MEDICATION ADHERENCE: AN EVIDENCE BASED APPROACH

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DO WE HAVE ANYTHING TO DISCLOSE?

- The content of this presentation was developed during a panel meeting and a project on medication adherence funded by Pfizer.

- Panel discussion participants included Dr. Mary Neiheisel, Dr. Kathy Wheeler and Dr. Mary Ellen Roberts

- Drs. Neiheisel, Wheeler and Roberts have no financial or personal relationships with commercial entities (or their competitors) to disclose.
WHO WOULD WE LIKE TO ACKNOWLEDGE?

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  Director of Research and Education
  AANP

- Carole Chrvala, PhD
  President
  Health Matters, Inc.

- Trish Rippitoe-Freeman, RPh, PhD
  Clinical Associate Professor
  Director, Center for the Advancement of Pharmacy Practice at the UK College of Pharmacy
WHAT ARE THE LEARNING OBJECTIVES?

- Describe the continuum of adherence to non-adherence of medication usage

- Analyze the current evidence surrounding significance of non-adherence and barriers to adherence

- Identify practical interventions providers and patients may apply to improve medication adherence
THE CONTINUUM OF ADHERENCE TO NON-ADHERENCE

Mary Neiheisel, EdD, MSN, BSN, BC-CNS, BC-FNP, FAANP
Professor, University of Louisiana at Lafayette
“Drugs don’t work in patients who don’t take them.”

C. Everett Koop
Former Surgeon General
WHAT ARE THE EFFECTS OF NON-ADHERENCE?

- Poor clinical outcomes
- Higher direct and indirect medical costs
- Social costs (decreased productivity and quality of life)
WHAT IS THE SIGNIFICANCE OF NON-ADHERENCE?

- Major implications/problems for NPs and HCPs
- Major implications/problems for patients and the health care system
WHAT IS THE RATE OF NON-ADHERENCE?

- Average non-adherence is 24.8%
- Large disagreement on that number
- Variation in the definition
- Difficult to determine
WHAT IS THE RATE OF NON-ADHERENCE?

- More than one-half of the 3.2 billion prescriptions written annually are not taken as prescribed

\[
\frac{3.2 \text{ billion}}{2} = 1.6 \text{ billion}
\]
WHAT IS THE RATE OF ADHERENCE?

- Higher adherence in patients with cancer
- Lower adherence in patients with hypertension, infectious diseases, diabetes, osteoporosis, asthma, C-V disease, COPD, and chronic disease
- Lowest rates are patients with psychiatric disorders, depression, cognitive disorders and the elderly
WHAT ARE SOME OF THE DETAILS OF NON-ADHERENCE?

- The greater the number of pills ordered, the greater the non-adherence.
- Adherence in chronic situations falls to less than 50 percent in the first year.
WHAT TERMS ARE USED TO DEFINE NON-ADHERENCE?

- Adherence/non-adherence
- Primary non-adherence
- Early non-persistence
- Preventable and non-preventable non-adherence
- Quantitative goal
- Lack of consensus
WHAT IS ADHERENCE?

- Degree to which patients’ medication behaviors are congruent with the recommendations and instructions of their health care provider regarding timing, dose, and frequency
WHAT IS MEDICATION PERSISTENCE?

- Duration of time patients take their prescribed medications and is defined as ‘the duration of time from initiation to the discontinuation of therapy.’
WHAT IS PRIMARY NON-ADHERENCE AND EARLY NON-PERSISTENCE?

- Primary non-adherence is defined as medications ordered but the prescription is never filled while medications that are dispensed once but never refilled are considered to define early non-persistence.
WHAT ARE EXAMPLES OF PREVENTABLE NON-ADHERENCE?

- When the patient
  1) forgets to take medication,
  2) misunderstands instructions for medication use, or
  3) encounters barriers to obtaining the medication such as lack of financial resources to pay the prescription cost or no transportation to pharmacy
WHAT ARE EXAMPLES OF NON-PREVENTABLE NON-ADHERENCE AND NON-PERSISTENCE?

- When the patient
  1) has a serious mental illness, or
  2) experiences an intolerable drug side effect or adverse event
ARE THERE OTHER EXAMPLES OF NON-ADHERENCE?

- Failing to initially fill a prescription
- Failing to refill a prescription as directed
- Omitting a dose or doses
- Taking more of a medication than prescribed
- Prematurely discontinuing medication
- Taking a dose at the wrong time
ARE THERE OTHER NON-ADHERENCE EXAMPLES?

- Taking a medication prescribed for someone else
- Taking a dose with prohibited foods, liquids, and other medications
- Taking outdated medications
- Taking damaged medications
- Storing medications improperly
- Improperly using medication administration devices (e.g., inhalers)
IS POLYPHARMACY IN THERE ANYWHERE?

- Absolutely!
- Occurs for many of the same reasons
WHAT FACTORS HAVE A ROLE IN ADHERENCE/NON-ADHERENCE?
WHY IS ADHERENCE/NON-ADHERENCE SO HARD TO SORT OUT?

- Self-reporting
- Care givers
- Pill counting
- Checking pill containers
- Data from pharmacy, insurance company,
- Patient response or levels of recovery
- Morisky medication adherence scale
WHAT FACTORS INFLUENCE ADHERENCE?

- Knowledge of medications
- Motivation
## WHAT FACTORS INFLUENCE ADHERENCE?

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HOW READY ARE THEY?

REACHINESS RULER

0________________________________________________10
Not prepared to change

Already changing

...
WHAT KNOWLEDGE DOES A PATIENT NEED REGARDING MEDICATION?

- Name of the medication?
- Why are you taking the medication?
- How much are you taking?
- When to take the medication?
- Effects to check?
- Where do you keep the medication?
- When is the next refill due?

- Can the person read the label?
- What is the disease or illness?
- How many pills do you take?
- Morning, night?
- Positive and negative?
- Check for storage understanding?
- Check plan for refilling of medication?
ARE THERE ANY TOOLS TO ASSESS READINESS?

Morisky Medication Assessment Scale

- One of the best
- Copyright protected
BARRIERS

Kathy Wheeler, PhD, NP-C, FAANP
Assistant Professor, University of Kentucky
WHAT ARE THE PREDICTORS OF NON-ADHERENCE?

- Intentional-active choice of patient not to follow regimen
- Unintentional-passive process leading to regimen not being followed (careless, busy, forgetful)
WHAT ARE THE PREDICTORS OF ADHERENCE/NON-ADHERENCE?

- Predictor characteristics
  - Demographic characteristics
  - Psychosocial and behavioral characteristics
  - Social factors
  - Disease state factors
  - Financial and health system factors
  - Patient-provider relationship
  - Treatment-related factors
WHAT ARE THE DEMOGRAPHIC CHARACTERISTICS?

- Older patient, to 7th decade
- Gender????
- Race (Caucasian)

- Older patient, with offsetting other risk factors
- Gender????
- Race (blacks)
- Lower health literacy/lower education
WHAT ARE THE PSYCHOLOGICAL AND BEHAVIORAL CHARACTERISTICS?

- Medication benefits
- Culture, religion
- Negative attitudes about medications
- Ineffective
- Symptoms go away
- Medication side effects
- Depression and other psychiatric disorders
WHAT ARE THE PSYCHOLOGICAL AND BEHAVIORAL CHARACTERISTICS?

- Cognitive impairments
- Lack of confidence/self efficacy
- Drug/ETOH abuse
- Physical impairments
WHAT ARE THE SOCIAL FACTORS?

- Support by family or members of social network of patient
- Support by healthcare providers
- Stable home environment

- Living alone
- Unmarried
- Homelessness, esp. if being treated for HIV or psychiatric disorders
WHAT ARE THE DISEASE STATE FACTORS?

- Severity and chronicity
- Progression of the illness

- Severity and chronicity
- Progression of the illness
- Episodic course of illness with variations in severity of sx.
- Illnesses not perceived as serious
WHAT ARE THE FINANCIAL AND HEALTH SYSTEM FACTORS?

- Insurance coverage
- Cost, esp. if no insurance coverage
- Wait time for meds
- Poor access to pharmacies
- Lack of transportation
- Lack of usual source of care
WHAT ABOUT THE PATIENT-PROVIDER RELATIONSHIP?

- Trust and good communication with provider
- Collaborative communication/shared decision making
- Positive verbal behaviors (empathy, support, summarizing, etc.)

- Hmmmmmm
WHAT ARE THE TREATMENT RELATED FACTORS?

- Dose frequency
- Polypharmacy
- Complexity of regimen (dietary and/or storage requirements)
Support
Relationship and housing stability

Social Factors

Severity
Chronicity
Duration of illness
Course of illness
Perspective of illness

Disease Factors

Cost of medication/out of pocket costs
Insurance coverage
Wait times for medications
Pharmacy access
Transportation
Ongoing source of care

Financial and Health System Factors

Treatment-related Factors
Dose frequency
Polypharmacy
Regimen complexity

Provider Patient Relationship
Communication
Trust
Time

Patient Characteristics
Demographic
Psychosocial and behavioral

Medication Adherence
Weighs in the Balance

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INTERVENTION AND SOLUTIONS

Mary Ellen Roberts, DNP, RN, APN-C, FAANP
Assistant Professor, Seton Hall University
BROADLY, WHAT ARE THE INTERVENTIONS AND SOLUTIONS?

- Have the conversation
  - Don’t just ask “Are you taking your medications?”
  - Drill down to the core issue/s
BROADLY, WHAT ARE THE INTERVENTIONS AND SOLUTIONS?

- Make it an institutional process
  - Work on it broadly
  - Involve all levels of staff
    - Bring those bottles in!!!
    - Investigate, investigate, investigate
- Focus on provider-patient relationship
FOR FORGETFULNESS?

- Pill organizers
- Visual/audible reminders
- Links to ADLs
- Follow-up reminders
AND FOR LACK OF KNOWLEDGE?

- Client teaching/counseling (MAKE NO ASSUMPTIONS)
  - Reason for the med
  - Clinical parameters
  - Length of therapy
  - What to do if problems
  - Side effects are really pretty rare
- Pharmacist teaching/counseling
- Teach back methods
- Visual aids
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AND FOR SIDE EFFECTS OR ADVERSE REACTIONS?

- Client teaching
- Follow-up counseling
AND FOR COMPLEXITY OF REGIMEN?

- Adherence aids
- Simplify medication combinations
- Decrease frequency of regimen
- Promote association between ADLs and taking medication
AND FOR DENIAL?

- Patient readiness
- Education
- Promote association between patient taking medication and quality of life
AND FOR CULTURAL AND RELIGIOUS BARRIERS?

- **LEARN Framework**
  - **L** = listen with empathy
  - **E** = explore and understand patient beliefs
  - **A** = acknowledge differences between patient and provider beliefs
  - **R** = recommend treatment
  - **N** = negotiate an agreement
AND FOR FINANCIAL BARRIERS?

- Prescribe generics
- Explore alternative avenues to obtain prescriptions
- Provide opportunities for patient discount programs
- Explore financial assistance options
AND FOR DEPRESSION?

- Identify depressive symptoms
- Assess effectiveness of psychological and/or medical treatments
AND FOR LOW HEALTH LITERACY?

- **Teaching opportunities**
  - Written materials at appropriate literacy
  - Consider picture based materials
  - Remember some rely on oral literacy
  - Interpreter
  - Use non-technical language
  - Visual aids
  - Teach back method
AND FOR POLYPHARMACY?

- Education
- Beware of the prescribing cascade
- Have them bring in their bottles
- Encourage them to go to one pharmacy
- Invest (time & $) in the EMR
QUESTIONS?
REFERENCES UPON REQUEST