Weight loss efficacy of a novel mobile Diabetes Prevention Program delivery platform with human coaching

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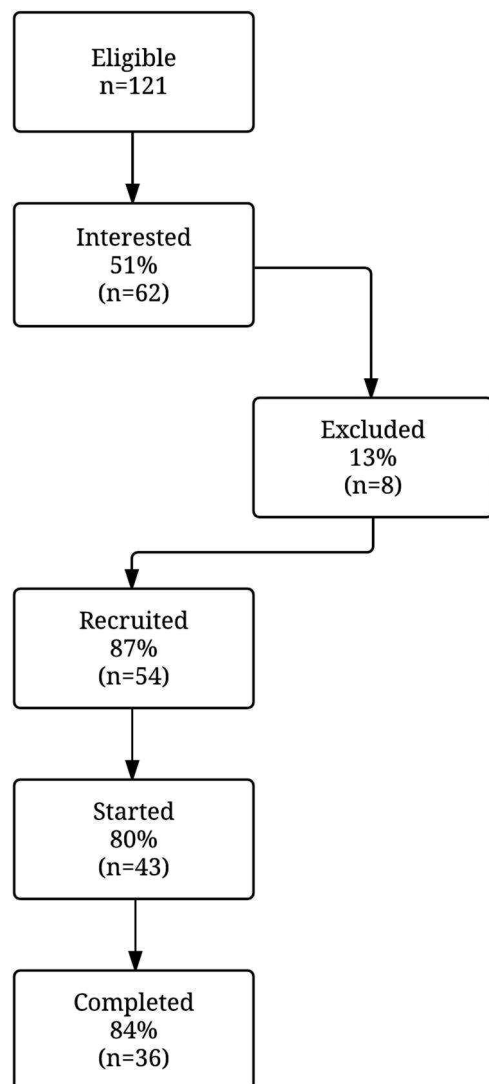
Figure 1 Flow chart for study recruitment, starting and completion status. Eligible, participants who signed-up and were included in the study; interested, individuals that performed at least one in-app action during the first week of the NDPP curriculum; recruited, participants who read at least one article during any 4 of the 16 initial weeks and also messaged the coach at least one time within the first month; completers, read at least one article per week during any 9 of the 16 weeks; excluded, participants who had <2 weigh-ins (n=8), none of which were considered 'starters'.

Statistical analysis

Power analysis

RESULTS

Table 1 Baseline, weight change, and engagement characteristics of study starters and completers

	Non-starters (N=77/121) Mean±SD	Starters (N=43) Mean±SD	Completers (N=36) Mean±SD
Baseline			
Gender, female N (%)	54 (69.2%)*	37 (86%)	30 (83.3%)
Mean age (years)	46.97±9.44†	51.49±8.30	51.44±8.48
Height (m)	1.68±0.15	1.65±0.09	1.66±0.09
Weight (kg)	91.50±18.21 (N=29)	96.61±22.33	96.26±23.08
BMI (kg/m^2)	32.55±6.99 (N=29)	35.51±7.38	34.79±7.33
16 weeks‡			
Weight loss (kg)		−5.40±4.43	−6.00±4.34
Weight loss (%)		−5.65±4.34	−6.33±4.22
BMI change (kg/m^2)		−1.99±1.66	−2.20±1.63
24 weeks§			
Weight loss (kg)		−6.22±5.00	−7.01±4.83
Weight loss (%)		−6.58±5.12	−7.50±4.93
BMI change (kg/m^2)		−2.29±1.87	−2.57±1.81
24 week engagement—in-app actions			
Meals logged (meals per week)		13.93±6.00	15.28±5.13
Exercise (times/week)		3.11±2.34	3.43±2.34
Time exercised (minutes/week)		126.61±110.76	141.60±112.88
Steps recorded (steps/week)		21116.87±18413.06	24045.97±18112.21
Number of weigh-ins (times/week)		1.04±0.93	1.17±0.96
Articles read (articles/week)		5.11±2.67	5.86±2.22
Group posts (posts/week)		0.51±0.85	0.59±0.91
Group comments (comments/week)		1.80±1.77	2.08±1.79
Messages to coach (messages/week)		3.32±2.77	3.78±2.75
Group likes (likes/week)		1.00±1.71	1.11±1.80

Weight change from 16 to 24 weeks was not significant.
*p=0.036 between non-starters and starters.
†p=0.008 between non-starters and starters.
‡All changes from baseline to 16 weeks were significant in starters and completers, p<0.001, d=1.22 and 1.38, respectively.
§All changes from baseline to 24 weeks were significant in starters and completers, p<0.001, d=1.24 and 1.45, respectively.
BMI, body mass index.

Figure 2 Food logging mediation of group posts on percent weight loss. *p<0.05, **p<0.01, ***p<0.001.

CONCLUSIONS

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