Using Standardized Encounters to Understand Reported Racial/Ethnic Disparities in Patient Experiences with Care

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Racial/ethnic disparities in patient experiences with care

• Have been repeatedly demonstrated
  – Even when using well-validated measurement tools

• Apparent paradoxes
  – Minority patients report having more problems, but provide higher global ratings
Potential explanations

• Expectations of care
  – Some groups may be more easily satisfied

• Scale use
  – E.g., Extreme Response Tendency (ERT) previously demonstrated for global ratings

• Differing interpretations of the same events
Interpreting disparities is increasingly important

- CAHPS Hospital Survey data now publicly available
- Medicare Improvements for Patients and Providers Act of 2008
  - Mandates public reporting of Medicare plan data by race/ethnicity
New contribution

• Prior studies use real-world data
  – Primarily from CAHPS
  – Cannot distinguish among the three explanations
• Our study
  – Online
  – Simulated written and video encounters
  – Experimental design allows for systematic examination of the three explanations
Study design

• Knowledge Networks panel
  – Online
  – RDD-based
  – Free Web-TV access for those without connections
    • Represents lower-income adults
• Previously used in health-related studies
Sample

- Random sample of 1,275 adults from panel
- Stratified to obtain similar numbers by race/ethnicity

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>204</td>
<td>57.3</td>
</tr>
<tr>
<td>African American</td>
<td>163</td>
<td>41.6</td>
</tr>
<tr>
<td>Latino</td>
<td>200</td>
<td>49.9</td>
</tr>
<tr>
<td>Total</td>
<td>567</td>
<td>49.4</td>
</tr>
</tbody>
</table>
Study part I – Expectations of care

• 5 questions
  – Used in previous studies
  – Roughly how many doctors do you think
    • Take the time and effort to learn about the most up-to-date treatments and drugs?
    • Don’t take enough time to talk with patients about their medical care?
    • Treat all patients fairly regardless of race?
    • 2 additional
  – Responses are no doctors at all, some doctors, most doctors, all doctors
Study part II – Written vignettes

• Patient complains of headache, physician responds
• Respondents answer 3 modified items from CAHPS Clinician and Group survey
  – Listen carefully
  – Show respect
  – Spend enough time
• 5 vignettes presented in randomized order
• Ordinarily scaled measure of responsiveness
Study part III – Video encounter

- A single 4-minute simulated encounter
  - Diabetic patient with longstanding physician relationship
  - Frustration at lack of blood sugar control
  - Discuss alternative strategies for improving health

- Respondent answers
  - 5 report questions modified from CAHPS Doctor Communication composite
  - 0-10 global rating
Study part III – Rationale for video response

• Perceived positive and negative physician behaviors

• To what extent was the physician
  – Positive: Kind, helpful
  – Negative: Impatient, intimidating

• Attributes developed via local qualitative interviews

• Exploratory factor analysis yielded 2 factors with 10 items each
analyses - i

- expectations
  - means compared via independent sample t-tests

- written vignettes
  - multivariate linear regressions adjusted for correlation within respondents
  - responses to each CAHPS item predicted from physician responsiveness and race/ethnicity
Analyses - II

• Video
  – Reports and 0-10 rating
    • Means compared via independent sample t-tests
    • Multinomial regression and tests of variance used to test for ERT
  – 0-10 rating only
    • Multivariate model predicting rating from race/ethnicity, perceived positive and negative behavior, and their interaction
Results - Expectations

- Average responses fall near middle of scale
- Only 1 of 5 questions demonstrates racial/ethnic differences

<table>
<thead>
<tr>
<th>Roughly how many doctors do you think:</th>
<th>All</th>
<th>White</th>
<th>African American</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make too many mistakes in taking care of their patients?</td>
<td>2.06</td>
<td>2.09</td>
<td>2.03</td>
<td>2.05</td>
</tr>
<tr>
<td>Treat all patients fairly regardless of race?</td>
<td>2.78</td>
<td>2.98</td>
<td>2.53*</td>
<td>2.78*</td>
</tr>
</tbody>
</table>

1 = no doctors at all; 2 = some doctors; 3 = most doctors; 4 = all doctors
Results – Written vignettes

- Perceptions of physician responsiveness increased linearly with designed level of responsiveness
- All three racial/ethnic groups responded similarly

<table>
<thead>
<tr>
<th>Vignette</th>
<th>White</th>
<th>African American</th>
<th>Latino</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.63</td>
<td>1.64</td>
<td>1.71</td>
</tr>
<tr>
<td>2</td>
<td>1.91</td>
<td>1.85</td>
<td>1.94</td>
</tr>
<tr>
<td>3</td>
<td>2.77</td>
<td>2.72</td>
<td>2.85</td>
</tr>
<tr>
<td>4</td>
<td>3.31</td>
<td>3.29</td>
<td>3.22</td>
</tr>
<tr>
<td>5</td>
<td>3.73</td>
<td>3.64</td>
<td>3.58</td>
</tr>
</tbody>
</table>

1=not at all; 2=very little; 3=to some extent; 4=to a great extent

- Confirmed in repeated-measures multivariate models
Results - video

- No evidence of racial/ethnic differences in responses to Doctor Communication report items
  - Independent sample t-tests
  - Repeated-measures multivariate regression
Results - video

• Mean 0-10 rating was below 5 for all groups
  – Encounter was perceived far more negatively than typical in real-world data
• Similar mean scores across racial/ethnic groups
• African Americans and Latinos
  – Greater standard deviation
  – More likely to use both ends of the response scale
  – Evidence of extreme response tendency
Results – video

• 0-10 global rating regressed on race/ethnicity, positive and negative perception scales, and interaction

• Main race/ethnicity and interaction terms were nonsignificant
  – Perceptions of physician behavior have a similar influence across racial/ethnic groups
White, African American, and Latino respondents

- Had generally similar expectations of physician behavior
- Used CAHPS report items similarly when exposed to the same stimuli
- Had similar mean responses on 0-10 ratings
  - African Americans and Latinos more likely to use both extremes of the response scale more often
  - 0-10 ratings were similarly responsive to perceptions of physician behavior
  - One video encounter with mean atypically near 5
Limitations

- Online panel participants may differ in unmeasured ways
- Study administered only in English
- Unable to study Asians
- Internet administration, rather than mail or phone
- Single video encounter, no experimental manipulation of quality
- Asked about a third-party encounter rather than one’s own physician
Implications

• Future work should use multiple videos
  – Manipulate physician responsiveness over multiple dimensions

• MIPPA implementation should emphasize reports rather than 0-10 global ratings
  – Concern about extreme response tendency

• Stronger basis for interpreting differences in real-world CAHPS report items as reflecting true disparities in need of remedy