Table 1. Summary of outcomes and feedback efficacy for diet only intervention studies. Significant: $P<.05$.

Author, year	Group	Targeted behavior and weight change outcomes			
Ford, 2010 [21]		Body mass index (BMI; kg/m^2)			
	Mandometer training	−0.40			
	Standard care	−0.14			
	Between-group difference[a]	*Significant*			
Mummah, 2016 [22]		Vegetable intake (servings/day)	Green leafy vegetable intake (servings/day)	Cruciferous vegetable intake (servings/day)	Dark yellow vegetable intake (servings/day)
	Vegethon mobile app	Adjusted mean difference=7.4 servings	Adjusted mean difference=2.6 servings	Adjusted mean difference=1.6 servings	Adjusted mean difference=0.8 servings
	Waitlist control				
	Between-group difference[a]	*Significant*	*Significant*	*Significant*	*Significant*
Pederson, 2016 [23]		Change in F/V intake behaviors			
	SMS text messages (short service message, SMS) + nutrition education	−0.07			
	SMS text messages	−0.05			
	Minimal intervention control	−0.18			
	Between-group difference[a]	*Not significant (NS)*			

[a]*P*-values for between-group differences may not have been reported in the cited study. Notation of significance or nonsignificance has been provided for consistency across studies.
[b]Primary outcome.
[c]Significant within-group differences were reported.
[d,e,f]Significant differences among three or more groups denoted by different superscripts.

Table 2. Summary of outcomes and feedback efficacy for PA sedentary behavior only intervention studies. Significant: $P<.05$.

Author, year	Group	Targeted behavior and weight change outcomes			
Adams, 2013 [24]		Average steps/day			
	Adaptive goals + performance feedback	+2728[c]			
	Static goals + encouraging	+1598[c]			

		messages			
	Between-group difference[a]	*Significant*			
Bond, 2014 [25]		Sedentary[a] (min/day)	Light physical activity (PA) (min/day)	Moderate-to-vigorous physical activity (MVPA; min/day)	
	3-min activity break	−47.2[d]	+31.0[d]	+16.3	
	6-min activity break	−44.5[e]	+31.0[e]	+13.5	
	12-min activity break	−26.2[f]	+15.3[f]	+10.8	
	Between-group difference[a]	*Significant*	*Significant*	*NS*	
Chapman, 2016 [26]		Average steps/day	Self-reported walking (min/week)		
	Step tracking + feedback	+1154	+89		
	Step tracking only	+832	+78		
	Between-group difference[a]	*NS*	*NS*		
Choi, 2016 [27]		Average steps/day (1-4 weeks)	Average steps/day (5-8 weeks)	Average steps/day (9-12 weeks)	TV or computer time (hours/week)
	FitBit + feedback	+1166.6	+1092.1	+1096.2	−10.8
	FitBit only	+1062.6	+804.3	+258.7	−6.3
	Between-group difference[a]	*NS*	*NS*	*NS*	*NS*
Hooke, 2016 [28]		Average steps/day Baseline to week-2	Average steps/day week-2 to week-1	Average steps/day week-1 to steroid pulse	
	FitBit + emails	−23	+269	−307	
	Between-group difference[a]	*Not applicable (N/A)*	*N/A*	*N/A*	
King, 2008 [29]		Moderate-intensity activity (min/week)	Caloric expenditure (kcal/kg/week)	Caloric expenditure (kcal/week)	
	Personal digital assistant (PDA) intervention	310.6	19.1	1653.9	
	Waitlist control	125.5	7.8	1406.8	
	Between-group difference[a]	*Significant*	*NS*	*Significant*	
Martin, 2015 [30]		Phase 2: average steps/day[b]	Phase 2: activity time (min/day)	Phase 2: aerobic time (min/day)	
	Unblinded with	+2334[d]	+21[d]	−13[d]	

	phase 2 texts					
	Unblinded without phase 2 texts	−200[f]	0[f]	−1[f]		
	Blinded to activity tracking	−1042[f]	−8[f]	−3[f]		
	Between-group difference[a]	*Significant*	*Significant*	*Significant*		
McManus, 2008 [31]		Time above heart rate (HR) target (min/day)	Time moderately active (min/day)	Time vigorously active (min/day)		
	Education + feedback school	+86[c]	+4.6	+5.4[c]		
	No education + feedback school	+69[c]	+0.5	+7.1[c]		
	Control school	*Not reported (NR)*	*NR*	*NR*		
	Between-group difference[a]	*NS*	*NS*	*NS*		
Patel, 2016 [32]		Mean proportion meeting 7000-step/day goal				
	Comparison with top quartile + incentive	0.38[e]				
	Comparison with mean performance + incentive	0.45[f]				
	Comparison with top quartile only	0.27[d]				
	Comparison with mean performance only	*Significant*				
	Between-group difference[a]					
Paul, 2016 [33]		Average steps/day[b]	Sedentary time (h)[b]	Upright time (h)[b]	Walking time (h)[b]	BMI (kg/m^2)
	STARFISH app	+1,633	−0.9	+1.2	+0.3	+0.0
	Usual care control	−747	−0.6	+0.5	−0.2	+0.1
	Between-group difference[a]	*Significant*	*NS*	*NS*	*Significant*	*NS*
Prestwich, 2016 [34]		Energy expenditure Metabolic equivalents (MET)-min/week)				
	Goal setting + self-monitoring + feedback	14,156[d]				

	Goal-setting + self-monitoring	13,891[e]			
	Goal setting only	13,661[f]			
	Between-group difference[a]	*Significant*			
van der Weegen, 2015 [35]		MVPA (min/day)			
	Self-management support + activity monitor	+9.53[d]			
	Self-management support	−2.13[f]			
	Standard care	−1.73[f]			
	Between-group difference[a]	*Significant*			
van Nimweegen, 2013 [36]		Activity by recall (median hours/week)[b]	Activity by diary (median hours/week)	Energy expenditure (median kcal/day)	
	ParkFit program	−0.3	+1.3	+38.7	
	General physiology program	−1.8	+0.5	−14.2	
	Between-group difference[a]	*NS*	*Significant*	*Significant*	
Walsh, 2016 [37]		Step count (steps/day)			
	Pedometer + feedback	+2393[c]			
	Pedometer only	+1101[c]			
	Between-group difference[a]	*Significant*			
Wijsman, 2013 [38]		Daily PA (ankle; %)[b]	Daily PA (wrist; %)[b]	MVPA (min/day)[b]	Weight (kg)
	DirectLife program	+46[c]	+11[c]	+11	−1.49
	Waitlist control	+12[c]	+5[c]	+0	−0.82
	Between-group difference[a]	*Significant*	*NS*	*Significant*	*Significant*

[a]*P*-values for between-group differences may not have been reported in the cited study. Notation of significance or nonsignificance has been provided for consistency across studies.
[b]Primary outcome.
[c]Significant within-group differences were reported.
[d,e,f]Significant differences among three or more groups denoted by different superscripts.

Table 2. Summary of outcomes and feedback efficacy for diet and PA or sedentary behavior intervention studies. Significant: *P*<.05.

Burke, 2012 [39]		Weight (%)[b]			

	PDA + feedback	−2.32[c]			
	PDA only	−1.38			
	Paper diary	−1.94			
	Between-group difference[a]	*NS*			
Collins, 2012 [40]		BMI[b] (kg/m²)	PA (MET min/week)	Average steps/day	Energy intake (kJ/day)
	Enhanced program	−0.98[c,d]	+491.6	+867[d]	−1465[f]
	Basic program	−0.72[c,d]	+151.4	+153[d]	−1,003[d]
	Waitlist control	+0.15[f]	+341.8	−61[f]	−734[d]
	Between-group difference[a]	*Significant*	*NS*	*Significant*	*Significant*
Fassnacht, 2015 [41]		Adherence to monitoring[b] (% of days)	F/V intake (portions/day)	PA (hours/day)	Screen time (hours/day)
	Monitoring + feedback	61	+0.8	−0.1	−0.3
	Education sessions	N/A	−0.3	−0.5	−0.5
	Between-group difference[a]	*N/A*	*Significant*	*NS*	*Significant*

Fujii, 2009 [42]		Low salt intake (% score≥6)	Low energy intake (% score≥2)	F/V intake (% score≥1)	Healthy eating (% score≥3)	Regular exercise (% ≥2 d/week)
	Health Up Navi, Men	+9.1	+12.7[c]	+8.3	+4.2	+12.4[c]
	Health Up Navi, Women	+11.7[c]	+1.4	+7.9	−4.8	+14.1[c]
	Between-group difference[a]	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

Jakicic, 2016 [43]		Weight (kg)[b]	Weight (%)	BMI (kg/m²)
	Enhanced program + feedback	−3.5	−3.6	−1.1
	Standard program	−5.9	−6.4	−1.8
	Between-group difference[a]	*Significant*	*Significant*	*NS*
Khanna, 2014 [44]		Glycated hemoglobin (HbA1c), %[b]	BMI (kg/m²)	
	Automated nutrition support	−0.1	+0.4	
	Waitlist control	−0.3	−0.1	

	Between-group difference[a]	*NS*	*NS*		
Lim, 2016 [45]		HbA1c (% < 7.0%)[b]	BMI (kg/m²)	Caloric intake (%)	Exercise frequency (episodes/week)
	u-healthcare	26[c]	−0.6[c]	−8.5[c]	+2.3[c]
	Blood glucose self-monitoring	12	−0.3	−2.4[c]	+0.2
	Between-group difference[a]	*Significant*	*NS*	*Significant*	*Significant*
Nollen, 2014 [46]		BMI Weeks 0-12 (kg/m²)	F/V intake Weeks 0-4 (servings/day)	SSB intake Weeks 0-8 (servings/day)	Screen time Weeks 0-12 (hours/day)
	Mobile technology	−0.21	+0.88	−0.33	+0.32
	Educational materials only	−0.27	−0.12	+0.02	+0.12
	Between-group difference[a]	*NS*	*NS*	*NS*	*NS*
Sacks, 2009 [47]		Weight (kg)			
	Diet 1: low fat, average protein	−3.0			
	Diet 2: low fat, high protein	−3.6			
	Diet 3: high fat, average protein	−3.3			
	Diet 4: high fat, high protein	−3.3			
	Between-group difference[a]	*NS*			
Shapiro, 2008 [48]		Self-reported exercise (min/day)	Self-reported SSB (servings/day)	Self-reported screen time (min/day)	
	SMS with feedback	+34.4	−0.9	−68.7	
	Paper diaries	+30.7	−1.4	−97.6	
	No-monitoring control	−15.1	−0.9	−76.8	
	Between-group difference[a]	*NS*	*NS*	*NS*	
Shuger, 2011 [49]		Weight (kg)			
	Armband + group weight loss	−6.59[c,d]			
	Armband alone	−3.55[c,e]			

		Weight (kg)	Weight (%)	BMI (kg/m^2)	
	Group weight loss	−1.86^{c,e}			
	Standard care	−0.89^{f}			
	Between-group difference^a	*Significant*			
Steinberg, 2013 [50]		Weight (kg)	Weight (%)	BMI (kg/m^2)	
	Shape Plan	−1.27	−0.97	−0.47	
	Educational materials	+1.14	+1.32	+0.42	
	Between-group difference^a	*NS*	*NS*	*NS*	
Willey, 2016 [51]		Weight (lb)	Weight (%)		
	YouPlus Health app	−13.5^{c}	−7.3%^{c}		
	Between-group difference^a	*N/A*	*N/A*		

[a]*P*-values for between-group differences may not have been reported in the cited study. Notation of significance or nonsignificance has been provided for consistency across studies.
[b]Primary outcome.
[c]Significant within-group differences were reported.
[d,e,f]Significant differences among three or more groups denoted by different superscripts.

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