

minutes of activity (range 540–8,190 minutes). These results suggest that aerobic exercise may act as an accessible, non-pharmaceutical intervention to improve episodic memory in late adulthood before changes in cognition are detected.

HIGH-INTENSITY INTERVAL TRAINING IN OLDER ADULTS WITH TREATMENT NAIVE CHRONIC LYMPHOCYTIC LEUKEMIA

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Chronic lymphocytic leukemia (CLL) is the most common leukemia, affecting predominantly older adults. Treatment naïve patients (CLLtn) with low physical fitness have poor survival following commencement of treatment. CLLtn is characterized by inadequate immune functions, increased risk of secondary malignancies and infections. The aims of this study were to determine the feasibility and preliminary effects of 12-weeks of high-intensity interval training (HIIT) on CLLtn patients. We enrolled eighteen CLLtn patients (64.9±9.1yrs.). Eleven (5M/6F) were allocated to HIIT and seven (4M/3F) to the control group (CON). HIIT consisted of three 30-minute treadmill sessions/week plus two 30-minute strength training sessions/week. Feasibility was confirmed if >70% of HIIT participants completed >75% of prescribed sessions and prescribed minutes, and if >80% of high-intensity intervals were at a heart rate corresponding to 80% of aerobic capacity (139±19 bpm). Results are presented as mean±SD and effect sizes (d), with 0.2, 0.5 and 0.8 representing small, medium and large effect sizes, respectively. Feasibility was achieved, with HIIT completing 5.0±0.2 sessions/week and 99±3.6% of prescribed minutes/week at 142±19 bpm. No adverse safety events were observed. Compared to CON, HIIT increased leg (d=2.602), chest (d=1.285), and seated row (d=3.323) strength, while aerobic capacity difference between groups was d=0.431. Compared to CON, HIIT increased in vitro natural killer immune cell cytolytic activity against K562 (d=1.586) and OSU-CLL (d=0.917) cancer cell lines, and autologous CLL cells (d=1.362). HIIT is safe and feasible in older adults with CLLtn. Preliminary effects suggest that HIIT increases muscle strength and important components of immune function.

NON-INFERIORITY OF A GROUP LIFE VERSION COMPARED TO THE ORIGINAL, INDIVIDUAL LIFE TO PREVENT FALLS

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The ‘Lifestyle-integrated Functional Exercise’ (LiFE) program has been shown to reduce risk of falling via

improvements in balance and strength while increasing physical activity in older adults. Its one-to-one delivery comes with considerable costs hampering large scale implementability. To potentially reduce costs, a group format (gLiFE) was developed and analyzed for its non-inferiority to LiFE in reducing activity-adjusted fall incidence after 6 months. Further, intervention costs and physical activity were analyzed. Older adults (70+ years) at risk of falling were included in this multi-centre, single-blinded, randomized non-inferiority trial. LiFE was delivered in nine intervention sessions to increase balance, strength, and physical activity, either in a group (gLiFE) or at the participant’s home (LiFE). 309 persons were randomized into gLiFE (n=153) and LiFE (n=156). Non-inferiority for activity-adjusted falls was inconclusive; the incidence risk ratio (IRR) of gLiFE was 1.350 (95% CI: 0.856; 2.128) at 6 months. Falls were largely reduced in both groups. Physical activity was superior in the gLiFE group (gLiFE +880 steps; CI 252, 1,509) which also had a cost advantage under study conditions as well as real world estimations. gLiFE was associated with lower intervention costs, making it a cost-efficient alternative to the individually delivered LiFE. The added value of gLiFE is the greater effect on physical activity, making it particularly attractive for large scale PA promotion in public health concepts. Depending on individual needs and preferences, both formats could be offered to individuals, with a greater focus on either fall prevention (LiFE) or physical activity promotion (gLiFE).

RECRUITING AND SCREENING OLDER ADULTS WITH ALZHEIMER’S DISEASE FOR THE FIT-AD TRIAL

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Recruiting older adults with Alzheimer’s disease (AD) into clinical trials has been very challenging even for resource-rich trials. This presentation will discuss the recruitment rate, screening ratio, and recruitment yield and costs in the FIT-AD Trial. The FIT-AD Trial was a single-site, pilot randomized controlled trial testing the effects of 6-month aerobic exercise on cognition and hippocampal volume in community-dwelling older adults with mild-to-moderate AD dementia. Ten recruitment strategies and a 4-step screening process were used to ensure a homogenous sample and exercise safety. The target sample size was 90. During the 48-month recruitment period, 396 individuals responded to our recruitment, 301 were reached, and 103 were tentatively qualified at step 4. Of these 103, 67 (69.8%) completed the optional magnetic resonance imaging (MRI) component of the trial and 7 were excluded due to abnormal MRIs. In year 4, our sample size was increased to allow individuals in the screening process a chance to enroll, resulting in a final sample size of 96. Per enrolled participant, the recruitment rate was 2.15, the screen ratio was 2.92, and the recruitment yield was 31.9%. Over 49% of the enrolled participants were yielded through referrals (28.1%) and Alzheimer’s Association events/services (21.9%). The total recruitment cost was \$38,246 (\$398 per randomized participant). The results indicate that a multi-prong, extensive community outreach-based approach is essential in recruiting older