Linking Disability Status and Barriers of Care to Patient Satisfaction: An Analysis of the Moderating Role of Personal Doctor

Cilia E. Zayas, MHA1, Jessica R. Schumacher, PhD2, Allyson G. Hall, PhD1, Sarah E. Bauer, MPH1, Claudia Tamayo-Friedel, MPH1

1Department of Health Services Research, Policy and Management, University of Florida 2Department of Population Health Sciences, University of Wisconsin-Madison

Background

- Individuals with disabilities could experience barriers to health care services.
- Having a personal doctor may overcome or reduce the impact of barriers on satisfaction with care.

Objective

- To assess the relationship between disability status and experienced barriers of care to patient reports of overall care, personal doctor, specialist, and health plan.
- To assess whether having a personal doctor moderates the following two relationships: 1) disability status and patient satisfaction, and 2) barriers of care and patient satisfaction.

Methods

- The study included respondents to the Florida Medicaid Consumer Assessment of Healthcare Providers and Systems (CAHPS version 4), a representative telephone survey conducted between April-June 2013 of adults and children with Florida Medicaid insurance (N=2,042).
- Weighted multivariable linear regression models (controlling for age, gender, race/ethnicity, education) and health status were used to:
  1. Assess the relationship between disability status and care barriers to ratings of health care.
  2. To access whether having a personal doctor moderates the relationship between disability and barriers of care to patient reports of care.

Predictor Variables

- Personal doctor (y/n)
- Disability status was assessed with two questions. Respondents were defined as having a disability if they indicated yes to one of the two following questions:
  1. Are you limited in any way in any activities because of physical, mental, or emotional problems?
  2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, or a special telephone?

Confirmation Factor Analysis of barriers to care

- Performed on item tetrachoric correlations; standardized coefficients specified
- Correlation between latent variables specified
- Model fit assessed using CFI, TLI, SRMR, and RMSEA
- Two factor scores generated: Access (Getting into building; Getting on Exam Table; Getting a Physical Exam); Communication/Coordination (Communicating with Doctor; Coordinating Care).

Dependent Variables

A 10-point scale was used to assess perceived satisfaction with overall care, personal doctor, and health plan (1=low; 10=high).

All analyses performed using Stata v13

Results: Descriptive Findings

Descriptive characteristics of Medicaid CAHPS respondents, April-June 2013 (N=2,042)

Outcome Variables N Mean SD
Overall Care Rating 1,562 8.61 1.92
Personal Doctor Rating 2,013 8.87 1.84
Specialist Rating 653 8.75 1.95
Health Plan Rating 2,025 8.42 2.12

Results: Regression Analysis

Adjusted Associations between Disability Status; Access Barriers of Care; Communication Barriers of Care; Personal Doctor Interaction and Patient Satisfaction Ratings of Care (N=2,042)

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Overall Care Rating</th>
<th>Personal Doctor Rating</th>
<th>Specialist Rating</th>
<th>Health Plan Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disability Status</td>
<td>-1.91</td>
<td>-0.84</td>
<td>-0.01</td>
<td>-2.86</td>
</tr>
<tr>
<td></td>
<td>(-6.97, 3.16)</td>
<td>(-5.23, 3.55)</td>
<td>(-5.37, 5.35)</td>
<td>(-7.62, 1.90)</td>
</tr>
<tr>
<td>Interaction (Personal Doctor * Disability Status)</td>
<td>-0.17</td>
<td>-6.65</td>
<td>-1.05</td>
<td>-4.62</td>
</tr>
<tr>
<td></td>
<td>(-9.25, 8.92)</td>
<td>(-13.51, 0.20)</td>
<td>(-10.12, 12.22)</td>
<td>(-12.24, 3.10)</td>
</tr>
<tr>
<td>Access Factor Barriers</td>
<td>-1.72</td>
<td>-1.76</td>
<td>-0.69</td>
<td>-3.54**</td>
</tr>
<tr>
<td></td>
<td>(-4.19, 0.75)</td>
<td>(-4.08, 0.56)</td>
<td>(-2.63, 1.25)</td>
<td>(-6.71, -0.37)</td>
</tr>
<tr>
<td>Interaction (Personal Doctor * Access Factor Barriers)</td>
<td>5.96**</td>
<td>3.81</td>
<td>11.32**</td>
<td>1.59</td>
</tr>
<tr>
<td></td>
<td>(1.41, 10.52)</td>
<td>(-1.13, 8.75)</td>
<td>(8.80, 13.84)</td>
<td>(-4.01, 7.20)</td>
</tr>
<tr>
<td>Communication Factor Barriers</td>
<td>-4.49**</td>
<td>-3.68**</td>
<td>-2.62</td>
<td>-6.04**</td>
</tr>
<tr>
<td></td>
<td>(-7.61, -1.38)</td>
<td>(-6.62, -0.74)</td>
<td>(-5.76, 0.52)</td>
<td>(-9.32, -2.76)</td>
</tr>
<tr>
<td>Interaction (Personal Doctor * Communication Factor Barriers)</td>
<td>5.91</td>
<td>2.20</td>
<td>8.84**</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>(-0.27, 12.10)</td>
<td>(-3.52, 7.93)</td>
<td>(3.15, 14.54)</td>
<td>(-6.06, 6.14)</td>
</tr>
</tbody>
</table>

* p<=0.05; **p<=0.01

Results: Summary

- Patient disability does not significantly predict evaluations of care overall or when interacted with access and communication factor or personal doctor (Table).
- Increasing communication and coordination barriers were associated with increased negative patient reporting pertaining to their health plan (β=-6.04), personal doctor (β=-3.68), and overall care (β=-4.49).
- Additionally, with each increased physical access barrier a patient experienced they had more negative reports associated with their health plan (β=3.54).
- The relationship between both communication and physical barriers and care reports was moderated by personal doctor.
- The presence of a personal doctor mitigated the relation between:
  1. Access Factors and Overall Care (β=5.96)
  2. Access factors and Specialist (β=11.32)
  3. Communication Factors and Specialist Care (β=8.84).

Conclusion and Future Research

- Patient’s experiences of the care they receive are an important determinant of their evaluations of care.
- Future studies should investigate the patient-provider relationship within the Medicaid Managed Care Population.
- Such studies could elucidate factors that affect a patient’s decision to report positive reports of care, even in light of physical and communication barriers experienced during health care services.

Funding and Acknowledgments

- Funding: CDC Grant 1U59DD000992-02
- Acknowledgments:
  - Florida Department of Health
  - Bureau of Economic and Business Research