



# What are the health and wellbeing impacts of participating in environmental enhancement? A theory-led systematic review

Kerryn Husk, Becca Lovell, Chris Cooper, Will Stahl-Timmins, **Ruth Garside**

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# Collaborators

## Export advisory group

Mark Petticrew (LSHTM),  
Liddy Goyder (Sheffield),  
Sue Baxter (Sheffield),  
Clare Bambra (FUSE -Durham),  
Mima Cattan (FUSE –  
Northumbria).

- **Project Reference Group:**
- MIND,
- Natural England,
- Conservation Volunteers,
- Small Woods,
- DEFRA,
- N. Penines AONB,
- Groundwork,
- The Conservation Foundation.



- 
- **What are the health and wellbeing impacts of participation in environmental enhancement/ conservation activities?**
  - *How do these effects come about?*
  - **Are the impacts different for different groups of people?**
  - **What contextual factors contribute to different impacts?**

# Included studies

**Population:** Anyone voluntarily involved in conservation or environmental improvement activities or those who have taken on such tasks as part of community payback or probation schemes.

**Activity:** any outdoor, physical activity which has a conservation or environmental enhancement focus.

**Outcomes:** mental, physical, and emotional health/ wellbeing impact.

**Study designs:** Relevant comparative quantitative evidence and qualitative evidence.

In English, written after 1990, conducted in an OECD country.

# Methods

1. Exploration of literature and protocol development

## Participation in environmental enhancement and conservation activities for health and well-being in adults (Protocol)

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This is a reprise of a Cochrane protocol, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2013, Issue 2

<http://www.thecochranelibrary.com>

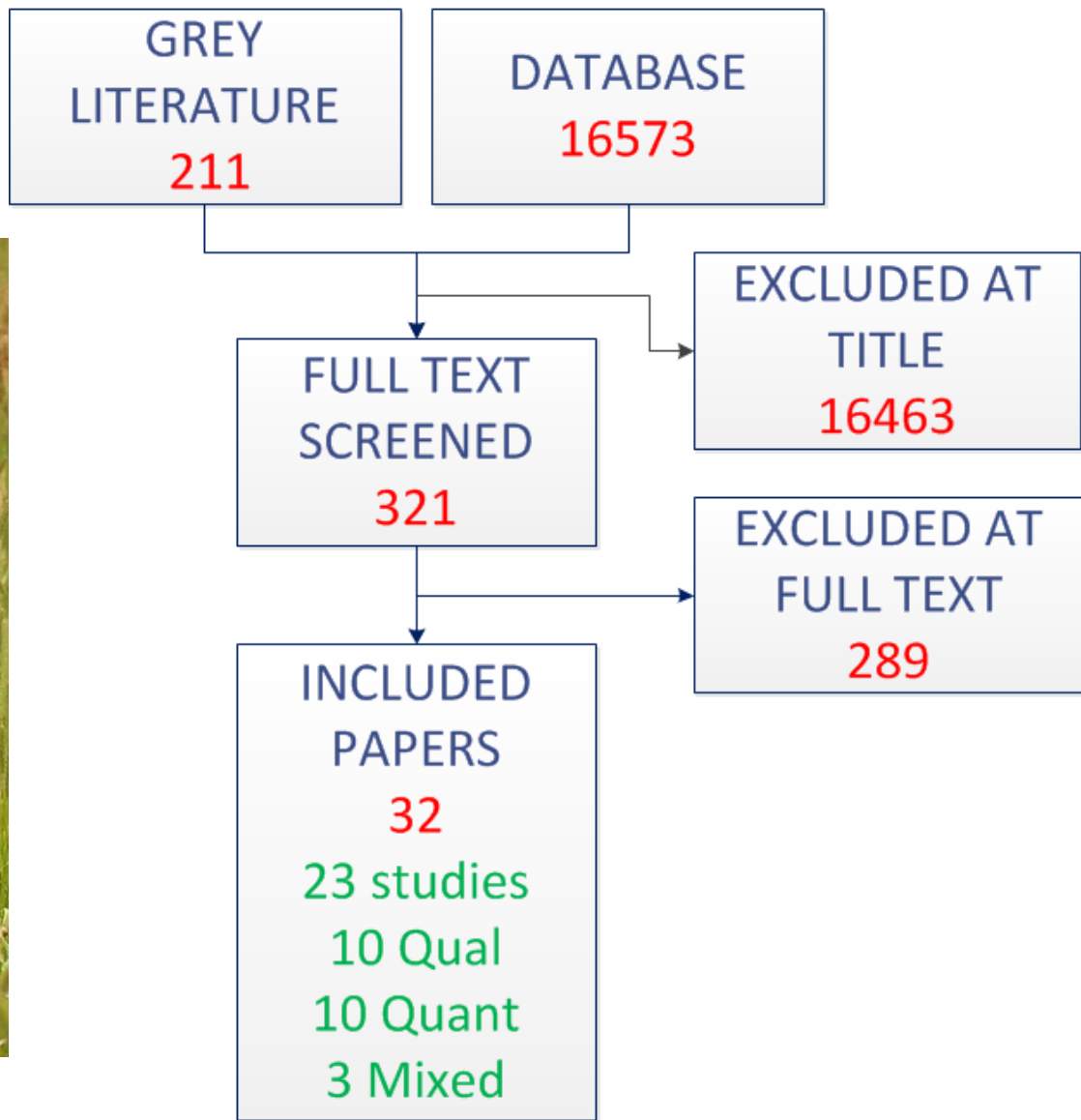


Participation in environmental enhancement and conservation activities for health and well-being in adults (Protocol)  
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Analysis  
of

4. Refine and populate model with supplementary evidence

# Results



\*Comparative design

() Domains of the SF-36/12

↑ Significant positive change

→ No significant difference

↓ Significant negative change



Objective measure or well validated scale

Intervention	Physiological (see Figure XX)	Physical (see Figure XX)	Mental and emotional (see Figure XX)	Quality of life (see Figure XX)	Social/physical activity (see Figure XX)
<b>BTCV 2010b</b> (N=136, uBA, Weak): UK				(→→)	
<b>Eastaugh et al. 2010</b> (N=8, uBA, Weak): UK				→(→→ →)	
<b>O'Brien et al. 2008</b> (N=88, uBA, Weak): UK			↑		
<b>Pillemer et al. 2010</b> (N=2630, Cohort, Moderate): Canada*			↑ →	↑	↑↑
<b>Barton et al. 2009</b> (N=19, uBA, Weak): UK			→ →		
<b>Reynolds 1999a</b> (N=16, uBA, Weak): UK	→→→ →→→ →→→			(→→→ →→→ →→)	
<b>Small Woods 2011a</b> (N=7, uBA, Weak): UK				→→(→ →→→ →→)	
<b>Townsend et al. 2005</b> (N=102, Case-control, Weak): Australia*			↑ ↓ → →	↑↑↑ → →→→	↑↑↑↑ →→→→ →→→→ →→→→
<b>Wilson 2009</b> (N=77, uBA, Weak): UK			→	→→ (→→ →→→ →→→)	↑
<b>Yerrell 2008</b> (N=194, uBA, Weak): UK				↑ ↓	

## Results: Quantitative

# Results: Qualitative

	Achievement	Personal / social identity	Developing knowledge	Benefits of place	Social contact	Physical benefits	Physical activity	Spirituality	Mental health	Risks negatives
Birch 20										
BTCV 20										X
B										X
C										
O'										
Ch										
G										
Ha										
Ca										
Mill										
O'Brien et al										
Townsend										
Marsh 20										
Townsend										
Wilson 2									X	X

## Social contact

*"It's nice feeling part of. ehm. part of society"*

## Environment

*"Just even, like peace of mind as well. There's something about being outdoors that I think just gives you calmness."*

(Volunteer. Halpenny and Caissie 2003)

*later learnt to talk about the work with passers-by"*

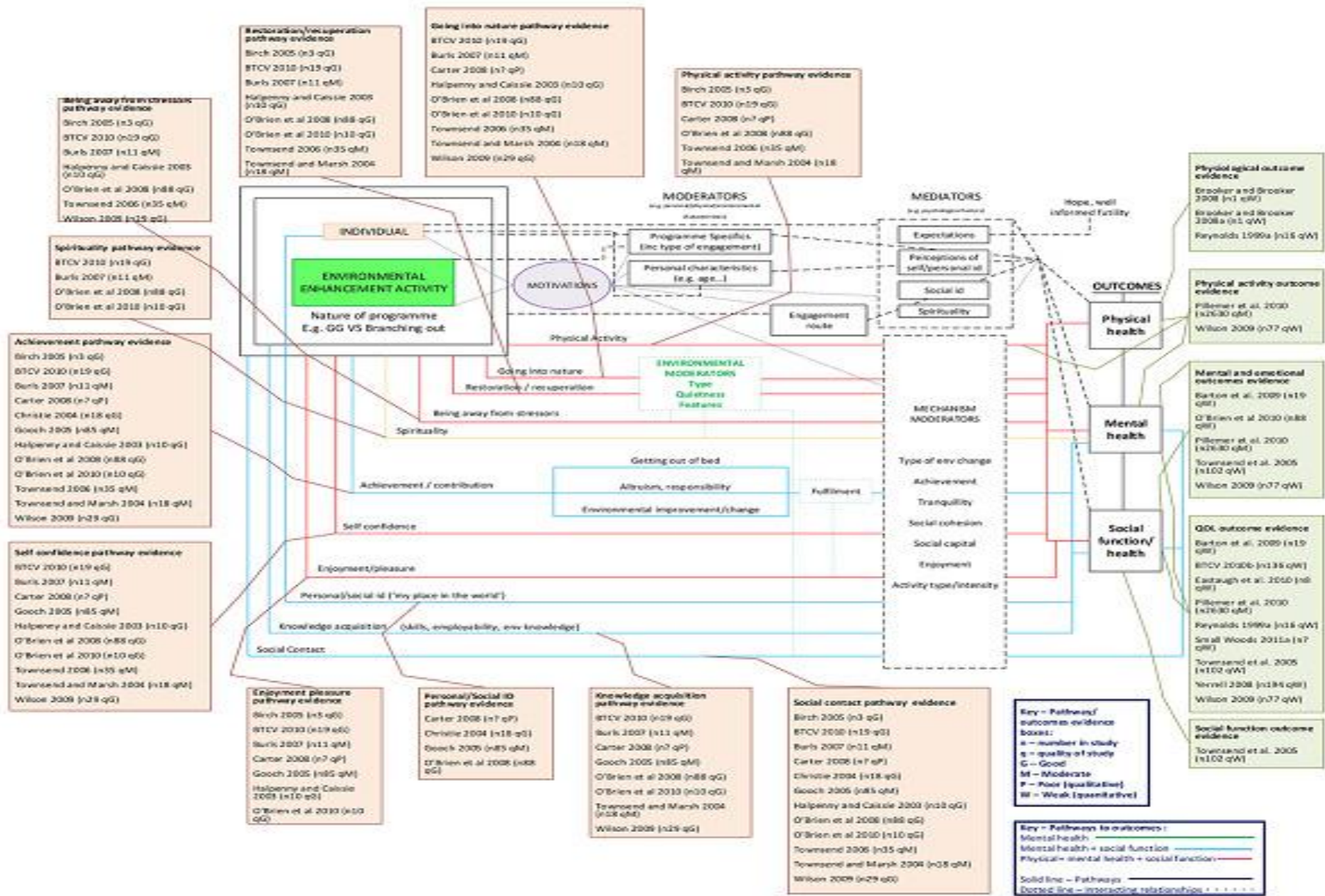
(Carter and O'Brien 2008)

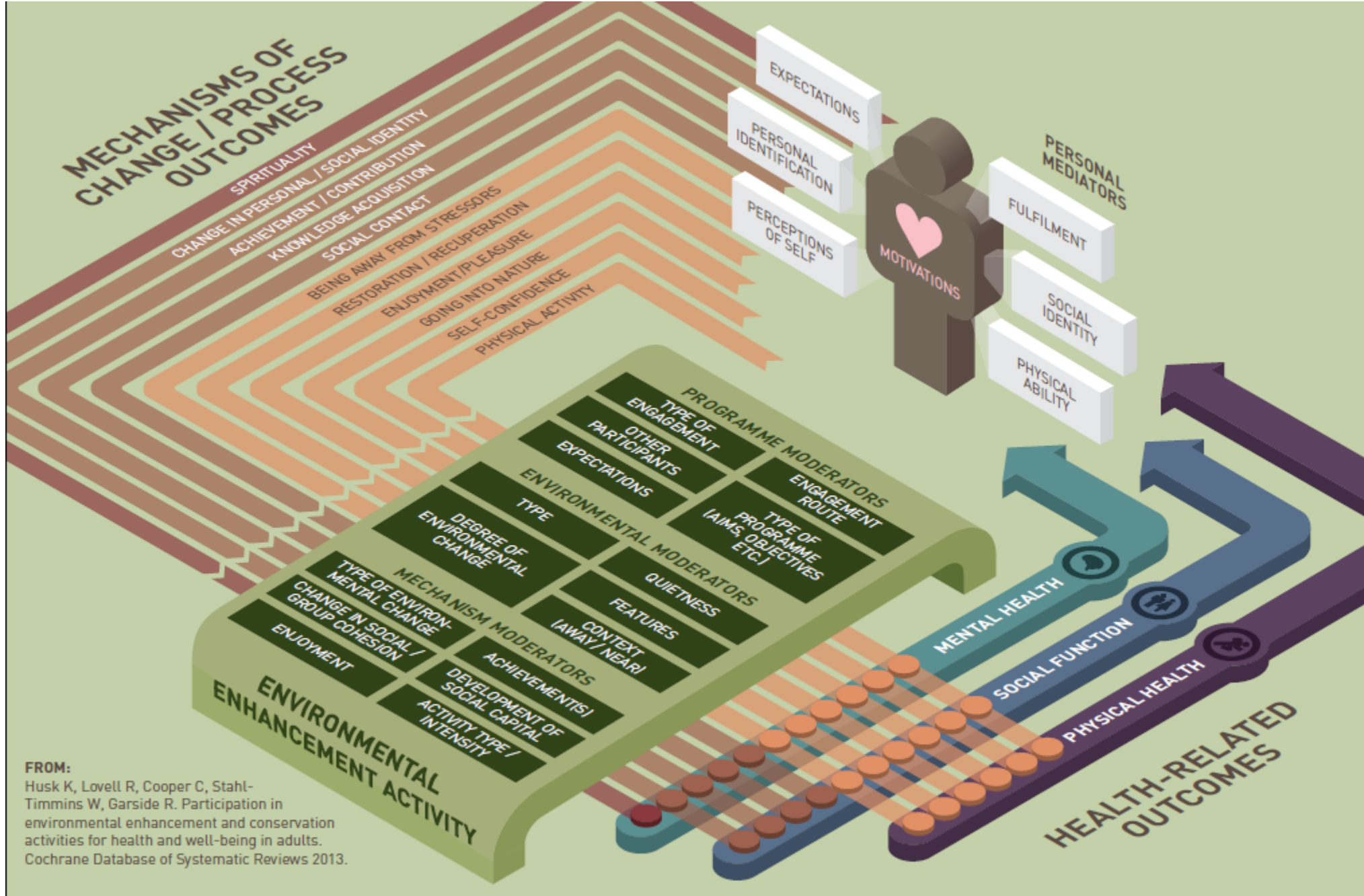


So.....

.....what do we know?

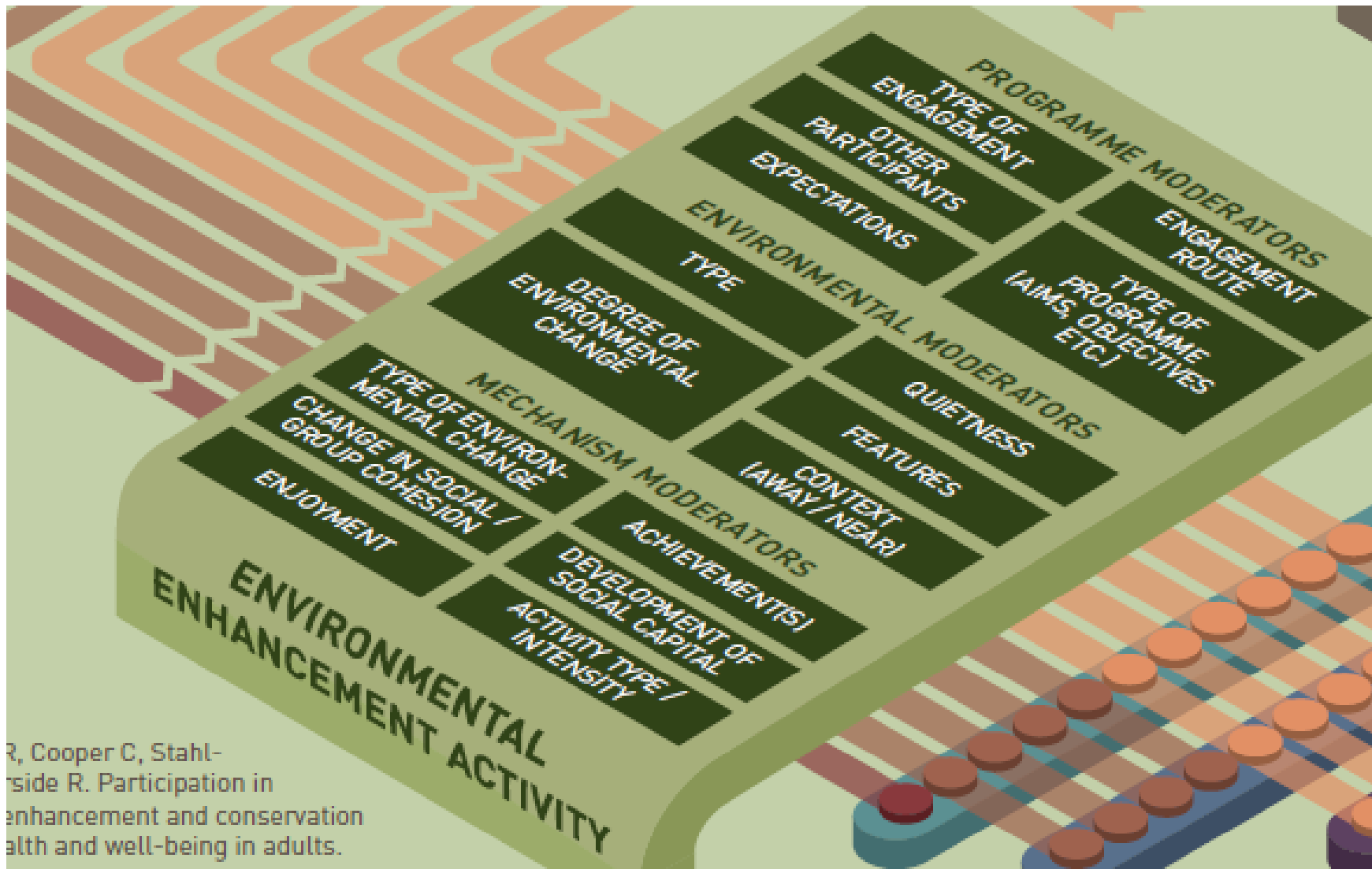




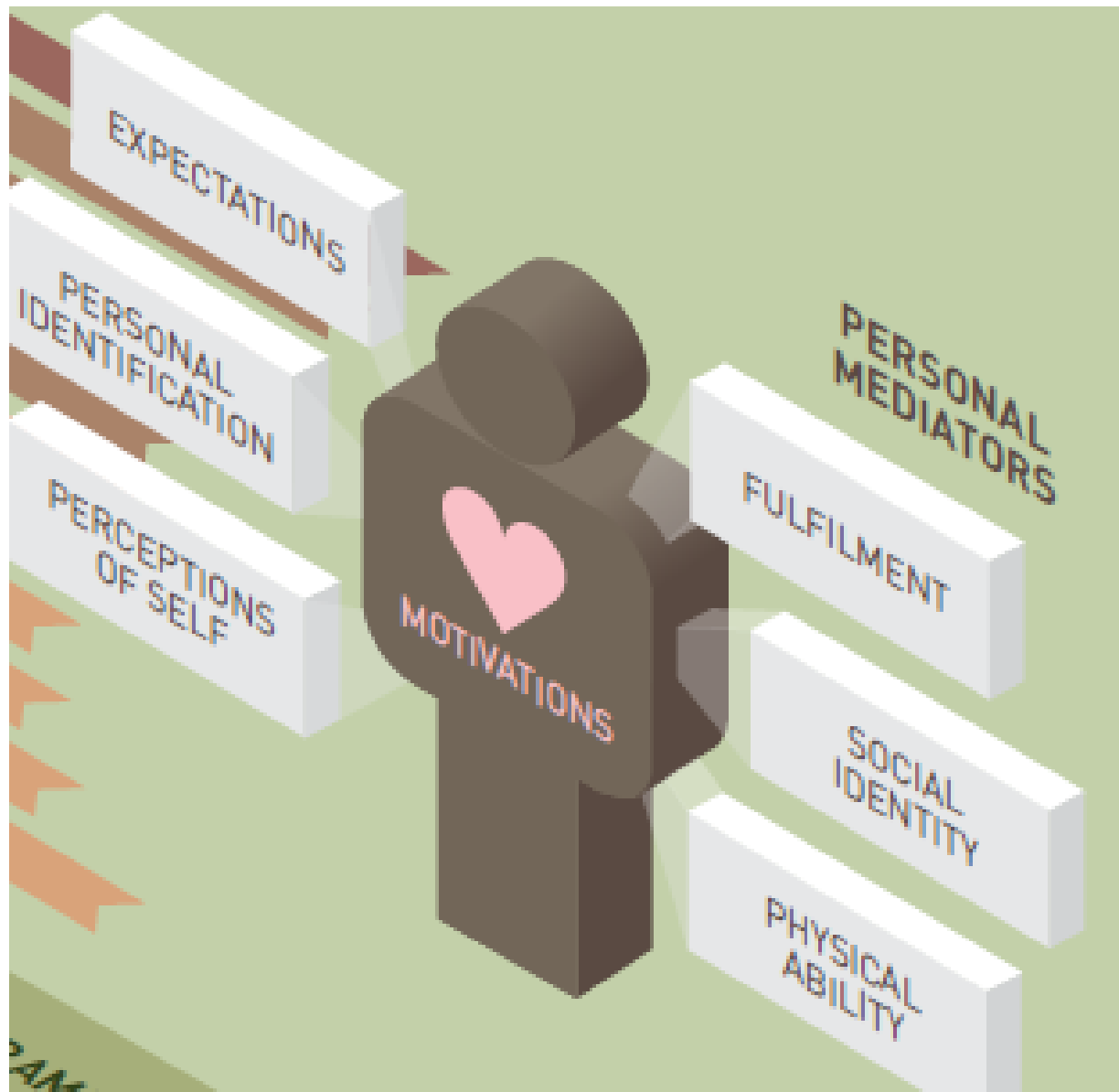


FROM:  
 Husk K, Lovell R, Cooper C, Stahl-Timmins W, Garside R. Participation in environmental enhancement and conservation activities for health and well-being in adults. Cochrane Database of Systematic Reviews 2013.

**WELLBEING AND THE ENVIRONMENT: LINKING CONSERVATION ACTIVITIES AND HEALTH**



R, Cooper C, Stahl-  
 inside R. Participation in  
 enhancement and conservation  
 health and well-being in adults.



# MECHANISMS OF CHANGE / PROCESS OUTCOMES

SPIRITUALITY

CHANGE IN PERSONAL / SOCIAL IDENTITY

ACHIEVEMENT / CONTRIBUTION

KNOWLEDGE ACQUISITION

SOCIAL CONTACT

BEING AWAY FROM STRESSORS

RESTORATION / RECUPERATION

ENJOYMENT / PLEASURE

GOING INTO NATURE

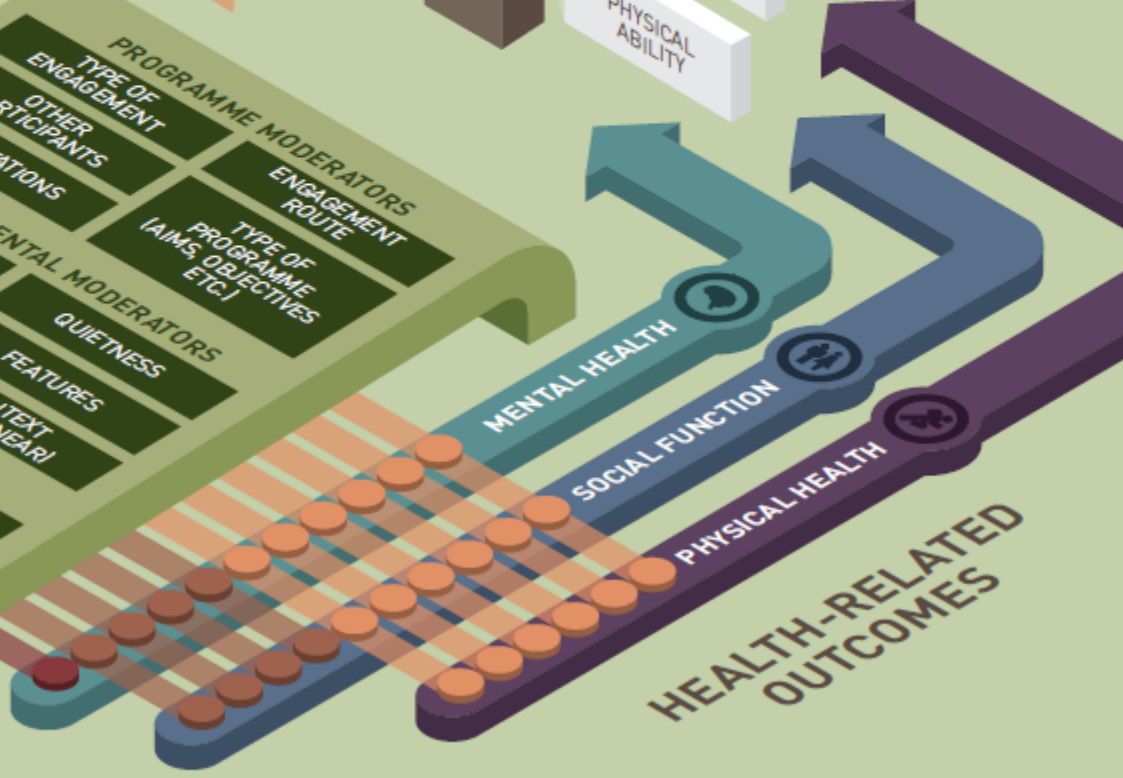
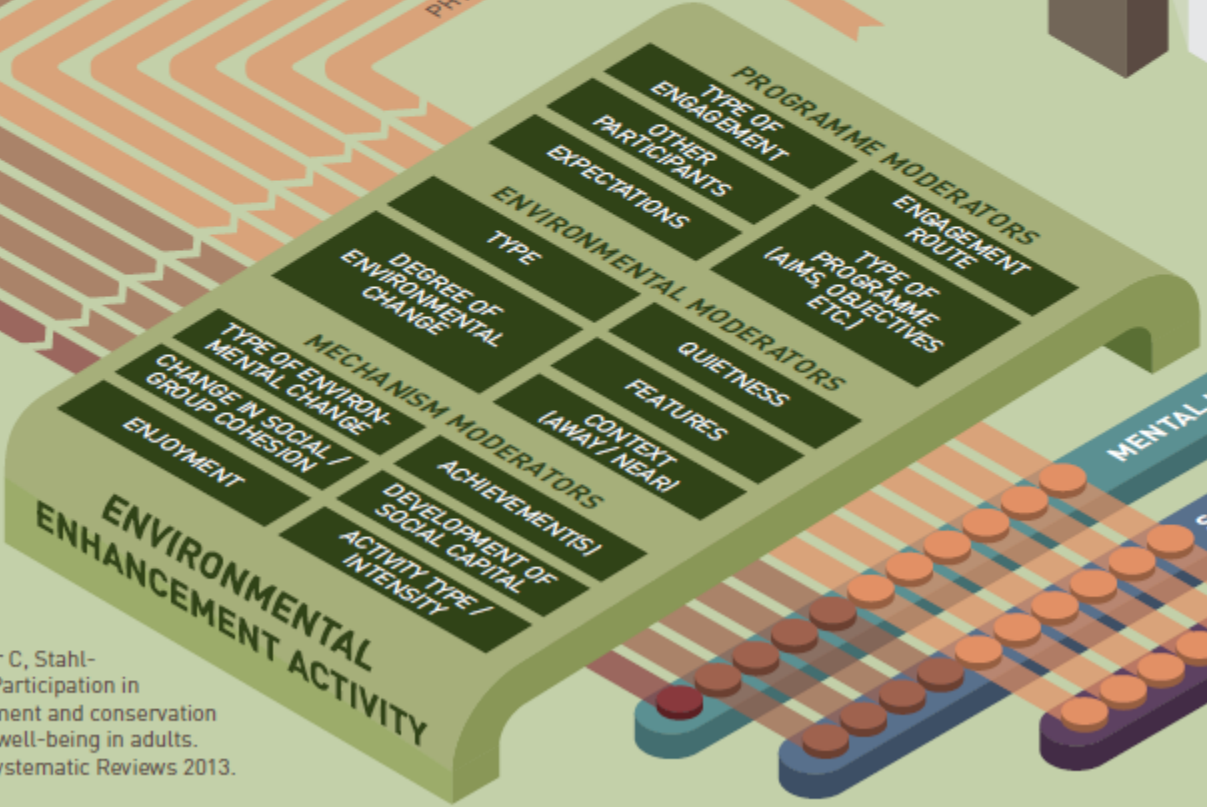
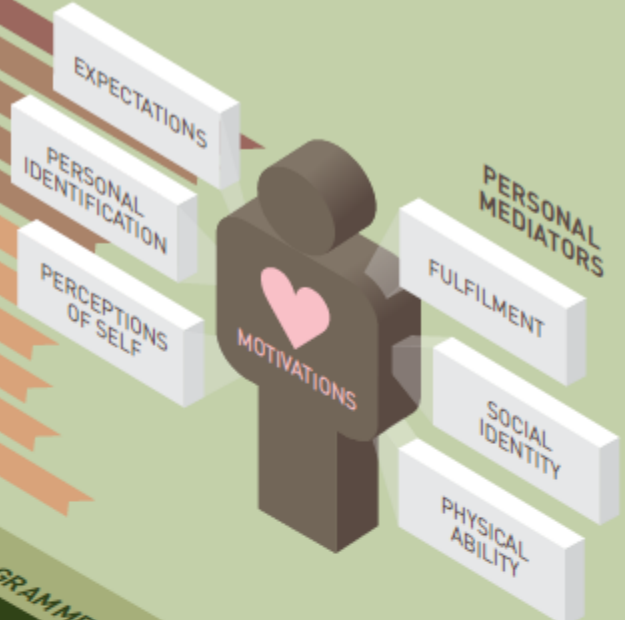
SELF-CONFIDENCE

PHYSICAL ACTIVITY



# MECHANISMS OF CHANGE / PROCESS OUTCOMES

- CHANGE IN PERSONAL / SOCIAL IDENTITY
- ACHIEVEMENT / CONTRIBUTION
- KNOWLEDGE ACQUISITION
- SOCIAL CONTACT
- BEING AWAY FROM STRESSORS
- RESTORATION / REGENERATION
- ENJOYMENT / PLEASURE
- GOING INTO NATURE
- SELF-CONFIDENCE
- PHYSICAL ACTIVITY



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# WELLBEING AND THE ENVIRONMENT: LINKING CONSERVATION ACTIVITIES AND HEALTH

# Supporting evidence

Mechanism or process outcomes	High level evidence identified	Weight of evidence to support pathway?
<b>Physical activity</b>	15 systematic reviews	A <b>significant body of reliable and robust evidence</b> regarding the relationships between physical activity and health exists
<b>Achievement</b>	2 systematic reviews, 4 longitudinal studies, and 1 qualitative study	The positive link between the types of achievement and contribution described in the studies to mental and social health and wellbeing is <b>plausible</b>
<b>Social contact</b>	4 systematic reviews and 1 longitudinal study	<b>Good quality, robust evidence</b> demonstrating the health and wellbeing benefits of social contact, reduced social isolation, and of communities with greater social capital
<b>Natural environment</b>	6 systematic reviews	<b>Some evidence</b> to suggest that this may be a plausible pathway between the activities and health and wellbeing outcomes



# MECHANISMS OF CHANGE / PROCESS OUTCOMES

Robust evidence

Plausible link, mixed evidence

Plausible link, mixed evidence

Robust evidence

# MECHANISMS OF CHANGE / PROCESS OUTCOMES

SPRITUALITY  
CHANGE IN PERSONAL / SOCIAL IDENTITY  
ACHIEVEMENT / CONTRIBUTION  
KNOWLEDGE ACQUISITION  
SOCIAL CONTACT  
BEING AWAY FROM STRESSORS  
RESTORATION / REGENERATION  
ENJOYMENT / PLEASURE  
GOING INTO NATURE  
SELF-CONFIDENCE  
PHYSICAL ACTIVITY

EXPECTATIONS  
PERSONAL IDENTIFICATION  
PERCEPTIONS OF SELF



PERSONAL MEDIATORS  
FULFILMENT  
SOCIAL IDENTITY  
PHYSICAL ABILITY

How might the framework be used?

- Commissioning
- Designing and running
- Evaluating

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ENVIRONMENTAL ENHANCEMENT ACTIVITY

MENTAL HEALTH

SOCIAL FUNCTION

PHYSICAL HEALTH

HEALTH-RELATED OUTCOMES



Thanks  
Any questions?

R.Garside@ex.ac.uk