Disparities in Satisfaction with the Quality of Medical Care among Older Medicare Beneficiaries with a Mental Disorder

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Aging Population in the U.S. & Mental Health

1 in 4

Older adults over the age of 65 are living with a mental health disorder ¹

Less than 1%

report seeing a mental health provider ¹

Racial and ethnic minorities are least likely to seek mental health care ²
The Role of the Primary Care Setting

A majority of older adults with a mental disorder visit a primary care provider for their mental health care needs.\(^1\)

Primary Care

serves as a crucial setting to identify, diagnosis, treat, and connect those suffering from mental illness to mental health care.
Satisfaction with the Quality of Medical Care

- Older adults are less satisfied than those younger than 65 in the quality of medical care that they receive\(^3\)

- Racial/ethnic minorities are more likely than their white counterparts to experience lower quality of care\(^2\)
Project Aims

1. To identify racial/ethnic disparities in satisfaction with the quality of medical care among older Medicare beneficiaries diagnosed with a mental disorder

1. To identify quality of care factors associated with satisfaction in the quality of medical care among older Medicare beneficiaries diagnosed with a mental disorder
Hypotheses

● Racial/ethnic minority Medicare beneficiaries who have been diagnosed with a mental disorder will be less likely than their white counterparts to report satisfaction with the quality of their medical care when controlling for structure, processes, and outcome factors.

● Quality of care factors will be associated with satisfaction in quality of medical care.
Methods: Sample

- Medicare Current Beneficiary Survey 2013 Access to Care
  - 14,874 respondents in a continuous, multi-purpose panel survey

- Inclusion Criteria:
  - Age 65 and older
  - Diagnosis of a mental disorder and/or depression over their lifetime
Methods: Donabedian Quality of Care Model

Structure
How is care organized?\(^4,^5\)

Process
What is done to the patient?

Outcome
What happens to the patient?
Methods: Independent and Dependent Variables

Demographics
- Race
- Education Level

Structure
- Ease to get to doctor from home
- Particular doctor seen at visits

Process
- Doctor seems to be in a hurry
- Doctor’s concern for your overall health

Outcome
- Out of Pocket Costs for medical services
- Follow up after initial treatment

Satisfaction with the Quality of Medical Care
Methods: Statistical Analyses

- Stata 13 was used to perform the following analyses with weights:
  - Descriptive statistics
  - Bivariate analyses
    - Pearson’s Test
    - Fisher’s Exact Test
  - Multicollinearity tests
  - Logistic regressions
Findings: Sample

- Sample Size:
  - 2,572 respondents

- Demographics:
  - Age
    - [65, 75): 47.2%
    - >= 75: 52.8%
  - Gender
    - Female: 66.2%
    - Male: 33.8%
  - Income
    - < $25,000: 49.4%
    - >= $25,000: 50.6%

Demographics: Race
- White: 77.6%
- Other: 5.5%
- Hispanic: 10.4%
- Black: 6.5%

Demographics: Education
- < HS: 24.7%
- > HS: 40.6%
- HS: 34.6%
Findings: Bivariate Analyses

**P < 0.10**

**Structure**
- Availability of healthcare
- Ease getting to doctor
- Transportation method
- Time waited
- Trouble getting needed care
- Healthcare at same location

**P < 0.10**

**Outcome**
- Out of Pocket costs
- Information about what was wrong
- Amount paid for medicine
- Follow up after initial treatment

**Demographics**
- Income

**P < 0.10**

**Process**
- Understands what's wrong
- Is competent
- Doing a favor by talking
- Tells all you want to know
- Answers all questions
- Understands your medical history
- Checks everything
- Is in a hurry
- Is concerned for your health

**P > 0.10**

**Structure**
- Time to get to doctor
- Days waited for appointment
- Particular doctor seen at visits

**Demographics**
- Race
- Age
- Sex
- Education
### Findings: Logistic Regressions

Satisfaction with quality of medical care is significant with

- Doctor’s overall concern for patient’s well-being
- Follow up after initial treatment

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Structure</th>
<th>Process</th>
<th>Outcome</th>
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<tbody>
<tr>
<td>Race</td>
<td>Availability</td>
<td>Doctor...</td>
<td>Out of Pocket costs</td>
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<tr>
<td>Black</td>
<td>Ease getting to doctor</td>
<td>Checks everything</td>
<td>Information about what’s wrong</td>
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<tr>
<td>Hispanic</td>
<td>Transportation Method</td>
<td>Understands what’s wrong</td>
<td>Amount paid for medicine</td>
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<tr>
<td>Other</td>
<td>HC at same location</td>
<td>Is in a hurry</td>
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<td>Time Waited</td>
<td>Tells all you want to know</td>
<td>follow up</td>
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<td></td>
<td>61 to 120 mins</td>
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<td></td>
<td>121 mins or more</td>
<td>Understands your medical history</td>
<td>cons</td>
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| Quality of Medical Care | Odds Ratio | Std. Err. | t  | P>|t | [95% Conf. Interval] |
|-------------------------|------------|-----------|----|-----|---------------------|
| Race                    |            |           |    |     |                     |
| Black                   | 0.7197996  | 0.858989  | -0.28 | 0.784 | 0.0674281 | 7.683906 |
| Hispanic                | 0.9407099  | 0.746236  | -0.08 | 0.939 | 0.1949253 | 4.539867 |
| Other                   | 3.799179   | 7.786412  | 0.66 | 0.516 | 0.0650978 | 221.7244 |
| Education               |            |           |    |     |                     |
| High school, or vocational, technical, business, etc. | 2.389741 | 1.933349  | 1.08 | 0.284 | 0.4799436 | 11.8903 |
| More than high school   | 2.329034   | 1.457321  | 1.35 | 0.18  | 0.6729334 | 8.060827 |
| Availability            |            |           |    |     |                     |
| 0.535815 | 0.339721 | -0.96 | 0.338 | 0.1639689 | 1.87055 |
| Ease getting to doctor  | 0.3724386  | 0.303199  | -1.21 | 0.228 | 0.0740447 | 1.873235 |
| Transportation Method   | 0.25105   | 0.212646  | -1.43 | 0.156 | 0.1496611 | 1.360918 |
| HC at same location      | 0.455282   | 0.272866  | -1.31 | 0.192 | 0.138616 | 1.495366 |
| Time Waited             |            |           |    |     |                     |
| 61 to 120 mins          | 0.1619437  | 0.200848  | -1.47 | 0.145 | 0.0138234 | 1.897206 |
| 121 mins or more        | 1.018006   | 1.270433  | 0.01 | 0.989 | 0.0855732 | 12.11052 |
| Doctor...               |            |           |    |     |                     |
| Checks everything        | 0.3960895  | 0.369468  | -0.09 | 0.323 | 0.0626303 | 2.516364 |
| Is competent             | 0.1404235  | 0.210135  | -1.31 | 0.193 | 0.0072095 | 2.73509 |
| Understands what’s wrong | 3.031326   | 6.781225  | 0.5  | 0.621 | 0.0358006 | 256.67 |
| Is in a hurry            | 1.450823   | 1.058507  | 0.51 | 0.611 | 0.3411151 | 6.17061 |
| Tells all you want to know | 0.3786381  | 0.667187  | -0.55 | 0.583 | 0.0114759 | 12.49283 |
| Answers all questions    | 2.347734   | 2.607733  | 0.77 | 0.444 | 0.2591087 | 21.27237 |
| Understands your medical history | 0.8107259 | 1.351567  | -0.13 | 0.9  | 0.0296667 | 22.15533 |
| Is concerned for your health | 0.1948802 | 0.157222  | -2.03 | 0.045 | 0.0093146 | 0.96601 |
| Out of Pocket costs      |            |           |    |     |                     |
| 1.562141               | 1.423918   | 0.49 | 0.626 | 0.2559996 | 9.532484 |
| Information about what’s wrong | 0.1281146  | 0.2758   | -1.33 | 0.188 | 0.0618994 | 1.739261 |
| Amount paid for medicine | 1.359813   | 1.275705  | 0.33 | 0.744 | 0.211371 | 8.748088 |
| Follow up               | 0.077752   | 0.050264  | -3.95 | 0.0  | 0.021559 | 0.280411 |
| cons                    | 109.0379   | 110.8307  | 4.62 | 0  | 14.51025 | 819.3704 |
Limitations:

- Data are self-reported
  - Limited to responses of the individual older adult

- Data are cross-sectional
  - Cannot prove causality
  - Only able to describe associations

- Inability to perform Fisher’s exact test using weighting
  - However, we compared p-values of Fisher’s exact test without weighting to the p-values of Pearson chi-square tests with weighting

- Large sample, but small proportion that were dissatisfied which could make our model to be unstable
  - To build more stability, we were less conservative in variables included in the model and checked for multicollinearity
Conclusion

Implications for policy:

- Acknowledge that though there was no significant difference, racial ethnic minorities are vulnerable to less satisfaction and lower quality of care
- Recognize the importance of the processes factors related to provider-patient relationship in the satisfaction of the quality of medical care
- Ensure efforts in interventions for the providers to deliver adequate follow-up care
- Recognize that though seeing a usual doctor was not significant, studies have shown the importance of sustained relationships in adherence and cost reduction
Lessons Learned

- Stata can be a friend and a foe, but YouTube is your mediator
  - Learned how to run analyses in Stata
  - Gained proficiency in interpreting statistical analyses in Stata

- Developing a research plan requires you to match the right “What” to the right “How”
  - Gained an understanding of what statistical analyses were needed to answer specific research questions and aims

- Always be informed
  - Strengthened ability to execute a literature review in the manuscript drafting process
  - Gained an understanding of how frameworks are intertwined throughout a research plan and how we conceptually think about our research
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