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Review Article

Patient Expectation Shaping in Healthcare: A Conceptual Mind Genomics Framework for Understanding Heterogeneous Patient Responses

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Abstract

Patient expectation shaping refers to how patients may form, interpret, and adjust expectations across healthcare encounters. Expectations may concern anticipated outcomes, clinicians, communication, information, and the healthcare experience, while patients may differ in the aspects of care they value most. This paper presents a conceptual Mind Genomics framework for examining how such differences may be reflected in the interpretation of expectation-shaping features in healthcare. Drawing on themes related to patient expectations, communication, information, emotional needs, trust, participation, and the broader patient journey, the framework develops four illustrative mindsets: Reassurance Seekers, Precision Seekers, Personalization Seekers, and Autonomy Preservers. Eight expectation-shaping issues are examined across these four response patterns, including pre-visit communication, information content and clarity, tone of communication, expectation framing, handling of uncertainty, arrival and first contact, care environment and physical experience, and ongoing communication and follow-up. The proposed mindsets are conceptual rather than empirically established and are intended to illustrate possible forms of patient heterogeneity rather than define fixed patient groups. Six illustrative opportunities for future investigation are presented, focusing on expectation-aligned pre-visit communication, expectation–reality alignment, personalized expectation communication, trust-centered communication, expectation journey mapping, and proactive expectation management. The paper positions expectation shaping as a potential framework for moving from broad observations about patient expectations toward experimentally testable questions about how different patients may interpret the same communication and experience-related features. Future Mind Genomics research can test whether the proposed response patterns emerge and whether differentiated expectation-related communication is meaningfully associated with patient trust, satisfaction, engagement, anxiety, or overall patient experience.

Keywords: Patient expectations, Expectation shaping, Mind genomics, Patient communication, Patient experience, Healthcare communication

Introduction

Patient expectations are an important part of how healthcare encounters are understood and evaluated. Expectations have been described as beliefs concerning future events or experiences and may relate to anticipated health outcomes, clinicians, and the healthcare system. These three broad domains of patient expectations were identified, while the specific nature of expectations varied according to individual patient circumstances, and understanding patient expectations was considered relevant to patient-centered care [1]. Expectations may also be conceptualized as benchmarks against which patients assess healthcare encounters and may be shaped by previous healthcare experiences, social environments, personal characteristics, values, and broader contextual factors [2]. Together, these perspectives suggest that patient expectations are not necessarily fixed or uniform, but may develop within individual and contextual circumstances.

Communication provides an important context in which expectations can be expressed, understood, clarified, and addressed. A systematic review of patients' experiences communicating with primary care physicians identified both positive and negative dimensions of communication and highlighted the influence of cultural, linguistic, and micro-cultural factors on how communication is experienced [3]. Multiple communication factors associated with patient satisfaction have also been identified, including interpersonal and emotional dimensions such as interest, caring, emotional support, and patient autonomy [4]. These findings suggest that communication in healthcare extends beyond the transfer of clinical information; it is also part of the interpersonal experience through which patients interpret and evaluate care. The period before a healthcare visit may be particularly important because patients may already hold expectations, concerns, and information needs before the clinical encounter begins. Direct evidence for the relevance of this pre-visit period comes from an outpatient quality-improvement study. Patients who communicated their expectations in writing before the visit and whose expectations were subsequently addressed reported higher satisfaction and greater agreement that their expectations had been met [5]. This finding supports the relevance of communicating and addressing patient expectations before a visit, while not establishing that all patients respond to expectation-related communication in the same way.

Research concerning pre-care information further illustrates the importance of how information is communicated and experienced. Preoperative information could have direct and indirect relationships with patients' fear and anxiety, while excessive information could increase fear or anxiety for some patients; person-centered care and providing an appropriate amount of information according to patients' wishes were therefore emphasized [6]. Attention to patients' emotional needs and maintaining communication during emergency care were similarly identified as factors associated with satisfaction [7]. These findings suggest that expectation-related communication may involve a balance among information, emotional support, and individual needs rather than simply increasing the amount of information provided. Trust represents another important dimension of the relationship between communication, expectations, and patient experience. Communication skills, active listening, empathy, patient participation, attention to questions and uncertainties, and appropriate management of expectations have been identified as relevant features of trust development in newly established physician–patient relationships [8]. Relationships among functional quality, communication, trust, and patient satisfaction have likewise been reported, with clear and empathetic communication contributing to better patient experiences [9]. Relationships among patient experience, patient trust, and willingness to seek care have also been identified, suggesting that patient experience may extend beyond immediate satisfaction to influence subsequent healthcare-related attitudes and intentions [10].

Patient experience also extends across multiple stages of the care journey rather than being confined to the clinical consultation itself. Communication, empathy, active listening, cultural responsiveness, information exchange, and continuity across different patient touchpoints have been emphasized as important aspects of patient experience [11]. This broader perspective is consistent with the expectation literature, in which patients may enter healthcare encounters with different expectations and subsequently interpret different aspects of the care experience through those expectations. Expectations concerning multiple aspects of healthcare, including outcomes, clinicians, and the healthcare system, may also vary according to individual circumstances [1]. Taken together, the literature provides a strong conceptual basis for considering patient expectations, communication, trust, and experience as interconnected aspects of the healthcare encounter. At the same time, these studies raise an important question concerning heterogeneity in patient responses. Patients may differ in what they expect, what information they seek, how much information they prefer, how they experience communication, and which aspects of an encounter are most important to them. The existing literature therefore provides substantial evidence about the importance of expectations and communication, but does not establish a single uniform pattern through which all patients interpret expectation-related communication.

This creates an opportunity to examine patient expectation shaping as a multidimensional psychological and experiential process. Rather than assuming that a single communication approach will be appropriate for all patients, the present paper considers whether different patients may interpret the same expectation-related features in different ways. Particular attention is given to pre-visit communication, information clarity, attention to individual expectations and preferences, trust, patient participation, and communication across the care encounter. Accordingly, this paper presents a conceptual framework for examining the psychology of patient expectation shaping through four illustrative response profiles. These profiles are intended to represent possible ways in which patients might differ in their interpretation of expectation-

related communication and care experiences; they are hypothetical and are not presented as empirically established patient segments. The framework is intended to provide a structured basis for considering how different expectation-related features might be examined in future empirical research and how such research could potentially contribute to more appropriately tailored approaches to pre-visit communication, trust, and patient experience.

Canonical Design

This paper follows the Mind Genomics canon. We do not discuss coefficients or elements. Instead, we explore the topic through four illustrative mindsets, each representing a distinct way patients might interpret and respond to expectation-related features of healthcare communication and experience. The goal is to reveal possible structures of patient thinking and to provide a conceptual basis for future empirical investigation.

Introducing the Topic and the Mindsets

Patient expectation shaping may be interpreted differently by different types of patients. Some patients may place greater importance on reassurance and emotional support, others on clarity and precision, others on recognition of their individual expectations and preferences, and others on participation and autonomy. These profiles are conceptually informed by the expectation-related themes discussed in the Introduction, including communication, information clarity, individual expectations and preferences, trust, patient participation, and continuity across the care encounter. The four mindsets presented in this paper are therefore illustrative rather than empirically discovered. They are intended to demonstrate how the same expectation-related feature might be interpreted differently by different patients. Their purpose is not to claim that patients can be definitively classified into these four groups, but to provide a conceptual structure that can be examined and potentially refined through future empirical research.

Mindset Table Introduction

The table below presents eight issues relevant to patient expectation shaping and how each of the four illustrative response patterns might interpret them. Each cell describes how a hypothetical response pattern may perceive and respond to the issue. The table synthesizes expectation-related themes identified in the literature discussed in the Introduction and illustrates how the same expectation-shaping feature might be interpreted differently by different patients. These response patterns are conceptual and illustrative rather than empirically identified patient mindsets (Table 1).

Expectation-shaping issue	Mindset A: Reassurance Seekers	Mindset B: Precision Seekers	Mindset C: Personalization Seekers	Mindset D: Autonomy Preservers
1. Pre-visit Communication	They value communication that reduces apprehension and helps them feel prepared. A calm and supportive approach may strengthen confidence.	They value clear, understandable information about what will happen and what is expected of them. Ambiguity may make preparation more difficult.	They value communication that acknowledges their individual concerns and expectations rather than treating every patient identically.	They value having relevant information without feeling pressured or overwhelmed by communication.
2. Information Content & Clarity	They prefer information that is understandable and reassuring rather than information that increases worry.	They place particular value on clear, specific and comprehensible information. They may be less comfortable when important details remain unclear.	They value information that addresses the concerns that matter specifically to them. Generic information may feel less useful.	They value access to understandable information that allows them to make sense of the situation and decide how much further information they want.
3. Tone of Communication	Warmth, empathy and attentive listening may make communication feel safer and more supportive.	Clear, structured and non-jargon communication may help them form accurate expectations.	Individualized and attentive communication may signal that their concerns have been recognized.	Respectful communication that does not unnecessarily intrude may be more comfortable for them.
4. Expectation Framing	They may respond positively when expectations are framed realistically while providing reassurance about the care process.	They may prefer expectations that are explicit and aligned closely with what the healthcare service can actually provide.	They may respond better when expectations are discussed in relation to their individual needs and concerns.	They may prefer realistic expectations that leave room for personal choice rather than prescribing a single experience for everyone.
5. Handling of Uncertainty	They may particularly value reassurance, empathy and acknowledgement of their concerns when outcomes or timing cannot yet be known.	They may prefer whatever concrete information is available, including timelines, next steps and what remains uncertain.	They may value uncertainty being explained in relation to their own situation rather than through a generic response.	They may prefer uncertainty to be communicated transparently while retaining control over decisions and participation.
6. Arrival / First Contact	A welcoming, respectful first interaction may immediately reduce apprehension and establish emotional confidence.	They may value efficient orientation and clear information about what happens next.	They may value being listened to and having their individual concerns recognized from the beginning.	They may prefer an initial interaction that is respectful and helpful without unnecessary interference.

Expectation-shaping issue	Mindset A: Reassurance Seekers	Mindset B: Precision Seekers	Mindset C: Personalization Seekers	Mindset D: Autonomy Preservers
7. Care Environment & Physical Experience	A predictable, respectful and comfortable environment may contribute to a sense of safety.	They may value an environment in which procedures, waiting processes and practical arrangements are clear and reliable.	They may notice whether the environment and service appear responsive to patient needs and circumstances.	They may value convenience and an environment that supports participation without creating unnecessary dependence.
8. Ongoing Communication & Follow-up	Continued communication may reinforce reassurance and confidence, particularly when patients remain uncertain about what happens next.	They may value clear updates about progress, instructions, next steps and follow-up arrangements.	They may value follow-up that addresses their individual questions and evolving concerns.	They may value having access to follow-up information while retaining choice over when and how they engage with the service.

Illustrative Opportunities for Future Application

The response profiles presented in Table 1 are hypothetical and intended only as conceptual examples of how patients might differ in their responses to expectation-shaping features. The themes represented in the table were conceptually informed by the expectation-, communication-, trust-, and patient-experience-related literature discussed in the Introduction. The following opportunities therefore illustrate potential areas for future investigation rather than evidence-based recommendations or empirically validated strategies.

Six Illustrative Opportunities for Future Investigation

Opportunity 1: Expectation-Aligned Pre-Visit Communication

a. Explore communication approaches that address different expectation-related needs.

b. Illustratively vary tone, clarity, information content, and supportive framing.

c. Examine whether different communication combinations produce different patient responses.

d. Test whether any observed response patterns are associated with trust or patient experience.

Opportunity 2: Expectation–Reality Alignment

a. Explore how clearly communicating what patients can expect may influence their subsequent experience.

b. Illustratively examine information about procedures, timelines, and next steps.

c. Consider whether clearer expectations reduce avoidable expectation–experience discrepancies.

d. Test these relationships empirically rather than assuming that alignment improves outcomes.

Opportunity 3: Personalized Expectation Communication

a. Explore whether communication tailored to individual concerns and information needs produces different responses.

b. Illustratively vary the degree of personalization in pre-visit communication.

c. Examine whether patients respond differently to individualized versus more standardized communication.

d. Determine empirically whether personalization is particularly relevant to any response-based mindset.

Opportunity 4: Trust-Centered Communication

a. Explore combinations of empathy, active listening, respectful communication, and clear information.

b. Illustratively examine how these features may shape expectations before and during care.

c. Investigate whether different combinations are associated with different trust-related responses.

d. Treat any observed relationships as empirical findings to be tested, not assumed effects.

Opportunity 5: Expectation Journey Mapping

a. Explore expectation-shaping cues across multiple stages of the patient journey.

b. Consider pre-visit communication, first contact, information exchange, and follow-up as connected touchpoints.

c. Identify where expectations may be clarified, reinforced, or potentially disrupted.

d. Use future empirical studies to examine whether different touchpoints contribute differently to patient experience.

Opportunity 6: Proactive Expectation Management

a. Explore whether relevant information can be provided before uncertainty or misunderstanding develops.

b. Illustratively examine proactive clarification, reassurance, and follow-up communication.

c. Consider whether different patients respond differently to proactive versus minimal communication.

d. Test these possibilities empirically before drawing conclusions about their effects on anxiety, trust, satisfaction, or

engagement.

Discussion

Patient expectations are an important component of the healthcare experience and may vary according to patients' individual circumstances. Previous qualitative research has shown that patients conceptualize expectations across multiple domains, including health outcomes, individual clinicians, and the healthcare system, while also demonstrating variation in expectations across individual circumstances [1]. Communication and interpersonal interactions may further contribute to how patients experience and evaluate care, with patients' perceptions influenced by factors such as the quality and manner of communication and the interpersonal context of the encounter [3]. Building on these observations, the present framework brings together expectation-related and communication-related themes to consider how patients may differ in what they value during healthcare encounters. The four illustrative response patterns provide one possible conceptual organization of this heterogeneity. Reassurance Seekers represent patients who may place greater importance on emotional support, warmth, empathy, and communication that helps reduce apprehension. Precision Seekers represent a possible pattern in which clarity, understandable information, explicit expectations, and dependable information may be particularly important. Personalization Seekers represent patients who may place greater value on recognition of their individual concerns, expectations, and information needs. Autonomy Preservers represent a possible pattern in which patients may value relevant information and participation while also retaining control over decisions and communication. These profiles should be interpreted as conceptual response patterns rather than empirically established patient groups. Their purpose is to provide a structure for considering possible forms of patient heterogeneity that can subsequently be examined through empirical research.

The framework also extends attention to the period before and beyond the immediate clinical encounter. Pre-visit communication may provide an opportunity for patients to express their expectations and for healthcare professionals to respond to them. In a quality-improvement study, communicating patient expectations in writing before outpatient visits and having professionals specifically address those expectations were associated with higher patient-reported satisfaction and perceptions that expectations had been addressed [5]. This finding provides support for considering expectation communication as a potentially relevant component of the patient experience, while the present framework does not assume that the same approach will have the same value for every patient. The amount and manner of information provided to patients may also be relevant to how prepared and comfortable they feel. A systematic review by Krupic et al. (2025) [6] found that preoperative information was associated with patients' fear and anxiety, while emphasizing the importance of information that is appropriate to patients' needs and wishes. The review also noted that, for some patients, excessive information may increase fear or anxiety and emphasized person-centred care. These findings are consistent with the present framework's emphasis on possible differences in patients' information and communication preferences, although they do not establish the specific profiles proposed here.

Patient experience may also be influenced by interactions occurring across multiple points of care. Research on pre-hospital emergency services has identified attention to patients' emotional needs and maintaining communication during the care process as relevant to patient satisfaction [7]. Similarly, a recent review of patient experience describes healthcare as a series of interconnected touchpoints extending from admission and orientation through communication during hospitalization and discharge. It emphasizes the roles of clear communication, empathy, active listening, individualized care, and follow-up in shaping patients' perceptions of care [11]. Together, these findings suggest that expectation-related experiences are not necessarily confined to a single clinical interaction but may evolve across different stages of the patient journey. The six illustrative opportunities proposed in this framework translate these observations into potential directions for future investigation. They are not presented as established interventions or evidence-based recommendations. Instead, they illustrate questions that could be examined empirically—for example, whether different combinations of clarity, information, supportive communication, personalization, emotional responsiveness, and expectation framing are associated with different patient responses. Future research could also examine whether such response patterns are related to outcomes such as trust, satisfaction, anxiety, engagement, or perceived quality of the patient experience.

An important implication of the framework is therefore the possibility that a single communication approach may not be equally meaningful to all patients. However, the present paper does not establish that the four proposed profiles actually exist, nor does it demonstrate that each profile requires a particular communication strategy. Rather, the framework proposes that patient heterogeneity in expectations and communication preferences is a question that can be tested empirically. A future Mind Genomics study could experimentally vary combinations of expectation-related and communication-related elements and examine whether patients respond differently to these combinations. If reproducible patterns emerge, the proposed profiles could then be retained, modified, combined, or rejected on the basis of the empirical findings. The framework should therefore be understood as a conceptual starting point rather than a completed model of patient psychology. Its contribution is to organize existing themes related to patient expectations, information, communication, emotional needs, participation, and patient experience into a structure that makes potential patient heterogeneity explicit. By doing so, it provides a basis for moving from broad observations about patient expectations toward experimentally testable questions about which combinations of communication and expectation-related features may be more meaningful to different patients.

Conclusion

Patient expectations may influence how healthcare encounters are anticipated, interpreted, and experienced. This paper proposes a conceptual framework in which expectation shaping is considered across pre-visit communication, information, trust, participation, and the broader patient experience.

The four response profiles—Reassurance Seekers, Precision Seekers, Personalization Seekers, and Autonomy Preservers—are illustrative rather than empirically established patient segments. Their purpose is to demonstrate how the same expectation-related feature might potentially be interpreted differently by different patients. The framework therefore provides a starting point for future empirical research rather than a definitive model of patient behavior. Future testing can determine whether these response patterns emerge and whether different approaches to expectation-related communication are associated with differences in patient trust, satisfaction, or experience.

The Role of AI in This Paper

AI helps organize expectation-related themes and explore possible differences in patient responses. AI helps develop the four illustrative mindsets from these conceptual themes and translate expectation-related themes into hypothetical patient-response patterns. AI can explore different expectation-shaping scenarios from multiple patient perspectives and generate illustrative opportunities for future empirical investigation. AI helps extend the conceptual framework by exploring how different communication features might be interpreted differently by patients. The proposed mindsets and response patterns remain conceptual and require empirical testing before they can be considered representative of actual patient populations.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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References

1. El Haddad C, Hegazi I, Hu W (2020) Understanding patient expectations of health care: A qualitative study. J Patient Exp 7(6): 1724-1731.
2. Lakin K, Kane S (2022) Peoples' expectations of healthcare: A conceptual review and proposed analytical framework. Soc Sci Med 292: 114636.
3. Rocque R, Leanza Y (2015) A systematic review of patients' experiences in communicating with primary care physicians: Intercultural encounters and a balance between vulnerability and integrity. PLoS One 10(10): e0139577.
4. Oliveira VC, Refshauge KM, Ferreira ML, Pinto RZ, Beckenkamp PR, et al. (2012) Communication that values patient autonomy is associated with satisfaction with care: A systematic review. J Physiother 58(4): 215-229.
5. Bratincsak A, Quensell J, Mih B (2024) Listening to patients makes sense: Soliciting and purposefully addressing written patient expectations at a provider visit improve patient satisfaction. J Patient Exp 11:23743735241240925.
6. Krupic F, Krupic M, Dervisevic E, Kovacevic M, Bujakovic T (2025) Preoperative information as predictor of the patient's fear and anxiety before surgery Systematic review of qualitative and quantitative literature. Saudi J Anaesth 19(4): 487-493.
7. García Alfranca F, Puig A, Galup C, Aguado H, Cerdá I, et al. (2018) Patient satisfaction with pre-hospital emergency services: A qualitative study comparing professionals' and patients' views. Int J Environ Res Public Health 15(2):233.
8. Mechúrová B, Pomichálková Š, Šefranková J, Loučka M (2026) Building trust in a newly established physician-patient relationship: A scoping review. Health Expect 29(4): e70788.
9. Elrayah M, Keong OC (2025) Functional quality and patient satisfaction: The role of trust and communication. J Nat Sci Biol Med 16: 188-200.
10. Zhao Z, Zhang Z, Yang C, Li Q, Chen Z, et al. (2024) The influence of patient experience and patient trust on willingness to see a doctor based on SOR theory. BMC Health Serv Res 24(1):1278.
11. Szewczyk T, Hoque F (2026) Improving patient experience in healthcare. J Brown Hosp Med 5(1): 147405.