

Medication adherence: patient education, communication and behaviour

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Educational aims

- To understand factors which influence the motivation for patients to take medication
- To appreciate the personal and economic consequences of non-adherence
- To gain an insight in patient behaviour to help develop skills to increase adherence through patient education and communication

Key words

Adherence, compliance, patient behaviour, patient-focused care, persistence, self management

Medication adherence usually refers to whether patients take their medications as prescribed, as well as whether they continue to take a prescribed medication. Medication non-adherence is a growing concern to pharmacists, healthcare systems, and other stakeholders (e.g. payers) because of mounting evidence that it is prevalent and associated with adverse outcomes and higher costs of care. To date, measurement of patient medication adherence and use of interventions to improve adherence are rare in routine clinical practice. The goals of this article are to address (1) the reasons for non-adherence, (2) the prevalence of medication non-adherence, (3) the consequences of non-adherence, (4) patient behaviour with respect to taking medications and finally, (5) interventions to improve medication adherence.

Introduction

Medication adherence is the extent to which a person takes their medication according to agreed recommendations from a health care provider.¹ The term adherence has superseded the term compliance since it has fewer negative connotations regarding the physician/patient relationship and recognises a patient's right to choose and removes the concept of blame.² It is thought that between one third to one half of all medicines prescribed for long-term conditions are not taken as recommended.³

Non-adherence

Two types of non-adherence exist, *unintentional non-adherence* occurs when the patient wants to follow the agreed treatment but is prevented from doing so by barriers that are beyond their control. Examples include poor recall, difficulties in understanding instructions, inability to pay for the treatment, or simply forgetting to take it.³ *Intentional non-adherence* occurs when the patient decides not to follow the treatment recommendations. This often takes the form of patients reducing the dosing frequency or number of medications down to a level that they (and not their doctor) believe is appropriate.³

Reasons for non-adherence

Non-adherence should not be regarded as the patient's problem. It epitomises a limitation in the delivery of healthcare usually due to a lack of agreement between the healthcare professional and the patient or in providing support that patients need later on.³

By understanding factors which influence the motivation for patients to take medication one can better tackle the ever growing prevalence of intentional non-adherence. Research in this field has identified the primary importance of patients' beliefs about their illness and treatment as determinant of adherence, with implications for clinical care and prescribing-related consultations.² So what happens after a prescription is written? Table 1 shows alarming statistics of cardiac patients regarding the medication adherence problem that exists in the United States. Table 2 lists reasons why Americans aged 50 and older do not fill their prescriptions.

Consequences of non-adherence

Non-adherence can halt the improvement of a patient's condition and even worse can

Table 1. Percentage of patients taking a course of action once a prescription is written⁸

12%	don't fill their prescription at all.
12%	don't take medication at all after they fill the prescription.
29%	stop taking their medication before it runs out.
22%	take less of the medication than is prescribed on the label.
75%	Total non-adherence!

Table 2. The main reason for not filling prescriptions for Americans aged 50 and older⁹

Cost of the drug	40%
Side effects of drug	11%
Thought drug wouldn't help much	11%
Didn't think I needed it	8%
Drug did not help	6%
Don't like taking prescription drugs	5%
Condition improved	4%
Already taking too many prescriptions	3%

result in the decline of health. The costs are both personal and economic. The economic costs are not limited to wasted medicines but also include the knock-on costs arising from increased demands for healthcare.³ From a purely financial perspective, non-adherence to medical regimens has been estimated to cost the UK health-care system £230 million each year³ while in the US the bill reaches a staggering \$100 billion per year⁴, with a great deal more disposed of by patients themselves. It has been found that pharmacists could help save the UK NHS up to £238 million a year by reducing avoidable hospital admissions for patients with conditions like asthma and diabetes.⁷

What do patients want to know?

Information should not only be presented to patients but also be discussed with them to ensure they understand it, taking into account their own beliefs about their condition and treatment. A Health Technology Assessment in 2007 found that the majority of people didn't value the written information that they receive, particularly package insert patient information leaflets.⁵ They found that if risk is expressed as relative, patients tend to seriously over or underestimate their personal risk.⁶ A website which provides reliable and up to date information for patients who have access to the internet, is the NHS Choices website, which was developed by the Department of Health in the UK. It gives patients access to a wide range of health information including medicines guides covering specific conditions as well as individual drugs.⁶

How patients take their medications

Patients might test the effect of stopping the medicine or altering the dosage in relation to their symptoms. Others take them strategically, for example not taking a dose of anti-hypertensives when feeling symptom free due to concerns about side effects or only taking intranasal corticosteroids when visiting rural areas known to cause them allergies. Tying the consequences of not taking a medicine into outcomes that are meaningful and relevant to the patient is important in helping patients reach a decision about taking them.⁶ Relating improvements in quality of life to things that are important to the patient is a valuable way of helping them assess benefits and risks. For example, being able to walk to the shops versus the chance of having to be re-hospitalised.

Adherence programs

Traditionally, adherence programs have focused on the following areas - simplifying dosage regimens and delivery, patient education and communication and modifying patient behaviour.⁴ The rest of this article will focus on the latter two.

Modifying patient behaviour

It is important that pharmacists establish a positive, supportive, trusting relationship with the patient and at the same time involving the patient in the decision-making process. One must adopt a friendly rather than a business-like attitude by spending some time conversing about non-medical topics.¹⁰ Improving adherence involves the complex interaction between

the healthcare professional and the patient. With patients from different backgrounds, education and moral beliefs, one must tailor the information provided to each individual. There is no single intervention strategy, or package of strategies that has been shown to be effective across all patients, conditions and settings.¹ First and foremost one should avoid making assumptions about patient preferences about treatment. This can be challenging for pharmacists who may have built up relationships with patients and have known them for several years. Despite this, it is not always straightforward to foresee their preferences, hence the importance of conversing with patients noting any non-verbal cues that may indicate the need to explore the patient's perspective further.³

Patients are often reluctant to start medications for chronic diseases since they believe that once these have been started they will become dependent on them. Another common concern are the adverse effects. It is important to address these concerns. Often the patient is unaware that delaying treatment of their condition can have negative consequences. A reinforcing argument could highlight encouraging results obtained from clinical studies involving thousands of patients whose condition and quality of life improved. A useful phrase to use is 'you will live longer and better' which usually provides immediate increases in medication adherence.

Practice points 1

- Discuss intended course of therapy when medications are first started. This helps keep patients persistent with a medication regimen.
- Introduce reminder strategies such as pill organizers, calendars and phone reminder systems.
- Provide appropriate follow-up care by asking the patient to visit the pharmacy to discuss adherence or improving performance and rewarding such behavior.¹⁰
- Tackle non-adherence by exploring patients' perspectives of medicines and the reasons why they may not want or are unable to use them.

Patient education and communication

An important aspect of medication adherence is the pharmacist's ability to convey instructions in a simple manner. It

is important to use plain language instead of technical language or medical jargon. The pharmacist should explain to patients what they need to do, breaking up the information into understandable parts.¹⁰ For illiterate patients, create a 'shame free', safe environment where the person feels comfortable talking openly. One can easily verify understanding by asking the patient to repeat the instructions provided. Open questions can help patients to explore their beliefs/concerns about medicines. Encouraging patients to ask questions was found to increase patient satisfaction with only a small, non-statistically significant increase in consultation length in Kinnersley's Cochrane Review in 2007.^{6,11}

Practice points 2

- Addressing non-adherence is not about getting patients to take more medicines
- Make it easier for patients to report non-adherence by:³
 - Asking the question in a way that does not apportion blame.
 - Explaining why the question is being asked.
 - Mentioning a specific time period such as 'in the past week'.
 - Ask about medicine-taking behaviours such as reducing the dose, stopping and starting medicines.

Key Points

- Increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments.¹²
- Health care providers should have access to specific training in adherence management. For empowering health professionals an 'adherence counseling toolkit' adaptable to different socioeconomic settings is urgently needed.¹
- Improving adherence might be the best investment for tackling chronic conditions effectively. Studies consistently find significant cost-savings and increases in the effectiveness of health interventions that are attributable to low-cost interventions for improving adherence.¹

Conclusion

Pharmacists must accept that patients have a right to decide not to take a medicine, even if they do not agree with this decision, as long as the patient has the capacity to make an informed decision and has been provided with the information needed to make such a decision.³

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