Promoting Mental Well-Being At 65+: A Systematic Review

Presented By:
Gill Windle, Research Development Fellow for OPAN & NEURODEM
Dementia Services Development Centre
Bangor University

Project Team:
Bob Woods, Ian Russell, Dyfrig Hughes, Pat Linck
With:
Rhodri Morgan, Seow Tien Yeo, Carla Reeves,
Vanessa Burholt
Aims

• A systematic review of the evidence to evaluate the effectiveness (and cost effectiveness) of public health interventions that promote mental well-being at 65+.
How can we promote mental-well being?

- Interventions and activities that promote or sustain mental well-being in older people, provided by their carers, families, peers, practitioners, professionals or volunteers. The wide range of interventions considered included:

- Self-care interventions (e.g. health promotion, education, advice and information, exercise and physical activity, dietary advice)

- Psychological interventions (e.g. cognitive training, relaxation techniques)

- Social interventions (e.g. peer/social support, volunteering, group activity or participation, befriending, leisure activities e.g. hobbies, gardening, arts, crafts)

- Environmental interventions (e.g. housing adaptations, low-level support, technology, transport)
What is mental well-being?

Positive Psychological Functioning

“Mental well-being is an area which is often overlooked and misunderstood. However, there is growing international recognition of the benefits of addressing mental well-being in a comprehensive approach to mental health” (NHS Scotland).

For the purpose of the review interventions were included that seek to promote, improve, enhance, sustain and benefit validated measures and self-reported indicators of:

acceptance, affect, autonomy, competence, control, efficacy, happiness, life satisfaction, mastery, mental well-being or wellness, optimism, personal growth, positive mental states, psychological well-being, purpose in life, quality of life, resilience, self-esteem, and subjective well-being.
Flow Diagram of Studies

Potentially relevant studies identified and screened for retrieval (n=13,879)
Identified in meta-analyses (n=17)
During consultation (n=2)

Studies excluded; did not meet inclusion criteria (n=13,678)

Studies retrieved for more detailed evaluation (n=220)

Studies excluded; did not meet inclusion criteria (n=120)
Unable to obtain (n=15)
Referred to economics team (n=1)

Papers appraised for the review (n=84)

Studies excluded from the review due to poor quality of the design (n=64)

Studies included in the review (n=20)
Included Studies

• **Exercise** - (walking, Yoga, Tai chi, strength and balance training, stretching and flexibility) – 9 papers.

• **Multi-factorial health promotion** - consist of multiple components (delivered at both group and individual level, through educational material and contact with deliverers). All incorporate activity that is meaningful to the clients – 6 papers.

• **Uni-factorial health promotion** – counselling for exercise referral, bibliotherapy, brief session with an exercise specialist – 3 papers.

• **Cognitive training** – to improve mental speed, reasoning and memory – 2 papers.
Is Exercise Effective?

Figure 1: Meta-analysis of exercise on mental well-being

<table>
<thead>
<tr>
<th>Study or sub-category</th>
<th>Exercise</th>
<th>Comparison</th>
<th>SMD (random)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean (SD)</td>
<td>N</td>
</tr>
<tr>
<td>Oken et al.</td>
<td>38</td>
<td>4.60(12.60)</td>
<td>42</td>
</tr>
<tr>
<td>Kutner et al. (BT)</td>
<td>39</td>
<td>1.70(32.73)</td>
<td>40</td>
</tr>
<tr>
<td>Kutner et al. (TC)</td>
<td>51</td>
<td>2.30(31.82)</td>
<td>40</td>
</tr>
<tr>
<td>Helbostad et al.</td>
<td>39</td>
<td>6.00(17.50)</td>
<td>38</td>
</tr>
<tr>
<td>Fisher &amp; Li</td>
<td>279</td>
<td>7.58(24.00)</td>
<td>303</td>
</tr>
</tbody>
</table>

Total (95% CI) 446 | 463 | 0.23 | [0.10, 0.36] |

Test for heterogeneity: \( \chi^2 = 0.20, \ df = 4 \) (\( P = 1.00 \)), \( I^2 = 0\% \)
Test for overall effect: \( Z = 3.46 \) (\( P = 0.000 \))

Also:
Tai Chi had important effects on self esteem compared with usual activities (.28)

Four exercise interventions (meta-analysis) specifically developed for frail older people aged 65+ living in the community (0.11)
How is it effective?

Characteristic to all of the primary papers is that the interventions were generally community-based, well organised and run by trained instructors.

The methods of delivery included supervision/training both in groups and through individual instruction, plus unsupervised exercise in addition to group work.
How is it effective? Qualitative evidence of opportunities for and barriers against

Particular events, circumstances, relationships and friendships and acquaintances provide experiences and/or positive reinforcement or critical incidents and triggers to change.

Exercise provides an opportunity to socialise. The gym environment at a leisure centre could be seen as a social outlet that enhances a sense of purpose and provides a sense of social inclusion.

Practical support through good supervision in the gym is important.

Getting older and its associated health perceptions; retirement; operations and rehabilitation, life events such as moving and body image can lead to resuming sufficient physical activity to enhance quality of life.

Some people experienced negative feelings through the impact of ageist social norms that people should not become active in later life.

People were afraid of exercise as they felt that it was associated with exertion and harm.
In Summary

• This systematic review of the evidence has demonstrated that exercise is effective in promoting mental well-being.

• It identifies certain characteristics of the interventions that could underpin effectiveness.

• This is useful information for health promotion service providers.