Appendix A. App Preview Hot Spots for Attention and Use

Table A1. Attention and Predicted Use of Features in the High Prototypicality Fitness App ($n = 165$)

| Left app preview | Attention | Use | | | |
|------------------|-----------|-----|---|---|
| Header app logo icon (top left) | 38 | 23% | 14 | 9% |
| Header page title (“Discover”) | 34 | 21% | 26 | 16% | n/a | .15 |
| Header search icon | 40 | 24% | 57 | 35% | 7.31 | .007 |
| Activity 1 “Outdoor running” | 109 | 66% | 63 | 38% | 32.66 | <.001 |
| Activity 2 “Treadmill” | 104 | 63% | 53 | 32% | 38.46 | <.001 |
| Activity 3 “Individual Exercising” | 90 | 55% | 36 | 22% | 40.13 | <.001 |
| Footer menu option “Discover” | 48 | 29% | 52 | 32% | .20 | .66 |
| Footer menu option “Trainers” | 49 | 30% | 36 | 22% | 3.35 | .07 |
| Footer menu option “Saved” | 41 | 25% | 42 | 26% | .00 | 1.00 |
| Footer menu option “Profile” | 53 | 32% | 70 | 42% | 5.02 | .03 |
| Footer menu option “Settings” | 49 | 30% | 69 | 42% | 7.22 | .01 |

| Right app preview | Attention | Use | | | |
|-------------------|-----------|-----|---|---|
| Header app logo icon (top left) | 24 | 15% | 11 | 7% | n/a | .02 |
| Header page title “Profile” | 37 | 22% | 32 | 19% | .49 | .49 |
| Header settings icon | 46 | 28% | 62 | 38% | 4.89 | .03 |
| Calendar feature | 107 | 65% | 118 | 72% | 1.96 | .16 |
| Performance tracker feature | 142 | 86% | 157 | 95% | n/a | .003 |
| Footer menu option “Discover” | 42 | 26% | 48 | 29% | .52 | .47 |
| Footer menu option “Trainers” | 48 | 29% | 39 | 24% | 1.36 | .24 |
| Footer menu option “Saved” | 40 | 24% | 45 | 27% | .37 | .54 |
| Footer menu option “Profile” | 49 | 30% | 75 | 46% | 12.50 | <.001 |
| Footer menu option “Settings” | 52 | 32% | 71 | 43% | 7.20 | .01 |

Note: n/a = chi square values are not applicable if fewer than 25 discordant pairs; binominal distributions are used for exact 2-tailed significance in these comparisons.
Table A2. Attention and Predicted Use of Features in the High Prototypicality Nutrition App (n = 182)

| Feature                                      | Attention | Use       | χ²   | P    |
|----------------------------------------------|-----------|-----------|------|------|
| **(LEFT SIDE)**                              | n         | %         | n    | %    |       |
| Header app logo icon (top middle)            | 38        | 21%       | 8    | 4%   | 23.36 | <.001 |
| Header search icon                           | 19        | 10%       | 54   | 30%  | 21.81 | <.001 |
| Calorie tracker feature                      | 156       | 86%       | 160  | 88%  | n/a   | .54   |
| Details icon                                 | 14        | 8%        | 50   | 28%  | 26.63 | <.001 |
| Calendar feature                             | 88        | 48%       | 114  | 63%  | 11.57 | .001  |
| Footer menu option “Profile”                 | 37        | 20%       | 90   | 50%  | 38.09 | <.001 |
| Footer menu option “Recipes”                 | 58        | 32%       | 106  | 58%  | 32.49 | <.001 |
| Footer menu option “Plus”                    | 30        | 17%       | 45   | 25%  | 4.56  | .03   |
| Footer menu option “Plans”                   | 50        | 28%       | 102  | 56%  | 36.13 | <.001 |
| Footer menu option “Settings”                | 35        | 19%       | 87   | 48%  | 36.13 | <.001 |
| **(RIGHT SIDE)**                             | n         | %         | n    | %    |       |
| Header app logo icon (top middle)            | 40        | 22%       | 12   | 7%   | 20.25 | <.001 |
| Header search icon                           | 21        | 12%       | 38   | 21%  | 5.95  | .02   |
| Holistic icon                                | 4         | 2%        | 9    | 5%   | n/a   | .13   |
| Ketogenic Easy feature                       | 109       | 60%       | 71   | 39%  | 20.74 | <.001 |
| Footer menu option “Profile”                 | 25        | 14%       | 58   | 32%  | 19.32 | <.001 |
| Footer menu option “Recipes”                 | 45        | 25%       | 80   | 44%  | 18.95 | <.001 |
| Footer menu option “Plus”                    | 23        | 13%       | 28   | 15%  | .46   | .50   |
| Footer menu option “Plans”                   | 37        | 20%       | 72   | 40%  | 18.95 | <.001 |
| Footer menu option “Settings”                | 26        | 14%       | 57   | 31%  | 16.36 | <.001 |
| Classic feature                              | 70        | 39%       | 46   | 25%  | 11.50 | .001  |
| Simple rules icon                            | 3         | 2%        | 9    | 5%   | n/a   | .07   |
| Ketogenic Medium feature                     | 101       | 56%       | 68   | 37%  | 16.25 | <.001 |
| 5:2 feature                                  | 67        | 37%       | 52   | 29%  | 4.00  | .046  |
| Take the Test feature                        | 108       | 59%       | 131  | 72%  | 9.88  | .002  |

Note: n/a = chi square values are not applicable if fewer than 25 discordant pairs; binominal distributions are used for exact 2-tailed significance in these comparisons.
Appendix B. Survey items

| Concept            | Item                                                                 | Response options                                                                 |
|--------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Feature expectation| Select all the elements you would expect to find in a health app. **Check all that apply.** | 1 = Menu<br>2 = Search option<br>3 = Settings option<br>4 = Logo<br>5 = Log/Input data option<br>6 = Share with friends option<br>7 = Summary statistics<br>8 = Summary graph/chart<br>9 = Calendar<br>10 = Page title<br>11 = Login<br>12 = User profile |
| Feature Placement  | Where do you think the [feature] should appear in the health app?    | Hot spots                                                                       |
|                    | Select all the areas on the app screen below where you would expect the [feature] to appear. Selected areas will be shown in green. |                                                                                  |
| App choice         | Below are two health apps in development. Please review the apps and select the app you would be mostly likely to download by checking the circle to the bottom left corner of the preview. We will ask you questions about both, but first we want to know which one you prefer. | 1 = Low prototypicality app<br>2 = High prototypicality app |
| Attention          | For your selected app, what elements in the app caught your attention? Select all elements that grabbed your attention within the app preview below. | Hot spots                                                                       |
| Predicted use      | For your selected app, what elements in the app do you think you would use? Select all elements that you believe you would use within the app preview below. | Hot spots                                                                       |
| Aesthetics:        | The layout appears too dense. (reverse coded) The layout is easy to grasp. Everything goes together on this app. The app appears patchy. (reverse coded) The layout appears well structured. | 1 = Strongly disagree<br>2 = Somewhat disagree<br>3 = Neither agree nor disagree<br>4 = Somewhat agree<br>5 = Strongly agree |
| Simplicity         | The layout is pleasantly varied. The layout is inventive. The design appears uninspired. (reverse coded) The layout appears dynamic. The design is uninteresting. (reverse coded) | 1 = Strongly disagree<br>2 = Somewhat disagree<br>3 = Neither agree nor disagree<br>4 = Somewhat agree<br>5 = Strongly agree |
| Diversity          | The color composition is attractive. The colors do not match. (reverse coded) The choice of colors is botched. (reverse coded) The colors are appealing. | 1 = Strongly disagree<br>2 = Somewhat disagree<br>3 = Neither agree nor disagree<br>4 = Somewhat agree<br>5 = Strongly agree |
| Colorfulness       | The layout appears professionally designed. The layout is not up-to-date. (reverse) The app is designed with care. The design of the app lacks a concept. (reverse) | 1 = Strongly disagree<br>2 = Somewhat disagree<br>3 = Neither agree nor disagree<br>4 = Somewhat agree<br>5 = Strongly agree |
| Craftsmanship      |                                                                      |                                                                                  |
| Perceived ease of use  | The app would be clear and understandable. Getting the app to function would not require much mental effort. I would find the app easy to use. | 1 = Strongly disagree  
2 = Somewhat disagree  
3 = Neither agree nor disagree  
4 = Somewhat agree  
5 = Strongly agree |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Perceived usefulness   | Using the app would improve my health. Using the app would make me more likely to meet my health goals. I would find the app useful for achieving my health goals. | 1 = Strongly disagree  
2 = Somewhat disagree  
3 = Neither agree nor disagree  
4 = Somewhat agree  
5 = Strongly agree |
| Intention to use       | [Randomized in construct matrix.]  
If the app were available, I would intend to use it in the next month.  
If the app were available, I would predict I would use it in the next month. | 1 = Strongly disagree  
2 = Somewhat disagree  
3 = Neither agree nor disagree  
4 = Somewhat agree  
5 = Strongly agree |
| Perceived affordances  | This app would allow me to… Please check all that apply.  
1 = Set health goals  
2 = Track my progress  
3 = Create new health habits  
4 = Learn health tips  
5 = Interact with others  
6 = Earn rewards  
7 = Make meeting my health goals easier  
8 = Improve my health  
9 = Increase my control over my health  
10 = Have fun with technology  
11 = Give me more information about my health  
12 = Share my health data with friends  
13 = Share my health data with a healthcare provider | |
| Age                    | How old are you? | |
| Gender                 | How do you describe your gender identity?  
1 = Male  
2 = Female  
3 = Other | |
| Hispanic               | Are you of Hispanic, Latino, or Spanish origin?  
1 = Yes  
0 = No | |
| Race                   | Which one of these groups would you say best represents your race?  
1 = White  
2 = Black or African American  
3 = American Indian or Alaska Native  
4 = Asian, or  
5 = Pacific Islander  
6 = Multicultural  
7 = Other | |
| Education              | What is the highest degree or level of school you have completed?  
1 = Some high school  
2 = High school diploma or GED  
3 = Some college, no degree  
4 = Associate degree  
5 = Bachelor’s degree  
6 = Masters degree (e.g., MA, MS) | |
| Health status          | In general, would you say your health is … | 7 = Professional or Doctorate degree (e.g., JD, MD, PhD) |
|-----------------------|--------------------------------------------|--------------------------------------------------------|
|                       |                                            | 1=Very Poor                                             |
|                       |                                            | 2=Poor                                                  |
|                       |                                            | 3=Fair                                                  |
|                       |                                            | 4=Good                                                  |
|                       |                                            | 5=Very Good                                             |

| Mental health status  | In general, would you say your mental health is… | 1=Very Poor |
|-----------------------|-----------------------------------------------|------------|
|                       |                                              | 2=Poor     |
|                       |                                              | 3=Fair     |
|                       |                                              | 4=Good     |
|                       |                                              | 5=Very Good |

| Health app use        | Do you use a health app?                      | 1=Yes      |
|-----------------------|-----------------------------------------------|------------|
|                       |                                              | 2=No       |