Behavioural weight management interventions for postnatal women

Ferguson, Janice; Daley, Amanda; Parretti, Helen

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Behavioural weight management interventions for postnatal women: a systematic review of systematic reviews of randomised controlled trials

Janice A. Ferguson[1], Amanda J. Daley[1, 2] and Helen M. Parretti[1]

1 Institute of Applied Health Research, University of Birmingham, Birmingham, B15 2TT, UK

2 School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, LE11 3TU, UK

Supplementary Information

Example search strategy

1 postnatal.mp.
2 postpartum.mp.
3 exp mother/ or post-pregnancy.mp. or exp puerperium/
4 1 or 2 or 3
5 (weight fluctuation or body weight management or weight or weight gain or weight control or weight change or weight or weight reduction or weight loss program).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
6 (body mass index or body mass).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
7 (body weight or physical activity).mp. or exp exercise/ or exp physical activity/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
8 (exercise or aerobic exercise).mp. or exp exercise/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
9 obesity.mp. or exp maternal obesity/ [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
10 (overweight or obesity).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word]
11 exp diet restriction/ or exp diet therapy/ or exp diet/ or exp low fat diet/
12 exp intervention study/
13 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14 4 and 13
15 exp systematic review/
16 meta analysis/
17 15 or 16
18 14 and 17

Table S1: Excluded full text papers and reasons for exclusion

Review	**Reason for exclusion**
An 2017 (S1)	Population was not postnatal women
Berger 2014 (S2)	No response from authors when contacted with data enquiry
Elliott-Sale 2017 (S3)	No methodology reported
Evenson 2014 (S4)	Not a systematic review with a summary of weight related data reported only from RCTs
Falivene 2017 (S5)	Not a systematic review with a summary of weight related data reported only from RCTs
Fowles 2012 (S6)	Focus of review was on interventions for health promotion and not specifically weight management
Hanson 2017 (S7)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs
Harrison 2016 (S8)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs
Hoedjes 2010 (S9)	No summary of weight related data reported only from RCTs
Jongen 2014 (S10)	No summary of weight related data
Keller 2008 (S11)	No summary of weight related data
Malouf 2014 (S12)	Did not compare effectiveness of weight management interventions
Moredich 2014 (S13)	Population were not exclusively postnatal women
Nagl 2015 (S14)	No summary of weight related data reported only from RCTs
Netting 2014 (S15)	No summary weight related data
Neville 2014 (S16)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs
Peacock 2014 (S17)	No summary of weight related data
Rawdin 2014 (S18)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs
Saligheh 2017 (S19)	No summary of weight related data reported only from RCTs
Sikorski 2014 (S20)	Abstract only, full paper unavailable
Spencer 2015 (S21)	Protocol
Tanensapf 2011(S22)	Population were not exclusively postnatal women
Teychenne 2013 (S23)	No summary of weight related data
Van der Pligt 2013 (S24)	No summary of weight related data reported only from RCTs
Walker 2007 (S25)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs
Weaver 2008 (S26)	Not a systematic review of RCTs with a summary of weight related data reported only from RCTs

Table S2: RCTs in the included systematic reviews with weight-related data

	Kuhlmann (2008)	**Amorim (2013)**	**Choi (2013)**	**Elliott-Sale (2014)**	**Nascimento (2014)**	**Lim (2015)**	**Guo (2016)**	**Sherifali (2017)**	**Lau (2017)**
Bertz 2012 (S27)				Sweden	Sweden	Sweden			Sweden
Cheung 2011 (S28)							Australia		
Colleran 2012 (S29)					USA	USA		USA	USA
Craigie 2011 (S30)		UK	UK		UK				
Davenport 2011 (S31)					Canada				
deRosset 2013 (S32)						USA			
Dewey 1994 (S33)		USA			USA	USA			
Herring 2014 (S34)								USA	USA
Hu 2012 (S35)							China		
Huang 2011 (S36)		Taiwan				Taiwan			
Kearney 2006 (S37)		USA				USA			
Kim 2012 (S38)							USA	USA	
Krummel 2010 (S39)		USA							
LeCheminant 2014 (S40)						USA			
Leermakers 1998 (S41)	USA	USA			USA	USA			
Lovelady 2000 (S42)		USA	USA		USA	USA			
Lovelady 2009 (S43)		USA				USA			
Maturi 2011 (S44)				Iran					
McCrory 1999 (S45)		USA				USA			
McIntyre 2012 (S46)					Australia	Australia	Australia		
Nicklas 2014 (S47)						USA		USA	
Østbye 2009 (S48)		USA	USA		USA	USA			
O'Toole 2003 (S49)	USA	USA			USA	USA			
Reinhardt 2012 (S50)						Australia	Australia		
Shek 2014 (S51)						China	China		
Shyam 2013 (S52)							Malaysia		
Stendell-Hollis 2013 (S53)						USA			
Tripette 2014 (S54)						Japan			
Walker 2012 (S55)			USA		USA	USA			
Wein 1999 (S56)							Australia		
Wiltheiss 2013 (S57)						USA			
Youngwanichsetha 2013 (S58)						Thailand			
Zourladani 2011 (S59)						Greece			

Table S3: Quality Assessment of the included reviews using the AMSTAR tool

1. Was an "a priori" design provided?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	No
Choi 2013 (33)	No
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	No
Nascimento 2014 (35)	Yes
Guo 2016 (39)	No
Lau 2017 (38)	Yes
Sherifali 2017 (37)	No
2. Was there duplicate study selection and data extraction?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	Can't answer
Elliott-Sale 2015 (32)	No
Nascimento 2014 (35)	Can't answer
Guo 2016 (39)	No
Lau 2017 (38)	Can't answer
Sherifali 2017 (37)	Yes
3. Was a comprehensive literature search performed?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	Yes
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes
Guo 2016 (39)	Yes
Lau 2017 (38)	Yes
Sherifali 2017 (37)	Yes
4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	No
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	No
Guo 2016 (39)	No
Lau 2017 (38)	Yes
Sherifali 2017 (37)	No
5. Was a list of studies (included and excluded) provided?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	No
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	Yes
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes

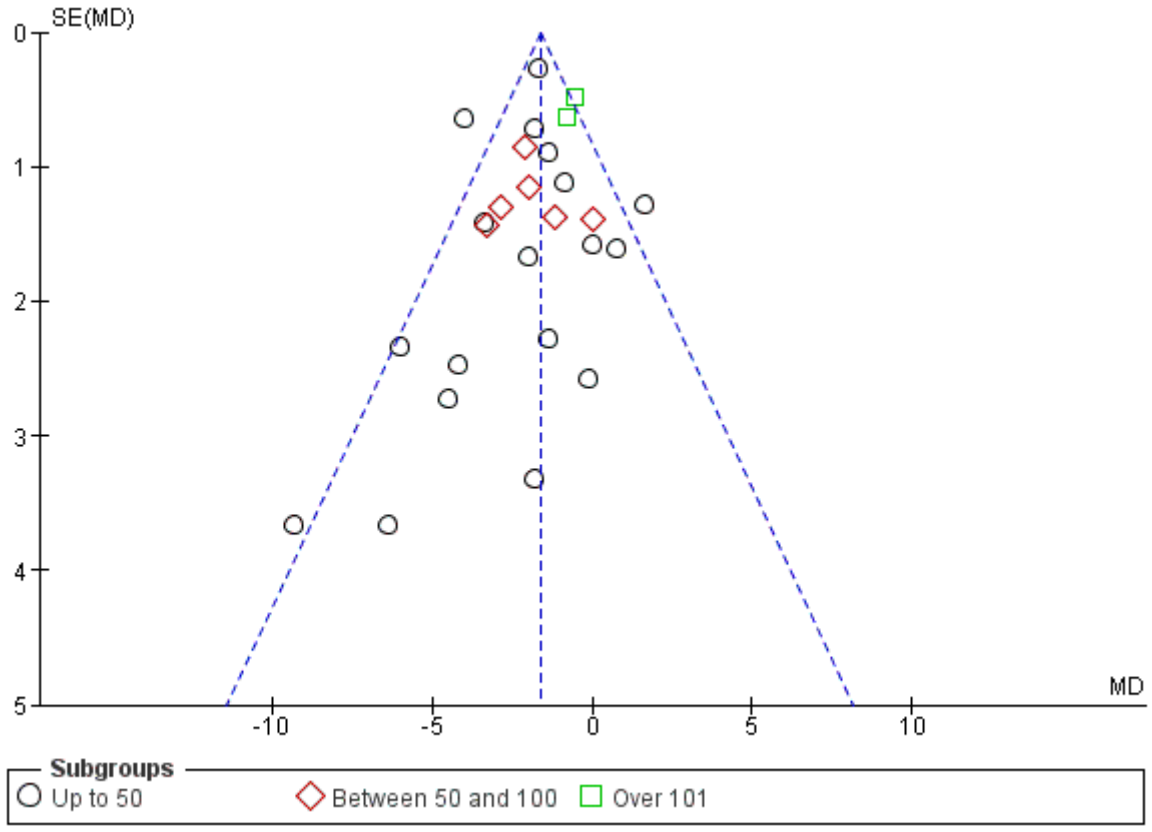
Guo 2016 (39)	No
Lau 2017 (38)	No
Sherifali 2017 (37)	No
6. Were the characteristics of the included studies provided?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	Yes
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes
Guo 2016 (39)	Yes
Lau 2017 (38)	Yes
Sherifali 2017 (37)	Yes
7. Was the scientific quality of the included studies assessed and documented?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes
Guo 2016 (39)	Yes
Lau 2017 (38)	Yes
Sherifali 2017 (37)	Yes
8. Was the scientific quality of the included studies used appropriately in	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes
Guo 2016 (39)	Yes
Lau 2017 (38)	Yes
Sherifali 2017 (37)	Yes
9. Were the methods used to combine the findings of studies appropriate?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	Yes
Kuhlman 2009 (31)	Not applicable
Elliott-Sale 2015 (32)	Yes
Nascimento 2014 (35)	Yes
Guo 2016 (39)	Not applicable
Lau 2017 (38)	Yes
Sherifali 2017 (37)	Yes
10. Was the likelihood of publication bias assessed?	
Amorim 2013 (36)	No
Lim 2015 (34)	Yes
Choi 2013 (33)	No
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	No

Nascimento 2014 (35)	Yes
Guo 2016 (39)	No
Lau 2017 (38)	Yes
Sherifali 2017 (37)	No
11. Was the conflict of interest included?	
Amorim 2013 (36)	Yes
Lim 2015 (34)	Yes
Choi 2013 (33)	No
Kuhlman 2009 (31)	No
Elliott-Sale 2015 (32)	No
Nascimento 2014 (35)	No
Guo 2016 (39)	No
Lau 2017 (38)	No
Sherifali 2017 (37)	No

Table S4: RCTs with weight related data, but excluded from the mega meta-analysis

Original Study	Reason excluded from meta-analysis
Cheung 2011 (S28)	Had BMI data only
Davenport 2011 (S31)	Did not randomise the control group, they were matched to the intervention groups by age, parity and BMI.
deRosset 2013 (S32)	Had BMI data only
Hu 2012 (S35)	Had BMI data only
Huang 2011 (S36)	No baseline postnatal weight data
Kearney 2006 (S37)	No baseline postnatal weight data
LeCheminant 2014 (S40)	Compared resistance training to an active comparison group (flexibility training)
McCrory 1999 (S45)	Intervention too short (11 days)
Shek 2014 (S51)	Had BMI data only
Stendell-Hollis 2013 (S53)	Compared two types of diet (MyPyramid vs a Mediterranean-type diet)
Wein 1999 (S56)	Had BMI data only

Figure S1: Funnel plot of RCTs with weight related data



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