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

* Very Active & Healthy
** Active – Independent
*** Average – Coping ...but
**** Less Active – health/mobility problems
***** Frail - Failing struggling/ loss of independence

……..Staying above the critical line
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.

Best practice approaches to prevent functional decline in older persons - quick guide Clinical epidemiology & Health Services Evaluation unit
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
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
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
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 !!