

Comprehension Is Not Readiness—Patient Counseling Must Also Address Treatment Burden, Emotional Response, and the Feasibility of Daily Medication Work

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ABSTRACT

Medication counseling is often judged by whether patients receive and understand correct information, yet sustained medication use requires more than accurate recall of instructions. A patient may understand what a medicine is for, how it should be taken, and what adverse effects require attention while still being unwilling or unable to incorporate the regimen into everyday life. This article examines why comprehension and readiness can diverge and identifies counseling domains that capture feasibility beyond information transfer. The synthesis distinguishes cognitive understanding from emotional meaning, medication beliefs, perceived treatment burden, self-efficacy, practical capability, routine fit, social support, competing life demands, affordability, and patient preference. Evidence across health-literacy, medication-belief, treatment-burden, self-management, activation, shared-decision-making, and adherence research shows that these constructs are related but not interchangeable. Several findings are especially important for counseling: health literacy shows inconsistent associations with adherence; shared-decision interventions may improve involvement without improving adherence; beliefs may relate differently to intentional and unintentional nonadherence; and self-efficacy can support self-management without necessarily predicting medication adherence. Treatment burden further shows that medication use is embedded within healthcare tasks, monitoring, administrative work, emotional strain, financial pressure, and competing roles. A feasibility-sensitive approach to counseling should therefore verify understanding while separately exploring what the treatment means to the patient, how burdensome it feels, whether the required work can be performed, whether it fits existing routines, what support or constraints shape implementation, and whether the patient wishes to undertake that work. This is not a proposal for a universal readiness stage or score. It is a mechanism-sensitive argument for distinguishing different reasons why a well-informed patient may still not be ready to sustain treatment.

Keywords: Medication counseling, Health literacy, Treatment burden, Medication adherence, Self-management, Patient preferences

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Introduction

Medication nonadherence is not a single behavioral failure with a single correct remedy. Across chronic disease, medication-taking can be affected by forgetfulness, competing priorities, treatment burden, beliefs about necessity or harm, regimen complexity, cost, side effects, access constraints, communication problems, and deliberate preference. Correspondingly, interventions intended to improve adherence vary substantially in content and effectiveness, and no one approach reliably addresses every mechanism that can produce the same observed

outcome [1]. This heterogeneity matters for counseling because the clinician or pharmacist may encounter the same visible behavior—missed doses, delayed initiation, inconsistent implementation, or discontinuation—after very different upstream processes.

A second problem is that success under controlled or structured conditions does not guarantee that an adherence strategy can be sustained in routine care. Implementation science has shown that real-world effectiveness depends on how interventions fit workflows, settings, resources, and the circumstances of the people expected to use them [2]. The same principle applies at patient level. A counseling encounter can successfully transmit information while leaving unresolved whether the treatment is emotionally acceptable, practically manageable, affordable, compatible with daily routines, or preferred over available alternatives. Information may therefore be necessary for safe medication use without being sufficient for sustained implementation.

Health literacy illustrates this distinction particularly clearly. A recent systematic review of chronic-disease studies found positive, negative, mixed, and null relationships between health literacy and medication adherence, with substantial variation in measures and populations [3]. Such heterogeneity does not diminish the importance of comprehension. Informed medication decisions require usable information and, where needed, support with understanding it. It does, however, weaken any assumption that adequate understanding should be expected to translate automatically into adherence. The central question is consequently not whether comprehension matters, but what additional domains must be considered when a patient understands the treatment yet remains uncertain, unwilling, overburdened, or unable to carry out the required work.

This article treats “readiness” as a practical counseling judgment rather than a latent stage through which every patient must pass. The term refers here to the current feasibility and willingness to undertake the medication-related work required by a particular treatment in a particular life context. That judgment must remain separable from adherence itself. A patient can be ready but later encounter new constraints; can be adherent while experiencing substantial burden; can be unwilling for reasons that reflect an informed preference rather than incapacity; or can want treatment while lacking the resources needed to implement it. The analysis therefore proceeds by separating comprehension from emotional meaning, burden, capability, routine fit, social and material constraints, and preference before considering how these distinctions should change counseling.

Comprehension as one counseling outcome

Comprehension remains an essential counseling outcome because medication use depends on patients being able to interpret instructions, understand purpose, recognize dosing requirements, and know what to do when problems arise. Among older adults, self-reported health literacy has often been associated with medication adherence, although results vary across studies and measurement approaches [4]. This supports continued attention to health literacy while cautioning against using it as a proxy for all other conditions required for medication use.

Intervention evidence also shows that communication can improve concrete aspects of medication use. In a randomized trial of caregivers of hospitalized children, a health-literacy-informed discharge strategy improved medication knowledge and reduced dosing errors [5]. Pharmacist-delivered teach-back at hospital discharge has likewise been shown to be feasible and acceptable, with patients reporting improved confidence in their medication knowledge [6]. These findings clarify what comprehension-oriented counseling can achieve: it can reduce ambiguity, expose misunderstanding, and strengthen a patient’s ability to explain or execute instructions. Those are clinically important gains, especially where misunderstanding itself is the dominant source of risk.

The difficulty arises when improvements in communication are treated as evidence that the broader problem of sustained treatment has been solved. A systematic review and meta-analysis of randomized trials found that pharmacist counseling was associated with better medication adherence and some utilization outcomes, but the certainty of evidence was low or very low for several outcomes and effects were not uniform across settings [7]. Similarly, interventions supporting shared decision-making for long-term medication therapy improved outcomes such as patient involvement and risk estimation, yet did not consistently improve medication adherence [8]. Counseling can therefore improve one clinically desirable endpoint without necessarily changing another.

This separation has practical consequences. The question “Does the patient understand?” should be answered directly rather than inferred from adherence behavior, and understanding should be verified using appropriate techniques when misunderstanding is plausible. Once adequate comprehension has been established, however, repeating the same explanation may add little if the remaining obstacle is concern about harm, exhaustion from treatment work, inability to organize the regimen, cost, lack of support, or an informed decision not to proceed. A

counseling process that continues to intensify information when the unresolved problem lies elsewhere risks misclassifying resistance, burden, or constraint as ignorance. It can also produce a subtle form of patient blame: if the instructions were correctly delivered and understood, continued nonadherence may be interpreted as irrational or uncooperative rather than as evidence that another domain requires attention.

Comprehension should therefore be treated as one counseling outcome among several. It answers whether the treatment has been cognitively represented well enough to support an informed decision and competent use. It does not by itself answer whether the patient accepts the treatment, can sustain its workload, can fit it into daily life, has sufficient social and material resources, or wishes to make the medication part of everyday routines. Those questions require different evidence and different forms of clinical inquiry.

Emotional meaning, medication beliefs, and willingness

Medication information is interpreted through prior experience, illness perceptions, expectations of benefit and harm, and emotional responses to treatment. In adults with type 2 diabetes, health literacy was examined alongside illness perceptions, medication beliefs, self-efficacy, and adherence, illustrating that the relationship between information-processing capacity and medication behavior is embedded within a broader set of evaluative and psychological processes [9]. Comprehension can therefore be accurate while the meaning attached to the medicine remains negative, ambivalent, or uncertain.

Research on medication beliefs reinforces this distinction. A systematic review in community-dwelling older adults found that beliefs about necessity and concerns were frequently related to medicine use, but the evidence also contained contradictory and null findings [10]. In multimorbidity, analysis of necessity and concern beliefs further suggested that their relationship with medication-taking behavior is multidimensional and cannot be represented adequately by a simple difference between two scores [11]. These findings argue against treating “beliefs” as a single barrier. A patient may recognize strong necessity while also experiencing serious concerns, or may accept the rationale for treatment while remaining uncertain about whether the expected benefit justifies its daily cost.

Intentionality is especially important. Among people living with HIV, medication beliefs were associated with intentional nonadherence but not with unintentional nonadherence [12]. The distinction is clinically consequential because the same missed dose can reflect a decision, a practical failure, or an execution error. Re-explaining the regimen may be appropriate for misunderstanding but poorly matched to a patient who has deliberately reduced use because of concern, prior adverse experience, perceived overuse, or a competing preference. Conversely, interpreting an execution failure as deliberate resistance can lead to unnecessary persuasion when the relevant problem is organization, memory, access, or workload.

Emotional responses may also influence medication use without being reducible to beliefs. In asthma, depressive symptoms were associated with adherence, with mediation analysis suggesting a possible indirect association through medication beliefs [13]. A broader review of hypertension studies found associations between adherence and perceived barriers, self-efficacy, severity, susceptibility, and medication necessity, while also emphasizing variation across countries and patient groups [14]. The counseling implication is not that an emotional screen should be converted into another adherence prediction rule. Rather, emotional state and medication meaning should be explored when they plausibly alter how the treatment is evaluated or whether the patient is willing to undertake it.

Willingness should remain analytically separate from both comprehension and capability. A patient can understand the medicine and be fully capable of taking it while deciding that the perceived burden, uncertainty, or trade-off is unacceptable. Such a decision may change after further discussion, but it should not automatically be classified as failure of education. Counseling should instead clarify what the medicine represents to the patient: necessity, reassurance, dependence, threat, loss of autonomy, preventive investment, inconvenience, or another personally salient meaning. This does not require a universal script. It requires enough inquiry to distinguish a knowledge problem from an evaluative one and to identify when the next useful step is explanation, deliberation, emotional support, treatment adjustment, or acceptance of an informed preference.

Treatment burden and the work of taking medicines

Medication use occurs inside a larger workload of living with illness. The Patient Experience with Treatment and Self-management measure was developed to capture dimensions of treatment burden that include medical information, medicines, appointments, monitoring, interpersonal challenges, financial difficulties, healthcare

services, social and role limitations, and physical or mental exhaustion [15]. The Multimorbidity Treatment Burden Questionnaire similarly demonstrates that treatment burden can be measured as a patient-reported construct rather than inferred from the number of medicines prescribed [16]. These instruments do not provide a universal readiness threshold, but they make an important conceptual point: the work demanded by treatment is multidimensional and can be experienced independently of whether instructions are understood.

Qualitative evidence shows how this work becomes concrete. Chronically ill outpatients have described medication-related burden arising from organizing routines and navigating healthcare-system demands [17]. An integrative review of treatment burden in multimorbidity likewise identified work associated with medications, appointments, monitoring, self-management, and healthcare use, together with social, emotional, and financial effects and the resources available to manage them [18]. A regimen that is pharmacologically straightforward can therefore still be difficult if it requires coordination with meals, work shifts, caregiving, transport, repeated monitoring, prescription renewal, or other forms of invisible labor.

This perspective changes the interpretation of counseling failure. If a patient has understood a regimen but experiences it as too demanding, providing more information may increase knowledge without reducing workload. The unresolved problem may instead involve the number or timing of tasks, fragmentation across services, travel requirements, administrative complexity, monitoring frequency, or the cumulative interaction between treatment and symptoms. The appropriate counseling response may involve simplification, coordination, prioritization, problem solving, or communication with the prescribing team rather than another explanation of the original instructions.

Treatment burden also cannot be located entirely within the patient. A systematic review examining health-system change found that service organization can influence domains of treatment burden, although the evidence was heterogeneous and confidence in many effects was limited [19]. Measurement research similarly shows that treatment-burden instruments vary in content and psychometric evidence, with continuing gaps in responsiveness and generalizability [20]. These limitations matter because a high burden report should not be interpreted as a fixed personal characteristic. Burden can be produced or amplified by system design, and its expression depends partly on how it is measured.

Point-of-care assessment may nevertheless be feasible. PETS-Now was developed as an electronic tool for use during clinical encounters, and pilot work found high acceptability and frequent identification of information that providers had not previously known about the patient's treatment experience [21]. The study did not demonstrate an improvement in overall care quality, so it should not be used as evidence that burden screening automatically improves outcomes. Its value for the present argument is narrower: patients can report treatment-work problems that routine clinical information exchange may fail to reveal.

For medication counseling, treatment burden is therefore best understood as the experienced workload and impact of carrying out the regimen within the patient's broader care and life context. It differs from comprehension because a patient can know exactly what to do and still find the required work excessive. It differs from preference because a patient may want the treatment but be unable to sustain its demands. It differs from capability because burden reflects not only what the patient can do, but what the treatment and healthcare system ask the patient to do. These distinctions become especially important when treatment is long term, multimorbidity increases cumulative work, or several healthcare processes compete for the same limited time, energy, attention, and resources.

Capability, self-efficacy, and routine fit

Understanding and willingness still do not establish that medication work can be performed reliably. Capability includes the cognitive, physical, organizational, and practical resources needed to obtain, prepare, remember, administer, monitor, and renew treatment. Self-efficacy is relevant to this process, but it should not be treated as interchangeable with adherence. In a large multicentre study of people with chronic disease, self-efficacy was associated with broader self-management behavior but was not independently associated with medication adherence after adjustment [22]. The finding illustrates why confidence in managing illness may coexist with medication-specific difficulties.

Interventions designed to increase patient activation likewise show that improvements in engagement do not guarantee changes in every medication outcome. A systematic review and meta-analysis in chronic kidney disease found improvements in self-management and self-efficacy but limited evidence for improved medication

adherence [23]. Direct research on patient activation and medication adherence has also produced conflicting findings [24]. Activation can therefore represent an important resource without functioning as a universal indicator of medication readiness.

Daily implementation depends additionally on whether treatment can be integrated into existing routines. Qualitative evidence across chronic conditions shows that self-management becomes sustainable through interactions among routines, environmental conditions, family and cultural expectations, clinician communication, and the ability to apply knowledge in ordinary life [25]. Older adults managing multiple medicines describe active decisions about initiating, organizing, modifying, or stopping treatment rather than simply executing instructions mechanically [26]. In multimorbidity, medication-taking is similarly embedded in changing routines, prioritization, accumulated workload, and attempts to preserve normal life [27].

This distinction is especially important because many adherence interventions remain education-centered. A rapid review of interventions for medicine self-management among older people living at home found that educational approaches predominated, whereas comparatively few interventions addressed supply, organizational, or system-level problems [28]. A patient may therefore leave counseling knowledgeable and motivated while still facing a regimen that cannot be executed consistently within available time, dexterity, memory, transport, storage, work patterns, or caregiving responsibilities.

Counseling should consequently ask not only whether the patient knows what to do, but whether the required actions are realistically performable and repeatable. Capability problems call for practical adaptation rather than assumptions about motivation. Routine-fit problems call for examination of when, where, and under what circumstances medication work can occur. The aim is not to certify a patient as globally capable or incapable, but to identify treatment-specific points at which implementation may fail.

Social resources, competing demands, cost, and preference

Medication feasibility is also relational and material. Social support can provide reminders, transportation, emotional encouragement, practical help, and assistance navigating healthcare. In people receiving antiretroviral therapy, social-support interventions have improved adherence, although effects vary by intervention design, support source, and follow-up period [29]. Such findings support social resources as one possible facilitator without implying that every patient requires or desires another person's involvement.

Financial constraints can independently alter implementation. In a nationally representative US survey of adults aged 65 years and older, cost-related medication nonadherence was common and was accompanied by strategies such as delaying purchases and sacrificing other basic needs; many respondents also wanted more information about medication costs [30]. Cost therefore cannot be corrected through clearer dosing instructions. Similar distinctions apply to competing work, caregiving, transportation, privacy, or access demands.

Preference must remain separate from constraint. Shared decision-making evidence shows why participation in treatment decisions is valuable even when adherence itself does not necessarily improve [8]. A person who declines a medication after understanding its expected benefits and harms is analytically different from someone who wishes to take it but cannot afford it. Intentional medication decisions are likewise distinct from execution failures [12]. Practical self-management research further shows that patients make active judgments about how medicines fit their circumstances [26].

A counseling assessment should therefore separate the major domains before selecting a response. **Table 1** summarizes the proposed distinctions.

Table 1. Counseling assessment domains for medication readiness and feasibility

Domain	Core counseling question	Observable indicators
Comprehension	Does the patient understand the treatment sufficiently to use it safely and make an informed decision?	Inaccurate explanation of purpose, dose, timing, precautions, or actions after problems
Emotional meaning	What feelings or meanings does the medicine evoke?	Fear, distress, ambivalence, perceived threat, negative prior experience
Treatment burden	How demanding is the treatment within the patient's total workload?	Fatigue with treatment tasks, excessive monitoring, appointments, administrative or regimen workload

Capability	Can the required medication tasks be performed?	Memory, dexterity, cognitive, organizational, access, or administration difficulties
Daily-work feasibility	Can the regimen be repeated within ordinary routines and competing demands?	Schedule conflicts, unstable routines, work or caregiving interference, storage or transport problems
Preference	Does the patient want to undertake this treatment after considering its trade-offs?	Deliberate refusal, prioritization of another goal, preference for an alternative, unresolved value conflict

Feasibility-sensitive medication counseling

A feasibility-sensitive approach begins from a simple proposition: comprehension, emotional acceptance, burden, capability, routine fit, resources, and preference can influence medication use through different pathways and should not be collapsed into a single readiness score. A patient may understand and value treatment yet be overwhelmed by its workload; another may have adequate resources and capability but remain unwilling because of concerns; a third may be willing but repeatedly encounter practical barriers. These combinations are not stages and need not occur in any fixed sequence.

Figure 1 represents this multidimensional landscape and the possibility that different domain configurations can lead to similar medication-taking behavior.

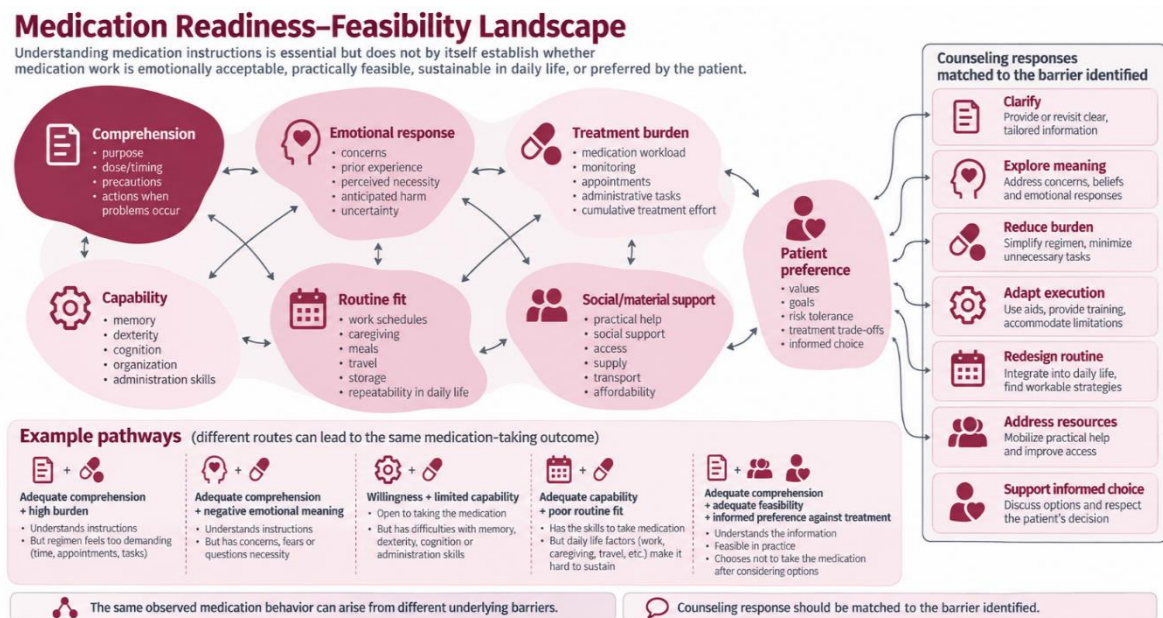


Figure 1. Readiness-feasibility landscape for medication counseling

Table 2 translates the conceptual distinctions into response options without assuming that every barrier requires more education.

Table 2. Counseling responses matched to the barrier revealed

Barrier revealed	Counseling priority	Examples of response direction
Misunderstanding	Restore usable comprehension	Plain-language explanation, teach-back, demonstration, clarification of dosing or precautions
Emotional concern or negative medication meaning	Explore and respond to meaning	Elicit concerns, discuss expectations and prior experience, acknowledge uncertainty, correct specific misconceptions
Excessive treatment burden	Reduce or redistribute workload	Regimen review, simplification, prioritization, coordination with the care team
Limited capability	Adapt execution requirements	Administration aids, accessible instructions, technique support, practical assistance

Poor routine fit	Redesign medication work around daily life	Link dosing to stable routines, reconsider timing, plan for work, travel, caregiving, or variable schedules
Social or material constraint	Address the external resource problem	Cost discussion, access assistance, supply planning, optional support-person involvement
Preference conflict	Support an informed decision	Compare alternatives and trade-offs, clarify values, document preference, revisit decisions when circumstances change

Practice and research implications

For practice, the principal implication is that counseling quality should not be judged solely by information delivered or recalled. Comprehension should still be verified because safe and informed medication use depends on it. Once understanding is adequate, however, continued difficulty should trigger a change in diagnostic question: is the unresolved issue emotional meaning, treatment burden, capability, routine fit, resources, or preference?

This approach also argues against interpreting all nonadherence as a deficit located within the patient. Treatment burden can be created by service design; cost can make an otherwise acceptable regimen impossible; daily routines can conflict with dosing requirements; and a patient may make an informed choice that differs from the clinician's preferred option. Distinguishing these mechanisms supports more proportionate counseling and reduces the likelihood of applying educational solutions to noneducational problems.

Research should test whether brief multidomain assessment improves the identification of actionable barriers beyond existing comprehension or adherence measures. Studies should evaluate whether matching counseling responses to identified barrier profiles changes patient-relevant outcomes, whether different dimensions vary over time, and which domains require direct measurement rather than clinician inference. Outcomes should extend beyond adherence to include treatment burden, informed choice, decisional quality, feasibility, safety, and sustainability of medication work. Importantly, the proposed dimensions should not be prematurely combined into a universal numerical readiness instrument. Their value lies first in preserving distinctions whose explanatory relevance and consequences can be tested and refined.

Conclusion

Comprehension is essential to medication counseling, but understanding a treatment does not establish readiness to perform its work. Medication use is shaped additionally by emotional meaning, beliefs, treatment burden, capability, routine fit, social and material resources, competing demands, and patient preference. These domains can produce similar medication behaviors through different mechanisms and therefore should not be treated as interchangeable indicators of motivation or adherence.

Feasibility-sensitive counseling preserves comprehension assessment while asking what remains unresolved after understanding has been established. It distinguishes inability from burden, burden from unwillingness, and informed preference from implementation failure. The resulting approach is not a staged model or readiness score. It is a testable counseling principle: different barriers should be identified separately because they may require different responses.

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