

CAN BRITAIN AND THE UNITED STATES LEARN ANYTHING FROM EACH OTHER?

Rachel Elliott, Nick Barber and Peter Noyce ask whether non-adherence undermines the efficiency of British and American health policy and what the two countries might learn from each other

Is non-adherence the fly in the ointment for health policy? Perhaps only half of patients take their medicines as prescribed.¹ Harm caused by non-adherence is an important public health issue²⁻⁴ and the effect on health and caring services, informal carers, employers and society has led to research and initiatives to improve adherence. Health care professionals want patients to adhere, and indeed, some commentators suggest that improving adherence could be the next major therapeutic advance.⁵

Effective and efficient adherence strategies are a key factor in meeting public health targets. In the United Kingdom at least, there has been insufficient emphasis on adherence in health care policies such as national service frameworks⁶ or clinical guidelines, although some changes for the better can be seen in more recent NSFs.⁷

In the UK there is a perception that non-adherence is due to deficiencies in knowledge or the patient-professional relationship, and thus is motivational. However, in the US, with its different health system, the key policy and research agenda appears to be around the impact on adherence of health insurance cover for medicines. The assumed causes of non-adherence are different in the two countries, thus policy emphasis is different, influenced by national contextual factors and these assumptions need to be questioned. Panel 1 proposes differences in the US and UK health care systems that might lead to differences in causes of non-adherence, but also to different assumptions about non-adherence, which then influence policy.

Lack of engagement with the true causes of non-adherence undermines efficiency of public health policies. Furthermore, policies to improve adherence may be at odds with health policies promoting greater patient choice. The recent Department of Health plan for future roles for pharmacists, does not refer to adherence, other than indirectly through medication review.⁸ Evidence is required to persuade policy-makers that addressing non-adherence appropriately is integral to successful and efficient health care policy.

THE SIGNIFICANCE OF MEDICINES NON-ADHERENCE IN THE UK

The UK National Health Service spent £6.8bn (\$9.9bn) on drugs in 2002.⁹ Some 6.5 per cent of adult hospital admissions may be drug-related, 30 per cent due to adherence problems.¹⁰ UK policy focuses on patient education, involvement and empowerment. There is increasing concern about the paternalistic nature of health care,

the impact of the patient-professional relationship on adherence¹¹⁻¹³ and the treatment of non-adherence as deviant behaviour by health care professionals driving it underground.¹⁴

UK policies, primarily the Expert Patient Programme¹⁵ and Medicines Partnership,^{16,17} attempt to improve this relationship by involving the patient more in decisions about their care, and there is also the beginning of a re-engineering of the primary care workforce to enable this relationship to develop. However, increasing the involvement of the patient puts more pressure on clinicians, particularly primary care physicians.¹⁸ Also, this may be an aim for NHS health policy, but it is not clear that it has happened in practice.¹⁹ Indeed, not all patients want to be involved in decision-making,²⁰ so their adherence may not be improved by this approach. Feeling uninformed about the illness and its treatment will mean that patients feel uncomfortable, or disassociated with decision-making and prefer to leave final decisions to clinicians.

Vick and Scott showed that "being able to talk" was the most important attribute of the doctor-patient relationship, and that being involved in decision-making was least important.²⁰ Therefore, the ability of resultant policies to improve adherence is in doubt, if other causes for non-adherence are not addressed at the same time.

THE SIGNIFICANCE OF MEDICINES NON-ADHERENCE IN THE US

In 2001, \$175.2bn was spent on prescription drugs in the US.²¹ Cost of illness in the US due to non-adherence is estimated at \$100bn per annum²² and is referred to as the nation's "other drug problem".²³ Non-adherence in elderly, disabled and low-income groups is often linked to lack of prescription drug insurance. It is known that Medicare recipients with drug coverage are more likely to fill their prescriptions than those without.²⁴ Up to 46 per cent reductions in use occur for both ineffective and effective medicines if drug co-payments are introduced.^{25,26} Many studies have linked reductions in adherence with increased morbidity and admission to hospital.^{25,27-31} People on lower incomes wait until their condition is more serious before consulting a doctor.³² They reduce costs by not filling prescriptions, reducing intake

and haggling about price.³³ The national legislative priority of the American Association of Retired Persons is to persuade the US Congress to add drug coverage to Medicare.³⁴ There is an assumption here that making drugs free will ensure 100 per cent adherence, which has not been demonstrated in the UK. There appears to be less emphasis on the impact of information or the doctor-patient relationship although the National Council on Patient Information and Education provides guidance on how to increase adherence.³⁵

DOES COST MATTER IN THE UK?

There is less evidence or concern around whether medicine costs affects adherence in the UK.³⁶ People under 18 and over 60, and women up to one year after childbirth are automatically exempt from paying the standard prescription charge, whether they can afford it or not (currently £6.30 [\$9] per item). Some conditions, such as diabetes and epilepsy, are exempt; others, such as asthma and schizophrenia, are not. About 85 per cent of prescriptions filled are exempt from charges, but only 20 per cent of people between 18 and 60 are exempt.³⁷ As many as 750,000 people in England and Wales may not be filling prescriptions due to cost³⁸ and patients' cost reduction strategies are similar to those in the US.³⁸ In the UK, there is a perception that non-adherence is increased by patients not paying for their prescriptions,³⁹ which is in direct opposition to US opinion, and is not borne out by evidence from the US.

ARE WE IMPROVING ADHERENCE?

Patients are not passive, powerless or irrational; they make active cost-benefit assessments about health care.¹⁴ Also, decisions to adhere to treatment are not one-offs; they are ongoing, dynamic and influenced by context. Many theoretical models have been used to explain non-adherence, usually intentional non-adherence, such as social cognition models, stage models and Leventhal's self-regulatory model.⁴⁰ These theories are limited in their ability to explain or predict behaviour and, recently, applying human error theory has been proposed.⁴⁰ This approach encompasses non-intentional non-adherence and causes of intentional non-adherence, such as cost, patient/professional relationships, levels of knowledge and drug acceptability. The multifactorial nature of non-adherence and the different stages at which patients may be non-adherent can be accommodated. Use of error theory may also promote a "no blame" culture such that patients are more prepared to admit non-adherence.

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Panel 1: Differences in UK and US health care systems and assumptions about adherence

United Kingdom

Differences in health care system

Primarily publicly funded and delivered
Centralised organisation
Primary care providers are key influence on policy and gatekeepers to services
No direct-to-consumer advertising

United States

Primarily privately funded and delivered
Decentralised organisation
Primary care providers have limited influence on policy and limited role as gatekeepers to services
Direct-to-consumer advertising

Assumptions about adherence

Not influenced by cost of medicines
Influenced by information
Influenced by relationship with health care professional
More information and improved relationship with health care professional leads to better adherence

Influenced by cost of medicines
Influence of information not clear
Influence of relationship with health care professionals not clear
Increased insurance coverage leads to better adherence

Interventions to improve adherence are “complex, labour intensive and are not predictably effective”.⁵ Few studies of interventions link adherence to outcome, or consider the resource consequences of the intervention or ensuing care. An ongoing review has examined 40 comparative studies that assess the effect of an intervention on adherence, outcome and costs. There is no standard measurement of adherence and many methods are used, each of which have limitations.⁴¹ Apart from general concerns about quality of cost and clinical data, many interventions are multi-faceted, without evidence for inclusion of each of these compo-

nents. Most interventions have a clear educational component, although it is not usually confirmed that lack of knowledge led to non-adherence. Studies show that informed patients are more likely to adhere to therapy,⁴² but the contribution of information may have been overestimated in the past.⁴³ Quite often pragmatic solutions are required, such as use of combined products⁴⁴ or mobile telephone text messages.⁴⁵ Nearly \$2bn of direct-to-consumer advertising of medicines occurs in the US, but not in the UK, and, despite other limitations, it may improve adherence.⁴⁶ Cost to patients probably has a significant impact, as has

been shown in the US and Europe,⁴⁷ and this impact varies between patient groups and diseases (“price elasticity”).⁴⁸ It is likely that the perverse incentive of drug charging policies leads to non-adherence, reducing the efficiency of health care policies in both the US and Europe, including the UK. Therefore, although there appears to be a different emphasis on non-adherence causation between the US (economic cause) and UK (motivational cause), it may be necessary to combine these approaches to stop non-adherence leading to policy failure.

Under conditions of scarcity, adherence interventions should be based on causes of non-adherence and targeted at key patient groups so interventions can be efficient as well as effective, and they should be evaluated using robust methods. An explicit framework should be applied, providing explicit decision rules and information. This, in turn, is then open to criticism, alternative formulation and empirical testing. Existing research is generally poor and does not follow this approach. Wrong assumptions about causes for non-adherence influence policy inappropriately, leading to inefficient use of resources, wasted opportunities and increased patient morbidity. To be effective, health policy has to facilitate adherent behaviour and influence patient decision-making. The relative importance of causes of non-adherence to patients, and resulting influence on behaviour, is not known and must be characterised to inform future adherence policies. We in the UK should not assume that the different health care provider structure of the US means that we cannot learn from their experience. It is likely that they can learn from us, too.

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USE THIS SPECIAL ISSUE AS A RESOURCE FOR CONTINUING PROFESSIONAL DEVELOPMENT

Concordance is essential for the provision of patient-centred care. Lin-Nam Wang, The Journal's staff editor with responsibility for CPD articles, suggests that this special issue can be used as a resource for continuing professional development purposes.

The following is designed to help pharmacists through the CPD cycle

identify gaps in your knowledge

1. Do you know the difference between concordance, compliance and adherence?
2. Why is concordance important?
3. What can pharmacists do to ensure that their consultations with patients and customers are concordant?

Before reading about concordance, think about how it may help you to do your job better.

The Royal Pharmaceutical Society's areas of competence for pharmacists are listed in “Plan and record,” (available at: www.rpsgb.org.uk/education).

This special issue relates to “communication” and “counselling” (see appendix 4 of “Plan and record”).

action: practice points

Reading is only one way to do CPD and the Society will expect to see various approaches to CPD in a pharmacist's portfolio.

1. Use the Ask About Medicines Week question cards to practice concordance with your patients.
2. Use the assessment guide available at www.hpw.wales.gov.uk/tools/splash/index.html to review the leaflets in your pharmacy.
3. Find out about the Medicines Partnership programme (visit www.medicines-partnership.org)

evaluate

For your work to be presented as CPD, you need to evaluate your reading and any other activities — say what you have learnt, how it has added value to your practice and what you will do next.