What is ‘physical rehabilitation’?
A model developed with stroke survivors, carers and physiotherapists for a Cochrane Review on stroke rehabilitation

29/31 March 2022
Webinar plan:

Welcome *(Richard)*

Cochrane review of physical rehabilitation for stroke *(Alex)*
- Introduction
- Why did we need stakeholder involvement?

Stakeholder involvement *(Gill)*
- What have we done?
- Stakeholder reflections

New model to describe physical rehabilitation for stroke *(Alex)*
- How was it developed?
- What does it look like?
- How will it be used?

Your thoughts.....
Taking part in the webinar

Zoom

- Your microphone will be muted automatically to prevent background noise
- To ask a written question or make a comment, please type it in the chat box
- To turn subtitles on or off, click on “Live Transcript”

- The session will be recorded and the presentation will be shared afterwards
Presenters:

- Richard Morley – Cochrane Consumer Engagement Officer

- Alex Todhunter-Brown (formerly Pollock) – lead author on the Cochrane review of ‘physical rehabilitation for the recovery of function and mobility following stroke’

- Gillian Baer - author on the Cochrane review of ‘physical rehabilitation for the recovery of function and mobility following stroke’

- Julie Duncan-Millar – supporting consumer involvement in project
Who are you?

Why are you here today?

Where are you?
Welcome *(Richard)*

**Cochrane review of physical rehabilitation for stroke *(Alex)***
- Introduction
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**Stakeholder involvement *(Gill)***
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**New model to describe physical rehabilitation for stroke *(Alex)***
- How was it developed?
- What does it look like?
- How will it be used?

Your thoughts.....
Cochrane review of physical rehabilitation for stroke *(Alex)*

What is a Cochrane review?

What is this review about?

What is the role of the stakeholder group?
What is a Cochrane review?
Cochrane review of physical rehabilitation for stroke (Alex)

What is a Cochrane review?

Identify the issue and determine the question

Write a plan for the review (protocol)

Search for studies

Filter and select studies

Extract data from the studies

Assess the quality of the studies

Combine the data (synthesis or meta-analysis)

Discuss and conclude overall findings

Systematic Review

Dissemination
What is this review about?

1998
- Physiotherapists’ most “burning” question is “Does Bobath therapy work?”

1999
- Cochrane review comparing different physiotherapy treatment approaches.
What is this review about?

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1998 • Physiotherapists’ most “burning” question is “Does Bobath therapy work?”

1999 • Cochrane review comparing different physiotherapy treatment approaches.

2006 • Cochrane review updated but several Chinese trials not included.

2013 • Comprehensive update with stakeholder involvement. Categorisation of physiotherapy “treatment components” introduced.
Cochrane review of physical rehabilitation for stroke (Alex)

What is this review about?

What physical rehabilitation approaches are effective in recovery of function and mobility?

- Physical rehabilitation
- Nothing, placebo, control

- Physical rehabilitation A
- Physical rehabilitation B
Cochrane review of physical rehabilitation for stroke (Alex)

What is this review about?

What physical rehabilitation approaches are effective in recovery of function and mobility?

- Physical rehabilitation A
- Physical rehabilitation B
- Nothing, placebo, control
What physical rehabilitation approaches are effective in recovery of function and mobility?
What is this review about?

What physical rehabilitation approaches are effective in recovery of function and mobility?
Cochrane review of physical rehabilitation for stroke (Alex)

What is this review about?

Which plate of fruit is best?

Which type / “approach” to physiotherapy is best?
What is this review about?

Physical rehabilitation included in this review:

Questions about the fruit bowl!
- “Real world” physiotherapy
- A programme of physiotherapy
- Treatment selected by a rehab professional
- A programme made up of different components or elements

Always more than one ‘fruit’!

Questions about individual treatment components are answered in other reviews
What is this review about?

Need to define / describe the ‘fruit’:

- In 2013, a stakeholder group defined 27 “treatment components”.
The 27 treatment ‘components’ were grouped into categories, and definitions agreed:

<table>
<thead>
<tr>
<th>Category</th>
<th>Components</th>
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<td>Fitness training</td>
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<td>Modality</td>
<td>2 ‘components’</td>
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<td>e.g. acupuncture</td>
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What is the role of the stakeholder group?

Need to define / describe the ‘fruit’:

- In 2013 Stakeholder group defined 27 “treatment components”.
- These were central to how the review was structured.
- For 2021 update – stakeholder involvement to check whether the defined treatment components are still relevant & meaningful.
What is this review about?

1998
• Physiotherapists’ most “burning” question is “Does Bobath therapy work?”

1999
• Cochrane review comparing different physiotherapy treatment approaches.

2006
• Cochrane review updated but several Chinese trials not included.

2013
• Comprehensive update with stakeholder involvement. Categorisation of physiotherapy “treatment components” introduced.

2021
• Another comprehensive update with stakeholder involvement
Welcome *(Richard)*

Cochrane review of physical rehabilitation for stroke *(Alex)*
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Stakeholder involvement *(Gill)*
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Your thoughts.....
Who are the stakeholder group?

Initial stakeholder group

• 4 people living with stroke
• 4 people who are carers or relatives of someone living with stroke
• 7 physiotherapists

• How we recruited to the group
  • Publicised through variety of forums
  • Expressions of interest
    • Experience
    • Reasons to be involved
    • Other background (e.g., location, age)
Stakeholder involvement (Gill)

What have we done?

Stakeholder activities

[Calendar images for January to December]

[Image of a person thinking]

[Image of a person using a computer]

[Image of a person using a laptop]

[Image of a stack of papers]

[Podcast logo]
Stakeholder involvement (Gill)

What have we done?

Meeting rules

Consider sharing emails to check up on each other

Please put camera on because easier to lip read

Confidentiality – what’s said in the room stays in the room

Let everyone have their say

Please respect each other

Allow people to be quiet during meeting

‘Parking’ area – acknowledge issues this cannot address but may be able to take forward to other forums

Make sure someone is checking the chat box and can read out messages in chat box so that those without the chat function do not miss out

Ask questions – put your hands up or message in chat if you need to clarify anything

Things that were good:
- All given opportunities to express our views
- We were listened to
- Meeting was well managed
- Everyone wanted to help make this a success
- Good mix of participants.
<table>
<thead>
<tr>
<th>Meeting 1</th>
<th>Meeting 2</th>
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<tr>
<td><strong>Topic</strong></td>
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<tr>
<td>Welcome</td>
<td>Welcome &amp; introductions</td>
</tr>
<tr>
<td>Introductions and agree “rules”</td>
<td>Recap on meeting rules</td>
</tr>
<tr>
<td>Background</td>
<td>Feedback from meeting 1</td>
</tr>
<tr>
<td>- What is a Cochrane Systematic review?</td>
<td>Recap on meeting 1 discussion</td>
</tr>
<tr>
<td>- What is this review about</td>
<td>Group thoughts / feedback on new classification system</td>
</tr>
<tr>
<td>- What is the role of the stakeholder group</td>
<td>BREAK</td>
</tr>
<tr>
<td>DISCUSSION: What happens during physiotherapy?</td>
<td>How does the new classification system impact on the review comparisons</td>
</tr>
<tr>
<td>DISCUSSION: What do we mean by physical rehabilitation approaches?</td>
<td>BREAK</td>
</tr>
<tr>
<td>Summary, reflections and next steps</td>
<td>Review title</td>
</tr>
<tr>
<td>FINISH</td>
<td>Definitions</td>
</tr>
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<td></td>
<td>Next steps</td>
</tr>
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<td></td>
<td>Plans for emails / future meetings etc</td>
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<td></td>
<td>FINISH</td>
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</table>
Stakeholder involvement (Gill)

What have we done?

Working together
The stakeholder voice

Presentations

Discussions

Reflection

VOTE

YOUR FEEDBACK MATTERS!
Stakeholder involvement (Gill)

Stakeholder reflections

video
Take a screen break!
Welcome *(Richard)*

Cochrane review of physical rehabilitation for stroke *(Alex)*
- Introduction
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New model to describe physical rehabilitation for stroke *(Alex)*
- How was it developed?
- What does it look like?
- How will it be used?

Your thoughts.....
New model to describe physical rehabilitation for stroke (Alex)

How was it developed?

At our stakeholder group meetings we have:

- Discussed what makes up physical rehabilitation after stroke
- Looked at the ‘treatment components’ used to describe interventions in the last version of the review
- Discussed what might be missing from this

After the meetings some of the group have sent additional comments and suggestions
New model to describe physical rehabilitation for stroke (Alex)

How was it developed?

3 main actions from discussions:

- Identification of additional treatment components
- Identification of “adjuncts” to physical rehabilitation
- Importance of mode of delivery
New model to describe physical rehabilitation for stroke *(Alex)*

**How was it developed?**

The ‘intervention components’ used in the 2013 version of the review were added to:

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<th>Functional task training</th>
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<th>Assistive devices</th>
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<td>e.g. Bobath handling</td>
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<td>e.g. acupuncture</td>
<td>e.g. walking aid</td>
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<td>2 ‘components’</td>
<td>6 ‘components’</td>
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**New model to describe physical rehabilitation for stroke (Alex)**

**How was it developed?**

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<td>- Walking practice (9 components)</td>
</tr>
<tr>
<td>Musculoskeletal intervention (active)</td>
<td>- Strengthening (2 components)</td>
</tr>
<tr>
<td>Musculoskeletal intervention (passive)</td>
<td>- Limb positioning (5 components)</td>
</tr>
<tr>
<td>Neurophysiological intervention</td>
<td>- Bobath handling (7 components)</td>
</tr>
<tr>
<td>Cardiopulmonary interventions</td>
<td>- Fitness training (2 components)</td>
</tr>
<tr>
<td>Modality / assistive devices</td>
<td>- Acupuncture (21 components)</td>
</tr>
</tbody>
</table>

Categories merged.
## How was it developed?

A number of ‘adjuncts’ to physical rehabilitation were identified:

<table>
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<td>e.g. Family / therapy assistant trained to supervise activities</td>
<td>e.g. Goal setting, behavioural change techniques</td>
<td>e.g. speech and language therapy, psychological support</td>
<td>E.g. gathering &amp; sharing of information</td>
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<td>7 categories identified</td>
<td>8 categories identified</td>
<td>6 categories identified</td>
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New model to describe physical rehabilitation for stroke (Alex)

How was it developed?

**HOW physical rehabilitation is delivered is important:**

<table>
<thead>
<tr>
<th>MODE of delivery</th>
<th>Face to face</th>
<th>Individualised</th>
</tr>
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<tbody>
<tr>
<td>One to one with therapist</td>
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<tr>
<td>OR</td>
<td>OR</td>
<td>OR</td>
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<tr>
<td>Group session</td>
<td>Remote (online or telephone)</td>
<td>Standardised (not individualised)</td>
</tr>
<tr>
<td>OR</td>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>Mixed</td>
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This review needs to take into account:

- **Physical rehabilitation treatment components**
- **Mode of delivery**
- **Adjuncts to physical rehabilitation**

New model to describe physical rehabilitation for stroke (Alex)

How was it developed?
This review needs to take into account:

- Adjuncts to physical rehabilitation
- Mode of delivery
- Function training

New model to describe physical rehabilitation for stroke (Alex)

How was it developed?
Physical rehabilitation has the following elements:

**Ingredients**
- What the therapist does (or selects)

**Mechanisms of action**
- How the treatment is expected to work

**Target**
- Aspect of functioning directly targeted for change
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New model to describe physical rehabilitation for stroke *(Alex)*

What does it look like?

Function Walking Mobility
Physical rehabilitation has the following elements:

**Ingredients**
- What the therapist does (or selects)

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- How the treatment is expected to work

**Target**
- Aspect of functioning directly targeted for change

**Functional task training (learning by doing)**

New model to describe physical rehabilitation for stroke (*Alex*)

What does it look like?

- **Function**
- **Walking Mobility**
Physical rehabilitation has the following elements:

**Ingredients**
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**Target**
- Aspect of functioning directly targeted for change

**Function**
- Walking
- Mobility

**New model to describe physical rehabilitation for stroke (Alex)**

What does it look like?

**Functional task training**
- (learning by doing)

**Musculoskeletal intervention**

**Cardio-pulmonary interventions**

**Neuro-physiological intervention**
Physical rehabilitation has the following elements:

**Ingredients**
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**Target**
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**Function**
- Walking
- Mobility

**Modality / assistive devices**
- Support &/or practice of activities by patients when away from therapist

**Assessment & monitoring**

**Functional task training**
(learning by doing)

**Musculoskeletal intervention**

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**What does it look like?**

**Cognitive information processing**

**Functional task training**
(learning by doing)

**Function Walking Mobility**

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**Cardio-pulmonary interventions**

**Neuro-physiological intervention**

**Interventions addressing other stroke-related problems**
New model to describe physical rehabilitation for stroke (Alex)

What does it look like?

**INGREDIENTS**

- Modality / assistive devices
- Support &/or practice of activities by patients when away from therapist
- Assessment & monitoring

**MECHANISMS OF ACTION**

- Cognitive information processing
- Functional task training (learning by doing)

**TARGET**

- Function Walking Mobility
  - Interventions addressing other stroke-related problems

- Musculoskeletal intervention
- Cardio-pulmonary interventions
- Neuro-physiological intervention
New model to describe physical rehabilitation for stroke (Alex)

How will we use this?

**INGREDIENTS**

- Modality / assistive devices
- Support &/or practice of activities by patients when away from therapist
- Assessment & monitoring

**MECHANISMS OF ACTION**

- Cognitive information processing
- Functional task training (learning by doing)
- Musculoskeletal intervention
- Cardio-pulmonary interventions
- Neuro-physiological intervention

**TARGET**

- Function Walking Mobility
- Interventions addressing other stroke-related problems
New model to describe physical rehabilitation for stroke (Alex)

How will we use this?

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New model to describe physical rehabilitation for stroke (Alex)

How will we use this?

INGREDIENTS

- Modality / assistive devices
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MECHANISMS OF ACTION

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New model to describe physical rehabilitation for stroke (Alex)

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Do you agree that this model makes sense?

Do you agree that this model appears comprehensive?
New model to describe physical rehabilitation for stroke (Alex)

How will we use this?

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Mode of delivery
Thank you for attending this webinar.

Are you pleased you joined this webinar?

Please send additional comments to alex.todhunterbrown@gcu.ac.uk

Thanks for taking part

• **Ongoing support:**
  
  • Tweet us @cochranetrain, #cochranelearninglive
  
  • or send an e-mail to training@cochrane.org

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