

Navigating Complex Healthcare Systems: The Psychology of Cognitive Burden, Emotional Exhaustion, and Unequal Capacity for Care Engagement

Youssef Hariri^{1*}, Hassan Nasser¹, Fatima Zahra²

¹Department of Health Psychology and Patient Navigation, Faculty of Medicine, Mohammed V University, Rabat, Morocco.

²Department of Psychosocial Oncology and Care Engagement, Faculty of Medicine, University of Casablanca, Casablanca, Morocco.

*E-mail ✉ youssef.hariri@um5.ac.ma

Abstract

Healthcare navigation is commonly treated as a practical matter of finding services, following instructions, and completing administrative steps. This framing underestimates the psychological work required to transform a fragmented healthcare system into a usable sequence of actions. Patients may need to locate information, interpret competing instructions, remember deadlines, coordinate professionals, evaluate digital messages, tolerate uncertainty, and repeatedly decide what deserves attention while simultaneously managing illness and everyday life. These demands are not distributed equally. Health literacy, financial and material resources, digital access, language, social support, illness severity, organizational design, stigma, and continuity of care can alter both the workload imposed by healthcare and the capacity available to manage it. This article develops a proposed Navigation-Capacity Model that treats care engagement as the product of a dynamic relation between system-generated workload and context-dependent capacity rather than as a stable patient characteristic. It distinguishes administrative complexity, informational complexity, cognitive demand, emotional exhaustion, fragmentation, and social redistribution of work while preserving their interactions. The model further proposes that disengagement can emerge from accumulating workload-capacity mismatch without implying deficient motivation. This perspective shifts improvement efforts toward reducing avoidable navigation work, strengthening usable support, and designing care pathways whose demands remain feasible under real-world conditions.

Keywords: Healthcare navigation, Cognitive burden, Treatment burden, Health literacy, Care fragmentation, Patient capacity, Healthcare engagement

Introduction

Modern healthcare increasingly requires patients to perform work that is essential to obtaining care but peripheral to the biological management of illness. Scheduling, insurance communication, referrals, authorizations, record retrieval, portal use, medication

coordination, and repeated information exchange can impose administrative costs that are experienced directly by patients [1]. Survey evidence from the United States further indicates that such administrative tasks are associated with reported delays and forgone care, although observational associations cannot establish that administration alone caused those outcomes [2]. The broader treatment-burden literature similarly shows that healthcare work includes not only treatment execution but also organizational, emotional, social, and resource demands [3].

These literatures provide important foundations, but they do not yet constitute a unified theory of healthcare navigation. Administrative burden, treatment burden, health literacy, information overload, coordination

Access this article online

<https://smerpub.com/>

Received: 16 January 2026; Accepted: 18 March 2026

Copyright CC BY-NC-SA 4.0

How to cite this article: Hariri Y, Nasser H, Zahra F. Navigating Complex Healthcare Systems: The Psychology of Cognitive Burden, Emotional Exhaustion, and Unequal Capacity for Care Engagement. *Int J Soc Psychol Asp Healthc*. 2026;6(1):94-104. <https://doi.org/10.51847/jpjYiWjoAz>

failure, and patient capacity are overlapping rather than interchangeable constructs. Treating them as synonyms risks attributing system-generated difficulty to individual deficiency. The central argument developed here is therefore that navigation should be understood as cognitive and organizational work performed under unequal conditions of capacity. The article proposes that navigation burden emerges when healthcare demands require sustained interpretation, sequencing, coordination, memory, decision-making, and emotional regulation that exceed or destabilize the resources available to the patient and their support network.

This claim is conceptual rather than empirically validated as a single causal model. The sections that follow separate the component processes before integrating them into a proposed Navigation-Capacity Model. Particular attention is given to temporal accumulation, uncertainty, digital conditions, material resources, social support, structural disadvantage, and the distinction between observable care behavior and the psychological or organizational processes that may precede it.

Healthcare navigation as cognitive work

Navigation is often described as movement through services, yet patients' accounts suggest that navigation assistance can involve interpretation, connection, advocacy, and help making a complex system intelligible [4]. The work is therefore not limited to identifying where to go. Patients may need to determine which problem belongs to which service, whether different instructions are compatible, what must happen first, what documentation is required, and when a delay represents normal waiting rather than a failed transition.

Evidence from demanding care transitions illustrates why workload and capacity must be distinguished. During transition to kidney replacement therapy, patients can face simultaneous informational, logistical, emotional, and self-management demands while their physical and psychological resources are changing [5]. The central implication is not that every difficult transition produces cognitive overload, but that healthcare workload can intensify precisely when capacity is least stable.

Existing measures reinforce the multidimensional character of patient work. The Patient Experience with Treatment and Self-management instrument captures treatment-related workload and its impact from the patient's perspective [6]. The Multimorbidity Treatment Burden Questionnaire likewise provides a structured way to assess treatment burden across people managing

multiple conditions [7]. These tools demonstrate that workload can be measured rather than inferred from appointment counts or adherence outcomes alone. However, they should not be treated as complete measures of navigation capacity. A patient may score modestly on treatment tasks yet still face substantial work deciphering referrals, reconciling conflicting communications, or coordinating institutions.

This article therefore uses navigation work to denote the cognitive, organizational, relational, and practical activity required to make care pathways usable. Navigation work intersects with treatment burden but is analytically narrower in one respect and broader in another: it focuses specifically on converting healthcare structures into actionable sequences, while recognizing that doing so may require resources located outside the healthcare encounter.

Administrative and informational complexity

Administrative complexity and informational complexity can appear together but should remain analytically separate. Administrative complexity concerns the structure and number of tasks required to obtain or continue care. Informational complexity concerns whether the content required for those tasks can be located, interpreted, compared, remembered, and applied.

Patient experience in community-clinic settings shows that health-literacy support depends partly on how information is presented and how healthcare interactions are organized, not solely on what patients already know [8]. This matters because a system can technically disclose information while still making it difficult to use. Similar problems appear in open electronic-record environments. Underserved patients and carers may value access while simultaneously encountering difficult terminology, ambiguous wording, or emotionally challenging documentation [9]. Transparency and usability are therefore not equivalent.

Administrative systems can further amplify informational burden when each task generates another interpretive demand: a referral requires portal registration, a portal message requires clinical vocabulary, an authorization denial requires understanding insurer language, and a rescheduled appointment alters medication or transport planning. The problem is not merely the number of steps. It is the requirement to maintain an accurate internal representation of a changing care pathway.

The proposed distinction is consequently between task complexity and meaning complexity. Task complexity concerns what the system requires the patient to do; meaning complexity concerns what the patient must understand to do it correctly. These components can vary independently. A pathway may contain many familiar tasks with low interpretive burden, or relatively few tasks whose ambiguity makes them difficult to execute. Designing lower-burden care requires identifying which form of complexity is being created rather than assuming that simplification means merely reducing the number of contacts.

Cognitive load and executive demands

Direct evidence about cognitive demand is especially important because treatment burden cannot be translated automatically into claims about cognition. In telehealth settings serving a federally qualified health-center population, staff descriptions of human technology intermediation were consistent with reducing some extraneous cognitive demands by helping patients learn, navigate, and troubleshoot digital systems [10]. The finding supports the plausibility of cognitive scaffolding, but it does not establish that all digital difficulty is caused by limited cognitive capacity.

A similar interaction between information processing and emotional context is visible in intensive patient education. Among patients preparing for autologous stem-cell transplantation for multiple myeloma, dense educational demands occurred alongside anxiety and limited perceived control, illustrating how learning conditions may become psychologically demanding when the information is consequential and temporally compressed [11]. The significance lies in the coexistence of cognitive and socio-emotional demands rather than in a claim that one necessarily causes the other.

The broader health-information-overload literature also warns against conceptual overreach. Definitions, predictors, measurement approaches, and consequences vary substantially across studies [12]. “Too much information” may refer to volume, complexity, inconsistency, poor timing, low relevance, unfamiliar terminology, or the interaction between information and limited processing resources. These forms of overload should not be collapsed.

The present theory therefore treats executive demand as one possible mechanism within navigation burden. Patients may have to hold multiple future tasks in mind, inhibit attention to lower-priority demands, switch

between clinical and administrative problems, compare uncertain options, detect discrepancies, and update plans after new information. Whether this becomes burdensome depends on prior knowledge, illness effects, available time, emotional state, support, interface design, and the extent to which healthcare organizations externalize coordination work onto the patient.

Emotional exhaustion and uncertainty

Healthcare navigation can be demanding even when every required task is technically feasible. Emotional exhaustion becomes analytically relevant when uncertainty, repeated effort, and limited control make navigation difficult to sustain. In advanced multimorbidity, qualitative evidence indicates that treatment workload and uncertainty can interact with how patients and carers experience available capacity [13]. The relationship is not reducible to a single direction: uncertainty may increase perceived workload, while accumulating workload may also make uncertainty harder to tolerate.

Long-COVID care provides another context in which uncertainty and navigation difficulties can coexist. Patients have described challenges involving coordination, validation, unclear pathways, and ongoing concerns while moving across services [14]. Such findings should not be generalized to all chronic illness, but they demonstrate that uncertainty can originate from both the illness itself and the organization of care. A patient may be uncertain about prognosis, about which clinician owns a problem, about whether symptoms warrant escalation, or about whether a delayed response reflects clinical judgment or system failure.

The proposed framework therefore distinguishes clinical uncertainty, pathway uncertainty, and execution uncertainty. Clinical uncertainty concerns illness, diagnosis, or response to treatment. Pathway uncertainty concerns where responsibility lies and what should happen next. Execution uncertainty concerns whether the patient has correctly understood or completed what the system requires. These forms may overlap, but each creates a different navigation problem.

Emotional exhaustion is consequently not treated as an inevitable response to complexity. Some patients experience complex care as manageable when expectations are clear and support is reliable. Others may face repeated unresolved demands that require vigilance without producing closure. The central theoretical proposition is that uncertainty can act as a burden

amplifier when it increases the amount of monitoring, checking, interpretation, or contingency planning required to maintain care engagement.

The heterogeneity is easier to preserve in a structured comparison than in prose alone because similar emotional experiences can arise from different underlying navigation conditions (**Table 1**).

Table 1. Distinguishing uncertainty-related navigation states that can produce superficially similar emotional burden

Uncertainty state	Cognitive demand	Emotional effect	System condition	Capacity limit	Interpretive implication
Navigation condition — Uncertain clinical trajectory					
Primary work imposed on the patient	Repeated interpretation of symptoms, prognosis, and changing recommendations	Likely burden-amplifying context	Severe illness, rapidly changing condition, limited continuity	Competing interpretation that must remain visible	Distress may arise primarily from illness rather than navigation
Boundary or exception	Clear anticipatory guidance may reduce system-related uncertainty without reducing clinical uncertainty	Proposed consequence	Emotional burden should not automatically be attributed to administrative complexity		
Navigation condition — Unclear ownership of care					
Primary work imposed on the patient	Identifying which clinician or service is responsible for the next action	Likely burden-amplifying context	Multispecialty care, transitions, fragmented referral structures	Competing interpretation that must remain visible	Multiple clinicians may reflect necessary specialization rather than coordination failure
Boundary or exception	Explicit care ownership can make a complex team easier to navigate	Proposed consequence	Coordination burden depends on responsibility clarity, not provider count alone		
Navigation condition — Ambiguous instructions					
Primary work imposed on the patient	Comparing messages, resolving conflicting directions, checking whether action is correct	Likely burden-amplifying context	Multiple communication channels, unfamiliar terminology, rapid plan changes	Competing interpretation that must remain visible	Difficulty may reflect information design rather than limited patient literacy
Boundary or exception	Familiar routines can remain manageable despite high information volume	Proposed consequence	Meaning complexity may exceed task complexity		
Navigation condition — Repeated unresolved administration					
Primary work imposed on the patient	Tracking requests, resubmitting information, following up, preserving documentation	Likely burden-amplifying context	Insurance friction, referral delays, portal dependence	Competing interpretation that must remain visible	Frustration may be episodic rather than cumulative
Boundary or exception	Reliable resolution and visible progress may prevent persistence of burden	Proposed consequence	Lack of closure can convert discrete tasks into ongoing cognitive occupation		
Navigation condition — High-stakes learning under stress					
Primary work imposed on the patient	Retaining and applying consequential information while managing anxiety	Likely burden-amplifying context	Treatment initiation, major procedures, compressed education	Competing interpretation that must remain visible	Anxiety and cognitive demand may coexist without one causing the other
Boundary or exception	Staged education and accessible reinforcement may redistribute demand	Proposed consequence	Cognitive and emotional support should be designed together but measured separately		

Navigation condition — Socially redistributed navigation work					
Primary work imposed on the patient	Coordinating help, sharing information, delegating tasks, monitoring whether support is adequate	Likely burden-amplifying context	Dependence on family or informal carers	Competing interpretation that must remain visible	Apparent patient capacity may partly reflect hidden caregiver work
Boundary or exception	Support may be beneficial while still imposing burden on others	Proposed consequence	Navigation capacity should be assessed at patient-network level when care is shared		

Note: The distinctions in this table form a conceptual synthesis. They do not represent validated diagnostic categories, severity levels, thresholds, or causal stages.

Fragmentation and coordination burden

Fragmentation is frequently invoked as an explanation for difficult care, but structural fragmentation and experienced coordination burden should not be treated as equivalent. Research comparing claims-based fragmentation, self-reported coordination gaps, and reported adverse events demonstrates that these measures capture related but distinct phenomena [15]. A patient can see many clinicians without experiencing major coordination burden if responsibilities are clear, information moves reliably, and one team integrates decisions. Conversely, even a small number of poorly connected services can impose substantial patient work. Observational evidence from Veterans Affairs home-based primary care has associated greater outpatient fragmentation with acute-care utilization [16]. Such findings are clinically important but do not establish that fragmentation itself caused utilization. Patients with greater illness complexity may both require more fragmented care and have higher acute-care risk. The proposed framework therefore treats fragmentation as a potential workload-generating condition, not as a psychological mechanism by itself.

Coordination burden emerges when integration work is shifted to patients or families. Examples include reconciling medication lists, repeating histories, transporting records, alerting one clinician to another's decision, confirming whether referrals were received, and deciding which service should respond when recommendations conflict. The degree of burden depends less on the mere number of interfaces than on whether those interfaces are designed to transfer responsibility reliably.

This distinction also prevents a common measurement error: using provider dispersion as a proxy for lived navigation difficulty. Structural metrics, patient-reported coordination experiences, observed care processes, and clinical outcomes answer different questions. A rigorous

theory of navigation must preserve these levels rather than interpret one as direct evidence of another.

Health literacy, resources, and unequal navigation capacity

The ability to navigate healthcare is often discussed as though it were a stable personal competence. Evidence instead suggests that navigation is shaped by the interaction between individual skills and the resources, interfaces, and institutional conditions through which those skills must be exercised. In a French national survey, health literacy statistically mediated part of the association between socioeconomic status and healthcare-system navigation [17]. Because the data are cross-sectional, this cannot establish causal mediation, but it illustrates why literacy and socioeconomic position should not be analytically separated from the environments in which navigation occurs.

Digital care makes this problem particularly visible. Among adults with chronic conditions, patient-portal use differs across literacy and sociodemographic characteristics [18]. In hypertension care, portal engagement also varies across race and ethnicity, language, insurance, and related characteristics [19]. Such patterns must not be interpreted as evidence that demographic groups differ inherently in willingness, intelligence, motivation, or trust. Engagement reflects opportunity, accessibility, language, connectivity, interface demands, prior experience, clinical workflow, and the usefulness of the portal for a patient's actual needs.

Research involving people with complex chronic conditions further demonstrates that digital health literacy can constrain engagement with digital models of care and that patients may need support with finding, understanding, evaluating, and using digital health information [20]. Digital access is therefore not binary. Possessing a device does not establish that a patient can

complete identity verification, interpret portal terminology, recover passwords, upload documents, distinguish automated from clinically important messages, or navigate multiple unconnected platforms. Material conditions also shape capacity. Among people experiencing homelessness and chronic illness, qualitative evidence shows how unstable housing can simultaneously increase treatment workload and reduce the resources available to perform that work [21]. Likewise, research on gay and bisexual men accessing HIV care illustrates how stigma can generate additional patient work, including anticipating, managing, or responding to potentially stigmatizing healthcare environments [22]. These findings support a structural interpretation of navigation difficulty: some patients are required to perform additional work because healthcare systems interact differently with their social and material circumstances.

The proposed Navigation-Capacity Model therefore treats health literacy as one capacity resource rather than the master explanation for navigation success. Capacity may also include time, money, transportation, physical energy, cognitive resources, emotional reserve, language concordance, digital access, social support, institutional familiarity, and confidence that effort will produce a response. These resources can fluctuate over time. A person who navigates effectively during stable illness may struggle during acute deterioration, bereavement, employment disruption, housing instability, or a transition to unfamiliar care. Unequal navigation capacity is therefore partly produced by unequal conditions under which navigation must occur.

Family and social navigation support

Patients rarely navigate healthcare in complete isolation. Family members, partners, friends, and other informal supporters may schedule appointments, interpret information, provide transport, monitor symptoms, manage medications, communicate with clinicians, or help resolve administrative problems. This support can expand the effective resources available to the patient, but it should not be represented as cost-free capacity. Among caregivers of frail older people with multimorbidity, greater care demands are associated with substantial caregiver burden [23]. Cross-sectional evidence cannot establish directionality, yet it demonstrates that the redistribution of healthcare work may create consequences elsewhere in the care network.

Person-centered planning in multimorbidity similarly requires attention to team structure, workflow, digital infrastructure, and organizational conditions rather than assuming that patients and families can integrate complex plans unaided [24]. The implication is that social support operates within, not outside, healthcare-system design. A family member may compensate temporarily for a confusing pathway, but that compensation can conceal the amount of coordination work the system is exporting beyond formal care.

The proposed framework therefore distinguishes support that adds usable capacity from support that merely absorbs displaced workload. The same action may do both. A relative who organizes appointments may reduce the patient's immediate cognitive load while increasing their own time burden. A caregiver who attends consultations may improve information continuity but may also become the informal repository for responsibilities that should have remained organizational.

Social navigation support must also be treated as contingent. Not every patient has an available family network, and the presence of family does not establish that support is desired, reliable, culturally appropriate, or sustainable. Relational conflict, distance, work obligations, caregiving responsibilities, language differences, privacy concerns, or unequal power within families can alter whether informal help actually expands capacity.

Accordingly, navigation capacity is better conceptualized at times as a distributed resource spanning patient, social network, clinical team, and organization. This does not mean that responsibility should be diffused across those levels. Rather, it highlights a design principle that becomes central later in the article: healthcare systems should not treat successful family compensation as evidence that the underlying navigation demand is reasonable.

Burden accumulation and disengagement

Navigation demands are rarely experienced as independent events. A referral that requires repeated follow-up may overlap with medication changes, employment obligations, transportation problems, symptom monitoring, and other unresolved administrative tasks. The importance of accumulation is that individually manageable demands can remain cognitively active when they lack closure. Patients may need to remember what remains unresolved, monitor for

responses, reconstruct prior conversations, and decide when additional effort is justified.

Disengagement should therefore not be interpreted automatically as deficient motivation. Structural explanations of primary-care disengagement emphasize that healthcare participation is shaped by resources, institutional processes, and judgments about whether care is accessible or responsive [25]. Administrative delay, unstable material conditions, stigmatizing encounters, illness fluctuation, competing responsibilities, and prior unsuccessful attempts to obtain help can produce similar observable patterns of missed appointments or reduced contact while reflecting very different underlying processes.

The proposed theory distinguishes temporary interruption, selective withdrawal, capacity-constrained non-completion, and persistent disengagement. These are not validated clinical categories. Their purpose is to prevent a behavioral endpoint from being treated as direct

evidence of a patient's psychological state. A missed task may reflect forgetting, competing priorities, inaccessible technology, ambiguous responsibility, deliberate prioritization, worsening illness, distrust generated by prior encounters, or a rational decision that further effort is unlikely to succeed.

Accumulation also introduces time into the Navigation-Capacity Model. Capacity may recover after demands are completed, simplified, delegated, or supported. Conversely, unresolved demands can persist as open cognitive and emotional obligations. Repeated workload-capacity mismatch may therefore increase the probability of future non-completion without establishing a deterministic threshold.

Because the same observed behavior can represent very different combinations of workload, capacity, and context, the measurement consequences require explicit separation (**Table 2**).

Table 2. When apparent disengagement conceals different configurations of navigation work and capacity

Observed care pattern	What routine measurement may capture	Navigation work potentially left unmeasured	Alternative explanation that must be considered	Conditions affecting persistence or recovery	Consequence for interpretation
Missed or delayed appointment	Attendance or utilization gap	Rescheduling, transport planning, portal checking, referral follow-up	Acute illness, employment conflict, caring responsibilities, inaccessible scheduling	Flexible rescheduling, clear ownership, practical support	Attendance alone cannot identify motivation or capacity
Incomplete administrative requirement	Form, authorization, or documentation not completed	Locating records, understanding instructions, repeated submission	Ambiguous instructions, language barriers, digital exclusion, institutional error	Simplified requirements, assisted completion, visible confirmation	Non-completion may reflect system friction rather than unwillingness
Low portal engagement	Login or messaging frequency	Password recovery, interpretation of alerts, deciding which messages require action	Limited relevance, shared access, preference for telephone or in-person care	Accessible interfaces, alternative channels, digital support	Low digital use is not equivalent to low healthcare engagement
Repeated emergency or unscheduled care	Acute-care utilization	Failed coordination, unresolved access attempts, monitoring uncertainty	Greater clinical severity may independently increase utilization	Continuity, rapid advice, clear escalation pathways	Utilization may indicate both illness complexity and pathway failure
Selective refusal or postponement	Declined recommendation	Comparison of competing treatment and life demands	Informed preference, prior treatment burden, perceived low benefit	Shared prioritization and workload-sensitive planning	Refusal should not automatically be coded as deficient adherence
Progressive loss of contact	Reduced interaction across time	Accumulated unresolved tasks and repeated attempts to obtain help	Relocation, competing services, structural exclusion, changing preferences	Re-engagement options, continuity, reduction of avoidable workload	Persistent disengagement requires multilevel explanation

Note: The categories are proposed interpretive distinctions, not validated classifications. They identify why behavioral measures should not be treated as direct measures of cognitive burden, motivation, trust, or patient capacity.

A navigation-capacity model

Existing workload-capacity theory provides an important foundation for understanding why healthcare demands become burdensome. In stroke, treatment burden has been conceptualized as arising from the relationship between workload and the capacity available to undertake that work [26]. Research examining capacity in routine chronic-care records further shows that capacity spans multiple domains and may be incompletely documented in clinical practice [27]. The present article extends these premises specifically to navigation while not claiming that the resulting architecture has been empirically validated.

The proposed Navigation-Capacity Model contains four analytically distinct components. First, system-generated navigation workload includes administrative tasks, information interpretation, coordination work, digital interaction, and repeated monitoring of unresolved processes. Second, available navigation capacity includes cognitive resources, physical energy, time, money, transport, language resources, digital competence, prior system knowledge, emotional reserve, and usable social support. Third, burden amplifiers and buffers modify the relationship between workload and capacity. Uncertainty, fragmentation, stigma, inaccessible technology, and unstable material circumstances may increase effective workload, whereas continuity, clear responsibility, understandable information, human assistance, and reliable social support may reduce or redistribute it. Fourth, temporal

accumulation and feedback describe how unresolved navigation work can persist across encounters.

The model is deliberately multilevel. Healthcare organizations determine how much coordination is performed internally versus exported to patients. Clinical teams affect responsibility clarity and informational consistency. Digital environments can either externalize additional work or scaffold completion. Families and social networks may contribute resources while absorbing hidden workload. Structural conditions influence the resources with which patients enter each encounter. Movement across these levels is therefore bounded: an organizational failure should not be redescribed automatically as an individual cognitive deficit, and an observed behavioral outcome should not be treated as proof of the psychological mechanism that produced it.

The model also rejects a fixed capacity threshold. Navigation capacity is expected to vary across illness stages and life circumstances. A patient may manage a complex pathway when symptoms are controlled and support is available but struggle with the same tasks during acute deterioration or social disruption. The relevant theoretical question is therefore not whether a patient “has capacity” in the abstract, but whether available resources are sufficient for the demands imposed at a particular time.

The nested architecture and its scale-transfer boundaries are summarized in **Figure 1**.

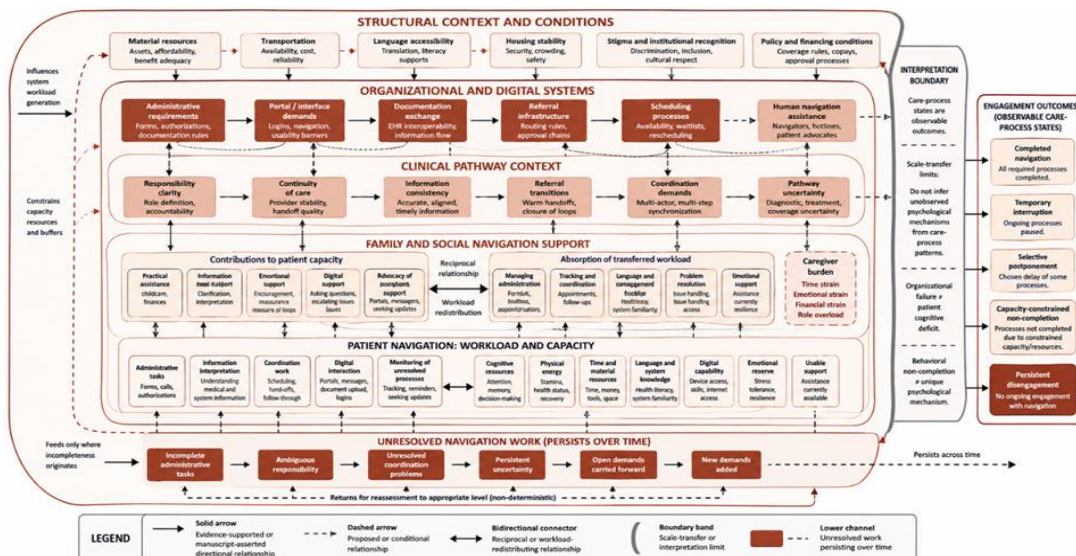


Figure 1. How navigation workload, distributed capacity, and unresolved care demands interact across healthcare-system levels

Designing lower-burden care pathways

If navigation burden is partly produced by care design, improvement cannot rely exclusively on educating patients to tolerate increasingly complex systems. Health professionals have identified organizational and relational practices that can either help or hinder attempts to minimize treatment burden and support patient capacity [28]. The appropriate implication is not that any single burden-reduction strategy has proven superiority, but that healthcare workload itself is modifiable.

The proposed design principle is workload before resilience: before asking whether a patient needs more education, motivation, or self-management support, examine whether the pathway contains avoidable work. Administrative duplication can be removed; responsibility can be clarified; information can be staged; digital tasks can be supported by human assistance; communication channels can be consolidated; and patients can be given explicit escalation routes when expected processes fail.

Capacity should also be assessed dynamically. A pathway that is feasible during stable illness may become unrealistic during deterioration, treatment transition, caregiving crisis, or material disruption. Burden-sensitive care therefore requires mechanisms for temporarily simplifying care, redistributing tasks, or changing communication modes without interpreting the need for assistance as patient failure.

Importantly, lower burden does not always mean fewer encounters or less information. Some patients require additional contact to make care navigable. The goal is to reduce unproductive navigation work: effort spent discovering responsibility, recovering missing information, repeating failed administrative actions, or translating poorly coordinated systems into a coherent plan.

Results and Discussion

The central contribution of this article is to reposition healthcare navigation from an assumed patient competency to a dynamic relationship between system-generated workload and context-dependent capacity. Existing evidence supports multiple components of this argument—administrative burden, treatment workload, health-information overload, fragmentation, health-literacy disparities, digital-access differences, social redistribution of work, and structural constraints—but no

selected evidence source validates the complete Navigation-Capacity Model.

Several boundaries are therefore essential. First, cognitive burden should not be inferred simply because care is complex. Direct cognitive-demand evidence remains more limited and context-specific than the broader treatment-burden literature. Second, fragmentation is a structural property that may generate coordination work but does not necessarily do so in every pathway. Third, lower utilization, low portal activity, delayed completion, or missed appointments are behavioral observations, not psychological diagnoses. Fourth, capacity is not synonymous with health literacy. It includes material, temporal, relational, physical, emotional, digital, and organizational resources.

The model also emphasizes temporal dynamics. Repeated unresolved work may matter differently from an equal number of tasks that are completed reliably. This generates testable questions. Longitudinal studies could examine whether unresolved navigation demands predict later care-process interruption after accounting for illness severity and socioeconomic conditions. Measurement research could compare patient-reported navigation work with administrative-task counts, coordination measures, digital logs, and treatment-burden instruments. Intervention studies could test whether reducing specific forms of avoidable navigation workload changes patient experience without simply transferring work to caregivers or staff.

Validation should also examine whether the proposed components operate similarly across healthcare systems, cultural settings, illness trajectories, disability contexts, and digital infrastructures. The framework should be revised if empirical evidence shows that constructs currently separated here are indistinguishable, that proposed feedback pathways are unsupported, or that different populations organize navigation work in substantially different ways.

Conclusion

Healthcare engagement is shaped not only by whether care is available but also by how much work patients must perform to make that care usable. Administrative requirements, information processing, uncertainty, coordination, digital interaction, and repeated unresolved tasks can place demands on capacities that are variable, distributed, and unequally resourced. The proposed Navigation-Capacity Model organizes these demands

without treating complex care, cognitive burden, emotional exhaustion, or disengagement as interchangeable phenomena.

Its central implication is that apparent patient difficulty may sometimes be evidence of excessive system workload rather than inadequate individual commitment. Lower-burden care therefore requires attention to responsibility clarity, usable information, coordination, accessibility, social redistribution of work, and the removal of unnecessary administrative demands. The model remains a theoretical synthesis requiring longitudinal, comparative, measurement, and intervention testing before predictive or clinical validity can be claimed.

Acknowledgments: None

Conflict of Interest: None

Financial Support: None

Ethics Statement: None

References

- Ilea P, Ilea I. Administrative burden for patients in U.S. health care settings Post-Affordable Care Act: A scoping review. *Soc Sci Med*. 2024;345:116686. doi:10.1016/j.socscimed.2024.116686
- Kyle MA, Frakt AB. Patient administrative burden in the US health care system. *Health Serv Res*. 2021;56(5):755-65. doi:10.1111/1475-6773.13861
- Lee JE, Lee J, Shin R, Oh O, Lee KS. Treatment burden in multimorbidity: An integrative review. *BMC Prim Care*. 2024;25(1):352. doi:10.1186/s12875-024-02586-z
- Rabi S, Santana M, Dimitropoulos G, McBrien K, Benterud E, Wigston L, et al. Exploring patient understandings of navigation services within Alberta's healthcare system: A qualitative study. *Health Expect*. 2025;28(4):e70383. doi:10.1111/hex.70383
- Jones C, Cairns R, Walker H, Welsh S, Edgar B, Stevenson K, et al. Exploration of treatment burden through examination of workload and patient capacity during transition onto kidney replacement therapy: A systematic review of qualitative research. *BMC Med*. 2025;23(1):61. doi:10.1186/s12916-025-03904-7
- Eton DT, Yost KJ, Lai JS, Ridgeway JL, Egginton JS, Rosedahl JK, et al. Development and validation of the Patient Experience with Treatment and Self-management (PETS): A patient-reported measure of treatment burden. *Qual Life Res*. 2017;26(2):489-503. doi:10.1007/s11136-016-1397-0
- Duncan P, Murphy M, Man MS, Chaplin K, Gaunt D, Salisbury C. Development and validation of the Multimorbidity Treatment Burden Questionnaire (MTBQ). *BMJ Open*. 2018;8(4):e019413. doi:10.1136/bmjopen-2017-019413
- Palmborg M, Fernandez-Branson C, Pessoa-Brandao L. Patient experiences at community clinics: Recommendations for advancing health literacy. *Patient Educ Couns*. 2025;132:108618. doi:10.1016/j.pec.2024.108618
- Davidge G, Blease C, Brown L, Nenadic G, Sanders C, McMillan B. 'Getting it write' in an era of online electronic health records access in primary care: A qualitative study exploring the needs and requirements of underserved patients and carers. *Patient Educ Couns*. 2025;138:109192. doi:10.1016/j.pec.2025.109192
- Williamson AK, Antonio MG, Davis S, Kameswaran V, Dillahunt TR, Buis LR, et al. Human technology intermediation to reduce cognitive load: Understanding healthcare staff members' practices to facilitate telehealth access in a Federally Qualified Health Center patient population. *J Am Med Inform Assoc*. 2024;31(4):832-45. doi:10.1093/jamia/ocad257
- Halpin SN. Enhancing patient education in multiple myeloma – The intersection of cognitive load and socio-emotional adaptation theory. *Patient Educ Couns*. 2026;146:109509. doi:10.1016/j.pec.2026.109509
- Khaleel I, Wimmer BC, Peterson GM, Zaidi STR, Roehrer E, Cummings E, et al. Health information overload among health consumers: A scoping review. *Patient Educ Couns*. 2020;103(1):15-32. doi:10.1016/j.pec.2019.08.008
- McParland C, Johnston B, Cooper M. Treatment burden and uncertainty in the context of advanced multimorbidity: A focussed ethnography. *Qual Health Res*. 2026;36(1):107-23. doi:10.1177/10497323251320836
- MacEwan SR, Rahrurkar S, Tarver WL, Forward C, Eramo JL, Teuschler L, et al. Patient experiences navigating care coordination for Long COVID: A

- qualitative study. *J Gen Intern Med.* 2024;39(8):1294-300. doi:10.1007/s11606-024-08622-z
15. Kern LM, Lau JD, Rajan M, Rhodes JD, Casalino LP, Colantonio LD, et al. Associations among claims-based care fragmentation, self-reported gaps in care coordination, and self-reported adverse events. *BMC Health Serv Res.* 2024;24(1):1045. doi:10.1186/s12913-024-11440-y
 16. Edwards ST, Greene L, Chaudhary C, Boothroyd D, Kinosian B, Zulman DM. Outpatient care fragmentation and acute care utilization in Veterans Affairs home-based primary care. *JAMA Netw Open.* 2022;5(9):e2230036. doi:10.1001/jamanetworkopen.2022.30036
 17. Touzani R, Protopopescu C, Rouquette A, Allaire C, Dumas A, Hardouin JB, et al. Does health literacy mediate the relationship between socioeconomic status and navigation in the healthcare system? The French national health literacy survey (HLS19). *Patient Educ Couns.* 2025;138:109204. doi:10.1016/j.pec.2025.109204
 18. Yoon E, Hur S, Opsasnick L, Huang W, Batio S, Curtis LM, et al. Disparities in patient portal use among adults with chronic conditions. *JAMA Netw Open.* 2024;7(2):e240680. doi:10.1001/jamanetworkopen.2024.0680
 19. Khatib R, Glowacki N, Chang E, Lauffenburger J, Pletcher MJ, Siddiqi A. Disparities in patient portal engagement among patients with hypertension treated in primary care. *JAMA Netw Open.* 2024;7(5):e2411649. doi:10.1001/jamanetworkopen.2024.11649
 20. Kelly JT, Caffery LJ, Thomas EE, de Camargo Catapan S, Smith AC, Isbel N, et al. Determining the digital health literacy and potential solutions to support people with complex chronic conditions to engage with digital models of care. *Patient Educ Couns.* 2025;140:109278. doi:10.1016/j.pec.2025.109278
 21. Bowen E, Anderson AJ, Capozziello N, Hewner S. Managing health without stable housing: Dimensions of treatment burden and patient capacity for people with chronic health conditions experiencing homelessness. *Qual Health Res.* 2025;35(13):1450-63. doi:10.1177/10497323241302673
 22. Smith AKJ, Brener L, Broady TR, Saliba B, Keen P, Prain B, et al. Stigma and patient work: Understanding cumulative inequities for gay and bisexual men in accessing HIV healthcare services. *Soc Sci Med.* 2025;367:117729. doi:10.1016/j.socscimed.2025.117729
 23. Ding TYG, De Roza JG, Chan CY, Lee PSS, Ong SK, Lew KJ, et al. Factors associated with family caregiver burden among frail older persons with multimorbidity. *BMC Geriatr.* 2022;22(1):160. doi:10.1186/s12877-022-02858-2
 24. Watson BN, Estenson L, Eden AR, Gerstein MT, Carney MT, Dotson VM, et al. Person-centered care planning for people living with or at risk for multiple chronic conditions. *JAMA Netw Open.* 2024;7(10):e2439851. doi:10.1001/jamanetworkopen.2024.39851
 25. Mackenzie M, Baruffati D, Lindsay C, O'Donnell K, Ellis D, Simpson S, et al. Fundamental causation and candidacy: Harnessing explanatory frames to better understand how structural determinants of health inequalities shape disengagement from primary healthcare. *Soc Sci Med.* 2025;374:118043. doi:10.1016/j.socscimed.2025.118043
 26. Gallacher KI, May CR, Langhorne P, Mair FS. A conceptual model of treatment burden and patient capacity in stroke. *BMC Fam Pract.* 2018;19(1):9. doi:10.1186/s12875-017-0691-4
 27. Boehmer KR, Kyriacou M, Behnken E, Branda M, Montori VM. Patient capacity for self-care in the medical record of patients with chronic conditions: A mixed-methods retrospective study. *BMC Fam Pract.* 2018;19(1):164. doi:10.1186/s12875-018-0852-0
 28. Kyle J, Skleparis D, Mair FS, Gallacher KI. What helps and hinders the provision of healthcare that minimises treatment burden and maximises patient capacity? A qualitative study of stroke health professional perspectives. *BMJ Open.* 2020;10(3):e034113. doi:10.1136/bmjopen-2019-034113