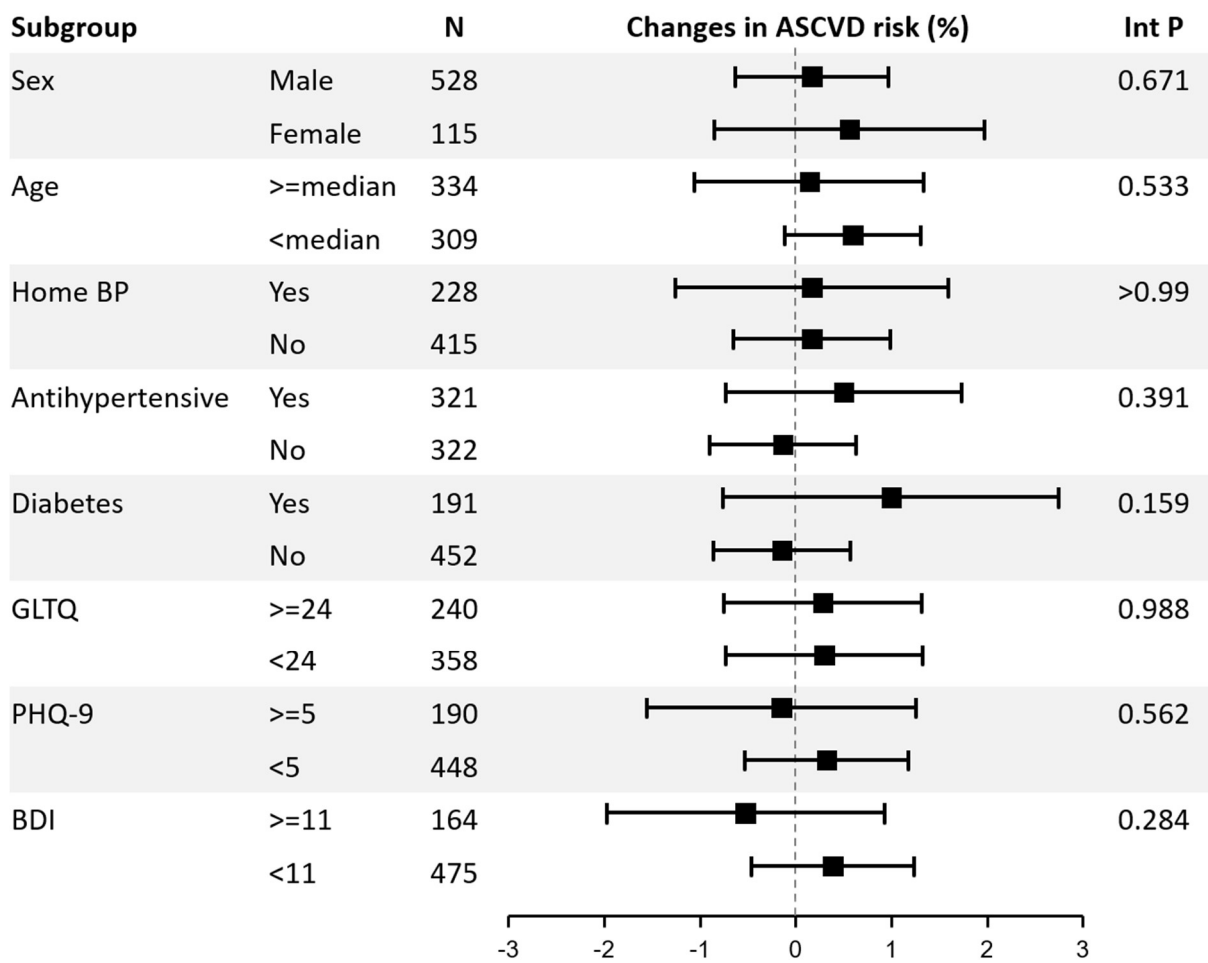
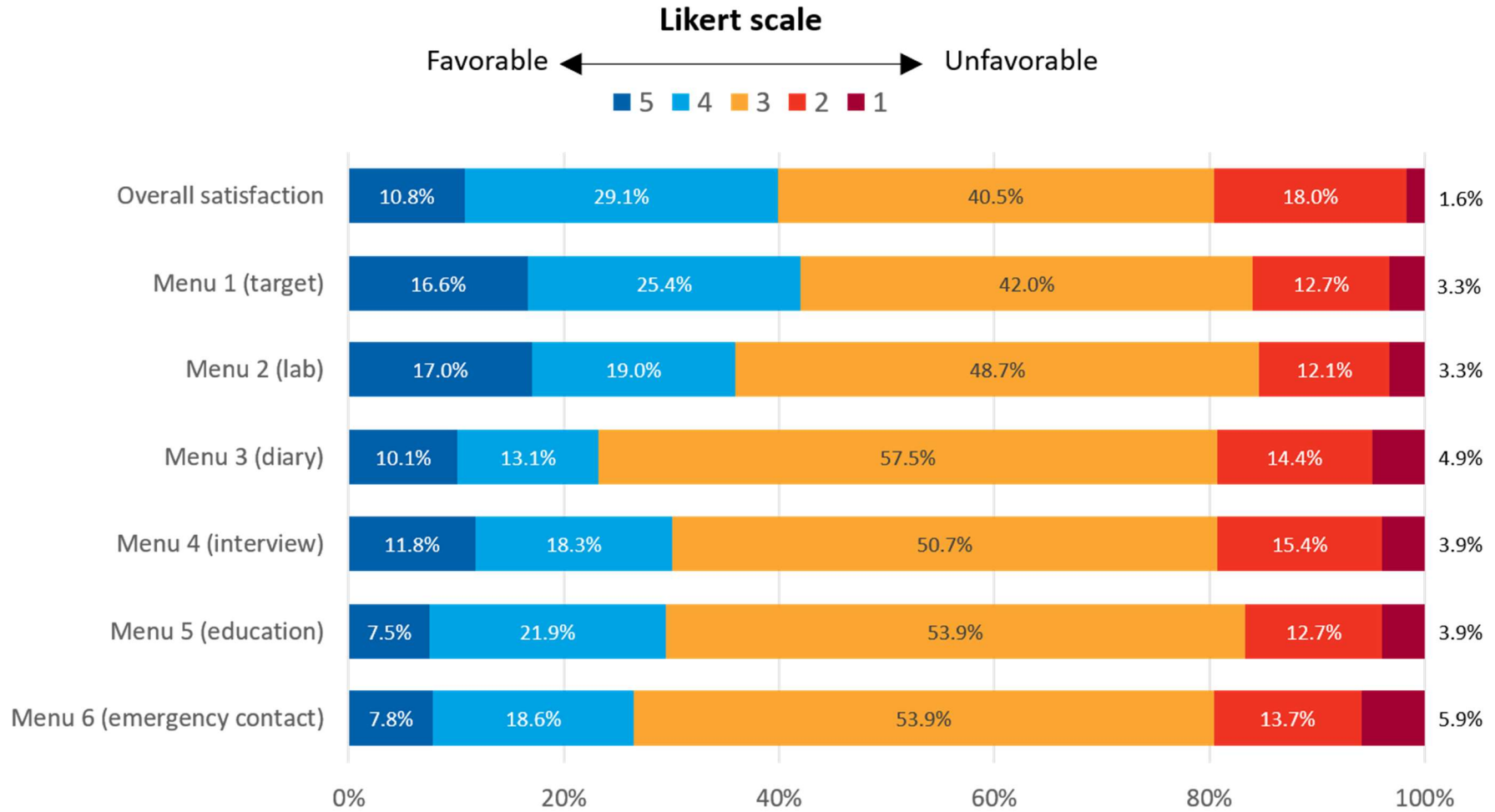


Supplementary Figure 1. Pre-planned subgroup analysis



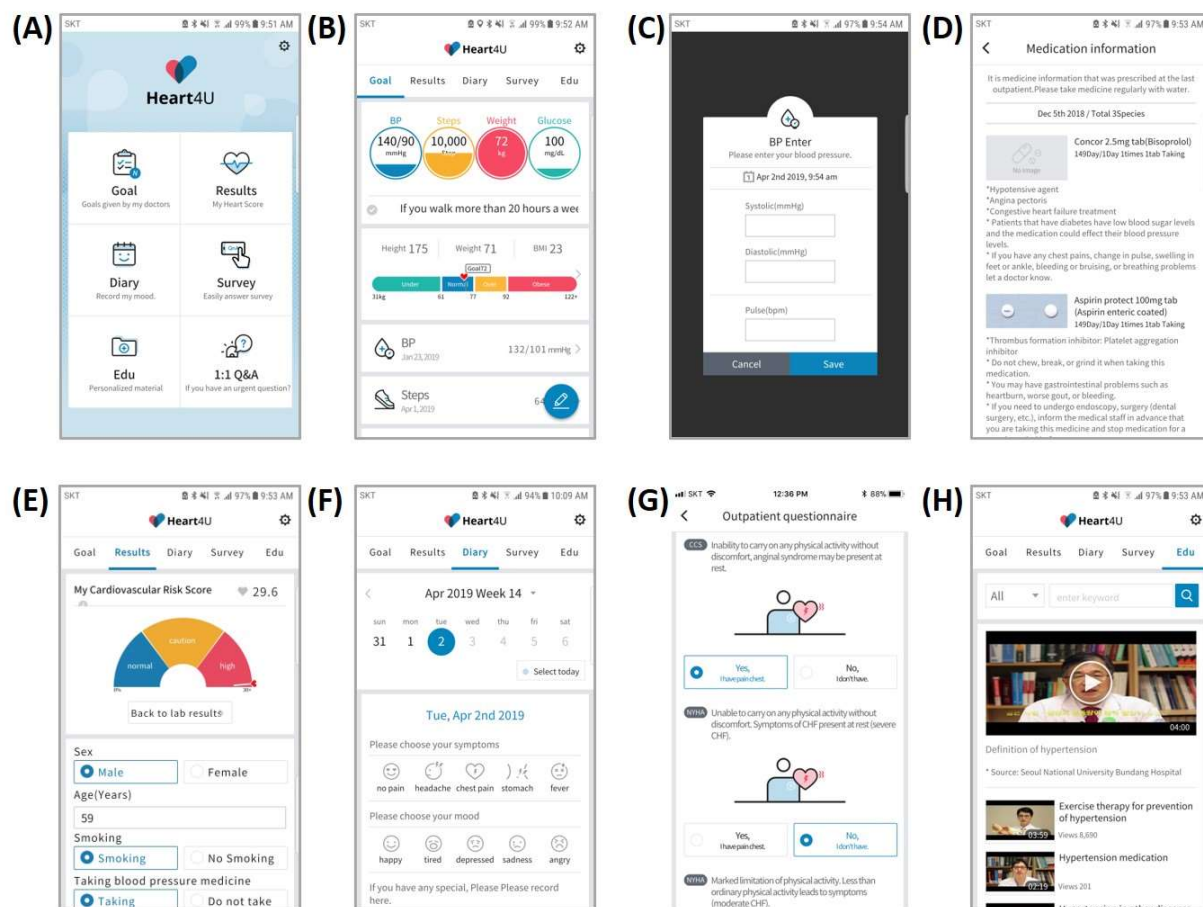
Abbreviations: BP, blood pressure; GLTQ, Godin Leisure-Time Exercise Questionnaire; PHQ-9, Patient Health Questionnaire-9; BDI, Beck depression inventory

Supplementary Figure 2. User experience survey results

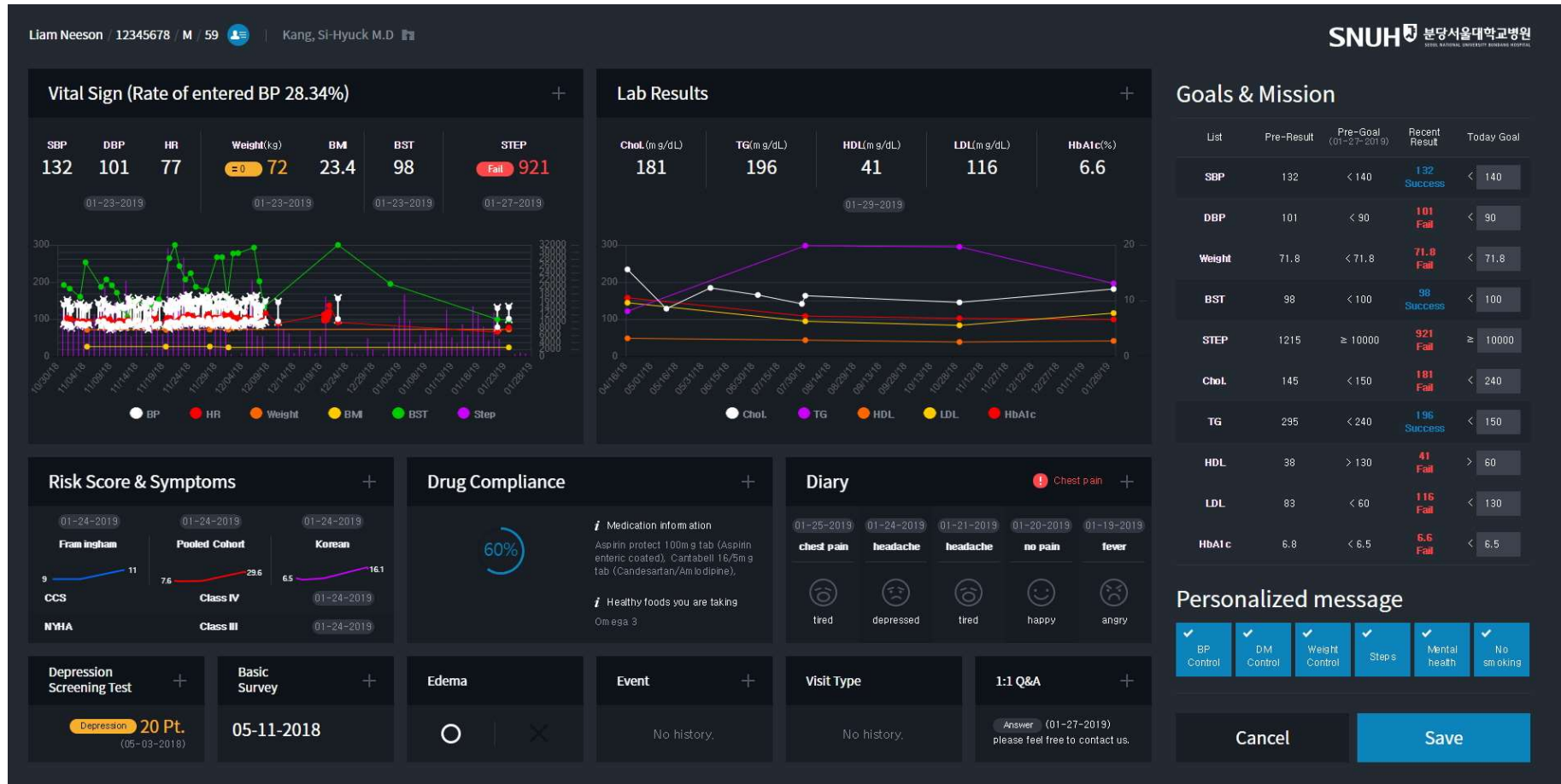


Supplementary Figure 3. User interface for patients

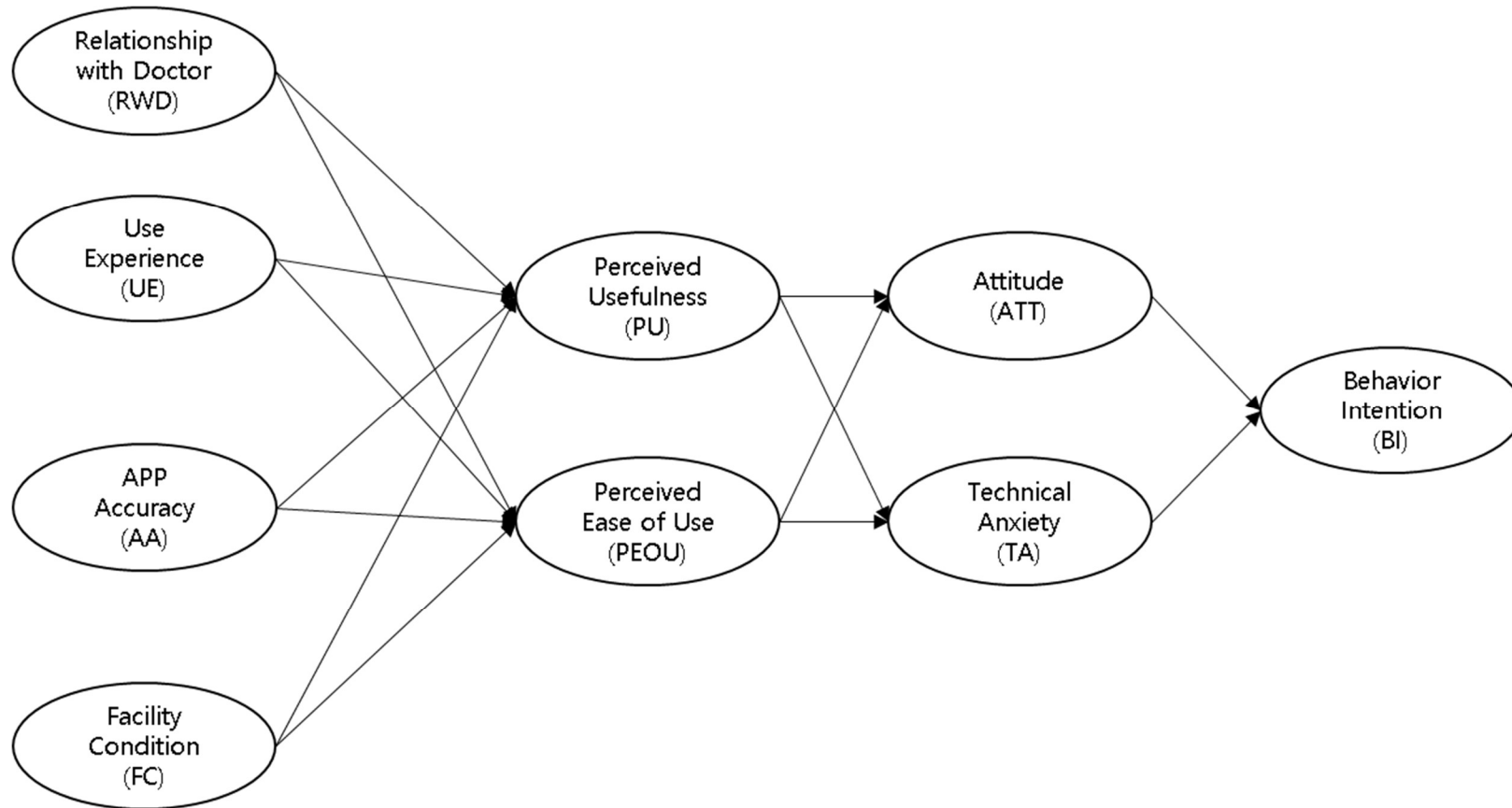
(A) Main screen, (B) target goals, (C) blood pressure input, (D) prescribed medications, (E) estimated 10-year cardiovascular event risk, (F) symptom diary, (G) self-administered questionnaires, (H) education contents, and (I) interface for treating physicians



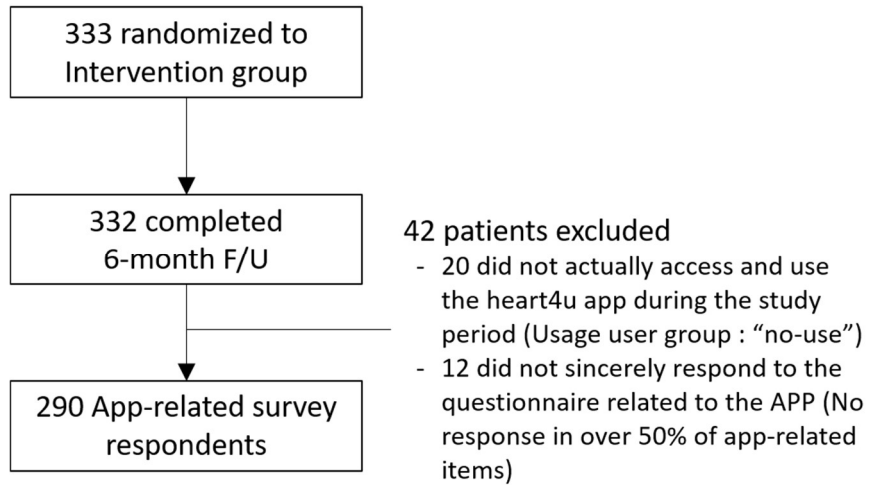
Supplementary Figure 4. User interface for patients physicians integrated into the electronic health record system



Supplementary Figure 5. Research model for patients' acceptance of the mHealth app



Supplementary Figure 6. Participants analyzed for structural equation model



Supplementary Table 1. Inclusion and exclusion criteria

Inclusion criteria

1. Age between 30 and 79 years
2. Clinical atherosclerotic cardiovascular disease defined by any of the followings:
 - 1) History of acute myocardial infarction, unstable angina, or angina pectoris
 - 2) History of arterial revascularization therapy including coronary intervention, coronary artery bypass surgery, and peripheral artery angioplasty or surgery
 - 3) history of stroke
 - 4) peripheral arterial disease presumed to be of atherosclerotic origin.
3. Possession of a mobile smartphone where the study app can be installed,
4. Sufficient Korean language skills to provided informed consent and understand the operation of smartphone apps.

Exclusion criteria

1. Cardiovascular disease of non-atherosclerotic origin
 2. Cognitive impairment such as dementia, delirium, and amnesic disorder
 3. Difficulty in using smartphone apps
 4. Other reasons for which researchers determine participating in the study difficult.
-

Supplementary Table 2. Study endpoints

Endpoints	Measurement	Time frame
Primary endpoint		
Change of predicted 10-year cardiovascular risk	Pooled cohort equations	6 (±2) months
Secondary endpoints		
Systolic and diastolic blood pressure	Automated blood pressure measurements (mmHg)	3 (±1) months 6 (±2) months
Lipid profiles	Total cholesterol (mg/dL) Low-density lipoprotein cholesterol (mg/dL) High-density lipoprotein cholesterol (mg/dL)	6 (±2) months
Body mass index	Weight divided by (height) ² (kg/m ²)	6 (±2) months
Smoking status,	Proportion of active smoking (%)	6 (±2) months
Physical activity	Godin Leisure-Time Exercise Questionnaire, total score (0–7)	6 (±2) months
Depression severity	Patient Health Questionnaire-9 (PHQ-9), total score 27 (0–27)	6 (±2) months
Medication adherence	Medication Adherence Rating Scale (MARS), total score 10 (0–10)	6 (±2) months
Overall satisfaction survey over the app	Patient Activation Measure-13, total score 39 (0–39)	6 (±2) months

Supplementary Table 3. Evaluation result of the measurement model (reliability and convergent validity)

lhs	op	rhs	est.std	est	se	z	pvalue	ci.lower	ci.upper	alpha	omega	avevar
RWD	=~	APP_B_9_1	0.978	1.013	0.016	62.548	0	0.948	1.009			
RWD	=~	APP_B_9_2	0.863	0.889	0.021	41.963	0	0.822	0.903	0.915	0.92	0.851
UE	=~	APP_B_5_1	0.94	1.01	0.020	47.11	0	0.901	0.979			
UE	=~	APP_B_5_2	0.858	0.904	0.023	36.798	0	0.812	0.904	0.893	0.895	0.811
AA	=~	APP_B_13_1	0.917	0.822	0.017	52.739	0	0.882	0.951			
AA	=~	APP_B_13_2	0.875	0.803	0.020	44.238	0	0.836	0.913	0.890	0.890	0.802
FC	=~	APP_B_6_1	0.866	0.963	0.020	44.443	0	0.828	0.904			
FC	=~	APP_B_6_2	0.916	0.935	0.016	57.016	0	0.884	0.947	0.822	0.841	0.648
FC	=~	APP_B_6_3	0.580	0.593	0.043	13.539	0	0.496	0.664			
PU	=~	APP_B_1_1	0.938	0.885	0.010	91.934	0	0.918	0.958			
PU	=~	APP_B_1_2	0.922	0.873	0.012	79.346	0	0.899	0.944	0.939	0.940	0.839
PU	=~	APP_B_1_3	0.886	0.822	0.015	58.838	0	0.856	0.915			
PEOU	=~	APP_B_2_1	0.932	0.948	0.009	100.666	0	0.914	0.950			
PEOU	=~	APP_B_2_2	0.969	1.000	0.006	160.989	0	0.957	0.981	0.965	0.965	0.902
PEOU	=~	APP_B_2_3	0.947	0.956	0.008	121.271	0	0.932	0.963			
ATT	=~	APP_B_3_1	0.903	0.926	0.013	67.437	0	0.877	0.930			
ATT	=~	APP_B_3_2	0.928	0.952	0.011	83.202	0	0.906	0.949	0.928	0.929	0.813
ATT	=~	APP_B_3_3	0.873	0.893	0.016	53.381	0	0.841	0.905			
TA	=~	APP_B_7_1	0.890	0.898	0.018	48.086	0	0.854	0.926			
TA	=~	APP_B_7_2	0.950	1.020	0.016	61.252	0	0.920	0.981	0.887	0.894	0.740
TA	=~	APP_B_7_3	0.728	0.778	0.031	23.51	0	0.667	0.788			
BI	=~	APP_B_14_1	0.988	1.049	0.006	158.222	0	0.976	1.000			
BI	=~	APP_B_14_2	0.958	1.021	0.008	124.701	0	0.943	0.973	0.973	0.973	0.947

Supplementary Table 4. Evaluation results of the model fit

Model fit Criteria	Proposed model value
Chi-square(X2) $p < 0.05$	<0.001
Standardized RMR (SRMR) < 0.1	0.066
Root Mean Square Error of Approximation(RMSEA) < 0.1	0.088
Comparative Fit Index (CFI) > 0.9	0.935
Normed Fix Index (NFI) > 0.9	0.907
Tucker-Lewis Index (TLI) > 0.9	0.922

Supplementary Table 5. Factors affecting the intention to use of the app evaluated using the structural equation

	RWD	UE	AA	FC	PU	PEOU	ATT	TA	BI	SQRT_AVE
RWD	1	0.559	0.677	0.617	0.635	0.552	0.698	-0.443	0.707	0.923
UE	0.559	1	0.592	0.730	0.504	0.611	0.604	-0.166	0.532	0.901
AA	0.677	0.592	1	0.630	0.659	0.603	0.728	-0.278	0.797	0.895
FC	0.617	0.730	0.630	1	0.671	0.787	0.732	-0.276	0.594	0.805
PU	0.635	0.504	0.659	0.671	1	0.713	0.875	-0.347	0.716	0.916
PEOU	0.552	0.611	0.603	0.787	0.713	1	0.712	-0.343	0.610	0.950
ATT	0.698	0.604	0.728	0.732	0.875	0.712	1	-0.460	0.801	0.902
TA	-0.443	-0.166	-0.278	-0.276	-0.347	-0.343	-0.460	1	-0.469	0.860
BI	0.707	0.532	0.797	0.594	0.716	0.610	0.801	-0.469	1	0.973