Table S1 | Participant characteristics and their preferences for clinician choosing treatments

Participant characteristics	Prefer patient choosing (n=235)	Prefer clinician choosing (n=265)	P value
Age			
65 or above	79 (43%)	103 (57%)	0.261
Below 65	156 (49%)	162 (51%)	
Sex			0.013
Male	90 (41%)	132 (59%)	
Female	145 (52%)	133 (48%)	
Race/ethnicity			0.965
Non-Hispanic whites	161 (47%)	180 (53%)	
Others	74 (47%)	85 (53%)	
Education			
College or more	182 (46%)	218 (54%)	0.218
Less than college	53 (53%)	47 (47%)	
Work status			0.183
Employed (full/part time)	116 (50%)	114 (50%)	
Not employed	119 (44%)	151 (56%)	
Income			
$35000 or above	141 (46%)	168 (54%)	0.492
Below $35000	94 (49%)	97 (51%)	
Insurance			0.352
Have insurance	216 (48%)	236 (52%)	
No insurance	19 (40%)	29 (60%)	
Region			
Northeast	36 (42%)	50 (58%)	0.736
South	95 (49%)	99 (51%)	
Midwest	54 (47%)	62 (53%)	
West	50 (48%)	54 (52%)	

Table S2 | Participant characteristics and their preferences for clinician involvement during trial conduct

Participant characteristics	Prefer no clinician involvement (n=226)	Prefer clinician involvement (n=274)	P value
Age			
65 or above	74 (41%)	108 (59%)	0.147
Below 65	152 (48%)	166 (52%)	
Sex			0.032
Male	88 (40%)	134 (60%)	
Female	138 (50%)	140 (50%)	
Race/ethnicity			0.300
Non-Hispanic whites	160 (47%)	181 (53%)	
Others	66 (42%)	93 (58%)	
Education			
College or more	176 (44%)	224 (56%)	0.334
Less than college	50 (50%)	50 (50%)	
Work status			0.124
Employed (full/part time)	113 (49%)	117 (51%)	
Not employed	113 (42%)	157 (58%)	
Income			
$35000 or above	135 (44%)	174 (56%)	0.441
Below $35000	91 (48%)	100 (52%)	
Insurance			
Have insurance	206 (46%)	246 (54%)	0.715
No insurance	20 (42%)	28 (58%)	
Region			
Northeast	34 (40%)	52 (60%)	0.671
South	88 (45%)	106 (55%)	
Midwest	54 (47%)	62 (53%)	
West	50 (48%)	54 (52%)	

Table S3 | Participant characteristics and their preferences for treatment types

Participant characteristics	Prefer medications (n=209)	Prefer lifestyle change (n=123)	Prefer CAM (n=168)	P value
Age				
65 or above	74 (41%)	41 (22%)	67 (37%)	0.480
Below 65	135 (42%)	82 (26%)	101 (32%)	
Sex				<0.001
Male	118 (53%)	36 (16%)	68 (31%)	
Female	91 (33%)	87 (31%)	100 (36%)	
Race/ethnicity				0.081
Non-Hispanic whites	139 (41%)	77 (22%)	125 (37%)	
Others	70 (44%)	46 (29%)	43 (27%)	
Education				
College or more	178 (45%)	100 (25%)	122 (30%)	0.009
Less than college	31 (31%)	23 (23%)	46 (46%)	
Work status				0.072
Employed (full/part time)	94 (41%)	67 (29%)	69 (30%)	
Not employed	115 (42%)	56 (21%)	99 (37%)	
Income				
$35000 or above	139 (45%)	76 (25%)	94 (30%)	0.111
Below $35000	70 (37%)	47 (24%)	74 (39%)	
Insurance				0.650
Have insurance	191 (42%)	112 (25%)	149 (33%)	
No insurance	18 (37%)	11 (23%)	19 (40%)	
Region				
Northeast	38 (44%)	27 (31%)	21 (25%)	0.362
South	76 (39%)	50 (26%)	68 (35%)	
Midwest	49 (42%)	23 (20%)	44 (38%)	
West	46 (44%)	23 (22%)	35 (34%)	

CAM=complementary alternative medicine.

Table S4 | Participant characteristics and their preferences for daily time commitment to self-tracking

Participant characteristics	Prefer 5 minutes daily (n=409)	Prefer 30 minutes daily (n=91)	P value
Age			
65 or above	159 (87%)	23 (13%)	0.020
Below 65	250 (79%)	68 (21%)	
Sex			0.498
Male	185 (83%)	37 (17%)	
Female	224 (81%)	54 (19%)	
Race/ethnicity			<0.001
Non-Hispanic whites	296 (87%)	45 (13%)	
Others	113 (71%)	46 (29%)	
Education			
College or more	327 (82%)	73 (18%)	1.000
Less than college	82 (82%)	18 (18%)	
Work status			0.123
Employed (full/part time)	181 (79%)	49 (21%)	
Not employed	228 (84%)	42 (16%)	
Income			
$35000 or above	246 (80%)	63 (20%)	0.135
Below $35000	163 (85%)	28 (15%)	
Insurance			0.096
Have insurance	365 (81%)	87 (19%)	
No insurance	44 (92%)	4 (8%)	
Region			
Northeast	71 (83%)	15 (17%)	0.977
South	157 (81%)	37 (19%)	
Midwest	96 (83%)	20 (17%)	
West	85 (82%)	19 (18%)	

Table S5 | Participant characteristics and their preferences for data-collection frequency

Participant characteristics	Prefer once daily (n=422)	Prefer thrice daily (n=78)	P value
Age			
65 or above	166 (91%)	16 (9%)	0.002
Below 65	256 (81%)	62 (19%)	
Sex			
Male	189 (85%)	33 (15%)	0.779
Female	233 (84%)	45 (16%)	
Race/ethnicity	303 (89%)	38 (11%)	
Non-Hispanic whites	119 (75%)	40 (25%)	<0.001
Others			
Education			
College or more	335 (84%)	65 (16%)	0.518
Less than college	87 (87%)	13 (13%)	
Work status			<0.001
Employed (full/part time)	179 (78%)	51 (22%)	
Not employed	243 (90%)	27 (10%)	
Income			
$35000 or above	253 (82%)	56 (18%)	0.064
Below $35000	169 (88%)	22 (12%)	
Insurance			0.095
Have insurance	377 (83%)	75 (17%)	
No insurance	45 (94%)	3 (6%)	
Region			
Northeast	73 (85%)	13 (15%)	0.958
South	165 (85%)	29 (15%)	
Midwest	98 (84%)	18 (16%)	
West	86 (83%)	18 (17%)	

Table S6 | Participant characteristics and their preferences for study duration

Participant characteristics	Prefer 2 weeks (n=243)	Prefer 12 weeks (n=257)	P value
Age			
65 or above	91 (50%)	91 (50%)	0.703
Below 65	152 (48%)	166 (52%)	
Sex			0.802
Male	106 (48%)	116 (52%)	
Female	137 (49%)	141 (51%)	
Race/ethnicity			0.024
Non-Hispanic whites	178 (52%)	163 (48%)	
Others	65 (41%)	94 (59%)	
Education			
College or more	188 (47%)	212 (53%)	0.187
Less than college	55 (55%)	45 (45%)	
Work status			0.397
Employed (full/part time)	117 (51%)	113 (49%)	
Not employed	126 (47%)	144 (53%)	
Income			
$35000 or above	150 (49%)	159 (51%)	1.000
Below $35000	93 (49%)	98 (51%)	
Insurance			0.958
Have Insurance	219 (48%)	233 (52%)	
No Insurance	24 (50%)	24 (50%)	
Region			
Northeast	47 (55%)	39 (45%)	0.250
South	89 (46%)	105 (54%)	
Midwest	62 (53%)	54 (47%)	
West	45 (43%)	59 (57%)	

Table S7 | Participant characteristics and their preferences for bearing out-of-pocket cost ($100)

Participant characteristics	Prefer no cost (n=441)	Prefer some cost (n=59)	P value
Age			
65 or above	171 (94%)	11 (6%)	0.004
Below 65	270 (85%)	48 (15%)	
Sex			0.357
Male	192 (86%)	30 (14%)	
Female	249 (90%)	29 (10%)	
Race/ethnicity			0.001
Non-Hispanic whites	312 (91%)	29 (9%)	
Others	129 (81%)	30 (19%)	
Education			
College or more	346 (87%)	54 (13%)	0.029
Less than college	95 (95%)	5 (5%)	
Work status			<0.001
Employed (full/part time)	182 (79%)	48 (21%)	
Not employed	259 (96%)	11 (4%)	
Income			
$35000 or above	261 (84%)	48 (16%)	0.002
Below $35000	180 (94%)	11 (6%)	
Insurance			0.137
Have Insurance	395 (87%)	57 (13%)	
No Insurance	46 (96%)	2 (4%)	
Region			
Northeast	73 (85%)	13 (15%)	0.374
South	177 (91%)	17 (9%)	
Midwest	100 (86%)	16 (14%)	
West	91 (88%)	13 (12%)	

Table S8 | Participant characteristics and their preferences for blinding

Participant characteristics	Prefer not blinding (n=352)	Prefer blinding (n=148)	P value
Age			
65 or above	127 (70%)	55 (30%)	0.898
Below 65	225 (71%)	93 (29%)	
Sex			0.054
Male	146 (66%)	76 (34%)	
Female	206 (74%)	72 (26%)	
Race/ethnicity			0.242
Non-Hispanic whites	234 (69%)	107 (31%)	
Others	118 (74%)	41 (26%)	
Education	275 (69%)	125 (31%)	
College or more	77 (77%)	23 (23%)	0.135
Less than college			
Work status			0.780
Employed (full/part time)	160 (70%)	70 (30%)	
Not employed	192 (71%)	78 (29%)	
Income			
$35000 or above	217 (70%)	92 (30%)	0.994
Below $35000	135 (71%)	56 (29%)	
Insurance			0.154
Have insurance	323 (71%)	129 (29%)	
No insurance	29 (60%)	19 (40%)	
Region			
Northeast	64 (74%)	22 (26%)	0.271
South	142 (73%)	52 (27%)	
Midwest	80 (69%)	36 (31%)	
West	66 (63%)	38 (37%)	

Table S9 | Patient conditions and their preferences for clinician choosing treatments

Patient conditions	Prefer patient choosing (n=235)	Prefer clinician choosing (n=265)	P value
Joint pain			0.308
No diagnosis	129 (45%)	156 (55%)	
Not interested in PT	36 (44%)	46 (56%)	
Very interested in PT	70 (53%)	63 (47%)	
Asthma			0.146
No diagnosis	155 (44%)	196 (56%)	
Not interested in PT	43 (54%)	36 (46%)	
Very interested in PT	37 (53%)	33 (47%)	
Back pain			
No diagnosis	145 (45%)	178 (55%)	0.358
Not interested in PT	37 (48%)	40 (52%)	
Very interested in PT	53 (53%)	47 (47%)	
Depression			
No diagnosis	128 (44%)	162 (56%)	0.049
Not interested in PT	48 (44%)	60 (56%)	
Very interested in PT	59 (58%)	43 (42%)	
Diabetes			
No diagnosis	162 (51%)	158 (49%)	0.039
Not interested in PT	24 (34%)	46 (66%)	
Very interested in PT	49 (45%)	61 (55%)	
Hypertension			
No diagnosis	66 (51%)	63 (49%)	0.072
Not interested in PT	81(41%)	118 (59%)	
Very interested in PT	88 (51%)	84 (49%)	
Hyperlipidemia			
No diagnosis	120 (52%)	110 (48%)	0.022
Not interested in PT	55 (38%)	91 (62%)	
Very interested in PT	60 (48%)	64 (52%)	
Insomnia			
No diagnosis	173 (46%)	206 (54%)	0.562
Not interested in PT	21 (51%)	20 (49%)	
Very interested in PT	41 (51%)	39 (49%)	

PT=Personalized Trial

Table S10. Patient conditions and their preferences for clinician involvement during trial conduct

Patient conditions	Prefer no doctor involvement (n=226)	Prefer doctor involvement (n=274)	P value
Joint pain			
No diagnosis	124 (44%)	161 (56%)	0.372
Not interested in PT	35 (43%)	47 (57%)	
Very interested in PT	67 (50%)	66 (50%)	
Asthma			
No diagnosis	145 (41%)	206 (59%)	0.027
Not interested in PT	43 (54%)	36 (46%)	
Very interested in PT	38 (54%)	32 (46%)	
Back pain			
No diagnosis	138 (43%)	185 (57%)	0.300
Not interested in PT	37 (48%)	40 (52%)	
Very interested in PT	51 (51%)	49 (49%)	
Depression			
No diagnosis	123 (42%)	167 (58%)	0.052
Not interested in PT	46 (43%)	62 (57%)	
Very interested in PT	57 (56%)	45 (44%)	
Diabetes			
No diagnosis	159 (50%)	161 (50%)	0.022
Not interested in PT	24 (34%)	46 (66%)	
Very interested in PT	43 (39%)	67 (61%)	
Hypertension			
No diagnosis	64 (50%)	65 (50%)	0.129
Not interested in PT	79 (40%)	120 (60%)	
Very interested in PT	83 (48%)	89 (52%)	
Hyperlipidemia			
No diagnosis	113 (49%)	117 (51%)	0.121
Not interested in PT	56 (38%)	90 (62%)	
Very interested in PT	57 (46%)	67 (54%)	
Insomnia			
No diagnosis	164 (43%)	215 (57%)	0.287
Not interested in PT	22 (54%)	19 (46%)	
Very interested in PT	40 (50%)	40 (50%)	

PT=Personalized Trial

Table S11 | Patient conditions and their preferences for treatment types

Patient conditions	Prefer medications (n=209)	Prefer lifestyle (n=123)	Prefer CAM (n=168)	P value
Joint pain				0.133
No diagnosis	119 (42%)	77 (27%)	89 (31%)	
Not interested in PT	27 (33%)	21 (26%)	34 (41%)	
Very interested in PT	63 (47%)	25 (19%)	45 (34%)	
Asthma				0.182
No diagnosis	143 (41%)	86 (24%)	122 (35%)	
Not interested in PT	28 (35%)	23 (30%)	28 (35%)	
Very interested in PT	38 (54%)	14 (20%)	18 (26%)	
Back pain				0.940
No diagnosis	134 (41%)	81 (25%)	108 (34%)	
Not interested in PT	30 (39%)	19 (25%)	28 (36%)	
Very interested in PT	45 (45%)	23 (23%)	32 (32%)	
Depression				0.768
No diagnosis	115 (40%)	71 (24%)	104 (36%)	
Not interested in PT	48 (44%)	27 (25%)	33 (31%)	
Very interested in PT	46 (45%)	25 (25%)	31 (30%)	
Diabetes				0.002
No diagnosis	117 (36%)	92 (29%)	111 (35%)	
Not interested in PT	29 (41%)	13 (19%)	28 (40%)	
Very interested in PT	63 (57%)	18 (16%)	29 (27%)	
Hypertension				0.564
No diagnosis	51 (40%)	38 (29%)	40 (31%)	
Not interested in PT	81 (41%)	46 (23%)	72 (36%)	
Very interested in PT	77 (45%)	39 (23%)	56 (32%)	
Hyperlipidemia				0.331
No diagnosis	88 (38%)	57 (25%)	85 (37%)	
Not interested in PT	61 (42%)	35 (24%)	50 (34%)	
Very interested in PT	60 (48%)	31 (25%)	33 (27%)	
Insomnia				0.083
No diagnosis	150 (40%)	96 (25%)	133 (35%)	
Not interested in PT	16 (39%)	14 (34%)	11 (27%)	

Very interested in PT	43 (54%)	13 (16%)	24 (30%)

CAM=complementary alternative medicine; PT=Personalized Trial

Table S12 | Patient conditions and their preferences for daily time commitment to self-tracking

Patient conditions	Prefer 5 minutes daily (n=409)	Prefer 30 minutes daily (n=91)	P value
Joint pain			
No diagnosis	225 (79%)	60 (21%)	0.096
Not interested in PT	73 (89%)	9 (11%)	
Very interested in PT	111 (83%)	22 (17%)	
Asthma			
No diagnosis	296 (84%)	55 (16%)	0.054
Not interested in PT	62 (78%)	17 (22%)	
Very interested in PT	51 (73%)	19 (27%)	
Back pain			0.868
No diagnosis	266 (82%)	57 (18%)	
Not interested in PT	63 (82%)	14 (18%)	
Very interested in PT	80 (80%)	20 (20%)	
Depression			0.668
No diagnosis	241 (83%)	49 (17%)	
Not interested in PT	86 (80%)	22 (20%)	
Very interested in PT	82 (80%)	20 (20%)	
Diabetes			0.061
No diagnosis	266 (83%)	54 (17%)	
Not interested in PT	61 (87%)	9 (13%)	
Very interested in PT	82 (75%)	28 (25%)	
Hypertension			0.285
No diagnosis	100 (78%)	29 (22%)	
Not interested in PT	168 (84%)	31 (16%)	
Very interested in PT	141 (82%)	31 (18%)	
Hyperlipidemia			0.876
No diagnosis	186 (81%)	44 (19%)	
Not interested in PT	121 (83%)	25 (17%)	
Very interested in PT	102 (82%)	22 (18%)	
Insomnia			0.699
No diagnosis	307 (81%)	72 (19%)	

Not interested in PT	35 (85%)	6 (15%)	
Very interested in PT	67 (84%)	13 (16%)	

PT=Personalized Trial

Table S13 | Patient conditions and their preferences for data-collection frequency

Patient conditions	Prefer once daily (n=422)	Prefer thrice daily (n=78)	P value
Joint pain			0.091
No diagnosis	233 (82%)	52 (18%)	
Not interested in PT	75 (91%)	7 (9%)	
Very interested in PT	114 (86%)	19 (14%)	
Asthma			0.002
No diagnosis	308 (88%)	43 (12%)	
Not interested in PT	64 (81%)	15 (19%)	
Very interested in PT	50 (71%)	20 (29%)	
Back pain			0.385
No diagnosis	269 (83%)	54 (17%)	
Not interested in PT	69 (90%)	8 (10%)	
Very interested in PT	84 (84%)	16 (16%)	
Depression			0.027
No diagnosis	254 (88%)	36 (12%)	
Not interested in PT	90 (83%)	18 (17%)	
Very interested in PT	78 (76%)	24 (24%)	
Diabetes			0.078
No diagnosis	273 (85%)	47 (15%)	
Not interested in PT	63 (90%)	7 (10%)	
Very interested in PT	86 (78%)	24 (22%)	
Hypertension			0.015
No diagnosis	99 (77%)	30 (23%)	
Not interested in PT	176 (88%)	23 (12%)	
Very interested in PT	147 (85%)	25 (15%)	
Hyperlipidemia			0.161
No diagnosis	188 (82%)	42 (18%)	
Not interested in PT	130 (89%)	16 (11%)	
Very interested in PT	104 (84%)	20 (16%)	
Insomnia			0.453

No diagnosis	324 (85%)	55 (15%)	
Not interested in PT	34 (83%)	7 (17%)	
Very interested in PT	64 (80%)	16 (20%)	

PT=Personalized Trial

Table S14 | Patient conditions and their preferences for study duration

Patient conditions	Prefer 2 weeks (n = 243)	Prefer 12 weeks (n = 257)	P value
Joint pain			
No diagnosis	148 (52%)	137 (48%)	<0.001
Not interested in PT	49 (60%)	33 (40%)	
Very interested in PT	46 (35%)	87 (65%)	
Asthma			
No diagnosis	167 (48%)	184 (52%)	0.761
Not interested in PT	41 (52%)	38 (48%)	
Very interested in PT	35 (50%)	35 (50%)	
Back pain			0.001
No diagnosis	158 (49%)	165 (51%)	
Not interested in PT	49 (64%)	28 (36%)	
Very interested in PT	36 (36%)	64 (64%)	
Depression			0.161
No diagnosis	148 (51%)	142 (49%)	
Not interested in PT	54 (50%)	54 (50%)	
Very interested in PT	41 (40%)	61 (60%)	
Diabetes			0.860
No diagnosis	157 (49%)	163 (51%)	
Not interested in PT	35 (50%)	35 (50%)	
Very interested in PT	51 (46%)	59 (54%)	
Hypertension			0.555
No diagnosis	68 (53%)	61 (47%)	
Not interested in PT	94 (47%)	105 (53%)	
Very interested in PT	81 (47%)	91 (53%)	
Hyperlipidemia			0.771
No diagnosis	108 (47%)	122 (53%)	
Not interested in PT	72 (49%)	74 (51%)	
Very interested in PT	63 (51%)	61 (49%)	

Insomnia			0.316
No diagnosis	191 (50%)	188 (50%)	
Not interested in PT	19 (46%)	22 (54%)	
Very interested in PT	33 (41%)	47 (59%)	

PT=Personalized Trial

Table S15 | Patient conditions and their preferences for bearing out-of-pocket cost ($100)

Patient conditions	Prefer no cost (n=441)	Prefer some cost (n=59)	P value
Joint pain			0.032
No diagnosis	242 (85%)	43 (15%)	
Not interested in PT	76 (93%)	6 (7%)	
Very interested in PT	123 (92%)	10 (8%)	
Asthma			0.014
No diagnosis	319 (91%)	32 (9%)	
Not interested in PT	66 (84%)	13 (16%)	
Very interested in PT	56 (80%)	14 (20%)	
Back pain			0.232
No diagnosis	280 (87%)	43 (13%)	
Not interested in PT	68 (88%)	9 (12%)	
Very interested in PT	93 (93%)	7 (7%)	
Depression			0.071
No diagnosis	263 (91%)	27 (9%)	
Not interested in PT	89 (82%)	19 (18%)	
Very interested in PT	89 (87%)	13 (13%)	
Diabetes			0.596
No diagnosis	285 (89%)	35 (11%)	
Not interested in PT	62 (89%)	8 (11%)	
Very interested in PT	94 (85%)	16 (15%)	
Hypertension			<0.001
No diagnosis	102 (79%)	27 (21%)	
Not interested in PT	179 (90%)	20 (10%)	
Very interested in PT	160 (93%)	12 (7%)	
Hyperlipidemia			0.349
No diagnosis	198 (86%)	32 (14%)	
Not interested in PT	130 (89%)	16 (11%)	
Very interested in PT	113 (91%)	11 (9%)	

Insomnia			0.984
No diagnosis	334 (88%)	45 (12%)	
Not interested in PT	36 (88%)	5 (12%)	
Very interested in PT	71 (89%)	9 (11%)	

PT=Personalized Trial

Table S16 | Patient conditions and their preferences for blinding

Patient conditions	Prefer not blinding (n=352)	Prefer blinding (n=48)	P value
Joint pain			0.726
No diagnosis	204 (72%)	81 (28%)	
Not interested in PT	55 (67%)	27 (33%)	
Very interested in PT	93 (70%)	40 (30%)	
Asthma			0.121
No diagnosis	253 (72%)	98 (28%)	
Not interested in PT	57 (72%)	22 (28%)	
Very interested in PT	42 (60%)	28 (40%)	
			0.515
Back pain			
No diagnosis	233 (72%)	90 (28%)	
Not interested in PT	52 (68%)	25 (32%)	
Very interested in PT	67 (67%)	33 (33%)	
			0.272
Depression			
No diagnosis	202 (70%)	88 (30%)	
Not interested in PT	72 (67%)	36 (33%)	
Very interested in PT	78 (76%)	24 (24%)	
			0.353
Diabetes			
No diagnosis	234 (73%)	88 (27%)	
Not interested in PT	48 (69%)	22 (31%)	
Very interested in PT	72 (65%)	38 (35%)	
			0.973
Hypertension			
No diagnosis	91 (71%)	38 (29%)	
Not interested in PT	141 (71%)	58(29%)	
Very interested in PT	120 (70%)	52 (30%)	
			0.755
Hyperlipidemia			
No diagnosis	161 (70%)	69 (30%)	
Not interested in PT	106 (73%)	40 (27%)	

Very interested in PT	85 (69%)	39 (31%)	
			0.764
Insomnia			
No diagnosis	270 (71%)	109 (29%)	
Not interested in PT	28 (68%)	13 (32%)	
Very interested in PT	54 (68%)	26 (32%)	

PT=Personalized Trial