

Explaining a Medicine, Negotiating Disagreement, and Respecting Refusal Require Different Capabilities: A Taxonomy for Shared Decision-Making in Pharmacy Education and Professional Training

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Abstract

Shared decision-making is commonly taught as a communication competency, yet the work required in medicine-related decisions varies substantially across encounters. Explaining a medicine, eliciting what matters to a patient, negotiating disagreement, accepting an informed refusal, managing uncertainty, and determining whether a decision is closed or should be revisited place different cognitive, relational, ethical, and temporal demands on practitioners. Treating these demands as manifestations of one global communication skill can obscure meaningful differences in learner performance and weaken assessment validity. This conceptual article develops a six-domain shared decision-making capability taxonomy for pharmacy education and professional training. The taxonomy differentiates capabilities according to the immediate decision task, the object on which the practitioner must act, the observable evidence of competent performance, characteristic failure modes, and ethical or contextual limits. The six domains are explaining medicines; eliciting values and priorities; negotiating disagreement; respecting refusal; managing uncertainty and trade-offs; and closing and revisiting decisions. The domains are mutually informative but are not assumed to form a linear hierarchy. Competence in one domain may support another without establishing proficiency across the taxonomy. The proposed account therefore shifts assessment away from undifferentiated ratings of “communication” toward task-matched evidence of decision capability. Its central claim is deliberately testable: if performance across these tasks is effectively unidimensional after knowledge and scenario difficulty are controlled, the value of the taxonomy would be weakened. If meaningful within-learner dissociations persist, pharmacy education requires more differentiated teaching and assessment of shared decision-making.

Keywords: Shared decision-making, Pharmacy education, Medication counselling, Values elicitation, Treatment refusal, Uncertainty

Introduction

Shared decision-making (SDM) is often represented as a coherent consultation process, yet influential accounts

already divide it into distinguishable forms of work. The three-talk model separates the creation of choice awareness from option discussion and decision talk, while broader comparisons of SDM models show substantial variation in how information exchange, preference elicitation, deliberation, role negotiation, and decision agreement are represented [1, 2]. These differences matter educationally because a learner who performs one component competently may not necessarily perform another with the same degree of proficiency.

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The case for SDM in health care is also not reducible to a promise of uniformly superior outcomes. An umbrella review found heterogeneous effects across health outcomes, health-care quality, cost, and consultation time, with results ranging from neutral to favorable depending on the outcome and underlying evidence [3]. A contemporary clinical synthesis likewise characterizes SDM as a complex practice involving multiple clinician and patient activities, contextual barriers, and implementation demands [4]. Competence therefore cannot be inferred simply from the presence of an SDM intervention or from the eventual clinical outcome.

For pharmacy education, the resulting problem is one of specification. Medication-related decisions can require accurate explanation, interpretation of patient priorities, management of discordance, recognition of legitimate refusal, communication of uncertain evidence, and coordination of decisions that may need to be reopened. These activities share conversational resources, but their success conditions differ. The present article develops a capability taxonomy that treats those differences as potentially educationally consequential. Its purpose is not to declare six empirically validated latent traits. It is to establish a sufficiently discriminating conceptual account that can guide teaching, assessment, and subsequent empirical testing.

Why shared decision-making is not one communication skill

A unitary communication label is too broad to identify what the practitioner is actually required to accomplish. Elwyn's analysis of the "work" of SDM distinguishes cognitive, emotional, and relational activity within decision encounters [5]. This matters because the observable behaviors associated with competence can change as the task changes. A pharmacist may accurately describe a medicine yet fail to recognize that a patient values functional independence more than a small change in projected risk. Another may elicit that priority successfully but become coercive when it conflicts with a strongly held professional recommendation.

The limits of a single-skill account are also visible at the construct level. SDM, patient-centered care, and the working alliance overlap, but they do not have identical defining attributes or empirical referents [6]. Warmth, empathy, rapport, and responsiveness can support SDM without establishing that a practitioner has identified the relevant decision, compared meaningful options, understood a patient's priorities, or negotiated the

consequences of disagreement. Conversely, technically competent decision work can occur in an encounter that still has weaknesses in broader relational quality.

Preference itself introduces further complexity. Ethnographic work on long-term treatment decisions suggests that patient preferences may be situated, relational, and shaped during care rather than existing as stable inputs waiting to be extracted [7]. A learner therefore needs more than a script that asks, "What matters to you?" Competence may involve recognizing ambiguity, helping a patient articulate evolving priorities, and noticing when the interaction itself is affecting how alternatives are understood.

Decision characteristics also alter what SDM requires. A systematic review of when SDM is considered appropriate identified differences related to features such as urgency, preference sensitivity, available alternatives, and the distribution of expertise or uncertainty [8]. The educational implication is not that every encounter requires maximal deliberation. It is that a broad communication score can conceal whether a learner adapts correctly to the decision actually present. A taxonomy of capability should therefore distinguish tasks by the work required and by the circumstances under which that work changes.

Conceptual foundations of capability differentiation

Capability differentiation requires criteria deeper than surface conversational style. One foundation concerns the values that SDM is expected to serve. A qualitative synthesis of SDM models identified multiple underlying value commitments rather than a single normative objective [9]. Respect for autonomy, support for informed participation, responsiveness to the person's circumstances, and the relational conditions of decision-making can coexist, but they can also generate different demands. For example, supporting autonomy may require active exploration when preferences are unclear, restraint when an informed refusal is stable, or transparent recommendation when professional judgment remains relevant.

A second foundation is task purpose. Purposeful SDM emphasizes that the consultation should respond to the kind of problem the patient and clinician are trying to solve [10]. This creates a basis for distinguishing capabilities according to their immediate function. Explaining is directed toward making information usable. Eliciting values is directed toward discovering or forming the evaluative criteria relevant to the choice.

Negotiating disagreement is directed toward working through discordance without collapsing professional recommendation into authority. Managing uncertainty is directed toward helping participants act without pretending that indeterminacy has disappeared.

The literature on value clarification illustrates why these distinctions should not be treated as cosmetic. Explicit methods can help people examine the attributes and consequences that matter to them, yet the available approaches vary and do not point to a single universally superior procedure [11, 12]. Values work is therefore better understood as a family of capabilities for making priorities visible and decision-relevant than as the mechanical administration of one elicitation instrument. These foundations support three premises for the taxonomy. First, distinct capability domains should correspond to different decision tasks, not merely different topics of conversation. Second, they should produce at least partly distinguishable evidence of successful performance. Third, the boundaries between domains should become most visible when performance succeeds in one task and fails in an adjacent one. The taxonomy is consequently designed around discriminating observations rather than around a linear sequence of increasingly advanced communication behaviors.

Basis for taxonomy development

Medication-specific SDM evidence supports the need for this discrimination while also warning against overstating it. Interventions for long-term medication therapy vary substantially in content, mechanism, and outcome, and improvements in decisional processes do not translate uniformly into health outcomes [13]. The diversity of intervention designs suggests that “doing SDM” can involve meaningfully different operations, but intervention heterogeneity alone does not prove that six educational capabilities exist.

The first classification criterion is therefore task object: what must the practitioner change, clarify, elicit, interpret, or protect for the decision to progress appropriately? Consultation research shows that natural-

history information and option discussion may be incomplete even when a clinically relevant choice is present [14]. In such a case, the immediate object is informational intelligibility. If information is already understood but the patient's priorities remain unknown, the object has changed.

The second criterion is success evidence. A capability should be distinguishable when competent performance can be observed through a different kind of evidence. The ethical literature on persuasion is useful here because it separates recommendation, influence, and coercive pressure as morally different possibilities [15]. A learner who can identify patient values is not thereby shown to be competent at handling a direct conflict between those values and a professional recommendation.

The third criterion is failure mode. Distinct capabilities should generate different characteristic errors. Uncertainty research demonstrates why this matters: clinicians' tolerance of uncertainty may relate to their own SDM self-efficacy without corresponding directly to patient-reported SDM [16]. Confidence, observed behavior, and patient experience are not interchangeable evidence. A taxonomy becomes useful when it helps identify which form of failure has occurred instead of reducing all weak performance to “poor communication.”

Two further criteria are proposed here. Ethical stopping conditions identify the point at which continuing to persuade, explain, or negotiate would no longer count as better performance. Contextual transfer asks whether competence in one task can reasonably be assumed from competence in another. The proposed six domains satisfy the taxonomy only provisionally: each should remain conceptually distinct only insofar as it can generate different success evidence, error patterns, or ethically relevant decisions in appropriately designed assessments. The classification logic produces several recurrent task states that can be distinguished before any claim is made about learner level or maturity. **Table 1** specifies these task states and the observations that would make one capability demand distinguishable from another.

Table 1. Decision-task discrimination rules for identifying distinct shared decision-making capability demands

Decision-task state	What the practitioner must work on	Observable evidence of competent performance	Characteristic failure if the wrong capability is substituted	Ethical or contextual stopping condition	Adjacent capability most easily confused with it
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Medicine or option remains poorly understood	Meaning, consequences, alternatives, practical use	Patient can accurately interpret decision-relevant information in context	More questions are asked about preferences while the informational basis remains unclear	Explanation should not become information overload or covert persuasion	Values elicitation
Information is understood but what matters remains unclear	Priorities, burdens, goals, acceptable trade-offs	Decision-relevant values become sufficiently explicit to inform comparison	Practitioner assumes preferences from demographics, adherence history, or prior choices	Elicitation should not force artificial certainty where values are genuinely unsettled	Explaining medicines
Relevant priorities are known but clinician and patient remain in material disagreement	Reasons for discordance and possibilities for accommodation	Differences are examined without misrepresentation, threat, or premature closure	Repetition of facts is used as a substitute for deliberation, or persuasion becomes coercive	Negotiation must stop when further pressure would undermine voluntary choice	Respecting refusal
Patient gives an informed and decisionally capable "no"	Legitimacy, consequences, safety planning, future access to care	Refusal is understood, documented or acted upon appropriately, and not treated automatically as communication failure	Practitioner keeps negotiating solely to secure concordance	A capable, informed refusal can be an acceptable decision state	Negotiating disagreement
Choice remains materially affected by uncertain evidence or competing benefits and harms	Uncertainty, probabilities, reversibility, trade-offs	Practitioner communicates what is known, unknown, and preference-sensitive without false precision	Uncertainty is hidden, converted into false certainty, or transferred entirely to the patient	Closure should be conditional when material uncertainty remains decision-relevant	Closing and revisiting decisions
A provisional decision has been reached but may change with time, response, context, or new information	Decision status, contingency, triggers for review	Participants understand what has been decided, what remains open, and when reconsideration is warranted	Encounter ends without clarifying whether the choice is final, provisional, or contingent	Reopening is unnecessary when no clinically or preference-relevant trigger exists	Managing uncertainty and trade-offs

Note: The table represents the article's proposed analytical synthesis. It is intended to define discriminating assessment observations, not validated diagnostic thresholds or a sequential competence scale.

Capability domain 1: Explaining medicines

Explaining medicines concerns the practitioner's ability to make decision-relevant information intelligible, usable, and appropriately bounded. Technology-supported SDM studies frequently include functions such as information provision, clarification, and presentation of options, although the distribution of those functions between clinician, patient, and tool varies markedly [17]. Explanation therefore includes more than delivering facts. The practitioner must select which information matters for the decision, express it in a form the patient can use, check interpretation, and distinguish established knowledge from uncertainty.

Pharmacy adds a distinctive practical dimension because medicines are experienced through dosing routines, monitoring, administration, side effects, costs, treatment burden, and interactions with everyday life. Work on co-produced resources for high-risk medicines shows how communication materials can be deliberately redesigned to improve the intelligibility of complex medication

information [18]. Such work supports the educational importance of explanation while also defining its boundary. A learner who gives an accurate explanation has demonstrated competence in Domain 1 only. The performance provides no automatic evidence that the learner can discover what consequences matter most to the patient, respond appropriately to disagreement, or recognize when continued persuasion should stop.

The domain should therefore be assessed through tasks in which informational success can be observed independently. Appropriate evidence may include accurate framing of options, explanation of consequences without distortion, adaptation to the patient's level of understanding, checking of interpretation, and communication of practical medicine-use implications. Assessment should penalize both factual inaccuracy and apparently polished explanations that remain unusable for the actual decision.

Domain 2: Eliciting values and priorities

Values elicitation begins when the relevant decision cannot be resolved by information alone. The practitioner must identify which outcomes, burdens, routines, risks, identities, or life priorities the patient considers consequential. Mixed-method development work demonstrates that values can be made more explicit through structured tools combined with communication support [19]. The important educational point is not the particular tool. It is that values work constitutes an identifiable task whose success depends on what becomes understood about the patient's evaluative position.

The capability is interpretive as well as inquisitive. Asking about priorities does not guarantee that meaningful values have been elicited, particularly when preferences are emerging, internally conflicting, or difficult to articulate. Systematic evidence on values-clarification methods indicates that several approaches may help people examine what matters, without establishing one universally superior technique [11]. This supports assessment designs that focus on whether the learner makes relevant priorities decision-usable rather than whether a preferred script or instrument is followed. Competent performance can therefore include recognizing that a patient's stated preference does not yet reveal the reason behind it, distinguishing values from misunderstandings that require further explanation, and identifying where competing priorities remain unresolved. The domain ends where material discordance begins to require active negotiation. A pharmacist may understand the patient's values completely and still face a disagreement about the action those values should support.

Domain 3: Negotiating disagreement

Negotiating disagreement is required when the practitioner and patient understand the relevant issue but remain materially apart about what should be done. This domain involves reasons, recommendations, relational influence, and the possibility of accommodation. Evidence concerning clinicians' use of persuasion is particularly important because it exposes the ethical difference between helping a person reconsider a position and exerting pressure until the desired choice is obtained [15]. Educational competence therefore cannot be defined by eventual agreement.

The task also requires sensitivity to the fact that a patient's position may evolve within the encounter. Preferences can be shaped by relationships, prior

experiences, perceived obligations, and the way options are framed [7]. A learner must consequently determine whether apparent disagreement reflects a factual misunderstanding, a genuine difference in values, fear, mistrust, treatment burden, or an alternative interpretation of acceptable risk. Each possibility creates different conversational work.

Assessment should therefore observe how the learner handles persistent discordance after information and priorities have been sufficiently clarified. Evidence of competence includes representing the patient's reasoning accurately, explaining the professional recommendation without exaggerating its authority, exploring whether accommodation is possible, and protecting voluntariness. A learner who simply repeats evidence more emphatically may demonstrate additional explanation but not negotiation. A learner who achieves concordance through pressure may achieve the desired decision while failing the capability.

Domain 4: Respecting refusal

Respecting refusal becomes distinct when continued negotiation is no longer the principal educational objective. Patients differ in how actively they wish to participate in decisions; some prefer to defer, others to share responsibility, and others to drive the choice more directly [20]. These differences caution against treating one style of participation as the universal marker of successful SDM. They also create the conceptual space for a patient to understand the recommendation, engage sufficiently with the reasons for it, and still decline.

An informed refusal is therefore not automatically evidence that explanation, values elicitation, or negotiation has failed. The educational challenge is to determine whether the refusal is sufficiently informed, voluntary, and made within the relevant decision-making conditions. Where those conditions are met, competence may require accepting a decision that the pharmacist would not personally recommend. Continuing to apply influence solely because agreement has not been achieved risks converting professional commitment into coercive persistence [15].

The domain remains bounded by context. SDM is not regarded as equally applicable in all decisions, and factors such as urgency, the existence of reasonable alternatives, the degree of preference sensitivity, and the patient's decisional capacity can alter what respect for refusal requires [8]. The taxonomy therefore does not treat every "no" as beyond inquiry. A refusal grounded

in a correctable misunderstanding may return the encounter to explanation; one grounded in unarticulated concern may require values elicitation; one reached after meaningful deliberation may require acceptance and safety planning.

This distinction has direct implications for assessment. Learners should be tested on whether they can identify when a refusal remains a problem to understand and when it has become a legitimate decision state to respect. The decisive observation is not whether the patient changes their mind. It is whether the learner responds proportionately to the reasons, capacity, voluntariness, and clinical context that make continued negotiation appropriate or inappropriate.

Domain 5: Managing uncertainty and trade-offs

Some medicine decisions remain difficult after information has been explained, values have been elicited, and no ethical problem of refusal exists. The unresolved difficulty may lie in the evidence itself. Probabilities may be imprecise, benefits and harms may be closely balanced, individual response may be unpredictable, or several outcomes may matter in ways that cannot be reduced to a single optimal choice. Recent conceptual and empirical work shows that uncertainty can initiate SDM, permeate the consultation, and remain relevant after deliberation has begun [21].

Managing such uncertainty is more demanding than merely stating that “the evidence is unclear.” The pharmacist must distinguish known from unknown information, communicate the implications of uncertainty without creating false precision, and help the patient reason about trade-offs whose importance depends on personal priorities. The practitioner may also need to explain whether a decision is reversible, whether monitoring can reduce uncertainty, and what new information would justify reconsideration.

Uncertainty competence should not be inferred from professional confidence. Clinician uncertainty tolerance has been associated with some self-reported SDM perceptions without showing an equivalent relationship with patient-reported SDM in the same evidence base [16]. This dissociation reinforces the taxonomy's core principle: confidence, generic communication quality, and task-specific competence are different forms of evidence.

Assessment in this domain should therefore expose learners to decisions in which the uncertainty cannot simply be removed by retrieving one more fact. Strong

performance would show calibrated communication of evidentiary limits, explicit connection between uncertain outcomes and patient priorities, and resistance to premature certainty. Weak performance may take the form of concealing uncertainty, transferring the burden of an unexplained choice entirely to the patient, or treating one professional recommendation as if it were the only rational response to legitimately competing trade-offs.

Domain 6: Closing and revisiting decisions

Shared decision-making does not end simply because a choice has been voiced. A clinically usable decision also requires clarity about its status: whether it is final for the present circumstances, provisional, contingent on monitoring, or intentionally open to reconsideration. Evidence from a randomized trial of an SDM intervention in atrial fibrillation illustrates why process completion and subsequent outcomes should not be treated as interchangeable indicators of decision quality [22]. Completing recognizable SDM activities does not guarantee that every downstream objective has been achieved.

Medication decisions are particularly susceptible to temporal change. Focused ethnographic work across transitions of care found that decisions about changing medicines could span professional boundaries and settings, with patients and families sometimes becoming involved only after important choices had effectively been made [23]. For pharmacy practice, this means that closing a conversation without clarifying what can later be reconsidered may create an appearance of completion while leaving the patient uncertain about how to respond to new symptoms, changing priorities, treatment burden, or new clinical information.

Capability in this domain therefore includes identifying the present decision state, communicating contingencies, and specifying meaningful triggers for review. It differs from uncertainty management because a decision can be reasonably closed despite residual uncertainty, and it differs from refusal because revisiting does not presume that the earlier decision was deficient. Competent closure provides enough stability for action while preserving an appropriate route back into deliberation when circumstances change.

Developmental relationships across domains

The six capabilities should not be arranged as a staircase in which explanation is mastered first and refusal or

uncertainty represents an advanced final stage. The underlying work of SDM is cognitively, relationally, and emotionally heterogeneous [5]. Development is therefore more plausibly represented as partially connected trajectories in which competence can transfer across tasks while still showing meaningful dissociation.

Some dependencies are relatively intuitive. Inadequate explanation can obstruct values elicitation because patients cannot evaluate consequences they do not understand. Poor values elicitation can also make disagreement difficult to interpret because the practitioner may not know whether discordance reflects misunderstanding, different goals, or different evaluations of the same outcomes. These dependencies nevertheless do not establish equivalence. A learner may explain options fluently and still apply excessive pressure when the patient refuses.

Uncertainty provides an especially important cross-domain influence. It can alter what must be explained, make values more difficult to prioritize, intensify

disagreement, or transform an apparently closed choice into a provisional one [21]. Yet uncertainty remains analytically distinct because the practitioner can communicate uncertainty competently while performing another domain poorly. Similarly, a patient's decision can change across care transitions even where the initial conversation was well conducted [23].

The developmental implication is selective interdependence rather than cumulative mastery. Differences between practitioner confidence and patient-reported SDM further caution against assuming that global self-efficacy indicates equivalent performance across domains [16]. Process and outcome can also dissociate [22]. Learner development should consequently be examined through repeated task sampling rather than through a single global progression score.

These relationships are summarized in **Figure 1**, which represents developmental influence without converting the six capabilities into a compulsory sequence.

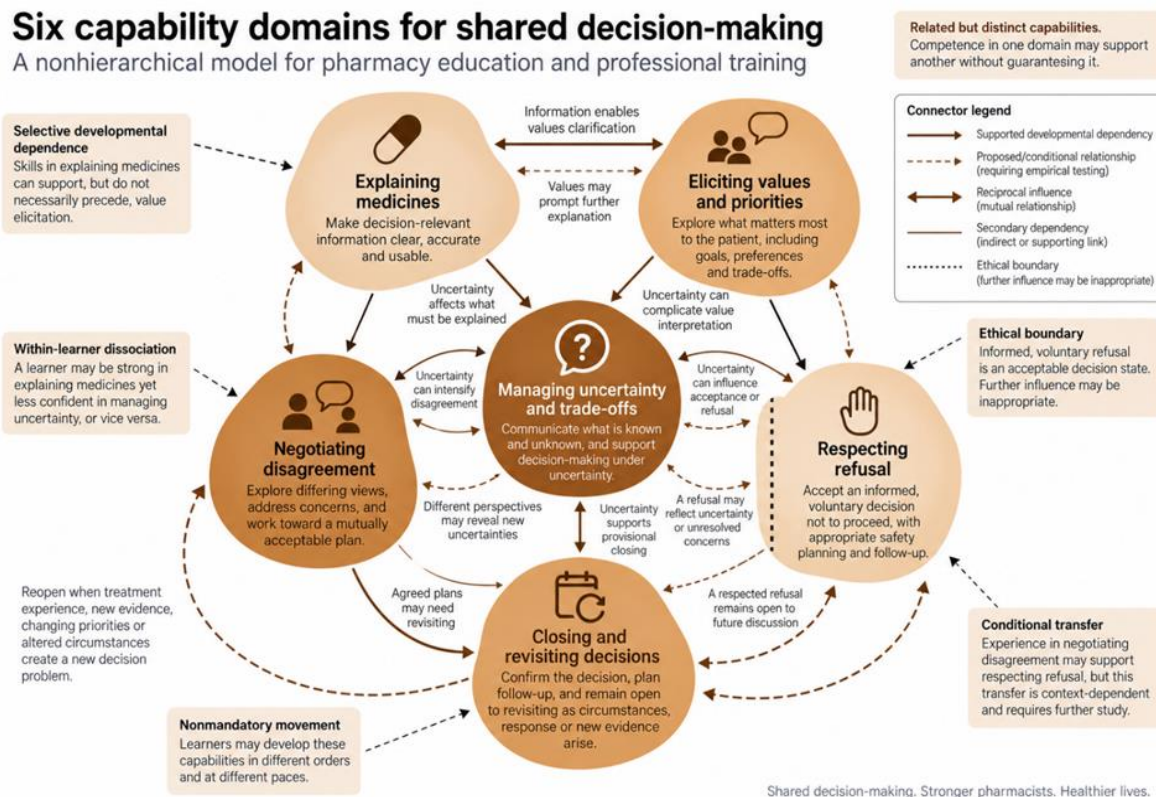


Figure 1. Selective developmental interdependence among six shared decision-making capabilities

The lattice implies several different developmental configurations rather than one “competent versus

incompetent” distinction. **Table 2** translates those configurations into assessment-relevant interpretations.

Table 2. Developmental configurations produced by uneven capability growth across shared decision-making tasks

Developmental configuration	Pattern across tasks	What the pattern suggests	Educational response	Interpretation to avoid
Informational strength with deliberative weakness	Strong explanation; weak values/disagreement performance	Transfer from knowledge communication is incomplete	Add values and discordance tasks	“Good communicator overall”
Values sensitivity with weak boundary control	Priorities identified; pressure persists during disagreement/refusal	Ethical use of influence requires separate development	Train disagreement and refusal cases	Treating concordance as success
Uncertainty bottleneck	Performance deteriorates when evidence becomes indeterminate	Capability depends on handling epistemic limits	Use uncertain and trade-off-rich cases	Mistaking confidence for competence
Context-dependent capability	Strong performance in one setting, weak transfer to another	Application may depend on role, medicine, urgency, or setting	Sample capability across contexts	Assuming one successful station establishes general mastery
Provisional integration	Several domains function together but closure/revisiting is weak	Immediate deliberation exceeds temporal decision management	Add contingency and follow-up design	Treating an agreed choice as finished competence
Selectively integrated profile	Domains combine appropriately without uniform strength	Competence can be sufficient despite uneven development	Target remaining task-specific gaps	Forcing a single maturity stage

Note: These configurations are proposed interpretive patterns for educational testing, not validated learner categories.

Mapping the taxonomy to pharmacy education and assessment

Current SDM education does not provide strong grounds for assuming that one teaching format or one global score adequately represents competence. Reviews of SDM training show considerable heterogeneity in educational design, educational quality, and the degree to which SDM is integrated with broader evidence-based practice [24-26]. The taxonomy therefore suggests a different starting point: define the decision task first and select teaching and assessment methods that make the relevant capability observable.

Assessment design should also distinguish the level at which an outcome is measured. Evaluations of professional SDM training have used substantially different targets, from learner reactions and knowledge to behavior and wider care outcomes [27]. These levels answer different questions. A learner may know the principles of respecting refusal while failing to demonstrate restraint in a difficult simulated encounter; conversely, a strong observed performance does not establish durable transfer across settings.

Curricular visibility is another concern. Undergraduate health-professions programs may include SDM implicitly rather than specifying it as a clearly assessable set of practices [28]. Pharmacy curricula can reduce this

ambiguity by making each decision task explicit while retaining their relationships. The goal is not six isolated modules. It is sufficient task variation to determine whether learners can recognize which capability a medicine-related decision actually requires.

This approach fits evidence that pharmacists' clinical decision-making itself is iterative and composed of multiple interacting cognitive processes rather than a strictly linear sequence [29]. Pharmacy assessment should therefore include cases that require movement among information appraisal, patient interaction, professional judgment, implementation, and reconsideration. A single polished counselling encounter cannot sample that breadth.

Observable language also matters, but it should be interpreted cautiously. Analysis of simulated pharmacy SDM encounters shows that linguistic strategies such as hedging and intensification vary across interactions and performance [30]. Such behaviors can contribute useful assessment evidence, but their frequency should not become a surrogate for competence. The same phrase may appropriately communicate uncertainty in one encounter and undermine clarity in another.

Table 3 specifies how the taxonomy can be sampled without assuming that one instrument or scenario validates the entire construct.

Table 3. Pharmacy assessment tasks required to distinguish the six shared decision-making capabilities

Capability to be sampled	Scenario feature that must be present	Primary observable performance	Deliberate contrast built into assessment	Evidence that should not be treated as sufficient alone
Explaining medicines	Clinically relevant information is complex or easily misunderstood	Makes consequences and options intelligible and checks interpretation	Patient understands information but has not stated priorities	Accuracy or fluency alone
Eliciting values and priorities	Two reasonable options differ on outcomes meaningful to the patient	Surfaces and interprets decision-relevant priorities	Information is already understood	Number of open questions asked
Negotiating disagreement	Patient and pharmacist hold materially different positions	Explores reasons and recommendation without coercion	Values are already sufficiently clear	Eventual agreement
Respecting refusal	Patient gives an informed, voluntary refusal	Distinguishes further clarification from inappropriate pressure	Refusal follows adequate understanding	Patient changing to the pharmacist's preferred option
Managing uncertainty and trade-offs	Evidence is genuinely incomplete or outcomes compete	Communicates limits, trade-offs, and conditional reasoning	No additional fact can remove all uncertainty	Apparent confidence
Closing and revisiting decisions	Decision may change with response, monitoring, new evidence, or priorities	Clarifies present decision status and review triggers	Immediate deliberation has already occurred	A documented choice without contingency planning

Note: The table proposes a task-sampling blueprint. It does not claim that existing pharmacy assessment instruments have validated six independent psychometric dimensions.

Boundary cases

Boundary cases are necessary because capability distinctions become misleading if every encounter is assumed to require the same degree of deliberation. Decision characteristics can constrain the appropriateness or feasible extent of SDM [8]. Immediate threats, absence of meaningful alternatives, impaired decision-making capacity, or legal and institutional constraints may alter which domain is primary and how far a patient's preferred role can determine the process.

A second boundary concerns participation itself. Patients may legitimately prefer different levels of decisional responsibility [20]. Low desired participation should not automatically be interpreted as failed values elicitation or insufficient empowerment. The practitioner still needs to determine whether the patient understands the choice and whether delegation reflects preference rather than avoidable exclusion.

The most important boundary for this taxonomy lies between disagreement and refusal. Professional recommendation remains legitimate, but persuasive activity can raise ethical concerns when influence becomes disproportionate to the patient's voluntary decision [15]. The taxonomy therefore treats refusal as a genuine capability domain precisely because successful

performance may culminate in an outcome the pharmacist would not have selected.

These cases also delimit the taxonomy's generalizability. The six domains should be applied only where the relevant decision work is actually present. They are not requirements that every medicine encounter must display in full.

Results and Discussion

The taxonomy advances a specific claim: shared decision-making competence in pharmacy should be examined through distinguishable decision tasks rather than inferred from one global communication construct. The evidence supporting this claim is indirect but convergent. SDM interventions produce heterogeneous outcomes [3]; neighboring constructs such as patient-centered care and working alliance overlap without being identical [6]; decision characteristics modify what SDM requires [8]; and uncertainty can alter the process throughout deliberation [21]. Together, these findings make a differentiated account plausible without establishing that six independent latent traits have already been demonstrated.

The strongest rival explanation is simpler. The apparent domains may reflect one general relational-communication capability expressed under scenarios of different difficulty, medicine knowledge, ethical complexity, or uncertainty. The taxonomy should therefore survive only if task-specific performance contributes information beyond those alternative explanations. A useful empirical test would compare the same learner across deliberately crossed scenarios while holding factual complexity as constant as practicable. Persistent within-learner dissociations would support differentiation. Near-unidimensional performance with little incremental value from task-specific scores would weaken it.

The proposed taxonomy also changes what counts as educational success. Agreement is insufficient because competent negotiation can end without concordance. Patient satisfaction is insufficient because a warm interaction may contain incomplete decision work. Confidence is insufficient because uncertainty tolerance and patient-experienced SDM need not move together. Even successful execution of an SDM intervention cannot establish that every downstream outcome will improve. Assessment therefore needs evidence matched to the capability being claimed.

The article has important limitations. Direct pharmacy-specific evidence is uneven across domains. Explanation, clinical reasoning, communication, and educational assessment are comparatively well represented, whereas the distinction between negotiating disagreement and respecting refusal draws more heavily on cross-professional ethical and SDM literature. The taxonomy also remains a conceptual synthesis rather than a validated measurement model. Its boundaries may change when tested across community, hospital, ambulatory, specialist, and interprofessional pharmacy contexts.

Those limitations create a research agenda rather than a reason to preserve an undifferentiated construct. Future work should develop task-matched scenarios, examine whether domain scores show discriminant and incremental validity, test transfer across settings, and study whether targeted instruction improves a weak capability without producing equivalent changes in adjacent domains. Longitudinal designs would be particularly valuable because the developmental account predicts selective transfer, bottlenecks, and revisiting rather than uniform progression.

The practical implication is equally specific. Pharmacy programs need not abandon global judgments of communication quality, but such judgments should not carry claims they cannot substantiate. When an educational decision depends on whether a learner can negotiate disagreement, respect informed refusal, or manage irreducible uncertainty, those capabilities should be observed directly.

Conclusion

Shared decision-making in pharmacy requires related but potentially distinguishable forms of capability. Explaining medicines, eliciting values, negotiating disagreement, respecting refusal, managing uncertainty and trade-offs, and closing or revisiting decisions differ in their immediate task, observable success conditions, characteristic failures, and ethical boundaries. Competence in one may support another without guaranteeing it.

The six-domain taxonomy therefore offers a testable alternative to treating shared decision-making as one global communication skill. Its value depends on empirical discrimination rather than on conceptual neatness. If learners show meaningful task-specific dissociations after knowledge, scenario difficulty, and context are considered, pharmacy education should teach and assess these capabilities separately enough to make those differences visible. If such dissociations disappear under rigorous testing, the taxonomy should be revised toward the simpler account.

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