Impact of Low Health Literacy on Medication Adherence

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At the end of this presentation participants should:

1. Understand the prevalence of medication non-adherence
2. Understand the relationship between medication non-adherence and health literacy
3. Learn ways to improve medication adherence in patients with low health literacy
The extent to which patients are able to follow the recommendations for prescribed treatments

Taking medications as prescribed by a healthcare provider → Improved Clinical Outcomes
Reduced mortality
Adherence vs Compliance

* Compliant
  * Paternal tone...
    * Patient will do what they are “told to do”

* Adherent
  * Patient-Provider agreement
    * Relationship is based on respect & collaboration
Medication Nonadherence

* 40-50% patients with chronic condition

* 125,000 avoidable deaths

* Direct healthcare costs
  * $100-300 billion annually
Medication Nonadherence

- 3.8 billion prescriptions
- 1 in 5 new prescriptions are never filled
  - 50% taken incorrectly
    - Timing
    - Dosing
    - Frequency
    - Duration
- Providers unaware
  - Patient responsibility not system/clinician

Neiman AB et al. MMWR. Nov 2017;66(45)
Kleinsinger F. Perm J 2018;22:18-033
Intentional vs Unintentional Nonadherence?

Intentional

* Patient actively decides not to take therapy
  * Rational decision-making process
    * Pros vs cons
  * Beliefs and level of cognition important

Unintentional

* Passive process
  * Complexity of med regimen
  * Unplanned behavior
    * Forgetfulness
    * Not knowing how to use
5 Dimensions of Nonadherence

- Patient-related
- Therapy-related
- Health System-related
- Condition-related
- Socio-economic

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Socio-economic Factors

- Lower socio-economic status
- Low educational level
- Lack of social support
- Changing living situation
- Culture
- High cost of medications
- Age
Patient –related factors

- Forgetfulness
- Cognitive impairment
- Perception treatment is not necessary
- Lack of engagement in treatment decisions
- Lack of knowledge about treatment effects
- Illiteracy (Low health literacy)
- Other mental health conditions
  - Substance abuse
  - Depression/anxiety
Condition-related Factors

* Elements specific to the disease state
  * Symptom & complication severity
  * Level of disability
  * Rate of disease progression
  * Availability of pharmacotherapy options
* Inadequate time with a provider
* Insurance coverage & reimbursement
* Poor follow-up/missing appointments
* Difficulties with medication-distribution systems
  * Drug shortages
Therapy-related Factors

- Complex medication regimens
- Frequent treatment changes or adjustments
- Lack of obvious benefit
- Medication side effects
- Complex monitoring
Nonadherence Interventions

- Simplify dosing regimens
- Reminders
- Improved communication between pt & provider
  - Increase disease state knowledge
  - Address patient concerns or fears
- Addition or improved patient counseling
Meta-analysis of 76 studies

- Adherence decreased with complex regimens
  - 76% with once daily
  - 69% with BID dosing
  - 65% with TID dosing
  - 51% with QID dosing

Can’t simplify then…

- Weekly pillboxes
- Pharmacy packaging & delivery
- Internet/mobile phone reminders
Lansing Area Pharmacies

* Apothecary Shop
* Central Pharmacies
  * Mt Hope, MLK, Westside, E Lansing
* D & W pharmacy, Williamston
* Genoa Pharmacy
* Rite Aid – Mt Hope
* Your Pharmacy
Nonadherence Interventions

- Motivational Interviewing
  - Explore the barriers to use of medication
  - Patient centered method of communication
- Stimulate behavior change
  - Roll with resistance
  - Express empathy
  - Avoid argumentation
  - Develop discrepancy
  - Support self-efficacy
Improving Patient’s Health Outcomes

It’s not just IF a patient is non-adherent, but WHY
Health Literacy and Nonadherence

- **Moderate health literacy**
  - Most adherent

- **High health literacy**
  - Somewhat nonadherent – intentional nonadherence

**Lower Health Literacy** → **Increased unintentional nonadherence**

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*Fan JH et al. Diabetes Educ 2016 Apr; 42(2):199-208*

*Ostini R & Kairus. Int J Clin Pharm 2014;36:36-44*
“The degree to which individuals have the capacity to obtain, process, and understand basic health information and services”

Includes:

- Numeracy skills,
- Functional skills
- Cognitive skills
2003 National Assessment of Adult Literacy (NAAL)
- Only 12% – proficient health literacy
- 80 million US adults – limited health literacy
- 14% of adults (30 million people)
  - BELOW basic health literacy
- 9 out of 10 adults lack needed skills
  - Manage health and prevent disease
Implications of Low Health Literacy

Low Health Literacy → Poor Health Outcomes

- Higher mortality rates
- Worse overall health
- Health disparities
- Increased costs

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Limited Health Literacy

Nutrition Facts
8 servings per container
Serving size: 23 cup (85g)
Amount per 2/3 cup
Calories 230
% DV
12% Total Fat 8g
5% Saturated Fat 1g
Trans Fat 0g
0% Cholesterol 0mg
7% Sodium 160mg
12% Total Carbs 37g
14% Dietary Fiber 4g
Sugars 1g
Added Sugars 0g
Protein 3g

10% Vitamin D 2mcg
20% Calcium 260mg
45% Iron 8mg
5% Potassium 235mg

* Percentage of Daily Values (DV) and calories reference to be inserted here.

Appointment
For: ________________________________
Date: ____________________________ Day: ____________________________
Time: ______________________________
Schedule: ______________________________
Notes: ______________________________

INFORMED CONSENT

Tool 1. Sample Discharge Instructions For Burn Patients.

- Gently cleanse your burn twice daily with a mild soap and dry with a clean cloth or gauze.
- Apply antibacterial cream twice daily to the affected areas and cover with bulky gauze dressing and wrap.
- Elevate all burned extremities.
- Report to your doctor or go to an emergency department if you develop increasing pain, redness, swelling, or a foul-smelling discharge from your burn or if you develop a fever and/or chills.
- You may take acetaminophen 500-1000 mg every 4-6 hours or ibuprofen 400-800 mg every 6-8 hours by mouth with food for pain.

Remember that the emergency department is open 24 hours a day, every day, and we are always glad to see you.
Low Health Literacy

- **US Adults**
  - Eighth grade reading level
  - 75% education materials
  - High school or college level
Individuals at highest risk

- Lower educational attainment
- Economically disadvantaged
- Elderly or chronically ill
- Underserved minority groups
  - 66% hispanics
  - 58% blacks
- Immigrants
Tips to recognize?

- Aloofness or withdrawal during explanations
- Asking staff for help
- Frequent errors in meds/self care instructions
- Unable to name medications or purpose of med
- Inability to keep appointments
- Making excuses ("I forgot my glasses")
- Postponing decision making (wanting to take info home)
- Chronic pattern of nonadherence
Who fixes low health literacy?

- Nobody can “fix” it but...
  - Public health professionals
    - Everyone one who helps educate patients
  - Public health systems

- Better job with communicating and awareness of the issues...
- Avoid assumptions about language/literacy levels
  - Use interpreter if needed

- Verbal Communication
  - Plain nonmedical language
  - Slow down, speak clearly
    - Be specific – “eat healthier”...
  - Prioritize info
    - 3 key points
  - Limit content
  - Confirm understanding
Verbal Communication Tools

* Teach back method
  * Patients explain in their own words what you told them
  * Improves patient understanding
    * Not shown to affect 30 day re-hospitalization rates

* Chunk & Check
  * After each key point
    * Stop to solicit questions
    * Have patient repeat material back to you
Written Communication

- Used to reinforce verbal communication
- Easy to read materials (5th or 6th grade)
- Short, simple sentences
- Limited to key points without details
  - Visual aids – pictures, drawings, graphs

Review health info with patient
- Underline/circle key points

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* Electronic Assessments
  * To assess reading level of written materials
Based on 8 readability formulas, we have scored your text:

- Grade Level: 10
- Reading Level: standard / average.
- Reader's Age: 14-15 yrs. old (Ninth to Tenth graders)
Techniques for Clear Communication

- Avoid medical jargon
- Clear communication
- Plain language
- Engage patients in the discussion
- Focus on the most important info
- What does patient need to know?
- Teach-back to confirm comprehension
10 Key elements of Teach Back

1. Use a caring tone of voice and attitude.
2. Display comfortable body language and make eye contact.
3. Use plain language.
4. Ask the patient to explain back, using their own words.
5. Use non-shaming, open-ended questions.
6. Avoid questions that can be answered with a simple yes or no.
7. Emphasize that the responsibility to explain clearly is on you, the provider.
8. If the patient is not able to teach-back correctly, explain again and re-check.
More difficult in low health literacy

- Less familiarity with medical content
- Less knowledge about medical conditions
- May not express that they have difficulty with forms
- May not express they do not understand health info
- Ask fewer questions during their office visit
  - AskMe3
Partnership for Clear Health Communication

Good Questions for Your Good Health

Ask Me 3®

Every time you talk with a health care provider

Ask these questions

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?

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Nonadherence and low health literacy prevalent!

- Use plain language to educate patients
- Re-evaluate the written materials you use
- Give them the most important info
- Don’t assume your patient learns a certain way
- Use teach back and motivational interviewing methods
- Partner with other providers
  - Team based care