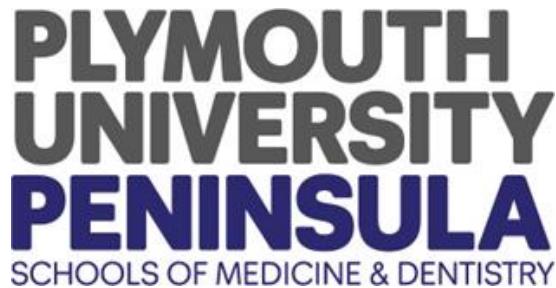


Physical activity and mental well-being for older adults

Prof Adrian Taylor



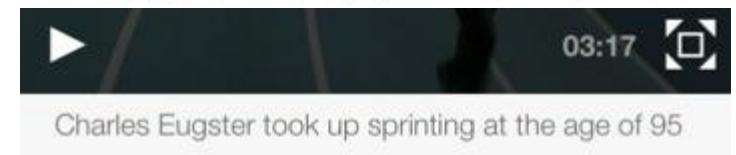
Man, 75, completes 75 marathons in 75 days.



Want to age well - how about never retiring?



"I'm not chasing youthfulness.
I'm chasing health. People have
been brainwashed to think that
after you're 65, you're finished."

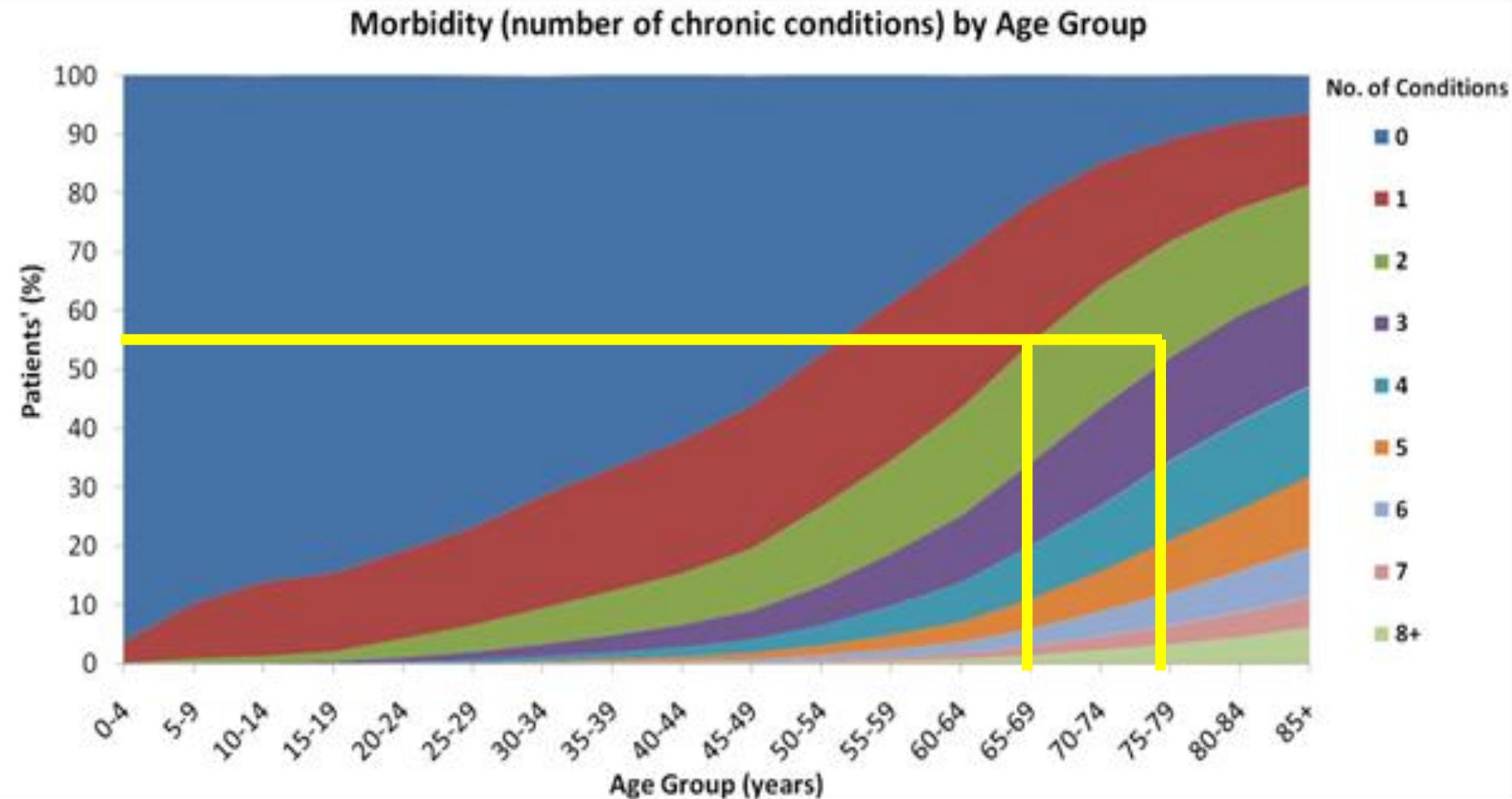


Swiss seniors compete in 'elderly Olympics'



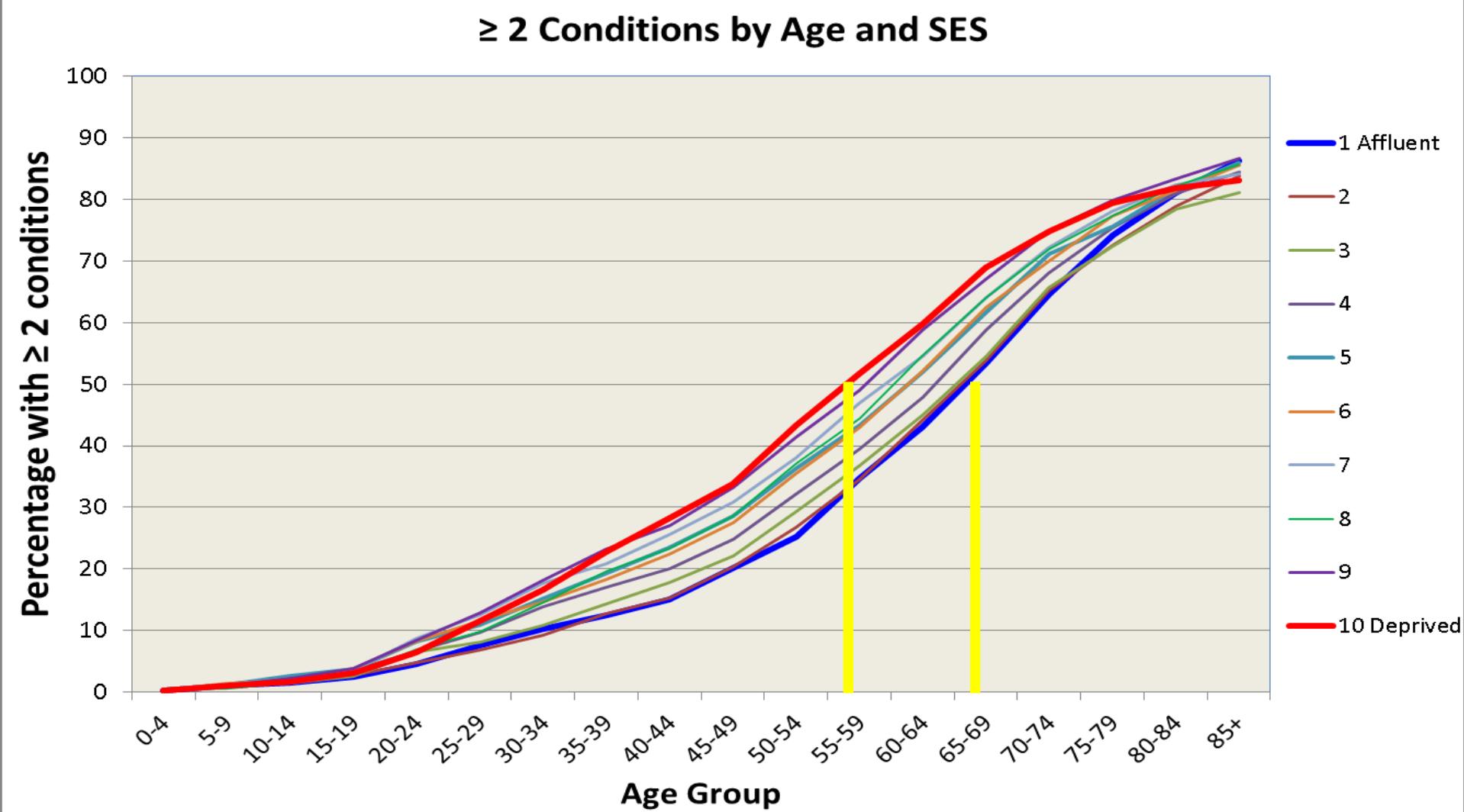
News from Elsewhere...
...as found by BBC Monitoring

Scottish multi-morbidity study (1m + patients)

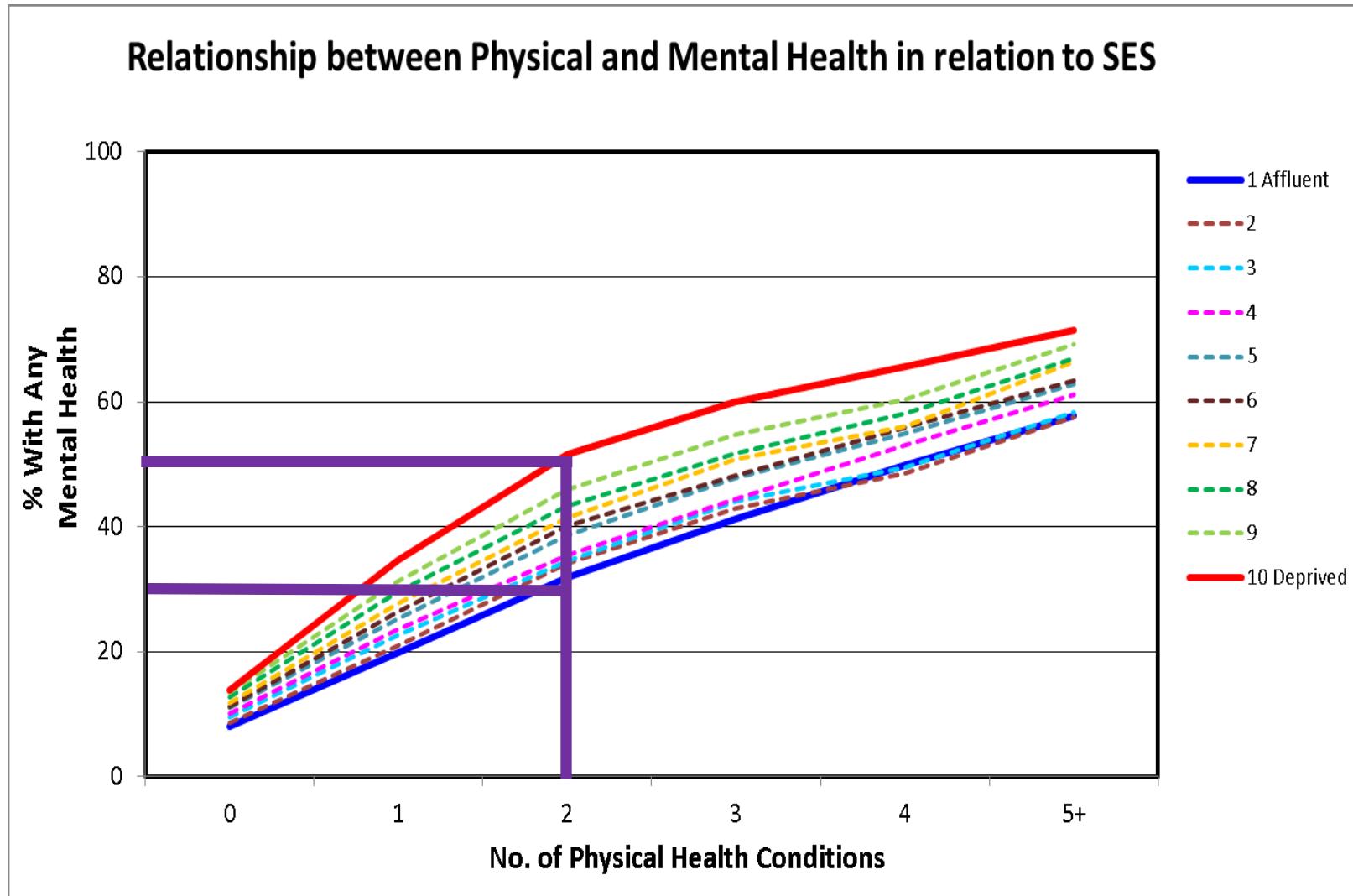


- Most ≥ 65 yr olds have ≥ 2 or more conditions
- Most ≥ 75 yr olds have ≥ 3 or more conditions

People living in deprived areas develop multi-morbidity 10 years before those living in the most affluent areas



Mental health problems are strongly associated with the number of physical conditions that people have, particularly in deprived areas (data from Scotland)



Clustering of poor health behaviours and the links between physical and mental health

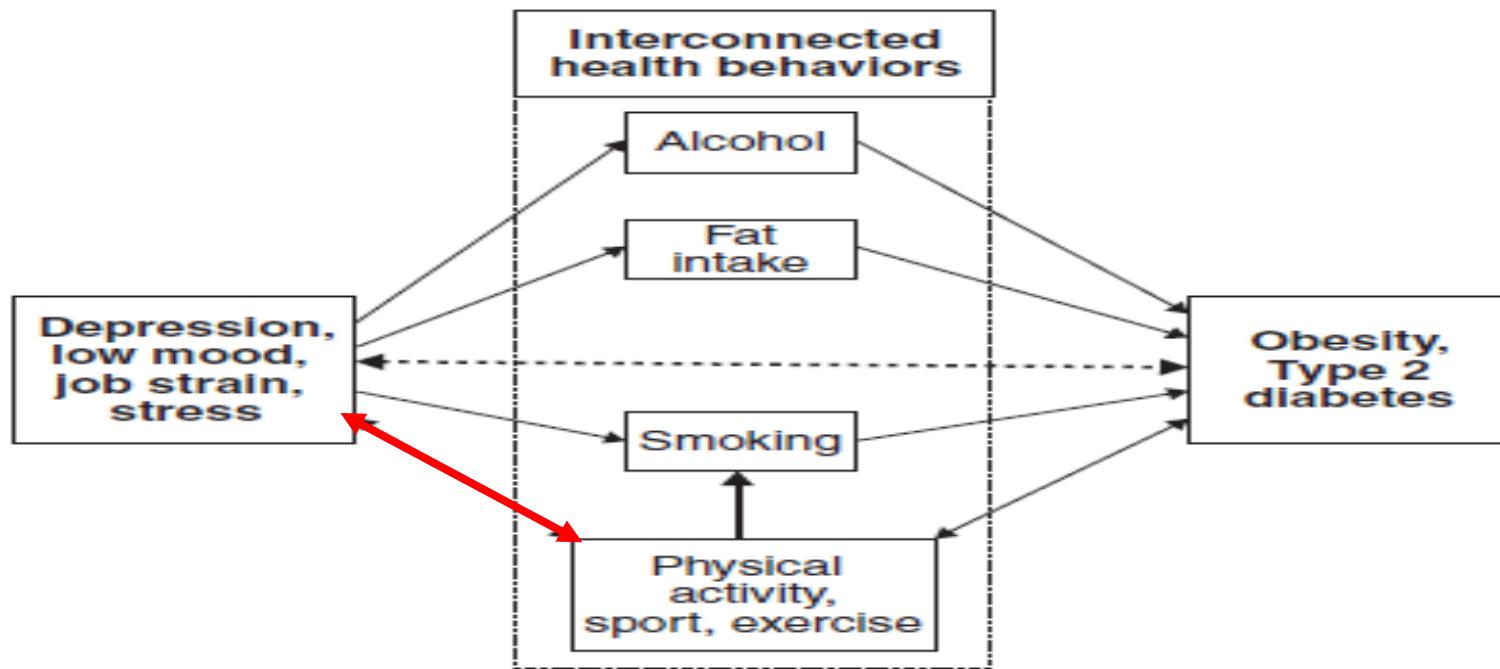


Figure I The Mediating Role of Health Behaviors in the Reciprocal Relationship Between Mental and Physical Well-Being

Taylor, A. H. (2014). Multiple behavior change. In R. C. Eklund & G. Tenenbaum (Eds.). *Encyclopedia of Sport and Ex Psych.* Vol 2, pp 492-494. Thousand Oaks, CA: Sage.

A guide to the talk:

Evidence to practice

A new wave of pragmatic research

TREAD

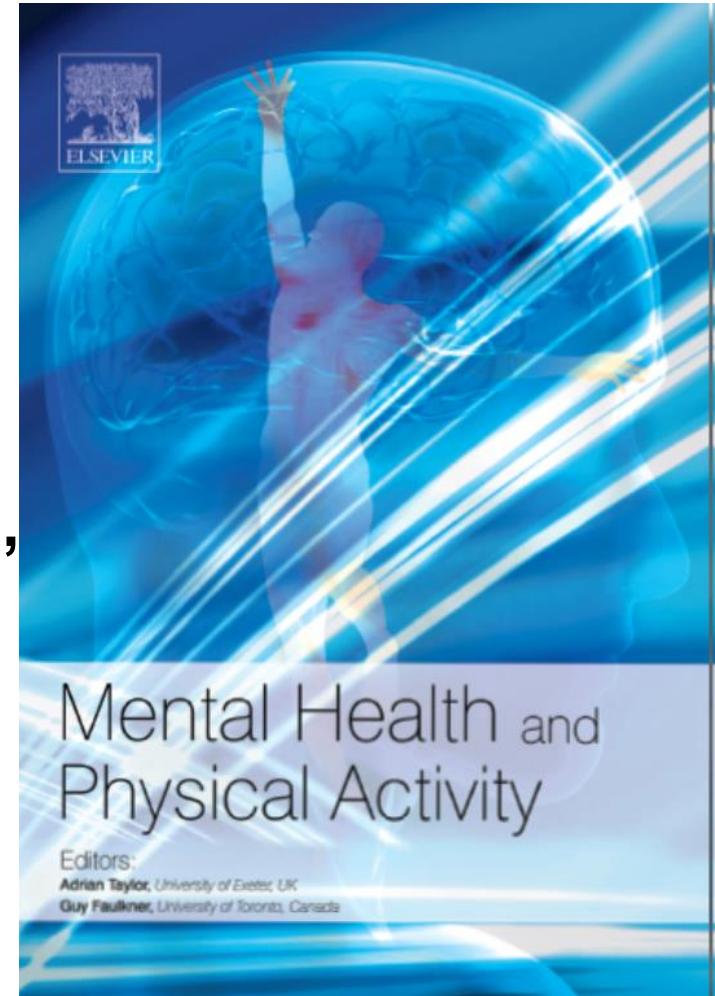
BAcPAc

e-coachER

Summary

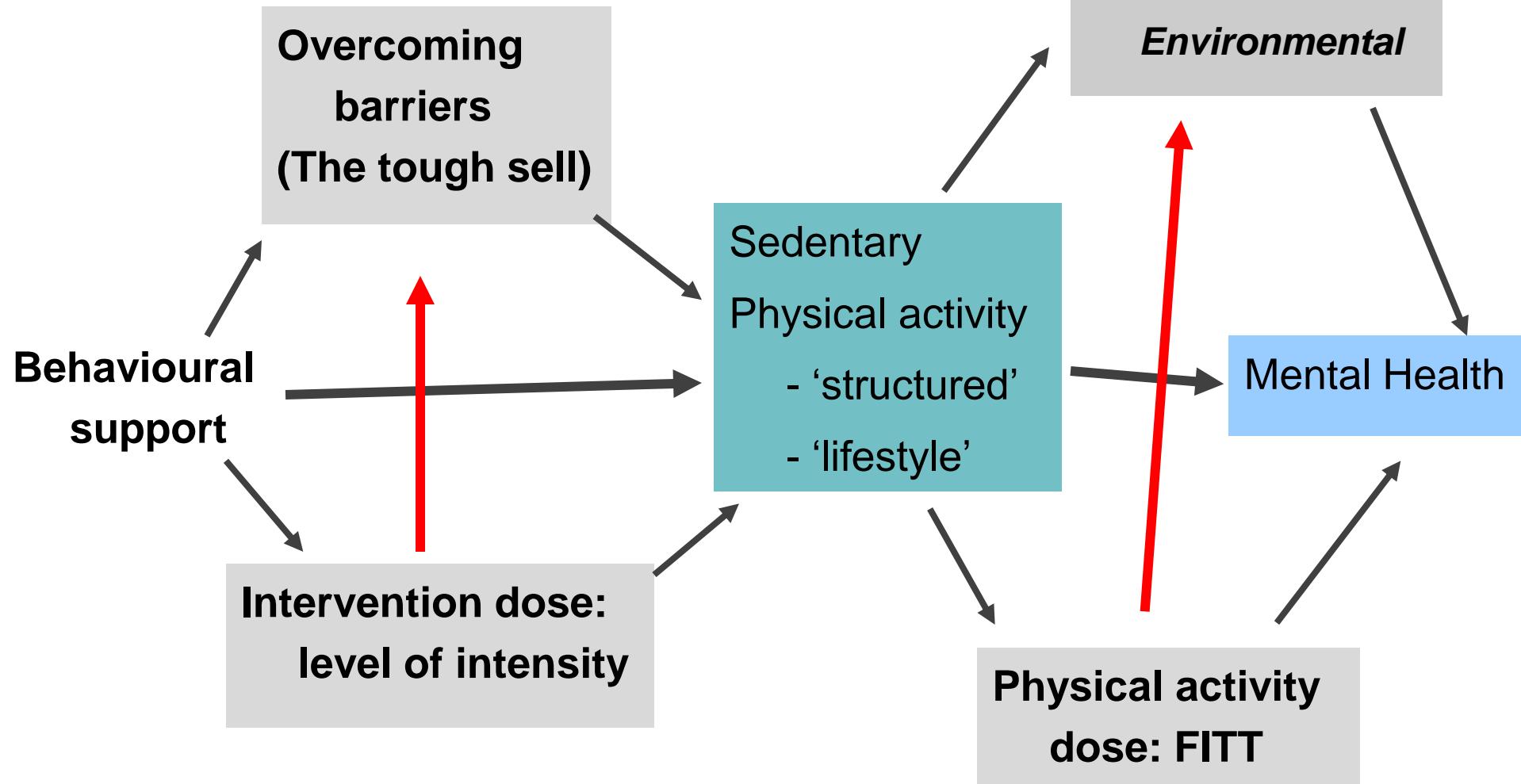
Physical activity linked to mental health conditions: from neuroscience to translation.

**Anxiety & stress,
Sub-clinical affect, mood, well-being
Cognitive function, decline, dementia,
Self-esteem, eating disorders,
Schizophrenia (+ve/-ve symptoms),
Quality of life for those with
chronic conditions (eg, heart disease,
stroke, etc),
Substance use/misuse (addictions),
Depression,**



A framework for evidence to practice

(MENPA, Taylor & Faulkner (2014), 7, 1-5.)



So what does the evidence tell us
about using exercise to treat
depression ?

NICE (2009) Guidelines for treating depression: Translating evidence to practice

74.1.4



Depression
(update)



Physical activity programmes for people with persistent subthreshold depressive symptoms or mild to moderate depression should:

- be delivered in groups with support from a competent practitioner
- consist typically of three sessions per week of moderate duration (45 minutes to 1 hour) over 10 to 14 weeks (average 12 weeks).

Guidelines and perceived barriers for patients & GPs

1. Structured activity implies cost, inconvenience, self-confidence and professional support.
2. 45-60 mins may be off-putting – needs progression & brief activity
3. 10-12 weeks suggests no shorter-term effect
4. Based on a fitness model cf. lifestyle model

Most research interventions have been:

intensive (in terms of support)

intensive (for the participant).



*Which raises questions about generalisability:
Do we have an evidence-base for older people?*

Types of physical activity (for older people):

Nintendo Wii (gaming), & e- and m-health

Yoga, mindfulness, green exercise ...

High intensity intervals

Aquatic-based

Dance/music-based

Supervised/Group v home based

Exercise referral

Pedometer based (self-monitoring & goal setting)

Sedentary behaviour reduction

For those with physical health conditions

Other reviews of research with older people

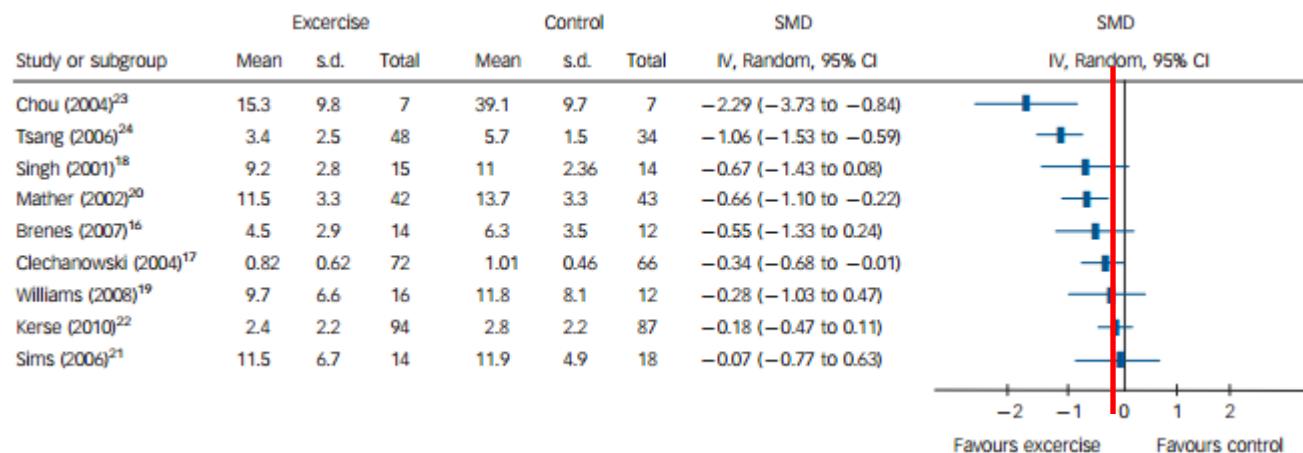
BJPsych

The British Journal of Psychiatry (2012)
201, 180–185. doi: 10.1192/bj.p.111.095174

Review article

Effect of exercise on depression severity in older people: systematic review and meta-analysis of randomised controlled trials

Christopher Bridle, Kathleen Spanjers, Shilpa Patel, Nicola M. Atherton and Sarah E. Lamb



Findings:

Standard mean difference (between groups) was = - 0.38 (in favour of exercise group).
Dose of exercise prescribed = 90-180 mins per week.

Other UK research

Exercise for depression in care home residents: a randomised controlled trial with cost-effectiveness analysis (OPERA)

M Underwood,* SE Lamb, S Eldridge, B Sheehan,
A Slowther, A Spencer, M Thorogood, N Atherton,
SA Bremner, A Devine, K Diaz-Ordaz, DR Ellard,
R Potter, K Spanjers and SJC Taylor

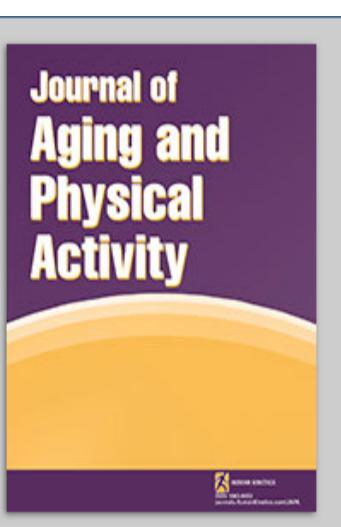
2013, NIHR (HTA Report)

Findings:

**Generally good engagement in the intervention but
NO clinically meaningful reduction in depression v control.**

So how can we package exercise and physical activity (PA) support to be acceptable & effective for older people?

Of course we have to listen to older people



Journal of Aging and Physical Activity

The Official Journal of the International Coalition for Aging and Physical Activity

Volume 9 Issue 3, July 2001

[Previous](#)
[Next](#)

RESEARCH

Looking for More than Weight Loss and Fitness Gain: Psychosocial Dimensions among Older Women in a Primary-Care Exercise-Referral Program

Authors: Sarah Hardcastle*, Adrian H. Taylor*



Psychology of Sport and Exercise 6 (2005) 173–188

Psychology
OF SPORT AND EXERCISE

www.elsevier.com/locate/psychsport

Finding an exercise identity in an older body: “It’s redefining yourself and working out who you are”[☆]

Sarah Hardcastle^{a,*}, Adrian H. Taylor^b

And we need to understand the causes of common mental health problems & low well-being in old age:

Less valued and declining capability with age (for most),
'Passive (disempowered) patient' & poverty,
Loneliness/isolation



All relate to 3 basic human needs
(Self-Determination Theory).

Need to feel a sense of:
Competence
Control (autonomy)
Connection (relatedness)

Connect...
Be active...
Take notice...
Keep learning...
Give...

**Five ways
to wellbeing**

3 UK studies to support people with a history of or current depression



BAcPAC



Actively beating depression



Acknowledgements: Funded by NIHR (HTA), MRC (& NPRI partners)

A pragmatic multi-centred RCT to evaluate exercise as a treatment for depression in primary care (TRial of Exercise And Depression - TREAD)

- Funders: HTA grant: (2006-2012) (£1m study)
- PI: Prof **Glyn Lewis** (U. of Bristol)
- Expertise: Psychiatry, **Exercise Science**, Primary Care, Trials, Statistics, Qualitative methods, Health Economics
- Co-applicants:
 - **Exeter:** J. Campbell (Peninsula Medical School), A. Taylor (SHS)
 - **Bristol:** D. Sharpe, M. Calnan, T. Peters, N. Wiles, D. Lawler, A. Montgomery, S. Hollinghurst, K. Fox & A. Haase (U. of Bristol)





Contents lists available at ScienceDirect

Mental Health and Physical Activity

journal homepage: www.elsevier.com/locate/menpa



Rationale and development of the physical activity counselling intervention for a pragmatic TRial of Exercise and Depression in the UK (TREAD-UK)

Anne M. Haase ^{a,*}, Adrian H. Taylor ^b, Kenneth R. Fox ^a, Helen Thorp ^a, Glyn Lewis ^c

On-line resource at Royal College of Psychiatrists



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Improving the lives of people with mental illness



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Key facts about psychiatry

TRAIN IN PSYCHIATRY

Training, exams & events

WORK IN PSYCHIATRY

Supporting members and services

USEFUL RESOURCES

Books & key

Royal College of Psychiatrists ▶ Health Advice ▶ Treatments & Wellbeing

- ▶ A to Z index
- ▶ Mental Health Services
- ▶ Mental Health Info Shop
- ▶ More information
- ▶ Problems & Disorders
- ▶ Parents and Youth Info
- ▶ Partners in Care Campaign
- ▶ **Treatments & Wellbeing**
- ▶ Helping patients choose
- ▶ Translations
- ▶ Viewpoint
- ▶ Work and Mental Health

Physical Activity and Mental Health

This leaflet is for anyone who wants to know:

- how being active can make you feel better
- how exercise can help depression
- how active you need to be to feel better
- how to get more active safely.

Introduction

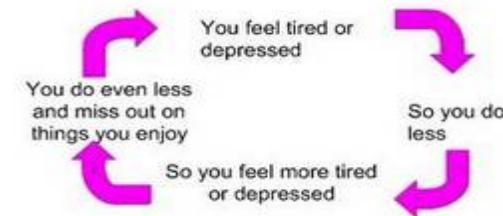
Exercise keeps our hearts and bodies healthy. But how?

We often talk about the mind and body as though they are completely separate – but they aren't. The mind can't function unless your body is working properly – but it also works the other way. The state of your mind affects your body.

So – if you feel low or anxious, you may do less and become less active – which can make you feel worse. You can get caught in a harmful cycle:

Why bother with exercise?

To work properly, your body needs regular exercise - and most of us feel good when we are active.



Behaviour change techniques

(Maximising the 3 Cs)



Competence

- Discussed issues around definitions and types of PA
- Explored beliefs about value and confidence to do PA
- Goal setting & self-monitoring

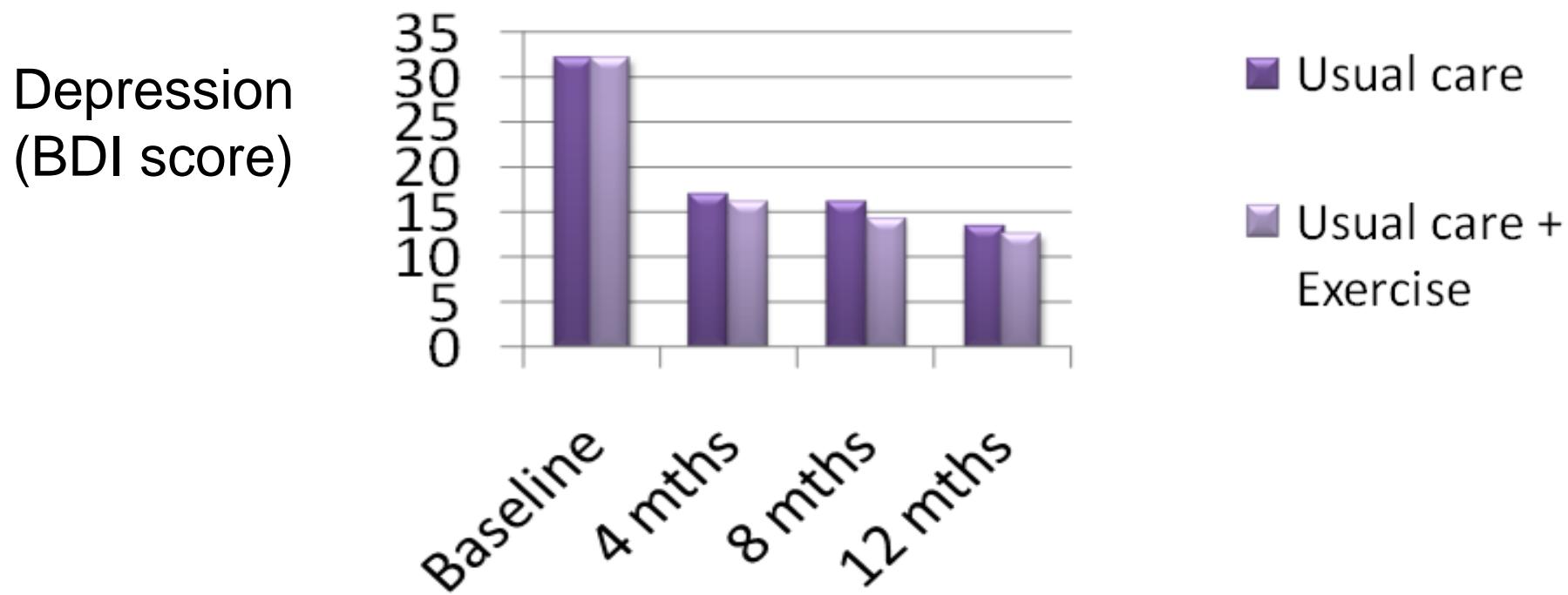
Control

- Negotiated timeframe of intervention/session contacts
- Elicited and explored expectations of intervention and PA

Companionship

- Provided support
- Explored strategies for support from significant others

RESEARCH

Facilitated physical activity as a treatment for depressed adults: randomised controlled trial

**N = 271. No difference in means at 4 months (95% CI),
0.88 (-3.53, 1.76), p = 0.51**

Integrating Behavioural Activation and Physical Activity promotion (BAcPAC): A pilot randomised controlled trial with depressed patients.

BAcPAC



Actively beating depression

Prof Adrian Taylor,

Dr Paul Farrand,

&

M. Hillsdon, R. Taylor,
F. Warren, C. Greaves,
C. Green, P Evans, C.
Pentecost (RA)

Sport and Health Sciences



UNIVERSITY OF
EXETER | MEDICAL
SCHOOL

We are grateful for funding for research from collaborators in the National Prevention Research Initiative (NPRI), namely:





Pentecost et al. *Trials* (2015) 16:367
DOI 10.1186/s13063-015-0881-0



RESEARCH

Open Access



Combining behavioural activation with physical activity promotion for adults with depression: findings of a parallel-group pilot randomised controlled trial (BAcPAC)

Claire Pentecost^{1*}, Paul Farrand², Colin J. Greaves³, Rod S. Taylor³, Fiona C. Warren³, Melvyn Hillsdon⁴, Colin Green³, Jo R. Welsman⁵, Kat Rayson², Philip H. Evans³ and Adrian H. Taylor⁶

A multi-centred RCT of an augmented exercise referral scheme (ERS) using web-based behavioural support in individuals with metabolic, musculo-skeletal and a history of depression.



e-coachER
Web support for exercise referrals

- Funders: HTA grant: (2015-2019) (£1.3m study)
- PI: Prof **Adrian Taylor**
- Expertise: Exercise Science, Primary Care, Trials, Statistics, Qualitative methods, Health Economics
- Co-applicants:
 - **Plymouth:** A. Taylor & Jones, Peninsula Clinical Trials Unit
 - **Exeter:** R. Taylor, Green, Dean, Greaves, Campbell
 - **Southampton:** Yardley & Little,
 - **Birmingham:** Jolly
 - **Edinburgh:** Mutrie
 - **Marjon:** Ben Jane
 - **Cornwall:** Erwin & Woolf

The e-coachER support system



The screenshot shows the main menu of the e-coachER website. At the top left is the e-coachER logo with the tagline 'Web support for exercise referrals'. To the right is a green bar with the text 'Main menu'. On the right side of the menu is a graphic of a person walking. Below the menu are six green buttons with white text: 'About', 'My Goals', 'My Progress', 'Steps to Health', 'Links', and 'My Messages'. At the bottom left is a 'Back' button. At the bottom right is a 'Log Out' button. In the bottom left corner, there is a small thumbnail image of two people talking.

e-coachER
Web support for exercise referrals

Main menu

About

My Goals

My Progress

Steps to Health

Links

My Messages

Back

Log Out

SUMMARY

- * There is evidence that exercise can improve mental health and well-being, both acutely and chronically.
- * We need to find the most acceptable, effective, sustainable, and cost-effective ways to support those with or at risk of depression to increase physical activity to improve mood.



BAcPAC



Actively beating depression



e-coachER
Web support for exercise referrals

J Frailty Aging. 2016 ; 5(1): 6–14. doi:10.14283/jfa.2016.76.

Genetic Moderators of the Impact of Physical Activity on Depressive Symptoms

Vonetta M. Dotson, Ph.D.^{1,2}, Fang-Chi Hsu, Ph.D.³, Taimour Y. Langaeen, Ph.D.^{4,5}, Caitrin W.

Sample:

N=396 community-dwelling adults aged 70–89 years

Findings:

Men randomized to the PA arm showed the greatest decreases in somatic symptoms, with a preferential benefit in male carriers of the BDNF Met allele.



No health without mental health: implementation framework

2012



Organisations with influence:

Clinical Commissioning Groups,
Joint Health & Well-being Boards,
Providers of mental & community
health services,
Primary care providers,
Local authorities,
Social Services,
Community groups.

- Improve the physical health and wellbeing of people with mental health problems.
- Improve the mental health and wellbeing of people with long term physical conditions.
- Do social media portrayal of athlete masters really help?

Thank you for listening,

and thanks to my collaborators and post-grad students, patients,
and funders – NIHR (HTA/PHR), MRC (NPRI partners)

Co-founding editor:

‘Mental Health & Physical Activity’

<http://www.journals.elsevier.com/mental-health-and-physical-activity/>
(2008 -

Adrian.Taylor@plymouth.ac.uk

