

RESULTS: One-leg standing time with eyes open (LLG: 14.0±3.0 to 19.9±2.2 sec., TMG: 12.4±2.5 to 15.9±2.2sec, F=5.01, P=0.038), area of COP with eyes open (LLG: 14.1±4.1 to 8.2±6.5 cm², TMG: 15.1±3.3 to 18.8±9.0cm², F=8.54, P=0.009), total length of COP (LLG: 143.1±33.1 to 95.6±18.9 cm, TMG: 144.9±26.4 to 135.7±37.2cm, F=3.92, P=0.046) improved significantly in LLG. Daily steps (LLG: 3831±832 to 4001±860steps, TMG: 3864±747 to 4454±632steps, F=5.28, P=0.032) and knee extension strength (LLG: 21.2±4.8 to 20.7±3.1kg, TMG: 22.8±6.5 to 27.0±6.7kg, F=19.80, P=0.029) improved significantly in TMG.

CONCLUSIONS: Lower-leg muscle training was more effective to improve dynamic balance ability, but it didn't increase the number of daily steps.

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Analysis Of Physiological Determinants During A Single Bout Of German Volume Training

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While resistance training (RT) has been proposed as a useful adjunct in a primary prevention setting and rehabilitation context, the exact application of training intensity and volume for maximal therapeutic effects is still unclear. In this regard, German Volume Training (GVT), or the 10 sets method, has been utilized by athletes for decades and may prove a safe and effective method in improving strength and cardiorespiratory endurance, and modifying coronary risk factors.

PURPOSE: To determine the physiological determinants during a single bout of German Volume Training.

METHODS: Using a within-group design, untrained healthy males (n=19; mean age: 22±1 years) served as their own inactive controls prior to engaging in a single one-hour bout of GVT consisting of leg press, chest press, latissimus dorsi pull-downs and shoulder press for 10 sets of 10 repetitions each with a 60-second rest between sets and a three-minute rest period between exercises. Differences from pre- to post-test were examined using t-tests with alpha levels set at p ≤ 0.05.

RESULTS: An acute bout of GVT significantly (p≤0.05) decreased systolic blood pressure (SPB) (from 119±9 mmHg to 110±9 mmHg; p=0.042), diastolic BP (DBP) (from 77±10 mmHg to 68±10 mmHg; p=0.037) and mean arterial pressure (MAP) (from 91±9 mmHg to 82±8 mmHg; p=0.028), but increased rate pressure product (RPP) (from 8370±826 to 12332±1602; p=0.008). Increases were observed in carbon dioxide production (VCO₂) (from 0.34±0.09 L.min⁻¹ to 0.65±0.32 L.min⁻¹; p=0.021). No changes were found in any of the measured spirometry parameters.

CONCLUSION: This study suggests that GVT is of sufficient safety and provides the appropriate intensity to be included in general primary prevention and rehabilitation settings.

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Delivery Of Yoga Properties Across In-person And Remote Formats In A Weight Loss Maintenance Intervention

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We previously reported that yoga can be feasibly implemented with high acceptability following behavioral weight loss treatment, however, it is unknown whether participant perceptions of yoga class properties differ when delivered in-person vs. remotely.

PURPOSE: To compare participant perceived delivery of essential yoga properties across in-person and remote formats in a weight loss maintenance intervention.

METHODS: 24 women with overweight or obesity (34.6±4.1 kg/m², 48.2±9.9 years) received a 12-week Iyengar yoga intervention (2x/week) following a 3-month behavioral weight loss program. Of 23 participants who completed follow-up questionnaires, 12 received the planned in-person intervention and 11 received a remote intervention (delivered live) due to the COVID-19 pandemic. The Essential Properties of Yoga Questionnaire (EPYQ), a psychometric tool validated for use by trained raters, was administered online to participants (a non-validated use) to measure their perceptions of the relative emphasis placed on the essential components of the yoga intervention via 14 subscales.

RESULTS: 13 of the 14 EPYQ subscales were not significantly different between in-person versus remote groups: acceptance/compassion (4.1±0.6 vs. 3.6±1.2), breathwork (4.7±0.6 vs. 4.5±0.4), physicality (3.5±0.6 vs. 3.3±0.9), active postures (4.1±0.7 vs. 3.9±0.9), restorative postures (4.1±0.8 vs. 3.9±0.9), body locks (3.6±0.6 vs. 3.0±1.0), body awareness (4.3±0.8 vs. 4.3±0.5), mental/emotional awareness (3.8±0.8 vs. 3.9±0.7), health benefits (4.2±0.6 vs. 3.5±1.2), social aspects (2.3±0.7 vs. 2.5±0.7), spirituality (2.3±0.6 vs. 2.0±0.8), meditation/mindfulness (3.7±0.1 vs. 3.5±0.9), and yoga philosophy (2.3±0.1 vs. 2.2±1.4) (p>0.05 for all). Scores from the individual attention subscale were higher for in-person compared to remote delivery (3.3±0.8 vs. 2.3±0.6, p=0.003).

CONCLUSIONS: Findings provide preliminary support for the use of live remote delivery of yoga, effectively communicating most essential yoga properties when compared to in-person classes. However, participants perceived more individual attention with in-person vs. remote delivery; thus, future remote-based yoga interventions may benefit from providing additional individualized feedback.

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Developing A Culturally-tailored Yoga-based Intervention For African American Women: Findings From Focus Groups

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The practice of yoga has the potential to decrease sedentary behavior, a priority of the Physical Activity Guidelines. African American women are disproportionately affected by a sedentary lifestyle, but yoga as an intervention has not been explored in this population. When developing interventions targeting diverse communities, it is essential to ensure that interventions are culturally appropriate.

PURPOSE: Use qualitative data to refine strategies to enhance feasibility and acceptability for a yoga-based intervention in sedentary African American women.

METHODS: African American women in Minnesota (N=16; 40.3 ± 13.6 years) participated in online focus groups. Data were analyzed in NVivo and themes were created using a phenomenological approach.

RESULTS: Most participants (n=12) reported the desire for Black or African American female instructors with a diverse range of body types and skin tones. Nine women favored music during class to be centered in African American roots (e.g., RnB, jazz) or reflect the Black community. All participants supported the use of a Facebook group during the intervention to connect, reflect, and build community. Participants commented the use of Sanskrit (n=12) and chanting (n=7) is acceptable to them, as long as Sanskrit is used in conjunction with English terms and the practice of chanting is explained. A hybrid delivery (i.e., in-person and remote via Zoom) modality was preferred by most participants to encourage participation.

CONCLUSIONS: Findings regarding instructor and music preferences are in line with current literature regarding culturally tailored yoga-based interventions for African American woman. However, participants from this study indicate that they do want to be exposed to Sanskrit, chanting, and other traditional yoga practices. This is in contrast with past research, but it is important to note that the women want to understand the basis of those practices and be provided English translations when appropriate. Yoga has the potential to benefit African American women by decreasing sedentary behavior, stress, and blood pressure but to encourage a sustainable practice, aspects of cultural appropriateness must be considered. Findings from this study will be used to create a yoga-based intervention for sedentary African American women.

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Effects Of Resistance Exercise Modalities On Chest Expansion, Spirometry And Cardiorespiratory Fitness In Untrained Smokers

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Many diseases and conditions, such as stroke and COVID-19 result in direct restrictive pulmonary impairments that trigger a secondary concomitant reduction in cardiopulmonary function, resulting in a plethora of issues, such as a reduction in activities of daily living (ADLs), decreased exercise tolerance, decreased prognosis and even an increased mortality. In many of these