

# *Promoting Positive Mental Health The Role of Physical Activity*

Tipping the Balance towards Active Ageing  
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Afroditi Stathi, Ph.D.

London Sport Institute, Middlesex University

[A.Stathi@mdx.ac.uk](mailto:A.Stathi@mdx.ac.uk)

# Overview

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- **EVIDENCE**

Depression and cognitive performance

Mood and self-perceptions

- **INTERVENTIONS AND OUTCOMES**

Physical activity and subjective well-being

Empowerment, physical activity and mental health

# Do we need research in physical activity and mental health?

The Chief Medical Officer's Report (2004) <http://www.dh.gov.uk>

	PREVENTION		THERAPY	
	Evidence	Effect	Evidence	Effect
CHD	High	Strong	Medium	Moderate
Stroke	High	Moderate	Low	Weak
Obesity	Medium	Moderate	Medium	Moderate
Cancer (colon,breast)	Medium	Moderate	-	-
Diabetes	High	Strong	Medium	Weak
Musculo-skeletal	Medium	Moderate	Medium	Moderate
Mental health	Low	Weak	Medium	Moderate

# Mental Health

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- “A state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (World Health Organisation, 2001: Fact sheet no. 220)

How do we see ageing?

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“Graying of  
the world”

“World  
becoming  
more  
golden”

# Physical activity and depression

## What we know

### Epidemiological studies

Inverse relationship between physical activity and depression (Lampinen et al., 2000; Strawbridge et al., 2002)

### Experimental studies

Significant effect in depressed older adults (Blumenthal et al., 1999; Singh et al., 1997)

### Meta-analysis

Positive antidepressant effect of exercise (Taylor et al., 2005)

## Models and 1994 covariates

## Depression

1994

1999

OR\*

OR\*

Age, ethnicity, gender

0.75

0.75

+ education, financial strain and neighbourhood problems

0.78

0.76

+ no of relatives and friends, satisfaction with relations

0.86

0.82

# Cognitive Performance

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## Cross-sectional studies

Fit older adults better than less-fit seniors and similar to younger fit adults (Chodzko-Zajko & Moore, 1994)

## Meta-analyses

PA has a protective role on cognitive function (Colcombe & Kramer, 2003; Hayn, Abreu, & Ottenbacher, 2004)

## Prospective studies

Twice/ week activity at midlife linked with lower risk of Dementia/Alzheimer (Rovio, 2005; Faulkner & Taylor, 2005)

# "World becoming more golden"

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- If older people do not suffer with depression are they happy?
- Should we focus only on the elimination of negative psychological states?
- Subjective well-being is important element of successful aging (Rowe & Kahn, 1987)



# Physical activity and mood

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## What we know

**Meta-analysis** (Arent et al., 2000-32 studies)

Physical activity  mood in older adults

**Systematic review** ( Biddle & Faulkner, 2004)

Small but significant effects of long term physical activity.

# Physical activity and self-perceptions

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## A. Self-esteem and Physical Self-Perceptions

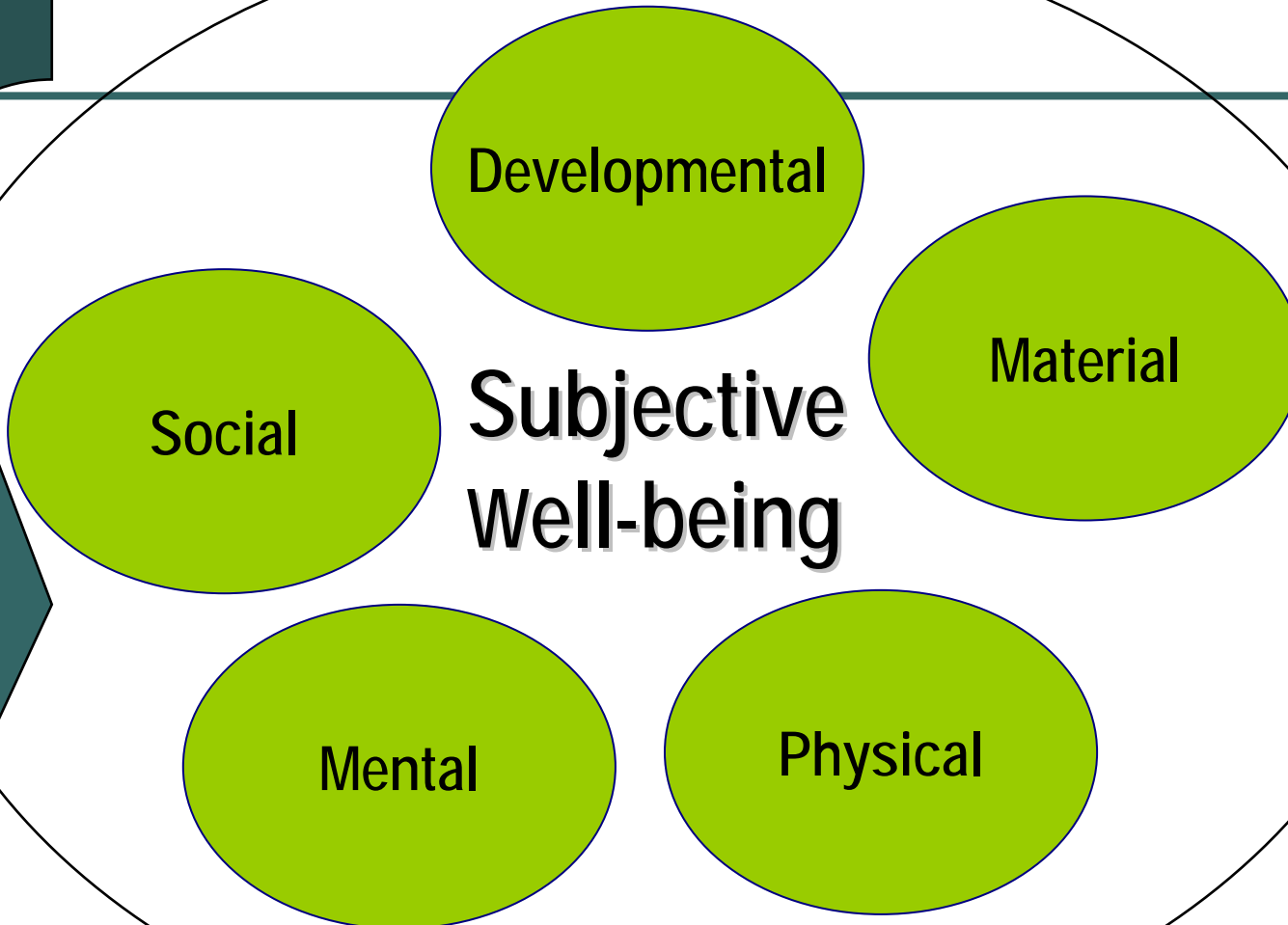
**4 controlled studies** (Fox, 2000)

- ✓ Strength and fitness programmes: positive self-concept changes
- ✓ Significant changes in self-perceptions after a 10-week exercise referral scheme (Taylor & Fox, 2005)

## B. Self-Efficacy

Reviews report positive effects in older adults (Biddle & Faulkner, 2004; McAuley et al, 2003)

# physical activity



(Stathi, Fox, &  
McKenna, 2002)

## *The contribution of physical activity to the subjective well-being of older adults enrolled in exercise referral schemes*

*(Stathi, Fox, & McKenna, 2003; Journal of the Royal Society for the Promotion of Health)*

### **Physical**

- ✓ Function and mobility

### **Mental**

- ✓ Cognitive function
- ✓ Mood
- ✓ Stress

### **Social**

- ✓ Social interaction
- ✓ Social network

### **Developmental**

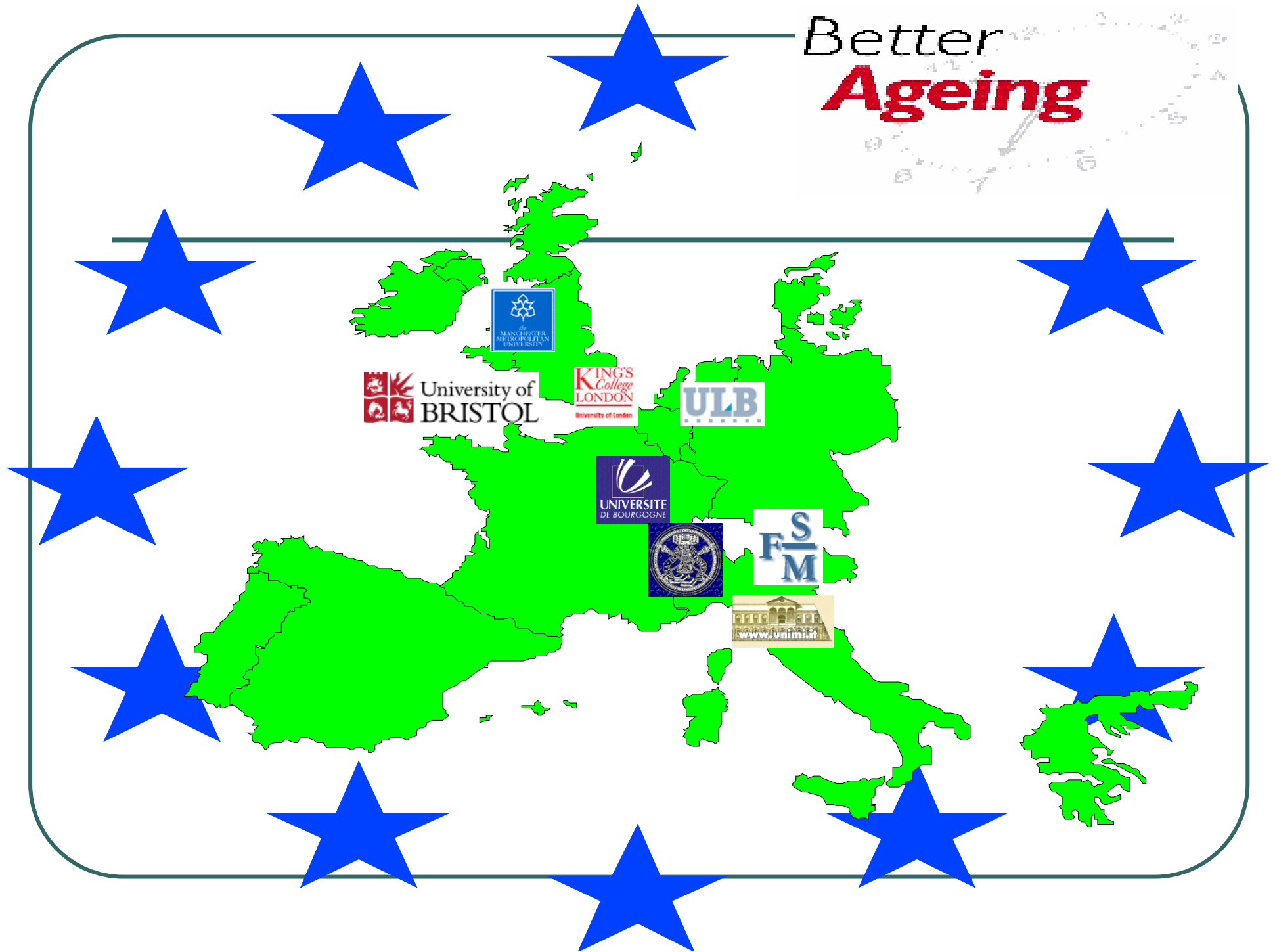
- ✓ Achievement

✓ *“...I perform better. I bend better in the garden. I can walk the dog better...”*

✓ *“...I am feeling better about what I do. I found my self able to do a few more things and it comes sharply ‘oh I managed that!’ and that gives you a better quality anyway...”*

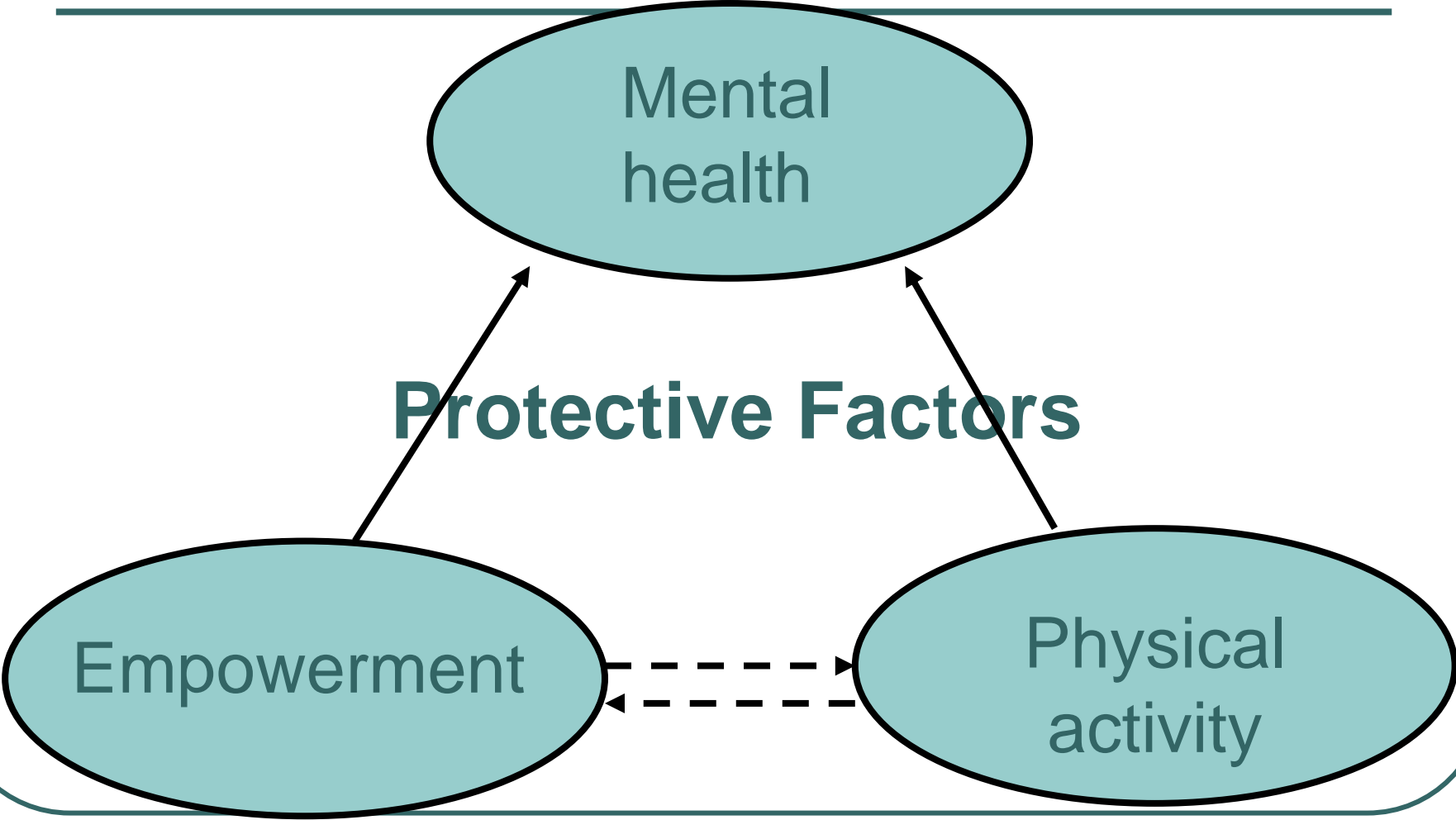
✓ *“...I was too far down in the ladder and I had the fear that I have not got too much chance of improving life. Now I definitely, I feel better. ...”*

Better  
**Ageing**



# Empowerment, physical activity and mental health

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# Physical activity and mental well-being in older people participating in the Better Ageing Project

## The participant

Single, 73y, low base PA (3 min mod, 165 cmin/d) increased @ FU (10 min mod, 288 cmin/d) by 90kcal/d



## Starting out

- Previous experiences
- Outcome expectations
- Intensive tuition



... ..Now I've got to the stage, where if I don't go out, I don't feel right – which for me is amazing!..

## Developing adherence

- Positive attitude and support from instructors, GP and significant others
- Slow progress and build of knowledge, confidence and competence
- Mission of pay back



## Maintaining active lifestyle

- Exit route options available
- Joining the local gym
- Challenge of moving to standard exercise environment

*Gym doesn't exhilarate me, when he was there, I had someone to motivate me and other people around. When you go to a big place all by yourself, it's a bit miserable...*

(Fox, Stathi, McKenna, Davis, In press, JEAP)

# Empowerment as outcome

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...I just feel I'm in charge of my body.  
Perhaps before my body was in charge of  
me...

- **Increase** their psychological and physical strengths
- **Mobilise** their available resources, both material and non-material
- **Improve** their personal control

# Empowerment as process

A **dynamic process** in the challenging and changing physical activity context

## Adoption

- paced programme progress, avoidance of overload, appropriate exercise intensity

## Adherence

- knowledge and enthusiasm of exercise professionals, mutually respectful style of communication and positive social environment

# Implications for Practitioners

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Activity programmes should maximise opportunities for:

- personal achievement and an improved sense of personal control
- improved functional capacity, strength and mobility
- improved mood, alertness, vigour and less stress
- a sense of belonging, ownership and social confidence

# The way forward...

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## **EVIDENCE**

- The relationship between daily physical activity, activity patterns and mental health
- Objective measures of physical activity
- What mechanisms explain the link between activity and mental health?
- Can current psychometric measures capture the range of affective responses to physical activity and assess changes over time?

The way forward...

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## **INTERVENTIONS and OUTCOMES**

- Can we translate efficacious experimental studies to effective community exercises programmes?
- What are the competencies and skills required by exercise and mental health professionals?
- Could empowerment theory be used to understand, predict and explain exercise adherence?