Promoting Medication Adherence

After completion the learner should be able to:

1. Identify common causes of and risk factors for medication non-adherence.
2. Describe appropriate techniques for assessing patient medication adherence.
3. Discuss actions to promote patient adherence in medication use.

Prescriptions and medication use in the US and worldwide have increased significantly over the last 20 years. According to data from the Centers for Disease Control and Prevention (CDC), 82% of adults in the US take at least one drug, and 29% take five or more. Over 75% of healthcare visits involve drug therapy. In order for patients to receive maximum therapeutic benefits, prescribed medications must be taken as intended, with regard to dosage, frequency, timing, route, and other factors, such as meals, certain foods, and interactions with other medications. This is referred to as adherence to the drug regimen that has been mutually agreed upon by the prescriber and patient. The World Health Organization (WHO) defines adherence as “the extent to which a person’s behavior—taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider.”

In many cases, however, drugs are not taken as intended. This is referred to as non-adherence. In studies, non-adherence is commonly defined as taking fewer than 80% of doses of a prescribed drug. Non-adherence can take many forms, such as:
- failing to fill, refill or pick up a prescription
- not taking the drug or skipping doses
- taking more or less of a drug than prescribed
- stopping a drug early
- forgetting if a dose was taken

Also, some patients may practice “white-coat adherence”, taking their medication properly for a week or so before an appointment. They may do this to achieve a hoped-for therapeutic effect, such as lower blood pressure, or so they can say that they are taking their medication.

The CDC estimates that 30-50% of treatment failures for chronic disease are attributed to non-adherence, as well as 125,000 deaths annually in the US. Twenty to thirty percent of new prescriptions are never filled, and half of all patients do not take medications as prescribed. Non-adherence is highest among those with chronic illness.

The impact of non-adherence on health, the economy, and utilization of resources is significant. A report by the WHO states, “Increasing the effectiveness of adherence interventions may have far greater impact on the health of the population than any improvement in specific medical treatments.”

Effects of medication non-adherence include progression of illness/worsening health status, increased emergency room use and hospital admissions, and development of antibiotic-resistant organisms. When the desired therapeutic effect is not achieved, the drug dosage is often increased or the medication changed to another drug, which may cause adverse effects for the patient. The increased healthcare costs associated with non-adherence are estimated at $100 billion annually in the US.

Why Medications Are Not Taken

The reasons why patients do not take medications as prescribed are complex and varied. Non-adherence may be intentional or unintentional. Unintentional factors include forgetting to take medication, not remembering if it was taken, not understanding how to take it correctly, or being confused by complex drug regimens. Reasons for intentional non-adherence include:
- stopping the medication due to undesirable side effects, such as fatigue, weight gain, coughing, or nausea.
• feeling better or having symptoms resolve, so the medication is prematurely discontinued.
• believing that the drug is not necessary or won’t help the condition.
• not wanting to be dependent on the drug or take it for years.
• not being able to afford the drug, so the prescription is never filled or not filled regularly.
• not being able to physically obtain the drug due to transportation issues.
• feeling that there is a social stigma associated with the drug, such as treatment for bipolar disorder or HIV.

There are certain patient groups at increased risk for medication non-adherence. Some of the highest non-adherence rates occur in patients taking psychiatric medications, such as drugs for depression and other psychiatric disorders. Patients who take multiple drugs, multiple doses per day, and/or complex drug regimens are also at increased risk for taking them incorrectly or not at all. As the number of drug doses per day increases, studies have shown that patient adherence declines. Drugs prescribed in 1 or 2 doses per day are much more likely to be taken correctly than those requiring 3 to 4 doses per day.

Other patients at risk include those with chronic, asymptomatic conditions, such as elevated cholesterol or hypertension. These patients must often take medications for many years. Since they may feel the same whether they take the medication or not, they may choose to omit it, not being able to see the resulting physiologic effects. Patients with acute conditions that show rapid improvement with drug treatment, such as infections, may discontinue taking the medication as soon as symptoms improve. Patients with low literacy, who cannot adequately read or understand medication labels, and those with memory issues are at increased risk for non-adherence. Some patients have difficulty taking their medications due to functional issues, such as difficulty opening a pill bottle, visual problems, or difficulty swallowing the medication. Patients may also hoard medications by omitting doses and saving them for a time when “I might really need them.” This may be based on fear that they may not be able to afford the drugs in the future, or may have difficulty obtaining them.

Promoting Medication Adherence

Measures to promote medication adherence should begin with the initial prescribing of a drug. The prescriber and patient should discuss the need for this medication, as well as its pros and cons, and reach mutual agreement that the medication should be used. This increases the likelihood that the patient will take it properly. Whenever possible, prescribers should attempt to utilize the simplest drug regimen, with the lowest number of daily doses that will be effective. Also, patients should be asked at the time of prescribing if they will be able to obtain this prescription—can the patient afford the prescription, and does he/she have transportation to obtain it?

When a medication is not producing the desired therapeutic effect, a common and immediate response of the prescriber is to increase the dosage or switch to another drug. Before that occurs, the patient should be carefully and non-judgmentally questioned about his/her adherence to the medication regimen. Patients are often understandably reluctant to disclose that they are not taking the drug as intended. The topic of adherence should be approached in an accepting, non-threatening way, such as “Could you tell me how you’re taking this medication?” and “It can be hard to take medication on a regular schedule, how often do you miss it?” This encourages the patient to disclose their actual patterns of medication use, rather than how they think they “should” be taking it.

When non-adherence occurs, it is essential to thoroughly and respectfully explore the reasons with the patient to formulate an effective strategy. It does no good to launch into the drug’s importance and how to remember to take it when these are not related to the actual reasons for this patient.

For unintentional non-adherence due to memory issues or complex drug regimens, use of a medication organizer may be helpful. These range from simple box organizers to high-tech equipment with alarms and medication trackers that can notify a person in another location if a medication has been missed. The medications can be packaged in calendar blister packs to help adherence.

If side effects are the issue, the prescriber may be able to advise if these are likely short-term, or if another drug could be used instead. Lack of knowledge, such as the patient not realizing that medication should be continued even after symptoms improved, can be addressed with thorough patient education. Education also helps the patient understand the importance and effects of the drug, improving motivation for taking it as prescribed. In patients with financial concerns, use of generic drugs and obtaining medications at pharmacies that participate in flat-rate, low-cost pricing may help. Drug companies also have programs that help some low-income patients to receive medications at reduced or no cost. Transportation issues that prevent the patient from obtaining prescriptions can be addressed by finding pharmacies that deliver, using mail order, or asking relatives for help. For physical problems, such as arthritis or visual deficits, adaptations such as easy-open bottles and large-print labels are helpful. If attitude toward taking the medication is a factor, engaging in a frank discussion of how the patient feels about taking the drug, and providing support and reassurance, may help to improve adherence.

The nurse can help patients to achieve desired therapeutic drug effects through effective assessment of attitudes and behaviors regarding medication use, and working with the patient to promote strategies for effective adherence.
Promoting Medication Adherence

NAME: ___________________________ DATE: _______________ UNIT: _______________________

Directions: Place the letter of the one best answer in the space provided.

_____ 1. The majority of adults in the US take at least one medication.
   A. True
   B. False

_____ 2. Medication adherence means that the patient:
   A. has the prescription filled, picks it up, and experiences some therapeutic effects
   B. agrees to take the medication
   C. receives adequate education on how to take the medication
   D. takes the medication as intended, at least 80% of doses

_____ 3. Patients who practice “white-coat adherence” take their medication:
   A. exactly as prescribed, to ensure they get the therapeutic effects
   B. because the doctor told them to
   C. properly for only a short time before each healthcare visit
   D. every now and then, but not on the prescribed schedule

_____ 4. According to the CDC, half of all patients do not take medications as prescribed.
   A. True
   B. False

_____ 5. Medication non-adherence is highest among patients with:
   A. chronic illness
   B. infections
   C. conditions that have a social stigma
   D. disorders having significant symptoms
6. An example of unintentional non-adherence is:
   A. not filling or picking up the prescription
   B. stopping the drug due to side effects
   C. forgetting to take the drug
   D. drug hoarding

7. As the number of drug doses per day increases, patient adherence to the drug regimen:
   A. increases
   B. decreases
   C. decreases at first, then increases
   D. remains the same

8. Medication adherence is improved when which of the following is discussed with the patient:
   A. willingness to take the medication
   B. ability to afford and obtain the medication
   C. understanding of the medication’s dosage and schedule
   D. all of the above

9. Mrs. Pratt has been prescribed a medication to lower her blood glucose. When she returns for a follow-up exam, her blood glucose remains elevated. The most appropriate response of the nurse is:
   A. “You may need to try another medication if this one doesn’t work.”
   B. “If you’re not going to take your medication, then we can’t help you, Mrs. Pratt.”
   C. “Can you tell me how you’ve been taking your medication, Mrs. Pratt?”
   D. “Since you didn’t have any improvement, the doctor will want to increase your dose.”

10. When a patient is not taking prescribed medication as intended, it is most important to:
    A. provide the patient with a printed medication schedule
    B. determine why the patient is not taking the medication
    C. tell the patient why it is important to take the medication
    D. ask the patient if he/she is willing to take the necessary steps to improve health
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6. **PAYMENT INFORMATION:**

**APPLICATIONS MUST INCLUDE PAYMENT**

**Cost:** $10 per test — nonrefundable

**Check Payment method - Provide all information**

- Check Payable to Peak Development Resources ($40.00 service fee for returned checks)
- Credit Card (circle one):
  - VISA
  - MASTERCARD

- Credit Card Number: ____________________________
- Credit Card Expiration Date: ___________
- Print Name on Card: ____________________________
- Authorized Signature: ___________________________
- Billing Address for credit card:
  - Address: _______________ _____________________
  - City: _______________ State: _____ Zip: ______

7. **EVALUATION**

A. How long, in minutes, did it take you to complete this educational packet? _______ minutes.

B. Please rate each of the following categories by circling the number that best reflects your experience with this self-study packet:

<table>
<thead>
<tr>
<th>Category</th>
<th>1 = Strongly agree</th>
<th>2 = Agree</th>
<th>3 = Disagree</th>
<th>4 = Strongly disagree</th>
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<td>1. I met the stated course objectives.</td>
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<td>2. Subject matter was accurate.</td>
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<td>3. Content reflected current information.</td>
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<td>4. This self-study packet was an effective way for me to learn.</td>
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<td>5. Reading level and content were appropriate for me.</td>
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<td>6. Test reflected the stated course objectives.</td>
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5. **Contact Hour Information:**

One contact hour is awarded for each test grade of 70% or higher from an issue of Peak Development for Medication Administration. The applicant must be an employee of a subscribing institution. The application fee is nonrefundable, regardless of test grade.

7. **Completion:**

8. **Mail** completed application and payment to:

   Peak Development Resources, LLC
   P.O. Box 13267
   Richmond, VA 23225