ISRCTN12284883 https://doi.org/10.1186/ISRCTN12284883

Effects of resistance exercise in older Chinese Americans

Submission date
05/04/2022

Recruitment status
No longer recruiting

Registration date
06/04/2022

Overall study status
Completed

Last Edited
03/05/2024

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Many older Chinese Americans do not participate in resistance exercise. It remains unclear the effects of resistance training in older Chinese Americans. The aim of this study is to examine the effects of a 12-week resistance exercise intervention on mobility, physical activity, cognitive function, and health benefits in community-dwelling older Chinese Americans.

Who can participate?
Community-dwelling older adults who self-identify as Chinese American aged 60-89 years

What does the study involve?
Participants in the exercise group will be asked to complete the resistance exercise training two times a week for 12 weeks. Participants in the wait-list control group will be asked to maintain their usual activities. Mobility, physical activity, cognitive function, general health, stress, depressive symptoms, social support, self-perceived success, and life satisfaction will be assessed at baseline and 12 weeks.

What are the possible benefits and risks of participating?
The exercise training may help participants to strengthen their muscles. Participants may learn more about skills and knowledge for performing strength exercises. The risks to participants are minimal. Participants may experience muscle soreness lasting a few days after doing exercises. The participants may feel slight fatigue when they perform strength exercises.

Where is the study run from?
Georgia State University (USA)

When is the study starting and how long is it expected to run for?
October 2017 to February 2019

Who is funding the study?
Byrdine F. Lewis College of Nursing & Health Professions, Georgia State University (USA)

Who is the main contact?
Mei-Lan Chen
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Contact information

Type(s)
Principal Investigator

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
Nil known

Study information

Scientific Title
Effects of resistance exercise training in community-dwelling older Chinese Americans

Study objectives
The intervention group will have significantly greater improvements in mobility, physical activity, cognitive function, and health status than the control group at the 12-week time point.

Ethics approval required

Old ethics approval format

Ethics approval(s)
Approved 03/02/2018, Georgia State University Institutional Review Board (3rd Floor, 58 Edgewood, Atlanta, GA 30303, USA; +1 404-413-3500; irb@gsu.edu), ref: H18308

Study design
Pretest-posttest control group randomized controlled trial

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Other

Study type(s)
Prevention

Participant information sheet
No participant information sheet available

Health condition(s) or problem(s) studied
Older adults' mobility, physical activity, cognitive function, and psychological well-being

Interventions
Participants will be randomly assigned into two groups (1:1 ratio): the intervention group (resistance exercise group) or the control group (wait-list control group), using the random number generator. The intervention group will receive a 12-week resistance exercise training, while the wait-list control group will not receive the exercise intervention. After completing the post-test, the wait-list control group will have an opportunity to receive a delayed intervention (the same 12-week resistance exercise training as the intervention group), if desired.

The 12-week exercise intervention comprises upper-extremity and lower- extremity progressive resistance training focusing on all major muscle groups. The exercise intervention will include 50-min group exercise sessions, two times a week. Each exercise session consists of a warm-up (10 min), resistance exercise training (30 min), and a cool-down (10 min). Participants will be closely supervised by researchers and their blood pressure, heart rate, the intensity of exercise, and level of fatigue will be assessed during exercise sessions.

Intervention Type
Behavioural

Primary outcome measure
1. Mobility measured using Short Physical Performance Battery and JAMAR® Hand Dynamometer at baseline and 12 weeks.
2. Physical activity is measured using International Physical Activity Questionnaire at baseline

and 12 weeks.
3. Cognitive function is measured using Montreal Cognitive Assessment at baseline and 12 weeks.

Secondary outcome measures
1. General health measured using activities of daily living, overall stress and pain scales at baseline and 12 weeks.
2. Depressive symptoms measured using Geriatric Depression Scale at baseline and 12 weeks.
3. Stress measured using Perceived Stress Scale at baseline and 12 weeks.
4. Social support measured using Lubben Social Network Scale at baseline and 12 weeks.
5. Life satisfaction measured using Satisfaction with Life Scale at baseline and 12 weeks.
6. Self-perceived success measured using Flourishing Scale at baseline and 12 weeks.

Overall study start date
10/10/2017

Completion date
28/02/2019

Eligibility

Key inclusion criteria
1. Age 60 or older (age 60 - 89 years)
2. Self-identifying as Chinese American
3. Able to speak Mandarin
4. Able to walk independently without assistive devices
5. Are not engaged in any resistance exercise programs during the 6 months prior to this study
6. Ability to follow verbal and visual instructions
7. Ability to give informed consent and complete the assessment battery

Participant type(s)
Other

Age group
Senior

Lower age limit
60 Years

Sex
Both

Target number of participants
30

Total final enrolment
30

Key exclusion criteria

1. Blood pressure >160/100 mmHg or severe complications of hypertension, such as aneurysm, heart failure, or metabolic syndrome
2. A history of coronary artery disease, cardiac surgery, heart attack, or stroke in past 3 months
3. Health-related problems that would interfere with the participation in the exercise program, such as angina, uncontrolled diabetes, or serious cardiac arrhythmias
4. Active treatment for cancer or substance abuse
5. A history of upper-extremity, lower-extremity, hip, or back surgery in past 3 months
6. Severe cognitive impairments, such as signs of psychosis, dementia, not oriented to time, place, or person

Date of first enrolment
25/06/2018

Date of final enrolment
13/07/2018

Locations

Countries of recruitment
United States of America

Study participating centre
Circle of Love Adult Day Healthcare
5522 New Peachtree Rd.
Suite 129
Chamblee, GA
United States of America
30341

Sponsor information

Organisation
Georgia State University

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University/education

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Funder(s)

Funder type
University/education

Funder Name
Byrdine F. Lewis College of Nursing & Health Professions

Results and Publications

Publication and dissemination plan
Planned publication in a high-impact peer-reviewed journal

Intention to publish date
31/12/2022

Individual participant data (IPD) sharing plan
The data sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		09/03/2023	03/05/2024	Yes	No