Enhancing Medication Adherence through Improved Patient-provider Communication: The 6A’s of Intervention

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Abstract

Public-health facilities in the developing world often experience a high patient burden, low doctor-patient ratio, drug stock-outs and the lack of avenues for adequate patient-provider communication. We identified strategies for enhancing medication adherence for chronic disorders in Indian health settings that rely on improving patient-provider communication through a review of the literature. These include (A)sk the patient on adherence status, (A)ssess accurately medication adherence, provide (A)ssistance with regimen and enlisting support from all available resources especially family support, (A)nticipating and precluding interruption in adherence, (A)ssurance against harm due to drug side-effects and finally (A)void blaming the patient for non-adherence.

Introduction

Poor medication adherence is recognized as a major public health challenge especially in non-communicable chronic disorders that require a lifetime of regular medication intake.¹,² According to a World Health Organization estimate, nearly half of patients with chronic diseases are non-adherent to their medications.¹ The Lancet medical journal states that “50% of the diagnosed Type-2 diabetes patients are prescribed suitable medications, and 50% of those are adherent”.³ Community-based studies from states in South India which have a comparatively better functioning health care system have also reported high rates of medication non-adherence in diabetes and hypertension patients.⁴,⁵ It is well-established that suboptimal medication adherence precludes the complete benefit of treatment but also increases the risk of hospitalizations and other adverse health outcomes in patients resulting in enormous economic losses.⁶ It is thus estimated that enhancing medication adherence interventions could substantially improve the population health and lower healthcare costs, perhaps more than any other treatment intervention.¹

Various strategies to augment medication adherence have been previously explored⁷,⁸ but usually in the context of the developed world. Their advanced healthcare systems have usually achieved universal health coverage, have adequate staffing and dedicated dietary and health counselors, patient waiting and queuing periods are low, electronic health and pharmacy records maintain updated records for patient health status, attendance and drug refills and digital aids to support adherence like text-message services are available to patients. In contrast, patients in a developing country like India often experience overcrowded public-health facilities with high patient burden, low doctor-patient ratio, drug stock-outs and the lack of avenues for adequate patient-provider communication. Moreover, the public health program for prevention and control of non-communicable diseases usually lack emphasis on promoting medication adherence. It is therefore essential to identify measures which are likely to work in resource-constrained public health settings. In this review, we discuss specific strategies to enhance medication adherence which could be utilized by providers operating in these settings for improving patient medication adherence.

Methods

We conducted a narrative review of the literature. The headings “medication adherence” or “medication compliance” AND “Diabetes”/”Hypertension” along with the keyword “India” was used to search MEDLINE (2009-17) and SCOPUS (2009-2017). The barriers and challenges in maintaining good medication adherence and causes for poor adherence were identified from these studies. Subsequently, we evaluated globally recognized patient communication strategies to enhance medication adherence which would also be applicable in the Indian context.

Results

The strategies identified for enhancing medication adherence in Indian health settings were grouped into the followed six categories relating to patient-provider communication and all beginning with the letter ‘A’.

1. Ask: The treating provider should preferably probe for non-adherence on each clinic visit by querying the patient on his or her medication intake behavior. Avoid a leading question like, ‘you are taking all your prescribed medications, aren’t you?’ since it encourages patient self-desirability bias.⁹ Medication non-adherence should be suspected in the presence of adverse health outcomes relating to the disease like poor glycemic control or uncontrolled blood pressure, if the medication is known to cause significant side effects and also if the medication-costs are high and patients finds them difficult to afford.

2. Assess: providers must accurately assess the extent of medication adherence in their patients. Medication adherence has been defined “the extent to which a patient acts in accordance with the prescribed interval, and dose of a dosing regimen”.¹⁰ The word extent signifies that non-adherent behaviour instead of being a ‘dichotomous all or nothing phenomenon’ ranges from taking too few or excess medication doses, symptomatic variation (drug avoidance on
3. Assist: patients often require assistance in taking medications as prescribed by the provider, especially those who have multiple comorbidities, the elderly and patients with poor health-literacy. Since regimen complexity is known to undermine medication adherence,\textsuperscript{15} it is advisable to simplify the patient’s regimen by matching them with to their activities of daily living, preferably food-intake.\textsuperscript{7} Reducing the pill-burden can aid patients which is possible through fixed-dose combination but the formulations must have evidence supporting efficacy and safety.\textsuperscript{3} Enlisting family support when available is vital and can improve medication adherence by helping patients remember to take their medications, direct assistance in injecting the drug as in insulin and also through ways of motivation. In a study in an outpatient setting of a major tertiary care center in Delhi, it was found that patients who acknowledged family support in remembering their medications, reported higher medication adherence.\textsuperscript{10} In the technologically adept patient, use of mobile phone reminders can also be encouraged as a cues to action.

4. Anticipate: the provider in the resource-constrained setting should anticipate non-adherence by the patient and take steps towards its prevention. Economically vulnerable patients are particularly vulnerable to non-adherence when they fail to acquire drugs from public health facilities on being unable to keep appointments or lack of supplies.\textsuperscript{12} Studies from outpatient settings of public health facilities in India show a much higher rate of medication adherence compared to studies conducted in rural settings which suggests non-adherence is more likely to be an unintentional phenomenon arising from lack of drug access.\textsuperscript{\textsuperscript{6,5,16,17}} In circumstances when the provider perceives the patient may slide into non-adherence, there is need to emphasize the need to maintain continued adherence to prevent adverse health outcomes.

5. Assure: Patients may lose their belief in effectiveness of their treatment regimen at some point in time. Fear of drug side effects, whether real or perceived can also impair medication adherence. A study in an urban cross primary care clinic in New York City observed that diabetes patients whose disease and medication beliefs were inconsistent with a chronic disease model had suboptimal medication adherence.\textsuperscript{18} A study from the Gujarat state of India found 38.4\% patients in a primary care facility lacked awareness that diabetes could not be cured and required lifetime medication.\textsuperscript{19} A study among Indian hypertensive patients found that those who perceived higher susceptibility to disease complications and perceived more benefit of treatment also reported higher rates of adherence.\textsuperscript{4} Effective patient-provider communication which dispels patient concern over their medication can go a long way towards improving their adherence to medications.

6. Avoid blame: blaming the patient for poor medication adherence is counterproductive and fails to take into account the shared collaboration between the patient and provider which is required to achieve optimum adherence. Furthermore, since, adherence can be unintentional and non-modifiable like due to aging, impaired memory, and absence of social support, it reflects a failing and lack of understanding on the part of the physician. Instead of according blame, providers should consider the factors contributing to non-adherence and whether those could have been ameliorated through effective communication which empowers the patient and promotes his understanding of the disease pathophysiology and complications resulting from the failure of adherence.\textsuperscript{10} For instance, some hospital-based studies from India have shown poor knowledge of diabetes and lack of awareness of complications in patients which indicate the neglected state of health communication prevalent.\textsuperscript{19-2} Some studies have found that paramedical staff is effective in imparting education and stimulating behavior change in patients in clinic-settings with the high patient load.\textsuperscript{22-23} The distribution of responsibilities of chronic disease patient counseling with nurses and pharmacists in the resource-constrained setting can thus be a valuable aid towards improving patient adherence. Furthermore, certain comorbid conditions like depression in diabetes or cardiovascular disease patient can independently lower medication adherence for which patients should be screened.\textsuperscript{24-25}

Conclusion

Poor medication adherence is a
global problem but its determinants show considerable variation between the developed and the developing world primarily due to issues of drug access. Enhanced patient-provider communication can promote medication adherence in patients of chronic diseases by adopting specific strategies. These include early and regular assessment of medication adherence, assistance with regimen and enlisting support from all available resources especially family support, anticipating and precluding interruption in adherence, assurance against harm due to drug side-effects and finally avoiding blaming the patient for non-adherence.

References