Race, ethnicity, and rurality in public perceptions of therapeutic implanted neural devices

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Results

Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Black, non-Hispanic, N = 214</th>
<th>White, non-Hispanic, N = 553</th>
<th>Hispanic, N = 210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>124 (58%)</td>
<td>133 (24%)</td>
<td>91 (43%)</td>
</tr>
<tr>
<td>Suburban</td>
<td>72 (34%)</td>
<td>254 (46%)</td>
<td>99 (47%)</td>
</tr>
<tr>
<td>Rural</td>
<td>18 (8.4%)</td>
<td>166 (30%)</td>
<td>20 (9.5%)</td>
</tr>
<tr>
<td>Age (Mean ± sd)</td>
<td>46 ± 16</td>
<td>51 ± 17</td>
<td>44 ± 17</td>
</tr>
</tbody>
</table>

Survey-weighted Preferences for Traditional Treatment and Implanted Device by Key Demographic Variable

Main Takeaways

- Non-Hispanic, Black Americans are less likely than non-Hispanic, White Americans to prefer an implanted neural device for refractory epilepsy and for mood disorders.
- Older Americans are more likely than younger Americans to prefer an implanted neural device for refractory epilepsy and for mood disorders.
- The fully adjusted model for refractory epilepsy showed Democratic political identification, retirement, and income were associated with a preference for an implanted neural device.
- The fully adjusted model for mood disorders showed unemployment was associated with a preference for an implanted neural device.

Mediation Analysis

Epilepsy Vignette

- Age is partially mediated by income. Age is no longer significant when adjusted for this variable.
- Black race is partially mediated by income and inconsistently mediated by political party affiliation.

Mood Vignette

- Age is inconsistently mediated by unemployment.
- Black race is no longer significant when adjusted for all variables, but specific mediation was not identified.