Supplementary materials

**PubMed Search**

Using mesh terms

Population

Health personnel

Intervention

Health promotion OR

Health communication OR

Health education

Outcome

Exercise

Life Style

**Web of Science Search**

**TOPIC:** (“Health professional” OR “Health practitioner” OR “Health personnel” OR Anaesthetist OR Audiologist OR Chiropractor OR Dentist OR Dietician OR Dietitian OR “General practitioner” OR Doctor Gynaecologist OR “Health visitor” OR Midwife OR Nurse OR Obstetrician OR Ophthalmologist OR Optician OR Osteopath OR Paediatrician OR Pathologist OR Pharmacist OR Psychiatrist OR Psychologist OR Radiologist OR “Social Worker” OR “Speech therapist” OR “Language therapist” OR Surgeon OR Physician OR “Primary care” OR “Secondary care”) *AND* **TOPIC:** ("Health Information" OR "Health Advice" OR "Health Intervention" OR "Service provision" OR "Behavior change" OR "behaviour change" OR "lifestyle intervention" OR Counselling OR "Health Communication" OR "Health Promotion" OR "Health education") *AND* **TOPIC:** (Diet OR Nutrition OR Fruit OR Vegetables OR Sugar OR Fat OR Fibre OR Salt OR “Physical activity” OR Exercise OR Inactivity OR “Weight loss” OR “weight management” OR BMI OR “Body mass index” OR “Sedentary behavior” OR "Sedentary Behaviour")

Filter by review

**CINAHL**

Using mesh terms

Population

Health personnel

Intervention

Health promotion OR

Health communication OR

Health education

Outcome

Exercise

Life Style

Publication type

 Systematic review

 Literature review

**PsycInfo**

(("Health professional" or "Health practitioner" or "Health personnel" or Anaesthetist or Audiologist or Chiropractor or Dentist or Dietician or Dietitian or "General practitioner" or Doctor or Gynaecologist or "Health visitor" or Midwife or Nurse or Obstetrician or Ophthalmologist or Optician or Osteopath or Paediatrician or Pathologist or Pharmacist or Psychiatrist or Psychologist or Radiologist or "Social Worker" or "Speech therapist" or "Language therapist" or Surgeon or Physician or "Primary care" or "Secondary care" or pediatrician) and ("Health Information" or "Health Advice" or "Health Intervention" or "Service provision" or "Behav\* change" or "lifestyle intervention" or Counselling or Counseling or "Health Communication" or "Health Promotion" or "Health education")).id. and (Diet or Nutrition or Fruit or Vegetables or Sugar or Fat or Fibre or Salt or "Physical activity" or Exercise or Inactivity or "Weight loss" or “weight management” or BMI or "Body mass index" or "Sedentary behav\*").af. and (review or "meta-analysis" or synthesis).ab.

**Cochrane**

Using mesh terms

Population

Health personnel

Intervention

Health promotion OR

Health communication OR

Health education

Outcome

Exercise

Life Style

**sportdiscus**

( “Health professional” OR “Health practitioner” OR “Health personnel” OR Anaesthetist OR Audiologist OR Chiropractor OR Dentist OR Dietician OR Dietitian OR “General practitioner” OR Doctor OR Gynaecologist OR “Health visitor” OR Midwife OR Nurse OR Obstetrician OR Ophthalmologist OR Optician OR Osteopath OR Paediatrician OR Pathologist OR Pharmacist OR Psychiatrist OR Psychologist OR Radiologist OR “Social Worker” OR “Speech therapist” OR “Language therapist” OR Surgeon OR Physician OR “Primary care” OR “Secondary care” OR pediatrician ) AND ( “Health Information” OR “Health Advice” OR “Health Intervention” OR “Service provision” OR “Behavio?r change” OR “lifestyle intervention” OR Counsel?ing OR “Health Communication” OR “Health Promotion” OR “Health education” ) AND ( Diet OR Nutrition OR Fruit OR Vegetables OR Sugar OR Fat OR Fibre OR Salt OR “Physical activity” OR Exercise OR Inactivity OR “Weight loss” OR “weight management” OR BMI OR “Body mass index” OR “Sedentary behavio?r” ) AND AB ( Review OR Meta-analysis OR synthesis )

refine results to academic articles only, literature reviews and meta analyses and english

Scopus

( KEY ( {Health professional}  OR  {Health practitioner}  OR  {Health personnel}  OR  anaesthetist  OR  audiologist  OR  chiropractor  OR  dentist  OR  dietician  OR  dietitian  OR  {General practitioner}  OR  doctor  OR  gynaecologist  OR  {Health visitor}  OR  midwife  OR  nurse  OR  obstetrician  OR  ophthalmologist  OR  optician  OR  osteopath  OR  paediatrician  OR  pathologist  OR  pharmacist  OR  psychiatrist  OR  psychologist  OR  radiologist  OR  "Social Worker"  OR  "Speech therapist"  OR  "Language therapist"  OR  surgeon  OR  physician  OR  "Primary care"  OR  "Secondary care"  OR  pediatrician )  AND  KEY ( {Health Information}  OR  {Health Advice}  OR  {Health Intervention}  OR  {Service provision}  OR  {Behavior change}  OR  {behaviour change}  OR  {lifestyle intervention}  OR  counselling  OR  counseling  OR  {Health Communication}  OR  {Health Promotion} )  AND  KEY ( diet  OR  nutrition  OR  fruit  OR  vegetables  OR  sugar  OR  fat  OR  fibre  OR  salt  OR  {Physical activity}  OR  exercise  OR  inactivity  OR  {Weight loss}  OR  bmi  OR  {Body mass index}  OR  {sedentary}  OR  {Weight management} )  0 )  AND  ( LIMIT-TO ( DOCTYPE ,  "re" ) )  AND  ( LIMIT-TO ( LANGUAGE ,  "English" ) )  AND  ( LIMIT-TO ( SRCTYPE ,  "j" ) )

Figure 1: Flow of papers through review

Records identified through database searching
(*n*=1782)

## Included

## Identification

Records after duplicates removed
(*n*=1632)

## Screening

Records excluded
(*n* = 1491)

Records screened
(*n*=1632)

Full-text articles excluded, with reasons
(*n*=135)

* Not a review of weight, diet or PA (*n*=21)
* Incudes studies other than those delivered by health care professionals (*n*=49)
* Includes studies other than randomized controlled trials (*n*=17)
* Not focused on weight management or dietary / PA behaviour (*n*=26)
* Is not systematic (*n*=19)
* Unavailable as full paper (*n*=1)
* Not in English (*n*=1)
* Did not report weight, diet or PA outcomes (*n*=1)

## Eligibility

Full-text articles assessed for eligibility
(*n*=141)

Papers included in review (*n*=6)

Supplementary Table 1

*Effectiveness of Intervention by Length of Follow Up for Weight Loss / Maintenance Studies*

| **Moderator** | **Significant WL (on at least one measure), BMI or dietary behaviour (on at least one measure)** | **Non significant** | **Unclear** |
| --- | --- | --- | --- |
| Time of follow up |  |  |  |
| Up to 6 monthsWL and BMI76.92% | 3M & 6M (Brown et al., 2011) WL at 3M but not at 6M3M (Wang et al., 2012) WL3M (Anderson et al., 2006) BMI4M (Wadden et al., 2005) WL4M (Gallagher et al., 2012) BMI & WL6M (Ely et al., 2008) WL6M (Martin et al., 2008) WL6M (Wadden et al., 2011 – brief lifestyle) WL6M (Tsai et al., 2010) WL6M (Leemrijse et al., 2016) BMI |  | 6M (Logue et al., 2005) unclear if WL sig6M (Andryukhin et al., 2010) BMI sig but measured as no in each cond with positive changes6M (van der Veen et al., 2002) unclear if WL & BMI sig at 6m |
| 7-12 monthsWL and BMI41.38% | 7M (Alkon et al., 2014) BMI9M & 12M (Martin et al., 2008) WL at 9M but not at 12M12M (Ashley et al., 2001) WL12M (Christian et al., 2011) WL & 5% BODY WEIGHT12M (Kumanyika et al., 2012) number with 5% BODY WEIGHT at 12m but WL non sig12M (Ockene et al., 1999 – physician training + office support) WL12M (Poston et al., 2006) WL12M (ter Bogt et al., 1999; 2011) WL 12M (Wright et al., 2013 – girls) BMI12M (Sacerdote et al., 2006) BMI but not WL12M (Andrews et al., 2011) WL and BMI12M (Coppell et al., 2010) BMI but not WL | 12M (Alli et al., 1992) WL12M (Cohen et al. 1991) WL12M (Tsai et al., 2010) WL12M (Wadden et al., 2005) WL12M (Brown et al., 2014) WL12M (Fulkerson et al., 2015) BMI12M (Wright et al., 2013 – boys) BMI12M (Salkeld et al., 1997 – video) WL & BMI12M (Salkeld et al., 1997 – video + self help) WL & BMI12M (Wilson et al., 2016) BMI & WL12M (Beresford et al., 1997) WL & BMI12M (van der Veen et al., 2002) WL & BMI 12M (Ockene et al., 1999 – physician training) WL12M (Huang et al., 2010) BMI12M (Franz et al., 1995) WL and BMI | 12M (Christian et al.; 2008) WL sig but measure was lost 6lbs or more; BMI, and WC non sig12M (Logsdon et al., 1998) WL sig but measure was no who lost 5lbs or more |
| 12+ monthsWL & BMI42.86% | 24M (Appel et al., 2011 – in person support) WL & 5% BODY WEIGHT24M (Appel et al., 2011 – remote support) WL & 5% BODY WEIGHT24M (Hauptman et al., 2000) WL24M (Wadden et al., 2011 – enhanced lifestyle) WL but unclear if 5% BODY WEIGHT sig24M (Drevenhorn et al., 2012) BMI24M (Lemon et al., 2014) WL & BMI | 18M (Martin et al., 2008) WL 24M (Logue et al., 2005) WL 24M (Wadden et al., 2011 – brief lifestyle) 5% BODY WEIGHT24M (Hesselink et al., 2015) WL & BMI24M (Fulkerson et al., 2015) BMI24M (Kokkvoll et al., 2015) BMI36M (ter Bogt et al., 2009; 2011) WL 30M (Vermunt et al., 201; 2012) WL & BMI |  |
| 7-12 monthsDIET BEHAVIOUR44.00% | 12M (Ockene et al., 1999 – physician training + office support) FAT but not FIBRE12M (Beresford et al., 1997) FAT & FIBRE12M (van der Veen et al., 2002) FAT but not clear if ENERGY INTAKE sig12M (Sacerdote et al., 2006) FRUIT & VEG, OLIVE OIL, FISH & FAT | 12M (Logsdon et al., 1998) DIETARY INTAKE12M (Christian et al.; 2008) DIETARY INTAKE 12M (Ockene et al., 1999 – physician training) FIBRE & FAT12M (Salkeld et al., 1997 – video) FAT12M (Salkeld et al., 1997 – video + self help) FAT |  |
| 12+ monthsDIET BEHAVIOUR |  | 18M (Martin et al., 2008) DIETARY INTAKE |  |
| Unspecified time frame20% | (Hacihasaoglu et al., 2011 – medication compliance + education) BMI | (Valve et al., 2013) BMI(Goodman et al. 2008) BMI (Hacihasaoglu et al., 2011 – medication adherence and questions) BMI (Usher et al., 2013) WL & BMI |  |

Supplementary Table 2

*Effectiveness of Intervention by Sample Characteristics for Weight Loss / Maintenance Studies*

| **Moderator** | **Significant** **In one WL or BMI measure at any time point**  | **Non significant****On any WL measure or BMI at any time point** | **Unclear** |
| --- | --- | --- | --- |
| Gender |  |  |  |
| Sample with < 25% females25% | 19% (Leemrijse et al., 2016) BMI at 6m | 0% (Wright et al., 2013 - boys) BMI at 12m (boys only)5.9% (Wilson et al., 2016) WL and BMI at 12m18.7% (Goodman et al., 2008) BMI at non specified time |  |
| Sample with 25% to 50% females44.44% | 35% (Andrews et al., 2011) WL and BMI at 12m41% (Gallagher et al., 2012) WL and BMI at 4m45% (Brown et al., 2011; 2014) WL at 3m, NS at 6m & 12m46% (Alkon et al., 2014) BMI at 7m | 46.7% (Hesselink et al., 2015) WL and BMI at 24m47% (Usher et al. 2013) WL and BMI at unspecified time48% (Fulkerson et al., 2015) BMI at 12m and 24m48.74% (Salkeld et al., 1997 – video intervention) WL & BMI at 12m 48.74% (Salkeld et al., 1997 – video intervention + self help) WL & BMI at 12m  |  |
| Sample with 51% to 75% females43.75% | 52% (Hacihasaoglu et al., 2011 – med compliance + education) BMI at unspecified time 52% (ter Bogt et al., 2009; 2011) WL at 12m but ns at 36m56% (Ockene et al., 1999 – physician training + office support) – WL at 12m 59% (Coppell et al., 2010) BMI at 12m but not WL67% (Lemon et al., 2014) WL and BMI at 24m68.3% (Wang et al., 2012) WL at 3m72% (Hauptman et al., 2000) WL at 24m | 52% (Hacihasaoglo et al., 2011 – med adherence + questions) BMI at unspecified time 54% (Kokkvoll et al., 2015) BMI at 24m55% (Franz et al., 1995) BMI and WL at 12m56% (Ockene et al., 1999 – physician training only) WL at 12m66% (Huang et al.,2010) BMI at 12m68.4% (Christian et al., 2011) WL at 12m68% (Logue et al., 2005) unclear if sig WL at 6m, non sig at 12m | 69.4% (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes67% (Christian et al., 2008) - non sig actual weight loss / BMI at 12m but more had over 6lbs weight loss in intervention than comparison group |
| Samples with over 75% females91.67% | 77% (Ely et al., 2008) WL at 6m79.7% (Wadden et al., 2011 – brief lifestyle) WL sig at 6m but not at 24m 79.7% (Wadden et al., 2011 – enhanced lifestyle) WL sig at 24m 80% (Wadden et al., 2005) WL at 4m but NS at 12m84.3% (Kumanyika et al., 2012) number with 5% WL at 12m but WL non sig 88% (Tsai et al., 2010) WL at 6m but not at 12m92% (Poston et al., 2006) WL at 12m100% (Martin et al., 2008) WL at 6m and 9m but not at 18m100% (Wright et al., 2013 - girls) BMI at 12m100% (Anderson et al., 2006) BMI at 3m100% (Ashley et al., 2001) WL at 12 | 100% (Valve et al., 2013) BMI @ unspecified time |  |
| Age |
| Under 24 years33.33% | 3-5 years (Alkon et al., 2014) BMI at 7m8 – 12 years (Wright et al., 2013 - girls) BMI at 12m | 10.25 (Kokkvoll et al., 2015) BMI at 24m10.3 (Fulkerson et al., 2015) BMI at 12m8 – 12 years (Wright et al., 2013 - boys) BMI at 12m19 median (17 – 21 range) (Valve et al., 2013) BMI at non specified time |  |
| 24 - 43 years83.33% | 40.4 (Ashley et al., 2001) WL at 12m41 (Poston et al., 2006) WL at 12m41.7 (Martin et al. 2008) WL at 6m but not 12m and 18m42.5 (Hauptman et al., 2000) WL at 24m43.6 (Wadden et al., 2005) WL at 4m but not at 12m | 40-69 (Logue et al., 2005) WL unclear at 6m and non sig at 24m |  |
| 44 - 65 years57% | 44.65 (Brown et al., 2011; 2014) WL at 3m but not at 6m and 12m46.7 (Wang et al., 2012) WL at 3m47.2 (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL49.3 (Ockene et al., 1999 – physician training + office support) WL at 12m49.4 (Tsai et al., 2010) WL at 6m but not at 12m49.5 (Ely et al., 2008) WL at 6m49.6 (Christian et al., 2011) WL at 12m51.9 (Wadden et al., 2011 – brief lifestyle) WL at 6m but not at 24m51.9 (Wadden et al., 2011 – enhanced lifestyle) WL at 24m 56 (ter Bogt et al., 2009; 2011) WL at 12m but not at 36m56.8 (Hacihasaoglu et al., 2011 – med compliance + education) BMI at unspecified time58 (Coppell et al., 2010) BMI but not WL at 12m55-60 years (Anderson et al., 2006) BMI at 3m60 (Andrews et al., 2011) BMI and WL at 12m60.4 (Leemrijse et al., 2016) BMI at 6m63.59 (Gallagher et al., 2012) WL and BMI at 4m | 40-69 (Logue et al., 2005) WL unclear at 6m and non sig at 24m45+ (Hesselink et al., 2015) WL and BMI at 24m46.5 (Wilson et al, 2016) WL and BMI at 12m49.3 (Ockene et al., 1999 – physician training only) WL at 12m52.17 (Salkeld et al., 1997 – video) WL and BMI at 12m 52.17 (Salkeld et al., 1997 – video + self help) WL and BMI at 12m 56 (Franz et al., 1995) WL and BMI at 12m56.8 (Hacihasaoglu et al., 2011 – med adherence + questions) BMI at unspecified time57 (Huang et al., 2010) BMI at 12m59.5 (Cohen et al., 1991) WL at 12m64.8 (Goodman et al., 2008) BMI at unspecified time | 53.2 (Christian et al., 2008) WL sig at 12m (but not actual WL only no who lost 6lbs only), BMI ns at 12m |
| 65 and over0% |  |  | 67 (Andryukhin et al., 2006) BMI sig at 6m but measured as no in each cond with positive changes |
| Ethnicity (% who are non-Caucasian) |
| Up to 50% non-Caucasian62.50% | 4.1% (Lemon et al., 2014) WL and BMI at 24m5% non-white (Ockene et al., 1999 – physician training + office support) WL at 12m11% (Hauptman et al., 2000) WL at 24m13% (Ely et al., 2008) WL at 6m21% (Gallagher et al., 2012) WL and BMi at 4m32% (Wadden et al., 2005) WL at 4m but not at 12m38.5% black (Wadden et al., 2011 – brief lifestyle) WL at 6m but not at 24m 38.5% black (Wadden et al., 2011 – enhanced lifestyle) WL at 24m 40.5% (Brown et al., 2011; 2014) WL at 3m but ns at 6m and 12m49.4% (Christian et al., 2011) WL at 12m | 5% non white (Ockene et al., 1999 – physician training only) WL at 12m23.9% (Wilson et al., 2016) WL and BMI at 12m27% (Logue et al., 2005) WL unclear at 6m non sig at 14m29% (Fulkerson et al., 2015) BMI at 12m29% (Usher et al., 2013) WL and BMI at unspecified time | 50% Latino (Christian et al., 2008) sig at 12m for no with over 6lbs but not actual WL |
| 51% and above non-Caucasian83.33% | 54% (Alkon et al., 2014) WL at 7m64% (Poston et al., 2006) WL at 12m65% (Kumanyika et al., 2012) no with > 5% WL sig at 12m but not actual WL80% (Tsai et al., 2010) WL sig at 6m but non sig at 12m100% (Wright et al., 2013 – girls) BMI at 12m | 100% (Wright et al., 2013 – boys) BMI at 12m |  |
| Nationality |  |  |  |
| Western Europe41.67% | Italy (Sacerdote et al., 2006) WL non sig at 12m; BMi sig at 12mSweden (Drevenhorn et al., 2012) BMI at 24mNetherlands (Leemrijse et al., 2016) BMI at 6mNetherlands (ter Bogt et al., 2009; 2011) WL at 12m but not at 36mUK (Andrews et al., 2011) BMI and WL at 12m | Italy (Alli et al., 1992) WL at 12mNorway (Kokkvoll et al., 2015) BMI at 24mFinland (Valve et al., 2013) BMI at unspecified timeUK (Goodman et al., 2008) BMI at unspecified timeNetherlands (Hesselink et al., 2015) WL and BMI at 24mNetherlands (Van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12mNetherlands (Vermunt et al., 2011; 2012) WL and BMI at 30m |  |
| Eastern Europe33.33% | Turkey (Hacihasaoglu et al., 2011 – med compliance and education) BMI at unspecified time | Turkey (Hacihasaoglu et al., 2011 – med adherence + questions) BMI at unspecified time | Russia (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| North America50% | USA (Martin et al., 2008) WL at 6m and 9m but not at 12 and 18mUSA (Ockene et al., 1999 – physician training + office support) WL at 12mUSA (Alkon et al., 2014) BMI at 7mUSA (Wright et al., 2013 – girls) BMI at 12mUSA (Brown et al., 2011; 2014) WL at 3m but ns at 6 and 12mUSA (Lemon et al., 2014) WL and BMI at 24mUSA (Hauptman et al., 2000) WL at 24mUSA (Poston et al., 2006) WL at 12mUSA (Wadden et al. 2005) WL at 4m but not at 12mUSA (Ashley et al., 2001) WL at 12mUSA (Ely et al., 2008) WL at 6m | USA (Ockene et al., 1999 – physician training only) WL at 12mUSA (Beresford et al., 1997) WL and BMI at 12mUSA (Fulkerson et al., 2015) BMI at 12m and 24mUSA (Wright et al., 2013 – boys) BMI at 12mUSA (Wilson et al., 2016) WL and BMI at 12mUSA (Cohen et al., 1991) WL at 12mUSA (Logue et al., 2005) WL unclear at 6m and non sig at 24mUSA (Franz et al., 1995) WL and BMI at 12m | USA (Christian et al.,2008) WL non sig at 12m but no of those who lost at least 6lbs sigUSA (Logsdon et al., 1989) WL at 12m but no of those who lost 5lbs or more |
| Australia / New Zealand50% | Australia (Anderson et al., 2006) BMI at 3mAustralia (Gallagher et al., 2012) WL and BMI at 4mNew Zealand (Coppell et al., 2010) BMI but not WL at 12m | Australia (Salkeld et al., 1997 - video) WL and BMI NS at 12mAustralia (Salkeld et al., 1997 – video + self help) WL and BMI NS at 12m Australia (Usher et al., 2013) WL and BMI at unspecified time |  |
| Asia50% | Taiwan (Wang et al., 2012) WL at 3m | Taiwan (Huang et al., 2010) BMI at 12m |  |
| Comorbidities |  |  |  |
| Type 2 diabetes | 100% (Andrews et al., 2011) BMI at WL at 12m100% (Coppell et al., 2010) BMI but not WL at 12m | 100% (Huang et al., 2010) BMI at 12m100% (Franz et al., 1995) WL and BMI at 12m | 100% (Christian et al., 2008) WL non sig at 12m but no of Ps over 6lb WL sig |
| Hyperlipideamia | 100% (Ockene et al., 1999 – physician training + office support) WL at 12m | 100% (Ockene et al., 1999 – physician training only) WL at 12m |  |
| Hypertension |  | 100% (Alli et al., 1992) WL at 12m100% (Cohen et al., 1991) WL at 12m |  |
| Various |  | Hyperlipidemia, hypertension or BMI >30 (Salkeld et al., 1997 -video) WL and BMIHyperlipidemia, hypertension or BMI >30 (Salkeld et al., 1997 –video + self help) WL and BMI100% with hyperlipidemia, hypertension or type 2 diabetes (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12m |  |
| Cardiac conditions | 100% Cardiac conditions (Gallagher et al., 2012) WL and BMI at 4m |  |  |
| Metabolic syndrome | 100% overweight or obese (Christian et al., 2011) WL at 12m |  |  |
| Overweight / Obese77.78% |  |  |  |
|  | 100% overweight (Martin et al., 2008) WL at 6m and 9m but not 12m and 18m100% overweight (Ockene et al., 1999 – physician training + office support) WL at 12m100% overweight or obese (Wadden et al., 2011 – brief lifestyle) WL at 6m but not 24m100% overweight or obese (Wadden et al., 2011 – enhanced lifestyle) WL at 24m100% overweight or obese (Tsai et al., 2010) WL at 6m but not at 12m100% overweight or obese (Christian et al., 2011) WL at 12m100% overweight or obese (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL | 100% overweight (Ockene et al., 1999 – physician training only) WL at 12m | 100% overweight (Christian et al., 2008) WL non sig at 12m but no of Ps over 6lb WL sig |

Supplementary Table 3

*Effectiveness of Intervention by Intervention Characteristics for Weight Loss / Maintenance Studies*

| **Moderator** | **Significant** **In one WL or BMI measure at any time point**  | **Non significant****On any WL measure or BMI at any time point** | **Unclear** |
| --- | --- | --- | --- |
| Duration |  |  |  |
| Up to 9 months65% | 1-2m (Wright et al., 2013 – girls) BMI at 12m3m (Wang et al., 2012) WL at 3m4m (Anderson et al., 2006) BMI at 3m4m (Gallagher et al., 2012) WL and BMI at 4m | 1-2m (Wright et al., 2013 – boys) BMI at 12m3m (Usher et al., 2013) WL at unspecified time |  |
|  | 6m (Wadden et al., 2011 – brief lifestyle) WL at 6m but ns at unspecified time and 24m6m (Wadden et al., 2011 – enhanced lifestyle) WL at 24m6m (Hacihasaoglu et al., 2011 – med compliance and education) BMI at unspecified time6m (Leemrijse et al., 2016) BMI at 6m6m (Ely et al., 2008) WL at 6m6m (Tsai et al., 2010) WL sig at 6m but not at 12m6m (Coppell et al., 2010) BMI but not WL at 12m7m (Alkon et al., 2014) – BMI at 7m9m (Martin et al., 2008) WL at 6m and 9m; non sig at 12m and 18m | 6m (Hacihasaoglu et al., 2011 – med adherence and questions) BMI at unspecified time6m (Wilson et al., 2016) WL and BMI at 12m6m (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12m6m (Franz et al., 1995) WL and BMI at 12m | 6m (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| 12 months and over56.25% | 12m (ter Bogt et al., 2009; 2011) WL at 12m but ns at 36m12m (Brown et al., 2011; 2014) WL at 3m but not at 6m and 12m12m (Wadden et al., 2005) WL at 4m but not at 12m12m (Poston et al., 2006) WL at 12m12m (Ashley et al., 2001) WL at 12m12m (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL12m (Andrews et al., 2011) BMI and WL at 12m24m (Drevenhorn et al., 2012) BMI at 12m24m (Hauptman et al, 2000) WL at 24m | 12m (Alli et al., 1992) WL at 12m12m (Fulkerson et al., 2015) BMI at 12m and 24m12m (Hesselink et al., 2015) WL and BMI at 24m12m (Cohen et al., 1991) WL at 12m12m (Huang et al., 2010) BMI at 12m24m (Logue et al., 2005) WL unclear at 6m and non sig at 24m | 12m (Christian et al., 2008) sig at 12m for WL of over 6lbs but not for actual WL; BMi non sig |
| Number of sessions |  |  |  |
| Under 642.86% | 1 (Sacerdote et al., 2006) BMI at 12m but not WL1 (Ockene et al., 1999 – physician training + office support) WL at 12m2 (Christian et al., 2011) WL sig at 12m4 (ter Bogt et al., 2009; 2011) WL at 12m but not 36m4 (Andrews et al., 2011)WL and BMI at 12m4-6 (Leemrijse et al., 2016) BMI at 6m | 1 (Ockene et al., 1999 – physician training) WL at 12m1 (Beresford et al., 1997) WL and BMI at 12m1 (Huang et al., 2010) BMI at 12m2 (Logue et al., 2005) WL unclear at 6m, ns at 24m1-3 (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12m3 (Franz et al., 1995) WL and BMI at 12m | 4 (Christian et al., 2008) WL sig at 12m if no of people who lost > 6lb but not actual WL1 (Logsdon et al., 1989) WL at 12m sig but no who lost 5lbs or more |
| 6 – 1061.54% | 6 (Martin et al., 2008) WL at 6m and 9m; ns at 12m6 (Hacihasaoglu et al., 2011 – med compliance and education) BMI at unspecified time6 (Wang et al., 2012) WL at 3m8 (Wadden et al., 2011 – brief lifestyle) WL at 6m; not at 24m8 (Wadden et al., 2011 – enhanced lifestyle) WL at 24m8 (Wadden et al., 2005) WL at 4m but not at 12m8 (Tsai et al., 2010) WL at 6m but not at 12m8 (Coppell et al., 2010) BMI but not WL at 12m | 6 (Alli et al., 1991) WL at 12m6 (Hacihasaoglu et al., 2011 – med adherence and questions) BMI at unspecified time6 (Vermunt et al., 2011; 2012) WL and BMI at 30m6 (Wilson et al., 2016) WL and BMI at 12m10 (Fulkerson et al., 2015) BMI at 12m |  |
| 10 plus60% | 12 (Wright et al. 2013 – girls) BMI at 12m12 (Poston et al., 2006) WL at 12m12 (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL14 (Anderson et al., 2006) BMI at 3m18 (Brown et al., 2011; 2014) WL at 3m but not at 6 and 12m26 (Ashley et al., 2001) WL at 12m | 10+ (Kokkvoll et al., 2015) BMI at 24m12 (Wright et al. 2013 – boys) BMI at 12m12 (Cohen et al., 1991) WL at 12m | 28 (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| Tailored |  |  |  |
| Yes | (Martin et al., 2008) WL at 6m and 9m; ns at 12m(Sacerdote et al., 2006) BMI at 12m but not WL(Drevenhorn et al., 2012) BMI at 24m(Christian et al., 2012) WL at 12m | (Valve et al., 2013) BMI at unspecified time(van der Veen et al., 2002) WL and BMI at 6m but unclear if sig; ns at 12m(Huang et al., 2010) BMI at 12m | (Christian et al., 2008) WL sig at 12m if no of people who lost > 6lb but not actual WL(Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| No |  | (Salkeld et al., 1997 – video) WL and BMI at 12m (Salkeld et al., 1997 – video + self help) WL and BMI at 12m |  |
| Setting |  |  |  |
| Clinical51.72% | GP clinic (Martin et al., 2008) WL at 6m but not at 12m or 18mGP clinic (Sacerdote et al., 2006) BMI at 12m but not WLGP clinic (Ockene et al., 1999 – physician training and office support) WL at 12mGP clinic (ter Bogt et al., 2009; 2011) WL at 12m but not at 36mClinic (Wadden et al., 2001 – brief life style) WL at 12m but not at 24mClinic (Wadden et al., 2001 – enhanced life style) WL at 24mClinic (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WLClinic (Tsai et al., 2010) WL at 6m but not 12mClinic (Christian et al., 2011) WL at 12mPrimary care (Appel et al., 2011 – in person support) WL at 24mPrimary care (Appel et al., 2011 – remote support) WL at 24m Primary care (Hauptman et al., 2000) WL at 24mHealth centre (Wang et al., 2012) WL at 3mCommunity mental health (Brown et al., 2011; 2014) WL at 3m but not at 6m and 12mPrimary care / home (Hacihasaoglu et al., 2011 – med compliance and education) BMI at unspecified time | GP clinic (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12mGP clinic (Ockene e al., 1999 – physician training only) WL at 12mGP clinic (Beresford et al., 1997) WL and BMI at 12mGP clinic (Salkeld et al., 1997 – video) WL and BMI at 12mGP clinic (Salkeld et al., 1997 – video + self help) WL and BMI at 12mGP clinic (Alli et al., 1992) WL at 12mCommunity / inpatient (Kokkvoll et al., 2015) BMI at 24mVaccination centre (Valve et al., 2013) BMI at unspecified timePrimary care / home (Hacihasaoglu et al., 2011 – med adherence and questions) BMI at unspecified timePrimary care (Hesselink et al., 2015) WL and BMI at 12mPrimary care (Vermunt et al., 2001; 2012) WL and BMI at 30m | GP clinic (Christian et al., 2008) WL sig at 12m if no of people who lost > 6lb but not actual WLPrimary care (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changesGP clinic (Logsdon et al., 1989) WL sig at 12m but no who lost 5lbs or more |
| Non clinical55.56% | Childcare centre (Alkon et al., 2014) BMI at 12mSchool (Wright et al., 2013 – girls) BMI at 12mSchool (Lemon et al., 2014) BMI at 24mTelephone (Leemrijse et al., 2015) BMI at 6mResearch centre (Poston et al., 2006) WL at 12m | Home (Fulkerson et al., 2015) BMI at 12mHome (Goodman et al., 2008) BMI at unspecified timeSchool (Wright et al., 2013 – boys) BMI at 12mWorkplace (Wilson et al., 2016) WL and BMI at 12m |  |
| Type of HCP |  |  |  |
| GP/ physician47.06% | GP (Martin et al., 2008) WL at 6m and 9m, but not at 12m and 18mGP (Sacerdote et al., 2006) BMI at 12m but not WLGP (Ockene et al., 1999 – physician training + office support) WL at 12mPhysician (Appel et al., 2011 – in person support) – WL at 24mPhysician (Appel et al., 2011 – remote support) – WL at 24mPhysician (Hauptman et al., 2000) WL at 24mPhysician (Wadden et al., 2005) WL at 4m but not at 12mPhysician (Ely et al., 2008) WL at 6m | GP (Ockene et al., 1999 – physician training) WL at 12m GP (Beresford et al., 1997) WL and BMI at 12mGP (Salkeld et al., 1997 – video) WL and BMI at 12mGP (Salkeld et al., 1997 – video + self help) WL and BMI at 12mGP (Alli et al., 1992) WL at 12mPhysician (Cohen et al 1991) WL at 12mGP (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12m | GP (Christian et al., 2008) - non sig actual weight loss / BMI at 12m but more had over 6lbs weight loss in intervention than comparison groupGP (Logsdon et al., 1989) WL at 12m sig but no who had lost over 6lbs or more |
| Nurse60% | Nurse (Alkon et al., 2014) BMI at 7mNurse (Wright et al., 2013 – girls) BMI at 12mNurse (Anderson et al., 2006) BMI at 3mNurse (Drevenhorn et al., 2012) BMI at 24mNurse (Hacihasaoglu et al., 2011 – medication compliance + education) BMI at unspecified timeNurse (Leemrijse et al., 2016) BMI at 6mNurse (Lemon et al., 2014) WL and BMI at 24mNurse practitioner (ter Bogt et al, 2009; 2011) WL at 12m but not at 36mPublic health nurse (Wang et al., 2012) WL at 3m | Nurse (Valve et al., 2013) BMI at unspecified timeNurse (Wright et al., 2013 – boys) BMI at 12mNurse (Goodman et al., 2008) BMI at unspecified timeNurse (Hacihasaoglu et al., 2011 – medication adherence + questions) BMI at unspecified timeNurse (Hesselink et al., 2015) WL and BMI at 24mMental health nurse (Usher et al., 2013) WL and BMI at unspecified time |  |
| Dietitian50% | Dietitian (Ashley et al., 2001) WL at 12mDietitian (Andrews et al., 2011) WL and BMI at 12mDietitian (Coppell et al., 2010) BMI but not WL at 12m | Dietitian (Logue et al., 2005) WL at 6m unclear if sig; ns at 24mDietitian (Huang et al., 2010) BMI at 12mDietitian (Franz et al., 1995) BMI and WL at 12m |  |
| Unspecified100% | Primary care provider (Wadden et al., 2011 – brief lifestyle) WL at 6m but not 24mPrimary care provider (Wadden et al., 2011 – enhanced lifestyle) WL at 6m but not 24mPrimary care provider (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WLPrimary care provider (Tsai et al., 2010) WL at 6m but not at 12mPrimary care provider (Christian et al., 2011) WL at 12m |  |  |
| Various37.5% | Nurse, occupational therapist, dietitian (Brown et al., 2011; 2014) WL at 3mExercise physiologist, & nurse (Gallagher et al., 2012) WL and BMI at 4mPrimary care physician, nurse & dietitian (Poston et al., 2006) WL at 12m | Nurse & dietitian (Fulkerson et al., 2015) BMI at 12mNurse & dietitian (Wilson et al., 2016) WL at BMI at 12mNurse & physiotherapist (Kokkvoll et al., 2015) BMI at 24mGP, nurse practitioner, dietitian & physiotherapist (Vermunt et al., 2001; 2012) WL and BMI at 30m | Nurse & physiotherapist (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| Comparison group |  |  |  |
| Alternative intervention52.17% | Sham intervention (Sacerdote et al., 2006) BMI at 12m but not WLSelf directed WL programme (Appel et al., 2011 – in person support) – WL at 24mSelf directed WL programme (Appel et al., 2011 – remote support) – WL at 24mInfo on hospital / community programmes (Gallagher et al., 2012) WL and BMI at 4mEducational leaflets (Lemon et al., 2014) WL and BMI at 24mIntervention programme (Wang et al., 2012) WL at 3mWeight loss counselling visits (Poston et al., 2006) WL at 12mSibutramine (Wadden et al., 2005) WL at 4m but not at 12mCounselling or visits with nurse / BP + meal replacement (Ashley et al., 2001) WL at 12mPCP training only (Ely et al., 2008) WL at 6mBasic lifestyle intervention (Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WLDietary advice (Coppell et al., 2010) BMI but not WL at 12m | Feedback on CVD risk factors + usual care (Salkeld et al., 1997 – video) WL and BMI at 12mFeedback on CVD risk factors + usual care (Salkeld et al., 1997 – video + self help) WL and BMI at 12mNewsletter (Fulkerson et al., 2015) BMI at 12mCounselling (Kokkvoll et al., 2015) BMI at 24mSexual health counselling (Valve et al., 2013) BMI at unspecified timeHealthy lifestyle booklet (Usher et al., 2013) WL and BMI at unspecified timeInfo on type 2 diabetes risk & healthy lifestyle (Vermunt et al., 2001; 2012) WL and BMI at 30mVisit with dietitian (Franz et al., 1995) BMI and WL at 12mUC and dietary principles summary (Huang et al., 2010) BMI at 12m | Health education materials (Christian et al., 2008) - non sig actual weight loss / BMI at 12m but more had over 6lbs weight loss in intervention than comparison groupBasic education (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| Usual care57.14% | UC (Martin et al., 2008) WL at 6m and 9m, but not at 12m and 18mUC (Ockene et al., 1999 – physician training + office support) WL at 12mUC (Wadden et al., 2011 – brief lifestyle) WL at 6m but not 24mUC (Wadden et al., 2011 – enhanced lifestyle) WL at 6m but not 24mUC (Brown et al., 2011; 2014) WL at 3mUC (Drevenhorn et al., 2012) BMI at 24mUC (Leemrijse et al., 2016) BMI at 6mUC (ter Bogt et al, 2009; 2011) WL at 12m but not at 36mUC (Tsai et al., 2010) WL at 6m but not at 12mUC (Christian et al., 2011) WL at 12mUsual school PA programme (Wright et al., 2013 – girls) BMI at 12mUC (Andrews et al., 2011) WL and BMI at 12m | UC (Logue et al., 2005) WL at 6m unclear if sig; ns at 24m UC (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12mUC (Ockene et al., 1999 – physician training) WL at 12mUC (Beresford et al., 1997) WL and BMI at 12mUC (Alli et al., 1992) WL at 12mUC (Goodman et al., 2008) BMI at unspecified timeUC (Hesselink et al., 2015) WL and BMI at 24mUC (Cohen et al 1991) WL at 12mUsual school PA programme (Wright et al., 2013 – boys) BMI at 12m | UC (Logsdon et al., 1989) WL at 12m sig but no who had lost 5lbs or more |
| Delayed intervention / measurement only60% | Delayed intervention (Alkon et al., 2014) BMI at 7mMeasurement only (Anderson et al., 2006) BMI at 3mMeasurement only (Hacihasaoglu et al., 2011 – medication compliance + education) BMI at unspecified time | Measurement only (Hacihasaoglu et al., 2011 – medication adherence + questions) BMI at unspecified timeMeasurement only (Wilson et al., 2016) WL at BMI at 12m |  |
| Placebo | (Hauptman et al., 2000) WL at 24m |  |  |
| Theory |  |  |  |
| Theory used |  | TTM (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12mSLT (Beresford et al., 1997) WL & BM at 12m |  |
| Theory not used |  |  |  |
| BCTs used |  |  |  |
| Goal setting62.5% | (Anderson et al., 2006) BMI at 3m(Brown et al., 2011; 2014) WL at 3m(Leemrijse et al., 2016) BMI at 6m(ter Bogt et al, 2009; 2011) WL at 12m but not at 36m(Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL | (Fulkerson et al., 2015) BMI at 12m(Wilson et al., 2016) WL at BMI at 12m | (Christian et al., 2008) - non sig actual weight loss / BMI at 12m but more had over 6lbs weight loss in intervention than comparison group |
| Goal review0% |  |  | (Christian et al., 2008) - non sig actual weight loss / BMI at 12m but more had over 6lbs weight loss in intervention than comparison group |
| Pharmacological support100% | (Wadden et al., 2011 – enhanced lifestyle) WL at 6m but not 24m(Drevenhorn et al., 2012) BMI at 24m(Hauptman et al., 2000) WL at 24m(Poston et al., 2006) WL at 12m (Wadden et al., 2005) WL at 4m but not at 12m |  |  |
| Action planning100% | (Anderson et al., 2006) BMI at 3m(Leemrijse et al., 2016) BMI at 6m |  |  |
| Self monitoring77.78% | (Anderson et al., 2006) BMI at 3m(Leemrijse et al., 2016) BMI at 6m(Wang et al., 2012) WL at 3m(Wadden et al., 2005) WL at 4m but not at 12m(Kumanyika et al., 2012) WL no with > 5% WL at 12m but not actual WL(Tsai et al., 2010) WL at 6m but not at 12m(Andrews et al., 2011) WL and BMI at 12m | (Vermunt et al., 2001; 2012) WL and BMI at 30m(Wilson et al., 2016) WL at BMI at 12m |  |
| Instructions0% |  |  | (Andryukhin et al., 2010) BMI sig at 6m but measured as no in each cond with positive changes |
| Feedback100% | (Brown et al., 2011; 2014) WL at 3m(Leemrijse et al., 2016) BMI at 6m(ter Bogt et al, 2009; 2011) WL at 12m but not at 36m |  |  |

Supplementary Table 4

*Effectiveness of Intervention by Quality for Weight Loss / Maintenance Studies*

| **Moderator** | **Significant WL (on at least one measure), BMI or dietary behaviour (on at least one measure)** | **Non-significant** | **Unclear** |
| --- | --- | --- | --- |
| Risk of Bias |  |  |  |
| Low58.82% | Obesity guidelines (Wadden et al., 2011 – brief lifestyle) WL at 6m but not at 24mObesity guidelines (Wadden et al., 2011 – enhanced lifestyle) WL at 24mObesity guidelines (Kumanyika et al., 2012) number with 5% BODY WEIGHT at 12m but WL non sigObesity guidelines (Tsai et al., 2010) WL at 6m but not 12mObesity guidelines (Christian et al., 2011) WL at 12mJadad 4/4 (Hacihasaoglu et al., 2011 – med enhancement + education) BMI at unspecified timeJadad 4/4 (ter Bogt et al., 2009; 2011) WL at 12m but not 36mCONSORT good (Wadden et al., 2005) WL at 4m but not at 12mCochrane low (Andrews et al., 2011) BMI and WL at 12mCochrane low (Coppell et al., 2010) BMI but not WL at 12m | QCC Overall (Beresford et al., 1997) WL & BMI at 12mJadad 4/4 (Fulkerson et al., 2015) BMI at 12mJadad 4/4 (Goodman et al., 2008) BMI at unspecified timeJadad 4/4 (Hacihasaoglu et al., 2011 – med adherence + questions) BMI at unspecified timeJadad 4/4 (Hesselink et al., 2015) WL & BMI at 24mCochrane low (Huang et al., 2010) BMI at 12m | QCC Overall / CONSORT good (Christian et al., 2008) WL sig but measure was lost 6lbs or more; BMI, and WC non sig |
| Unclear / fair / moderate47.83% | QCC Overall / CONSORT fair (Martin et al., 2008) WL sig at 6 & 9m but not at 12 & 18mQCC Overall (Sacerdote et al., 2006) BMI sig at 12m but not WLQCC Overall / fair CONSORT (Ockene et al., 1999 – physician training + office support) WL at 12mJadad 3/4 (Gallagher et al., 2012) WL & BMI at 4mJadad 3/4 (Leemrijse et al., 2016) BMI at 6mJadad 3/4 (Lemon et al., 2014) WL & BMI at 24mJadad 3/4 (Wang et al., 2012) WL at 3mCONSORT fair (Hauptman et al., 2000) WL at 24mCONSORT fair (Poston et al., 2006) WL at 12mCONSORT fair (Ashley et al., 2001) WL at 12mCONSORT fair (Ely et al., 2008) WL at 6m | QCC Overall (van der Veen et al., 2002) unclear if WL & BMI sig at 6m, WL & BMI ns at 12mQCC Overall / fair CONSORT (Ockene et al., 1999 – physician training) WL at 12mQCC Overall (Salkeld et al., 1997 – video) WL & BMI at 12mQCC Overall (Salkeld et al., 1997 – video + self help) WL & BMI at 12mQCC Overall (Alli et al., 1992) WL at 12mJadad 3/4 (Kokkvoll et al., 2015) BMI at 24mJadad 3/4 (Vermunt et al., 2011; 2012) WL & BMi at 30mCONSORT fair (Cohen et al., 1991) WL at 12mCONSORT fair (Logue et al., 2005) WL at 6m unclear if sig; ns at 24mCochrane unclear (Franz et al., 995) BMI and WL at 12m | Jadad 3/4 (Andryukhin et al., 2010) BMI sig but measured as no in each cond with positive changesQCC Overall (Logsdon et al., 1989) WL at 12m sig but no who had lost 5lbs or more |
| High55.56% | Jadad 2/4 (Alkon et al., 2014) BMI at 7mJadad 2/4 (Wright et al., 2013 – girls) BMI at 12mJadad 2/4 (Anderson et al., 2006) BMI at 3mJadad 2/4 (Brown et al., 2011; 2014) WL at 3m but not at 6mJadad 2/4 (Drevenhorn et al., 2012) BMI at 24m | Jadad 2/4 (Valve et al., 2013) BMI at unspecified timeJadad 2/4 (Wright et al., 2013 – boys) BMI at 12mJadad 1/4 (Usher et al., 2013) WL & BMI at unspecified timeJadad 1/4 (Wilson et al., 2016) WL & BMI at 12m |  |
| Not reported100% | NR (Appel et al., 2011 – in person support) WL at 12mNR (Appel et al., 2011 – remote support) WL at 12m |  |  |

The citation for the Synthesis Without Meta-analysis explanation and elaboration article is: Campbell M, McKenzie JE, Sowden A, Katikireddi SV, Brennan SE, Ellis S, Hartmann-Boyce J, Ryan R, Shepperd S, Thomas J, Welch V, Thomson H. Synthesis without meta-analysis (SWiM) in systematic reviews: reporting guideline BMJ 2020;368:l6890 <http://dx.doi.org/10.1136/bmj.l6890>

|  |
| --- |
| **SWiM is intended to complement and be used as an extension to PRISMA** |
| **SWiM reporting item** | **Item description** | **Page in manuscript where item is reported** | **Other\*** |
| *Methods* |
| **1** Grouping studies for synthesis | 1a) Provide a description of, and rationale for, the groups used in the synthesis (e.g., groupings of populations, interventions, outcomes, study design)  | 7-8 |  |
| 1b) Detail and provide rationale for any changes made subsequent to the protocol in the groups used in the synthesis | 6 |  |
| **2** Describe the standardised metric and transformation methods used | Describe the standardised metric for each outcome. Explain why the metric(s) was chosen, and describe any methods used to transform the intervention effects, as reported in the study, to the standardised metric, citing any methodological guidance consulted | 7 (definition of a successful intervention) |  |
| **3** Describe the synthesis methods | Describe and justify the methods used to synthesise the effects for each outcome when it was not possible to undertake a meta-analysis of effect estimates | 7-8 |  |
| **4** Criteria used to prioritise results for summary and synthesis | Where applicable, provide the criteria used, with supporting justification, to select the particular studies, or a particular study, for the main synthesis or to draw conclusions from the synthesis (e.g., based on study design, risk of bias assessments, directness in relation to the review question) | 6-7 |  |
| **SWiM reporting item** | **Item description** | **Page in manuscript where item is reported** | **Other\*** |
| **5** Investigation of heterogeneity in reported effects | State the method(s) used to examine heterogeneity in reported effects when it was not possible to undertake a meta-analysis of effect estimates and its extensions to investigate heterogeneity | 7-8 |  |
| **6** Certainty of evidence | Describe the methods used to assess certainty of the synthesis findings | 8-7 |  |
| **7** Data presentation methods | Describe the graphical and tabular methods used to present the effects (e.g., tables, forest plots, harvest plots).Specify key study characteristics (e.g., study design, risk of bias) used to order the studies, in the text and any tables or graphs, clearly referencing the studies included | Table 1-4; p. 9-10 |  |
| *Results* |
| **8** Reporting results | For each comparison and outcome, provide a description of the synthesised findings, and the certainty of the findings. Describe the result in language that is consistent with the question the synthesis addresses, and indicate which studies contribute to the synthesis | p. 10-12 |  |
| *Discussion* |  |  |  |
| **9** Limitations of the synthesis | Report the limitations of the synthesis methods used and/or the groupings used in the synthesis, and how these affect the conclusions that can be drawn in relation to the original review question | 14 |  |

PRISMA=Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

\*If the information is not provided in the systematic review, give details of where this information is available (e.g., protocol, other published papers (provide citation details), or website (provide the URL)).