

Do no harm – risk and potential benefits

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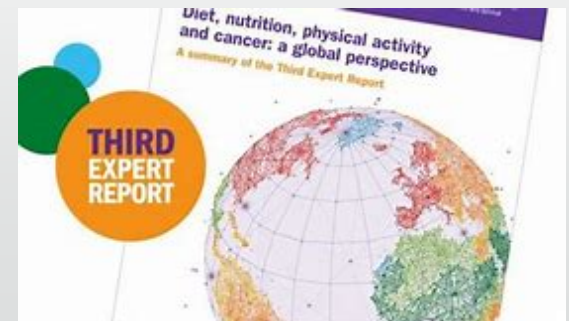
@chloe_grimmett

Why do we need interventions now?

WCRF/AICR Third Expert Report showed “persuasive evidence that nutritional factors, such as body fatness, as well as physical activity, reliably predict important outcomes for patients with cancer”

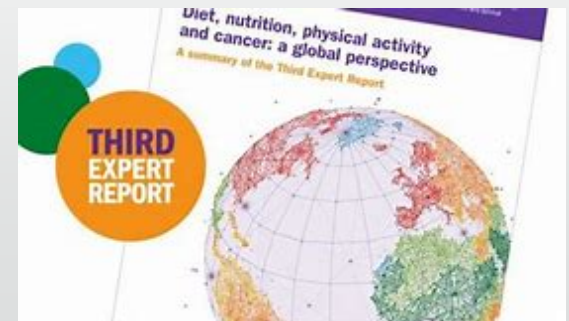
BUT

“The evidence that changing these factors after diagnosis will alter the clinical course of cancer is limited”



Establish the evidence

- Large scale, adequately powered trials
- Defined exposure periods
- Agreement on defined outcomes
- Not just breast cancer
- Consider cancer stage, treatment type and intensity and comorbidities



Achieving change

- Implementation of trials/interventions requires people affected by cancer to change their behaviour - we need:

1. Evidence-based components to support behaviour change

2. Interventions must be achievable

- What evidence do we have to draw from?

Identifying effective intervention components

- Michie's behaviour change technique taxonomy
 - Developed to build consensus for reporting behaviour change interventions
 - Enables synthesis of evidence

No.	Label	Definition	Example
1.1	Goal setting (behaviour)	Set or agree on a goal defined in terms of the behavior to be achieved Note: only code goal-setting if there is sufficient evidence that goal set as part of intervention; if goal unspecified or a behavioral outcome, code 1.3, Goal setting (outcome) ; if the goal defines a specific context, frequency, duration or intensity for the behavior, also code 1.4, Action planning	Agree on a daily walking goal (e.g. 3 miles) with the person and reach agreement about the goal Set the goal of eating 5 pieces of fruit per day as specified in public health guidelines

BCT synthesis in cancer populations

J Cancer Surviv (2017) 11:360–385
DOI 10.1007/s11764-016-0594-8



REVIEW

Toward the optimal strategy for sustained weight loss in overweight cancer survivors: a systematic review of the literature

Meeke Hoedjes¹ • Maartje M. van Stralen¹ • Sheena Tjon A Joe² • Matti Rookus³ • Flora van Leeuwen³ • Susan Michie⁴ • Jacob C. Seidell¹ • Ellen Kampman^{1,5}

- Goal setting (behaviour)
- Action planning
- Social support (unspecified)
- Instruction on how to perform the behaviour

Sustained behaviour change

Grimmett et al. *International Journal of Behavioral Nutrition and Physical Activity*
 #####
<https://doi.org/10.1186/s12966-019-0787-4>

International Journal of Behavioral
 Nutrition and Physical Activity

REVIEW **Open Access**


Systematic review and meta-analysis of
 maintenance of physical activity behaviour
 change in cancer survivors

Chloe Grimmett^{1*} , Teresa Corbett¹, Jennifer Brunet³, Jonathan Shepherd², Bernardine M. Pinto⁴, Carl R. May⁵ and
 Claire Foster¹

 Check for updates

- To achieve long-term health benefits behaviour change must be sustained
- No previous reviews have synthesised evidence of behaviour change after intervention completion in cancer population
- Included 27 RCTs, 19 pooled in meta-analysis, coded BCTs

BCTs associated with effectiveness

- Action planning
 - Social support (unspecified)
 - Graded tasks
 - BUT – other common BCTs; goal setting and instructions on how to perform behaviour commonly reported in BOTH effective and ineffective interventions
 - BCTs are important but not magic bullets
- 
- as per Hoedjes et al

Contextual factors and populations

- Less effective interventions tended to include
 - Older populations
 - Individuals with existing physical limitations (pain/fatigue)
 - Less likely to include supervised elements
 - Had fewer contacts with participants

Grimmett et al., *in press*



One size does not fit all

May 13, 2009

Effects of Home-Based Diet and Exercise on Functional Outcomes Among Older, Overweight Long-term Cancer Survivors

RENEW: A Randomized Controlled Trial

Miriam C. Morey, PhD; Denise C. Snyder, MS, RD, CSO; Richard Sloane, MPH; [et al](#)

Article Information

JAMA. 2009;301(18):1883-1891. doi:10.1001/jama.2009.643

“Physical activity, dietary behaviours and overall quality of life increased significantly in Intervention versus Control arms, and weight loss also was greater, $-2.06(-1.69, -2.43)$ versus $-0.92(-0.51, -1.33)$ kg, respectively ($p < 0.0001$).”

One size does not fit all

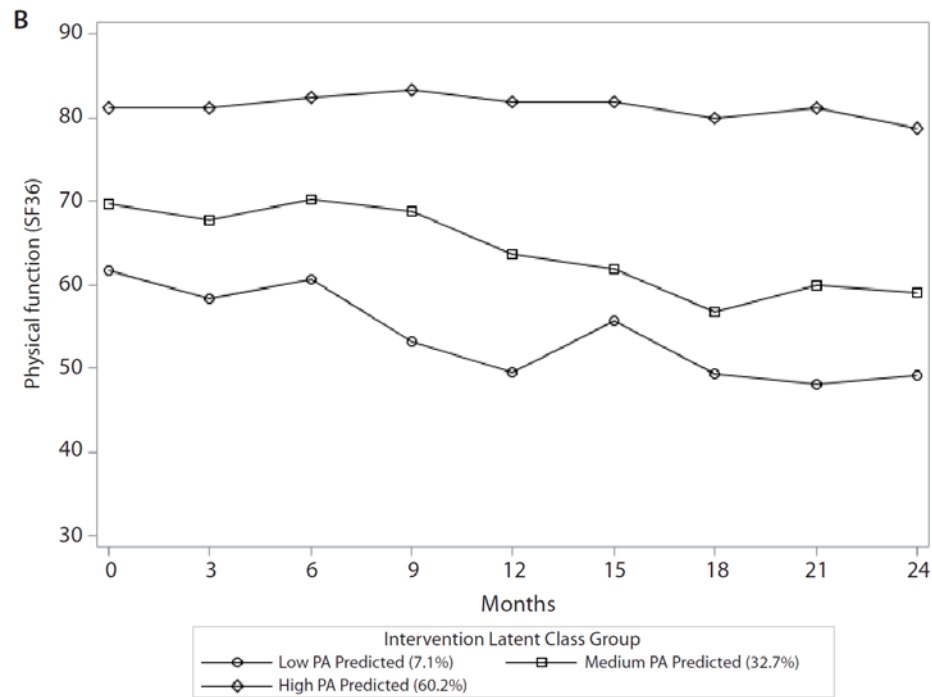


Original Article |  [Free Access](#) |

Group trajectory analysis helps to identify older cancer survivors who benefit from distance-based lifestyle interventions

Miriam C. Morey PhD, Cindy K. Blair PhD, Richard Sloane MPH, Harvey Jay Cohen MD, Denise C. Snyder MS, RD ... [See all authors](#) ▾

First published: 29 October 2015 | <https://doi.org/10.1002/cncr.29684> | Cited by: 6



C

Group	Age Mean (SE)	Male %	BMI Mean (SE)	White %	Self-efficacy (strength) ^a Mean (SE)	Self-efficacy (endurance) ^a Mean (SE)
3	72.7 (0.37)	45.5	28.6 (0.24)	91.0	4.3 (0.06)	4.1 (0.08)
2	73.2 (0.48)	45.9	29.9 (0.31)	86.2	4.1 (0.09)	3.7 (0.10)
1	74.8 (1.10)	52.4	29.6 (0.71)	85.7	3.1 (0.19)	3.3 (0.23)
p-value	0.20	0.83	0.005	0.40	<0.0001	0.0001

- Individuals with low baseline self-efficacy, no PA, and a Short Form 36 PF subscale score < 65 did **not benefit from the intervention.**
- Parallels with recent review: older adults & those with pain/fatigue

Challenges of implementing interventions



The screenshot shows a research article interface. On the left is a vertical sidebar with four icons: a document icon labeled 'Article Text', an information icon labeled 'Article info', a thumbs-up icon labeled 'Citation Tools', and a share icon labeled 'Share'. The main content area is titled 'Oncology Research' and features a red PDF icon in the top right corner. The article title is 'Feasibility study to assess the delivery of a lifestyle intervention (TreatWELL) for patients with colorectal cancer undergoing potentially curative treatment'. Below the title, the authors are listed: 'Maureen Macleod¹, Robert J C Steele¹, Ronan E O'Carroll², Mary Wells³, Anna Campbell⁴, Jacqui A Sugden¹, Jackie Rodger¹, Martine Stead⁵, Jennifer McKell⁵, Annie S Anderson¹'. At the bottom of the article preview, there is a link for 'Author affiliations'.

- Gatekeeping by NHS staff
- Adhering to protocol

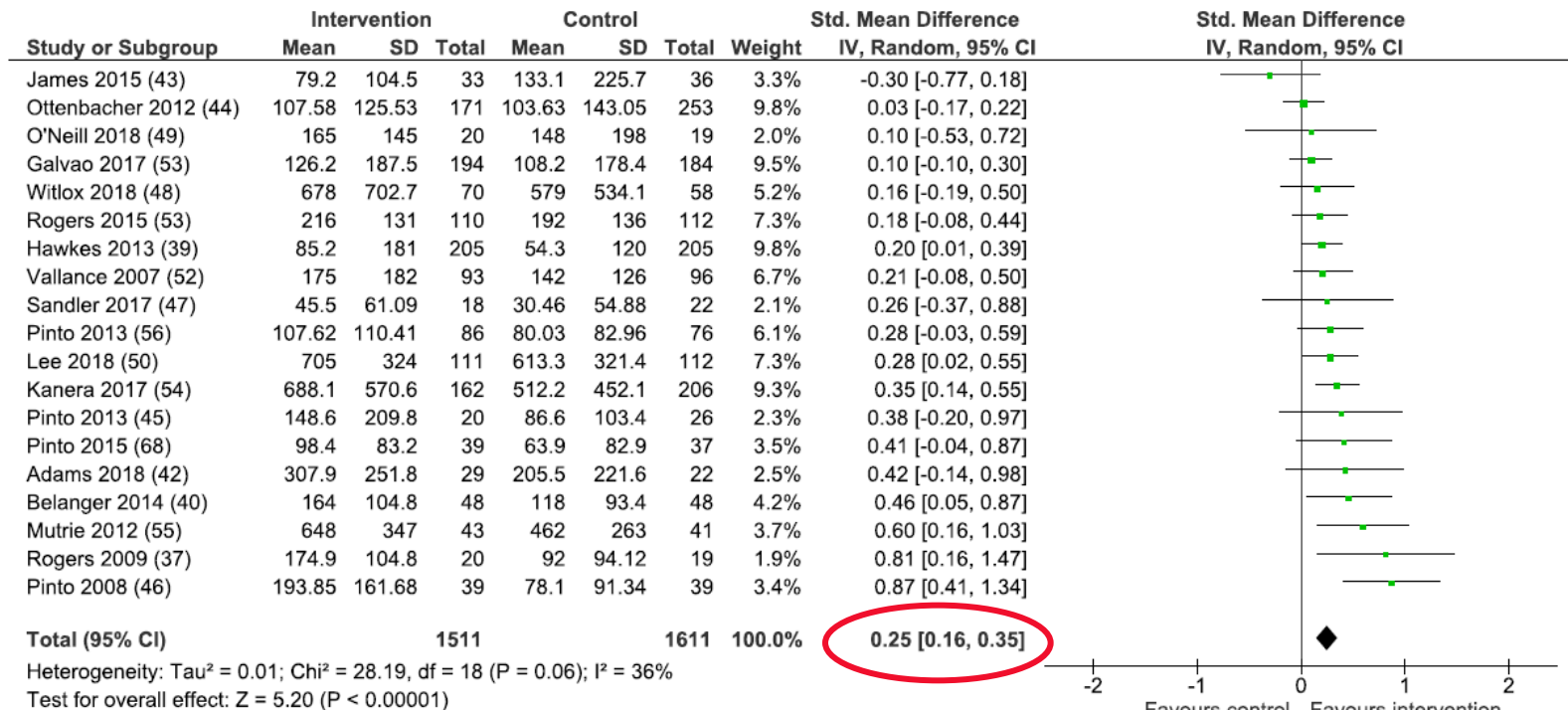
When should we be intervening?

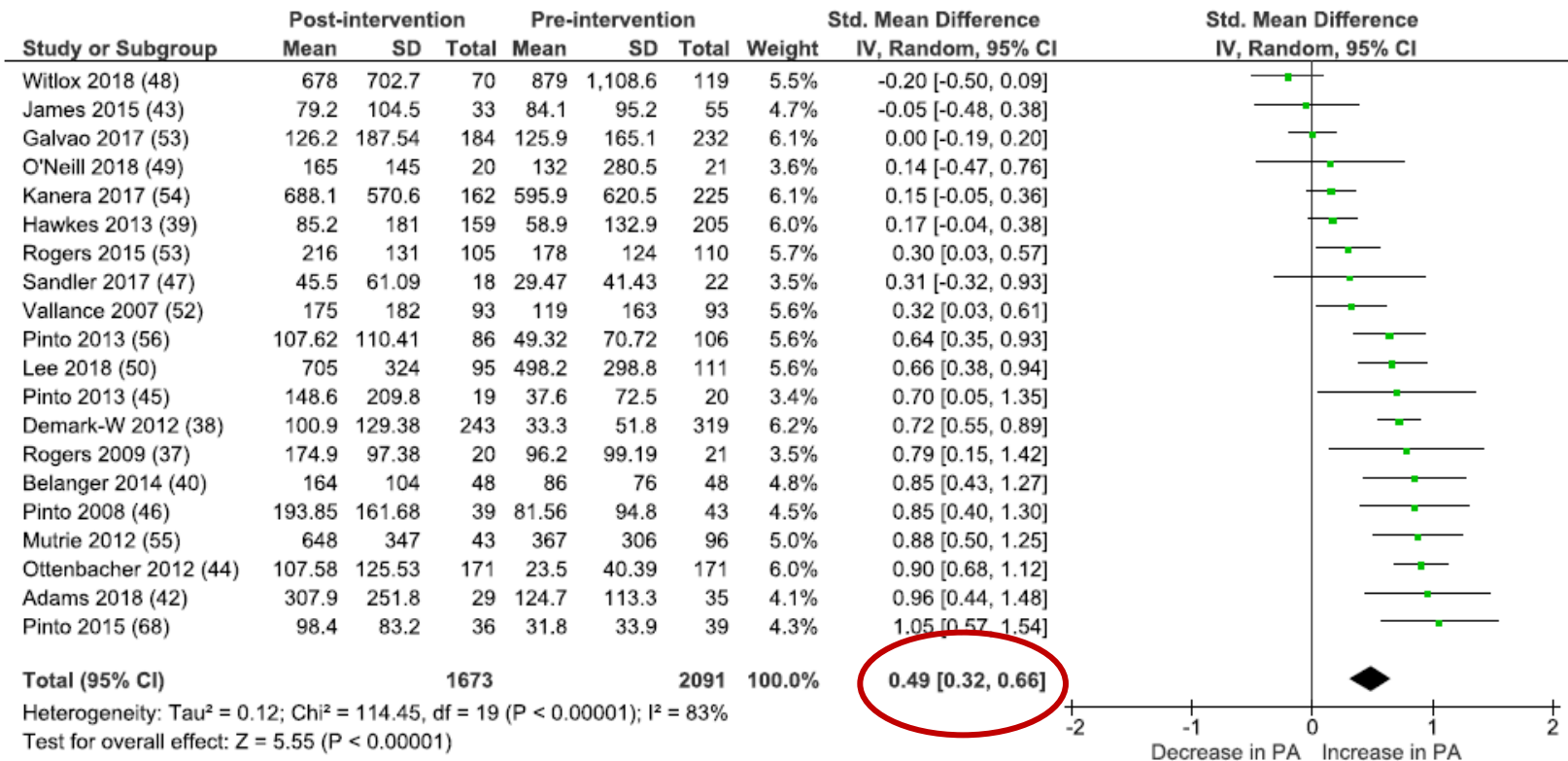
People benefitting from existing interventions:

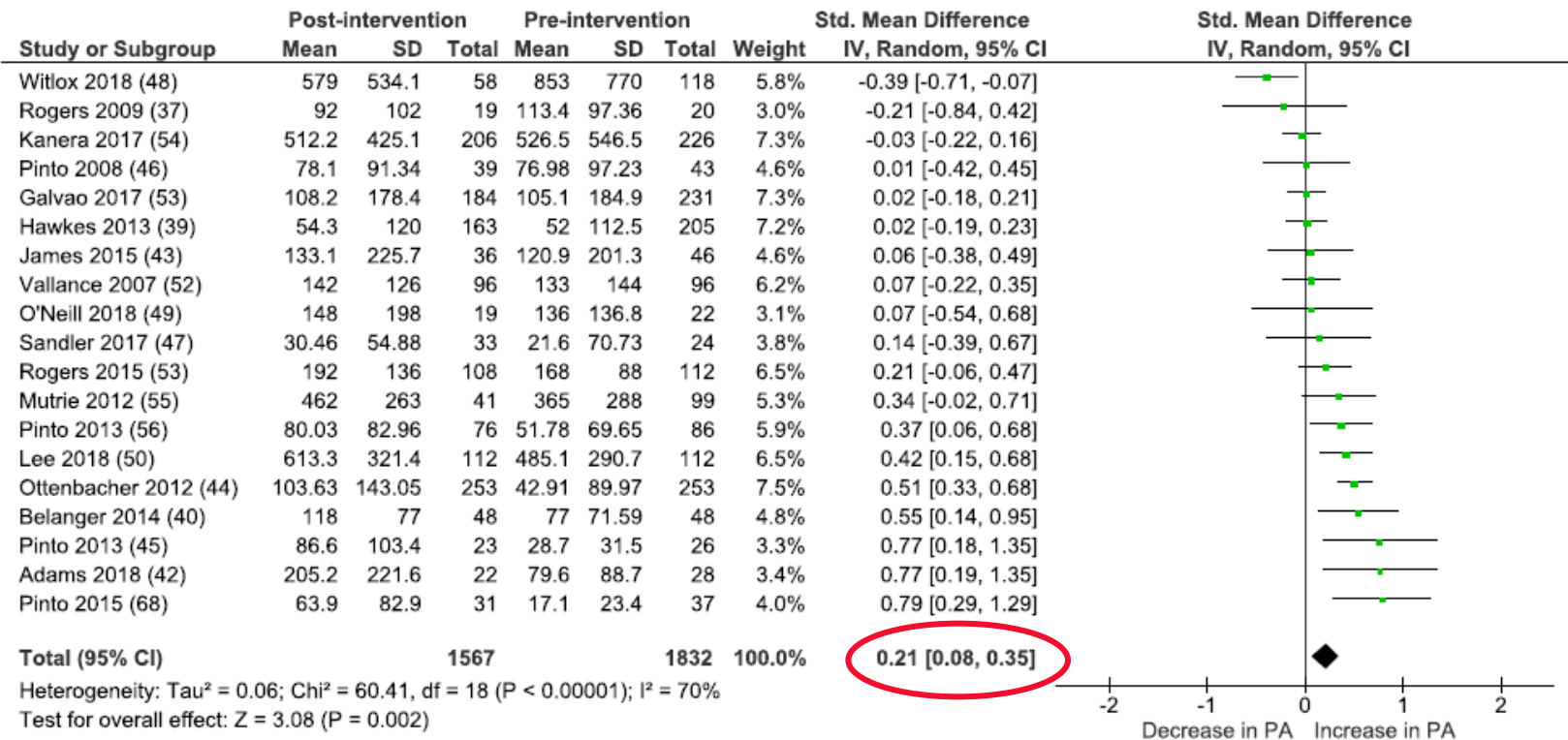
- Female
- Not ‘old’
- High level of education
- Have few comorbidities
- Good physical function
- Already engage in some PA

We risk excluding those in most need of effective support

Are RCTs the 'best' design?









- We need evidence but we risk excluding a significant proportion of people affected by cancer in our trials
- Interventions need to be achievable
- Clearly report intervention components and characteristics
- Debate best time to intervene
- Look beyond RCTs