Supplement Table 1: Articles included in the systematic review

Author, year, country	Design and type of intervention	Sample size and characteristics	Intervention (consultation)	Intervention duration and frequency; intervention fidelity	Intervention deliverer	Training for deliverer	Additions to consultation	PA outcome meaures	Results
Ackermann et al., 2005; USA. (14)	2-arm cluster RCT with assessments at baseline and 8-12 weeks; PA intervention.	N=336; 1% women; mean age = 66 yrs; eligibility: enrolled in local PC providers of the Seattle Veterans Affairs; age 50 years or older.	Intervention included PC provider training to deliver PA promotion using prompts from patients. Prompt sheets to determine motivational level were completed by participants before consultations and handed to PC provider. Control group received care as usual.	Single baseline consultation. Intervention fidelity: 38% of participants in control group and 59% of intervention group were given exercise advice (p<0.05)	PC provider (physicians and non-physicians).	10 min individualised training session to PC providers incl. introduction to handouts, behaviour prompts and to focus on patients that are inactive but interested in increasing activity levels.	Patient handouts with results of prompt, community exercise resource guide, information about benefits of PA , how to start safely and individualised exercise prescription	PACE scale for physical activity stage indicating the percentage of people regularly exercising.	No sig. difference between groups in increase in engagement in regular exercise (adjusted OR 1.5 (95% CI 1.0 – 2.3)).
Burton et al., 1995; USA. (15)	2-arm RCT with assessments at baseline and 2 yrs; lifestyle intervention.	N=3097; 62.7% (control group) and 65.5% (intervention group) women; age 65 years or older (no mean reported); Medicare beneficiaries.	Vouchers for preventive examinations at baseline and 1 year including a complete history, physical exam, screening and immunisation as well as a review of lifestyle behaviour. A lifestyle risk assessment completed prior to the visit was sent to the physician. A 20 min follow-up counselling session was offered at 6 months after baseline. The control group received information	Two preventive examination visits (baseline and year 1) and the offer of an additional 20 min lifestyle counselling session. Intervention fidelity: only 50% of intervention participants attended the year 1 visit, and only 30%	PCP.	One training session for PCPs to review components of preventive and counselling sessions (duration not reported).	None	Self-rated PA level (performing PA such as walking, gardening or heavy housework less than 3 times a week) indicating percentage living a sedentary lifestyle	No sig. difference in PA level increase between groups (percentage people improving intervention vs control for persons in good health 41.8% vs 42%; in poor health 20.4 % vs 17.7%).

			regarding good health practices.	attended follow-up visit.					
Christian et al., 2008; USA. (16)	2-arm RCT with assessments at baseline, and 12 mths; PA and weight loss intervention	N=310; 68% women in control group, 65% in intervention group; mean age in both groups 53yrs (SD 11); eligibility: Latino/Hispanic ethnicity, diagnosed with type 2 diabetes, BMI ≥25, 18-75 yrs old, Medicaid eligible or Medicare beneficiary.	Intervention: completion of a computer-based assessment of motivational readiness to increase PA levels and make dietary changes resulting in a 4-5-page personal report with feedback regarding barriers to improving PA levels and diet. Participant then set 2-3 diet and/or PA goals and received a 30-page planning guide with additional healthy lifestyle information. PC physician received short companion report with counselling recommendations. Control group: received packet of health education materials.	Intervention group: baseline visit based on readiness report, MI counselling and goalsetting; at 3, 6 and 9 mths: review of goals, MI counselling to reinforce patient's lifestyle changes; control group: at mths 3, 6 and 9: usual care visit. No intervention fidelity data reported.	PC physician	3-hour training session on how to use the goal-setting sheets and provide brief motivational interviewing.	Computer-based assessment report for participant and PC physician of motivational readiness to change diet and PA level plus information material.	Energy expenditure (MET-min/wk) estimated with 7-day physical activity recall questionnaire	Change in MET-min/wk (mean increase intervention group: 354 MET-min/wk (SD 574; 95% CI 257.5-451.4) compared to control group: 51 MET-min/wk (SD 443; 95% CI -25.72-127.72) p<0.001.Cohen's d = 0.59.
Dubbert et al., 2002; USA. (17)	3-arm RCT with assessments at 6 and 12 mths. PA intervention.	N=212; 1% women; mean age 69 yrs (SD 4.7); eligibility: age 60-80 yrs, independent in activities of daily living, noninstitutionalised, stable health, willing to increase walking for exercise and satisfactory	All participants watched a motivational and a walking safety video and set individual goals for a walking programme in discussion with a practice nurse. Intervention groups received 20 phone calls (either 20 personal calls with tailored	20 phone calls over 12 months. Calls were tapered (first one a week for a month then decreased in frequency). Intervention fidelity: Data on phone call	Practice nurse.	Not reported.	Motivational and walking safety video.	Adherence to walking at least 20 min 3 times per week. 7-day Physical Activity Recall (PAR) questionnaire score of moderate activity.	No sig. difference in increase in total wkly hours of moderate PA between groups (data per group not reported). Adherence to walking target sig. better in intervention groups compared

Author/Country	Design	Participants	Intervention	Fidelity/Dose	Provider	Training	Other	Outcome measure	Results
		performance on a 6-min walking test. Participants already walking for exercise at least 20 min per day were excluded.	counselling or 10 personal and 10 automated calls with standard reminders) from practice nurse. Control group received no calls.	delivery not reported.					to control group (at 6 mths: $F_{(2,178)} = 4.75$; at 12 mths: $F_{(2, 178)} = 4.49$). Effect size could not be calculated.
Galaviz et al., 2013; Canada. (18)	3-arm RCT with assessment at baseline and 8 wks; PA counselling intervention. Only the group that had counselling and a prescription was included in this review as the second intervention group participated in a program not delivered by PC providers.	N=35, 100% women, mean age 36 years; eligibility: between 25 and 45 years old, BMI ≤35, viewed by their physicians as patients who could benefit from intervention and were unlikely to meet Canadian PA guidelines.	Prescription only (PO) intervention: brief counselling session based on 7A model (address, ask, advise, assess/agree, assess, assist and arrange). The control group received care as usual. Prescription Plus (PP) group outside remit of this review (included an external exercise programme).	Single 3-min counselling session. Intervention fidelity: all intervention participants completed the single counselling session.	PCP.	30 min face-to-face training for all physicians about counselling and prescription based on 7A model.	PA prescription.	Number of patients meeting Canadian PA guidelines; Godin Leisure-Time Exercise Questionnaire: 1) total PA score based on MET values, 2) weekly PA min.	The increase proportion of participants meeting Canadian PA guidelines was not sig. MET based PA score as well as wkly PA minutes increased sig. in both intervention groups but not the control group Cohen's d for total PA score for PO = 0.04, for PP = 0.23; Cohen's d for weekly PA min for PO = 0.44; for PP = 0.35.
Galaviz et al., 2017; Mexico. (19)	3-arm RCT with assessments at baseline and 1 and 6 months; PA intervention.	N= 687, 77% women, mean age was 48.6 yrs; eligibility: 18 yrs or older, not pregnant, not meeting PA guidelines, not involved in other PA programmes,	PA counselling based on 5A model (assess, advise, agree, assist, arrange). The intervention arms included a prompted (patient prompted the physician with a card to initiate PA counselling	Single 3-5-min counselling session. Fidelity of PA counselling based on report of patients	PCP.	Training duration was 3 hours; training included discussion PA consultation barriers, behaviour change	Arrangement of follow-up referrals to PA resources in the clinic or community.	Based on the Godin Leisure-Time Exercise Questionnaire (translated into Spanish) assessing PA time over an average week.	No sig. difference between control or intervention groups at 1 or 6 months. Cohen's d for unprompted intervention at 1 months: d= 0.02 (95% CI -0.18 –

		without impediment to engage in PA.	session) or unprompted (the physician started the PA counselling without prompt) intervention. Control group physicians had no training for PA counselling and patients received care as usual.	remembering session.		techniques, counselling using the 5A model, educational training materials and role-playing to reflect on perceptions of control.				0.20); at 6 months: d=0 (95% CI -0.18 - 0.18); for prompted intervention at 1 month: d=-0.05 (95% CI -0.24 – 0.12); at 6 months d= -0.08 (95% CI -0.26 – 0.10).
Goldstein et al., 1999; USA. (20)	2-arm cluster RCT with assessments at baseline, 6 wks and 8 mths; PA intervention.	N=355, 65% women, mean age 66 yrs (SD 9); eligibility: 50 yrs or older; excluded if too active (moderate exercise for ≥30 min for at least 5 days/wk or vigorous exercise for ≥20 min 3 days/wk) or if unable to provide information on the telephone.	Each participant was interviewed briefly before seeing the physician to assess stage of motivational readiness, PA preferences and barriers to PA. Intervention: Based on the Transtheoretical model and using the 5A-framework (address the agenda, assess, advise, assist and arrange follow-up) the physician used the interview findings and counselled the participant appropriately. Participants also received a written prescription (PA advice) and a PA manual. In addition, participants in the intervention group received 5 monthly mailings (manual again	Initial 5 min counselling session and one follow-up visit, at which the participant received a PA poster. Intervention fidelity: 93% of intervention participants recalled PA counselling, 67% recalled PA prescription.	PC physician	Physicians in the intervention group attended a one-hour training session in their offices where the information in a 28-page manual for the study was reviewed and counselling techniques practiced. They the manual, a desk prompt with summary information and an office poster on PA promotion.	Manual, written prescription and PA poster.	Physical Activity Scale for the Elderly (PASE): recall of PA over the past 7 days.	No sig. difference between control and intervention group PASE scores at 6 wks (Cohen's d = 0.04) or 8 mths (Cohen's d = 0.02).

			plus 4 newsletters). Participants in the control group received care as usual.						
Grandes et al., 2009; Spain. (21)	2-arm RCT with assessments at baseline and 6 months; PA intervention.	N= 4317, 66% women, mean age 50 years; eligibility: 20-80 years old who did not meet recommended aerobic PA levels (moderate intensity PA for ≥ 30 min for 5 days/wk or vigorous intensity PA for ≥ 20 min 3 days/wk). Not eligible unstable or chronic condition that would preclude safe participation in regular PA.	Participants in the intervention arm received brief advice and the offer for one additional 15-min appointment to prescribe an individualised PA plan. Control group received care as usual.	Single PA advice session plus offer of individualised session to develop PA plan. Intervention fidelity: all participant received, single PA advice session, uptake of additional prescription session not reported.	PCP.	24 hours of training on study protocol and PA counselling.	Advice on PA according to individualised PA plan (for those who attended the additional session)	7-Day PA Recall (PAR): moderate and vigorous PA min/wk, moderate and vigorous PA MET-hour/wk; proportion participants meeting PA guidelines	All outcome parameter improved sig. more in the intervention group compared to the control group (adjusted mean difference for min PA/wk 18.15 (95%CI 5.66- 30.65), Cohen's d=0.03; for MET-h/wk 1.27 (95%CI 0.38-2.16), Cohen's d=0.03.
Harris et al., 2017a; Australia. (22)	2-arm cluster RCT with assessments at baseline and 12 months; lifestyle intervention.	N=739, 69% women, mean age 56 years; eligibility: age 40-69 years without known diabetes, cardiovascular disease or renal impairment who had visited a study practice within the last year. Exclusion criteria were severe mental illness, substance abuse or pregnancy.	Practice level intervention for both GPs and practice nurses including clinical education in small groups with presentation of guidelines, behaviour change techniques and MI. Further support and feedback including facilitation visits from trained preventive care specialists was available. Control group received care as usual.	Not reported on patient level. Intervention fidelity practice level: all intervention training sessions were provided as planned. In 3/2 practices all facilitator visits were delivered in the 3rd	GPs and practice nurses	Single 3-hour training session.	None	National Health Survey including question about PA level.	No sig. difference in PA in either group. Cohen's d for the effect of the intervention on PA was 0.16.

				practice 67% were delivered.						
Harris et al., 2015; UK.	2-arm cluster RCT with assessments at baseline and 3 and 12 months; PA intervention.	N=298; 54% women; age 60 - 75 yrs (no overall mean age provided); eligibility: able to walk outside and no contra-indication to increasing PA; excluded if in a care home or identified as unsuitable for the intervention either by their PC provider or record; age 60-74 years.	Intervention duration: 3mths. Practice nurse consultation based on behaviour change theories using SMART PA goal setting, review of current activities, cost-benefit analysis of increasing PA, discussion of barriers and facilitators and troubleshooting any problems with equipment or diary. Control group received care as usual.	Consultations with the practice nurse at baseline, 2, 6 and 10 weeks. Intervention fidelity: 86% of participants in intervention group attended all 4 nurse consultations; 98% wore accelerometer in the week before the consultation as asked.	Practice nurse	Training included the use of behaviour change theories and the use of the PACE-Lift handbook; the nurses also received supervision from researchers during the intervention.	Pedometers, accelero-meters, PACE-Lift handbook to support training programme, walking/PA plan, PA diary.	Daily step count, MVPA total weekly min, MVPA total weekly min in bouts of ≥ 10 min, daily counts, counts per min of wear time.	Sig. differences between groups in increase in PA from baseline to 3 mths for daily step count (Cohen's d = 0.32 (95% CI 0.08 – 0.56)); MVPA total weekly min d= 0.31 (95% CI 0.07-0.55); MVPA total weekly min in bouts of ≥ 10 min d= 0.51 (95% CI 0.27-0.74); daily counts d= 0.22 (95% CI -0.02-0.45); counts per min wear time d= 0.28 (95 % CI 0.05-0.52); for 12 months: daily step count (Cohen's d = 0.22 (95% CI -0.02 – 0.45)); MVPA total weekly min d= 0.19 (95% CI -0.05-0.43); MVPA total weekly min in bouts of ≥ 10 min d= 0.36 (95% CI 0.12-0.60); daily counts d= 0.16 (95% CI -

										0.08-0.40); counts per min wear time d= 0.13 (95 % CI -0.11-0.37).
Harris et al., 2017b; UK. (23)	3-arm cluster RCT with assessments at baseline, 3 and 12 months; PA intervention.	N=1023, 64% women, mean age not reported; eligibility: age 45-75 yrs; without contraindications to increasing MVPA, excluded were care home residents and those considered unsuitable.	Intervention duration: 3mth. Postal pedometer intervention: received pedometer, PACE handbook and PA diary with individualised walking programme. Nurse-led intervention: received pedometer, PACE handbook, PA diary with individualised walking programme and 3 individually tailored practice nurse-led consultations incl. goalsetting and feedback. Control group: usual care.	The nurse supported group received 3 individually tailored practice nurse consultations (10-20 min each) in approx. wk 1, 5 and 9. Intervention fidelity: 74% of the participants of the nurse-led intervention attended all 3 consultations.	Practice nurses	Not reported.	None.	Step count assessed by accelerometer over 7 days between baseline and 12 months incl. changes in step count between baseline and 3 months, changes in time spent in weekly MVPA in ≥10 min bouts, time spent sedentary between baseline and 12 months	At 3 and 12 mths: sig. difference between intervention groups and control group, with sig. higher step counts and MVPA in the intervention grps compared to the control grp (For daily step count, Cohen's d for the postal grp intervention at 3 and 12 mths was 0.27; for the nurse grp intervention Cohen's d at 3 mths was 0.47, at 12 mths 0.30; for MVPA, Cohen's d for the postal group at 3 months was 0.43, at 12 mths 0.36; for the nurse grp intervention Cohen's d at 3 mths was 0.59, at 12 mths 0.41). Sedentary time was similar

Study	Design	Participants	Intervention		Who delivered	Training	Materials	Outcome measures	Results
									between groups with no sig. change (Cohen's d for postal grp intervention at 3 mths 0.0, at 12 mths 0.01; for the nurse grp intervention at 3 mths 0.01, at 12 mths 0.05).
Jansink et al., 2013; Netherlands. (24)	2-arm cluster RCT with assessments at baseline and 14 months; lifestyle intervention.	N= 336, 45% women, mean age 64 yrs; eligibility: <80 years, type 2 diabetes, HbA1c > 7%, BMI > 25, exclusion criteria were complex comorbidity and treatment in hospital.	Intervention: lifestyle counselling and telephone follow-ups using MI. Control: usual care.	Not reported. Intervention fidelity: not reported.	Practice nurse.	4 half-day group training sessions over 6 months including MI training, record keeping, diabetes information and use of an instruction chart.	Recording tools and guidelines for the practice nurses.	Self-report of activity during an average week (min/day); min/day of low, medium and high activity recorded on activity monitor;	No sig. difference in any measures between groups. Cohen's d for PA min/day was 0.06, for low activity min/day 0.01, for medium activity min/day 0.0, for high activity min/day 0.13.
Jolly et al., 2018; UK. (25)	2-arm RCT with assessments at baseline, 6 and 12 months; lifestyle intervention.	N= 577, 36% women, mean age 70 yrs; eligibility: On practice COPD register, had respiratory symptoms consistent with COPD, mild dyspnoea grade 1 or 2, had a forced expiratory volume in one second/ forced vital capacity <0.7 after post-bronchodilator spirometry at	Intervention: the telephone health coaching intervention was underpinned by the Social Cognitive Theory and included education, monitoring, assessment of progress, and taught skills with the aim of increasing self-efficacy. Control: usual care.	Initial call lasted 35 to 60 min, calls at week 3, 7 and 11 took 15 to 20 min. Intervention fidelity: 86.4% of scheduled calls were delivered and 75.4 of all participants received all 4 calls.	Practice nurse	Two days of training and practice of coaching sessions with research team.	Written documents, pedometer and self-monitoring diary.	Accelerometer (MVPA min /wk), International Physical Activity Questionnaire (total MET-min/wk, walking MET-min/wk, moderate MET-min/wk and vigorous MET-min/wk).	At 6 months, the intervention group had sig. higher levels of PA in all measures compared to the control group. These were non-sig. at 12 months. For MVPA min/wk, Cohen's d at 12 mths was 0.12; for total MET min/wk Cohen's d at 6 mths was 0.25, at

		baseline, considered appropriate for the study.							12 mths 0.14. For walking MET min/week at 6 mths Cohen's d was 0.25, at 12 mths 0.17. For moderate MET min/wk Cohen's d at 6 mths was 0.17, at 12 mths 0.11. For vigorous MET min/wk, Cohen's d at 6 mths was 0.16, at 12 mths 0.09.
Kerse et al., 1999; Australia. (26)	2-arm cluster RCT with assessments at baseline and 1 yr; lifestyle intervention.	N= 267; 54% women, mean age 73.5 yrs (SD 0.59); eligibility: age ≤65yrs, English speaking, attended practice in last 18 mths, attended enrolled PCP for 3 out of 5 last visits.	Practice level educational intervention for PCP covering social and physical activity, prescribing and vaccination for elderly patients. Educational programme was delivered in 5 stages: clinical practice audit with feedback, educational detailing, card-based prompt system, seminar or home-based learning and distribution of resource directory for elderly patients.	Practice level education programme: duration 2 to 3 mths, frequency and duration of educational sessions not reported. Intervention fidelity: after the trial period, 32% in the intervention and 19% in the control group remembered discussing exercise with their physician.	PCP.	Practice level education programme took 2—3 months.	None.	Self-report questionnaires for: 1) minutes walking previous day, 2) minutes walking last 14 days, 3) minutes total PA in last 14 days.	Minutes walking in the last 14 days increased sig. more in the intervention group compared to the control group. Cohen's d could not be calculated. No sig. difference in minutes walking previous day or total PA between intervention and control group.

Koelewijn-van Loon et al., 2010; Netherlands. (27)	2-arm cluster RCT with assessments at baseline and 12 weeks; lifestyle intervention.	N=615; 55% women, mean age 57 yrs (SD 10); eligibility: 1) blood pressure≥ 140 mmHg or already treated for hypertension, 2) total cholesterol ≥6.5 mmol/l or already treated for high cholesterol, 3) smoking (men≥ 50 yrs, women ≥ 55 yrs), 4) having diabestes, 5) having a family history of cardiovascular disease, 6) having visible obesity.	Intervention: risk assessment and communication, distribution of a decision support tool, adapted MI. Control: usual care plus risk assessment training for practice nurses in control clusters.	Two 20-min face-to-face consultations plus 10-min telephone or face-to-face consultation. Intervention fidelity: not reported.	Practice nurse	Two-day training course covering the intervention components (risk assessment and communication, distribution of a decision support tool, adapted MI)	None	Dutch version of Communities Health Activities Model Program for Seniors (CHAMPS) min/wk of moderate and vigorous PA.	No significant differences between groups at follow-up (Cohen's d = 0.10).
Lakerveld et al., 2013; Netherlands. (28)	2-arm RCT with assessments at baseline, 6 and 12 months; lifestyle intervention.	N=622; 58% women, mean age 44 (SD 5.3); eligibility: age 30-50, self-administered waist circumference (≥101 for men, ≥87 for women), type 2 diabetes and/or cardiovascular disease risk with at least 10% with no known prevalent type 2 diabetes or cardiovascular disease.	Intervention: based on the theory of planned behaviour and the theory of self-regulation. Included MI to strengthen the attitude and intention to change behaviour and problem-solving treatment plus tools to overcome barriers to the behaviour change. Control: standard brochure containing guidelines regarding PA and healthy eating.	Six face-to-face counselling sessions each 30 min, followed by 3-monthly telephone sessions (duration not reported). Intervention fidelity: not reported.	Practice nurse	18 hours of specific training from experienced psychologists (12 hours on MI, 6 hours on problem solving treatment)	Treatment manual for practice nurses	1) Self-reported physical activity translated into MET-min/day. 2) Number and proportion of participants who completed ≥30 min of physical activity at least 5 days/wk	No significant difference between intervention and control group at 6 or 12 months. Cohen's d could not be calculated.
Leonhardt et al., 2008;	3-arm cluster RCT with assessments	N=1378; 58% women, mean age 49 yrs (SD 13);	Intervention A included lower back pain guideline	Up to 3 motivational counselling	Intervention A: PCP; intervention	Intervention A training included 3	None	Freiburger Questionnaire on Physical Activity	No sig. difference in score change between groups

Germany. (29)	at baseline and 6 and 12 months; PA intervention;	eligibility: patients who had presented with lower back pain in the previous 11 yrs; exclusion criteria were insufficient language skills, pregnancy, isolated thoracic pain.	implementation. Intervention B was based on additional transtheoretical model-based motivational counselling. Training of practice nurses included information about lower back pain, general counselling skills, identification of stages of change and support of patient self-efficacy to promote PA. Control: usual care.	sessions (max. 15-20 min each) by practice nurse. Intervention fidelity: 97% of practice nurses put counselling into practice; 80% of patients in intervention B received MI sessions.	B: practice nurses.	interactive 2-hour quality circles and providing extensive information material. Intervention B training included 20 h in 2 full day workshops plus 1-3 supervision sessions.		asking about health-related PA; scores were converted to MET-hours/wk	at 6 or 12 months. Cohen's d could only be calculated for the intervention effects at 12 months. At this point, Cohen's d for both interventions was 0.1.
Little et al., 2004; UK. (30)	2x2x2 factorial RCT with assessments at baseline and 1 month; PA intervention.	N=151, 52.6% - 58.6% female depending on group, mean age 57– 60 (SD 11 –13) yrs depending on group; eligibility: 1 or more risk factor for coronary heart disease, diagnosis y GP of hypertension or hyperlipidaemia, BMI >25, or diabetes; exclusion: unable to perform moderate exercise, unable to complete questionnaire, under age of 18.	Interventions included: 1) PCP prescription of exercise (brief discussion of exercise, targets, how to start and anticipating relapse plus prescription for 30 min, 5x per week brisk walking); 2) nurse counselling (detailed motivational discussion based on theory of planned behaviour including precise time and place to start exercise, as well as an agreed and signed contract for exercising); 3) a booklet (standard public resource health advice).	Not reported. Intervention fidelity: not reported.	PCP and practice nurse.	Not reported.	A general health advice booklet was one of the intervention factors.	Godin Leisure-Time Exercise Questionnaire (weighting mild, moderate and strenuous activity according to energy expenditure per week).	No sig. difference between control and intervention groups at follow-up. Cohen's d depending on intervention combination between 0.01 (GP prescription) and 0.26 (GP prescription and nurse counselling).
Marshall et al., 2005;	2x2x2 factorial design	N= 767, 53.6 % - 64.2% women depending on	Health promotion (HP) intervention: health promotion with	Duration of PA advice consultation	PCP.	Group or individual training was	Intervention groups also received one of	Proportion meeting sufficient PA criterion (≥700	There was no significant difference

Study	Design	Participants	Intervention	Dose/Fidelity	Provider	Additional	Theory/Support	Outcome measure	Results
Australia. (31)	cluster RCT with assessments at baseline, 2 and 6 mths	group, mean age 53.5 – 56.9 yrs depending on group (SD 8.0-8.9); eligibility: age 40-70 yrs, attending the surgery for themselves, insufficiently physical active, able to walk independently for at least 10 min, literate in English, no medical contra-indications for moderate-intensity PA. For the Risk factor (RF) intervention and control group, also diagnosis of hypertension.	materials and advice that encouraged them to be more active for their general health; Risk factor (RF) intervention: materials and 'medicalised' advice focussed on being more active to manage their hypertension. For both groups, PCPs discussed the benefits of PA, identify preferred types of PA and develop a programme of activity that was then recorded as 'Active Prescription'. HP and RF control groups received case as usual.	not reported. Intervention fidelity: 30% of HP and 34% of RF intervention participants received all components (advice, Active Prescription and booklet).		offered to physicians. Duration and attendance not reported.	two self-help booklets based on motivational readiness for PA. It included support strategies for either reinforce the health benefits of PA (for HP group) or the role of PA in hypertension control (RF group).	MET min per wk assessed with the International Physical Activity Questionnaire (IPAQ)).	between intervention and control groups at 2 or 6 mths.(For HP: OR at 2mths 0.84 (95% CI 0.52-1.34), at 6 mths 1.52 (95% CI 0.93-2.28); for RF: OR at 2 mths 0.97 (95% CI 0.54-1.75), at 6 mths 1.09(95% CI 0.58-2.05).
McCallum et al., 2007; Australia. (32)	2-arm RCT with assessments at baseline, 9 and 15 mths; lifestyle intervention.	N= 163, 52% girls, mean age 7.4 (SD1.6); eligibility: children classified as overweight or mildly obese in a BMI survey who were not receiving ongoing weight management; excluded if having any chromosomal, endocrine or medical condition, which could have an impact on their weight or growth.	Intervention: PCPs used a solution-focused approach to set appropriate, healthy lifestyle goals with the family and provided a 20-page, personalised brochure designed at a 12-year old reading level with topic sheets, modelled solutions to barriers and suggestions for how to achieve the goals. Control: Care as usual.	4 PCP visits over 12 wks. Intervention fidelity: 41% of intervention participants attended all 4 sessions, 21% attended 3 sessions, 17% each 2 or 1 session, 4% did not visit the PCP.	PC physician.	3 information evenings including standardized education package regarding delivery of intervention including solution-focused therapy techniques.	Personalised brochure.	Activity diaries recorded parents' ratings of children's PA intensity in 15 min intervals on a scale from 1 to 7 (% of MVPA and total daily PA).	No sig. difference between intervention and control group at 9 and 15 mths. At 9 mths,, Cohen's d for % MVPA was 0.37, for total daily PA 0.18. At 15 mths, Cohen'd was 0.2 for both outcomes.

Study	Design	Participants	Intervention	Contact	Provider	Training	Co-intervention	Outcome measure	Results
Mehring et al., 2013; Germany. (33)	2-arm cluster RCT with assessments at baseline and 12 wks; PA intervention.	N = 186, 70% women in intervention group, 63% women in control group; mean age intervention group 47 yrs (SD 11), mean age control group 51 yrs (SD 15); eligibility: BMI ≥25, ≥ 18 yrs, sufficient German language skills, internet access. Exclusion criteria for several health issues, pregnancy and breast feeding applied.	Intervention: health data and PA advice was documented by the PCP online creating an individual coaching programme based on cognitive behavioural and behavior change theories. The programme included individualized education, motivation and exercise guidance structured into 12 modules. It provided daily text message reminders, allowed online self-monitoring and prompted 3 phone calls by the PCP or practice nurse to patients. Control: care as usual.	Phone calls from PCP or practice nurse at week 1, 5 and 12; duration of initial visit and phone calls not reported. Intervention fidelity: mean completion rate of modules was 6.4/12 (SD 4.2) taking 72.7 (SD 28.7) days (out of 12 weeks).	PCP and practice nurse.	PCPs and nurses of intervention group received detailed instructions regarding study processes and coaching programme. No further details regarding training reported.	Access to online coaching modules.	Self-rated PA on a scale from 1 to 4.	Sig. increase in in self-rated PA. Cohen's d = 0.54.
Sims et al., 1999; UK. (34)	2-arm RCT with assessments at baseline and 8 wks; PA intervention.	N= 20; 35% women, mean age 72 yrs (SD 4.3); eligibility: excluded if diagnosed with poorly controlled angina, heart failure, uncontrolled hypertension or any other sig. or progressive disabling condition.	Intervention: based on the transtheoretical model of change. Nurse and patient developed an individualised, planned activity schedule as part of a motivational interview. The implementation of the plan was discussed along with barriers to exercise on the phone at 2 and 6 wks. Control: standard PA advice.	One in person discussion plus 2 phone calls; duration not reported. Intervention fidelity: not reported.	Practice nurse.	Practice nurse received training about the transtheoretical model and MI; duration of training not reported.	None.	PA assessed using the Godin and Shepard form recording 15 min periods of mild, moderate or strenuous PA in the previous week.	No sig. difference between groups. Both groups sig. increased number of moderate PA 15-min periods. Effect size could not be calculated.
Valve et al., 2013; Finland. (35)	2-arm cluster RCT with assessments	N= 3059, 100% women, median age 19 years; eligibility:	Intervention was based on positivity, encouragement, and	The initial intervention session took	Practice nurse	Two 4-hour group training sessions for	None.	Self-report physical activity level using 4	No sig. difference in between groups. Effect

	at baseline and 1.5 – 2.5 years; lifestyle intervention	age 17-21 and participating in a human papilloma virus vaccination trial, pregnancy was exclusion criterion.	building collaborations; it included positive feedback, goal setting and discussions on how to reach the goal.	approx. 15 min and was followed up by further sessions every 6 months over 1.5 to 2.5 years. Intervention fidelity: No further details reported		collaborations and empowerment themes. These initial sessions were followed up with 2-hour group supervisions after the intervention had started plus an option to consult a psychologist.		categories (inactivity, moderate activity for at least 4 hours per week vigorous activity for at least 3 hours per week, competitive sports or exercise several times a week).	size could not be calculated.
Van der Weegen et al., 2015; Netherlands. (36)	3-arm cluster RCT with assessments at baseline, after the intervention at 4-6 mths and 9 mths; PA intervention.	N= 199, 51% women, mean age 58 yrs (SD 7.6); eligibility: age between 40 and 70 yrs with diagnosis of diabetes type 2 (DM2) or chronic obstructive pulmonary disease (COPD), not following Dutch guidelines for PA; for DM2: BMI >25; for COPD: diagnosis acc. To Gold criteria 1-3, stabile in their respiratory function for at least 6 wks and on stable drug regimen; able to access computer with Internet connection and	Intervention consultation was based on 5 As (assess, advise, agree, assist, arrange) and consisted of consultations in 1st wk (booklet, discussion of risks due to physical inactivity), after 2 wks (goal setting and exploration of local activities), after 2-3 mths (feedback, review goals, discuss barriers and facilitators, agree on follow-up) and after 4-6 mths (feedback, discuss barriers and facilitators, development of habits, agree on follow-up). Intervention group 1 received consultations plus an activity monitor with online feedback,	4 intervention sessions, duration not reported. Intervention fidelity: intervention group 1, 12 participants did not receive the number of intervention sessions as intended; in group 2, 7 participants did not receive the intended number of intervention sessions.	Practice nurse	Online Web lecture and personal instruction sessions at the nurse's workplace. Information about the 4 A model, associated counselling techniques and instructions charts for each consultation.	Booklet at first consultation with information about intervention, activity questionnaire and list of local PA activities and activity monitor.	PAM accelerometer (average minutes moderate or vigorous PA per day for 8 days) converted into MET units.	Sig. increase in PA at 4-6 and 9 mths. No sig. difference between intervention groups at follow-up assessments. Cohen's d at 4-6 mths for consultation only = 0.26, at 9 mths d= 0.11; Cohen's d at for consultation plus activity monitor and feedback at 4-6 mths = 0.39; at 9 mths = 0.30.

		sufficient language skills.	intervention group 2 received consultations only. The control group received care as usual.						
Westland et al., 2020; Netherlands. (37)	2-arm cluster RCT with assessments at baseline, 3 and 6 mths; PA intervention.	N= 195, 39% women, mean age 66.33 (SD 8.7); eligibility: age between 40 and 75 yrs at risk of CVD, less thank 30 min of moderate to vigorous PA on 5 or more day a week, mastering Dutch language, exclusion criteria were not being able to give informed consent, mental or physical impairment, participation in a structured exercise programme in the past 2 yrs.	Intervention was based on Behaviour Change Wheel and consisted of 4 consultations in wk 1, 3, 7 and 12. Wk 1 included information about trial, websites, apps, risks of CVD, benefits of and tips for PA, patients received activity logs and forms for action planning; in the 2nd consultation the information was repeated. In the 2nd, 3rd and 4th consultation, nurses provided feedback, adjusted goals and action plans if needed; in 3rd and 4th consultation, nurses also discussed relapse prevention and formation of new activity habits. During intervention patients self-monitored PA using an accelerometer and keeping an activity log.	4 intervention sessions, each 20-30 min. Intervention fidelity: in total 73 participants attended all 4 consultation sessions (78.5%).	Practice nurse	One day skills training plus two individual coaching sessions with a health psychologist, instructional videos showing how to apply the behaviour change theories in consultations and a handbook providing a structure for the consultations, example sentences and checklists for procedures.	Accelerometers and activity log.	At 6 mths: PAM accelerometer min (average min moderate or vigorous PA per day for 7 consecutive days); PAM accelerometer min with added self-reported cycling, swimming and strengths training min, self-reported PA.	No significant differences at 6 months follow-up between control and intervention groups. Cohen's d at 6 mths for PAM accelerometer min d= 0.17; for PAM accelerometer min plus cycling, swimming and strengths training min d = 0.08; for self-reported PA d= 0.14.

BMI: body mass index; CI: confidence interval; CHAMPS: Community Healthy Activities Model Programme questionnaire; COPD: chronic obstructive pulmonary disease; CVD: cardiovascular disease; kcal/wk: kilocalories per week;; MET: metabolic equivalent; MET min: ratio of work MET metabolic rate to resting metabolic rate; MI: Motivational Interviewing; min: minutes; MVPA: moderate to vigorous physical activity; mth: month; OR: odds ratio; PA: physical activity; PACE: Physician-based Assessment and Counselling for Exercise; PC: primary care; PCP: primary care physician; RCT: randomised controlled trial; SD: standard deviation; sig. : significant; wk: week; yr: year.