Supplementary Online Content


eTable. Financial Strain Data From the Final 144 Study Participants Completing 24- Month Visits

Methods. Detailed Presentation of Statistical Methods

This material has been provided by the authors to give readers additional information about their work.
**eTable. Financial Strain Data From the Final 144 Study Participants Completing 24-Month Visits**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall</th>
<th>Usual care</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Difficulty paying bills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A great deal</td>
<td>19 (15.6)</td>
<td>10 (14.3)</td>
<td>9 (17.3)</td>
</tr>
<tr>
<td>Some</td>
<td>42 (34.4)</td>
<td>25 (35.7)</td>
<td>17 (32.7)</td>
</tr>
<tr>
<td>A little</td>
<td>32 (26.2)</td>
<td>18 (25.7)</td>
<td>14 (26.9)</td>
</tr>
<tr>
<td>No difficulty</td>
<td>29 (23.8)</td>
<td>17 (24.3)</td>
<td>12 (23.1)</td>
</tr>
<tr>
<td><strong>Amount of money at end of month</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some money left over</td>
<td>22 (18.0)</td>
<td>10 (14.0)</td>
<td>12 (23.5)</td>
</tr>
<tr>
<td>Just enough to make ends meet</td>
<td>52 (42.6)</td>
<td>33 (46.5)</td>
<td>19 (37.3)</td>
</tr>
<tr>
<td>Not enough to make ends meet</td>
<td>48 (39.3)</td>
<td>28 (39.4)</td>
<td>20 (39.2)</td>
</tr>
<tr>
<td><strong>Possibility that food would run out</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often true</td>
<td>15 (10.4)</td>
<td>7 (8.9)</td>
<td>8 (12.3)</td>
</tr>
<tr>
<td>Sometimes true</td>
<td>44 (30.6)</td>
<td>25 (31.7)</td>
<td>19 (29.2)</td>
</tr>
<tr>
<td>Never true</td>
<td>85 (59.0)</td>
<td>47 (59.5)</td>
<td>38 (58.5)</td>
</tr>
<tr>
<td><strong>Not enough money to buy food</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often true</td>
<td>10 (6.9)</td>
<td>5 (6.3)</td>
<td>5 (7.7)</td>
</tr>
<tr>
<td>Sometimes true</td>
<td>47 (32.6)</td>
<td>30 (38.0)</td>
<td>17 (26.2)</td>
</tr>
<tr>
<td>Never true</td>
<td>87 (60.4)</td>
<td>44 (55.7)</td>
<td>43 (66.2)</td>
</tr>
<tr>
<td><strong>Cut meal size because not enough money for food</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often true</td>
<td>12 (8.3)</td>
<td>6 (7.6)</td>
<td>6 (9.2)</td>
</tr>
<tr>
<td>Sometimes true</td>
<td>33 (22.9)</td>
<td>22 (27.9)</td>
<td>11 (16.9)</td>
</tr>
<tr>
<td>Never true</td>
<td>99 (68.8)</td>
<td>51 (64.6)</td>
<td>48 (73.9)</td>
</tr>
<tr>
<td><strong>Difficulty paying rent</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean no. of months with rent difficulty</td>
<td>56 (39.2)</td>
<td>33 (41.8)</td>
<td>23 (35.9)</td>
</tr>
<tr>
<td><strong>Live with family for financial reasons</strong></td>
<td>9 (8.7)</td>
<td>5 (9.1)</td>
<td>4 (8.2)</td>
</tr>
<tr>
<td><strong>Without a place to live</strong></td>
<td>5 (4.5)</td>
<td>4 (6.6)</td>
<td>1 (2.0)</td>
</tr>
<tr>
<td><strong>Utilities turned off</strong></td>
<td>17 (11.9)</td>
<td>10 (12.8)</td>
<td>7 (10.8)</td>
</tr>
<tr>
<td>Mean no. of months turned off</td>
<td>1.3 (0.5)</td>
<td>2 (1.1)</td>
<td></td>
</tr>
<tr>
<td><strong>Phone disconnected</strong></td>
<td>39 (27.3)</td>
<td>23 (29.5)</td>
<td>16 (24.6)</td>
</tr>
<tr>
<td>Mean no. of months disconnected</td>
<td>2.2 (1.2)</td>
<td>3.9 (5.7)</td>
<td></td>
</tr>
</tbody>
</table>

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eMethods. Detailed Presentation of Statistical Methods

The primary analysis is based on change in weight at 24 months using mixed effects regression models with PROC MIXED of SAS. The model takes the form:

\[ y_{it} = \alpha + \beta_1 t_{6m} + \beta_2 t_{12m} + \beta_3 t_{18m} + \beta_4 t_{24m} + \beta_5 t_{6m} \times t_{12m} + \ldots + \beta_9 t_{6m} \times t_{24m} + y_{1\text{gender}} + \sigma_1 \text{clinic}_1 + \sigma_2 \text{clinic}_2 + \sigma_3 \text{gender} \]

where \( y_{it} \) = weight for the \( i \)th subject at time \( t \), \( t_{6m} = 1 \) if \( t = 6m \), \( = 0 \) else; \( t_{12m}, t_{18m}, t_{24m} \) are defined similarly, \( \text{gender} = 1 \) if male, \( = 0 \) if female; \( \text{clinic}_1, \text{clinic}_2, \text{clinic}_3 \) = indicator variables for health center, \( u_i \) = random intercept for the \( i \)th subject and \( e_{it} \) = error term. The model was fit using PROC MIXED of SAS with a random intercept and an unstructured covariance matrix. The primary analysis is based on \( \beta_9 \) = the mean difference in weight between treatment groups (intervention minus usual care) at 24 months after adjusting for gender and health center.

All 365 subjects are included in the mixed effects regression models including 15 subjects who only had a baseline assessment. Subjects with missing visits are coded as “.” and these visits are treated as missing at random. In addition, subjects were censored if they reported gastric bypass surgery during follow-up.

We also compared the difference in weight over the 24-month intervention period between the active and control groups estimated by the area under the curve (AUC) defined by:

\[ \text{AUC} = \text{mean} \{ \text{all available weights at 6m,..., 24m} \} - \text{baseline weight}. \]

This measure was available for 350 out of 365 subjects.

The mixed effects and AUC analyses were also performed for % weight change (obtained after exponentiating the coefficient from a model based on log(weight)), BMI, SBP and DBP.

Furthermore, since the treatment effect for BP appeared to increase over time, we also fit the mixed model:

\[ bp_{it} = \alpha + \beta_1 t + \beta_2 t_{trt} + \beta_3 t_{trt} \times t + \gamma_{1\text{gender}} \\
+ \delta_1 \text{clinic}_1 + \delta_2 \text{clinic}_2 + u_i + e_{it} \]

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The parameter of primary interest is $\beta_3$ which measures the difference in rate of change of BP between the active and control groups (i.e., intervention minus usual care). These analyses were run for both systolic and diastolic BP.

Finally, we define BP control for the $i$th subject at time $t$ by

$$Y_{it} = 1 \text{ if } SBP_{it} < 140 \text{ and } DBP_{it} < 90$$
$$= 0 \text{ if } SBP_{it} \geq 140 \text{ or } DBP_{it} \geq 90.$$

We compared BP control between intervention and usual care groups using generalized estimating equation (GEE) models with PROC GENMOD of SAS using a logistic link and a binomial distribution and an unstructured covariance matrix based on the model:

$$\ln\left(\frac{p_{it}}{1 - p_{it}}\right) = \alpha + \beta_1 t + \beta_2 Y_{i0} + \beta_3 trt \times t$$
$$+ \gamma_1 gender + \delta_1 clinic_1 + \delta_2 clinic_2, t = 0, 0.5, 1, 2.$$

The parameter of primary interest is $\beta_3 =$ rate of increase per year in the log odds of BP control for the intervention group minus the rate of increase per year in the log odds of BP control in the usual care group.