

Six Patient Reported Barriers To Treatment Adherence

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Introduction

Treatment adherence is a measure of the degree to which a patient follows a treatment regime as prescribed by a physician. Adherence means that a patient fills an initial prescription for a prescribed medication and refills (if prescribed) it in time so that there is no gap in treatment.

Non-adherence could mean that a patient:

- Did not fill the initial prescription
- Was late in refilling a current prescription
- Failed to refill a current prescription
- Took the medication incorrectly

Given the importance of medication efficacy in modern medicine, the very high prevalence of non-adherence is a major obstacle to achieving optimal health outcomes and a major challenge for health practitioners, patients and the pharmaceutical industry.

The situation that pharmaceutical companies find themselves in is particularly vexing. The failure of patients to take their prescribed medications correctly can reduce the therapeutic effectiveness of the medications in actual clinical practice and may increase medication side effects compared to the results of the controlled studies required by the FDA for drug approval.

Non-adherence compromises treatment outcomes, and negatively impacts the early prescribing experience of physicians.

Non-adherence hits the sales bottom line for pharmaceutical companies in the U.S. to the tune of approximately \$30 Billion annually.

Measuring Adherence Isn't A Perfect Science

What can be done? Before we can treat a problem like treatment non-adherence, we need to understand its causes and how to effectively measure it.

As it turns out, measuring or detecting medication non-adherence is not easy. The time-honored method used by clinicians is to ask the patient whether she is taking her medication as prescribed. Not surprisingly, patients tend to overestimate their use of their prescribed medications and tend to report better adherence to all aspects of medication taking. In general, if a patient reports any degree of non-adherence, it is most likely to be much worse than the patient reports. If a patient reports full adherence, the clinician cannot conclude that this is accurate either. Given the high prevalence of non-adherence, patient self-reports of full adherence are likely to be inaccurate.

Clinicians can improve the detection of non-adherence by rewording the question to indicate to the patient that non-adherence is common and that the physician expects that many patients will be affected. For example:

"I find that many of my patients often forget to take the medications that I prescribe them. There are many reasons for this. Tell me how many days this past week you missed taking your tablets?"

In truth, this way of questioning patients is not infallible. A scientifically validated way to detect the presence of medication non-adherence is the six Morisky questions. However, even this method is not accurate in all patients, and classifies some patients as adherent who are not, and vice versa. Moreover, it does not identify whether non-adherence applies to

Identifying And Addressing Non-Adherence

Barrier 1: “I Forgot to Take My Meds”.

all the medications a patient is taking, and if only to some, which ones. It also provides no information about the timing of medication taking or the conditions in which a patient takes his medication.

Another method that can be used to identify patients who are likely to be non-adherent uses pharmacy records. This method can potentially detect patients who do not fill their initial prescription for a medication, fail to get a refill filled, or delay getting a refill. It can also identify patients who take fewer of their pills than prescribed as indicated by longer intervals between prescription refills than would be expected. Practically speaking, the pharmacy record method can only be used in medical practices that collect and store prescription fills and refills electronically. This is almost impossible to do except in settings like the military, the VA, and some health systems like Kaiser Permanente in which most patients fill all of their prescriptions within the health care system that they receive their care.

Finally, there are some electronic medication use detection systems that can detect whenever a patient opens a medication bottle or pushes the button on an inhaler to release a dose. Although these systems are considered the best way to measure medication-taking behavior, they are used almost exclusively in medical research and not in clinical practice. Thus, the clinician who is interested in determining whether her patient is adhering to the prescribed medication regimen is left with asking her patient about her medication use.

Whenever non-adherence is identified, its causes in individual patients and in patient populations need to be considered. The reported reasons are multiple, and are somewhat different for specific types medications and for different patients. Despite this complexity, it is possible to discern a group of six common and important barriers that patients report to taking medications as they are prescribed. Each is described together with ways treatment adherence can be improved.

Probably the most common reason patients give for not taking medication doses as prescribed is forgetting. In reality, this can be due to a real memory lapse or is just a convenient excuse for reasons the patient prefers not to report or is unaware of. Although memory declines with age, it is worth noting that medication non-adherence does not increase with age. Nonetheless, memory lapses as a cause for non-adherence are more common in the elderly, but are quite common in patients of all ages. Incidents of forgetting to take medications may occur because of true changes in basic memory function or to a person's environment, if it is chaotic or filled with competing interests or demands.

Addressing barrier 1:

- Recommend a medication tray with compartments for placing pills, organized by day of the week (usually Sunday through Saturday) and sometimes by time of the day (morning, noon, evening, and bedtime). The patient, a caregiver or a health professional fills the tray, either weekly or monthly, depending on the size of the tray.
- Provide memory aids or visual cues. The principal is to place the medication containers, whether these are trays, bottles, or other containers, in a physical location that the patient would likely see at the time the medication should be taken. The usual locations for putting the containers to cue memory are a bedside table, a bathroom sink or counter, a kitchen or dining room table, an automobile, or an office desk.
- Provide a calendar with the medication schedule written in a box for each date. People put these calendars on their refrigerators or other convenient and frequently visited places in their homes.

Barrier 2:
“I Am Too Busy to
Take My Meds”.

- Instructed patients on what to do if they “miss” a single dose or multiple doses of a medication. It should be the responsibility of the clinician to provide information about this as missing doses is ubiquitous.

It is important for clinicians to consider probing a patient who reports that he forgets to take his medication for the presence of factors causing non-adherence that the patient prefers not to admit or may be unaware of.

Patients frequently will tell a clinician that they are too busy or too stressed to take their medications. Personal distractions can interfere with a person’s ability to remember to take medications. So can life’s daily stresses, but often the real issue is one of personal priorities. Each of us has competing goals in our lives and competing things that grab our attention. The real barrier here is personal motivation. Behavioral scientists know that a person’s likelihood of doing or not doing something depends on a number of intrapersonal psychological factors.

Addressing barrier 2:

- Make sure that the patient has a clear understanding of their condition, the prescribed medication and how to manage their treatment program.
- Explain to the patient why the medication is being prescribed and what are the outcome expectancies for it. Outcome expectancies are particularly relevant and important in taking medications, particularly for medications that do not relieve symptoms of disease or produce some other noticeable positive effect for the person.
- Ensure that the patient understands, accepts and internalizes these expectancies to foster their adherence to taking the medication as prescribed.

Barrier 3:
“I Am Not Able to
Take My Meds”.

Many patients do not feel able to take the medication as it is prescribed. In many cases this is an issue pertaining to certain types of medications, such as inhaled or injected medications, but is often an issue for patients who fail to take any type of medication as prescribed.

The experienced clinician anticipates situations in which a patient may have difficulty taking a newly prescribed medication, and keeps a close watch for the occurrence of such problems.

Addressing barrier 3:

- The clinician responds to a patient’s feeling of not being capable of taking the medication correctly with education and support. Through coaxing and encouragement patients develop the ability and confidence to use the medications and use them properly.
- There is an opportunity for pharmaceutical companies to augment education and patient support. Generally speaking physicians and other health care providers welcome and support patient support programs as they understand what needs to be done to help patients with their medications but do not always have the time or resources needed to achieve their treatment goals.

Barrier 4:
“I Am Confused
About My Meds”.

A factor under physician control that causes non-adherence is the number of medications a patient is prescribed. In fact there is a term that describes this phenomenon—polypharmacy. Many research studies show that polypharmacy causes non-adherence, and that the likelihood of non-adherence and its severity increases with the number of medications a patient is prescribed.

Barrier 5:
“My Meds Are Too Expensive”.

Barrier 6:
“I Do Not Need to Take My Meds”.

Addressing barrier 4:

- The physician can review the patient’s medication regimen and eliminate any medications that are unnecessary.
- Multiple physicians who care for a single patient must communicate effectively so that they arrive at a consensus on the medication regimen.
- Related to polypharmacy is the dosing schedule for a patient’s medications. Research studies indicate that the more times a day a patient is prescribed to take medications, non-adherence is more likely. Thus, as a general rule, it is better to prescribe medications so that they are only taken once a day, preferably in the morning or at bedtime. The physician might also consider simplifying the dosing schedule, especially in situations in which the patient is having difficulty taking noontime, early evening and bedtime doses.

Cost is often cited as a barrier to patient adherence. The key issue of course is underinsurance or lack of insurance that remains an issue in the US. The recent passage of the Medicare drug prescription program will eventually help but even with this program, there are still a substantial number of people in the U.S. for whom the cost of medications interfere with their willingness or ability to take them.

Most clinicians are aware of the problem in general, but need to think about it every time they prescribe a medication or address the issue of non-adherence in individual patients.

Addressing barrier 5:

- Physicians and their staff really need to know how their patients pay for medications, and the impact of the cost of medications for them.
- For patients who feel that they cannot afford their medications, the physician might look for ways to reduce out of pocket costs.
 - Programs that pharmaceutical companies have to assist patients in purchasing medications,
 - Insurance plans that better cover their out-of-pocket health care costs, including medications.

It is probably no surprise that people can have strong opinions about their health, what is good for them and what is harmful. Some of these opinions are part of popular culture like getting a cold when you are outside in cold, rainy weather. These opinions can affect how people take care of themselves, including their use of medications.

Several decades ago researchers enshrined this observation into a health belief model that posited that peoples beliefs about what made them healthy and what made them sick was one of the most powerful influencers on whether they took their prescribed medications.

There are some commonly held but incorrect beliefs that can and do interfere with a person’s adherence to a prescribed medication regimen, and these should be looked for and addressed by clinicians if and when a patient is shown to be non-adherent. Two of the most common myths are:

- Medications are harmful if they are taken for a long time.
 - In fact, there are only a few medications that have cumulative side effects and physicians who prescribe these medications monitor how much medication a patient has received and stop the prescription long before a patient can be harmed.

What Can The Pharmaceutical Industry Do About Non-Adherence

- The human body needs a break from medications from time to time.
 - In fact many medications need to be taken indefinitely, for example for chronic health conditions like diabetes, and for only a very few does a break in use make sense.

Addressing barrier 6:

- When a patient is either reluctant to start a medication, or stops taking one abruptly, or changes how he takes it, or who asks her physician to make a change, the prescribing physician should probe for the common misconceptions that people can have about medications, and address them with understanding and medical facts.
- Since many health beliefs are deeply held, the physician needs to both respect the person's opinion and address it with finesse and persistence. This approach is more likely to be successful than dismissing the patient as ignorant.

In conclusion, medication regimen non-adherence is very common, and it results in patients not achieving the therapeutic results that the prescribed medications are capable of achieving. Non-adherence actually can increase the likelihood that some patients experience undesirable side effects from their medications because they use them in ways that are not ideal.

Non-adherence drives up the costs of medical care as patients who are non-adherent end up with more office visits with their physicians, more visits to the emergency department and more unscheduled hospitalizations.

For the pharmaceutical industry, medication non-adherence means lower sales revenues as most non-adherent patients fill fewer prescriptions than their physicians expect. Unfortunately, non-adherence is under-recognized in clinical practice, and when it is recognized, it is usually addressed less than optimally.

The most fundamental remedy is education and support.

It is obvious that a patient needs to understand how to take a medication properly before he or she can be expected to do so. Unfortunately, physicians typically hand patients a prescription in the office without providing much in the way of information on the reasons the medication was prescribed for his condition, how it should be taken, and particular issues the patient needs to be aware of to take it properly.

In some clinical settings, there are nurses who spend time instructing patients on taking the prescribed medication properly, and possibly checking up after the visit to see if the patient is having difficulty. On subsequent office visits, the nurse may spend time with the patient to check on how he is using the medication, with an eye on identifying non-adherence in its early stages. Involvement of nurses, and sometimes other clinicians, in these medication-support activities is more likely to occur in specialized settings for the care of patients with asthma, especially children, in HIV disease, in transplantation centers, in renal dialysis, etc., but unfortunately is almost nonexistent in routine office practice.

The lack of good education and instruction of patients about how to take their prescribed medications leaves a big gap in our health care system that needs to be filled. In recent years some forward thinking pharmaceutical companies have developed programs designed to fill this gap. These offerings include educational content on product websites, educational brochures and patient outreach programs designed to proactively educate the patient about the treatment, side effects, and the importance of following dosing as prescribed.

White Paper

A number of pharmaceutical companies have also introduced Patient – Physician Communications Programs that provide both patient education and communication feedback to their physicians.

Investing in patient education augments the treatment of the physician. Understanding the specific needs of different patient segments and providing succinct support materials in a form that is easy for patients to access and absorb, means that they better understand the medication regimen. In many cases, the uncovering of specific adherence barrier during education can be dealt with at the time of interaction.

Physicians are very appreciative of this kind of support since it is additive to their own and informs them in a timely and succinct manner. Physicians are also quick to acknowledge the value of these patient support programs when made available from pharmaceutical companies.