

Developing the Principles of Chair Based Exercise: A National Consensus

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Overview

- ▶ Background
- ▶ What the evidence says
- ▶ The Delphi Process
- ▶ What did we find?
- ▶ What do the findings mean?
- ▶ Where next?

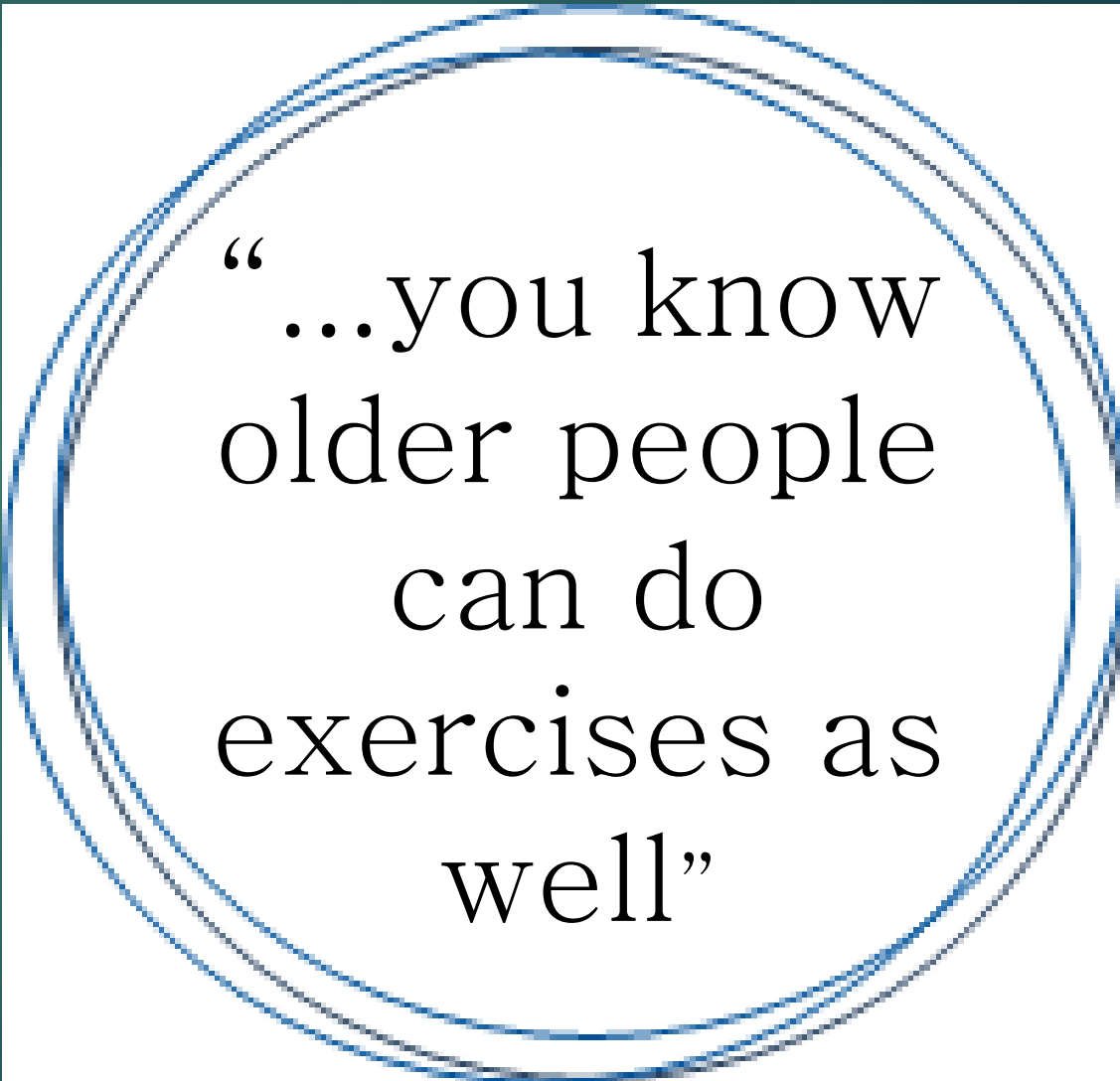

Learning Outcomes

- ▶ 1. Consider the current evidence base for Chair Based Exercise (CBE) for frail older people
- ▶ 2. Gain an understanding of current expert opinion on CBE models for frail older people and the role of physiotherapy within these programmes
- ▶ 3. Identify areas for future developments in CBE and exercise strategies for frail older people

Background



- ▶ Exercise has well known health benefits for older people
- ▶ Well evidenced strength and balance programmes
- ▶ For some older people standing exercise programmes may be too challenging
- ▶ CBE programmes now widely employed in community settings



“...you know
older people
can do
exercises as
well”

What do care homes think?

...encourages people who wouldn't normally join activities to take part

All can take part no matter their physical disability

Stay Active

Promotes independence

...provide a cardiovascular exercise for residents

Improves posture and balance

What do care homes think?

Often taught techniques
are too demanding for
dementia patients

Needs lots of staff to
support less physically
able

It can sometimes be off
putting if a resident feels
that you are going to
have to work extra hard

As it requires more
structure some
residents disengage

Clinical Picture- Nottingham


- ▶ Falls and Bone Health service train care home staff
 - 3 day training
 - Theory and Practical
- ▶ Service Evaluation 2013
 - Poor response rate
 - Staff migration
 - Confidence and Support

What do patients think?

“...you feel as if you’ve moved your body and got working, yes”

“I don’t know really, but it’s better than nothing isn't it?”

“... most people can do that within the chair because it is safe”

- 
- Need to explore exercise strategies for frail older people
 - CBE may provide an accessible form of exercise
 - It is currently delivered in community settings
 - It appears to be welcomed by patients and community settings

Clinical Questions



Effective?

Health Benefits?

How?

Who?

Role of Physiotherapy?

What the evidence says...

- ▶ 6 eligible papers
- ▶ Different settings
- ▶ Different purpose
- ▶ Some evidence of benefit in mobility and function
- ▶ No adverse effects

What does this mean for clinical practice?

Lack of clarity

Lack of clear definition

Little guidance

Potential for benefit



*In the absence of a strong evidence
base and clear guidance...*

*...consensus development may
provide basis for decision making and
further guidance*

Delphi Process

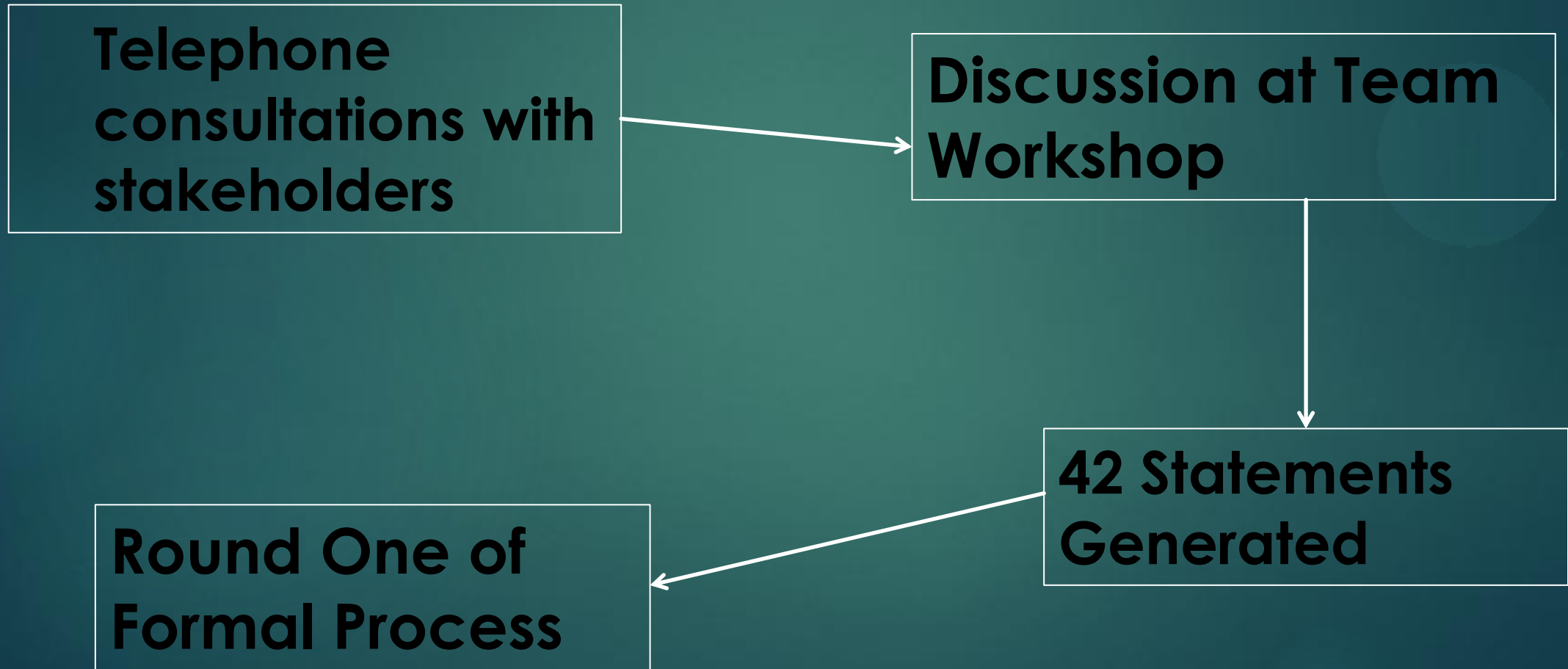
- ▶ Well recognised consensus development technique
- ▶ Characterised by:
 - ▶ Anonymity
 - ▶ Multiple iterations of the survey tool
 - ▶ Statistical way of determining consensus
 - ▶ Feedback between rounds

Aims of the Delphi Process

Establish expert consensus on:

- ▶ defining CBE
- ▶ essential components of a CBE intervention
- ▶ what benefits might be expected

Developing the Framework



Participants and Recruitment

- ▶ Purposive Sampling Method
- ▶ Included experts from a range of settings and professional groups
- ▶ 25 experts invited

Procedure

- ▶ Electronic survey tool
- ▶ 4 rounds of surveying
- ▶ Each survey consisted of a series of statements
- ▶ Consensus determined if 70% of expert panel agreed/disagreed
- ▶ Free text responses encouraged

Procedure- Between Round Analysis

- ▶ A summary of panel scoring was presented for each statement in the following round
- ▶ Any statement which reached consensus (agreement or disagreement) was removed from rescoring
- ▶ The wording of statements was modified where appropriate to reflect any comments
- ▶ New statements were formulated based on comments and when further clarification was needed

Who were the expert panel?

- ▶ Physiotherapists
- ▶ Occupational therapists
- ▶ CBE exercise leaders
- ▶ Rehabilitation consultant
- ▶ Clinical exercise specialist
- ▶ Older people's lead
- ▶ Academics in the field of exercise for older people
- ▶ Older persons specialist nurse

Summary of Rounds



	Total number of statements for scoring	Primary Aim of Round	Statements that reached consensus (<70%) and were accepted	Statements that reached consensus but were revised based on comment and rescored in next round	Statements that were removed	Statements that did not reach consensus and were modified	New statements generated from comments
Round 1	42	Exploratory	22 (52%)	6	3	11	5
Round 2	22	Exploratory and clarifying	16 (73%)	0	0	6	4
Round 3	10	Exploratory and clarifying	4 (40%)	0	2	4	0
Round 4	4	Confirmatory	4 (100%)	0	0	0	0

Summary of Results

- ▶ 46 statements reached agreement
- ▶ Classified into 7 groups;

**Defining
Intended Users
Potential Benefits
Structure
Format
Risk Management
Evaluation**

...include progressive resistance training that is tailored to the individual

...regulated to ensure that they meet the agreed training curriculum

Cardiovascular training should be performed at a moderate intensity

An individual health assessment should be carried out prior

Each session should last no longer than an hour

... activity limitation who cannot participate in other forms of exercise

Defining Chair Based Exercise



“a primarily seated, structured and progressive exercise programme that is part of a continuum of exercise for older people, which uses a chair to provide stability, and is delivered by instructors that are suitably skilled and trained to work with frail older people”

Limitations and Caution

- ▶ 70% agreement level means there may still be some disagreement
- ▶ Expert panel might not represent up-to date theoretical knowledge
- ▶ Does not provide evidence for clinical effectiveness
- ▶ Framework of process shaped by research team
- ▶ Experts may not be impartial

What does this mean?

- ▶ CBE should not be a default option
- ▶ Reluctance to commit to prescribed amount of seated activity
- ▶ Form part of a progressive exercise and falls prevention continuum
- ▶ Clear purpose as to why CBE is being done

- 
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- ▶ CBE may offer a way of protecting against musculoskeletal frailty
 - ▶ Users of CBE may have sedentary patterns and CBE may offer an accessible form of activity
 - ▶ Provide framework for further research

Where next?

- ▶ Develop physiological and psychological underpinning of the intervention
- ▶ Demonstrate outcomes in muscle strength, muscle power and functional mobility
- ▶ Evaluate clinical and cost effectiveness

My Reflections...



My Reflections

- ▶ Challenging!
- ▶ Healthcare professionals have an expert voice and should use this to drive changes in clinical practice
- ▶ My own views and experiences will have affected the process
- ▶ Experts may not always be right!

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Any Questions?