

A systematic review of the effectiveness of Acceptance & Commitment Therapy (ACT)

for body image dissatisfaction & weight stigma in adults

Catrin Griffiths, Fabio Zucchelli, Heidi Williamson, Nicole Paraskeva, Tim Moss

Centre for Appearance Research, University of the West of England

BACKGROUND

- 61 – 93% of adults ashamed/unhappy with aspects of their appearance.
- Body image dissatisfaction (BID) associated with anxiety, depression, low self-esteem & disordered eating (e.g. crash-diets, laxative/diet pill use, purging; Stice, 2002).
- Body figure ideals becoming more extreme (female thin ideal & male muscular ideal increasing), but rates of obesity increasing (www.World Obesity.org).
- Overweight individuals at risk of BID & weight stigma (related to isolation, depressive/psychiatric symptoms, binge eating, Lillis et al., 2011).
- Calls for BID to be recognised as a public health concern that needs prioritising (Bucchianeri & Newmark-Sztainer, 2014).
- Body image inflexibility (i.e. psychological inflexibility towards appearance-related cognitions & emotions) associated with unhelpful coping strategies in response to BID (Mancuso, 2016) & weight stigma (Lillis et al, 2011).
- ACT with its focus on increasing psychological flexibility presents a viable approach to improving BID (Cash, 2011) & review by Manlick et al (2012) indicated growing support for ACT to target BID in patients with eating disorders.
- Is ACT effective for reducing BID &/or weight stigma** in people without a formal eating disorder?



AIMS OF THE STUDY

To identify, evaluate the quality & comment on the effectiveness of ACT interventions for body image &/or weight stigma in adults who do not have a clinical eating disorder.

METHOD

Computerised & manual bibliographic searches of ProQuest, Cochrane, EBSCO & Web of Science.

Search terms:

“acceptance” OR “defusion” & “body” OR “appearance” OR “weight” OR “shape” OR “eating” OR “visible difference*” OR “disfigure*” OR “overweight” OR “obesity” OR “obese”.



Eligibility criteria:

- Adult participants (over 18 years old).
- Received an ACT intervention, individually or in a group, via single or multiple sessions;
- Provided by a clinician or researcher in a hospital, community or university setting.
- Includes a control group (either treatment as usual, waiting list or no instruction control).
- Quantitative outcome measure that assessed body dissatisfaction or weight stigma (either post-intervention or longer follow-up).
- Published or unpublished studies in English from when records began to October 2016.

Data extraction

Two reviewers extracted data which included study design, the country in which the study was conducted in & participant demographics.

Quality assessment

The quality of studies in the review was assessed using the Cochrane Risk of Bias tool. Two review authors assessed the quality of the studies. Disagreements were resolved through discussion & both authors double-checking papers.

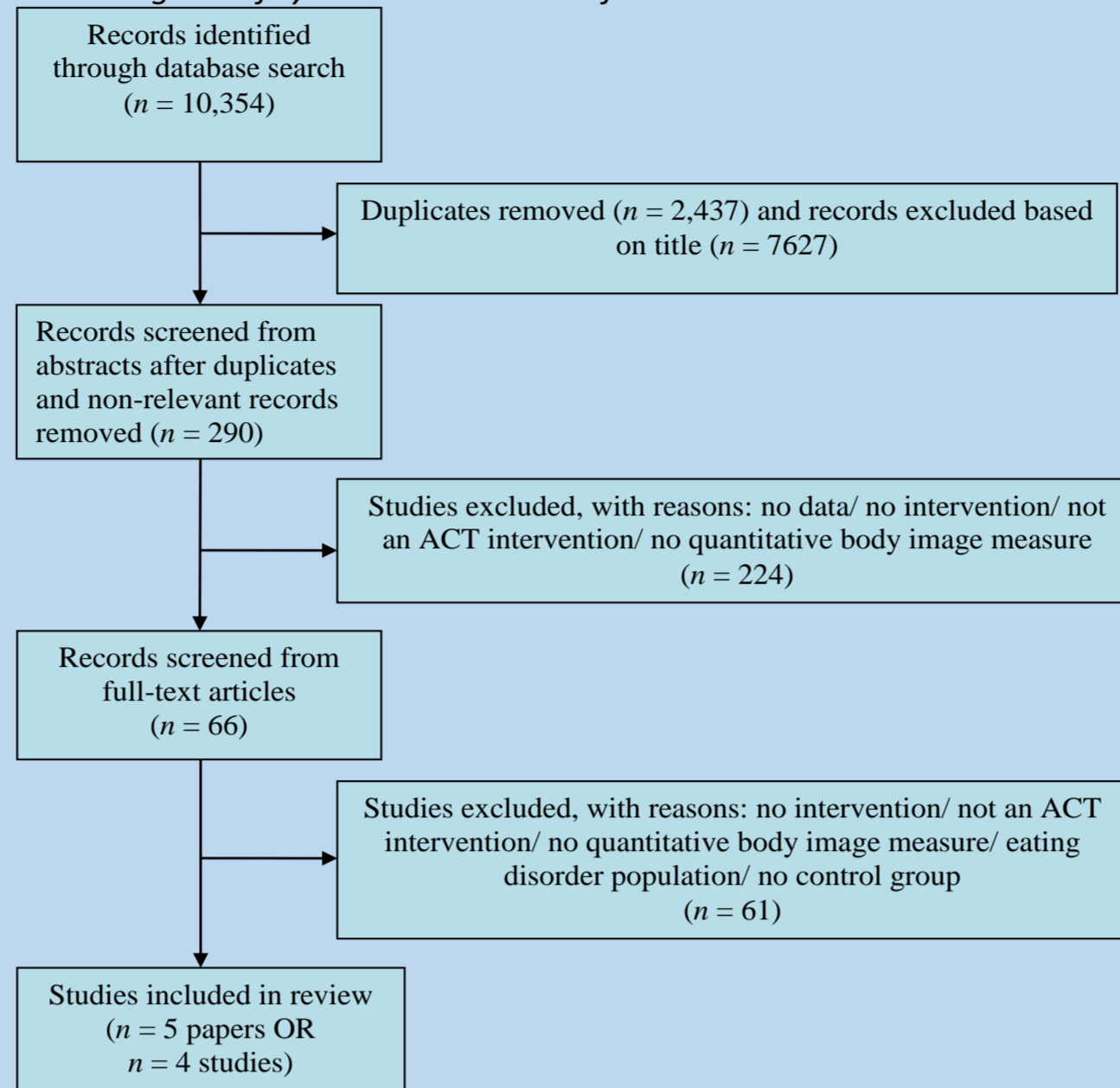


CONTACT INFORMATION

Catrin Griffiths: catrin.griffiths@uwe.ac.uk

FINDINGS

Flow diagram of systematic selection of articles in the review



Study characteristics

- 3 conducted in U.S. (Fletcher, 2011; Lillis et al., 2009; Pearson, et al, 2012); 1 in Sweden (Weinland et al, 2012a&b).
- Incorporated 268 participants (244 females), published between 2009 & 2012 (Fletcher = doctoral thesis).
- Majority Caucasian.
- Average BMI across studies = 31.25, low end of obese category (range 22.38 – 38.01).
- 2 included participants attending weight-loss program (Fletcher; Lillis et al.), 1 recruited bariatric surgery patients post-surgery (Weinland et al.) & 1 enrolled women dissatisfied with their bodies (Pearson et al).

Types of interventions

- ACT programme based on Hayes et al ‘s (1999) manual delivered face-to-face by ACT therapists (Weinland et al combined face-to-face & online).
- Weinland et al. used treatment as usual, others used wait-list control.
- 3 studies = 1-day workshops; Weinland et al = 8 weekly sessions.

Primary outcome measures

- Pearson et al:** Physical Appearance State & Trait Anxiety Inventory–State Version; Preoccupation with Eating; Weight & Shape Scale.
- Weinland et al:** Weight & shape concerns subscales from Eating Disorders Examination Questionnaire; Body Shape Questionnaire short version.
- Lillis et al. & Fletcher:** Weight Stigma Questionnaire, designed by Lillis et al.

Process measures

- Pearson et al; Lillis et al; Weinland et al:** Acceptance and Action Questionnaire for Weight.

Timing of measures

- Fletcher:** pre, 1-week & 3-months post-intervention.
- Lillis et al:** pre, & 3-months post-intervention.
- Pearson et al:** pre, 1- & 2-week post-intervention.
- Weinland et al:** pre, immed. & 6 months post.

Quality assessment

Risk of bias of individual studies using the Cochrane risk of bias tool

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias) (patient-reported)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other sources of bias – significant differences between intervention and control groups in baseline measures
Lillis et al. (2009)	●	●	●	●	●	●	●
Fletcher (2011)	●	●	●	●	●	●	●
Pearson et al. (2012)	●	●	●	●	●	●	●
Weinland et al. (2012a; 2012b)	●	●	●	●	●	●	●

Figure 2. The risk of bias of individual studies using the Cochrane risk of bias tool

N.B. ● = quality criteria satisfied, ● = quality criteria not satisfied, ? = insufficient information in paper or in correspondence with author if quality criteria satisfied

FINDINGS

General findings

- Heterogeneity rendered meta-analysis unsuitable.
- Analyses of changes in post-treatment outcome measures of body dissatisfaction and weight stigma: 3 studies showed significant effect of ACT compared to control, with reported Cohen’s d effect sizes ranging from medium to large ($d = 0.68 - 1.27$) & partial eta squared effect sizes ranging from medium to large ($\eta^2 = 0.12 - 0.17$). Fletcher found non-significant trend for reduced weight self-stigma post-intervention compared to control ($p = .074$) & no significant difference at 3 months.
- Effects of ACT on body dissatisfaction (BID)** Person et al. & Weinland et al. found medium & large significant improvements on measures of BID compared to control.
- Effects of ACT on weight stigma** in overweight and obese adults. Lillis et al. found ACT group lost significantly more weight & large positive effect on weight-related stigma compared to control (weight loss not responsible for reduction in weight stigma).
- Process variables** assessed in 3 studies: improvements in weight-specific psychological flexibility significantly mediated improvements in body image. Also, in the 2 studies that measured general ACT processes, both showed that improvements in general ACT processes also mediated improvements in body image.

DISCUSSION

- ACT might be a promising approach for improving body image and weight-stigma, with data supporting the role of psychological flexibility and indicating that online as well as face-to-face delivery & intensive as well as protracted delivery may be useful.



- BUT** more RCTs needed. Lack of research & methodological issues (small sample sizes, lack of allocation concealment, variety of comparison groups & heterogeneity of participants – mainly Caucasian women) prevent conclusions being drawn to wider population (& men!)
- WHAT NEXT** ACT studies to include both general and weight/appearance-related measures of psychological flexibility to allow for thorough investigation of ACT processes on intervention effects.
- Explore effectiveness of acceptance-based interventions for BID in children or teenagers, & those with appearance-altering condition / injury.
- Explore whether exclusively online delivery of ACT programme could be effective for improving body image dissatisfaction

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