Table 1. Characteristics of included studies.

Study	Design/ Participants	Inclusion criteria	Intervention and follow-up	Outcomes
Skobel et al. (17)	- Multicenter **n= 118** Age 58 ± 10 **CG n=63** Age 58 (52,67) Lost of follow-up: 21 **IG n= 55** Age 60 (50,65) Lost of follow-up: 36	- CAD (AMI or PCI) - EF ≥ 30% - Willing to exercise	**Intervention:** 6 months **Follow-up:** 6 months **Website:** Smartphone-guided training system with sensor that monitors respiratory rate and electrocardiogram. The medical team provided feedback and adjusted prescriptions. **Professional:** Sport physicians	**Primary** - VO2peak (ml/kg/min) **Secondary** - HDL-c, cLDL-c, total cholesterol - HbA1c, glucose - BMI - Quality of life (EQ-5D). - Anxiety and Depression (HADS-anxiety, HADS-depression)
Choi et al. (18)	- Unicenter **n= 100** **CG n= 49** Age 56.6± 1.7 Lost of follow-up: 5 **IG n=51** Age 57.7 ± 1.8 Lost of follow-up: 7	-CVD (atherosclerotic, MI, previous PCI, other) >18 years	**Intervention:** 3 months **Follow-up:** 1, 3 and 6 months **Smartphone application:** Personalised application aimed at reinforcing the Mediterranean diet, with weekly challenges to encourage dietary modification, messaging service. **Professional:** Dietitian and cardiologist	**Primary** - Body weight - Mediterranean diet compliance and satisfaction score (Mediterranean diet score, diet satisfaction score) **Secondary** - SBP, DBP - BMI, - LDL-c, HDL-c, total cholesterol, triglycerides - HbA1c - CRP
Widmer et al. (19)	- Unicenter **n=80** **CG n=40** Age 63,6±10,9 Lost of follow-up: 6	- ACS (with PCI) > 18 years -Without problem for physical activity	**Intervention:** 3 months **Follow-up:** 3 and 6 months **Smartphone application:** Recording of outcomes in the app for periodic checks, online messaging service.	**Primary** -MACE **Secondary** - Body weight, BMI - SBP, DBP

			Professional: Cardiologist and internist doctor	- Waist circumference
IG n=40				- HR
Age 62,5±10,7				- Glucose/HbA1c
Lost of follow-up: 3				- LDL-c, HDL-c, total cholesterol, triglycerides
				- Physical activity (min exe/week)
				- Diet (food score)
				- Quality of life(Darmouth QOL)
				- Stress (stress score)
				-Acceptability and usability of the app (questionnaire)
Fang et al. (20)	- Multicenter	- Low-risk patients after PCI	**Intervention:** 1.5 months	**Primary**
	n= 80	-Living with at least one other person	**Follow-up:** 1.5 months	-Exercise capacity (6MWT)
	CG n=40		**Smartphone application and website:** Cardiac telerehabilitation at home with real-time monitoring and rapid feedback between the patients and clinicians.	- SBP, DBP
	Age 61.41 ± 10.169			- Anxiety and depression (CDS Score)
	Lost of follow-up: 5			- Quality of life (SF-36)
	IG n=40			- Nicotine dependence (FTND score)
	Age 60.24 ± 9.351		**Professional:** Physiotherapist and Doctors	
	Lost of follow-up: 6			
Frederix et al. (21)	- Multicenter	-CAD (with PCI or coronary bypass) / CHF	**Intervention:** 6 months	**Primary**
	n=140	>18 and <80 years	**Follow-up:** 12 and 24 months	- VO2peak (ml/kg/min)
	CG n=70		**Website:** Training prescriptions with specific individualised exercises. Recording of the physical activity carried out. Dietary telecoaching with a module for AHT, diabetes mellitus, obesity.	**Secondary**
	Age 61±8			- Self-reported physical activity (IPAQ)
	Lost of follow-up: 11			- Quality of life (HeartQoL),
	IG n=70			- Cost-effectiveness
	Age 61±9			- HbA1c, glucose
	Lost of follow-up: 10		**Professional:** Cardiologists	- LDL-c, HDL-c, total cholesterol, triglycerides
				- Cardiovascular readmissions

Maddison et al. (22)	- Multicenter **n=171** **CG n=85** Age 59,0±9,5 Lost of follow-up: 8 **IG n=86** Age 61,4±8,9 Lost of follow-up: 10	- CAD (angina, AMI) -Revascularization, including angioplasty, stent or coronary artery bypass graft within the previous 3–24 months >18 years - Clinically stable	**Intervention:** 6 months **Follow-up:** 6 months **Website + sms:** Regular exercise prescription, behaviour change strategies and technical support with additional information through a website with new weekly content. **Professional:** CR nurses, doctor and physiotherapist	**Primary** - VO2peak (ml/kg/min) **Secondary** -Physical activity (IPAQ-LF). -Self-efficacy (task and barrier scale 0-100) -Quality of life (SF36 v.2 y EQ-5D)
Dorje et al. (23)	- Multicenter **n=312** **CG n=156** Age 61,9±8,7 Lost of follow-up: 25 **IG n=156** Age 59,1±9,4 Lost of follow-up: 22	- CAD (with PCI) ≥18 years	**Intervention:** 2 months + 4 months **Follow-up:** 2, 6 and 12 months **Website:** Monitoring physical activity with feedback and goal setting; interactive educational modules with avatars; remote blood pressure monitoring and strategies to improve medication adherence. **Professional:** Cardiologist	**Primary** - Exercise capacity (6MWT) **Secondary** - Knowledge of coronary heart disease (knowledge of CHD total score) - BMI - Resting HR - SBP - LDL-c, HDL-c, total cholesterol and triglycerides - Smoking status - Waist circumference - Quality of life (SF-12) - Anxiety (GAD-7 total score) - Depression (PHQ-9 total score) -Cardiac medication adherence (self-reported according to records in the platform) - Utility and acceptability
Hong et al. (24)	- Multicenter **n= 60**	-CAD (previous MI, coronary artery bypass grafting, PCI or stenosis of	**Intervention:** 3 months **Follow-up:** 3 and 6 months	**Primary** -Self-care and quality of life (PIH scale; WHOQOL-

	41-60 years (n = 24,40 %) 61 -70 years (n = 27, 45 %) **CG n= 30** **IG n= 30**	50% or more in at least one major epicardial vessel). > 20 years	**Web-based app:** Focused on blood pressure monitoring, self-monitoring behaviour and quality of life. The app has alarm and reminder systems for patients and graphs of their records. **Professional:** Nurses	BREF) - SBP, DBP
Maddison et al. (25)	- Multicenter **n= 162** **CG n=80** Age 61,5 ± 12,2 Lost of follow-up: 11 **IG n=82** Age 61,0 ± 13,2 Lost of follow-up: 17	- CAD within the last 6 months (atherosclerosis, angina pectoris, AMI, coronary revascularisation) ≥18 year	**Intervention:** 3 months **Follow-up:** 3 and 6 months **Website + smartphone application** of personalised telerehabilitation, with individualised weekly exercise prescription, monitoring and training, behaviour change strategies to promote exercise and regular physical activity. **Professional:** Physiotherapist	**Primary** - VO2peak (ml/kg/min) **Secondary** - HDL-c, LDL-c, total cholesterol and triglycerides - Glucose - Body weight, BMI - Waist/hip circumference - SBP, DBP - Physical activity (min/day) - Motivation to exercise -Quality of life (EQ- 5D index)
Park et al. (26)	- Multicenter **n= 60** **CG n=28** Age 66.8± 8.7 Lost of follow-up: 3 **IG n=32** Age 66.7 ± 8.6 Lost of follow-up: 6	- History of CVD: ischaemic heart disease (PCI, bypass, angina and AMI), valvular heart disease, structural heart disease ≥ 18 years	**Intervention:** 2 months **Follow-up:** 2 months **Smartphone application** (Movn): To record exercise, weight, BP, HR, medication use. With motivational and educational messages related to CVD management.	**Primary** - Exercise capacity (6MWT) - Steps/day **Secondary** -Depression (PHQ-9) and self-efficacy to maintain exercise (EXSE)
Piotrowicz et al. (27)	- Multicenter **n= 850**	-HF (ischaemic and non-ischaemic), MI, angioplasty, bypass, valve	**Intervention:** 9 weeks **Follow-up:** 9 weeks, 14 and 26 months	**Primary** - % of days alive and out of the hospital

	CG n=425 Age 62.2± 10.2 Lost of follow-up: 30 **IG n=425** Age 62.6 ± 10.8 Lost of follow-up: 12	surgery. - LVEF ≤ 40% - Hospitalised - Clinically stable - No contraindications to undergo CPET	**Website:** Storage of patient data uploaded via mobile phone, monitoring with: a special remote device for supervised exercise training with tele-EKG, a blood pressure device and a body weight scale. Telephone contact for psychological support. **Professional:** Doctors, physiotherapists, nurses and a psychologist.	**Secondary** - MACE - VO2peak (ml/kg/min) - Quality of life (SF-36) - Exercise capacity (6MWT)
Santo et al. (28)	- Unicenter **n= 163** **CG n= 56** Age 56,8 ±8,64 Lost of follow-up: 5 **IG n= 107** Age 58,4±9,04 Lost of follow-up: 6	-ACS (MI, unstable or stable angina, PCI or >50% stenosis in at least one major vessel) >18 years	**Intervention:** 3 months **Follow-up:** 3 months **Smartphone application:** Interactive and customisable features, daily medication reminders, which can be postponed, rescheduled and/or marked as a 'taken' or 'missed' dose. **Professional:** Doctors	**Primary** -Adherence to treatment (MMAS-8) **Secondary** -SBP, DBP - LDL-c - Number of missed doses in the last 7 days - Medication knowledge -Acceptability and usefulness of the App (questionnaire)
Snoek et al. (29)	- Unicenter **n= 122** **CG n=61** Age 59.0 ±10.7 Lost of follow-up: 1 **IG n=61** Age 60.0 ±8.4 Lost of follow-up: 3	- Have a minimum attendance of 80% in CR and at least one of the following indications for CR: ACS,PCI or coronary artery bypass grafting within three months prior to the start of the CR programme.	**Intervention:** 6 months **Follow-up:** 12 months **Website:** Individualised with physical training records, training history on mobile phone. Telephone contact using motivational interviewing to motivate and stimulate the patient. **Professional:** Nurse	**Primary** - VO2peak (ml/kg/min), FC max **Secondary** - Body weight, BMI - Waist circumference - LDL-c, total cholesterol - Quality of life (Qol, PHQ-9) - Anxiety and depression (HADS) - MACE

Yu et al. (30)	- Multicenter **n= 1000** **CG n= 499** Age 57.1± 9.20 Lost of follow-up: 10 **IG n= 501** Age 57.41 ± 8.99 Lost of follow-up: 16	- Coronary artery bypass >18 years -Have preventive medication prescribed within 2 weeks of surgery	**Intervention:** 6 months **Follow-up:** 3 and 6 months **Smartphone application:** With medication records and reminders, in-app messaging service. **Professional:** Nurses	**Primary** - Medication adherence (MMAS-8) **Secondary** - MACE - SBP, DBP - BMI - Smoking
Yudi et al. (31)	- Multicenter **n= 206** **CG n=103** Age 56.2 ± 10.2 Lost of follow-up: 18 **IG n= 103** Age 56.8 ± 9.9 Lost of follow-up: 17	-ACS (coronary artery stenosis >50%), or PCI ≥18 years	**Intervention:** 2 months **Follow-up:** 2 months **Smartphone application:** With an exercise prescription platform, dynamic CVRF monitoring. Tracking and evaluation of dietary data. Records of prescribed medication within the app. Messaging service with personalised messages.	**Primary** - Exercise capacity (6MWT) **Secondary** - CR adherence and completion - LDL-c, HDL-c, total cholesterol and triglycerides - HbA1c - SBP, DBP - BMI, waist circumference - Smoking -MACE and hospital readmissions (after 2 months) - Depression and anxiety (CDS, HADS) - Quality of life (EQ-5D, SF-36). - Return to work (days)
Lunde et al. (32)	- Multicenter **n=113** **CG n=56** Age 58,4±8,2 Lost of follow-up: 0 **IG n=57** Age 59,5±9,1	- ACS, CAD ≥40 years - Completing a CR programme	**Intervention:** 12 months **Follow-up:** 12 months **Smartphone application:** Automatic reminders, task evaluations, weekly goal achievement, short personalised and individualised motivational feedback. **Professional:** Physiotherapist specialising	**Primary** -VO2peak (ml/kg/min) **Secondary** -Exercise performance: Time to exhaustion (sec); Max incline (%) and Max speed (km/h) -Body weight -SBP, DBP

	Lost of follow-up: 2		in cardiovascular and pulmonary physiotherapy	- LDL-c, HDL-c, total cholesterol and triglycerides -Exercise habit (exercise sessions (30 min) /week, per year) -Quality of life (HRQL, EQ-5D VAS) -Weekly self-perceived goal achievement (Likert scale 0-100)
Su et al. (33)	- Unicenter n= 146 CG n=73 Age 56.03±7.02 Lost of follow-up: 15 IG n=73 Age 55.53 ±7.30 Lost of follow-up: 7	- CHD >18 years -No contraindications for physical activity	Intervention: 3 months Follow-up: 1.5 and 3 months Web-based app: Composed of three platforms: a goal-achievement interface, an experiential learning interface and a health dialogue forum. Participants uploaded goal achievement data on a weekly or daily basis with graphical visualisation and motivational feedback. Professional: Nurse	Primary - Physical activity (IPAQ, steps/day) - Smoking Secondary - Waist circumference, BMI - SBP, DBP - Cardiac self-efficacy (CSES) - Quality of life (MacNew questionnaire) - Anxiety and depression (DASS-21)
Barnason et al. (34)	- Multicenter n=50 Age 63 ± 9.3 CG n=25 Lost of follow-up: 4 IG n=25 Lost of follow-up: 3	- Coronary artery bypass surgery or PCI - Overweight or obese -Participating in a rural CR programme	Intervention: 3 months Follow-up: 4 and 6 months Mobile device (Viterion®): Which included six modules with 36 telehealth sessions addressing calorie goals and dietary portion guidelines + telephone coaching. Professional: Nurse	Primary - BMI Secondary - Physical activity, patient motivation, self-efficacy (CESEI y HHESE scale)
Duscha et al. (35)	- Multicenter n = 32 CG n=9 Age 66,5 ± 7,2	-CVD (MI with PCI or with coronary bypass / coronary bypass without MI/ PCI without MI/ coronary bypass valve repair/ HF, stable	Intervention: 3 months Follow-up: 3 months Smartphone application: Using physical activity trackers and health counselling,	Primary - VO2peak (ml/kg/min) - Steps/day - Physical activity (min/week)

	Lost of follow-up: 2 **IG n=21** Age 59,9±8,1 Lost of follow-up: 5	angina) ≥18 year - Completion of 36 CR sessions - Clinical stability - Complete a CPET	with personalised exercise prescription. **Professional:** Nutritionists, exercise physiologists, nurses and health educators.	
Johnston et al. (36)	- Multicenter **n= 174** **CG n= 83** Age 58,4 Lost of follow-up: 6 **IG n=91** Age 56,8 Lost of follow-up: 6	- MI >18 years -With treatment initiated in-hospital with ticagrelor 90 mg 2/day one year	**Intervention:** 1 month **Follow-up:** 6 months **Web-based app:** Installed on the smartphone with an electronic diary focusing on medication adherence and secondary prevention education modules. Educational messages according to reported records. **Professional:** Doctor and Nurse	**Primary** Adherence to treatment (electronic diary) (MARS-5) **Secondary** - BMI - SBP - LDL-c - Physical activity level (min/week) - App Usability (SUS) - Smoking cessation -Quality of life (EQ- 5D VAS)
Song et al. (37)	- Multicenter **n= 106** **CG n=53** Age 54.83 ± 9.13 Lost of follow-up: 5 **IG n=53** Age 54.17 ± 8.76 Lost of follow-up: 5	- Stable CHD ≤ 75 years -Without physical or mental disorders affecting exercise	**Intervention:** 6 months **Follow-up:** 6 months Remote **monitoring software** installed on **smartphones**: Rehabilitation with tele-monitored exercises. Weekly communication through text messaging and phone calls. **Professional:** Doctors	**Primary** - VO2peak (ml/kg/min) **Secondary** - Improved exercise tolerance (CPET) - HDL-c, LDL-c, triglycerides - Glucose - MACE
Treskes et al. (38)	- Unicenter **n=200** **CG n=100**	- MI > 18 years - BMI <35 kg/m2	**Intervention:** 12 months **Follow-up:** 1, 6 and 12 months **Smartphone application:** Daily recording	**Primary** - SBP and DBP control **Secondary**

			and review of variables, contact if BP is higher than recommended or arrhythmias. Management of 4 devices + Smartphone (BP monitor, pedometer, weighing scale and ECG device). **Professional:** Nurse specialised and cardiologist	-Patient's Satisfaction (Patient's Satisfaction Questionnaire) - MACE (one year after MI)
	Age 59,1 ± 30,3 Lost of follow-up: 8 **IG n=100** Age 60,1 ± 34,6 Lost of follow-up: 12			
Garmendia et al. (39)	- Unicenter **n=90** **CG n=44** Age 62±10 Lost of follow-up: 0 **IG n=46** Age 64±10 Lost of follow-up: 0	-ACS hospitalised (with and without ST elevation) > 18 years	**Intervention:** 3 months **Follow-up:** 3 months **Smartphone application** (MyTherapy®): Where the medical team installs a list of prescribed medication with alarms as a reminder. **Professional:** Doctor	**Primary** - Adherence to treatment (MMAS-8)

ACS: acute coronary syndrome; **AMI:** acute myocardial infarction; **BMI:** body mass index; **CAD:** coronary artery disease; **CDS:** Calgary Depression Scale; **CESEI:** Cardiac Exercise Self-Efficacy Instrument; **CG:** Control Group; **CHD:** coronary heart disease; **CHF:** chronic heart failure; **CSES:** Cardiac Self-efficacy Scale; **CR:** cardiac rehabilitation; **C-RP:** c-reactive protein; **CPET:** cardiopulmonary exercise test; **CVD:** cardiovascular disease; **CVRF:** cardiovascular risk factors; **DASS-21:** Depression Anxiety Stress Scale 21; **DBP:** diastolic blood pressure; **EKG:** electrocardiogram; **EQ-5D VAS:** European Quality of Life-5 Dimensions, visual analog scale; **EXSE:** Exercise Self-Efficacy Scale; **FTND:** Fagerström Test for Nicotine Dependence; **GAD-7:** Generalized Anxiety Disorder; **HADS:** Hospital Anxiety and Depression Scale; **HbA1c:** glycosylated hemoglobin; **HBP:** high blood pressure; **HDL-c:** high-density lipoprotein cholesterol; **HF:** heart failure; **HHESE:** Heart Healthy Eating Self-Efficacy; **HR:** heart rate; **HRQL:** Health-Related Quality of Life; **IG:** Intervention Group; **IPAQ:** International Physical Activity Questionnaire; **LDL-c:** low- density lipoprotein cholesterol; **LVEF:** left ventricular ejection fraction; **MACE:** major adverse cardiac events; **MacNew:** MacNew Heart Disease Health-related Quality of Life; **MARS-5:** Medication Adherence Report Scale; **MI:** myocardial infarction; **MMAS-8:** Morisky Medication Adherence Scale-8; **PCI:** percutaneous coronary intervention; **PHQ-9:** Patient Health Questionnaire; **PIH:** Partners in Health; **QoL;** Quality of Life; **SBP:** systolic blood pressure; **SF-12:** 12-item short form health survey; **SF-36:** 36-item health survey; **SUS:** system usability scale; **Vo2 peak**: Peak oxygen uptake; **WHOQoL-BREF:** World Health Organization Quality of Life; **6MWT:** six minutes walk test.