The Burden of Cost: A Mixed-Methods Approach Exploring Differences in Cost as a Barrier to Medication Adherence

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Abstract

Medication cost is a significant structural barrier to medication adherence, especially for low-income patients (Balkrishnan 1998; Colombi et al. 2008; Lam, et al. 2012; Maciejewski 2010; Odegard and Gray 2008). The Medication Adherence and Health Literacy (RxHL) study utilizes a mixed methods approach to examine health literacy and barriers to medication adherence among urban, minority, and immigrant patients with high burdens of chronic illness at a federally funded health care center in Springfield, Massachusetts. This poster uses data from both the qualitative and quantitative aspects of the project to examine differences in patients’ varying levels of medication adherence among patients from five groups: African Americans, Latinos, Vietnamese, Russian-speaking, and whites.

Problem & Research Aims

The RxHL study examines the effects of structural and cultural factors on medication adherence. It builds on previous research that found patients with varying health literacy levels experienced significant barriers to adherence following changes in health insurance coverage, which were compounded by limited comprehension of chronic disease medications (Shaw et al. 2012).

The present study has the following goals:

1. Use quantitative methods to assess medication adherence among patients from 5 study groups (African American, Hispanic, white, Vietnamese and Russian immigrants)
2. Use qualitative methods to explore chronic disease beliefs that may combine with health literacy to shape medication adherence
3. Identify factors associated with medication adherence among patients with low health literacy, including beliefs about medicines, food insecurity, socioeconomic factors, and social support
4. Develop recommendations for primary care providers and policymakers to improve medication adherence and mitigate formulary changes among low-income patients with chronic illness

Methods

Quantitative Data

Community-based participatory approach

Quantitative Data: Summary

• 32% of participants report cost as a barrier: 68% do not
• 7.5% of Vietnamese participants report cost as a barrier to getting medication, while 49% of Latino and 53% of African American participants report same barrier
• 66% of participants report a monthly income of $1000 or less
• 54% (N=169) of patients whose income is between $0–$500 report cost as a barrier
• Sex is not significant overall (Pearson Chi-Squares: 327 > .05)

Quantitative Data: Questionnaire

Quantitative instrument question: Was there a time in the past 12 months when you needed to buy prescribed medications or supplies but could not because of the cost?

Participants who experienced cost as a barrier to obtaining medication in the past 12 months by Study Group (N=288)

| Study Group | Percentage
|-------------|-------------
| African American | 80% |
| Latinos | 30% |
| Vietnamese | 60% |
| Russian-speaking | 50% |
| Whites | 90% |

Income in $/month (N=284)

| Income Range | Participants who experienced cost as a barrier
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<tbody>
<tr>
<td>$0–$500</td>
<td>60%</td>
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<tr>
<td>$501–$1000</td>
<td>40%</td>
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<tr>
<td>$1001–$1500</td>
<td>20%</td>
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<tr>
<td>$1501+</td>
<td>0%</td>
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Qualitative Data

Interviewers asked a variety of questions to elicit stories about difficulties obtaining medications due to inability to pay, for example: “Has there ever been a time when you put off picking up medication because you didn’t have money for the copay?” So far, the qualitative data indicate two important, non-mutually exclusive concerns of participants in the study:

“A few times, I didn’t have money for some of my medications. I had to go borrow some money to pick it up.”

Lack of Income

Lack of Insurance Coverage

References


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