

# DYNAMIC BALANCE FOR LIFE™

MINIMISING HARM & INJURY FROM FALLING

Adelaide  
Judo

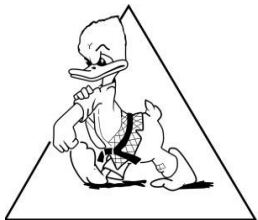


University  
Club

INTERNATIONAL CONFERENCE SAFE FALLING FOR THE ELDERLY THROUGH JUDO

TOKAI UNIVERSITY SHONAN CAMPUS, JAPAN - 12 & 13 DECEMBER 2024

PRESENTER: DR AGATHE DARIA JADCZAK



Adelaide University Judo Club Inc.



THE UNIVERSITY  
of ADELAIDE



**JUDO**  
**AUSTRALIA**

Proud Partner of Dynamic Balance



The Institute

basil hetzel institute for translational health research



The Hospital Research  
Foundation Group

# KEY PEOPLE

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**Michael Headland** Rokudan  
Head Coach, AUJC

**Dr Meera Verma PhD** Godan  
Beginners Coach, AUJC

**Dr Agathe Daria Jadczyk PhD**  
Research Fellow | Exercise Physiologist  
G-TRAC Centre, Adelaide Medical School, University of Adelaide

**Prof Renuka Visvanathan PhD, FRACP, FANZSGM, MBBS**  
Clinical Director | Gerontologist  
G-TRAC Centre, Adelaide Medical School, University of Adelaide

**Michael Peachy** Shodan  
Physiotherapist, Director Homecare Therapies



# THRF STUDY 2024\_2025

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The Dynamic Balance for Life™ Research Team was  
successful

in obtaining a grant from

**The Hospital Research Foundation (THRF)**

in late 2023

# ETHICS APPROVAL & TRIAL REGISTRATION

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- Ethics approval on 26 April 2024 (H-2023-057)
- ANZCTR Trial Registration: ACTRN12624000619549



# UP-SKILLING COACHES & TEACHING SAFE LANDING

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## THRF Study with 2 Focuses



### **Train-the-Trainer:**

- 10 Health care professionals with no experiences in Judo
- 10 Judo Coaches with no experience working with older adults

### **Judo-Based Exercise Program:**

- 40 community-dwelling adults ( $\geq 65$  years)
- effects on safe-landing, frailty, physical function, balance, fear of falling

# TRAIN- THE- TRAINER

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# TRAIN-THE-TRAINER

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## Participant Eligibility:

- **Allied Health Professionals** working in Aged Care with no experience in Judo; appropriate tertiary qualification; at least 2 years' experience working with older adults
- **Judo Coaches** with no experience working with older adults; first degree black-belt (shodan); 2 years' experience coaching beginners; CAF (Coaching Accreditation Framework); at least Judo Assistant Coach certification

# TRAIN-THE-TRAINER

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## Intervention:

- 2-day workshop with focus on **teaching safe landing skills & working with older adults**
- Weekly attendance of the 8-week Judo-based exercise program (i.e. 8 sessions)

2-day workshop & 8-week Judo-based exercise program are delivered at the AUJC facilities in Adelaide, South Australia



# TRAIN-THE-TRAINER

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- Dojo Assessments:
  1. Safe Falling Skills (Strömqvist-Bååthe Test – English Version)
  2. Perceived Competence & Importance in Teaching Safe Landing (Likert Scale 1-6)
  3. Objective Competence in Teaching Safe Landing (10 MCQ)
- Timepoints:
  - T1 before 2-day workshop
  - T2 after 2-day workshop
  - T3 after the 8-week Judo-based program

# JUDO- BASED EXERCISE PROGRAM

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# JUDO-BASED EXERCISE PROGRAM

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## Participant Eligibility:

- community-dwelling older adults aged 65 years and older
- able to walk unsupported for everyday tasks
- no illness/conditions precluding from exercise
- exclusion if presence of congestive heart failure, uncontrolled hypertension, atlanto-axial instability, untreated severe osteoporosis, chest pain, dizziness or angina with exertion

A phone screening & medical clearance from GP prior to participation

# JUDO-BASED EXERCISE PROGRAM

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## 8-Week Intervention:

- 2 x 60-minute group exercise sessions per week
- Safe-landing techniques & a mix of strength, mobility and balance
- 4:1 participant-instructor supervision by experienced AUJC coaches
- All exercises progressively increase in intensity & complexity to 'somewhat hard' (12-15) on the Borg scale collected after every session

## Safety:

- Weekly phone calls to monitor adverse events during the program

# JUDO-BASED EXERCISE PROGRAM

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Pre (T1) & Post (T2) Questionnaires:

- Frailty (SEARCH)
- Fear of Falling (Falls Efficiency Scale International - FES-I)
- Balance Confidence (ABC Scale)
- Quality of Life (Short Form Health Survey-36)
- Physical Activity Levels (PASE questionnaire)
- Fall-related Health Literacy (Falls Health Literacy Scale - FHLS)

# JUDO-BASED EXERCISE PROGRAM

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Pre (T1) & Post (T2) Physical Assessments:

- Safe Falling Skills (Strömqvist-Bååthe Test – English Version)
- Physical Performance (SPPB)
- Strength (JAMA hand dynamometer)
- Mobility (Timed Up & Go)
- Balance (Berg Balance Scale)
- Body Composition (seca mBCA 525 Body Composition Analyzer)

# PROGRESS

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## Completed in 2024:

24 participants (mean age  $72.67 \pm 5.17$ , 66-83 years, 66.7% female)

- 1 withdrawal
- 1 session attendance <70%

9 trainees/allied health enrolled (3 judo coaches, 5 physios, 1 EP)

- 3 session attendance <70%

## Confirmed for 2025:

16 participants (mean age  $72.18 \pm 7.21$ , 65-88 years, 68.7% female)

5 trainees/allied health (1 judo coach, 1 physio, 3 EPs)

→ Results expected in July 2025

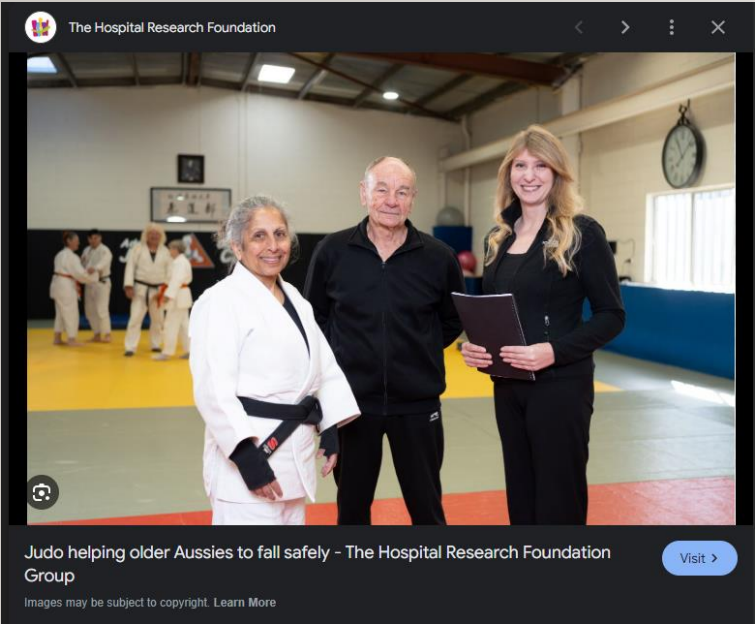
# 12 MONTHS FALLS SURVEY

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## 12 Months Falls Survey:

- Ethics approval received 12 Nov 2024
- Questions about falls & falls management (i.e., injuries, hospitalisation, use of ukemi, continuation with DBFL)
- Administered over the phone at 3, 6, 9 & 12 months
  - Group 1: 6/8 participants completed 3 months falls survey
  - Group 2: to be followed up in Feb 2025
  - Group 3 & 4: not yet started





The Hospital Research Foundation Group

Our Work - Research & Services - Support Us -

“Besides safe landing skills, we’re also looking at outcomes like physical function, balance, strength, fear of falling and quality of life, so we’re actually closing the gap between falls prevention and how to come up from the ground.”

Could judo help older Aussies fall safely?

Watch on YouTube

Knowing how to properly receive a throwing technique so the player can avoid injury is a key pillar of judo, with safe landing techniques focused on protecting the head, neck, shoulders, and hips.



# QUOTES

*There was a slight rise in the footpath which caused me to stumble forward and loose balance.*

*I recollect my hands coming up in front of my face and then my body automatically went into a barrel roll to the left.*

*The only damage was a graze on my left knee and some skin off my arm near my left elbow.*

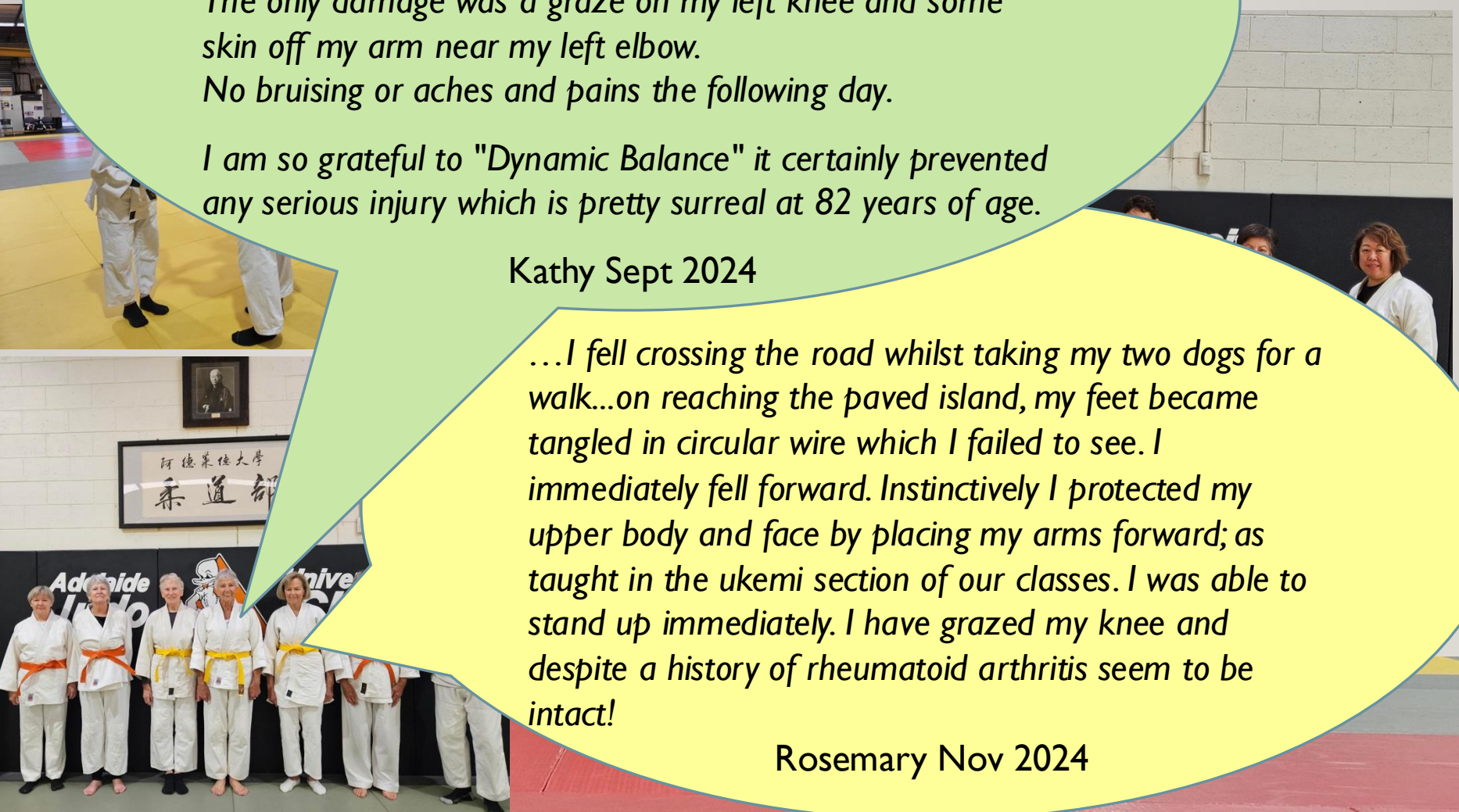
*No bruising or aches and pains the following day.*

*I am so grateful to "Dynamic Balance" it certainly prevented any serious injury which is pretty surreal at 82 years of age.*

Kathy Sept 2024

*...I fell crossing the road whilst taking my two dogs for a walk...on reaching the paved island, my feet became tangled in circular wire which I failed to see. I immediately fell forward. Instinctively I protected my upper body and face by placing my arms forward; as taught in the ukemi section of our classes. I was able to stand up immediately. I have grazed my knee and despite a history of rheumatoid arthritis seem to be intact!*

Rosemary Nov 2024



THANK  
YOU

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