Multiplicities of Knowledge and Learning: Exploring the Codes of Knowing in Healthcare Governance

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Abstract

This paper examines healthcare governance in Sweden, focusing on two key trends: "Knowledge-based management" and "Trust-based management" (in Swedish, "kunskapsstyrning" and "tillitsbaserad styrning"). These trends are analysed through three dimensions of governance, rooted in theories of knowledge and learning, each represented on a continuum. The first dimension assesses the extent to which governance prioritizes tacit versus explicit knowledge. The second considers the locus of knowledge, distinguishing whether it resides within individuals or social groups, thereby influencing whether learning is oriented toward individual or collective processes. The third dimension contrasts learning that reproduces established knowledge with learning that generates innovation and new knowledge. Through detailed document analysis, the paper highlights disparities between Knowledge-based management and Trust-based management at the policy level, particularly in their discursive constructions of knowledge and learning across these three dimensions. The analysis suggests that these governance approaches sometimes conflict, requiring a choice between pursuing the ideals of Knowledge-based management or Trust-based management, while at other times, they can coexist side by side. This paper contributes to the discourse on healthcare governance by providing an analytical framework for understanding how governance approaches embody distinct "codes of knowing" and support varying modes of knowledge and learning processes.

Practical Relevance

➢ Within healthcare practices, "knowledge-based management" and "trust-based management" diverge in their orientations toward prioritized modes of knowledge and forms of learning.

➢ While Knowledge-based management is focused on reproduction of explicit knowledge through implementation of scientific knowledge, Trust-based management places greater emphasis on collective learning and innovation, creating room for tacit knowledge.

➢ Based on the analysis along three dimensions rooted in theories of knowing, a three-dimensional framework is proposed for further exploring the varying orientations and divergent "codes of knowing" present in healthcare governance.

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Introduction

Health system governance, or healthcare governance, aims to translate health policy into management and clinical practice to enhance the quality and efficiency of healthcare services. It involves the processes, structures and institutions in place to oversee and manage a country's healthcare system (World Health Organization 2024). Over time, practices of healthcare governance have faced scrutiny, leading to various reform proposals. These reforms often involve modifications in governance structures, management practices, and leadership frameworks within the healthcare system. However, governance reforms are often intertwined with substantive reforms directly targeting healthcare delivery, blurring the distinction between the two (Dickinson and Pierre 2016).

Regardless of whether reforms primarily address governance or substantive aspects, knowledge assumes a pivotal role, serving as a dependable indicator of

quality in both healthcare and governance domains. Consequently, healthcare governance implies a challenging and potentially impossible mixture of heterogenous kinds of knowledge, including various species of medical professional knowledge, public health knowledge, organizational knowledge, patient experiences, and economic considerations. These diverse forms of knowledge entail fundamentally different assumptions about their generation, appraisal, and utilization (Pistone, Sager, and Andersson 2023; Lagerlöf, Zuiderent-Jerak, and Sager 2021).

For instance, insights from the fields of organizational knowledge and learning are highly relevant for the governance aspects of healthcare governance (e.g., Lindblom 1959; Argyris and Schön 1995; Osborne 2006; Lindberg, Czarniawska, and Solli 2015; Nilsen et al. 2017). However, this knowledge differs significantly from the medical knowledge often presumed to govern healthcare (Sackett et al. 1996; Gough, Oliver, and Thomas 2017; Greenhalgh 2019). This integration of different modes of knowledge and processes of learning is not uncommon but is typical in areas dealing with "wicked problems" which are associated with diverse social perspectives (Yawson 2015). Therefore, it is not enough for actors involved in healthcare governance to merely ensure that governance strategies are based on knowledge; they must also comprehend and navigate between the different forms of knowledge.

The overarching aim of this paper is to contribute to the analysis and discourse on healthcare governance, with a focus on the different modes of knowledge and processes of learning involved. The paper specifically examines two key trends shaping Swedish healthcare governance: Knowledge-based management (KBM) and Trust-based management (TBM).

In Sweden, healthcare governance is decentralized and administered by regional political authorities, with national discursive governance through authorities like the National Board of Health and Welfare (NBHW), the Swedish Association of Local authorities and Regions (SALAR), and Swedish Government Official Reports. KBM and TBM stand out as prominent concepts in Swedish discursive healthcare governance, having received support from governmental investigations and recognition from NBHW and SALAR. Despite potential vagueness or invisibility at the micro-level, i.e., in the organizations of everyday clinical work, KBM and TBM significantly influence discursive practices at macro and meso levels. Administrators and managers in municipal, regional, and national agencies grapple with the implementation and management of KBM and TBM. Consequently, both can be seen as forms of meta-governance, aiming to govern governance itself and address failures in governance (Gjaltema, Biesbroek, and Termeer 2020). These approaches also have distinct origins and objectives, making them pivotal subjects for studying the diverse forms of knowledge and learning that assist healthcare governance. Moreover, KBM stem from Evidence-based medicine (EBM) and has been associated with New Public Management (NPM), whereas TBM can be seen as part of post-NPM (Johansson, Denvall, and Vedung 2015; Pistone, Sager, and Andersson 2023; Siverbo et al. 2024), rendering an analysis of KBM and TBM relevant beyond the Swedish context.

To achieve the aim of this paper and analyse the discursive conceptualizations of knowledge and learning underpinning governance, a methodological symmetrical stance is assumed, taking into account different modes of knowledge across various scientific fields. This methodological approach is based on constructivist thinking, which posits that knowledge is constructed in social contexts (Latour and Woolgar 1986; Bloor 1991; Knorr-Cetina 1999). Elaborating on a social-constructivist view of knowledge, Oeberst, Kimmerle and Cress (2016, 119) characterized knowledge as "what a specific knowledge-related system accepts". Knowledge is defined within and for the system but cannot be generalized outside of that system. Each system has its own "code" that participants in the social system can use and thereby become epistemic agents who participate in the collaborative construction of knowledge. These processes can be studied as "act[s] of knowing", including aspects of both knowledge itself and learning processes (Dillern 2020).

The overarching question addressed in this paper aligns with the inquiry posed by Oeberst, Kimmerle and Crest regarding the knowledge system's code: What are and could be the codes of knowing in healthcare governance?

By examining two prominent management approaches, KBM and TBM, this paper contributes to a deeper understanding of how discursive constructions of knowledge and learning shape healthcare governance design and, consequently, healthcare delivery. This exploration forms a foundation for more informed decision-making in healthcare governance.

The paper is structured as follows: First, the theoretical framework is presented, organised around three dimensions of knowledge and learning. Next, the methods and materials used in the study are outlined. This is followed by brief introductions to the empirical cases KBM and TBM, leading into an analysis of the empirical material through the lens of the three theoretical dimensions. The paper concludes with a discussion of the identified tensions and their implications. Additionally, it proposes an analytical framework incorporating the three theoretical dimensions as a tool for further research and practical application in governance design.

Exploring Theories of Knowing: Three Dimensions of Knowledge and Learning

Mode of knowledge: Tacit and explicit

Figure 1. Theory of knowing – Dimension mode of knowledge

The concept of tacit knowledge was first introduced by Polanyi (1966; 1967) as a distinction from explicit knowledge. Since then, it has been investigated in diverse fields, such as sociology, management, engineering, and education.

According to Collins (2010, 86), tacit knowledge is "that [knowledge] which cannot be or has not been made explicit". Explicit knowledge, on the other hand, is knowledge that can be transferred using strings of information in the right circumstances by elaboration, transformation, mechanization, or explanation. Explicit knowledge can be passed on through intermediaries or through direct contact, whereas tacit knowledge can be communicated only through "hanging around" with persons who possess this kind of knowledge. However, tacit and explicit knowledge are not mutually exclusive categories. As Collins explains, modes of knowledge are intertwined in practice, and most importantly, the use of explicit knowledge relies on being tacitly understood and applied. Therefore, all knowledge either falls under the category of tacit knowledge or is grounded in it (Polanyi 1966), and it might be more relevant to speak of a distinction between tacit and explicit "elements of knowledge" (Jensen et al. 2007, 681).

Collins identifies three main reasons for not having made knowledge explicit, resulting in three types of tacit knowledge. The first, strong/collective tacit knowledge is "the irreducible heartland of the concept" since collective tacit knowledge is the only tacit knowledge that we do not know how to make explicit (Collins 2010, 87, 119). It is knowledge located in society that can be acquired only through socialization and cultural fluency. Collective tacit knowledge enables us to understand social rules and, e.g., negotiate traffic when driving on roads in the real world. This knowledge is acquired through humans being immersed in society.

Medium/somatic tacit knowledge is related to skills and is embodied in the human body and brain. An example often cited is the knowledge of how to ride a bike. While this kind of knowledge can be explained scientifically, it is more commonly learned through trial and error when individuals are in contact with those who possess the skill.

Weak/relational tacit knowledge is knowledge that is not explicit but could be made explicit. It is tacit due to the organization of society rather than the intrinsic nature of the social. For instance, a warehouse worker may know where to find each item without being able to create a list of all items and their positions. Weak/relational tacit knowledge also encompasses concealed knowledge, whether intentionally or unintentionally. This knowledge can remain hidden for various reasons. Blackman and Sadler-Smith (2009) explored the phenomenon of silence in

organizational settings. They introduced a conceptual distinction between inability and unwillingness to articulate knowledge using the terms "silent" and "silenced", respectively.

Tacit and explicit knowledge are used differently in practice. According to Collins and Kusch (1995), actions can be categorized as polimorphic or mimeomorphic, depending on the different modes of knowledge they rely on. Polimorphic actions are highly dependent on tacit knowledge. The prefix *poly* indicates the multitude of behaviours involved in these actions; however, being spelled *poli* also implies that the rules governing how these actions are performed right or wrong are found in society (polis). These actions are highly variable and depend on the specific context in which they are performed. They require social judgement and are an integral part of professional performance. Polimorphic actions cannot be automated or learned solely through information transmission; rather, they are learned through socialization.

In contrast, mimeomorphic actions build on explicit knowledge. These actions can be reproduced by simply observing or through the transmission of information about the activity, and the behaviour of these actions is not dependent on the context in which they are performed. That is, mimeomorphic actions can be formalized and standardized and are amenable to automation. In practice, however, the polimorphic and mimeomorphic actions are blended, just as the tacit and explicit knowledge on which they are based (Collins and Kusch 1995).

The first dimension used for the analysis of KBM and TBM concerns the modes of knowledge upon which governance concentrates and to what extent it is mostly explicit or tacit knowledge (Figure 1).

Locus of knowledge: Individual and collective

Figure 2. Theory of knowing – Dimension locus of knowledge

A watershed in theories of learning is between the individual and the collective locus of knowledge, i.e., whether the individual or the collective is the primary agent of learning. This is, to some extent, a philosophical debate of mereology, i.e., the study of parthood relations and the question of whether the whole results from its parts or the collective is independent of its parts (Felin and Hesterly 2007). However, the emphasis on learning based on either the individual or the collective as the locus of knowledge will have consequences for how one tries to achieve the positive learning environment that most actors agree they want to achieve (Bahlmann 2014).

Although they focus on different aspects of knowledge, classic epistemology and cognitive psychology both focus on knowledge as a property of individuals (Oeberst, Kimmerle, and Cress 2016). Learning is an inner mental process related to the acquisition and processing of knowledge. In philosophy, the most well-known definition of knowledge is "justified true belief", which provides three conditions for knowledge: knowledge is what a person believes, if it is true, and if the belief is justified. The condition of belief points to individuals' innate cognitive abilities. The conditions of truth and justification point to knowledge as being a representation of the world. To be justified, some kind of justification process must occur.

Psychological theories focus on how knowledge or information can be transmitted between individuals through cognitive acquisition (Oeberst, Kimmerle, and Cress 2016). In educational research, the same focus on cognitive acquisition is commonly seen for traditional teacher-centred education. It relies on the metaphor of "knowledge acquisition", which in turn is based on the technical metaphor of transmission from a sender to a receiver (Kullenberg and Säljö 2022). In implementation science, the diffusion of innovation is seminal work that similarly aligns with the idea of knowledge transmission from a sender to a receiver, and an individual locus of knowledge (Rogers 2003).

The understanding of learning as individual cognitive acquisition has been questioned for its validity and universality, and numerous accounts of collective knowledge and learning have

emerged. For instance, Hecker (2012) proposed a pluralistic epistemology consisting of three dimensions of collective knowledge: shared and complementary knowledge and knowledge embedded in collective artefacts. It is widely accepted today that groups contribute to the production of scientific knowledge, but whether groups themselves can be considered knowers is a more controversial question (Fagan 2012).

According to Collins (2013, 254) almost all kinds of expertise depend on tacit knowledge that "can be acquired only by immersion in the society of those who already possess it". He showed how the learning of polimorphic actions can be distinguished in contexts as diverse as experts exploring gravitational wave physics, car-driving, computer use and talking in natural language. This underscores a learning approach rooted in a collective locus of knowledge.

For approximately 30 years, researchers in organization theory have expressed concern that organizations tend to overlook tacit knowledge due to an overemphasis on individual explicit knowledge (Baumard 1999; Stover 2004; Johannessen, Olaisen, and Olsen 2001; Nonaka and Takeuchi 1995). In educational research, the participation metaphor is often used alongside the metaphor of acquisition to explain learning (Kullenberg and Säljö 2022). According to this view, knowledge is situated in the collective, and learning is a process of participation in communities of practice (Lave and Wenger 1991).

The second dimension for the analysis thus pertains to what kind of learning governance and management ask for – learning as cognitive acquisition based on an individual locus of knowledge or learning through socialization based on a collective locus of knowledge (Figure 2).

Purpose of learning: Reproduction and innovation

Figure 3. Theory of knowing – Dimension purpose of learning

The third analytical dimension concerns the differentiation between learning through the creation of new knowledge and acquiring existing knowledge from others. Methods defined as "scientific" have long held a unique position in understandings of how new knowledge is generated. Consequently, healthcare governance often emphasizes learning in the sense of reproducing this already established knowledge.

However, it has been highlighted for many years now that knowledge from this kind of research is not always used in healthcare practice for various reasons. Implementation science aims to address these challenges of moving knowledge from research to practice by focusing on barriers and facilitators to learning and reproducing existing knowledge. Improvement science is another related research field that recognizes the creation of knowledge based on "human experience in the real world", allowing open-ended learning in healthcare practice to progress through the Plan Do Study Act (PDSA) cycle to achieve process-oriented knowledge development (Perla, Provost, and Parry 2013, 179).

The distinction between open-ended learning and learning already existing knowledge has been extensively discussed in research on organizational learning, with "exploration for innovation" in contrast to "exploitation of existing technologies" being one example (Brix 2019). Engeström (2007) proposed a related distinction between "possibility knowledge" and "stabilization knowledge" to illustrate how learning can either open up for new ideas or reinforce existing ones. Lundvall and Johnson (1994) proposed two modes of innovation, in which Science, Technology and Innovation (STI) mode is based on the production and use of codified scientific and technical knowledge. The Doing, Using and Interacting (DUI) mode relies instead on informal processes of learning and experience-based know-how.

In education, learning is typically focused on reproducing knowledge. However, Kullenberg and Säljö (2022) recently proposed an alternative way of understanding learning even in this context as a process that includes the creation of knowledge. More specifically, they propose polyphony and authorship as two new metaphors of learning. These metaphors originate in assumptions of learning that are not encompassed with the former metaphors of acquisition and

participation. They depict learning as dialogic and open-ended, building on the work of Bakhtin, (e.g. Bakhtin 1986) and Dewey, (e.g. Dewey 1938). In the Bakhtinian sense, Kullenberg and Säljö (2022, 547) described learning as a process "in which learners struggle with understanding the intentions and ideas of others beyond the intent of reproducing them". They follow Dewey's distinction between inter-action and transaction, recognizing learning as a transactional activity in which the elements evolve and do not stay the same as in inter-action.

The metaphors of polyphony and authorship also build on the understanding of the modern risk society in which unpredictability and ontological insecurity are inherent aspects of existential conditions (Beck 1992; Giddens 1990). Ontological insecurity encompasses complexity and diversity, as well as uncertainty regarding agency and questions about whose knowledge and experience are legitimate (Kullenberg and Säljö 2022). When scientific research presupposes an ordered reality, it raises the question of how it can make sense of the complexities in real-world practice (Law 2004).

Based on the above, the third and final analytical dimension distinguishes between governance primarily focused on open-ended learning for innovation and governance focused on learning for the reproduction of established knowledge (Figure 3).

Methods and Materials

To elucidate the diverse "codes of knowing" within healthcare governance, this paper examines discursive practices through the textuality of government reports and guiding documents (Asdal and Jordheim 2018). Here, "codes of knowing" refer to how texts express knowledge and learning in relation to three dimensions of theories of knowing. Although these discursive practices differ from individual interpretations in decision-making contexts or clinical practices, they hold significance for administrators and managers at meso and macro levels and may also influence clinical practices, making them interesting objects of study.

The paper is based on the analysis of publicly accessible documents pertaining to KBM and TBM, sourced from publications by the Swedish government, SALAR and NBHW. Documents with an explicit focus on TBM or KBM in healthcare governance were selected and obtained through a review of reports available on these organizations' websites. Table 1 presents the included documents, with titles translated into English; the original Swedish titles are listed in the References section.

For the data analysis, NVivo, a qualitative data analysis software program, was used. The analysis involved several phases:

In the first phase of analysis, passages within the collected documents that defined or illustrated the concepts of knowledge and learning were identified. These passages served as the primary dataset for further analysis.

In the subsequent phase, the identified passages were systematically compared to discern differences between KBM and TBM in terms of how knowledge and learning were represented and conceptualized.

To provide a broader context and explanation for the observed differences between KBM and TBM, an abductive approach was employed. Insights from Science and Technology Studies (STS), organizational research, and educational research were sought to explicate and explain the observed differences between KBM and TBM. During this iterative phase of analysis, three dimensions within the theory of knowing were identified to highlight the main differing roles that knowledge and learning play in KBM and TBM, accounted for in the previous section. KBM and TBM were analysed through these three spectra.

The quotes included in this paper were originally in Swedish and were translated to English using ChatGPT, a language model trained by OpenAI. The resulting translations were reviewed and improved by the author for accuracy and clarity. Additionally, ChatGPT was used to revise the language of the paper in general, and the author reviewed and further refined the revised text for appropriateness and coherence.

Table 1. Empirical material

Year	Commissioner	Title
Knowledge-based management		
2009	The Swedish Association of Local Authorities and Regions (SALAR) and National Board of Health and Welfare (NBHW)	Towards more efficient knowledge-based management (Socialstyrelsen 2009)
2012	NBHW	Proposal for a national model for knowledge-based management (Socialstyrelsen 2012)
2017	SALAR	Recommendations to county councils and regions about the establishment of a cohesive structure for knowledge-based management (Sveriges kommuner och regioner 2017)
2020	The Government of Sweden	A nationally unified system for knowledge-based healthcare (SOU 2020:36)
2022	SALAR	Message from the Board – Recommendations to regions regarding the direction for the continued development of the national knowledge management system within the healthcare sector (Sveriges kommuner och regioner 2022)
2023	SALAR	National system for knowledge-driven management within Swedish healthcare (Swedish regions in collaboration 2023)
Trust-based management		
2017	The Government of Sweden	Knowledge-based and equal healthcare (SOU 2017:48)
2017	The Government of Sweden	In pursuit of a perfect reimbursement model (SOU 2017:56)
2018	The Government of Sweden	Governing and managing with trust SOU (SOU 2018:38)
2018	The Government of Sweden	Trust increases room for manoeuvre (SOU 2018:47)
2018	The Government of Sweden	A learning supervisory (SOU 2018:48)
2018	SALAR	Statement on Trust increases room for manoeuvre (2018:47) and A learning supervisory (2018:48) (Sveriges kommuner och regioner 2018)
2018	NBHW	Response to SOU 2018:47 and SOU 2018:48 (Socialstyrelsen 2018)
2019	The Government of Sweden	With trust comes better results (SOU 2019:43)

EBM and the Swedish Evolution of KBM

The roots of KBM can be traced back to the emergence of EBM in the 1990s, as the two share the same ideal. However, while EBM establishes the principles for evidence-based decision-making, KBM emerged as a practical implementation of EBM and includes a governance component that EBM lacks. As defined in a 2009 report coproduced by NBHW and SALAR:

> EBM does not contain a governance component, while knowledge-based management involves creating and maintaining structures and processes through governance measures that lead to the use of the best available knowledge when clinical and administrative decisions are made (Socialstyrelsen 2009, 16).

In 2012, six Swedish agencies, including the NBHW and SALAR, proposed a developed model for KBM based on a commission from the Swedish government to develop the model of good quality care (Socialstyrelsen 2012). In the context of Swedish healthcare, the concept of KBM has become almost synonymous with this national model of KBM and the organization established to achieve its goal, as defined in the 2009 report. The proposed national model of KBM focuses on the infrastructure of KBM, which is defined by six essential steps:

1. Selection of the area for knowledge-based management,
2. Compilation of the best available knowledge,
3. Establishment of knowledge-based positions,
4. Support for implementation,
5. Governance, follow-up, and improvement work at regional and local levels,
6. Follow-up and evaluation of the effects of knowledge-based management
    (Socialstyrelsen 2012, 5)

The process is initiated based on a needs analysis, which may be driven by professional or political inquiries, patient organizations, or new registry data. The outcomes of this process include recommendations, state subsidies, knowledge supports, and education. Additionally, the results from this process may prompt a return to the initial step to address a new area.

In 2017, SALAR (Sveriges kommuner och regioner 2017) recommended the county councils to establish "a cohesive infrastructure for KBM", and all county councils agreed (Sveriges kommuner och regioner 2022).

The infrastructure of the Swedish national system of KBM currently consists of 26 national program groups and 8 national collaboration groups. Each program group comprises experts who represent all healthcare regions with a clear mission and mandate to represent their region within a specific disease/organizational area. The groups have a multiprofessional composition. Their mission is to lead KBM within their respective fields. While most program groups have a focus on a specific disease area, there are also groups for more general areas, such as lifestyle habits and rehabilitation, and collaboration groups for data and analysis. All the national groups have their counterparts at the healthcare regional and local county council levels.

At the core of the national model of KBM is the compilation of the best available knowledge, which is based on the foundation of EBM and the evidence hierarchy. When knowledge from controlled studies positioned at the top of the evidence hierarchy is lacking, the best available knowledge is based on expertise and consensus. It is mandatory that the methods used are transparent.

According to the official site for KBM using knowledge-based management is to:

- use the best available knowledge,
- follow-up and analyze meetings,
- put new knowledge into practice quickly,
- identify areas for improvement with the patient
    (Swedish regions in collaboration 2023)

The motto of the national system of KBM is "We count our success in lives and equal health. We make each other successful!" (Swedish regions in collaboration 2023). KBM is most notably recognized for its substantial development and provision of knowledge support resources such as care pathways.

Post-NPM and the Swedish TBM

In 2016, the Swedish government established a Trust Delegation with the aim of enhancing the effectiveness of government-controlled practices by making better use of employees' competence (Dir. 2016:51). The subsequent trust reform can be seen as a response to the perceived challenges associated with New Public Management (NPM) and is thereby a part of the wider trend post-NPM. Recently Siverbo et al (2024) concluded based on a survey study that the similarities in adoption and implementation of TBM in Scandinavian countries are more apparent than the differences.

The debate surrounding these issues gained momentum in Sweden following a series of articles by the journalist and author Maciej Zaremba (2013), which highlighted the case of Mr B, a patient with a cancer diagnosis. Zaremba argued that it was not the tumour itself that claimed Mr. B's life but rather the lack of collaboration among the 82 doctors involved in his care, which also made it difficult to hold anyone accountable. According to Zaremba, this situation was a consequence of an extensively detailed economic management control system that compelled doctors to base their decisions on financial considerations rather than professional judgement. The trust reform was initiated in response to the broader discourse on a pervasive "culture of control", encompassing economic control and legal certainty (SOU 2017:56).

The Trust Delegation was commissioned by the government to review the governance of publicly funded activities and determine how it can best serve citizens while being cost-effective. The starting point was to develop a governance system based on trust throughout the chain of control from the government to the individual employee, with the aim of achieving appropriate management of welfare. The delegation conducted analysis and experimental projects in different welfare practices to promote trust in governance. These trials covered the entire chain of governance from the state to municipalities and county councils, as well as within them. The delegation closely collaborated with researchers, experts, and stakeholders, conducting workshops and seminars to contribute to supervision that is more focused on learning. The delegation's work involved both promotion-oriented dialogue and investigative efforts. From 2017 to 2019, the delegation published seven extensive reports.

TBM is defined as a governance:

1. with a focus on the purpose of the operations and the needs of the user, where each decision level actively works to
2. stimulate collaboration and a holistic perspective,
3. build trusting relationships, and
4. ensuring ability, integrity, and benevolence
   (SOU 2017:56)

Both SALAR (2018) and NBHW (2018) declared that they share Trust Delegation's overarching goal for the development of governance and management within the welfare sector.

Tensions Between KBM and TBM

The description above highlights that KBM and TBM are not completely comparable models, as each model focuses on distinct aspects and forms of governance and management. Rather than being in opposition to each other, they could be understood as complementing each other. However, I demonstrate below that there are intersections where these models highlight

different elements and aspects of knowledge and learning, thereby influencing the demanded governance.

Different meanings of "best available knowledge"

Both KBM and TBM aim for evidence-based practice built on three pillars: research evidence, clinical expertise, and patient preferences. As we will see in the following, the KBM and TBM nevertheless emphasize different parts of this triad.

The explicit aim of KBM is to always utilize the best available knowledge (Swedish regions in collaboration 2023), which addresses two related issues. The first issue concerns patients not receiving optimal healthcare based on current evidence, which is a concern for patient safety and can even be a matter of life and death in some cases. The second issue concerns unwarranted disparities in healthcare performance and outcomes, leading to an unequal distribution of healthcare. Although EBM, the early ancestor of KBM, initially emerged to address the first issue, the national model of KBM places even greater emphasis on addressing the latter:

> The healthcare system in Sweden maintains a high level of quality. However, the differences in care, treatment, and outcomes are too significant. These differences mean that two people with the same medical condition, for example, risk receiving different investigations, treatments, and follow-ups depending on where they seek care (Swedish regions in collaboration 2023).

As previously described, the focus of KBM organization has been developing an infrastructure that can deliver knowledge supports and guidelines to healthcare professionals. In other words, the focus is on defining and utilizing already existing explicit knowledge, which is primarily built through research. The task for the KBM organization is to compile and weigh together the results from all available research and implement this knowledge in healthcare practices.

A point of departure for the introduction of the national model of KBM was that the utilization of the best available knowledge is important and even more critical when the scientific basis is inadequate. Transparency is an important principle for KBM, especially when scientific knowledge is limited. The scientific knowledge and transparency of other methods for reaching a consensus about the best available knowledge are linked to explicit knowledge. On the other hand, tacit knowledge, which is by definition not explicit, fails to meet the requirements of transparency.

However, despite the focus on explicit knowledge, KBM acknowledges that explicit knowledge is not always directly applicable to specific cases, as evidenced by the following quote:

> We should strive for equality and, as part of this, follow guidelines as closely as possible, but it is important to emphasize that "treating everyone equally means treating them differently". Good care is about taking into account each patient's specific situation and conditions. Good care sometimes means deviating from guidelines (SOU 2017:48).

Furthermore, each care pathway includes a section on person-centeredness and patient contract, which emphasizes the importance of adapting to local circumstances and meeting the needs and wishes of the patient. Knowledge is described as a tool for increasing patient participation (Swedish regions in collaboration 2023). However, since care pathways are designed to apply to all patients, they cannot provide guidance to healthcare professionals on how to tailor care to each patient's specific situation.

The conceptualization of explicit and tacit knowledge explains why. Adaptation to a specific patient is a polimorphic action based on a combination of tacit and explicit knowledge. Tacit knowledge is either not possible to make explicit (strong tacit knowledge) or is not worth the effort to make explicit (weak and medium tacit knowledge). In the case of care pathways, it is easy to see how these already rather encompassing documents would grow substantially and with uncertain benefits if further guidance about the specific adaptations to different patient or context characteristics were included. This is not to say that explicit knowledge does not exist in the local context; only that it is not explicit in care pathways. Furthermore, there is always strong tacit knowledge that by definition cannot be made explicit, as strong tacit knowledge is embedded in every professional culture as well as all human cultures. In brief, KBM is focused on obtaining explicit knowledge for use in healthcare practices.

TBM shares the goal of KBM in that healthcare should be based on the best available knowledge. However, TBM is not focused mostly on how to define and make use of explicit medical knowledge. This is left to others, and mainly the organization of KBM. Instead, TBM highlights the importance of making use of knowledge that exists locally in practice. The supposed neglect of this knowledge was initially a motive for appointing a Trust Delegation, as was one of the messages from the delegation to demonstrate the inherent potential of benefiting from this knowledge:

> One of the messages in this main report is that the public sector today does not fully utilize the commitment and expertise found in user-facing professions, nor does it utilize the engagement of users, patients, and students. There is untapped potential here, which has consequences for encounters between employees and citizens (SOU 2018:47, p 241).

Here, both professional knowledge/judgment and patient preferences are highlighted, i.e., the two other legs of the triad of EBM, in addition to the scientific evidence. It is worth noting that the equivalent of these two legs of EBM is consistently named "knowledge" by the Trust Delegation. Patient preferences and experience are not always referred to as knowledge within EBM or even clinical expertise or judgement. This wider meaning of knowledge, including knowledge about individual values, is explained in the main report:

> According to the new perspective, the experiences that an individual carries with them are considered an important source of knowledge for developing different activities and finding interventions that are helpful for them. Not taking into account the individual's knowledge means losing valuable insights into reality. The same applies, at least to some extent, to the knowledge that user organizations convey (SOU 2018:47, 76).

In line with this understanding, one of the seven principles of TBM is: "Put the citizen's experience and knowledge in focus and try to understand what the citizen values" (SOU 2018:47, 24).

This kind of knowledge is no use making explicit in knowledge supports as it is as local as it can be. The Trust Delegation focuses on knowledge that is defined locally. This kind of knowledge inevitably includes tacit knowledge, in the sense that it is knowledge that is not made explicit, at least not outside of the local collective. A governance focused on helping professionals listen more to what citizens need and want is focused on obtaining tacit knowledge to use rather than obtaining the already defined explicit knowledge to use. In summary, while the focus of KBM is on explicit knowledge elements, TBM acknowledges the importance of knowledge that has not been made explicit, i.e., tacit knowledge.

However, it is an oversimplification to assert that KBM solely prioritizes explicit knowledge, while TBM solely focuses on tacit knowledge. Notably, one of the primary characteristics of the Trust Delegation's work is its foundation on scientific research, i.e., explicit knowledge. TBM builds on knowledge from organizational research, including the literature on the consequences of performance management and audit, with references to, for example, Michael Power (1999). This research highlights that the act of auditing itself affects organizations by shaping them to become auditable. Consequently, a significant aspect of TBM is providing professionals with adequate room for action to use their own judgement. The Trust Delegation concludes: "Instead of increasing transparency, openness, and accountability, the audit society risks decreasing the very transparency that drives it" (SOU 2018:48, 45).

While TBM focuses on explicit *organizational* knowledge, KBM focuses on explicit *medical* knowledge:

> Knowledge-based management within healthcare means that choices and decisions in all parts of the system are based on recommendations developed from the best available medical knowledge (SOU 2017:48, 195).

It can then be concluded that both KBM and TBM rely on explicit knowledge, and these different forms of explicit knowledge can complement each other in certain instances. The organizational knowledge within TBM addresses how to govern healthcare, while medical knowledge focuses on the substantive aspects of healthcare (Dickinson and Pierre 2016).

Nevertheless, at times, a pivotal consideration in governance arises – whether to prioritize the implementation of explicit medical knowledge or the fostering of tacit knowledge. These instances notably present a potential clash between two types of explicit knowledge:

organizational knowledge advocating for the nurturing of tacit knowledge and medical knowledge defining optimal medical care.

This trade-off between different modes of knowledge will have consequences for the knowledge processes that are the topic of the next section.

Disparate loci of knowledge

TBM and KBM agree on the significance of a learning environment, but the divergent emphasis on different modes of knowledge will have implications for the assumed and advocated learning processes.

A lack of compliance and adherence to "best available knowledge" has been one of the main challenges for EBM/P, resulting in the emergence of implementation science as a specific scientific field. Implementation science became part and parcel of EBM/P and later also KBM (Nilsen et al. 2022). In 2015, the Swedish government decided to convene a special investigator with the task of considering and submitting proposals for how increased compliance with national knowledge support in health and medical care can be achieved (Dir 2015:127). The investigation concluded, among other things, that there is a need for sharpened national governance and that the national model for KBM is a step in the right direction to more equitable healthcare:

> After more than ten years of open comparisons of healthcare outcomes in Sweden, the general picture is that unwanted variations have not decreased to the extent required in light of the statutory goals of providing good care on equal terms throughout the country. The investigation's assessment is that a sharpened national governance is required to achieve knowledge-based and equitable healthcare. By national, it means such measures or the like that occur throughout the country, i.e., a uniform application (SOU 2017:48, 422)

The problem that KBM is to solve is that healthcare practices do not work according to what is known from research, i.e., the gap between research and practice, which also presents as a problem of inequity. Whether the problem is defined as a lack of guidance or an implementation problem, the focus is on learning explicit knowledge. KBM's primary focus is on developing knowledge supports, which involves defining knowledge, aims, and outcome measures. These measures enable the evaluation of compliance with the knowledge supports. Transparency and evaluation are considered essential tools for learning:

> The processes and results of healthcare need to be followed up and fed back at various levels within the system. Transparency and open comparisons increase opportunities for learning (Sveriges kommuner och regioner 2022)

In healthcare practice, learning is understood primarily as transmission from the sender of the KBM organization to the receiver in healthcare practices. The vision of a national model of KBM is "to create a learning and supportive system for healthcare" (Sveriges kommuner och regioner 2017). This supportive system has thus far come mostly in the form of documents that include explicit knowledge. How learning occurs in healthcare practice is largely left to the regional public authorities to define. However, with a focus on explicit knowledge and standardized actions according to care pathways with defined indicators for follow-up, the cognitive aspect of learning is implicitly emphasized.

TBM does not contradict the significance of implementing explicit knowledge. However, the focus has been on different approaches to improving practice. The focus is on professionalism and needed adaptation to the patient and the local circumstances. As the Trust Delegation writes in the main report:

> Here, a different logic prevails than where problem solving is facilitated by standardization. Instead of standardizing a process and streamlining it by reducing the variation in effort, as is possible, for example, in knee replacement surgery, this is about varying the effort to achieve less variation in outcome (2018:47, 166).

The skills needed to adapt measures to diverse needs are widely acknowledged as not learnable through reading textbooks or care pathways alone, as they rely heavily on tacit knowledge. Therefore, professionalism and collegial learning are key principles in fostering a learning environment based on TBM (2018:47). Professionalism and collegial learning are based on

learning through participation and socialization rather than just cognitive acquisition. The desired professional approach is achieved through exposure to patients and other professionals, i.e., the locus of knowledge is in the collective rather than the individual. The Trust Delegation recommends:

> Managements and employees within the municipal sector should collaboratively establish an overview of the operations to identify how arenas for collective, collegial learning can be created within and beyond various operational and professional boundaries. The work should be organized to allow both regular and spontaneous opportunities to discuss issues and transfer knowledge and experiences, to thereby learn from each other. Establishing such working methods and a strong learning culture requires active and engaged leadership (SOU 2018:47, 339).

It is worth reiterating that there is no inherent contradiction between TBM and KBM in this context. However, they diverge in focus. KBM directs attention to the content to be acquired through learning, whereas TBM underscores learning as a collective process, emphasizing the necessity of collegial learning, professionalism, and cooperation.

The origin of new knowledge

KBM and TBM both highlight the significance of knowledge growth in terms of innovation and the creation of new knowledge, albeit with different focuses. In KBM, the innovative form of learning is primarily conducted through research and in specific groups of experts who are assigned a mission to reach consensus about the best available knowledge, including in cases where the scientific basis is scarce. These practices prioritize innovative and collective learning. However, with KBM's focus on producing care pathways, including indicators for evaluation, the expectations of healthcare practices are consequently focused more on reproductive rather than innovative learning.

In contrast, TBM proposes that innovative learning is situated in work practices, organizations, and new forms of collaboration. Innovation is linked to the concept of trust, as it must be expected that new goods and services will be invented when actors meet in processes characterized by mutual respect and reciprocity: "The traditional monopoly of the scientific community on knowledge creation is being challenged, and more situationally adaptive knowledge production is emerging" (SOU 2018:38, 228).

The second report from the Trust Delegation is a research anthology with contributions from 23 researchers providing their experiences from 12 case studies (SOU 2018:38). These projects all share some features. These are not the kinds of studies that would be ranked as being of high scientific quality for a systematic review according to EBM. None of them used a control group; many of them did not have specified aims or outcome measures from the start, and they were not implementation projects either. The focus is rather on collaboration with the ambition to make the most for the citizen. The process includes creating new knowledge rather than implementing already defined knowledge. Innovation and continuous improvements share the feature that knowledge is not predetermined. Here, it is not just about knowledge being tacit; knowledge might not exist at all yet. The Trust Delegation states that there is a need for renewal and innovation to spring directly from healthcare practices, which involves the following:

> […] a clear ambition to include an employee perspective and to make the staff closest to the patients, as well as the patients themselves, experts on what changes and improvements need to be made to increase the quality of care (SOU 2018:38, 105-106).

Another aspect of a focus on innovative rather than reproductive knowledge is that established knowledge can be questioned. In one of the projects, a Scottish school is highlighted as a role model:

> Principals and teachers willingly acknowledged that they did not follow the curriculum or the knowledge requirements strictly. It was considered much more important to follow the child and his or her needs and then integrate the curriculum based on the student's strengths (SOU 2018:38, 288).

The role of civil servants in TBM explicitly encompasses the practice of re-evaluating prior knowledge. The Trust delegation clarifies that the term "civil servant" encapsulates the ethical expectations governing the conduct of public employees. As stated in the quote:

> Ultimately, this can mean that the civil servant must openly sound the alarm when malpractice occurs. Through this important role for employees in publicly funded operations, corruption can be prevented, and trust in the employee is therefore a central part of this process (2018:47, 248).

TBM focuses on granting greater autonomy to individuals – patients, professionals, and civil servants – enabling them to act according to their own judgment and find practical solutions. Consequently, TBM emphasizes open-ended learning rather than the reproduction of already established knowledge. This approach contracts with KBM's primary focus on utilizing knowledge that has been established in other contexts, particularly research practices and by representatives of the national organization of KBM.

Implications for Governance: Ensuring What and How?

While official reports suggest mutual support between KBM and TBM (e.g., SOU 2017:48, chapter 16.2), this paper has highlighted tensions between these approaches, aligning with research and discourse on (post-)EBM and (post-)NPM (Andersson and Liff 2012; Pistone, Sager, and Andersson 2023; Björk and Tengblad 2023). These tensions provide a potential contributing explanation of why the implementation of TBM has been associated with confusion and disagreement regarding its meaning and realization (Siverbo et al. 2024).

By adopting a symmetrical perspective on various forms of knowledge and learning in governance, this paper underscores the imperative for governance and management to address fundamental questions regarding relevant knowledge and prioritized learning processes. The analysis reveals that both KBM and TBM are underpinned by knowledge, yet they are not necessarily compatible due to their reliance on different sets and types of knowledge, each corresponding to varying purposes, risks, and opportunities. For instance, KBM's focus on explicit knowledge and individual learning aimed at reproduction provides a foundation for standardization and transparency, ultimately promoting equity. Conversely, TBM's emphasis on increased flexibility, allowing for the incorporation of tacit knowledge, is essential for fostering patient-centeredness and innovation. A focus on innovation and collective learning aligned with TBM might be crucial for addressing wicked problems and societal challenges beyond established knowledge boundaries.

Equity, patient-centeredness, and innovation are all relevant purposes of healthcare governance. However, the tensions inherent in healthcare governance pose a risk: support for any one of these purposes may come at the expense of others. A perfect balance point may not exist, as a specific configuration of prioritized knowledge and learning might neglect or suppress other forms (Blackman and Sadler-Smith 2009). Moreover, in line with the "good governance impossibility theorem", there is no theoretical reason to suppose that all principles that fall under "good governance" can be achieved simultaneously (Bovaird and Loeffler 2024, 10). Therefore, questions arise: What is most important? Is it implementing healthcare pathways to achieve increased standardization and equity, or supporting practitioners to innovate and adapt healthcare to meet the needs of patients and society? The questions challenge governance designers to determine how governance should be executed, demanding a profound understanding of current healthcare practices, future healthcare visions, and the various modes of knowledge and learning, each associated with corresponding risks, opportunities, advantages, and disadvantages.

A three-dimensional framework for studying "codes of knowing"

In this paper, I argue that the concept of "codes of knowing" is crucial for governance design, emphasizing the importance of being mindful of the diverse ideals behind KBM and TBM. Continued research and discourse on this topic are warranted. To facilitate this, I propose a three-dimensional analytical framework that organizes the three spectra analysed in this paper, as depicted in Figure 4. By integrating these spectra, the framework assigns each position within it to a specific set of codes of knowing (Oeberst, Kimmerle, and Cress 2016), representing a unique combination of prioritized knowledge modes and learning processes favoured by governance.

Figure 4. Framework for exploring the codes of knowing in governance
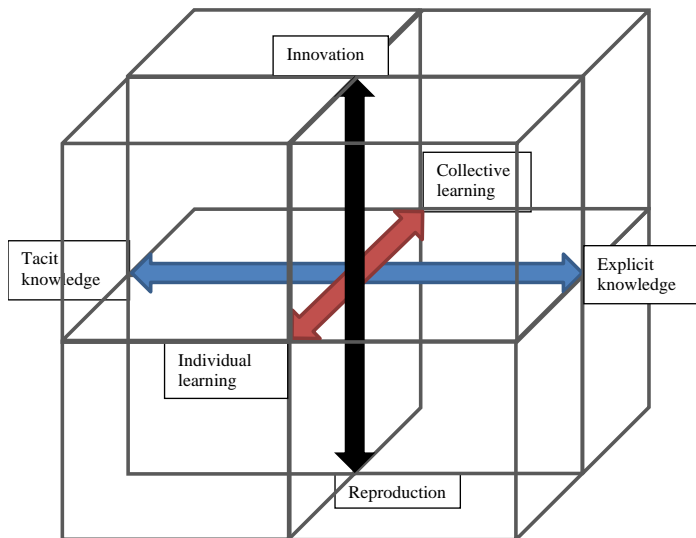
The framework provides a structured approach for exploring the intricate interplay between different codes of knowing. Based on this paper's analysis, KBM and TBM are positioned on opposite sides on each spectrum, occupying two opposing corners of the framework. However, it is important to recognize that the operationalizations of KBM and TBM defines the "codes of knowing" in practice. Middle points along the spectrum may exist, and governance can simultaneously occupy several positions to pursue different goals in parallel. Moreover, while the framework portrays the three spectra as independent, the theoretical review reveals that they are interrelated, and not all positions within the framework are equally straightforward to adopt.

Findings from other studies confirm that managers and organisational members navigate contradictions at the policy level (Lagerlöf, Eriksson, and Sager 2024; Wällstedt and Almqvist 2015), often linked to coexistence of differing ideals, such as those associated with NPM and post-NPM. The analytical framework presented here can assist in examining how specific healthcare governance approaches – such as economic incentives, professional guidelines, and professional networks – contribute to different "codes of knowing" in practices. Thus, the three-dimensional framework may contribute to the understanding of conflicts that appear in practices, and serve as a foundation for continued discourse and research on "codes of knowing" in governance and management, both within the scope of KBM and TBM and beyond these models.

Disclosure Statement

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