APPENDIX: Hydration Knowledge, Attitudes and Behavior Scales

HyKS (Hydration Knowledge Scale)

Instructions: Below you will see a series of statements about hydration and fluid intake. Decide whether you think the statement is accurate or not. If you know the statement is accurate, select 2. If you are pretty sure that the statement is accurate, but you’re not entirely sure, select 1. If you don’t know, select 0. If you’re absolutely positive the statement is inaccurate, select -2, and if you are pretty sure the statement is inaccurate select -1.

Please answer all questions just based on your own knowledge. Do not use your phone or a computer to look up the answers to these items.

<table>
<thead>
<tr>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely Inaccurate</td>
<td>Probably Inaccurate</td>
<td>Not Sure</td>
<td>Probably Accurate</td>
<td>Definitely Accurate</td>
</tr>
</tbody>
</table>

1. _________ People can be dehydrated without being thirsty.
2. _________ Dehydration does not increase the risk for chronic diseases like kidney and heart disease.
3. _________ Older adults feel less thirsty than younger adults even when equally dehydrated.
4. _________ Water in food doesn’t “count” toward daily hydration needs.
5. _________ When people are dehydrated, they think less clearly.
6. _________ Light urine is an indicator of dehydration.
7. _________ All people require the same amount of fluid per day to stay hydrated.
8. _________ Eight glasses of water per day is not a rule that applies to everyone.
9. _________ Hot and humid environments don’t change the amount of fluid needed.
10. _________ Dehydration can be associated with negative mood.
11. _________ It’s impossible to drink too much water.
12. _________ Dehydration has the same effect on infants/children as on adults.
13. _________ When people are dehydrated, they are at higher risk for heat-related illnesses.
14. _________ Caffeinated drinks “count” towards daily fluid intake.
15. _________ People need the same amount of fluid each day, regardless of activity level.
16. _________ Fluid is retained better when combined with eating.
APPENDIX: Hydration Knowledge, Attitudes and Behavior Scales

SCORING:
1. Number correct can be scored by
   a. giving 1 point for each of the following items marked as either Probably Accurate (a rating of 1) or Definitely Accurate (a rating of 2): Items 1, 3, 5, 8, 10, 13, 14, 16)
   b. Giving 1 point for each of these items marked as -2 (Definitely Inaccurate) or -1 (Probably Inaccurate): Items (2, 4, 6, 7, 9, 11, 12, 15)
2. An overall knowledge score (from -32 to 32) can be calculated by:
   a. Reverse scoring all of the “inaccurate” items (2, 4, 6, 7, 9, 11, 12, 15)
   b. Summing the reverse scored items with the rest of the items
   c. A “perfect” score would be 32, which would be if each item were answered correctly and definitively.
APPENDIX: Hydration Knowledge, Attitudes and Behavior Scales

Fluid Behavior Index (FBI)

The questions in this section ask about your behaviors regarding hydration. We say “typically” or “usually” to mean “more often than not.” So, if you carry a water bottle in your backpack, purse or briefcase and you have that bag with you much of the time, you’d probably select “yes” for the first question, even if you are not actually carrying the water bottle in your hand all of the time.

1. Do you usually have a beverage within arm’s reach?  No Yes
2. Do you drink fluid even when you’re not thirsty?  No Yes
3. Do you drink fluid at least once per hour when awake?  No Yes
4. How many ounces [Liters] of fluids do you think you drink on a typical day? (Fluids includes water, milk, juice, soda, tea, coffee, sports drinks and energy drinks). See below for a key.

```
A  None
B  Less than 16 oz/473mL (less than 1 turquoise bottle)
C  Between 16 and 32 oz (473mL to 949mL) (between 1-2 of the turquoise bottles; maybe 1 of the larger bottles)
D  Between 33 and 63 oz (950L to 1.86L) (more than 2 but less than 4 of the turquoise bottles)
E  64 oz (1.86L) or more (i.e., at least 4 of the turquoise bottles)
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5. How confident are you that you are well-hydrated?  Not at all confident
   Mildly confident
   Moderately confident
   Mostly confident
   Extremely confident

SCORING:
• For items 1-3, give 0 points for “No” and 1 point for “yes”
• For item 9, A = 0, B = 1, C = 2, D = 3, E = 4
• These four items together provide a fluid behavior index, which ranges from 0 to 7.
APPENDIX: Hydration Knowledge, Attitudes and Behavior Scales

- Item 5 is not included in the behavior scale but is retained in this measure for use as a single item index of confidence.
APPENDIX: Hydration Knowledge, Attitudes and Behavior Scales

Hydration Facilitators and Barriers (H-FAB)

This section includes questions about your attitudes toward hydration and drinking fluid. The word “fluids” includes water, milk, juice, soda, tea, coffee, sports drinks and energy drinks.

<table>
<thead>
<tr>
<th>Item #</th>
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<tbody>
<tr>
<td>1.</td>
<td>I have a habit of drinking fluid regularly.*</td>
</tr>
<tr>
<td>2.</td>
<td>I’m more likely to drink fluid if other people near me are drinking too.</td>
</tr>
<tr>
<td>3.</td>
<td>Monitoring my fluid consumption helps me stay hydrated.</td>
</tr>
<tr>
<td>4.</td>
<td>I’d drink more fluids if I didn’t have to pee so often.</td>
</tr>
<tr>
<td>5.</td>
<td>I don’t want to carry a water bottle.</td>
</tr>
<tr>
<td>6.</td>
<td>I’m more likely to drink fluids if I’m accountable to someone else.</td>
</tr>
<tr>
<td>7.</td>
<td>I’m often too busy to go get a drink of water.</td>
</tr>
<tr>
<td>8.</td>
<td>I’m used to drinking fluids regularly; I don’t even have to think about it.*</td>
</tr>
<tr>
<td>9.</td>
<td>It’s important to me to have clear fluid consumption goals.</td>
</tr>
<tr>
<td>10.</td>
<td>I avoid drinking fluids if I’m going to be somewhere without a bathroom</td>
</tr>
<tr>
<td>11.</td>
<td>If someone checks with me about my fluid intake, I’m more likely to stay hydrated.</td>
</tr>
<tr>
<td>12.</td>
<td>I carry a bottle with me to make hydration easier.*</td>
</tr>
<tr>
<td>13.</td>
<td>I’m often too lazy to drink more liquid.</td>
</tr>
<tr>
<td>14.</td>
<td>I know how much I’m supposed to drink to stay hydrated.</td>
</tr>
<tr>
<td>15.</td>
<td>I hate having to go to the bathroom all the time.</td>
</tr>
<tr>
<td>16.</td>
<td>Carrying a water bottle is annoying.</td>
</tr>
<tr>
<td>17.</td>
<td>Seeing other people drinking fluid helps me drink more.</td>
</tr>
<tr>
<td>18.</td>
<td>I think about what kinds of fluids my body will need later in the day.</td>
</tr>
</tbody>
</table>

*Reverse scored

SCORING:
1. Reverse score items 1, 8, and 12
2. Calculate averages for each subscale:
   a. Lack of Effort Barrier: 1R, 7, 8R, 13
   b. Physical Barrier: 4, 10, 15
   c. Lack of Container Barrier: 5, 12R, 16
   d. Social Facilitator: 2, 6, 11, 17
   e. Monitoring Facilitator: 3, 9, 14, 18