CLOSING THE GAP ON HEALTH DISPARITY IN HYPERTENSION: A QUALITY IMPROVEMENT INTERVENTION ON SELF-MONITORING OF BLOOD PRESSURE IN BLACK MEN

BACKGROUND

Background

• Hypertension is a leading preventable cause of death and disability in the United States.1
• There is a disparate burden among minorities; prevalence among Black patients is much higher than non-Black groups.1
• Self-monitoring of blood pressure (SMBP) has been proven to lead to better outcomes for hypertension.2
• A reduction of as little as 1 mm HG can reduce the risk of stroke by 5%.3

Study Objectives

• To address the barriers to improving SMBP in Black men in Durham.
• To test real world implementation of SMBP in a low-resource setting.
• To determine whether and how frequently patients will use provided blood pressure cuffs for self-management.
• To strategize with patients to design health goals to maintain health and well-being.

METHODS

Study Planning:

• Patient Cohort was identified as 258 black males (18+) with severe hypertension (SBP > 160mmHg and/or DBP > 100mmHg). Patients from Lincoln Community Health Center (LCHC)

Study Implementation:

• Initial calls were made to gauge interest for the study and offer a free blood pressure cuff for self-monitoring.
• Blood pressure cuffs and instructional materials were delivered to interested patients.
• Follow up calls consisted of weekly blood pressure check-ups, setting a SMART goal, hypertension education, and health referrals.
• Follow up calls made during the cycle 2 period to participants reached during cycle 1.

Post-study evaluation:

• Cycle 2 data was analyzed. SBP and DBP before and after the study was pulled from electronic medical records

RESULTS

Baseline Demographics

<table>
<thead>
<tr>
<th></th>
<th>Total (258)</th>
<th>Reached (137)</th>
<th>Not Reached (121)</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean)</td>
<td>54.6</td>
<td>54.7</td>
<td>54.5</td>
<td>0.891</td>
</tr>
<tr>
<td>Insurance — private %</td>
<td>12.8</td>
<td>15.3</td>
<td>9.9</td>
<td>0.225</td>
</tr>
<tr>
<td>Medicare %</td>
<td>28.3</td>
<td>31.1</td>
<td>24.0</td>
<td>0.229</td>
</tr>
<tr>
<td>Medicaid %</td>
<td>12.6</td>
<td>16.1</td>
<td>8.3</td>
<td>0.076</td>
</tr>
<tr>
<td>Uninsured %</td>
<td>46.5</td>
<td>36.5</td>
<td>57.9</td>
<td>0.012</td>
</tr>
<tr>
<td>Mychart active %</td>
<td>36.0</td>
<td>37.2</td>
<td>34.7</td>
<td>0.717</td>
</tr>
<tr>
<td>Tobacco use: current %</td>
<td>42.2</td>
<td>38.7</td>
<td>46.3</td>
<td>0.349</td>
</tr>
<tr>
<td>BMI kg/m², mean</td>
<td>31.7</td>
<td>31.9 (±16.2)</td>
<td>30.7 (±18.9)</td>
<td>0.284</td>
</tr>
<tr>
<td>SBP (mmHg), mean</td>
<td>168.5</td>
<td>168.8</td>
<td>168.1</td>
<td>0.687</td>
</tr>
<tr>
<td>DBP (mmHg), mean</td>
<td>97.7</td>
<td>97.5</td>
<td>97.8</td>
<td>0.988</td>
</tr>
</tbody>
</table>

*Two-tailed t-tests assuming unequal variance for continuous variables, X² for categorical variables

**Missing BMI data from several patients

Comparison of Blood Pressure for men with and without a BP cuff

DISCUSSION

• There was a decrease in blood pressure for those who took part in this project, regardless of whether the patient received a cuff.
• Most patients were not able to complete the program.
• 43 high risk men began monitoring their blood pressure because of this program.
• Response among participants was generally positive.
• Students successfully referred patients to resources to address social determinants of health and promote health maintenance

FUTURE DIRECTIONS

• Developing a virtual course for Lincoln Community Health Center patients to improve their blood pressure.
• Providing additional opportunities for patients to connect with care providers and community stakeholders.
• Continue assisting patients in using and understanding the importance of MyChart to close the gap in access.
• Expand to our intervention to include the Spanish speaking population and women

ACKNOWLEDGMENTS

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