Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Dependent Autonomy: Bridging Value-Based Healthcare, Organisational Systems and Decision Space Theory

Mikael Ohrling

mikael.ohrling@regionstockholm.se

Karolinska Institutet

Research Article

Keywords: Value-based healthcare, Dependent autonomy, Decision space, Organisational systems, Healthcare governance

Posted Date: June 19th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9944628/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background

Value-based healthcare (VBHC) frameworks, including the High-Value Health System (HVHS) model, emphasise structural components such as digital infrastructures, outcome measurement, and integrated care pathways. However, empirical evidence suggests that these components do not consistently translate into improved performance. This study addresses this gap by examining how system components are enacted in practice.

Methods

A theory-building design was employed, combining conceptual synthesis with empirical grounding in previously published studies of decentralised healthcare governance and hybrid management. An abductive analytical approach was used to integrate insights from decision space theory, organisational theory, and VBHC frameworks.

Results

The analysis resulted in a conceptual framework identifying dependent autonomy as the central mechanism linking system design to practice. HVHS components were found to operate indirectly through organisational systems, which function as dual mechanisms that both enable and constrain managerial action. Dependent autonomy, defined as the extent to which managerial autonomy is contingent upon organisational systems, determines the effective enactment of coordination and patient flows. Variation in VBHC outcomes is thus explained by differences in how organisational systems shape decision space.

Conclusions

This study reframes healthcare transformation as a problem of organisational enactment rather than system design. By introducing dependent autonomy, it extends decision space theory and integrates it with organisational and VBHC perspectives. The findings highlight that the effectiveness of healthcare reforms depends on the organisational conditions that make system components actionable, offering a theoretically grounded explanation for variability in implementation outcomes.

Introduction

Healthcare systems globally are undergoing extensive transformation efforts aimed at improving quality, efficiency, and patient-centred outcomes [1–3]. Among the most influential approaches is value-based healthcare (VBHC), which seeks to align clinical practice, organisational structures, and financial

incentives around the creation of patient value [4–6]. Central to VBHC is the assumption that integrated care pathways, outcome measurement systems, cost transparency, and coordinated provider networks will collectively enable more effective and efficient healthcare delivery [7–10].

Frameworks such as the High-Value Health System (HVHS) model articulate this ambition by identifying a set of interdependent system components, including digital data systems, analytics, cost and outcome measurement, benchmarking, integrated care pathways, value-based payment models, procurement strategies, and provider network integration [11–13]. The Harvard HVHS model further specifies ten mutually reinforcing components and emphasises that these form a system-wide innovation ecosystem necessary for achieving value at scale [11]. These components are conceptualised as forming an innovation ecosystem that supports continuous improvement and strategic transformation in healthcare systems [12, 14]. Together, they represent a comprehensive model for achieving value-based care at scale [4, 11].

Despite the conceptual clarity of such frameworks, empirical evidence on VBHC implementation remains mixed [15–17]. While some organisations report improvements in outcomes and efficiency, others experience increased administrative burden, organisational complexity, and limited impact on patient value [18]. These inconsistencies suggest that the presence of system components alone does not ensure effective transformation [16, 19]. Rather, the mechanisms through which these components translate into practice are not yet fully understood [15, 20].

Existing research has largely focused on structural and technical dimensions of VBHC, including measurement systems, financial models, and care pathway redesign [4, 7, 21]. The HVHS framework demonstrate that enabling conditions are constituted by interdependent system components and broader institutional factors such as leadership, and innovation capacity. However, these components are unevenly developed across health systems and critically determine the ability to scale value-based initiatives and achieve system-level transformation [11]. Less attention has been directed towards the organisational conditions that enable these components to function in practice, particularly at the level of managerial daily work and decision-making [20, 22]. This gap is critical, as the effectiveness of any healthcare system ultimately depends on how clinical managers interpret, coordinate, and act upon available structures and resources [23, 24].

Insights from decentralisation research offer an important perspective on this issue. Decision space theory conceptualises autonomy as the range of effective choice available to managers and distinguishes between formally delegated authority (de jure autonomy) and the practical ability to exercise that authority (de facto autonomy) [25, 26]. This distinction highlights that autonomy is not solely determined by governance structures but is contingent upon organisational capacity and contextual conditions [27, 28].

At the same time, organisational theory emphasises that formal structures are mediated by organisational systems, routines, and infrastructures [29–31]. In complex organisations such as healthcare systems, work is highly interdependent and relies on centrally coordinated support systems,

including digital infrastructures, financial management systems, administrative processes, and coordination mechanisms [21, 32]. These systems can both enable and constrain managerial action, depending on how they are designed and enacted [33].

Building on these insights, this paper introduces the concept of dependent autonomy to explain how managerial autonomy is produced within complex healthcare systems. Dependent autonomy refers to the condition in which formally delegated authority becomes actionable only through the availability and functioning of organisational support systems. From this perspective, autonomy is not an inherent property of decentralised governance structures but an emergent outcome of interactions between authority, organisational systems, and coordination mechanisms [26, 34]. While de facto autonomy describes the observed outcome of autonomy in practice, dependent autonomy specifies the organisational mechanism through which such autonomy becomes possible.

This conceptualisation provides a new lens for understanding the implementation of value-based healthcare. Specifically, it suggests that HVHS components should not be viewed solely as structural or technical elements, but as enabling conditions that shape managers' ability to enact decision space in practice [11, 20, 22]. Without such enabling conditions, the implementation of VBHC may remain symbolic rather than transformative [16, 19].

Despite substantial investments in value-based healthcare, implementation outcomes remain inconsistent across healthcare systems. This suggests that existing frameworks insufficiently theorise the organisational mechanisms linking system design to practice.

Decision space theory provides an important starting point by distinguishing between formal (de jure) and effective (de facto) autonomy [25, 26]. However, while this distinction captures variation in autonomy as an outcome, it does not specify the mechanisms through which autonomy becomes actionable in practice. Similarly, organisational capacity is often treated as a contextual condition rather than an analytically specified construct.

This study addresses this gap by introducing the concept of dependent autonomy, defined as the extent to which managerial autonomy is contingent upon the availability and functioning of organisational systems. While de facto autonomy describes the observed level of autonomy in practice, and organisational capacity refers to enabling resources, dependent autonomy specifies the structural mechanism through which these resources become actionable. We argue that existing VBHC and decision space frameworks identify important conditions for healthcare transformation, but do not specify the organisational mechanism through which these conditions become actionable. This study addresses that gap through the concept of dependent autonomy.

This paper makes three contributions. First, it introduces dependent autonomy as a novel mechanism linking system design to managerial action. Second, it extends decision space theory by specifying how organisational capacity is materially embedded in organisational systems. Third, it integrates value-

based healthcare, decision space theory, and organisational theory into a unified framework explaining how system components are translated into practice.

The aim of this paper is to develop a theoretical framework that explains how organisational systems shape managerial decision space and, ultimately, the realisation of patient value in healthcare systems.

Theoretical background

To avoid conceptual ambiguity, this study distinguishes between three related but analytically distinct concepts. De jure autonomy refers to formally delegated authority, while de facto autonomy describes the degree to which autonomy is exercised in practice. Organisational capacity refers to the resources and competencies enabling action. In contrast, dependent autonomy specifies the mechanism through which organisational systems condition whether and how autonomy becomes actionable.

To address the identified gap between system design and organisational practice, this study draws on three complementary theoretical perspectives: value-based healthcare (VBHC) and the High-Value Health System (HVHS) model, decision space theory, and organisational theory on enabling and coercive systems.

These frameworks are selected because they collectively span different but interrelated levels of analysis. The VBHC and HVHS perspectives provide a system-level understanding of how value is conceptualised and operationalised through structural and technical components, identifying the necessary conditions for value creation in healthcare systems [4, 11].

However, as these models primarily specify what is required rather than how it is enacted in practice, decision space theory is introduced to explain how system design translates into managerial action by conceptualising the scope and utilisation of delegated authority [25]. Finally, organisational theory contributes a micro-level perspective by examining how organisational systems function as enabling or constraining mechanisms in everyday work, thereby shaping the conditions under which managerial autonomy can be exercised [33].

Taken together, these perspectives enable an integrated analysis of how system design, organisational conditions, and managerial action interact, providing a theoretically grounded basis for examining the emergence of autonomy as a system-dependent phenomenon. By introducing dependent autonomy, this study integrates these perspectives into a unified explanatory mechanism linking system design, organisational structures, and managerial action.

Value-based healthcare and system design

Value-based healthcare has emerged as a dominant paradigm for healthcare reform, emphasising the alignment of clinical outcomes, resource use, and patient experience [4–6]. Rather than focusing on service volume or organisational outputs, VBHC prioritises the creation of value, typically defined as

health outcomes relative to costs [4, 7]. To operationalise this paradigm, several frameworks have been developed to specify the system components required for value-based care [6, 8]. Recent high-impact studies further emphasise that VBHC requires system-wide transformation and integration across organisational and policy levels rather than isolated interventions [35–37].

The HVHS model represents one of the most comprehensive articulations of this approach [11–13]. It conceptualises healthcare transformation as dependent on a set of interrelated system components, including digital data systems, analytics capabilities, cost and outcome measurement, benchmarking, integrated care pathways, payment models, procurement strategies, and provider network integration [11]. These components are linked through a strategic innovation ecosystem, which is intended to enable continuous learning and system-wide coordination. Recent empirical work highlights that such system-level coordination and data integration are critical preconditions for achieving value at scale [21, 36].

Implicit in such models is the assumption that the introduction and alignment of these components will enable improved decision-making and organisational performance [4, 8]. However, this assumption rests on an underlying premise that clinical managers can use these systems effectively in practice [19, 20]. Recent studies show that implementation success is highly dependent on organisational readiness, governance structures, and data usability [20, 21, 37]. The HVHS model specifies what is required at the system level but does not explicitly address how these components are enacted within organisational contexts [11].

Decision space and the limits of formal autonomy

Decision space theory provides a useful framework for understanding the relationship between system design and managerial action [25–27]. The theory conceptualises decentralisation as the range of choices available to managers and highlights that this range can vary across policy domains and organisational functions [25]. Importantly, the theory distinguishes between formally delegated authority (de jure decision space) and the effective ability to exercise that authority (de facto decision space) [26].

Subsequent developments of the framework emphasise that the translation of delegated authority into practice depends on managerial capacity and accountability structures [26, 28]. Capacity, in this context, includes not only individual competencies but also organisational resources and institutional conditions that enable managers to act [28].

Empirical studies of decentralised healthcare systems demonstrate that managers often value delegated authority and can adapt services to local needs [27, 29]. However, these studies also show that the exercise of autonomy is uneven and highly dependent on contextual factors, including organisational support, resource availability, and coordination mechanisms [28, 29]. This suggests that autonomy cannot be understood solely as a structural feature of governance but must be analysed as a context-dependent and relational phenomenon.

Organisational systems as enabling and constraining mechanisms

Organisational theory further refines this perspective by focusing on how systems and structures shape action [29–31]. Adler and Borys distinguish between enabling and coercive forms of bureaucracy, arguing that organisational systems can either support work processes or constrain them [33]. Enabling systems facilitate problem-solving, reduce uncertainty, and enhance users' capacity to perform their tasks. In contrast, coercive systems impose control, increase monitoring, and limit discretion [33].

In healthcare organisations, where work is complex and requires professional judgement, this distinction is particularly relevant [32, 34]. Centrally coordinated systems, such as digital infrastructures, administrative processes, and financial management tools, are necessary for coordination and accountability but may also introduce rigidity and administrative burden [32]. Recent research highlights that digital health infrastructures and data governance systems can both enable and constrain value-based transformation depending on their design and usability [16, 20, 21]. The effects of these systems therefore depend not only on their presence but on how they are designed, implemented, and experienced by organisational actors [30, 33].

Methods

Study design

This study adopts a theory-building and conceptual synthesis design aimed at developing and refining theoretical understanding of how organisational systems shape managerial autonomy in value-based healthcare. The approach is consistent with established methodologies for conceptual and theory-generating research, where the primary objective is to explain underlying mechanisms rather than to test predefined hypotheses [38–40]. The study is situated within an interpretative and abductive research tradition, in which empirical insights and theoretical reasoning are iteratively combined to generate new conceptual constructs [41, 42].

Conceptual synthesis

A conceptual synthesis approach was employed to integrate empirical findings with relevant theoretical perspectives. Rather than conducting an exhaustive systematic review, the study followed a structured, theory-informed synthesis to identify patterns and relationships across three bodies of literature: decentralisation research, organisational theory, and value-based healthcare frameworks. This approach enables the development of explanatory concepts that extend beyond individual empirical contexts and contribute to theory building [38, 39].

Empirical grounding

The conceptual development is grounded in a set of five previously published empirical studies conducted between 2018 and 2024 by the author and co-authors focusing on decentralised healthcare

governance, hybrid management roles, and organisational responses to complexity and crisis [43–47] presented in Table 1.

Table 1
Empirical basis for the conceptual development of dependent autonomy

Study	Data source	Participants/Material	Primary analytical contribution
Ohrling et al 2021a	Scoping review	24 included studies	Relationship between delegated authority, capacity and accountability
Ohrling et al 2021b	Senior management interviews	9 senior managers	Organisational capacity and support systems
Ohrling et al 2022a	Clinical director interviews	15 clinical directors	Enacted autonomy and managerial action
Ohrling et al 2022b	Crisis management study	23 interviews + 108 survey responses	Central coordination and organisational responsiveness
Ohrling et al 2026	Hybrid management study	80–92 clinical directors across two surveys	Coordination complexity and role ambiguity

Together, these studies provided empirical material from decentralised governance, managerial behaviour, organisational support systems, crisis coordination, and hybrid management structures. The studies were selected because they consistently addressed the relationship between delegated authority, organisational capacity, coordination, and managerial action, thereby providing the empirical basis for conceptual abstraction. These studies, based on qualitative and mixed methods designs, consistently demonstrate that managers operate within formally delegated authority, while their ability to act in practice is contingent upon organisational capacity, support systems, and coordination structures. Across these studies, a recurring discrepancy is observed between formal (de jure) autonomy and enacted (de facto) autonomy, providing the empirical basis for conceptual development. For example, managers describe situations in which formal responsibility for service delivery is coupled with limited access to decision-support systems, constraining their ability to act despite nominal autonomy.

Analytical approach

The analysis followed an iterative abductive process consisting of three interrelated steps as illustrated in Table 2 [48, 49].

Table 2
Analytical abstraction process leading to the concept of dependent autonomy

Analytical level	Content
Empirical Meaning units	**Autonomy in practice**: local decision-making authority; use of delegated authority; constraints from central level **Organisational capacity**: enabling systems (HR, leadership, development); infrastructure and resources; administrative systems **Coordination**: central coordination in crises; hybrid managerial levels; role ambiguity and complexity
Theoretical lenses	**Decision Space Theory**: authority; capacity; accountability **Organisational Theory**: enabling systems; constraining/coercive systems **High-Value Health System (HVHS)**: leadership; financing; data infrastructure; innovation capacity
Conceptual abstraction	**Dependent autonomy** Autonomy dependent on organisational capacity Autonomy dependent on organisational structure and systems Autonomy dependent on coordination mechanisms

First, empirical findings in the studies were reviewed using a directed content analysis approach [50, 51]. Meaning units related to managerial autonomy, organisational capacity, and central coordination were identified, condensed, and coded. Patterns across studies were compared to identify recurring relationships between managerial action and organisational conditions into thematic categories.

Second, these empirical patterns were interpreted through three complementary theoretical lenses: decision space theory, which conceptualises autonomy in terms of authority, capacity, and accountability [25, 26]; organisational theory, particularly the distinction between enabling and coercive systems [33]; and value-based healthcare frameworks, focusing the HVHS model, which specify system-level components for high-value care [11–13]. The HVHS model highlights that value creation is contingent upon a set of interdependent enabling conditions operating at the system level, with leadership, financing, data infrastructure, and innovation capacity identified as crucial meta-enablers [11]. This theoretical integration facilitates a multi-level understanding linking system design, organisational structures, and managerial action.

Third, through iterative comparison between empirical observations and theoretical constructs, the concept of dependent autonomy was developed. Dependent autonomy is *defined as the extent to which managerial autonomy is contingent upon the availability and functioning of organisational systems.* Based on this conceptualisation, a framework was constructed to represent the relationships between HVHS

system components, organisational systems, dependent autonomy, coordination processes, and patient value.

Quality considerations

Conceptual rigour was ensured through grounding in multiple empirical studies, the use of established theoretical frameworks, and transparent documentation of the analytical process. The study aims for theoretical generalisability, enabling the transfer of concepts across contexts rather than statistical generalisation [38, 40].

Limitations

This study is conceptual in nature and does not empirically test causal relationships. The empirical grounding is primarily derived from studies conducted in publicly funded healthcare systems, which may limit direct transferability to other contexts. However, the consistency of empirical patterns across studies, combined with their alignment with established theoretical perspectives, supports the robustness and broader relevance of the proposed conceptual mechanism.

Results

Empirical findings

The content analysis identified three interrelated themes: *enabled yet contingent autonomy, organisational capacity as a conditioning force, and coordination as integrative yet complexity-generating* presented below. This pattern has been consistently observed in the empirical studies of decentralised healthcare organisations, where clinical directors report substantial delegated authority while simultaneously emphasising their dependence on centrally coordinated systems such as digital infrastructure, administrative support, and financial frameworks. Examples of the coding and abstraction process underpinning the development of these themes and the cross-theme synthesis are presented in Supplement 1. Together, these themes provided the empirical foundation for the conceptual development of dependent autonomy. The contribution of each study to the analytical themes and the subsequent conceptual synthesis is summarised in Table 3.

Table 3
Contribution of empirical studies to analytical themes and conceptual development

Study	ECA*	OCF*	CICG*	Main contribution
Ohrling et al. 2021a	✓	✓	✓	Decision space, accountability, organisational capacity
Ohrling et al. 2021b	✓	✓		Leadership, support systems, managerial capability
Ohrling et al. 2022a	✓	✓		Delegated authority, local adaptation
Ohrling et al. 2022b COVID		✓	✓	Crisis coordination and organisational responsiveness
Ohrling 2026	✓	✓	✓	Hybrid management, coordination complexity, role ambiguity

*ECA = Enabled yet contingent autonomy; OCF = Organisational capacity as a conditioning force; CICG = Coordination as integrative yet complexity-generating.

As shown in Table 3, organisational capacity emerged as the most consistently represented theme across all five studies. Issues related to delegated authority and experienced autonomy were also recurrent, whereas coordination was particularly prominent in the crisis management and hybrid management studies. Taken together, the studies pointed towards a common pattern: managers exercised delegated authority, but their ability to do so effectively depended on organisational resources, support systems and coordination mechanisms. This recurring pattern formed the basis for the higher-order concept of dependent autonomy.

Enabled yet contingent autonomy

Across the included empirical studies, managerial autonomy consistently emerged as both present and conditional. Managers actively exercised delegated authority and adapted decisions to local needs, reflecting a substantial degree of autonomy in practice [46]. Decentralisation was similarly described as enabling responsiveness through expanded decision space [45]. However, autonomy was not unrestricted; it was bounded by central policies and controls, particularly in areas such as human resources and investments [46]. Importantly, variation in organisational performance was closely linked to how managers utilised their delegated authority [46]. Managers in high-performing units demonstrated a proactive and expansive use of autonomy, whereas those in lower-performing units relied more heavily on formal rules and central guidance, indicating that autonomy is not only granted but enacted differently in practice [46].

Organisational capacity as a conditioning force

Organisational capacity emerged as a critical determinant of how autonomy could be exercised. Access to support systems, leadership development, and organisational infrastructure enabled managerial action [45, 46]. Conversely, limitations in these systems constrained autonomy. Empirical findings

highlighted how insufficient support, increased administrative burden, and unclear roles, particularly in more complex organisational arrangements, reduced managers' ability to act effectively [44]. Thus, capacity functioned not merely as a background condition, but as an active force shaping the scope and effectiveness of managerial autonomy.

Coordination as integrative yet complexity-generating

Coordination was identified as both an enabling and complicating mechanism. In crisis contexts, central coordination facilitated rapid organisational response and alignment of resources [47]. At the same time, evolving organisational structures, including the introduction of hybrid managerial levels, increased complexity and contributed to role ambiguity and reduced clarity in responsibilities [44]. Coordination processes therefore played a dual role, simultaneously enabling system-wide alignment and generating organisational friction.

Taken together, these themes demonstrate that managerial autonomy is embedded in a system of interdependencies, where the capacity to act is contingent upon organisational structures, resources, and coordination mechanisms.

While these empirical patterns are consistent with prior research on decentralised healthcare systems, they do not in themselves explain the mechanism through which organisational conditions shape managerial action. To address this, the findings were interpreted through complementary theoretical perspectives.

Theoretical interpretation: autonomy as relational and system-bound

The empirical findings were interpreted through three complementary theoretical lenses. First, decision space theory conceptualises autonomy as comprising authority, capacity, and accountability [43]. While authority was formally delegated across the studied organisation, its effective use depended on organisational and individual capacity and the presence of coordinating and accountability structures [45, 46].

Second, organisational theory provided a distinction between enabling and coercive systems. Enabling systems, such as leadership support, infrastructure, and clear organisational routines, facilitated managerial action [45, 46]. In contrast, coercive elements, such as administrative overload, increased hierarchical complexity, and unclear roles, constrained managerial autonomy [44].

Third, a system-level perspective, informed by the HVHS framework, highlighted how these dynamics are embedded within broader organisational design. The emergency response studies illustrate how coordination processes and system integration influence the organisation's capacity to respond to complex and rapidly changing demands [47].

Together, these perspectives support an understanding of autonomy not as an individual attribute, but as a relational construct shaped by organisational systems.

Conceptual development: dependent autonomy

The analysis resulted in the development of a conceptual framework that explains how value-based healthcare (VBHC) and High-Value Health system (HVHS) components are translated into patient value through organisational systems and managerial action, Fig. 1. The analysis identifies *dependent autonomy* as the central mediating mechanism linking system design to practice. The conceptual framework is not strictly linear but represents a dynamic and recursive process, in which organisational systems both shape and are reshaped by managerial action through feedback mechanisms generated by coordination outcomes and patient flows.

Dependent autonomy embodies an organisational paradox. Managers require autonomy to adapt services to local needs, yet this autonomy depends on centrally coordinated systems that simultaneously constrain local discretion. The more healthcare organisations invest in coordination infrastructures, the greater their capacity to support local autonomy, but also the greater their potential to restrict it.

The analysis demonstrates that HVHS components, such as digital data systems, analytics, outcome and cost measurement systems, integrated care pathways, payment models, and provider networks, constitute the structural and technical architecture of VBHC [4, 6]. These components do not operate independently at the level of practice. Instead, they are enacted through organisational systems that translate structural design into operational conditions and collectively shape how work is organised and decisions are implemented [4–6, 11]. This interpretation aligns with research showing that healthcare system reforms are mediated by organisational structures and institutional contexts rather than implemented directly as designed [53, 54].

Organisational systems as dual mechanisms

A central finding of the analysis is that organisational systems function as dual mechanisms that simultaneously enable and constrain managerial action. This observation is consistent with organisational theory distinguishing between enabling and coercive systems [33], as well as empirical research on performance management and governance reforms demonstrating that mechanisms intended to improve coordination may also introduce administrative burden and constrain professional discretion [33, 44]. Thus, organisational systems are not neutral intermediaries but active determinants of how managerial autonomy is enacted, contributing to variation in outcomes across otherwise similar system configurations.

To further clarify the organisational mechanisms underlying dependent autonomy, organisational systems can be understood as a set of interrelated infrastructures that support, coordinate, and regulate managerial action. These systems extend beyond formal organisational structures and include the practical arrangements through which information, resources, authority, and accountability are mobilised

in everyday work. Consistent with the empirical findings and the theoretical perspectives applied in this study, organisational systems encompass information systems, administrative systems, coordination systems, development systems, and governance systems. Together, these systems shape the conditions under which managers can exercise delegated authority and enact decision space in practice. Examples of organisational systems supporting dependent autonomy are presented in Table 4.

Table 4
Organisational systems supporting dependent autonomy

System type	Example
Information systems	EHR, dashboards, analytics
Administrative systems	HR, finance, procurement
Coordination systems	Management meetings, care pathways
Development systems	Leadership training, improvement programmes
Governance systems	Performance management, accountability structures

As shown in Table 4, dependent autonomy is supported by a broad set of organisational systems operating across multiple organisational levels. These systems do not directly determine managerial action; rather, they create the enabling and constraining conditions through which delegated authority becomes actionable. Consequently, variation in the design, functionality, and integration of organisational systems is likely to influence the degree of dependent autonomy achieved in practice.

Dependent autonomy as mediating mechanism

The concept of dependent autonomy emerged as the core mechanism linking organisational systems to managerial action. Dependent autonomy refers to the condition in which managers possess formally delegated authority, yet their ability to act is contingent upon the availability and functioning of organisational systems. This conceptualisation builds on and extends decision space theory, which distinguishes between formal (de jure) and effective (de facto) autonomy [25, 26]. Consistent with prior studies on decentralised healthcare governance, the findings indicate that enabling and well-functioning organisational systems expand managers' effective decision space, whereas fragmented or coercive systems constrain it [33]. Dependent autonomy thus represents the operational expression of decision space in practice. The concept provides a mechanism linking organisational design to outcomes. By shaping the conditions under which managers can act, organisational systems influence coordination processes and the organisation's ability to respond to changing demands.

Conceptual distinctiveness of dependent autonomy

While dependent autonomy builds on established concepts within decision space and organisational theory, it represents a distinct analytical construct. Existing concepts explain either the formal allocation of authority (de jure autonomy), the observed exercise of autonomy in practice (de facto autonomy), or the organisational resources available to support action (organisational capacity). However, none of

these concepts explicitly specifies the organisational mechanism through which formally delegated authority becomes actionable. Dependent autonomy addresses this gap by conceptualising how organisational systems enable or constrain the translation of authority into effective managerial action. The distinctions between dependent autonomy and related concepts are summarised in Table 5.

Table 5
Relationship between dependent autonomy and related concepts

Concept	Focus	Unit of analysis	Limitation
De jure autonomy	Formal delegation	Governance structure	Says little about implementation
De facto autonomy	Actual exercise of autonomy	Manager behaviour	Describes outcome rather than mechanism
Organisational capacity	Resources and competencies	Organisation	Does not explain translation into action
Dependent autonomy	Organisational mechanism enabling autonomy	System-manager interaction	Explains how autonomy becomes actionable

As shown in Table 5, dependent autonomy differs from related concepts by focusing on the interaction between organisational systems and managerial agency. Rather than describing autonomy as either a governance arrangement or an empirical outcome, it identifies the organisational mechanism through which autonomy is enacted in practice. This distinction provides the theoretical foundation for the conceptual framework presented in Fig. 1.

From dependent autonomy to coordination and patient value

The framework further demonstrates that dependent autonomy directly influences coordination processes and, ultimately, the creation of patient value. Where dependent autonomy is high, managers can coordinate activities across organisational units more effectively, adapt to changing clinical and operational conditions, and maintain coherent patient flows across care pathways. This finding is consistent with research showing that decentralised decision-making improves responsiveness when supported by adequate capacity and coordination mechanisms [44, 47]. Conversely, where dependent autonomy is limited, coordination becomes fragmented, delays increase, and patient flows are disrupted, thereby constraining value creation despite the presence of system components. This pattern aligns with studies demonstrating that misalignment between system design and organisational capacity undermines the effectiveness of healthcare reforms [55]. In this sense, dependent autonomy acts as a mediating construct between system design and the creation of patient value.

Taken together, the conceptual framework can be summarised through four interrelated propositions. First, HVHS system components influence outcomes indirectly through organisational systems rather than directly. Second, organisational systems determine the degree of dependent autonomy by shaping the conditions under which managerial action is possible. Third, dependent autonomy governs the enactment of coordination and patient flows, thereby influencing organisational performance. Fourth, organisational systems function as dual mechanisms that simultaneously enable and constrain autonomy, creating variation in outcomes across contexts.

Three interrelated dimensions of dependent autonomy were identified. First, autonomy is dependent on organisational capacity, including access to resources, competencies, and support systems. Second, autonomy is dependent on organisational structures, which define both the scope and limits of delegated authority. Third, autonomy is dependent on coordination processes, which align activities across organisational levels but may also introduce complexity and ambiguity. Thus, autonomy is not an independent or static condition, but a dynamic and system-bound phenomenon. Increasing formal delegation alone is insufficient to enhance autonomy in practice; rather, autonomy emerges through the alignment of authority, capacity, and coordination.

Discussion

This study set out to explain how value-based healthcare system components are translated into practice. The findings show that managerial autonomy is not directly determined by system design but is mediated through organisational systems. Dependent autonomy captures this relationship by specifying how organisational systems condition whether formally delegated authority becomes actionable.

The three theoretical perspectives applied in this study address different but complementary dimensions of healthcare organisation. Decision space theory explains the formal distribution of authority, organisational theory explains how systems structure action, and VBHC frameworks define the intended system design. However, none of these perspectives alone explains how system components are translated into practice. By introducing dependent autonomy, this study integrates these perspectives into a unified explanatory mechanism linking system design, organisational structures, and managerial action. These findings are grounded in empirical studies of decentralised healthcare governance, which consistently demonstrate that managers operate within formally delegated authority while remaining dependent on organisational systems to enact decisions.

Reframing healthcare transformation: from design to enactment

This study advances the understanding of value-based healthcare (VBHC) by reframing healthcare transformation as a problem of organisational enactment rather than system design. While dominant VBHC frameworks, including the High-Value Health System (HVHS) model, specify the structural and technical components required for high-value care, such as digital infrastructures, outcome

measurement systems, and integrated care pathways [4–6, 11], the findings suggest that the presence of these components alone is insufficient to ensure effective implementation.

This observation aligns with a growing body of critical VBHC literature, which has questioned the assumption that structural redesign and measurement systems automatically translate into improved outcomes [5, 52]. Empirical studies have shown that VBHC initiatives often lead to increased administrative complexity and variable results across settings, highlighting a gap between system design and practical enactment [53, 54]. In line with this critique, the present study demonstrates that the effectiveness of VBHC depends on how system components are mediated through organisational systems and enacted by managers in practice.

Extending decision space theory

A central contribution of this study is the introduction of *dependent autonomy* as a mechanism explaining how formally delegated authority becomes actionable within complex healthcare systems. Building on decision space theory, which distinguishes between de jure and de facto autonomy [25, 26], the findings demonstrate that managerial autonomy is not solely determined by governance structures but is contingent upon organisational systems. It is shown in this study that dependent autonomy extends decision space theory by specifying the organisational mechanism linking de jure and de facto autonomy."

While previous research has emphasised the role of capacity in shaping decision space [10–12], capacity has often been treated as a relatively abstract or contextual factor. This study extends that perspective by specifying that capacity is materially embedded in organisational infrastructures, including digital systems, administrative processes, and coordination mechanisms. In doing so, it aligns with and extends empirical findings showing that decentralisation reforms frequently fail to deliver expected outcomes when organisational support systems are weak or misaligned [55].

The concept of dependent autonomy therefore refines decision space theory by providing a more precise account of how autonomy is enacted in practice. Rather than viewing autonomy as a property of governance structures, it conceptualises autonomy as contingent upon system functionality, thereby bridging the gap between formal delegation and practical action.

Organisational systems as enabling and constraining mechanisms

By integrating organisational theory, particularly the distinction between enabling and coercive bureaucracy [33], this study demonstrates that organisational systems function as *dual mechanisms* that simultaneously enable and constrain managerial action. This finding is consistent with research on performance management and audit systems in healthcare, which shows that tools designed to enhance accountability and transparency may also generate unintended consequences, such as increased administrative burden and reduced professional discretion [56–58]. Similarly, studies of digitalisation in healthcare have highlighted how information systems can both support coordination and introduce

rigidity into clinical workflows [59, 60]. The present study extends this literature by conceptualising these dynamics as inherent properties of organisational systems rather than as implementation failures. Organisational systems are not neutral infrastructures but active determinants of how autonomy is exercised and how work is coordinated.

Reinterpreting VBHC and HVHS through dependent autonomy

Applying the concept of dependent autonomy to VBHC and the HVHS model provides a new interpretation of healthcare transformation. Rather than viewing HVHS components as direct drivers of value, this study positions them as organisational infrastructures that shape the conditions for managerial action. This perspective resonates with emerging critiques of VBHC that emphasise the importance of organisational context and implementation processes [52, 53]. However, the present study goes further by identifying a specific mechanism, dependent autonomy, that links system components to outcomes.

Digital data systems, analytics, cost and outcome measurement, and integrated care pathways do not directly produce value. Instead, they influence value creation by enabling or constraining managers' effective decision space. Consequently, the success of VBHC and HVHS depends not on the presence of these components per se but on whether they function as enabling systems that support coordination and decision-making.

The autonomy–coordination paradox

The findings further reveal a fundamental *autonomy–coordination paradox*, in which the same organisational systems that enable coordination across organisational units may constrain local adaptability. This paradox reflects a broader pattern identified in organisational and public administration research, where centralisation and decentralisation are increasingly understood as interdependent rather than opposing governance mechanisms [22–24]. In healthcare, this tension is particularly pronounced due to the need to balance standardisation, integration, and accountability with professional autonomy and local responsiveness [25, 26]. Rather than resolving this tension, healthcare organisations must manage it dynamically. This aligns with paradox theory, which conceptualises organisational tensions as persistent and interdependent rather than solvable trade-offs [27]. The concept of dependent autonomy provides a concrete mechanism through which this paradox is enacted in practice.

Theoretical contribution

This study makes three key theoretical contributions. First, it introduces *dependent autonomy* as a novel concept that captures the system-dependent nature of managerial autonomy in healthcare organisations. Second, it extends decision space theory by specifying how organisational capacity is produced through systems and infrastructures, thereby moving beyond abstract conceptualisations of capacity. Third, it integrates VBHC, decentralisation theory, and organisational theory into a unified

framework that explains how system components are translated into practice. Together, these contributions shift the understanding of autonomy from a structural attribute to an emergent organisational phenomenon shaped by system–actor interactions.

Implications for research and practice

For research, the findings highlight the need to move beyond structural analyses of healthcare reform and to examine how organisational systems mediate the relationship between system design and outcomes. Future studies should investigate the role of dependent autonomy as a mediating mechanism in different healthcare contexts. For practice, the findings suggest that healthcare transformation requires attention not only to structural components but also to the design and functionality of organisational systems. Investments in digital infrastructure, coordination mechanisms, and administrative support should prioritise usability and alignment with clinical practice. Moreover, efforts to strengthen central coordination should be carefully balanced to avoid constraining managerial autonomy and reducing organisational adaptability.

Overall, this study demonstrates that the effectiveness of healthcare transformation depends not primarily on the presence of system components but on the organisational conditions that make them actionable. By conceptualising autonomy as dependent on organisational systems, the study provides a theoretically grounded explanation for why value-based healthcare succeeds in some contexts while failing in others.

Conclusion

This study develops the concept of *dependent autonomy* to explain how value-based healthcare (VBHC) is enacted within complex organisational systems. By integrating insights from decision space theory, organisational theory, and VBHC frameworks, the analysis demonstrates that managerial autonomy is not solely determined by formal delegation of authority but is contingent upon the organisational systems that enable action in practice.

The findings challenge prevailing assumptions that healthcare transformation can be achieved through the implementation of structural components alone. Instead, they show that the effectiveness of VBHC depends on whether organisational systems function as enabling infrastructures that expand managers' effective decision space. In this sense, autonomy is not an inherent property of decentralised governance, but an organisational accomplishment produced through the interaction between authority, capacity, and system design.

By conceptualising autonomy as dependent on organisational systems, this study provides a novel explanation for the variability observed in VBHC implementation. It shifts the analytical focus from the presence of system components to their role in shaping managerial action and coordination. This perspective contributes to theory by extending decision space models and by integrating organisational and system-level explanations of healthcare performance.

Declarations

Ethical approval

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki (World Medical Association, 2013). The study was performed as a part of a larger project on management decentralisation, the research plan of which has been evaluated and endorsed by the Stockholm Regional Research Ethics Board (DNr 2018/98-31/5) which is a part of The Swedish Ethical Review Authority. All methods were performed in accordance with relevant guidelines and regulations.

Consent to Participate declaration

Not applicable.

Consent for publication

Not applicable.

Competing interests

The author declares that there are no competing interests.

Funding

No funding received.

Author Contribution

MO designed the study, made the analysis and wrote the manuscript.

Acknowledgement

The author gratefully acknowledges Professor Mats Brommels and Dr Carl Savage, fellow researchers at Medical Management Centre, for their constructive discussions and valuable input on the manuscript.

Data Availability

All data analysed during this study are included in previously published studies cited in this article.

References

1. World Health Organization. Global strategy on people-centred and integrated health services. Geneva: WHO; 2016.
2. OECD. Health at a Glance 2024: OECD Indicators. Paris: OECD Publishing; 2024. doi:10.1787/health_glance-2024-en.
3. Nolte E, Pitchforth E. What is the evidence on integrated care? Copenhagen: WHO; 2014.
4. Porter ME. What is value in health care? N Engl J Med. 2010;363(26):2477–81. 10.1056/NEJMp1011024.
5. Gray M. Value based healthcare. BMJ. 2017;356:j437. 10.1136/bmj.j437.
6. Teisberg E, Wallace S, O'Hara S. Defining and implementing value-based health care. Acad Med. 2020;95(5):682–5. 10.1097/ACM.0000000000003122.
7. Kaplan RS, Porter ME. How to solve the cost crisis in health care. Harv Bus Rev. 2011;89(9):46–52.
8. Porter ME, Larsson S, Lee TH. Standardizing patient outcomes measurement. N Engl J Med. 2016;374(6):504–6. 10.1056/NEJMp1511701.
9. van Engen V, et al. Value-based healthcare from the perspective of the healthcare professional: a systematic literature review. Front public health. 2022;9:800702.
10. van Engen V, Bonfrer I, Mieris F, Ensink M, Stiggelbout A, Ahaus K et al. Gains and pains: a qualitative study on the implications of value-based health care for professionals. Human resources for health. January 14, 2025;23(1).
11. Garcia J, Reddy CL, Atun R. Transitioning to High-Value Health Systems in G20 + Countries. Harvard University; 2023. 10.54111/0001/HSIL/thvhs.
12. Shortell SM, et al. High-value healthcare systems. Milbank Q. 2015;93(3):456–98. 10.1111/1468-0009.12126.
13. European Commission. Defining value in value-based healthcare. 2019. 10.2875/11536
14. Plsek PE, Greenhalgh T, Complexity science. BMJ. 2001;323:625–8. 10.1136/bmj.323.7313.625.
15. Khalil H, Ameen M, Davies C, Liu C. Implementing value-based healthcare: a scoping review of key elements, outcomes, and challenges for sustainable healthcare systems. Front public health. 2025;13:1514098. 10.3389/fpubh.2025.1514098.
16. Grozdanova A, Mihajloska E, Naumovska Z, Staninova Stojovska M, Sterjev Z, Dimkovski A, et al. Toward value in healthcare: opportunities and challenges for implementing Value-Based Healthcare in North Macedonia. Front public health. 2025;13:1646870. 10.3389/fpubh.2025.1646870.
17. Kynoch K, Cooper C, Foley C, Beckmann M. Opportunities and Challenges to Implementing Value-Based Health Care Across a Multisite Health Service. Nurs Health Sci. 2025;27(2):e70136. 10.1111/nhs.70136. -n/a.
18. Damberg CL, et al. Measuring success in VBHC. RAND Health Q. 2014;4(3):9.

19. Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. Diffusion of innovations in service organizations: systematic review and recommendations. Milbank Q January 1. 2004;82(4):581–629.
20. de Mattia E, van Staalduinen D, Valentini I, van der Nat PB, de Belvis AG. Development of a Tool to Assess the Implementation and Perception of the Value-Based Healthcare Model: Our Results. Healthc (Basel). 2025;13(22):2849. 10.3390/healthcare13222849.
21. van Steenbergen GJ, van de Kar MR, Schulz DN, Dekker LR, van Veghel D. Advancing patient-centred innovation: data-driven approaches to value-based health care. Int J Healthc Manag. 2025;1–10. 10.1080/20479700.2025.2547953.
22. Ferlie E, Shortell SM. Improving quality in healthcare. Milbank Q. 2001;79(2):281–315. 10.1111/1468-0009.00206.
23. Weick KE, Weick KE. Sensemaking in organizations. Thousand Oaks, CA: Sage; 1995.
24. Scott W, Richard, Gerald F, Davis. Organizations and organizing: Rational, natural and open systems perspectives. Routledge; 2015.
25. Bossert TJ. Decentralization and decision space. Soc Sci Med. 1998;47(10):1513–27. 10.1016/S0277-9536(98)00234-9.
26. Bossert TJ, Mitchell AD. Health sector decentralization. Health Policy Plan. 2011;26(6):524–35. 10.1093/heapol/czr004.
27. Saltman RB. Decentralization, re-centralization and future European health policy. Eur J Pub Health. 2008;18(2):104–6.
28. Mills A, Vaughan JP, Smith DL, Tabibzadeh I. Health system decentralization: concepts, issues, and country experience. 1990. https://www.semanticscholar.org/paper/Health-system-decentralization%3Aconcepts%2Cissues%2Cand-Mills-Vaughan/6f855b26067250f074b90aa7304a9d704852360b
29. Mintzberg H. Understanding organizations… Finally! Structuring in sevens. Berrett-Koehler; 2023.
30. Orlikowski WJ. Structuration theory. Organ Sci. 1992;3(3):398–427. 10.1287/orsc.3.3.398.
31. March JGHA, Simon. Organizations. *Aufl. New York 1966*, 1958.
32. Gittel J, Hoffer. High performance healthcare: Using the power of relationships to achieve quality, efficiency and resilience. McGraw-Hill; 2009.
33. Adler PS, Borys B. Two types of bureaucracy. Adm Sci Q. 1996;41(1):61–89. 10.2307/2393986.
34. Lipsky M. Street-level bureaucracy: Dilemmas of the individual in public service. Russell Sage Foundation; 2010.
35. van Engen V, Buljac-Samardzic M, Baatenburg de Jong R, Braithwaite J, Ahaus K, Den Hollander-Ardon M et al. A decade of change towards Value-Based Health Care at a Dutch University Hospital: a complexity-informed process study. Health Res policy Syst August 5, 2024;22(1).
36. Porter ME, Lee TH. The strategy that will fix health care (updated perspectives). Harv Bus Rev. 2023.
37. Nolte E, Merkur S, Anell A. Achieving value-based healthcare in Europe: challenges and opportunities. Lancet Reg Health Eur. 2023;28:100612. 10.1016/j.lanepe.2023.100612.

38. Jabareen Y. Building a conceptual framework: philosophy, definitions, and procedure. Int J Qual Methods. 2009;8(4):49–62. 10.1177/160940690900800406.
39. Torraco RJ. Writing integrative literature reviews: guidelines and examples. Hum Resour Dev Rev. 2005;4(3):356–67. 10.1177/1534484305278283.
40. MacInnis DJ. Construct conceptualization and measurement. J Mark Res. 2011;48(1):136–47. 10.1509/jmkr.48.1.136.
41. Tavory I, Timmermans S. Abductive analysis: theorizing qualitative research. Chicago: University of Chicago Press; 2014.
42. Dubois A, Gadde LE. Systematic combining: abductive approach to case research. J Bus Res. 2002;55(7):553–60. 10.1016/S0148-2963(00)00195-8.
43. Ohrling M, Ovretveit J, Brommels M. Can management decentralisation resolve challenges faced by healthcare service delivery organisations? Findings for managers and researchers from a scoping review. Int J Health Plann Mgmt. 2021a;36:30.
44. Ohrling M. Challenges in hybrid management in healthcare: a study of the interplay between divisional managers and clinical directors in a decentralized healthcare organization in Sweden. BMC Health Serv Res. 2026;26:145.
45. Ohrling M, Tolf S, Solberg Carlsson K, Brommels M. That's how it should work: the perceptions of senior management on the value of decentralization. J Health Organ Manag. 2021b;35(5):596–613.
46. Ohrling M, Tolf S, Solberg-Carlsson K, Brommels M. Managers do it their way: how managers act in a decentralized healthcare services provider organization. Health Serv Manage Res. 2022a;35(4):215–28.
47. Ohrling M, Solberg Carlsson K, Brommels M. No man is an island: management of the emergency response to the SARS-CoV-2 (COVID-19) outbreak in a large public decentralised service delivery organisation. BMC health Serv Res March 21, 2022b;22(1).
48. Gioia DA, Corley KG, Hamilton AL. Seeking qualitative rigor in inductive research. Organ Res Methods. 2013;16(1):15–31. 10.1177/1094428112452151.
49. Eisenhardt KM. Building theories from case study research. Acad Manage Rev. 1989;14(4):532–50. 10.5465/amr.1989.4308385.
50. Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. Qual Health Res. 2005;15(9):1277–88. 10.1177/1049732305276687.
51. Assarroudi A, Heshmati Nabavi F, Armat MR, et al. Directed qualitative content analysis: the description and elaboration of its underpinning methods and data analysis process. J Res Nurs. 2018;23:42–55. 10.1177/1744987117741667.
52. Fredriksson JJ, Ebbevi D, Savage C. Pseudo-understanding: an analysis of the dilution of value in healthcare. BMJ Qual Saf July 1. 2015;24(7):451–7.
53. Nilsson K, Bååthe F, Andersson AE, Wikström E, Sandoff M. Experiences from implementing value-based healthcare at a Swedish University Hospital – a longitudinal interview study. BMC health Serv

Res Febr 28, 2017;17(1).
54. de Mattia E, Angioletti C, D'Agostino M, Paoletti F, de Belvis AG. Moving from Principles to Practice: A Scoping Review of Value-Based Healthcare (VBHC) Implementation Strategies. Healthcare (Basel). Dec 5. 2024;12(23):2457.
55. Peckham S, Exworthy M, Powell M, Greener I. Decentralizing health services in the UK: a new conceptual framework. Public Adm (London) June. 2008;86(2):559–80.
56. Power M. The audit society: rituals of verification. Oxford: Oxford Univ. Press; 2000.
57. Hood C, Dixon R. Not What It Said on the Tin? Reflections on Three Decades of UK Public Management Reform. Financial accountability & management. November. 2016;32(4):409–28.
58. Bevan G, Hood C. What's measured is what matters: targets and gaming in the english public health care system. Public Adm (London) August. 2006;84(3):517–38.
59. Dal Mas F, Massaro M, Rippa P, Secundo G. The challenges of digital transformation in healthcare: An interdisciplinary literature review, framework, and future research agenda. Technovation May 2023;123.
60. Cresswell K, Sheikh A. Organizational issues in the implementation and adoption of health information technology innovations: An interpretative review. Int J Med Inf (Shannon Ireland) May 1. 2013;82(5):e73–86.
61. Smith WK, Lewis MW. Toward a theory of paradox: A dynamic equilibrium model of organizing. Acad Manage Rev. 2011;36(2):381–403.

Figures

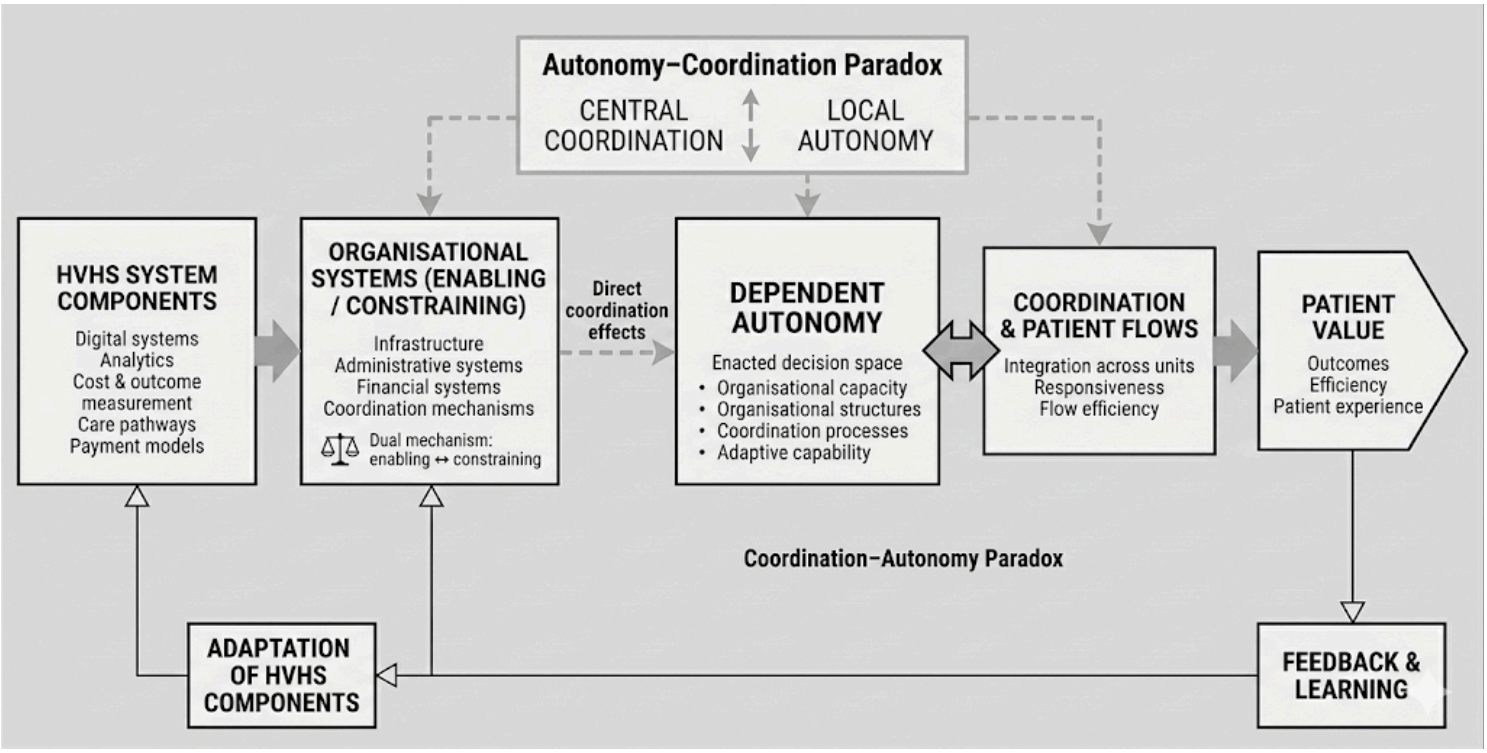


Figure 1

Conceptual framework of dependent autonomy. The framework highlights a dynamic feedback loop whereby outcomes inform system adaptation and reflects the autonomy-coordination paradox inherent in complex healthcare systems.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- Supplement1.docx