

Supplementary file 6. Implementation data_27.05.21

Study (Year)	Fidelity (delivering the intervention as per protocol)	Recruitment (recruiting participants and sites)	Retention (participants remaining in the intervention or control/usual care group)	Reach (dose received and participant engagement)
Adams (2012)	Only qualitative data reported.	10 clusters invited. 7 clusters recruited (needed active membership n≥12).	I: n= 40 (85.1%) C: n= 24 (85.7%) Primary reasons for leaving the study: 55% (6/11) Having to wear the activity monitors. 18% (2/11) Time commitment too great. 18% (2/11) Had not understood length of study. 9% (1/11) Went out of town unexpectedly.	23/40 (58%) participants always used 2 of 3 intervention elements Overall satisfaction with the programme (Likert scale, 1= not at all, 5= very satisfied): 39.5% (17/43) participants rated very satisfied (highest %). 97.7% (42/43) participants rated at least "3= somewhat" or above.
Albright (2015)	5% (80/1586) recorded telephone counselling sessions evaluated against a checklist of the essential intervention components: 88% fidelity over the 12-month intervention to the essential intervention components. 96% calls covered barriers to MVPA discussion. 97% calls covered assessing participant's previous MVPA goal. 100% calls covered setting the participant's next MVPA goal. The two components most	Community recruitment: 272 via adverts, e.g., magazines, radio stations; 170 randomised, Kaiser Permanente recruitment: 3844 Postcards sent out; 1176 calls made; 419 interested in joining; 141 randomised.	I: n= 115 (74.7%) C: n= 127 (80.9%) Most frequent reasons for failure to complete the intervention: 13% Pregnancy. 9.5% Too busy. 6.1% Discontinued participation, no given reason. 3.5% Family/job issues.	TTCW group: 90.4% of the participants receiving ≥13 of the 17 scheduled calls. 78.3% of the participants viewed the website at least once. 75% of participants set incremental MVPA goals with a health educator during the counselling sessions over the 12-month intervention period. Level of achieving set MVPA goals in the 3 phases among all participants: High level (≥100% of MVPA goal achieved or exceeded): 40.6% of the time during Phase 1 (weekly calls). 39.9% of time during Phase 2 (biweekly

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	frequently not delivered: Pedometer steps (asked in 68.8% calls). MVPA resources (offered in 80% calls).			calls). 42.0% of time during Phase 3 (monthly calls). Moderate level (50-99% MVPA goal achieved): 23.5% of the time during Phase 1. 28.4% of the time during Phase 2. 21.1% of the time during Phase 3. Low level (0-49% MVPA goal achieved): 35.8% of the time during Phase 1. 31.7% of the time during Phase 2. 36.9% of the time during Phase 3.
Benedetti (2020)	Checklist to assess implementation, including programme fidelity, instructor knowledge, classroom, schedule, participants' attention and attendance: All analysed items achieved an average of 98% fidelity.	2 of 5 health districts in Florianopolis were interested in participating, consisting 20 of 50 HCs. 6 HCs were interested, and had the physical structure and human resources to offer the programmes, thus were recruited. 4,071 older adults across the 6 HCs; 24.2% (985) individuals were considered eligible; 11.5% (114) of eligible participants recruited.	Post-intervention (3 months): BCG: n= 18 (50%) TEG: n= 33 (63.5%) C: n= 23 (88.5%) 6 months: BCG: n= 17 (47.2%) TEG: n= 32 (61.5%) C: n= 21 (80.8%) 12 months: BCG: n= 13 (36.1%) TEG: n= 28 (53.8%) C: n= 17 (65.4%)	Overall, 49% of participants attended at least 75% of all sessions, with disengagement occurring mostly in the first three weeks of the study (42%). Both intervention groups showed relatively high disengagement rates (BCG 50% vs. TEG 37%) with individuals in the BCG presenting lower rates of overall attendance (27% vs. 47%).
Berendse n (2015)	Fidelity: 24/25 interviewed HCPs were trained in Motivational Interviewing, and applied MI with the participants. 100% PTs made an exercise plan with the participants.	30 clusters invited. 411 participants recruited (with 2 to 30 subjects per cluster, 76.9% of participants referred by the GP). Eligibility based on baseline data: - 48.9% met the inclusion criteria. - 10.0% healthy BMI/no comorbidities.	28 clusters remained Participants: I: n= 196 (79.4%) C: n= 126 (76.8%) From recorded data, the main reasons of drop-outs were health issues (31.5%),	% = median of attended / planned number of meetings: LSA meetings: I: 50.0%; C:66.7% PT group meetings: I: 47.1% to 61.5%; C: 0% (planned n= 0) PT individual meetings: I: 0% (planned 6 to 7); C: 33.3%

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<p>84.8% of the participants set exercise goals or made an exercise plan with an HCP. 79.9% Exercise plans or goals were made with PT, if participants attended any individual meeting with a PT.</p> <p>5/6 dietitians made nutritional plans with the participants. 73.9% of the participants made set nutritional plan or goals with an HCP. 91.7% of the plans or goals were made with the dietitian, if participants attended any individual meeting with a dietitian.</p> <p>96.9% participants reported LSA had explained the intervention clearly at the beginning.</p> <p>226 participants (from both IG and CG) completed a questionnaire after 12 months: 40.7% Reported the LSA had explicitly concluded the intervention. 41.2% Reported the intervention was not concluded. 18.1% Did not know.</p> <p>Dose Delivered: 1 PT in start-up programme</p>	<p>- 16.8% higher weight-related risk than the target population. - 24.3% of participants' eligibility could not be checked.</p>	<p>and personal reasons (10.1%).</p>	<p>Dietitian group meetings: I: 42.9%; C: 28.6% Dietitian individual meetings: I: 33.3%; C: 133.3%</p> <p>Satisfaction (on scale of 1–10, 10 is best): Mean range (across meeting types): I: 7.1 – 8.0 C: 7.1 – 7.3 Overall programme (Mean (SD)): I: 7.7 (1.5) C: 7.1 (1.8)</p>
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	<p>only planned group meetings with all HCPs, instead of the individual meetings intended per protocol.</p> <p>4 dietitians typically offered individual meetings with participants, as per protocol. The other 4 dietitians only planned individual meetings according to participant's preference.</p>			
Biddle (2017)	Not reported	Not reported	<p>*I: n= 41 (43.6%) *C: n= 68 (73.1%)</p> <p>Reasons for failure to complete the intervention or loss to follow-ups: 24.5% (23/94) Did not receive allocated intervention in the intervention group. 16% (30/187) No longer want to participate. 13.4% (25/187) Failed to attend FU appointment.</p>	<p>23/94 (24%) allocated to intervention group did not attend the structured education workshop. 45/94 (47.9%) took part in Week 6 phone progress reviews</p> <p>26/31 (84%) participants used the accelerometer daily initially, but this fell to 13/31 participants at 6 weeks.</p> <p>25/31 (81%) participants felt the accelerometer as helpful at 6 weeks.</p> <p>Workshop feedback: Behaviour change plans for future (6 weeks): 4/38 (11%) referred to strategies to sit less 17/38 (45%) planned for physical activity Others referred to desired health outcomes</p> <p>"Best bits" of the workshop (mentioned most frequently): 1. information on diabetes; 2. the atmosphere of the workshop; 3. Receiving personal data on</p>

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				sitting levels and health. Behaviour change strategies attempted as reported by participants: 18 strategies mentioned to sit less and 8 strategies to move more.
Blunt (2018)	Only qualitative data reported	*How recruited participants heard about the study: 51 (45%) from posters or handouts; 28 (25%) received an email from the study site advertising the project; 15 (13%) from an in-person study recruiter; 12 (11%) referred by their health care provider (HCP) and/or HCP team; 6 (5%) by word of mouth; 1 (1%) other unspecified methods Five did not specify how they heard about the study	*6 months: I: n= 44 (74.6%) C: n= 46 (78.0%) 3.4% (I: n= 2) Did not attend any session 6.8% (I: n= 5, C: n= 3) Personal/health reasons 3.4% (I: n= 3, C: n= 1) Time commitment 5.9% (I: n= 2, C: n= 5) No longer interested *12 months: I: n= 37 (63%) *18 months: I: n= 35 (59%)	*Attendance: 5% attended no sessions; 17% attended 1 session; 10% attended 2 sessions; 20% attended 3 sessions; 48% attended all 4 sessions. Across all sites, 40 participants (68%) were classified as programme completers. Among participants who completed the intervention programme, 30% attended 3 in-person sessions, 70% attended all 4 sessions.
Eiramli (2017)	Not reported	320 participants invited: 106 (33.1%) did not respond; 122 (38.1%) ineligible; 92 (28.8%) assessed for eligibility; 76 (23.8%) randomised	3 months: I: n= 36 (92.3%) C: n= 26 (70.3%) 6 months: I: n= 37 (94.9%) C: n= 22 (59.5%)	Intervention attendance: 26 (66.7%) participants attended all 8 education sessions (6 sessions and 2 booster sessions) 28 (71.8%) attended 6 sessions 71.8 % attended the first booster session 76.9% attended the second booster session Control group attendance: 21 (56.8%) participants attended the single group education session
Harris (2018)	Nurse session attendance and session content delivered	11,015 people invited to participate; 6,399 did not respond;	3 months: Postal: n= 335 (98.8%)	Diary returned: Postal: 268/339 (79%)

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	<p>recorded by the nurses after each session.</p> <p>Fidelity to content delivered was high in all sessions; the mean number of items delivered in session one was 11 (range 10–11); six (range 5–6) in sessions 2 and 3.</p> <p>Duration of sessions reported by nurses and measured from records were not very far from the recommendation ($\pm\leq 30\%$ difference maximum).</p>	<p>548 were excluded as a result of self-reported PA guideline achievement; 1,023/10,467 (10%) were randomised.</p>	<p>Nurse: n= 335 (96.8%) C: n= 335 (99.1%)</p> <p>12 months: Postal: n= 319 (94.1%) Nurse: n= 317 (91.6%) C: n= 329 (97.3%)</p> <p>4.3% (Postal: n=15/339, Nurse: n=25/346, C: n=4/338) Withdrawn 1.4% (Postal: n=5/339, Nurse: n=4/346, C: n=5/338) Not able to be contacted</p>	<p>Nurse: 281/346 (81%)</p> <p>Pedometer use (every day or most days) during 12-week intervention: Postal: 238/294 (81%) Nurse: 269/303 (89%)</p> <p>Attending nurse sessions: 255/346 (74%) attended all three sessions. 258/263 (98%) attended session 3, and reported still using the pedometer and diary every day or sometimes.</p>
Lakerveld (2012)	<p>Only qualitative data reported</p>	<p>8,193 people of 12 general practices were invited according the age (30-50 years) and absence of DM or CVD.</p> <p>2,401 (29.3%) responded positively; 1,186 (14.5%) declined; 921 (11.2%) of those who accepted invitation met the waist circumference inclusion criterion; 772 (9.4%) attended screening at clinic and consented; 622 (7.6%) fully eligible and randomised.</p>	<p>End of intervention (6 months): I: n= 267 (85.0%) C: n= 269 (87.3%)</p> <p>12 months: I: n= 249 (79.3%) C: n= 253 (82.1%)</p> <p>24 months: I: n= 236 (75.2%) C: n= 244 (79.2%)</p> <p>Reasons for loss to follow-up: 15.1% (I: n=42/308, C: n=52/314) Unable to attend 3.7% (I: n=9/308, C: n=14/314) Withdrew consent 1.1% (I: n=5/308, C: n=2/314) Became pregnant 1.3% (IG n=5/308, C:</p>	<p>*207 (66%) participants received at least 1 face-to-face session, 78% of them were content with the sessions.</p> <p>The median number of attended sessions was 2 (out of a max of 6).</p>

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			n=3/314) Unable to contact 0.2% (I: n=1/308, C: n=0/314) Died 1.4% (I: n=2/308, C: n=7/314) Diagnosed type 2 DM	
Lane (2010)	Not reported	11,205 women registered for the Women's Mini Marathon completed a survey about their PA habits. Consented respondents were followed up 2 months and 6 months afterwards respectively: 2,020 of them provided records of PA changes at both follow-ups; 414 of them were identified as having relapsed to insufficient levels of PA and invited to participate in the trial; 176 consented to participate.	Follow-up response rate (end of trial at 6 Weeks): I: n= 55 (65%) C: n= 57 (63%)	76% of Intervention group participants responded at 3 Weeks: 97% received the booklet(s) 90% found the booklet(s) useful 50% reported increase in PA levels 28.5% felt greater levels of motivation which led to PA increase 16% felt they had more knowledge on being active which led to PA increase 5% attributed the PA increase to training for the Mini Marathon for the following year At end of trial (6 Weeks), receipt and use of materials provided: 95% of intervention group participants 80% of control group participants
Matson (2018)	Not reported	Not reported	*I: n= 29 (100%) *C: n= 25 (80.6%)	Only qualitative data reported
Matthews (2016)	Only qualitative data reported	Sample was deemed representative of adults with intellectual disabilities: 91% (n = 93) had mild or moderate intellectual disability.	*End of intervention (12 weeks): I: n= 45 (83.3%) C: n= 43 (89.6%) *24 weeks: I: n= 42 (77.8%) C: n= 40 (83.3%) Reasons for loss to follow-up: 32.4% (I: n=20/54, C: n=13/48) Did not want to	*54 participants were assigned to intervention, and received the intervention. *71% took part in all 3 planned face-to-face physical activity consultations. *26% took part in 2 consultations *3% took part in 1 consultation

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			continue 1% (I: n=1/54) Ill-health	
Poston (2013)	Goals were set at all group sessions, of which 88% were considered SMART by HTs according to their diaries.	According to information from the Health and Social Care Information Centre (2013), approximately 1:5 pregnant women would be eligible for inclusion. 473/656 (72%) eligible people declined to participate (43.0% of those who declined were in the lowest quintile for Index of deprivation indicating the most severe deprivation); 38% participated.	End of intervention: I: n= 79 (84.0%) C: n= 75 (84.3%)	82/94 (88%) attended at least one group session, and 60 (64%) attended 4 or more. 42 women (45%) received material from all eight sessions, 6 by full attendance (6%) and 36 when partly/wholly covered by subsequent phone contact. Mean of 6.1 (SD 2.6) sessions were attended or partly/wholly covered for the intervention group.
School of Public Health, HKU (2017)	Fidelity checks were conducted for every session of the programmes, which ensured the quality of the intervention and the implementation of the key elements in the intervention.	8 participating Integrated Family Service Centres to recruit around 600 eligible parents. 728 (121.3% of target) randomised.	Trial Core session (baseline): I: n= 357 (92.5%) C: n= 316 (92.4%) 3 months: I: n= 335 (86.8%) C: n= 306 (89.5%) 6 months: I: n= 328 (85.0%) C: n= 298 (87.1%) End of intervention -12 months: I: n= 309 (80.1%) C: n= 284 (83.0%) Reasons for absence from sessions included occupied with other activities, took care of family, illness, could not be contacted, and abroad; the exact number of participants dropped out for each of these reasons cannot	Physical activity group: (386 randomised) 357 (92.5%) attended core (1st) session 355 (92.0%) attended booster session at 3 months 313 (81.1%) attended tea gathering at 6 months 281 (72.8%) attended Family Holistic Health session at 1 year. Healthy diet group: (342 randomised) 316 (92.4%) attended core (1st) session 306 (89.5%) attended booster session at 3 months 292 (85.4%) attended tea gathering at 6 months 268 (78.4%) attended Family Holistic Health session at 1 year. Participant's feedback at end of Physical activity programme (on a scale of 0-10, 10 is best) (Mean (SD)): 9.0 (1.2) Quality of intervention content 9.0 (1.2) Level of utility of the intervention 100% participants would recommend this

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			be ascertained.	intervention programme to their friends and families
Spittaels (2007)	Not reported	<p>8,000 employees targeted via 6 worksites using email messages, posters and internal newsletters; 570 (7.1%) responded positively; 562 (7.0%) returned the baseline questionnaire with the informed consent, and then randomised.</p> <p>~65% of participants met the minimal recommendations for physical activity at baseline despite explicit recruitment of inactive participants</p> <p>31% participants were female, males comprising the majority of employees in the two biggest worksites for recruitment</p> <p>Male participants already had high baseline physical activity scores compared to the general male population (72% vs. 57% meeting the recommendations), whereas female participants were more representative of the population (47% vs. 48% meeting the recommendations).</p>	<p>End of intervention: Tailored advice+emails: n= 116 (66.7%) Tailored advice: n= 122 (69.7%) C: n= 141 (79.7%)</p>	<p>Recalled having received the tailored advice (% participants): 97% Tailored advice+emails group 94% Tailored advice group 53% Control group</p> <p>Tailored advice+emails group satisfaction (% participants): 92% Received at least 3 of the 5 reinforcement emails 77% Read them completely 87% Satisfied by number of emails 86% Satisfied by frequency of emails 45% Felt emails were useful 33% Reported behavioural changes</p>
Stathi (2019)	Not reported	<p>2,000 mailed invitations were delivered in the target areas resulting in 230 responses from potential participants and activators (response rate 11.5%).</p> <p>ACE participants: 154 (7.7%) requests for information packs. 65 (3.3%) people returned reply forms. 40 (2.0%) recruited.</p> <p>Activators: 76 (3.8%) requests for information packs. 15 (0.8%) recruited after completing the training.</p>	<p>End of intervention: Activator: n= 15 (100.0%)</p> <p>Participants: I: n= 19 (86.4%) C: n= 13 (76.5%)</p> <p>Reasons for dropping out prior to final measures: 7.7% (3/39) Ill-health 5.1% (2/39) Carer commitments</p>	<p>All participants who completed the intervention engaged with their activator at least 7 times as planned.</p> <p>Of the 3 participants who dropped out: 2 met their activator less than 5 times but were contacted regularly by phone.</p>

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			2.6% (1/39) Lack of time 2.6% (1/39) Moving to a different city	
Williams (2019)	Not reported	215 eligible service users contacted by letter and phone; 71 not interested; 104 not contactable; 40 (18.6%) recruited.	I: n= 16 (80.0%) C: n= 17 (85.0%)	13 (65%) received intervention: 5 did not engage with intervention; 2 did not engage with intervention after education session.

Keys: * = Data from associated publications; ACE = Active, Connected, Engaged intervention; BCG = Behaviour change group; BMI = Body Mass Index; C = Control group; CVD = Cardiovascular disease; DM = Diabetes Mellitus; FU = Follow-up; GP = General practitioner; HC = Health centre; HCP = Health care provider; HT = Health trainer; I = Intervention group; LSA = Lifestyle advisor; MVPA = Moderate-to-vigorous physical activity; n = number of persons; PA = Physical activity; PT = Physiotherapist; SD = Standard deviation; SMART = Specific, Measurable, Achievable, Relevant, and Time Specific; TEG = Traditional exercise group; vs = versus