Nursing Matters fact sheets provide quick reference information and international perspectives from the nursing profession on current health and social issues.

Adherence to Long Term Therapy

Adherence is generally defined, as “the extent to which a person’s behaviour — taking medication, following a diet, and/or executing lifestyle changes, corresponds with agreed recommendations from a health care provider.” Most studies investigating adherence focus on the extent to which patients follow medical instructions for prescribed medications, however it encompasses broader health-related behaviours that go beyond taking prescribed medications. Some examples of behaviours related to adherence include:

- Seeking medical attention;
- Filling prescriptions;
- Taking medication appropriately;
- Obtaining immunizations;
- Attending follow-up appointments; and
- Adopting behavioural modifications that address weight control, self-management of asthma or diabetes, smoking, contraception, risky sexual behaviours, unhealthy diet and insufficient levels of physical activity.

There is strong evidence that suggests that most chronic patients with asthma, diabetes, hypertension, HIV and AIDS have difficulty adhering to a prescribed regimen of care. For example, in China only 43% of patients with hypertension adhere to their antihypertensive treatment; while in Gambia just 27% adhere to antihypertensive medication. In Australia, only 43% of patients with asthma take their medications regularly as prescribed by their health provider. In Europe, just 28% patients with diabetes are able to achieve optimal glycaemic control for diabetes. Adherence to antiretroviral therapy (ART) varies from 37% to 83%, depending on the medication used and frequency of medication taking. In developed countries adherence to treatment regime is approximately 50% while this figure is much lower in developing countries.

Problem of poor adherence

Poor adherence to treatment compromises the efforts of the health care system, policy makers and health care professionals in improving the health of populations. Failure to adhere to treatment causes medical and psychological complications of the disease, reduces patients’ quality of life, increases the likelihood of development of drug resistance, wastes health care resources and erodes public confidence in health systems.

1 Other terms such as concordance and compliance are often used. This fact sheet uses the term adherence which requires the patient’s agreement to the recommendations of a health care provider.
Measurement of adherence
Accurate measurement of adherence is very important but there is no single "gold standard" to ascertain the extent of the problem. There are several measures discussed in the literature but they are proxy measures of patient's actual behaviour. Some of the strategies that are used to measure adherence include:

- Asking providers and patients;
- Standardised patient-administered questionnaires;
- Counting of remaining dose;
- Electronic monitoring device, which records time and date when the medication container was opened; and
- Checking when prescriptions are initially filled and refilled.

Each of these methods has its drawbacks and must be used with caution. For example both providers and patients tend to overestimate the extent of adherence. Similarly, use of an electronic monitoring device or counting of remaining tablets does not indicate that the patient has actually taken the medicines.

Factors influencing adherence\(^6,\)\(^7\)
Adherence is influenced by several factors. These include:

- Poor socioeconomic status;
- Illiteracy and limited education;
- Unemployment;
- Long distance from treatment centres;
- High cost for transport or medication;
- The characteristics of the disease;
- Therapy-related factors: complexity and duration of treatment, side effects;
- Cultural beliefs about disease and treatment.

Some of these factors are patient related; some are medication related and others are health care provider related. For example poor socioeconomic status is patient related factor inhibiting adherence, while side effects of a drug regimen are therapy related. Given this complex interactions of factors affecting adherence, patients need to be supported, not blamed.

Improving adherence
Better adherence is linked to patient safety, leads to better health outcomes and decreases health care costs. Good adherence improves the effectiveness of interventions, promotes health, and improves patients' quality
Adherence to Long Term Therapy

of life and life expectancy.\(^8\) Good adherence also has economic benefits for the health care system and the patient.\(^9\) There is no single way to promote adherence to treatment regimens. To improve adherence several educational and behavioural strategies need to be combined.\(^10\) Behavioural strategies include reminders and reinforcement of patient behaviour. Also, health care providers can investigate patients' preferences, simplifying dosing regimens, etc. Educational strategies that improve adherence among chronically ill patients include reducing the number of medications and frequency of doses, providing information about expected side effects, and motivating patients to adhere to the lifestyle changes caused by therapy.

It is very important to educate patients about their chronic diseases, benefits of the treatment, and complications associated with nonadherence.\(^11\) Education is needed for self-management since most of the care provided for chronic conditions requires the patients be involved in their own self care.

Education is an important strategy to improve adherence but patients not only need to be informed they also need to be motivated and encouraged to adhere to treatment and lifestyle-related goals.

A multidisciplinary approach is needed to manage chronic conditions and improve adherence. Family, community and patients' organisations are key partners in the promotion of adherence. They need to be actively involved in the care plan and expected outcomes of care. Improving adherence will require continuous cooperation between health professionals, researchers, policy makers, families, and most importantly the patient.

For further information, please contact: icn@icn.ch

The International Council of Nurses (ICN) is a federation of more than 130 national nurses associations representing the millions of nurses worldwide. Operated by nurses and leading nursing internationally, ICN works to ensure quality nursing care for all and sound health policies globally.

TG/2006
References


5 Balkrishnana R (2005). The importance of medication adherence in improving chronic-disease related outcomes: what we know and what we need to further know. Medical Care 43(6), pp. 517-520


