### Supplementary Table 1A: Classification of FGID diagnosis by primary *ICD-10* code.

| Classification          | ICD-10 Code | Frequency |
|-------------------------|-------------|-----------|
| **Upper FGID diagnoses**|             |           |
| E13.43                  | 1           |           |
| G43.A0                  | 1           |           |
| G43.D0                  | 1           |           |
| K21.0                   | 2           |           |
| K21.00                  | 1           |           |
| K21.9                   | 11          |           |
| K22.4                   | 1           |           |
| K29.50                  | 1           |           |
| K30                     | 31          |           |
| K31.84                  | 37          |           |
| K31.9                   | 3           |           |
| K92.89                  | 1           |           |
| R10.12                  | 1           |           |
| R10.13                  | 4           |           |
| R11.0                   | 4           |           |
| R11.10                  | 1           |           |
| R11.15                  | 41          |           |
| R11.2                   | 17          |           |
| R12                     | 1           |           |
| R13.10                  | 5           |           |
| R19.8                   | 3           |           |
| Z98.84                  | 1           |           |
| **Lower FGID diagnoses**|             |           |
| K50                     | 1           |           |
| K52.82                  | 1           |           |
| K58.0                   | 31          |           |
| K58.1                   | 33          |           |
| K58.2                   | 10          |           |
| K58.9                   | 6           |           |
| K59.0                   | 1           |           |
| K59.00                  | 11          |           |
| K59.01                  | 4           |           |
| K59.02                  | 2           |           |
| K59.03                  | 4           |           |
| K59.04                  | 6           |           |
| K59.1                   | 3           |           |
| K59.2                   | 1           |           |
| K60.2                   | 1           |           |
| K62.6                   | 1           |           |
| K63.89                  | 1           |           |
| Code   | Count |
|--------|-------|
| M62.89 | 3     |
| R10.11 | 2     |
| R10.11 | 1     |
| R10.2  | 1     |
| R10.30 | 3     |
| R10.31 | 3     |
| R10.32 | 1     |
| R10.84 | 1     |
| R10.9  | 10    |
| R14.0  | 2     |
| R19.4  | 3     |
| R19.5  | 3     |
| R19.7  | 5     |
| R27.8  | 1     |
| K50.00 | 1     |
| K50.10 | 1     |
| K50.118| 1     |
| K50.119| 2     |
| K50.80 | 3     |
| K50.818| 1     |
| K50.819| 2     |
| K51.0  | 1     |
| K51.00 | 2     |
| K51.011| 1     |
| K51.012| 1     |
| K51.2  | 1     |
| K51.20 | 1     |
| K51.30 | 1     |
| K51.50 | 2     |
| K51.90 | 1     |
| K52.831| 1     |
| K85.00 | 1     |
| K86.1  | 2     |
| K90.0  | 1     |

**Other GI disorder with functional pain**

FGID, functional gastrointestinal disorder; GI, gastrointestinal.
### Supplementary Table 1B: FGID diagnoses requiring review of clinic note.

| Classification by ICD-10 | ICD-10 | Diagnosis on chart review | Reclassification |
|--------------------------|--------|---------------------------|------------------|
| FGID disorder not specified in primary ICD-10 required chart review | F43.23 | chronic abdominal pain | Lower FGID |
|                          | G89.4  | chronic abdominal pain    | Lower FGID |
|                          | K91.89 | chronic abdominal pain    | Lower FGID |
|                          | G54.8  | IBS-C                     | Lower FGID |
|                          | E46    | chronic abdominal pain    | Lower FGID |
|                          | R52    | chronic abdominal pain    | Lower FGID |
|                          | K43.9  | chronic abdominal pain    | Lower FGID |
|                          | R19.8  | chronic abdominal pain    | Lower FGID |
|                          | K59.8  | chronic abdominal pain    | Lower FGID |
|                          | M79.2  | chronic abdominal pain    | Lower FGID |
|                          | F43.20 | cyclic vomiting syndrome  | Upper FGID |

FGID, functional gastrointestinal disorder.
**Supplementary Table 2**: Correlation of change in GAD7 and PHQ8 score with patient interactions with RxWell and coaches

|                                | Spearman Correlation | P-value |
|--------------------------------|----------------------|---------|
| **Correlations with Techniques** |                      |         |
| GAD Pre - 1m                   | 0.064                | 0.631   |
| GAD Pre- Post (last score within 3 mo) | -0.062              | 0.640   |
| PHQ Pre - 1m                   | 0.002                | 0.988   |
| PHQ Pre- Post (last score within 3 mo) | 0.041               | 0.787   |
| **Correlations with Messages to Coach** |                      |         |
| GAD Pre - 1m                   | 0.057                | 0.670   |
| GAD Pre- Post (last score within 3 mo) | -0.063              | 0.637   |
| PHQ Pre - 1m                   | 0.047                | 0.758   |
| PHQ Pre- Post (last score within 3 mo) | 0.205               | 0.171   |
| **Techniques vs Message Correlation** |                      |         |
| Techniques – Coach             | 0.729                | <0.001  |

Note: Spearman correlations were used due to high skewness in the distribution of the number of techniques used and in messages to coach messages. GAD7, anxiety measure; PHQ8, depression measure.
**Supplementary Table 3A:** Change in GAD7 and PHQ8 scores among patients enrolled by gastroenterology providers

|                          | Mean Change (SD) | CI          | t (df) | P-value (2-tailed) | Cohen’s d effect size |
|--------------------------|------------------|-------------|--------|--------------------|-----------------------|
| Pre-GAD7 - Post 1mo GAD7| 3.1 (5.1)        | (1.3, 5.0)  | 3.46   | 0.002              | 0.52                  |
| Pre-GAD7 to Post GAD7 (within 3 mo) | 4.0 (4.8)        | (2.3, 5.7)  | 4.72   | <0.001             | 0.65                  |
| Pre-PHQ8-Post 1mo PHQ8  | 1.4 (4.3)        | (-0.4, 3.2) | 1.57   | 0.129              | 0.23                  |
| Pre- PHQ8 to Post PHQ8 (within 3 mo) | 2.8 (4.9)        | (0.8, 4.8)  | 2.84   | 0.009              | 0.49                  |

CI, confidence interval; GAD7, anxiety measure; PHQ8, depression measure.

**Supplementary Table 3B:** Change in GAD7 and PHQ8 scores among patients enrolled by behavioral health providers

|                          | Mean Change (SD) | CI          | t (df) | P-value (2-tailed) | Cohen’s d effect size |
|--------------------------|------------------|-------------|--------|--------------------|-----------------------|
| Pre-GAD7 - Post 1mo GAD7| 2.1 (5.5)        | (-0.1, 4.2) | 1.98   | 0.059              | 0.39                  |
| Pre-GAD7 to Post GAD7 (within 3 mo) | 1.2 (6.3)        | (-1.3, 3.7) | 0.97   | 0.34               | 0.22                  |
| Pre-PHQ8-Post 1mo PHQ8  | 0.9 (5.6)        | (-1.7, 3.4) | 0.70   | 0.49               | 0.15                  |
| Pre- PHQ8 to Post PHQ8 (within 3 mo) | 3.0 (4.3)        | (1.0, 4.9)  | 3.13   | 0.005              | 0.57                  |

CI, confidence interval; GAD7, anxiety measure; PHQ8, depression measure.