post-menopausal women Age: 55 - 59 years old Health condition: prehypertension or stage 1 hypertension, overweight or obese (BMI >25 kg/m ²)	IG: Training on a vibrating platform, 3x/week, for 12 weeks. The vibration frequency ranged from 25-40 Hz, with low to high amplitude, duration of the exercise series from 30 to 60 seconds, number of series from 1 to 6 for each exercise, total duration of the training session: from 11 to 60 minutes and duration of recovery periods between sets of 60–30 seconds. Dynamic exercises, performed with socks on the feet: 3 sec eccentric/2 sec concentric for each repetition, considering 180° as total knee extension. Exercise 1: Squat with knees at 90° with feet in line Exercise 2: Squat with knees at 120° with feet in line

			<p>Exercise 3: Squat with knees at 120° with feet apart</p> <p>Exercise 4: Calf raise with maximum plantar flexion</p> <p>Static exercises:</p> <p>Exercise 1: Isometric squat with knees at 90° with feet in line</p> <p>Exercise 2: Isometric squat with knees at 120° with feet in line</p> <p>Exercise 3: Isometric squat with knees at 120 degrees with feet apart</p> <p>Exercise 4: Isometric calf contraction with maximum plantar flexion</p> <p>CG: no exposure</p>
Severino <i>et al.</i> 2016 [24] (United States)	IG: 13 CG: 14	Sedentary Hispanic women Age: 50 - 65 years Health condition: Obese (BMI > 30 and < 40 kg/m ²) post-menopausal for at least 1 year	<p>IG: Training on a vibrating platform, with a frequency of 25 Hz and 3 sets of 30s on/60s off (week 1), 30 Hz and 4 sets of 30s on/60s off (week 2), 35 Hz and 5 sets of 45s on/45s off (week 3), 35 Hz and 6 sets of 45s on/45s off (week 4), 40 Hz and 7 sets of 60s on/30s off (week 5), 40 Hz and 7 sets of 60s on/30s off (week 6), amplitude of 1 mm (weeks 1-3) and 2 mm (weeks 4-6), 3x/week for 6 weeks, associated with 4 dynamic exercises and 4 static exercises for the legs.</p> <p>Dynamic exercises: 3 sec eccentric/2 sec concentric for each repetition, considering 180° as total knee extension.</p> <p>Exercise 1: Squat with knees at 90° and normal posture</p> <p>Exercise 2: Squat with knees at 120° and normal posture</p> <p>Exercise 3: Squat with 120° knees and wide base</p> <p>Exercise 4: Calf raise with maximum plantar flexion</p> <p>Static exercises:</p> <p>Exercise 1: Isometric squat with knees at 90°</p> <p>Exercise 2: Isometric squat with knees at 120°</p> <p>Exercise 3: Isometric squat with 120° knees and wide base</p> <p>Exercise 4: Calf raise with maximum plantar flexion</p> <p>CG: no exposure</p>
Wong <i>et al.</i> 2016 [18] (United States)	IG: 13 6 with BMI > 30 < 35 kg/m ² 7 with BMI > 35 < 40 kg/m ² = 7 CG: 12 7 with BMI > 30 < 35 kg/m ²	Women Age: 50 - 65 years Health condition: Obese (BMI > 30 kg/m ² and < 40 kg/m ²) postmenopausal for at least 1 year, pre-hypertensive or hypertensive stage 1	<p>IG: Training on a vibrating platform, 3x/week with 48-hour intervals between sessions, for 8 weeks. The vibration frequency ranged from 25-40 Hz, with low to high amplitude, resulting in peak acceleration between 4.3 and 21.3 g, duration of the exercise series from 30 to 60 seconds, number of series from 1 to 5 for each exercise, total duration of training session: 11–60 minutes and duration of rest periods 60–30 seconds.</p> <p>Dynamic exercises, performed with socks on the feet: 3 sec eccentric/2 sec concentric for each repetition, considering 180° as total knee extension.</p>

	5 with BMI > 35 <40 kg/m ² = 7		<p>Exercise 1: Squat with knees at 90° and normal posture</p> <p>Exercise 2: Squat with knees at 120° and normal posture</p> <p>Exercise 3: Calf raise with maximum plantar flexion</p> <p>Static exercises:</p> <p>Exercise 1: Isometric squat with knees at 90°</p> <p>Exercise 2: Isometric squat with knees at 120°</p> <p>Exercise 3: Calf raise with maximum plantar flexion</p> <p>CG: no exposure</p>
Alvarez-Alvarado <i>et al.</i> 2017 [25] (United States)	IG: 25 CG: 13	Women Age: 18 - 25 years Health condition: overweight and obese (BMI > 27 kg/m ² < 40 kg/m ²)	<p>IG: Training on a vibrating platform, 3x/week, for 6 weeks. Vibration frequency ranged from 30-35 Hz, with low to high amplitude. Duration of exercise series from 30 to 60 seconds, number of series from 1 to 8 for each exercise, total duration of training session: from 11 to 30 minutes and duration of rest periods of 60–45 seconds.</p> <p>Dynamic exercises, performed barefoot: 3s eccentric phase/3s concentric phase for each repetition, considering 180° as total knee extension.</p> <p>Exercise 1: Squat with knees at 90° and normal posture</p> <p>Exercise 2: Squat with knees at 120° and normal posture</p> <p>Exercise 3: Squat with 90° knees and wide base</p> <p>Exercise 4: Calf raise with maximum plantar flexion</p> <p>CG: no exposure</p>
Spielmanns <i>et al.</i> 2017 [26] (Germany)	IG: 14 CG:13	Both genders Age: > 65 years Health condition: Stable COPD Stages I to III	<p>IG: Warm-up (10 minutes): low-intensity walking on a treadmill or bicycle, stretching.</p> <p>Whole body vibration training (15 minutes):</p> <ul style="list-style-type: none"> - Weeks 1 - 4: Frequency 6 to 10 Hz, amplitude 4 to 6 mm, 3 sets of 2 minutes with a 2-minute break between sets. - Weeks 5 - 8: Frequency from 12 to 18 Hz, amplitude from 4 to 6 mm, 3-minute sets with a 2-minute break between sets. - Weeks 9 - 12: Frequency 21 to 24 Hz, amplitude 4 to 6 mm, 3-minute sets with a 2-minute break between sets. <p>Participants trained in a static semi-squat position in all weeks, with bare feet and knees at 150°, considering 180° as full extension, arms at the sides or supported on the support bar of the device.</p> <p>Cool-down: (5 minutes)</p> <p>Total duration of each workout: 30 minutes, 2 x/weeks, for 3 months</p> <p>CG: Supervised group calisthenics training: relaxation and breathing training</p>

			associated with calisthenics, total duration of each training session: 30 minutes, 2x/week, for 3 months.
Neves <i>et al.</i> 2018 [27] (Brazil)	IG:10 (COPD) CG: 10 (healthy)	Both genders Age: 45 to 80 years Health condition: moderate COPD	IG: Training with WBV + static squat with 30° of knee flexion, with feet 28 cm apart, with upper limbs holding the platform bars, performing 6 sets of 30 s with 60 s of rest between each set, 3x/week, for 12 weeks. - Weeks 1-4: Frequency 30 Hz, amplitude 2 mm. - Weeks 5 - 8: Frequency of 35 Hz, amplitude of 2 mm - Weeks 9 - 12: Frequency of 40 Hz, amplitude of 2 mm CG: no exposure
Maia <i>et al.</i> 2019 [3] (Brazil)	IG: 6 CG: 6	Participants of both genders Age: 18 - 59 years Health condition: kidney transplant recipients with at least 1 year of transplant	IG: Training on a vibrating platform, with F=35 Hz, 2x/week for 12 weeks, amplitude of 2 mm in the first 2 weeks and 4 mm in the other weeks. Exposure time 10 minutes (weeks 1-4), 15 minutes (weeks 5-8), 20 minutes (weeks 9-12) CG: Training on a vibrating platform, with an attached plate promoting light vibration at 8 Hz of frequency and similar noise. Both groups performed the training in an upright position, with knees semi-flexed and feet 20 cm apart.

IG = Intervention group; CG = Control group; BMI = Body mass index; WBV = Whole body vibration; Hz = Hertz; UL = Upper limbs; SAH = Systolic arterial hypertension; COPD = chronic obstructive pulmonary disease