Medical Nonadherence in Rural Care

Patricia Folden, RN, BS
Northern Arizona University & North Country Healthcare

Abstract

**Background**
Effective primary care is challenging in under-served communities. Chronic disease, multiple co-morbidities, and poly-pharmacy are only a few of the barriers facing healthcare providers in rural communities. Limited healthcare resources and support services, along with social and economic factors, can interfere with patients’ compliance or non-compliance with their healthcare plan. Too often, the term “noncompliant” has been used to describe those that do not follow the instructions of the provider.

**Purpose**
The purpose of this project is to raise awareness and promote understanding of poor adherence in rural primary care. It is important to know that many patients do not choose to vary from the treatment plan, instead, their choices are influenced by a multitude of intrinsic and extrinsic circumstances. Determining and understanding these individual elements, can enable the PCP to assist the patient in the achievement of an optimal state of health.

**Review of Literature**
Comparing a rural area, such as Mohave County, to a more metro/rural area like Maricopa County can give insight into how the population and access to care are different. Statistics and surveys show the disadvantages of rural areas with regard to healthcare, adherence, and other factors. This project will also give insight to the provider’s point of view when dealing with nonadherence.

**Recommendations**
Recommendations for improvement in patient adherence by identifying individualized relevant factors and offering support and resources for improvement will be presented. Community resources such as transportation, churches, local charities, and government programs are available to those in need. The realization of the problem and the identification of the need are essential in overcoming adherence issues.

Introduction and Background

The noncompliant patient has been associated with negativity, related to the implied patient refusal to comply with medical treatment. The continuation of research to improve compliance has revealed the many factors involved in nonadherence to a treatment plan. Compliance and adherence may be differentiated by understanding that adherence requires patient agreement with the plan. Compliance indicates the following of instruction by an authoritative figure. Through identification and understanding of patient factors relating to poor adherence, with attention to rural communities, providers can offer alternatives and helpful resources to assist the patient in achieving optimal health.

**Adherence**
- “the extent to which a person’s behavior – taking medication following a diet, and/or exercising lifestyle changes, corresponds with agreed recommendations from a health care provider” (WHO, 2017).
- requires mutual agreement between provider and patient, without the agreement, known as compliance
- measurement is subjective
- the impact of poor adherence grows as the impact of chronic disease increases
- estimated direct and indirect costs totaled $373 billion in 2013, related to nonadherence (Express Scripts, 2015)
- $1 of every $5 spent on healthcare related costs was wasted because of nonadherence in 2013 (Express Scripts, 2015)

**Contributing Factors**

The World Health Organization (WHO), 2003 has developed a model indicating five factors or “dimensions” which overlap and influence patient adherence. These five areas are:

- **Social & Economic**: Poverty, unemployment, lack of social support, high cost of medical services and medications, age, race, and culture
- **Health Care System**: Patient-provider relationship, lack of training and education for providers, short consultations, weak patient education and follow-up
- **Condition Related**: Co-morbidities, patient perception of illness, level of disability, severity of symptoms, rate of disease progression and availability of effective treatment
- **Therapy Related**: Complexity of treatment regimen, duration of treatment, observable benefits, treatment failures, frequent changes in treatment and follow-up
- **Patient Related**: Forgetfulness, inadequate knowledge, stress, low motivation, perceived negative effect of treatment, misunderstanding of disease process, disbelief, unclear instruction, follow-up, frustration, anxiety, feelings of stigmatization by the disease

**Factors Affecting Adherence in Rural vs. Metro/rural Area**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Rural Area</th>
<th>Metro/rural Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Unemployment</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>Cost barrier to visit PCP</td>
<td>20.9%</td>
<td>15.6%</td>
</tr>
<tr>
<td>Limited Health Insurance</td>
<td>41.1%</td>
<td>28.9%</td>
</tr>
<tr>
<td>Education</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Income</td>
<td>Low</td>
<td>Moderate</td>
</tr>
</tbody>
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**5 Dimensions of Adherence**

- Social & Economic
- Therapy Related
- Condition Related
- Compliance
- Adherence

**Providers View of Nonadherence**

A survey was commissioned by HealthPro Technologies, a leading company devoted to medication management, to identify primary care physicians’ outlooks on patient medication nonadherence. The survey revealed an interesting observation regarding the outlook of providers. The survey included 100 physicians in the United States.

The results of the survey found that many of the providers felt that their patients had better adherence than the average. Do most providers choose to ignore nonadherence behaviors? If so, this disbelief and avoidance may be contributing to the increasing problem.

**Rural Considerations**

- Categories of Healthcare Barriers in Rural Communities
  - Transportation Difficulties
  - Limited Health Care Supply
  - Lack of Quality Health Care
  - Social Isolation
  - Financial Constraints

**Recommendations**

Although there are many barriers to healthcare in rural areas that may increase the rate of nonadherence, the use of available resources, along with modified treatment plans can be helpful.

use community resources, such as charity organizations, churches, and government programs to help with transportation, mental health counseling, substance abuse counseling, encourage family or other support person to accompany patient during visit for added educational benefit and support

- simplify medication regimens, encourage pill boxes, calendars and reminders to take medications
- promote a trusting and open relationship between provider and patient provide education and timely follow-ups

**Conclusion**

Individualized planning and the ability to adapt to the unique situation of each patient are necessary in the treatment of chronic disease. Each patient has different situations and barriers that need addressing.

**References**


