

Southern California. The researcher used purposive sampling to diversify the sample by selecting male and female participants (N=18) from multiple geographical areas. Guided by a primary research question: Why do Masters swimmers choose swim late in life, when most of their age cohort are becoming less physically active, the researcher conducted semi-structured interviews to delve into the lived experiences of the participants, solicited peer feedback and employed Interpretive Phenomenological Analysis. Four main themes emerged: Masters swimming provided an enjoyable way to slow physical decline; participants felt camaraderie; working out with a group provided challenge and achievement that reinforced their identity as swimmers; and their practice greatly reduced stress. A formidable barrier was revealed when most of the participants expressed longing and regret that they could not swim due to COVID risk and safety guidelines. These findings can be used to design community programs to promote lifelong physical activity participation.

PILOTING THE EFFECTIVENESS OF A TEXT MESSAGING AND FITNESS TRACKING INTERVENTION WITHIN OLDER BLACK WOMEN

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Physical activity (PA) can help lower risk of obesity and type 2 diabetes, reduce anxiety, and reduce risk of Alzheimer's and other related dementias. Despite these benefits, older, obese Black women are not meeting CDC recommended PA guidelines at disproportionate rates. This study aims to identify whether a targeted intervention, Texting Older Sisters to Step (T.O.S.S.), can improve health-related outcomes within older Black women. A sample of 24 Black women (12 per group) age 60 and older who had a BMI > 30 were recruited. The treatment group received text messages previously validated to promote physical activity every day for 12-weeks and were placed in Fitbit communities. The control group received a general health or nutrition-related text message every Sunday. Participants ranged from 60 to 70 years of age with a mean of 64 and 90% had at least some college education. Overall, there was a significant reduction of 1.53 inches in waist circumference, $p < .01$. When the groups were compared, the treatment group showed a 2.16 inch reduction compared to a 0.91 inch reduction in the control group (Cohen's $d=0.54$, a medium effect size). Similarly, the treatment group lost 2.50 pounds on average compared to 1.33 in the control group ($d=0.23$). When the groups were compared on HgA1c, the treatment group was stable with a reduction of 0.01 unit whereas the control group reduction was 0.15 unit ($d=0.23$). Findings provide initial support for the T.O.S.S. intervention and suggest a modification of including nutrition information among the intervention messages.

SILVER SNEAKERS IN CENTRAL PA: ASSESSMENT OF A COMMUNITY BASED EXERCISE PROGRAM IN A MIXED RURAL/URBAN CATCHMENT AREA

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Older cancer survivors present with unique challenges that may impact quality of life and increase physical dysfunction if not properly managed. Regular physical activity (PA) can help mitigate these effects. Silver Sneakers (SS), a free exercise program available to Medicare beneficiaries, has more than 16,000 US locations. To understand capacity of SS to serve older adults in our mixed rural/urban catchment area of Central Pennsylvania, we 1) identified all registered SS program locations in our 28-county catchment area and; 2) conducted phone questionnaires with SS program staff. Approximately 18 gyms closed during the pandemic, leaving a sample of 121 participating gyms. We talked to 80 gyms (66% response rate) to understand member and programming characteristics, training of staff and program marketing. Geographic locations of SS were mixed – 39% in rural and 61% in urban counties; the majority (43%) were located in private gyms or YMCAs. The majority of gyms reported membership was equally mixed by gender and described ages of members as 65-80 years (94%). Program staff said that many members exercised several times per week with friends/family. Program staff also reported that social opportunities (35%) were a primary reason participants remained active in SS. Most (89%) of the facilities were still able to offer SS during the pandemic, with the majority (60%) adapting format to Zoom and other video platforms to conduct classes. Overall, SS programs offer a sustainable option to facilitate access to exercise programs and reduce barriers to PA among older adults in our catchment area.

THE ASSOCIATION BETWEEN LEISURE AND PHYSICAL ACTIVITY LEVEL WITH DEPRESSIVE SYMPTOMS AFTER 5-YEARS OF FOLLOW-UP

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BACKGROUND: Depressive symptoms in older adults are associated with socioeconomic status (SES), medical care, and physical activity. However, there is little evidence on the longitudinal association between level of leisure activity (LA) and physical activity (PA) with depressive symptoms among community-dwelling older adults in Iceland. The study examined an association of LA and PA at baseline with high depressive symptoms (HGDS) assessed after 5 years of follow-up among community-dwelling older adults. METHODS: A large community-based population residing in Reykjavik, Iceland participated in a longitudinal study with

5 years of follow-up (n=2957, 58% women, 74.9±4.8 yrs). Those with HGDS or dementia at baseline were excluded from the analysis. The reported activity was categorized into 2 groups as no-activity versus any-activity. Depressive symptoms were assessed by the 15-item Geriatric Depression Scale (GDS) on average 5 years later. RESULTS: After adjusting for demographic and health-related risk factors, those who reported having any LA had significantly fewer HGDS after the follow-up of 5 years (6 or higher GDS scores, Odds Ratio (OR) = 0.46, 95% Confidence Interval (CI): 0.27 ~ 0.76, P = 0.003). However, reporting any PA at baseline was not significantly associated with HGDS (OR = 0.71, 95% CI: 0.51 ~ 1.00, P = 0.053). CONCLUSION: Our study shows that any LA among older adults is associated with having less depressive symptoms 5 years later among community-dwelling older adults while having any PA was not associated with depressive symptoms after 5 years of follow-up.

THE EFFECT OF LOW-INTENSITY DAILY WALKING ACTIVITY ON COGNITIVE AND BRAIN FUNCTION IN OLDER ADULTS

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Physical activity is an effective intervention to prevent or delay cognitive decline and dementia in older adults; however, many have difficulty achieving recommended moderate- to vigorous-intensity guidelines. This study examined the impact of low-intensity daily walking activity on executive cognitive and brain function in 66 older adults (mean age=67.26 ; SD=6.04). Daily walking activity was measured using a step activity monitor and brain function was assessed using functional magnetic resonance imaging during the Flanker task. Analyses included whole and region of interest (ROI) in the right middle frontal gyrus (RMFG), occipital cortex (OCC) and anterior cingulate (ACC). Partial correlations were performed between step activity, behavioral performance, and ROI activation, adjusting for age and education. Most of the step activity was in the low-intensity range. No associations were observed between step activity and task performance (p>.05). Task-related activation occurred in the RMFG, lateral OCC and paracingulate (p<.01). Increased activation in the RMFG was associated with greater amount $r(62)=.390$, $p=.001$, duration $r(62)=.309$, $p=.013$ and frequency $r(62)=.327$, $p=.007$ of step activity. Stratification by sex revealed a positive association between amount of step activity and RMFG activation in women $r(44)=.360$, $p=.014$, but not men. Whole brain correlation revealed that amount of step activity was positively associated with precuneus activation (p<.01), an area impacted early in Alzheimer's disease. These results support the benefits of low intensity daily walking activity on prefrontal function in older adults and suggest the importance of designing attainable and sustainable physical activity interventions to promote brain health in older adults.

THE EFFECTS OF EXERCISE ON COGNITIVE FUNCTION IN OLDER ADULTS WITH DIFFERENT TYPES OF DEMENTIA: A META-ANALYSIS

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Combating dementia is a public health priority, and exercise training is one promising strategy for dementia prevention. However, its efficacy in promoting cognitive outcomes in different types of dementia remains unknown. We conducted a systematic review (N = 27) and meta-analysis (N = 24) of randomized controlled trials with cognitive function as a primary or secondary outcome. We aimed to assess the effect of exercise interventions on the cognitive function of older adults (>60 years) diagnosed with different types of dementia. We synthesized data from 2,441 older adults with dementia. Eleven trials included older adults with multiple types of dementia, eight with Alzheimer's disease, six with unspecified types of dementia, and two with vascular cognitive impairment. We performed random-effects models using robust variance estimation (RVE) and tested potential moderators using the approximate Hotelling-Zhang test (HTZ). Results suggest a small effect of exercise on cognitive function for all-cause dementia (g = 0.18; 95% CI: 0.04, 0.33; p = 0.016); however, the effects did not differ by type of dementia. Moderation analyses showed that trials that did not specify participants' severity of dementia, applied individual-level randomization, and had higher intervention adherence demonstrated larger exercise effects on cognitive function for all-cause dementia. We conclude that exercise promotes small improvements in the cognitive function of older adults with all-cause dementia. More research including different types of dementia is needed if we hope to determine the precise effects of exercise for each type of dementia.

THE INVENTORY OF PHYSICAL ACTIVITY BARRIERS FOR ADULTS 50 YEARS AND OLDER: REFINEMENT AND VALIDATION

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Addressing physical activity (PA) barriers is an essential component of increasing PA among the 56-73% of community-dwelling adults 50 years and older who are not performing the recommended 150 minutes of moderate-to-vigorous PA. As there is no feasible, multi-factorial tool to assess PA barriers among this population, we developed and validated a PA barrier assessment tool called the Inventory of Physical Activity Barriers (IPAB). We collected cross-sectional data on 503 adults (mean age 70.1), with 79 participants completing the scale twice for test-retest reliability and 64 completing a cross-over design examining the ability to use two administration formats interchangeably. Our analyses