

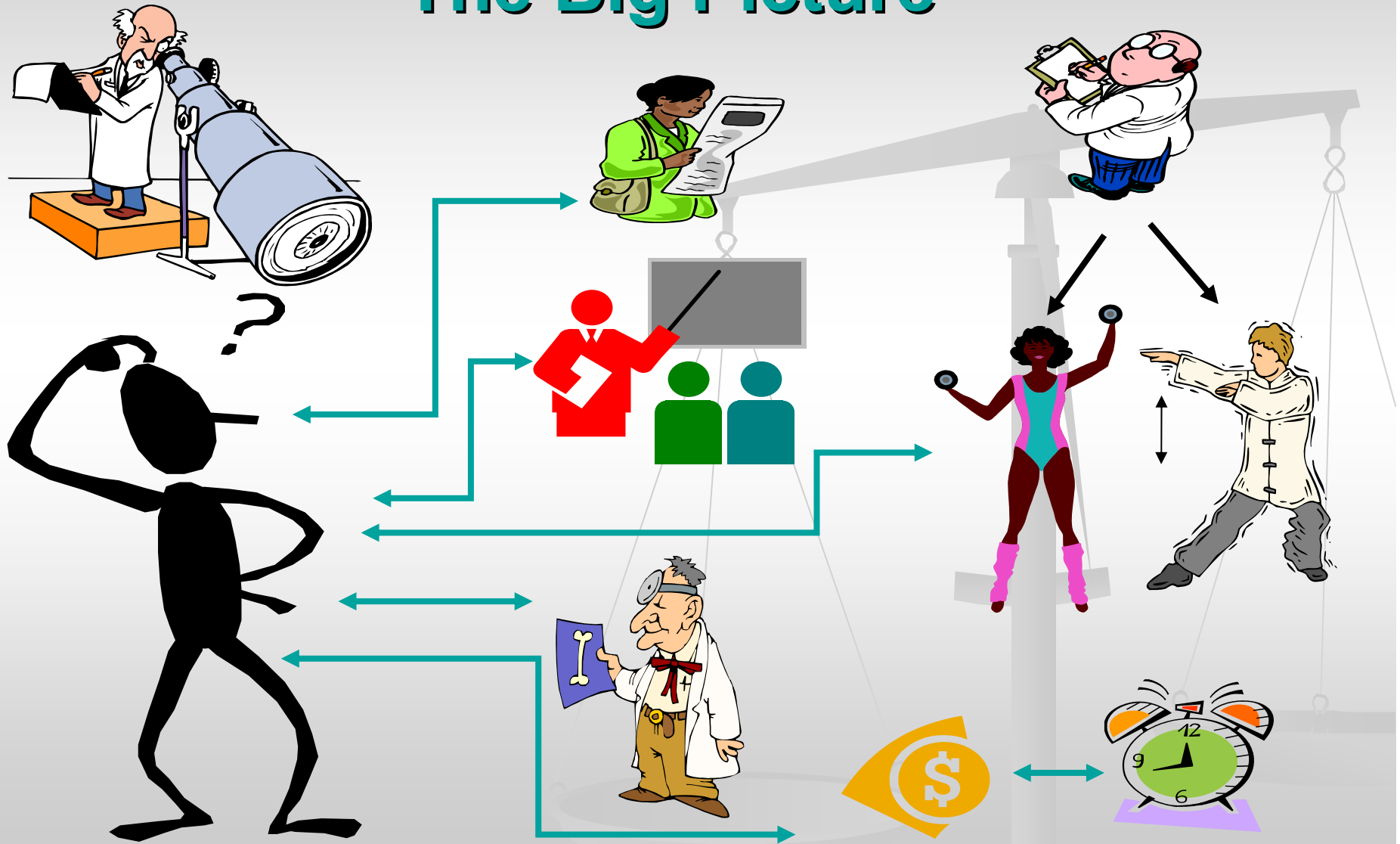


# Aware, Alert & Active

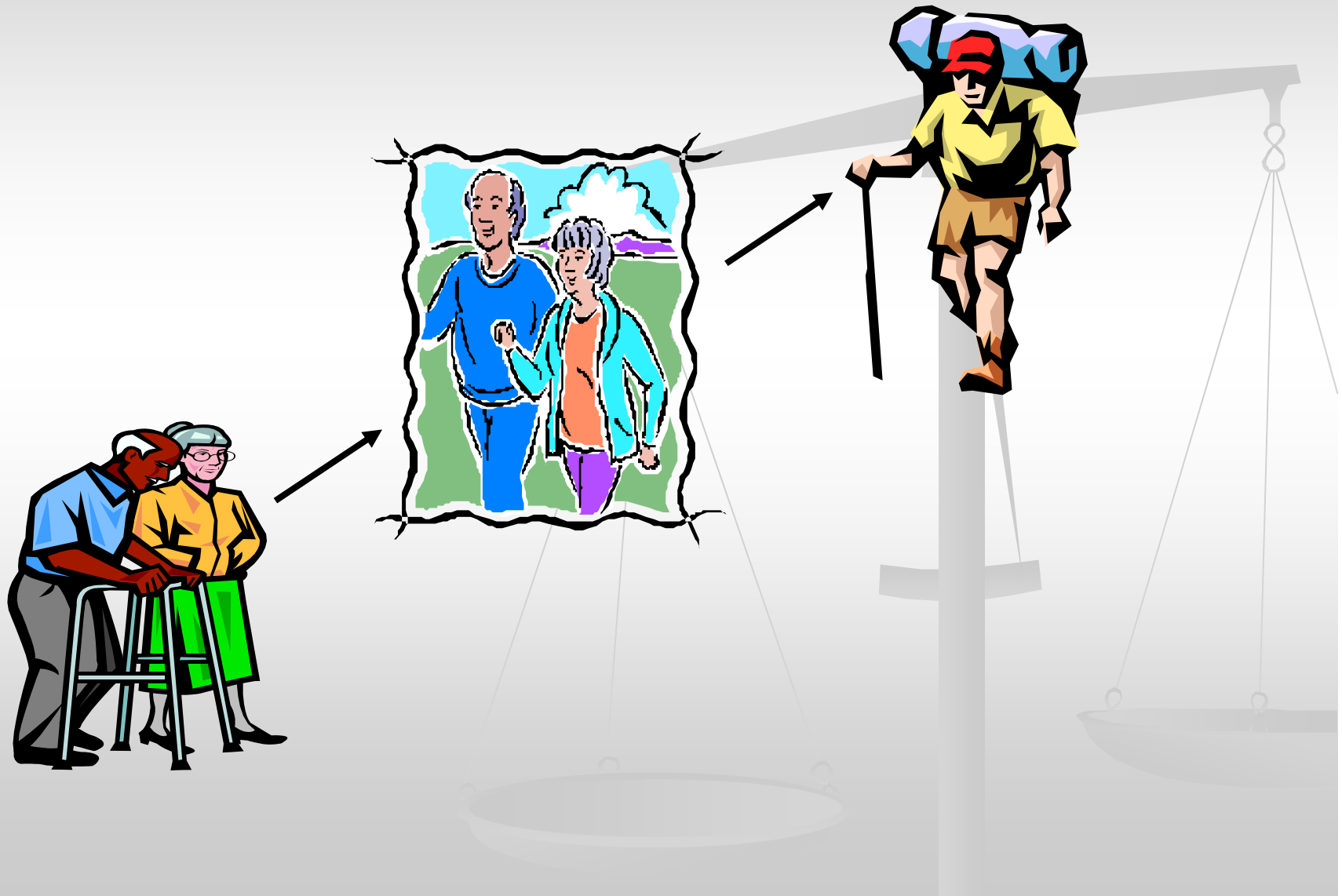
**Community Falls Prevention Exercise Programs...  
there's more to it than meets the eye!  
A practitioners perspective**

**Sally Castell**

# Community Exercise Programs The Big Picture



# Community Grouping - Fit to Frail



# Community Programs

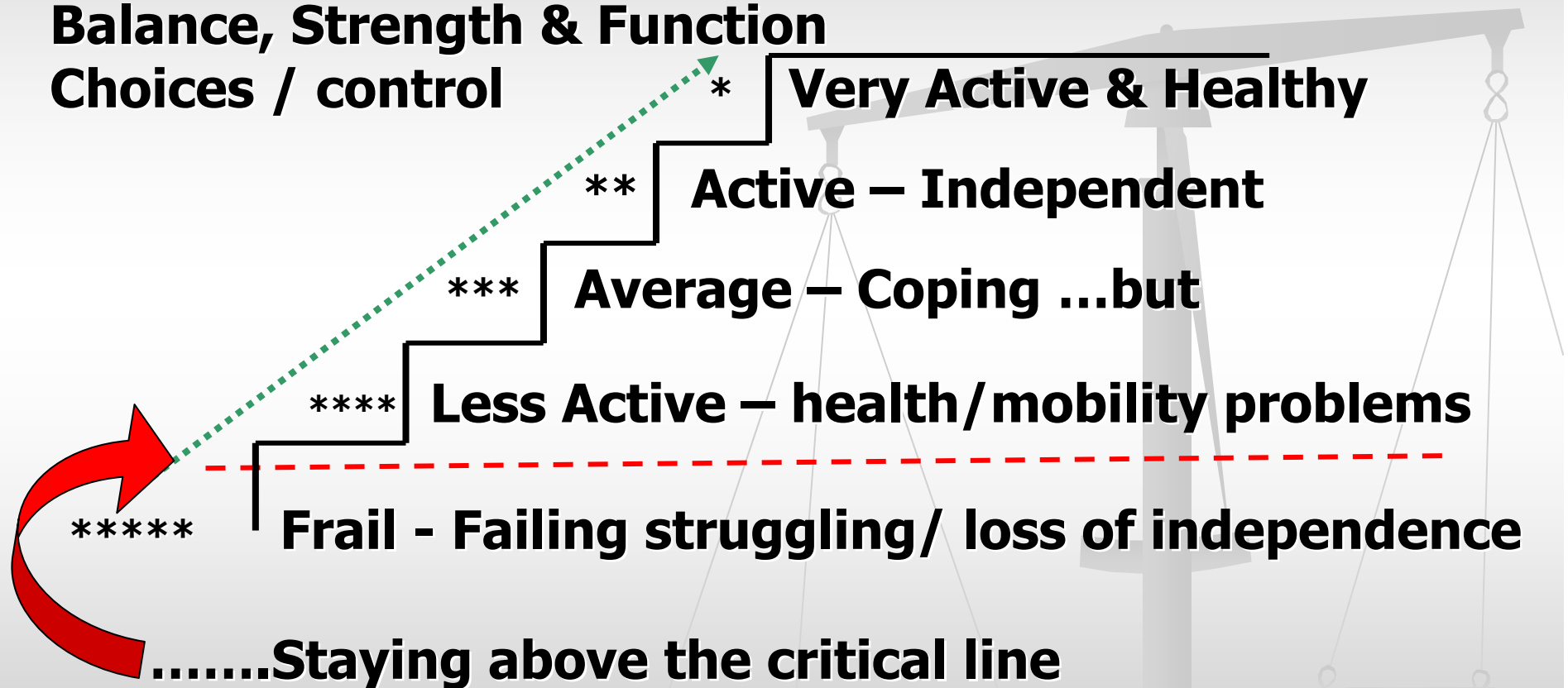
There are multiple exercise recommendations to select from but..

**One Program Does Not Suit  
All**

key issues to consider are that strategies and programs are in **context, accessible, relevant** and **realistic** for the individual with the end result being an ongoing life-long involvement in appropriate PA

# Graded Exercise Programs Target Groups

**Grading - Active to Inactive**  
**Balance, Strength & Function**  
**Choices / control**



# Programs, Programs, Programs

## Fall Reduction Community Examples

- “No Falls” - Victoria
- “Steady Steps”- Queensland
- “Upright and Active”-NSW
- “Stepping On”- NSW
- “Stay on Your Feet” – NSW; Western Australia & Canada
- “Stepping out” - NSW
- “Better Balance” – South Australia
- Fallproof - America - (Program & training)



# More Programs!

## Strength Training Examples

- Staying Active - Staying Strong
- Living longer – Living Stronger
- Lift for Life

## Individual Home Examples

- Otago
- Staying Active - Staying Safe

## Residential care\*

- Staying Active - Staying Safe

## Community program organisation examples

- PRYME Movers -YMCA – Canberra
- Healthy Lifestyle / SHARE / WAVES / Active over 50's- NSW
- Active Ageing – SA
- COTA – all states

And many more...

**How ...and ...Can links be made between programs & levels?**

# Program Selection

## Many different exercise and training programs

developed mainly from research; different focus & elements for different target groups; conducted by different professionals within organisations

## The Big Questions

- Which prescription / program
  - ? Protection and reducing falls risks
  - ? Rehabilitation and prevention of further falls
- Which program for which target group ?
- What assessments to use ?
- What personnel to provide the programs etc. ?
- Program levels – group and individual?



# Exercise Evidence

## Goals of Management.....

Maintain muscle power/ strength /endurance & balance

### Level 1

- **Progressive resistance training** - effective to increase strength & some functional outcomes
- **Endurance training** - increases functional capacity.  
(FITT still needs further investigation)
- **Tai chi** – improves balance and postural control, positive effect on FOF and postural control
- **Falls specific interventions** – multi-disciplinary, multi-factorial, health/ environmental risk factor screening and intervention – risk assessment; education/ awareness ;equipment check, labels or bracelets for high risk; alarms etc. – (recent research has shown one to one can be as effective as multi-strategies)

# Exercise Evidence

## Level 2

- **Balance training** .- Specific to level of function which is to be achieved – Static and dynamic balance (gait training) required \* Sitting balance exercises insufficient
- **Individual tailored programs** - including strength, balance and functional retraining increases mobility & reduces use of assistive devices
- **Group exercises** – strength, balance, aerobic and functional activities improves mobility and function
- **Falls specific interventions** multi-disciplinary, multi-factorial, health/ environmental risk factor screening and intervention – risk assessment; education & awareness; equipment check in residential care – staff education; gait training & appropriate use of assistive devices; review of medication etc.

# Basic Exercise Program Components

## \* Balance - (multi – levels / abilities)

### Aims and Application

- Improve C of G control including body sway & weight transference training
- Improve postural strategies
- Re-educate movement patterns; gait pattern enhancement; gross & fine motor skills
- Work on cognitive & somatosensory stimulation
- Improve reaction time and co-ordination
- Work on the fundamental and fine functional movements

(Progress with task and environment challenges and Provide variety, stimulation and ongoing challenges)

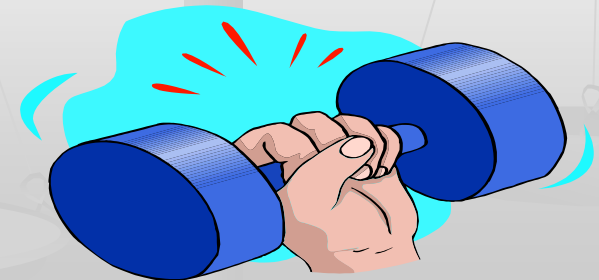


# Basic Exercise Program Components

## \* Strength - (multi – levels / abilities)

### Aims and Application

- Improve muscular control - increase and maintain muscle mass, power, strength and endurance..... (Lower limb & trunk strength mainly)
- Maintain bone strength to prevent / reduce the potential problems associated with osteoporosis
- Increase and maintain joint stability and mobility
- Improve stamina and general fitness, to make everyday activities easier to do
- Practice functional activity e.g.. Sit to stand, pushing & pulling etc.
- Postural correction and alignment



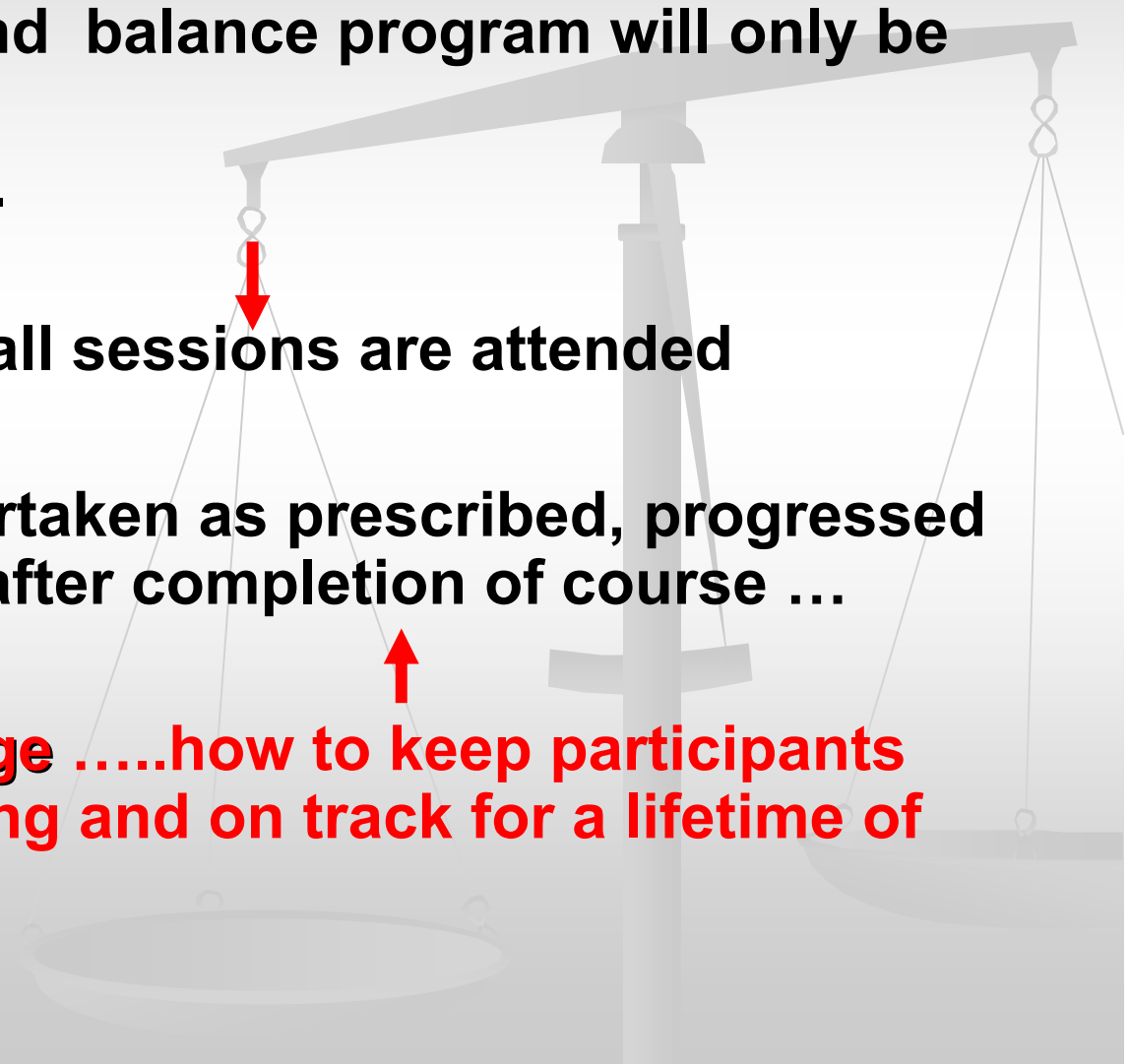
# Program Uptake & Continuation Challenges ...

A 12 week strength and balance program will only be effective if

## Session Challenge ....

- Maximal input and all sessions are attended
- Exercises are undertaken as prescribed, progressed and then continue after completion of course ...

Continuation Challenge .....how to keep participants interested, upgrading and on track for a lifetime of exercise habit



# Starting Out & Staying Active

## Challenges 1,2,3...

Many theories & models; many stages of change; many barriers. 3 major hurdles.....

**The First Step** – getting motivated - decision taking and reason to start exercising (awareness & insight; an event ; education & information etc.)

**Interim Activity** – going into action - learning how & developing the habit of being active (fun; functional application; social opportunities & support)

\* **Long Term Adherence** – staying on track & remaining active - reaping the benefits (staying healthy; having an independent lifestyle for as long as possible)

# Ongoing Exercise Participation

## A Step by Step Process

||→ The **First Step** ..starting out.....

the **first 4 weeks...** a big learning curve

*"Dropout time"*

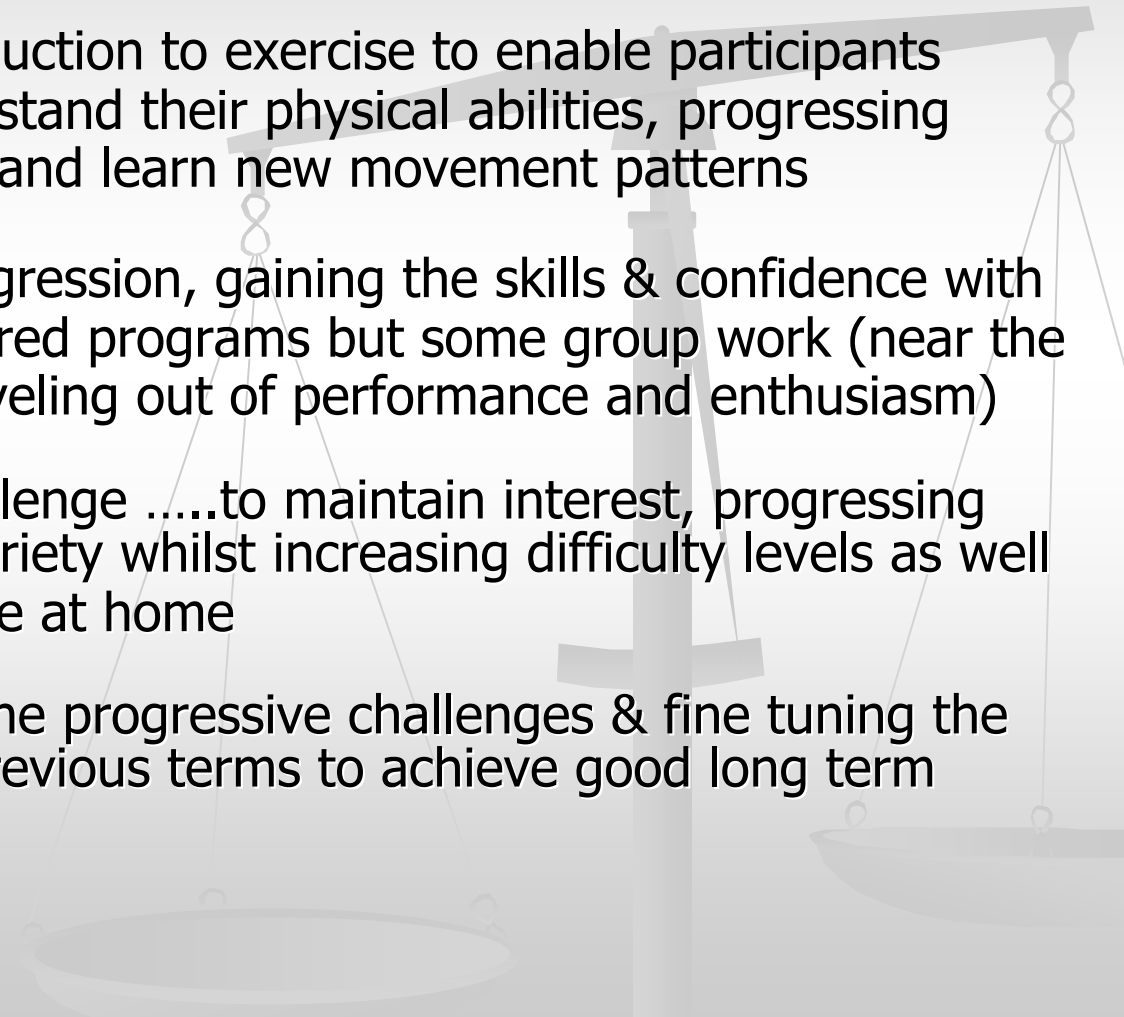
The next **Interim 3 – 6 months** – learning the basics towards achieving and improving healthy active living levels.....involving skills acquisition & behaviour modification – relevant to individual needs & abilities

*"Dropout time"*

On going progression and challenges within the program over many sessions and a long period of time .....

**Long Term Adherence** ||→

# A One Year Tailored Falls Exercise Program For Older Adults 75 + Living Independently In the Community

- **Term 1** - a basic introduction to exercise to enable participants become aware and understand their physical abilities, progressing over the term to develop and learn new movement patterns
  - **Term 2** – Ongoing progression, gaining the skills & confidence with a focus on individual tailored programs but some group work (near the end of 6 months some leveling out of performance and enthusiasm)
  - **Term 3** – The real challenge .....to maintain interest, progressing challenges & providing variety whilst increasing difficulty levels as well as encouraging to exercise at home
  - **Term 4** – Continuing the progressive challenges & fine tuning the skills acquired over the previous terms to achieve good long term results
- 



# Health Related Behaviour (making permanent changes)

“Individual adapted behaviour change is critical to facilitate a long term physical activity lifestyle.....”

The process includes a series of complex variables including personal, social, programmatic, environmental and related factors as well as medical factors which need to be addressed collectively “

*ACSM / AHA Updated recommendations for Adults 2007*

# Behaviour Change Research Summary

The way to acquire knowledge and skills with appropriate teaching, leadership and ongoing support for.....

- **Self monitoring** is the cornerstone of behavioural management
- **Cognition restructuring** approaches are the backbone to cognitive – behavioural therapy
- Effective **problem solving** is important
- A **variety of strategies** appear to be most effective

# Action Stations !

- Re - fitting!
- Re - energizing
- Re - skilling
- Re - acting
- Re - aligning
- Re - balancing
- Re - educating
- Re - learning
- Re - processing
- Re - alerting
- Re - grouping
- Re - organizing

**No time for Re-tirement !**

# Community Exercise Programs

**A . Permanent good infrastructure**

**B . Ongoing promotion**, awareness and education concerning falls and exercise benefits

**C . Programs.....**need to be.

✓ **Realistic** – in context with individual needs, abilities and potential.....

✓ **Systematic**

✓ **Graded**...up or down when & if necessary

✓ **Progressive & challenging**

✓ **Educational**

✓ **Group v Individual** - the masses v individual tuition

**D . Engagement**

✓ Good consistent **leadership** applying good **teaching** practices

✓ **Fun** and **variety** ++

✓ **Support** - leader, peer, social and family +

✓ Extra – curricular activities

✓ **Caring** - the personal approach

(✓ Cost effective)



**The Ideal...**

**A Lifelong Habit & Love Of Exercise !!**