Final version: July 2014

Maintaining a healthy weight and preventing excess weight gain in children and adults – partial update of CG43

Evidence Review 2: Qualitative evidence review of the most acceptable ways to communicate information about individually modifiable behaviours to help maintain a healthy weight or prevent excess weight gain.

Appendix E: Evidence Tables

12 Appendix E: Evidence tables

Hyperlinked quick navigation to:

UK primary studies

Non-UK systematic reviews

Table glossary:

CYP; children and young people, NFD; not further defined, NR; not reported, PA; physical activity.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Gray *et al*. 2011 **Quality Score:** ++ **Relevance score:** High relevance **UK applicability:** UK based study	**Research question/aim:** Investigate the views of people who were overweight or obese on the acceptability of weight status terms and their potential to motivate weight loss when used by health professionals. **Message/acceptability dimension discussed:** Participants views on acceptability of weight status terms (language) when used socially and when used by health professionals. **Modifiable behaviour of the message:** Language (weight status terms e.g. overweight, heavy, fat) in relation to motivation for weight loss (not further defined). **Theoretical Approach:** NR. **Data collection:** ***Method:*** Face-to-face or telephone interview ***By whom:*** NR ***Setting:*** All but 3 interviews were carried out in the home setting. 2 face-to-face interviews were conducted in university settings and 1 telephone interview was carried out whilst the person was a passenger in a car. ***When:*** 2009	**Sample characteristics:** 34 overweight or obese men and women aged mid-to-late 30s or 50s who had participated in a larger study and had recently been informed of their weight status in a feedback letter as part of a wider study in the past 6 months (64.7% were from professional and managerial households). **Recruitment method**: n=263 invited to participate, n=48 replied and n=34 interviewed (recruitment aim was n=32). Recruited from a larger 20-year longitudinal study. **Number recruited**: 34 **Number analysed for results:** NR **Explicit inclusion/exclusion criteria**: Mid-to-late 50s and mid-to-late 30s at the time of interviews. The interviewers aimed to recruit equal number of mid-to-late 50s, mid-to-late 30s and people with BMI in overweight or obese range. People whose BMI was in the normal range were included in the research but their views were not reported in this study.	**Method and process of analysis:** As part of the wider study, participants were offered a feedback letter including person measurements (height, weight, BMI, body fat %) and provided some context for interpretation (e.g. people with BMI ≥27 kg/m^2 were told *'this suggests that you might be overweight'*). The main research used semi-structured face-to-face telephone interviews (lasting 33 to 90 minutes), where participants were given a list of weight status terms to discuss (overweight, heavy, obese, high BMI, excessive weight, fat, excessive fat, large, unhealthily high body weight, weight problem, unhealthy BMI). Interviews were audio-recorded and transcribed verbatim. Analysis used the Transcripts approach. Analysis followed 3 key themes (response to terms; terms and health professionals; terms and effectiveness). Data were analysed for each theme using an adapted One Sheet Of Paper analysis. Participants grouped by motivation to lose weight level (3 groups) by 2 independent researchers. Sub-analysis was by age, gender and apparent motivation to lose weight. **Key themes relevant to this review:** • Language	**Limitations identified by author:** No participants were from ethnic minorities, people from lower SES were underrepresented. Findings may not reflect views of overweight/obese people from less affluent households. Participants were highly motivated to contribute to research; most had participated in a wider study for 20 years. Authors report this self-selection produced a low response rate among obese people therefore; the sample may not have included those who were most uncomfortable about discussing excess weight. Assignment of participants to 1 of 3 motivational groups based on subjective interpretation of the transcripts (although there was good agreement between the independent researchers). **Limitations identified by review team:** Views from overweight/obese participants only potentially limited transferability to populations unselected for weight status. Participants previously received a feedback letter on weight status potentially influencing their views on specific terms. Communication was delivered in the context of a consultation by health professionals, potentially limiting transferability to other settings. Unclear whether 3 author-identified themes were set a priori, or emerged from interviews. **Evidence gaps and or recommendations for future research:** Future studies should focus on interactions between clinicians and their patients. **Source of funding:** Cancer Research UK and the MRC/CSO Social and Public Health Sciences Unit. No conflicts of interest declared.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Marno 2011 **Quality Score:** + **Relevance score:** Moderate relevance **UK applicability:** UK based study	**Research question/aim:** service review about how information on healthy eating, obesity and lifestyle change is communicated by health professionals and received by young people and families. **Message/acceptability dimension discussed:** Acceptability of communicating weight status. **Modifiable behaviour of the message:** Language describing weight status. **Theoretical Approach:** NR. **Data collection:** ***Method:*** 5 focus groups, 2 described as lasting around 2h, others NR. ***By whom:*** Health professional focus groups had an "observer" (not further defined). NR for parent or young people focus groups. ***Setting:*** Swindon: health professionals NR. Parents; local children's centres or Swindon Council offices. Young People Civic Offices (not further defined). ***When:*** January to March 2011	**Sample characteristics:** Total n=40 health professionals, parents, young people or those working with young people (weight status NR). Health professionals n=15**:** Health Ambassadors Co-ordinator, Community Engagement and Development Officer, Healthy Schools Programme Manager, MEND and HENRY co-ordinator, 2GPs, 2 school screeners, community public health nurse, cluster assistant, school nurse, health visitor, health care assistant, practice nurse and dietician. Parents n=11 (not further defined) Young People or those working with young people (n=14): young people not further defined, workers included a community worker and youth forum manager. **Recruitment method**: NR. **Number recruited**: n= 40 **Number analysed for results:** NR. **Explicit inclusion/exclusion criteria**: NR.	**Method and process of analysis:** A list of questions guided group discussion and was reported in full. Method and process of analysis NR. **Key themes relevant to this review:** • Conflicting messages • Language	**Limitations identified by author:** It was difficult to get views of young people directly; much of the discussion was from adults who worked with young people (not further discussed)**.** **Limitations identified by review team:** Method and process of analysis NR. Main views related to communication between health professional and patient/parent, potentially limiting transferability to other contexts. Weight status of participants NR and may have influenced views. Children and young people's views underrepresented. **Evidence gaps and or recommendations for future research:** This service review made practice recommendations around communication training for health practitioners. **Source of funding:** NR.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year NHS Somerset 2011 **Quality Score:** + **Relevance score:** Moderate relevance **UK applicability:** UK based study	**Research question/aim:** service review to assess the extent and nature of communication of information to families from health practitioners and wider sources, and the impact of such communication on knowledge and views of families around healthy weight, overweight and obesity. **Message/acceptability dimension discussed:** Views relating to the language and message framing of communication between health practitioners, wider sources (not further defined) and families. **Modifiable behaviour of the message:** NR. General views around healthy weight, overweight and obesity. **Theoretical Approach:** NR. **Data collection:** ***Method:*** 4 focus groups with health visitors or parents, “discussions” with young people (not further defined) and 2 one-to-one interviews (GPs only). ***By whom:*** young people discussions were held with youth workers. ***Setting:*** relevant workplaces for health practitioners; Children’s Centres to coincide with playgroups for parents, youth centres for young people. ***When:*** NR.	**Sample characteristics:** Female parents, young people and health professionals. From both urban and rural areas, focussing on areas with higher levels of deprivation where possible. Female parents (n=7): of young children (attending Children’s Centre Playgroup). Child or parent weight status NR. Health professionals (n=14): GPs (n=2), health visitors (n=5), infant feeding specialists (n=2), community nurses (n=2), nursery nurse (n=1), family support worker/coordinator (n=2), weight status NR. Young people (n=NR), male and female aged 12 to 16 years, weight status NR. **Recruitment method**: NR. **Number recruited**: n=21 parents or health professionals, plus unknown number of young people. **Number analysed for results:** NR. **Explicit inclusion/exclusion criteria**: NR.	**Method and process of analysis:** Discussions focused on general perspectives on nutrition and weight, views on the communication of information around healthy weight, overweight and obesity, and details of experiences of seeking or obtaining information on this topic. Discussions were recorded and transcribed verbatim, and transcripts were analysed to identify key topics and themes arising in discussions, including perceived gaps in the communication of information, and areas for improvement identified by participants. No further details reported. **Key themes relevant to this review:** • Language • Conflicting messages • Message Framing	**Limitations identified by author:** NR. **Limitations identified by review team:** Main views related to communication between health professional and patient/parent, potentially limiting transferability to other contexts. Weight status of participants NR and unknown number of young people were sampled. **Evidence gaps and or recommendations for future research:** This service review made practice recommendations around communication training for health practitioners. **Source of funding:** NR.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Department of Health 2008 **Quality Score:** + **Relevance score:** High relevance **UK applicability:** UK based study	**Research question/aim:** consumer insight gathering families' attitudes and behaviours relating to diet and activity. To enable effective targeting and delivery of interventions to promote healthy weight in children and families. **Message/acceptability dimension discussed:** Message proposition testing was around communicating the issues of "childhood weight". Gives broad recommendations for communicating diet and activity including "What works best in terms of language and imagery". **Modifiable behaviour of the message:** Diet and physical activity (not further defined). **Theoretical Approach:** NR. **Data collection:** 12 "mini-friendship groups" each consisting of 4 or 5 representatives from clusters 1, 2, 3 and 5. Elsewhere described as workshops. ***By whom:*** 2CV, a commercial market research organisation. Individuals facilitating discussions NR. ***Setting:*** All discussions took part in participants' homes. ***When:*** 2007.	**Sample characteristics:** Representatives from social marketing family clusters 1, 2, 3 and 5 took part in the message testing. Results from parents from the Bangladeshi, Pakistani and Black African communities reported separately (further sample details NR). Unclear if messages were tested on adult and child families, or only adults. Age and other demographic information NR. Family clusters described broadly as: **Cluster 1:** Mothers obese and overweight. Struggling parents who lack confidence, knowledge, time and money. Low income, likely to be single parents. **Cluster 2:** Families obese and overweight. Young parents who lack the knowledge and parenting skills to implement a healthy lifestyle. Fail to recognise children's weight status. Young, single parents, low income. **Cluster 3:** Families obese and overweight. Affluent families, who enjoy indulging in food. Low recognition of children's weight status. Affluent parents of all ages, households vary in size **Cluster 5:** Parental obesity levels above average, children below. Strong family values and parenting skills but need to make changes to their diet and activity levels. Range of parental ages, single parent families. **Recruitment method**: NR. **Number recruited**: n=48-60 parents from cluster families. Parents from Bangladeshi, Pakistani and Black African communities n=NR. **Number analysed for results:** NR. **Explicit inclusion/exclusion criteria**: NR.	**Method and process of analysis:** Group discussions tested 8 possible health messages (proposition territories) representing a different approach to communicating the issue of 'childhood weight'. Each of the 8 featured 2 'adcepts', exploring different visual styles, tones and ways of bringing the propositions to life. At the end of the discussions, participants asked to take part in a diary room exercise where they could privately record their views on the winning propositions. Process of analysis NR. **Key themes relevant to this review:** Some message preferences were different for family clusters and those specifically from ethnic minority communities. Presented separately below. **Family clusters 1, 2, 3 and 5.** • Language • Health consequences • Message framing • Combined messages **Parents from Bangladeshi, Pakistani and Black African communities** • Health consequences • Message framing • Combining messages	**Limitations identified by author:** NR. **Limitations identified by review team:** Message testing focus was communicating "childhood weight". Broad study aims were suggestive that communication would be used within an intervention or programme – however, not clear if respondents were given this information or responded more generally to the messages. Social marketing clusters1, 2, 3, 5, contained mothers or families who were overweight or obese. Individual weight status of participants (and other demographic information) NR, only broad cluster group characteristics. Both above factors limit transferability other groups and contexts. Method of analysis to arrive at "What works" NR. Unclear if views were parents only, or included children. Illustrative quotes were from mothers and fathers only suggesting views of children may not have been included. **Evidence gaps and or recommendations for future research:** Further research needed to inform understanding of diet and activity levels among teenagers and adults; and identify those communication strategies that are most effective in encouraging the uptake of targeted interventions for obese and overweight children. **Source of funding:** Government funded.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Newlove and Crawshaw 2009 **Quality Score:** + **Relevance score:** Moderate relevance **UK applicability:** UK based study	**Research question/aim:** To explore how men (aged 35 to 55) experience health, illness and their bodies with particular emphasis upon obesity and overweight. **Message/acceptability dimension discussed:** Unemployed men's attitudes to health messages **Modifiable behaviour of the message:** NR **Theoretical Approach:** NR **Data collection:** ***Method:*** Semi-structured focus groups ***By whom:*** NR ***Setting:*** An employment training organisation ***When:*** NR	**Sample characteristics:** Unemployed men (mean age 36; range 22 to 54) of predominantly white British descent (1 participant of Irish descent) from a particular area in England (Stockton-On-Tees). The authors report the ethnic makeup of participants was representative of the local population. Weight status NR. **Recruitment method**: Purposive sampling method. Participants reported to be accessed through a gatekeeper within an employment training organisation, **Number recruited**: 28 (n=14 in the pilot focus group, n=6 in focus group 1, n=5 in focus group 2, n=3 in focus group 3). **Number analysed for results:** NR **Explicit inclusion/exclusion criteria**: NR	**Method and process of analysis:** Findings from the research analysed using thematic methods described as an adaptation of previous forms of analysis, particularly Glaser and Strauss's grounded theory. Involves open and closed coding. Themes derived from re-readings of the transcript and the allocation of the data into sections. Similar sections/themes then collapsed into each other (not further defined) to derive the main themes of the findings. **Key themes relevant to this review:** • Language • Message framing	**Limitations identified by author:** Focus group numbers varied greatly (1 group had 3 people and the pilot group had 14 people). The participants were in a setting in which their attendance determined whether they would receive benefits and this caused some negativity around the process. **Limitations identified by review team:** The study only included men who were unemployed so the transferability to women and people who are employed is unclear. **Evidence gaps and or recommendations for future research:** NR **Source of funding:** NR

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Croker *et al.* 2009 **Quality Score:** ++ **Relevance score:** Moderate relevance **UK applicability:** UK based study	**Research question/aim:** Investigate parent's attitudes, knowledge, practices and concerns about appropriate portions for children. **Message/acceptability dimension discussed:** Mother's attitudes to the possibility of official guidance on portion size, including weighing foods, for their children. **Modifiable behaviour:** Portion size **Theoretical Approach:** Included an experimental participatory activity where parents asked to demonstrate typical servings of various foods, to trigger discussion on portion size. **Data collection:** ***Method:*** 4 focus groups (2-4 parents per group, average 90mins) ***By whom:*** 1 of 2 trained researchers ***Setting:*** NR ***When:*** 2009	**Sample characteristics:** 14 volunteer mothers (weight status NR) of 8-11 year olds. 12 White British, 1 Black British, 1 Asian; 5/14 were degree educated, 6/14 A-levels or vocational qualifications, 3/14 left school at 16. **Recruitment method**: mums of 6-7 years olds (Year 3) and 10-11 years olds (Year 6) were taking part in a larger school based study on the impact of giving feedback to parents about their child's weight. n=786 invited to participate in larger school study, consent obtained from n=398, n=160 agreed to further research, 30 were selected at random and invited to focus groups, n=14 agreed to participate. **Number recruited**: n=14 **Number analysed for results:** NR. **Explicit inclusion/exclusion criteria**: NR	**Method and process of analysis:** Focus groups audio recorded, transcribed verbatim. Emerging themes analysed and discussed by 1 author using thematic analysis, then discussed and agreed in a group of "several" (n=NR) research members, further iterative consensus meetings. Themes defined as issues discussed most often and at greatest length by 3 or more focus groups. **Key themes relevant to this review:** • Attitudes to receiving more information	**Limitations identified by author:** Sample size was small and selective, including (presumably) highly motivated parents by virtue of their participation. Nevertheless, there was consensus on many issues, particularly in reactions to the prospect of official guidance on age-appropriate portion sizes, which were universally negative. **Limitations identified by review team:** The study cited 1 other study that concluded the opposite – parents wanted more information on portion size, so views expressed in this study may not be representative of wider parental views. They did not test the message content of any portion related messages in particular, only the idea of guidance relating to portion size. Unclear if this guidance always included measuring and weighing portions (rather than other portion related guidance) but seems likely it did, based on author conclusions. As such, the views may not be transferable to portion information that does not require parents to measure or weigh portions. **Evidence gaps and or recommendations for future research:** Additional research in larger and more diverse samples would be desirable. Further research should seek the ideas and opinions of parents themselves regarding the best methods for guiding the public towards appropriate portion sizes for children. **Source of funding:** Cancer Research UK. No conflicts of interest declared.

STUDY	RESEARCH PARAMETERS	POPULATION AND SAMPLE SELECTION	OUTCOMES AND METHODS OFANALYSIS RESULTS	NOTES BY REVIEW TEAM
Author Year Tailor and Ogden 2009 **Quality Score:** + **Relevance score:** Low relevance **UK applicability:** UK based study	**Research question/aim:** Explore the relative impact of using the term 'obese' compared to GPs preferred euphemism on patients beliefs about the problem. **Message/acceptability dimension discussed:** Patients reactions to weight status language used by GPs **Modifiable behaviour of the message:** Language (beliefs around the term 'obesity' compared to the euphemism 'your weight may be affecting your health'). **Theoretical Approach:** NR **Data collection:** ***Method:*** Questionnaire ***By whom:*** NA ***Setting:*** One general practice clinic ***When:*** NR	**Sample characteristics:** 449 patients (66.1% female) aged over 18 years visiting one practice in South West London (mean age 43.3 years), 57.4% white, 42.6% other ethnicity (not further defined). Mean BMI 25.7 (BMI <30 [non-obese] 80.8%; BMI 30+ [obese] 19.2%). **Recruitment method**: n=615 consecutive patients from one practice in South West London (situated in an inner city district) approached, n=472 collected a questionnaire, n=455 returned the questionnaire. **Number recruited**: 455 **Number analysed for results:** 449 (n=6 questionnaires reported as unusable because a high number of items on the illness beliefs scale were not completed). **Explicit inclusion/exclusion criteria**: Patients excluded from the study if not deemed well enough to complete the questionnaire.	**Method and process of analysis:** Experimental design with 2 conditions based on a vignette. Patients given 1 of 2 questionnaires. All questionnaires asked them to imagine they were experiencing joint pain and breathlessness and that after a consultation with a doctor they were weighed. The questionnaires then differed in the responses given to the patient by the doctor – they were either told 'you are obese' or the euphemism 'your weight may be damaging your health'. Patients then asked to rate a series of items derived from the Revised Illness Perception Questionnaire using a 5-point Likert scale to describe their beliefs. Seven subscales selected to examine patients' beliefs about the problem (not further defined) in terms of the following core domains: patient understanding, consequences, personal control, emotional impact, treatment control, cyclical timeline and timeline. Data analysed by summating the items into the 8 subscales (not further defined). One-way between group multivariate analysis of covariance carried out between groups. **Key themes relevant to this review:** • Language	**Limitations identified by author:** The study was based on a hypothetical vignette rather than a real interaction between doctor and patient. Patients faced with real life situations may react differently. The study assessed obesity terms in isolation but in a consultation a doctor may use multiple terms. Other factors influencing the impact of words used in a consultation, such as general health status, were not assessed. The study was based at only 1 general practice and responses may have reflected the usual care patients receive from the doctors at this practice. **Limitations identified by review team:** Study assessed doctor's language so views may not be transferable to other contexts. The majority of participants had a BMI of less than 30 (80.8%) but they received the same message (that they were obese or that their weight may be affecting their health) as participants who were actually obese (19.2%). So majority were forced to imagine their response to being a different weight status than they were. An indirect way of assessing views, potentially not accurate. Unclear if questionnaire randomisation was truly randomised. **Evidence gaps and or recommendations for future research:** Further research needed to explore the direct links between language used and behaviour before any universal rules about the doctor's use of language can be made. **Source of funding:** Reported as receiving no funding. No conflicts of interest declared.

Review Details	Review search parameters	Review population and setting	Communication details	Outcomes and method of analysis	Results	Notes by review team
Author Year: Boylan *et al* 2012 **Country of study:** UK and Non-UK **Aim of review:** Examine consumer response to weight-related guidelines **Review Design:** Systematic review **Quality Score:** + **Relevance score:** Moderate relevance	**Databases and websites searched:** Medline via Ovid, PsycInfo, and ProQuest Central**.** **Additional search methods:** Google search May 2011, manual search of references cited by identified studies. **Years searched:** Databases; all available publication dates up to April 2011 week 4. **Study inclusion criteria:** Articles assessing consumer understanding of, or attitudes and responses to, public or private sector weight-related guidelines and information. Developed and developing countries, English Language Only. **Study exclusion criteria:** Publications not in English. Discussion papers, position statements, unrelated to health, or discussed the understanding of, or response to foods, labels or disease-specific guidelines, e.g. heart disease, cancer or diabetes. **Number of studies included:** n=46.	**Included population:** Age 35/46 studies in adults over 18 (no summary age reported, mean age ranged between 19 and 47.5yrs, others reported age ranges between 18 and 81yrs, some had no upper age limit). 11/46 studies included CYP (3 in CYP only, age range 5 to 12 yrs.) some mixed adult and CYP from age 8 upwards. Sex NR overall.28/46 female majority (range 53% to100%) 1/46 female minority (48%), 1/46 50% female and 16/46 NR. Sexual orientation NR Disability NR Ethnicity NR Religion NR Occupation NR Education 20/46 NR, 17/46 mixed educational levels (university and non-university), 5/46 unclear overall, 2/46 university only, 2/46 lower education (NFD) SES NR Weight status 32/46 NR, The 14/46 reported included mostly mixed weight status including minority overweight and/or obese proportions. 2/46 studies included only overweight or obese populations. **Population inclusion criteria:** Adults CYP. **Population exclusion criteria:** NR. **Settings of included studies**: n=46 studies;	**Message target audience:** Adults CYP who were “consumers” of “weight related guidelines” NFD. Likely to be mixed weight general public but not specified. **Modifiable behaviour of the message(s) discussed:** PA and or diet (NFD). **Who’s views were obtained on message acceptability**: Consumers of “weight related guidelines” (NFD). Weight status generally NR, where reported usually unselected weight status population (see included population).	**Aspect(s) of communication under study:** characteristics of weight related guidelines that influenced the way consumers responded to the message. **Communication outcomes considered:** No boundaries pre-specified. **Method of analysis** Thematic analysis (NFD).	**Review level results**: Described 5 themes affecting message communication: content, awareness and comprehension, information source, format, and tailoring. The content and tailoring elements were the most relevant to our review. **Themes identified by review team:** • Language • Message framing • Attitude to receiving more information • Combined messages • Conflicting messages • Message Tailoring • Content	**Limitations identified by author:** Sample was majority US female adults, limiting generalisability. Some studies included women only; those with mixed gender received a higher response rate from women. Almost all literature focused on dietary guidelines with little examination of PA guidelines. Most studies examined attitudes towards guidelines, rather than behavioural changes. **Limitations identified by review team:** Methods of analysis not reported in detail. No quality assessment of included studies. **Evidence gaps or recommendations for future research:** Confusion over serving sizes must be addressed. Tighter partnership between guideline developers and the food and catering industry is indicated. More research needed to assess weight-related guidelines containing a physical activity component. Future studies assessing the relationship between health communications and behaviour change should consider skills, intentions and environmental constraints. There are gender differences in response to messages, perceptions of health and health-seeking behaviour; therefore, it is important that research assessing attitudes

Review Details	Review search parameters	Review population and setting	Communication details	Outcomes and method of analysis	Results	Notes by review team
		majority US (26 US, 5 Australia, 3 EU, 3 UK, 3 The Netherlands, 1 from each of; New Zealand, Turkey, Canada, South Africa, Denmark and Japan). Studies mostly quantitative in nature and on diet rather than PA. n=6 examined attitudes in primary care setting & n=2 weight recommendation in pregnancy.				and response to guidelines is conducted among both men and women and researchers must find effective ways of recruiting and retaining male participants **Source of funding:** NR.

Review Details	Review search parameters	Review population and setting	Communication details	Outcomes and method of analysis	Results	Notes by review team
Author Year: Latimer *et al*. 2010 **Country of study:** Non-UK **Aim of review:** To review studies that evaluate the efficacy or effectiveness of 3 approaches to constructing physical activity messages including tailoring messages, gain-framing messages and targeting messages to affect change in self-efficacy. **Review Design:** Systematic review **Quality Score**: + **Relevance score:** Low relevance	**Databases and websites searched:** MEDLINE, PsycINFO, EMBASE, CINAHL **Other search methods undertaken:** Relevant reference lists were also searched **Years searched:** Up to July 2008 **Study inclusion criteria**: Healthy adults aged 18 to 65 years; messages communicated using minimal dissemination methods (e.g. brochure, video, email reminder) directly to participants; primary message encourages PA only; study included a post-test message evaluation at minimum, study was the primary report; written in English; outcomes included assessment of PA and/or theoretical determinant of PA participation (e.g. self-efficacy); studies had a control group. **Study exclusion criteria**: NR **Number of studies included**: 22 studies overall. *Message tailoring*: narrative text indicates 12 studies (11 included in summary table – 10 RCTs, 1 quasi-experimental study). Varied quality (7 studies met 2 to 3 of evaluation criteria, no overall quality score	**Included population:** ***Message Tailoring*** (narrative text indicates 12 studies, summary table provides data for 11 studies) Age mean range 36.9 to 49.0 yrs. Sex predominantly female in 10/11 studies (range 57% to 100% female) 1 minority female (43% female) Sexual orientation NR Disability NR Ethnicity NR Religion NR Occupation NR Education 1/11 reported as employees (NFD), 1/11 employees from worksites, 9/11 NR. SES NR Weight status NR Stages of change 1/11 contemplation or preparation; 3/11 action/maintenance (range 18.4% to 44%), 2/11 action stage (range 11% to 14%); 4/11 sedentary adults and 1/11 compliant with PA recommendations. ***Message framing*** Age mean range 19.8 to 47.4yrs; 2/6 NR Sex predominantly female in 5/6 studies (range 55% to 100% female) 1 minority female (38% female) Sexual orientation NR Disability NR Ethnicity NR Religion NR Occupation NR Education 4/6 undergraduates SES NR	**Message target audience, including weight status:** Healthy adults aged 18 to 65 years. Weight status NR. **Modifiable behaviour of the message(s) discussed:** PA only. **Who's views were obtained on message acceptability (including weight status):** Healthy adults aged 18 to 65 years.	**Aspect(s) of communication under study**: Three specific message construction approaches: message tailoring, message framing and targeting messages to change self-efficacy that helped formulate practice recommendations. **Communication outcomes considered to** motivate regular PA. **Method of analysis** Descriptive approach. Studies that found a significant advantage for the intervention group vs. the control group at any assessment point were considered to have a positive effect. Non-significant findings favouring the intervention were classified as having a positive trend. Self-efficacy studies analysed/critiqued on an individual basis.	**Review level results:** *General recommendation*: We recommend using messages to encourage PA participation as set out by PA guidelines **Key themes relevant to this review:** • Message tailoring • Message framing	**Limitations identified by author:** Relatively few studies included in the review. Studies in clinical populations excluded. The review focused on intermediate (e.g. theoretical determinants) and distal outcomes (e.g. behaviour change). Few studies included proximal outcomes (e.g. awareness). Among the studies that assessed proximal outcomes, the measurement approach varied precluding meaningful comparisons. Definitive recommendations for practice were reported not to be possible given insufficient evidence. **Limitations identified by review team:** Mainly quantitative research on effectiveness, rather than acceptability. Inclusion criteria were healthy adults, but 1 RCT on message framing had a population that were callers to the US National Cancer Institute Cancer Information Service so it is unclear if this was in fact a healthy population. **Evidence gaps or recommendations for future research:** Numerous reported but all related to further study of message effectiveness rather than acceptability. **Source of funding:** Public Health Agency of Canada

Review Details	Review search parameters	Review population and setting	Communication details	Outcomes and method of analysis	Results	Notes by review team
	reported) *Message framing:* 6 (2 RCTs, 3 randomised experiment, 1 pre-post) (varied quality, overall quality scores NR) *Self-efficacy:* 4 RCTs (2 studies satisfied 5 of the 9 quality criteria, overall quality scores NR).	Weight status NR Stages of change: 3/6 NR; 2/6 sedentary (0% action phase); 1/6 not meeting ACSM guidelines for PA ***Self-efficacy*** Age mean range 19.7 to 43.8yrs, NR in 1/4 Sex predominantly female in 3/4 studies (range 70% to 100%), 1/4 NR Sexual orientation NR Disability NR Ethnicity NR Religion NR Occupation 1/4 school employees Education 2/4 undergraduates SES NR Weight status NR Stages of change: 3/4 NR; 1/4 100% pre-contemplation to preparation stages. 5 stages of changes: pre-contemplation, contemplation, preparation, action, maintenance. **Population inclusion criteria:**NR **Population exclusion criteria:**NR **Settings of included studies:** NR				