Check for updates

European Journal of Dental Education

WILEY

ORIGINAL ARTICLE

Disruption of Learning Organization Principles in Dental Healthcare: Addressing Systemic and Organizational Challenges

Jolita Juknienė[1,2] | Birutė Mockevičienė[2]

[1]Panevezys College-State Higher Education Institution, Faculty of Biomedical Sciences, Panevezys, Lithuania | [2]Mykolas Romeris University, Institute of Management and Political Science, Vilnius, Lithuania

Correspondence: Jolita Juknienė (masevicjolita@gmail.com)

Received: 11 November 2025 | **Revised:** 10 March 2026 | **Accepted:** 12 March 2026

Keywords: dental services | health care quality | learning organization | patient care | specialist's qualifications

ABSTRACT

Background: The aim of this study is to investigate the disruption of learning organization principles within dental service organizations, focusing on the critical commitment to patient care and its impact on long-term staff retention.

Methods: The qualitative study was conducted in October–November 2022 using semi-structured interviews. The data were anonymized, transcribed, and analyzed using qualitative content analysis. The research tools were based on learning organization principles aligned with the key elements of dental service quality.

Results: The findings reveal that limited public resource allocation, bureaucratic inefficiencies, and challenges in retaining highly qualified professionals hinder public sector services, restricting access for economically disadvantaged populations. The transition of specialists to the private sector exacerbates existing disparities by contributing to increased service costs. Personal mastery—emphasizing continuous professional growth and empathetic care—emerges as a critical factor ensuring service quality but often lacks institutional support.

Conclusions: To ensure that specialists develop a holistic mindset, it is essential to strengthen their competencies and understanding of organizational functioning during their studies, since strengthening educational structures—especially those that incorporate principles of organizational learning and systems thinking competencies—is crucial in preparing specialists to appropriately respond to complex situations and ensure high-quality patient care. The study highlights the necessity of a systems-thinking approach that integrates team dynamics, resource management, and regulatory frameworks to enhance service delivery. While private sector organizations benefit from cohesive teamwork and supportive management, public sector institutions face structural limitations that hinder effective collaboration and leadership. Addressing these systemic barriers is essential to creating equitable, high-quality dental healthcare accessible across socioeconomic groups.

1 | Introduction

While globalization and swift technological progress have led to significant improvements in healthcare, oral diseases remain one of the most prevalent health issues worldwide. According to the World Health Organization (WHO), approximately 3.5 billion individuals worldwide are impacted by a range of oral health conditions [1]. The conversation about global oral health needs to broaden from the common cases of dental caries and periodontal diseases to include oral cancer, which was the fifteenth most prevalent cancer globally in 2018 [2].

The economic ramifications of oral diseases are considerable, with costs categorized into direct expenditures (treatment costs

© 2026 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd.

incurred by individuals or healthcare systems), indirect costs (productivity losses resulting from absenteeism in employment, educational institutions, or scholarly activities), and intangible costs (which encompass pain, aesthetic concerns, and speech impairments). In 2015, the direct global expenditures for treating oral diseases were estimated at $356.80 billion, with an additional $187.61 billion in indirect costs. In Europe, expenditures allocated to oral health represented the third highest expenditure, exceeded solely by those for diabetes and cardiovascular diseases.

Oral diseases are closely linked to overall quality of life, contributing to the development and exacerbation of chronic conditions and imposing a significant financial burden on both individuals and healthcare systems. Consequently, oral health has emerged as a key priority worldwide [3–6].

The present worldwide approach to dental care primarily focuses on treating oral diseases, restoring functionality, enhancing aesthetics, and integrating advanced technologies. Regrettably, these services are frequently inaccessible to numerous individuals owing to their elevated costs, leading to challenges in availability and equitable access to dental care. Accessing dental care can be challenging for many low- and middle-income individuals due to economic and organizational barriers. While there may be an abundance of dental professionals and facilities, the emphasis on cosmetic treatments and profit-driven incentives often compromises the availability of quality care [3, 7].

A fundamental shift in the approach to dental care is essential. Such a transformation is intended to support dental providers in addressing organizational balancing challenges. It aims to reconcile the emphasis on both the volume and financial outcomes associated with higher-paying procedures, as well as the multifaceted components of service quality that significantly contribute to patients' overall oral health [5, 8].

Achieving such targeted modifications may require more than just clinical evidence in dentistry; it requires supportive organizational mechanisms and a corresponding shift in professional education and training. One such mechanism is the learning organization model, which is based on continuous learning by leveraging the intellectual capacities of the organization. A learning organization is a much wider concept than just the education of professionals and achieves its objectives through systematic thinking, individual contributions, collaborative effort, and a unified vision of performance. All aspects of a learning organization are pertinent to the challenges encountered in the healthcare sector, thereby creating a superposition of competitive targets across various organizational strata and individual efforts. Health policy-making is inherently connected to systematic research and emerging evidence that shapes perceptions of treatment and healthcare. Moreover, the application of this evidence necessitates the capacity to instigate systematic change. The prosperity of a learning organization, akin to that of healthcare institutions, relies on individual competencies and the ability to sustain them. The contributions of highly skilled professionals in delivering a diverse range of services necessitate effective teamwork. It is imperative for team members to possess shared objectives to ensure the provision of high-quality services [9–11].

The dental education model is traditionally based on the development of clinical competencies that are more or less oriented to enhance individual/personal skills while the emphasis on organizational learning, systems thinking, and adaptive problem-solving in healthcare institutions is limited. As a result, graduates have high personal clinical competence in the market, but they are insufficiently oriented to cope with complex organizational environments, manage systemic constraints, or contribute to a culture of quality improvement in an organization.

The aim of this study is to investigate the disruption of learning organization principles within dental service organizations, focusing on the critical commitment to patient care and its impact on long-term staff retention and supportive shift in specialist education and training.

Through the integration of a well-established problematic construct related to oral health development with the framework of a learning organization, this study aims to investigate how the organizational environment can affect the management of oral health issues, particularly focusing on the management dimension, as supported by substantial evidence from the public domain. The concept of a learning organization is pertinent to the medical context, as it emphasizes the importance of contextualizing, memorizing, and applying knowledge effectively.

2 | Literature Review

The concept of a learning organization is widely applied in various sectors, but it is important to understand its general principles before examining how these ideas can manifest and operate in healthcare institutions. These principles help explain how institutional learning processes shape professional behaviour, team activities, and service delivery.

2.1 | Foundations of the Learning Organization Concept

The modern world of technology and globalization forces every organization to constantly evolve. Some are compelled to make significant changes to remain competitive, while others may only need to make minimal improvements to their existing systems to stay in the market. The concept of a learning organization includes personal and group development, the pursuit of a shared vision, changes in thinking, and a systematic approach that encompasses these aspects [12]. A learning organization is defined as a mechanism for increasing knowledge and information, improving technology and employees, and enabling organizational change, allowing it to remain competitive and achieve its goals, which are understood and supported by both leaders and employees [13–16].

The concept of the learning organization emerged in 1990 when P. Senge published the book *The Fifth Discipline: The Art and*

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Practice of the Learning Organization. Senge highlighted the following key components of a learning organization:

2.2 | System Thinking

This approach emphasizes maximizing the collective potential of the organization, ensuring that the whole is more effective than the sum of its parts. Every component is important in achieving overall goals. System thinking involves understanding how all elements of the organization are interconnected and influence each other. Events and their dynamics naturally translate into learning processes, both short- and long-term. Employees must recognize that their actions are not isolated but contribute to the organization as a whole. In a learning organization, each individual is essential to overall success. Individual and team efforts are interconnected, and goals can be achieved only through systemic and structured thinking. System thinking is the foundation of a learning organization, with the other four disciplines—personal mastery, team learning, mental models, and shared vision—building upon it. Leadership is key, requiring leaders to strengthen their competencies and be ready for personal and organizational change. Without system thinking, strategic planning is difficult, as strategy depends on the passion and vision of those who implement it. Strong organizational culture supports success by fostering collectivism and effective participation in system thinking teams [13, 17–21] Knowledge of learning organizations and system thinking is essential for enabling individual and organizational change [22, 23].

2.3 | Personal Mastery

Members of the organization clarify and deepen their personal visions, develop creativity, and strive to fill gaps in their knowledge. Personal development is crucial for the organization when it contributes to achieving the shared vision. In the workplace, this involves the commitment of both individual employees and employers. Employees who develop personally are better equipped to face challenges, and the organization learns through its employees; without them, organizational learning does not occur. To achieve the shared goals of both the organization and the individual, employees must want to improve not only the organization but also themselves. Personal knowledge that is applied in the work environment and used to benefit the organization creates mutual benefits for both the individual and the organization. While personal knowledge is important, team knowledge is often one of the most crucial types of knowledge in a learning organization [13, 17–19].

2.4 | Team Learning

Is a fundamental discipline in learning organizations, emphasizing the importance of shared insights, open dialogue, and collective problem-solving. It enables individuals to align their efforts, enhance communication, and build a cohesive knowledge base within teams. In healthcare, especially in dental care settings, team learning strengthens collaboration between professionals, leading to improved patient safety and service quality. Through active information exchange, feedback, and mutual support, team members grow together in competence and confidence [17, 24].

2.5 | Mental Models

Mental models are associated with organizational culture and theories, as well as different ways of thinking that shape the framework of organizational functioning. They help with thinking, decision-making, and creating mechanisms through which new information is filtered. Mental models, as a cognitive process, define an individual's relationship with others and the world. Learning organizations encourage change among employees, so the mental model influences what a person sees and notices within the organization. Mental and system thinking models are also associated with sustainability ideas [13, 17–20].

2.6 | Shared Vision

All employees in the organization must be aware of the shared vision. When creating a new vision, it is important for all members of the organization to participate; it should not be solely the decision of the leaders. When personal goals align with organizational goals, it is easier to achieve them. A shared goal fosters a sense of unity within the organization, encouraging effective and closer collaboration to achieve the common objective [13, 17–20].

Within medical institutions, it is essential to promote continuous professional development for physicians while concurrently enhancing the operational efficiency of support and administrative staff. This can be achieved through the implementation of advanced management solutions that enhance workflow, streamline processes, and foster a collaborative environment among all staff members. The overall organizational system—registration, logistics, maintenance of common areas and wards, and the quality of consultations and treatments—must function as a cohesive and harmonious platform that operates accurately and without errors, as it concerns people's health [10]. All healthcare institutions strive for a common goal: to ensure overall human health with a comprehensive approach. Therefore, quality management is also important in healthcare services. In learning organizations, the role of the “leader” is crucial [9, 10, 25]. In healthcare institutions, leadership is often in the hands of doctors who may lack management or administrative knowledge [26].

3 | Research Methodology

3.1 | The Lithuanian Context

The research was conducted in Lithuania, taking into account the local context and the advocacy efforts by both the government and dental professionals for a high-tech approach to oral health. This context is primarily influenced by existing regulations concerning the qualifications of specialists, as well as

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

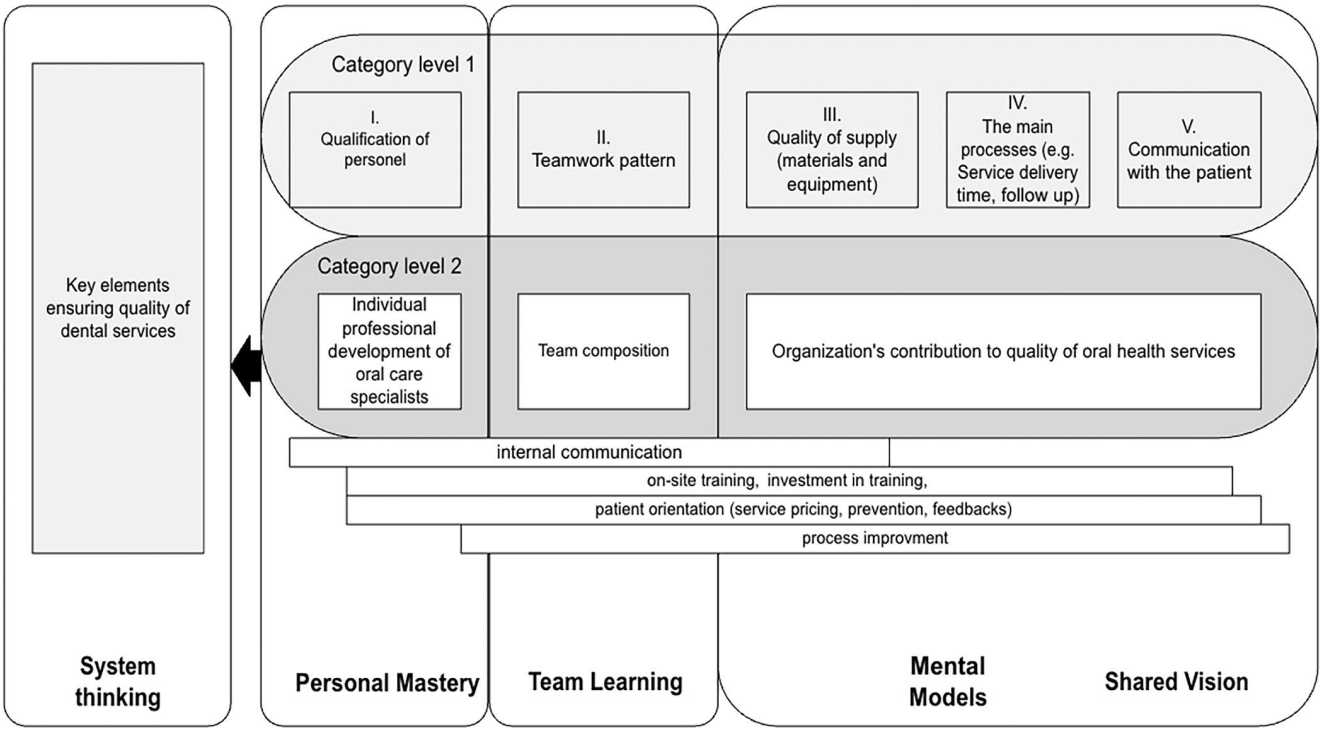


FIGURE 1 | The link between research categories based on oral health organizational service quality and components of learning organization.

the balance between public and private funding. In Lithuania, private dentistry predominates, with only about 5% of the 2499 institutions providing dental services being public institutions. Currently, there are 4090 dentists, 1744 dental hygienists, and 2121 dental assistants. According to Lithuania's licensing regulations, every specialist is required to engage in professional development and accumulate a specified number of training hours over a five‐year period to maintain service quality standards. Given the dominance of the private sector, it is challenging for the state to regulate dental education and specialist training and to implement the principles of a learning organization within the dental sector.

Observing the dynamics of the dental sector over the past five‐years, a clear trend of consolidation has been identified within the private sector. Small dental clinics are increasingly merging or being acquired by larger entities, leading to the formation of high-revenue enterprises capable of delivering advanced, technology-driven services and offering a comprehensive range of treatments within a single facility. This structural shift diminishes the competitiveness of smaller dental practices, which primarily compete through pricing strategies while facing limitations in technological advancement and service quality enhancement.

Conversely, the public dental sector is undergoing strategic reinforcement, with an increasing emphasis on preventive care. Legislative measures have been implemented to expand access to oral health prevention services, including the introduction of new reimbursed interventions such as early diagnosis and prevention of oral cancer and more caries preventive services for children.

3.2 | Method

For this study, a qualitative approach based on semi-structured interviews was used. A qualitative study was carried out from October to November 2022. The interviews were facilitated remotely through the "Microsoft Teams" platform. In compliance with confidentiality and other principles of research ethics, the data were anonymised, transcribed, and analysed using the qualitative content analysis method.

The set of research tools was developed based on the principles of a learning organization, including systems thinking, personal mastery, team learning, mental models, and a shared vision. These principles have been aligned with specific oral health service organizational areas based on key elements of dental service quality: qualification of personnel, teamwork pattern, quality of supply (materials and equipment), the main processes (e.g., service delivery time, follow up), communication with the patient (Figure 1). Each key quality category is broken down into category level 2 identified in the respondents' text and individually assigned to a corresponding Category of level 1. The last subcategories derived from analysed text have been assign upper level categories by the principal to search for link between the first category level. For instance, the link between I and II elements is subcategory "internal communication", the link between I and III is represented by subcategory "on-site training" (see Table 1). These elements correspond to Category level 1, which includes the professional development of oral care specialists, the organization's role in their development, teamwork evaluation, and key factors that ensure the quality of dental services. These foundational categories provide a structured approach to analyse and

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 1 | The link between learning organization constructs and research subcategories.

Category	Subcategory 1	Subcategory 2	Link with learning organization key components
Professional development of oral care specialists	Training	Training/conferences attended in the past year	System thinking aspects include knowledge sharing to enhance team success, financial and institutional barriers affecting professional development, reliance on employer support, individual decisions shaped by systemic factors. Personal Mastery. Training/conferences attended in the past year—dedicated to personal growth and mastery. Employer-funded professional development—encourages continuous improvement. Team Learning. Sharing information with colleagues—fosters collaborative knowledge sharing. Mental Models. Barriers to qualification improvement—identifies limitations in current thinking or processes. Shared Vision. Criteria for course selection—aligns individual learning with organizational goals.
		Criteria for course selection	
		Employer-funded professional development	
		Use of personal funds for professional development	
	Internal communication	Learning through sharing information with colleagues	
Organization's contribution to development	Mandatory training	Employer-organized or mandatory courses	Personal Mastery. Employer-organized or mandatory courses—encourages individual skill growth. Time allocated for familiarization with new equipment—supports individual competence. Mental Models. No time allocated for familiarization with new equipment—reveals assumptions about work priorities. Shared Vision. Organization's approach to professional qualification improvement—builds a collective vision for growth. Employer-organized motivational training—unites team around shared goals and values.
		Employer-organized motivational training	
		Organization's approach to professional qualification improvement	
	On-the-job training	Purchase of new tools/equipment	
		No time allocated for familiarization with new equipment	
		Time allocated for familiarization with new equipment	
Teamwork evaluation	Management	Team definition	Team Learning. Real teams—directly support group-based learning and collaboration. Importance of reception/administration in the team—encourages all roles to contribute to the team's knowledge. Mental Models. Negative/Positive role of management—reflects leadership's influence on mindsets around teamwork. New employees hired based on current employees' recommendations—reinforce certain beliefs or norms about team composition. Shared Vision. Real opportunity to work in a team—embeds teamwork as a core organizational value.
		Importance/role of reception/administration	
		Negative role of management	
		Positive role of management	
	Level of engagement	Real opportunity to work in a team	
	Collaborative leadership	New employees hired based on current employees' recommendations	

(Continues)

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 1 | (Continued)

Category	Subcategory 1	Subcategory 2	Link with learning organization key components
Key elements ensuring quality of dental services	Service providers	Teamwork	Systems Thinking. Quality materials and equipment—acknowledges the interconnectedness of resources and outcomes.
	Equipment	Quality materials and equipment	
		Employee competence/qualification	Service delivery time—reflects systemic efficiency and its impact on service.
		Service delivery time	Negative impact of service pricing on quality—considers the broader impact of pricing on the quality ecosystem.
	Process	Time for patient follow-up to continue ongoing treatment	Team Learning. Teamwork—emphasizes continuous learning through shared experiences.
		Communication with the patient	Communication with the patient—supports learning through feedback loops.
		Negative impact of service pricing on quality	Personal Mastery. Employee competence/qualification—focuses on individual excellence.

Note: Source Compiled by the authors.

support the development of a learning-oriented organizational culture, aimed at fostering adaptive and responsive capabilities within teams and individuals (see Table 1).

3.3 | Participants

The study focused on two distinct cohorts: oral health professionals representing both the public and private sectors. The qualitative study included a total of 12 interviewers, with an equal distribution across two target groups: 6 from each sector. The sample comprised 8 dental hygienists (two of whom are currently employed and concurrently pursuing dentistry studies), 2 periodontists, and 2 general practice dentists. The interviewers were coded as follows: P1, P2, etc., for those in the private sector, and V1, V2, etc., for those in the public sector (Table 2).

3.4 | Analyses

After conducting a comprehensive frequency analysis of the subcategories within each category, we evaluated the emotional tone linked to these subcategories. This led us to establish three secondary subcategories: approval, disapproval, and denial, following the guidance based on Olshansky and coauthors' work [27].

Consequently, all five aspects of the digital learning organization were assessed according to these three secondary subcategories on a scale ranging from 0 to 10. The rating categories (as secondary subcategories) were defined as follows: approval (8–10), denial (5–7), and ignoring (0–4). These secondary categories thus facilitated expert ranking, allowing for the assignment of scores to elements of the learning organization based on the frequency of the three classifications. Following the initial coding of the data, we moved on to assign secondary categories for evaluating the core components of the five learning organization rating scales. To ensure the validity of the results, two researchers independently assessed the assignment of statements to the secondary categories and calculated the average values.

4 | Research Results

4.1 | Opportunities and Barriers for the Professional Development of Oral Care Specialists

According to the procedures set by legislation, oral care specialists must continue their professional development and accumulate development hours to extend the validity of their licence and continue practicing. The analysis of the data reveals that all informants have attended professional development training in person in Lithuania, abroad, and online. Although participation in professional development events reaches up to 10 times per year, “Yes, I've been to courses related to my field, mainly practical courses in periodontology. I attended about 4 or 5 major courses per year. If we look at the new year, considering the whole year, it might be more, maybe about 6 courses.”, and another (P2) claims to have attended numerous courses, possibly 40 h per year “A lot, a lot of courses and many hours maybe

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 2 | The list of interviewers.

	Professional experience	Genger	Occupation	Sector (private/public)
Participan 1	5 years	Female	Dental hygienist	P1
Participan 2	3 years	Female	Dental hygienist	P2
Participan 3	20 years	Female	Dental hygienist	P3
Participan 4	9 years	Female	Dental hygienist	V1
Participan 5	5 years	Female	Dental hygienist	V2
Participan 6	11 years	Female	Dental hygienist	V3
Participan 7	7 years	Female	Dental hygienist (pursuing dentistry studies)	P4
Participan 8	2 years	Female	Dental hygienist (pursuing dentistry studies)	V4
Participan 9	3 years	Female	Periodontist	P5
Participan 10	2 years	Female	Periodontist	V5
Participan 11	2 years	Female	General practice dentist	P6
Participan 12	6 years	Female	General practice dentist	V6

Note: source compiled by the authors.

40 hours." informants pay for their own professional development (V2; V3; P1; P4; P6). For five informants, their employers partially fund the professional development (V4; V5; V6; P3; P5), and only two informants have their development fully funded by their employer (V1; P2).

Systems thinking principles reveal that informants believe professional development and knowledge sharing enhance not only their personal skills but also the overall patient care and team dynamics. One informant (P3) mentions attending courses relevant to their field and applying what they learn to patient care. This understanding of how individual actions and development fit into the larger system of healthcare and service quality aligns with the systems thinking approach.

Aspects of team learning principles—the practice of discussing professional development topics and sharing experiences within the team is a core example of team learning. Informants emphasize how they share information with colleagues after attending courses. For instance, when an informant (P1) encounters a challenge, colleagues always explain why they do things a certain way, which fosters a supportive team learning environment "We actually discuss it. So, if I have any questions, my colleagues always explain to me why they do things a certain way, why things happen the way they do. How we could do it, I don't feel pressure about not knowing something." This collective problem-solving allows team members to develop together, solving issues more effectively as a group. When employees openly discuss what they've learned in training and apply it in the workplace, they reinforce the team learning discipline. One informant (P2) mentions actively sharing new knowledge with a colleague, which fosters a culture of collaborative learning. This aligns with the belief that learning is not just an individual pursuit but a collective effort within the team to enhance service quality and efficiency.

Aspects of mental models' principles—informants often discuss how they share and receive information from colleagues to improve their practice. This reflects the mental models' discipline, as the way colleagues interpret and communicate new knowledge influences their beliefs and actions. For example, one informant (P2) mentions that they always share new courses and links with *colleagues*: "Yes, we actually discuss what we've heard, what news we've received, we always share it. And if, for example, there were online courses and I have a link saved, and if there's a possibility, I definitely share it with my colleague." while another explains that colleagues help clarify why certain practices are followed.

Through these interactions, their mental models evolve as they are exposed to new ideas and practices, allowing them to adopt improved ways of working. Informants' approach to selecting courses based on personal interests or relevance reflects the mental models' discipline. As one informant (V4) mentions, they choose courses based on topics, the lecturers, and current issues "I just look at the topic, the lecturers, and the current issues". This shows how their mental models are shaped by what is important to them in their professional development. Another informant (P5) mentions considering the price of courses as an important factor "Well, of course, I would consider the price, so that I could afford to pay for them." highlighting how financial constraints influence mental models about what is accessible and valuable for learning.

Aspects of shared vision principles—the alignment between individual growth and organizational goals demonstrates the shared vision in a learning organization. In the research, informants show that some employers fund part of the professional development (V4, V5, V6, P3, P5). Informants view this support as a commitment to their continuous improvement, and it reflects the shared vision of improving professional standards and providing high-quality care. One informant (V1) mentions that

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

the clinic funds training if hours have not been met "One course is well-known in Druskininkai, but both courses were financed by the polyclinic, and they really try to cover the costs as much as possible. They always look at the hours. If we need to collect 60 hours over the 5 years, and if we exceed 60 hours, they do not compensate, but if we haven't reached that yet, they always compensate.", reinforcing the idea that employees' development is in line with the organization's shared goals. Sharing knowledge and experiences, such as discussing course materials over coffee or sharing online course links (P1, P2), reflects a shared vision. When employees regularly exchange knowledge, they create a common understanding of practices and standards that improve the quality of care. This shared understanding aligns with the organization's mission and values of professional development and collaboration.

4.2 | The Organization's Contribution to Employee Development

One of the principles of a learning organization is to ensure that the organization learns through and with its employees. It has been observed that four public institutions organized mandatory training for their employees (occupational safety, first aid, civil defence) (V1; V2; V5; V6), and one private clinic also organized first aid courses for its employees (P5).

Aspects of systems thinking—research highlights several systemic challenges that impact professional development. The constraints of public procurement (V1, V3) and the lack of sufficient time allocated for training (V5, P2) illustrate how the broader organizational system influences individual learning opportunities. These systemic barriers limit the ability of employees to fully embrace and apply new technologies and techniques. For instance, public institutions are restricted by tender processes that limit their ability to choose specific tools or equipment, often leading to less-than-ideal work conditions that can affect service quality, informant (V3) mention "So, for example, if we want new equipment or tools, we have to submit a public procurement, and I would even say it's rarer that we get the desired item through public procurement, we more often get the cheaper alternative, which worsens the quality of work." Employees must adjust to new technologies within a system that doesn't always provide the resources or time needed for comprehensive learning, informant P2 shared, "I scheduled a day off, so without patients I said, I'll come to learn how to use the equipment, I came in, patients were scheduled for me, they said do it, and that's it." This reflects the larger context of how organizational systems impact individual learning experiences and development. Despite these challenges, employees continue to work within the system, demonstrating adaptability and an understanding of how their roles contribute to the overall success of the organization.

Aspects of personal mastery principles—informants demonstrate personal mastery through their individual efforts to adapt to new equipment, even when formal training is not provided. For instance, one informant (P2) mentions taking a day off to familiarize themselves with new equipment, showing proactive learning and initiative. Another informant (P5) describes the process of learning new equipment with minimal guidance, relying on colleagues or self-exploration. "You sort of familiarize yourself. Generally, when there are any innovations, they usually inform us at least a week in advance, usually by email. As for training, it's very different. If it's a new chair, which doesn't have any special requirements or special features, they usually point to someone you can contact if you need help, but they don't provide any special training." The challenges informants face in accessing training or familiarization with new technologies due to time constraints and lack of formal training also highlight the difficulty in achieving personal mastery in a system that does not prioritize continuous personal development. These barriers are evident when employees need to schedule their own time for training or when new equipment is introduced without proper formal learning opportunities (P2, V5).

Aspects of team learning principles—Team learning is reflected in how employees share knowledge about new equipment or technology. For example, informants mention learning by collaborating with colleagues proficient in using the tools (P5, V3). This collaborative approach allows learning to occur without formal training. Team members work together to fill knowledge gaps and share best practices, enhancing their understanding of new technologies. Informants from public institutions (V1, V3) describe how, with little formal instruction, they rely on one another to use new equipment effectively.

Aspects of shared vision principles—the varying levels of employer support for development and training reflect how an organization's shared vision of employee development is realized (or not realized). Public institutions tend to offer mandatory courses on safety, civil defence, and first aid (V1, V2, V5), which aligns with basic organizational goals (such as safety and compliance) but does not necessarily align with a broader vision of continuous professional growth. In contrast, private clinics tend to invest in more motivational training and team-building activities, which speaks to a shared vision of fostering a positive work culture, informant P5 mentions, that "I think it was to boost the team spirit, well, just to get everyone to connect." However, the fact that some informants report that their employers don't inquire about their development (V2, P1) suggests a shared vision that is either lacking or not communicated effectively in certain organizations. The practice of organizing motivational training and team-building activities (P5) aligns with the concept of a shared vision, where the organization seeks to build a cohesive team culture and empower employees by strengthening communication and collaboration.

Aspects of mental models' principles—informants express a mental model in which the organization is not deeply involved in supporting personal development. For example, one informant (P1) states that the organization does not inquire about employees' qualifications or course attendance "The employer, no, does not contribute to professional development. It's up to me, but the organization doesn't really look into whether I'm improving my qualifications or not." and another V2 mentions that no one monitors whether qualifications are updated "You added a plus for having that certificate, but how often we update them, no one cares." This suggests a mental model where employees are responsible for their own growth, while the organization does not actively challenge or support their learning journey. The challenge of public institutions being limited by public

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

tenders, where employees cannot choose specific equipment or technologies (V1, V3), reflects a mental model where employees may feel restricted in their ability to influence the tools they use. Informant V1 mentions "Now with polyclinics, it's a bit more complicated. We discussed, for example, that we need a new leaf blower, but we can't choose a specific model." This could potentially hinder their motivation to fully embrace new equipment or innovations because they are often stuck with less-than-ideal alternatives.

4.3 | The Assessment of Teamwork

Teamwork is an integral part of the organization, both in sharing valuable information with the organization and transferring new knowledge to colleagues, as well as aiming to look at the patient's health and its improvement in a comprehensive way. Specialists indicate that different teams exist within organizations, depending on the size of the company.

Aspects of systems thinking principles—the organization's efficiency in delivering patient care is dependent on how well team members, from the receptionist to the dentist, work together. The research shows how the systems thinking approach plays out in practice, where each team member's actions impact the others. For example, when the receptionist is absent, chaos ensues (P4) "The administrator went on vacation and there was a noticeable chaos. I said, it was a mess in the team work wasn't organized, patients there was chaos.", suggesting that the smooth functioning of the whole team relies on the coordinated actions of all parts. This is a clear illustration of systems thinking, where employees understand the larger context of their roles and how their individual tasks contribute to the overall effectiveness of the team. The process of hiring employees through recommendations and referrals (V1, V2, P4) reflects systems thinking, as the organization values employees who will fit into and enhance the existing team, informant P4 mention "Through recommendations, colleagues' recommendations, they simply invite for an interview, introduce them to the team, and then they start working." By relying on recommendations, teams ensure that new members align with the organization's work culture and systems. The emphasis on internal recommendations suggests a systemic approach to team building, where existing members influence who joins the team to maintain a harmonious and efficient work environment.

Aspects of personal mastery principles—the research shows that employees recognize the importance of consulting with others when they need help or are facing difficult cases (V6, P1, P5), informant V6 shared "If there are more difficult cases or some questions, we definitely discuss them with colleagues and the team; sometimes, we need to make joint decisions and consult with one another." This is an example of personal mastery because employees understand the value of learning from others, particularly from those with more experience. Junior employees also express the importance of observing and learning from more experienced team members. One informant (P5) mentions that teamwork happens when "doctors are very open, and there's more help, especially when you're young and have little experience," which shows personal mastery in action. Here, team members help each other to improve their skills, demonstrating that personal growth is not only an individual process but also a team-based one.

Aspects of team learning—informants show that team learning occurs when colleagues share knowledge and support each other, especially in complex cases. For example, P5 mentions that doctors are open and willing to help younger colleagues, facilitating team learning through shared experiences and skill development. This environment allows employees to solve problems together and learn from each other's expertise, particularly when facing challenges. Teamwork in the dental setting is interdependent, with success relying on effective communication and coordination between specialists, assistants, and administrators (V5, P4).

4.4 | Aspects of Mental Model Principles

Informants highlighted the central role of the receptionist/administrator in the team (P6, V3, P4), indicating a mental model where this role is key to smooth team functioning. The disruption during the administrator's vacation reflected how the absence of this role affects team dynamics, showing that success depends on certain individuals often taken for granted. Informants also noted that new employees are often hired through staff recommendations, reflecting a belief in internal cohesion and trust. This suggests a mental model of building teams from within, relying on collective decision-making in recruitment. Aspects of shared vision principles—in teams, both in the private and public sectors, specialists, dentists, hygienists, and assistants work towards the common goal of improving patient health. This is reflected in informants' statements about teamwork, such as "if there are more difficult cases or some questions, we definitely discuss them with colleagues and the team."(V6). This indicates a shared vision where the team aligns on patient care as their central objective, showing that despite different roles (administrators, dentists, hygienists), all members work together towards a unified goal. Positive leadership is described as fostering an open, collaborative environment (V1, P4). Informants describe managers who encourage open communication, provide learning opportunities, and check in on employees' needs. V1 shared, "There isn't really much control over the work, but the manager is responsible for everyone, and everyone is quite bold here. If anyone has questions or doesn't understand what to do, they go directly to the manager. She's the best when it comes to these types of courses." This behaviour helps align the team with the shared vision of continuous improvement and mutual support.

4.5 | Key Factors Contributing to the Quality of Dental Services

The research highlights the systems' thinking approach to understanding dental service quality, where multiple interconnected factors impact outcomes. Public sector informants stress that waiting times and service delivery time are essential elements of service quality (V3, V6); informant V3 shared, "But we simply have to work faster, and speed is not always related to quality, as we know," while private sector informants focus

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

more on teamwork, equipment quality, and patient communication, like P4 mentioned, "Probably the collaboration, mutual understanding, and the presence of strong teams." The interrelationship between these factors, such as how time constraints may affect patient interaction and service quality, illustrates how systems thinking is at play. For example, "Yes, then there would definitely be time. Sometimes those frameworks are quite narrow in the public sector" (V3), showing how structural elements such as time are part of a broader system that affects service delivery. The pricing of services is another factor that influences service quality, particularly in the public sector. Informant V3 notes, *"A very significant influence comes from the service fees set by the ministry, as well as the general regulations of the public sector's work, which somewhat harm the quality of work."* This reflects a systems thinking view, where external constraints (like pricing and regulations) impact the internal operations and quality of service.

Aspects of personal mastery principles—informants emphasize the importance of specialists' qualifications as a key element of quality dental care (V2, V5, P1, P2, P3, P5, P6). Specialists in both public and private sectors recognize the importance of their own professional development in providing high-quality care.

Aspects of team learning principles—the importance of teamwork in ensuring quality care is emphasized, especially in the private sector. Team learning occurs when specialists collaborate, share knowledge, and work together to deliver high-quality services. For instance, informant P4 states, "Probably the collaboration, mutual understanding, and the presence of strong teams". This demonstrates team learning, where the team continuously enhances their collective ability to deliver comprehensive care through mutual support and information exchange.

Aspects of mental models' principles—the significance of materials and equipment in ensuring quality dental services is highlighted by multiple informants, particularly from the public sector (V5, P5). The perception that the quality of materials directly impacts service delivery reflects the mental model that modern, high-quality tools are integral to providing superior care. As informant P5 mentions, "Then, what equipment is used, because the quality of the instruments, the novelty of the instruments, and their sharpness", underscoring how team members view the role of tools and their understanding of their impact on service outcomes. In the private sector, teamwork is considered a critical factor for ensuring comprehensive quality (P1, P2, P4, P5). Private sector specialists believe that coordinated teamwork is central to maintaining high standards, suggesting that their mental model aligns with collaboration as a key driver of success.

Aspects of shared vision—private sector informants highlight teamwork and communication with patients as central to delivering quality dental services (P1, P2, P4, P5). Private sector informant P1 states, "Teamwork, interdisciplinary collaboration between specialists", while another emphasizes, "Communication with the patient. Because sometimes you can offer very high-quality services. But if the patient is not cooperative, then the quality of treatment will not be good either" (P5). These statements show that a shared vision within the team, where all members align on the importance of collaboration and communication, is vital for maintaining service quality. While the private sector emphasizes teamwork and patient communication, the public sector focuses more on the structural elements that impact quality, such as waiting times and service delivery time. However, the overall shared vision across both sectors is to provide optimal care, even if the methods to achieve this vary based on organizational constraints.

5 | Discussion

5.1 | The Importance of Personal Mastery in Dental Service Quality

The qualifications and professional competence of dental specialists are pivotal in determining the quality of care provided. Informants from both the public and private sectors consistently emphasized that personal mastery, which includes the professional skills, empathy, and continuous development of dental staff, directly influences patient outcomes. Specialists with higher levels of competence are more likely to provide superior care, regardless of the materials or equipment at their disposal.

Continuous professional development is a vital component of personal excellence. Employees have the autonomy to initiate their own learning sessions. They can select the training and formats that best meet their needs, demonstrating a proactive and motivated approach to maintaining or enhancing their knowledge.

5.2 | Mental Models, Teamwork and Their Impact on Service Delivery

Mental models within dental teams are shaped by how specialists approach their tools, materials, and teamwork. Public sector employees were particularly focused on the impact of materials and equipment quality on service delivery, highlighting that the choice of instruments and their novelty could directly affect patient outcomes. In contrast, private sector teams tend to prioritize teamwork and communication with patients as essential components of service quality. The contrast reflects differing mental models of what is considered most essential for high-quality dental care: whether it is advanced technology and tools or strong interpersonal collaboration and patient management. The findings also suggest that teamwork and collaboration are integral to achieving service quality, with dental teams working closely together to address challenges and improve patient outcomes. A strong, cohesive team, often involving both clinical and non-clinical staff, such as receptionists, is essential to ensuring smooth operations and high-quality patient experiences. These differences indicate that professional training also contributes to the development of different ways of thinking. Studies are mostly focused on individual clinical and technical skills, while teamwork, interprofessional collaboration, and patient communication competencies are developed to a limited extent. As a result, young professionals enter practice technically well-prepared, but their ability to operate in team-based, complex situations often depends on the work environment. By incorporating more structured teamwork and communication

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

training into study programs, these competencies could be systematically strengthened during the course of studies [28–30].

5.3 | Shared Vision for Quality Service

Across both public and private sectors, there appears to be a shared vision focused on providing the best possible care, although the approach and supporting systems may differ. Private sector organizations place a stronger emphasis on teamwork and communication, believing that a well-coordinated team can ensure better patient outcomes. Public sector organizations, on the other hand, face structural constraints (such as waiting times and limited resources) but still aim for the best possible service delivery within those limitations.

The alignment of the team and management on shared goals ensures that despite external constraints (such as budget or public regulations), the focus remains on delivering high-quality dental services to patients.

5.4 | Team Learning and Knowledge Sharing

The research highlights that team learning plays a crucial role in maintaining high service standards. In both the public and private sectors, specialists engage in knowledge sharing, whether through formal training programs or informal discussions. For example, new employees are often hired based on recommendations from existing staff, reinforcing the importance of a knowledge-sharing culture within the team. Specialists in the private sector show more openness to collaborative learning, especially with managers and senior colleagues, creating a learning environment where even junior staff can benefit from the experience and knowledge of others. This process of mutual learning ensures that service standards remain high and allows employees to grow professionally.

5.5 | Systems Thinking

5.5.1 | A Holistic Approach to Service Quality

The research supports a systems thinking approach to understanding health care service organization practice, as it is influenced by numerous interconnected factors, such as the availability of quality equipment, team dynamics, communication skills, and external factors like public regulations [31]. Public sector employees particularly pointed out the impact of waiting times and service delivery time on overall quality, while private sector employees were more concerned with the internal dynamics of teamwork and patient communication. Both sectors, however, understand that systems thinking—where the improvement of one factor (such as teamwork) can positively impact others (such as patient satisfaction)—is key to improving overall service quality. The research suggests that improving systems within the organization, whether through better tools, better teamwork, or more effective communication—can lead to significant improvements in service delivery. There are notable barriers to both service quality and professional development within the sector. Public sector organizations face bureaucratic limitations, such as procurement processes that restrict the choice of equipment and the influence of low wages, which can reduce the quality of care and employee motivation. On the other hand, the private sector faces challenges related to maintaining effective teamwork and staff turnover, which can disrupt service quality if not properly managed. These obstacles also indicate that in specialist training it is necessary to strengthen competencies related to systemic thinking, principles of teamwork, and functioning in a resource-limited environment so that graduates are better prepared for real-world practice conditions.

Furthermore, time constraints—both for professional development and equipment familiarization—present significant challenges in delivering high-quality service.

5.6 | The Role of Management in Supporting Quality

There is a clear distinction between the role of management in the public and private sectors. In private sector organizations, managers are seen as more supportive, with a focus on encouraging communication, feedback, and collaboration. Employees feel comfortable seeking guidance from their managers, contributing to a more positive work environment. In contrast, in some public sector institutions, management has a more top-down approach, with less collaboration and communication, leading to frustration and a lack of coordination within teams. The importance of managerial involvement in fostering a supportive and collaborative work culture is evident in the private sector, where leaders not only encourage teamwork but also invest in motivational training and employee well-being. Public sector leaders could benefit from adopting a more inclusive leadership style to improve team morale and service delivery.

Following a frequency analysis of the sub-categories within each main category, alongside an evaluation of the emotional tone associated with these sub-categories (approval, disapproval, denial), we rated the various aspects of the learning organization on a scale from 0 to 10. The resulting distribution of values reveals interesting insights into the respondents' perceptions (Figure 2).

The figure illustrates that the two dimensions of a learning organization are similarly expressed in both sectors surveyed, highlighting parallels in the development pace of the dental field. Among these dimensions, personal mastery is consistently recognized as the most pronounced, showing little variation based on the sector in which the dentist operates. While personal mastery has reached its peak, systems thinking is less developed, often limited to individual roles with insufficient connections to overall quality, patient health, and the organization's mission.

Team-based learning is noticeably underrepresented, particularly in the public sector, where individuals often feel disconnected from their teams and lack motivation for collective achievement [32]. Within the realm of team learning, there is a limited awareness of the benefits of teamwork, and at the level of team cognition, the public sector tends to be relatively passive in recognizing only a limited number of members, such as a doctor

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

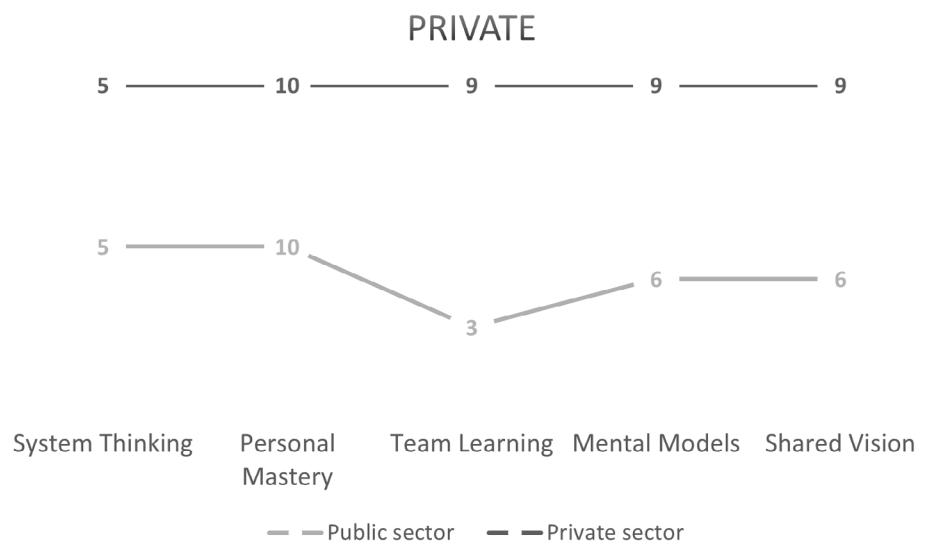


FIGURE 2 | The link between dimensions of Learning organization and qualitative estimated values (normalized frequencies of subcategories).

and an assistant, as a cohesive team. In contrast, the private sector demonstrates a more stable and unified understanding of team dynamics, viewing the connection not only in terms of the direct functions of providing patient care but also regarding coordination with the administration.

The systemic vision appears to be somewhat limited, primarily concentrating on operational actions and immediate benefits for patients, often in connection with the profitability of practices. This narrow focus can divert attention from the larger context of the dental sector.

Similarly, mental modelling produces a comparable effect; this is not due to a lack of opportunities for sharing, but rather to a fragmented and short-term sequence of events that include services, profits, feedback, and patients returning for additional services [22]. Consequently, the wider preventive aspect, which forms part of systems thinking, is increasingly overshadowed by instinctive evaluations of service quality.

These findings indicate that both professional dental education and regulation within the dental sector require a coherent shift. This shift should rebalance the influence of personal mastery on service quality by fostering shared responsibilities between specialists and the organization. Incorporating a more holistic educational approach into the dental curriculum—focusing on prevention, patient perspectives, and key performance indicators—is essential. Integrating organizational learning principles into oral hygiene or dentistry studies—through reflective learning, team-based training, and engagement with real organizational challenges—can directly enhance the competencies that this study identifies as lacking in current dental care structures.

6 | Conclusions

In conclusion, the analysis of learning organizations within the dental field reveals significant insights into the shared dimensions across sectors. Personal mastery remains a strong focus across both public and private sectors, highlighting a commitment to individual development. However, the underdevelopment of systems thinking points to a critical gap, as it often limits the connection between roles and the broader organizational mission. The public sector, in particular, faces challenges with team-based learning, where a lack of cohesion and collective motivation hinders progress. Meanwhile, the private sector showcases a greater awareness of team dynamics, benefiting both patient care and administrative efforts. This contrasting understanding underscores the need for a more systemic approach that encompasses the overall context of the dental sector. Ultimately, fostering a holistic view that prioritizes teamwork and preventive strategies is essential for advancing both patient outcomes and organizational success. These observations also highlight the need to refocus dental education. By strengthening specialists' competencies in systems thinking and organizational learning, we can prepare future clinic professionals to operate more effectively in complex and resource-limited healthcare environments.

Funding

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

1. World Health Organization, "Oral Health," (2025), https://www.who.int/news-room/fact-sheets/detail/oral-health.

2. F. Bray, J. Ferlay, I. Soerjomataram, R. L. Siegel, L. A. Torre, and A. Jemal, "Global Cancer Statistics 2018: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries," *CA: A Cancer Journal for Clinicians* 68 (2018): 394–424.

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

3. M. A. Peres, L. M. D. Macpherson, R. J. Weyant, et al., "Oral Diseases: A Global Public Health Challenge," *Lancet* 394 (2019): 249–260, https://doi.org/10.1016/S0140-6736(19)31146-8.

4. S. Listl, C. Quinozes, and M. Vujicic, "Including Oral Diseases and Conditions in Universal Health Coverage," *Bulletin of the World Health Organization* 99 (2021): 407, https://doi.org/10.2471/BLT.21.285530.

5. R. G. Watt, B. Daly, P. Allison, et al., "Ending the Neglect of Global Oral Health: Time for Radical Action," *Lancet* 394, no. 10194 (2019): 261–272, https://doi.org/10.1016/S0140-6736(19)31133-X.

6. B. Varenne, "Oral Health at the Core of the Global Health Agenda," *Journal of the American Dental Association (1939)* 153 (2022): 393–394, https://doi.org/10.1016/j.adaj.2022.03.001.

7. E. Bernabé, M. Masood, and M. Vujicic, "The Impact of Out-Of-Pocket Payments for Dental Care on Household Finances in Low and Middle Income Countries," *BMC Public Health* 17 (2017): 4011–4020, https://doi.org/10.1186/s12889017.

8. F. Schwendicke and W. V. Giannobile, "Research for Prevention of Oral/Dental Diseases: How Far Have We Come?," *Journal of Dental Research* 99 (2019): 5–7, https://doi.org/10.1177/0022034519889054.

9. L. Vassalou, "The Learning Organization in Health-Care Services: Theory and Practice," *Journal of European Industrial Training* 25, no. 7 (2001): 354–365, https://doi.org/10.1108/03090590110407164.

10. S. Ratnapalan and E. Uleryk, "Organizational Learning in Health Care Organizations," *System* 2 (2014): 24–33, https://doi.org/10.3390/systems2010024.

11. D. H. Peters, "Health Policy and Systems Research: The Future of the Field," *Health Res Policy Systems* 16 (2018): 84.

12. A. Ortenblad, "What Does "Learning Organization" Mean?," *Learning Organization* 25, no. 3 (2018): 150–158, https://doi.org/10.1108/TLO-02-2018-0016.

13. V. Peleckienė, *Besimokanti organizacija: teorija ir praktika* (Vilnius Gediminas Technical University, 2014).

14. A. Sakalas, "Žinių vadyba: besimokančios organizacijos kūrimas," (2012).

15. L. Merkys and O. Šlapšienė, "Personalo mokymas(is) – besimokančios organizacijos kūrimo(si) prielaida," *Studijos šiuolaikinėje visuomenėje* 4, no. 1 (2013): 115.

16. M. Easterby-Smith, L. Araujo, and J. Burgoyne, *Organizational Learning and the Learning Organization: Developments in Theory and Practice* (SAGE, 1999), 130–154.

17. P. Senge, *The Fifth Discipline: The Art & Practice of the Learning Organization* (Currency Doubleday, 2006).

18. S. Spain, "Systems Thinking Applied to Curriculum and Pedagogy: A Review of the Literature," *Curriculum Perspectives* 39 (2019): 135–145.

19. H. Bui and Y. Baruch, "Creating Learning Organizations: A Systems Perspective," *Learning Organization* 17, no. 3 (2010): 208–227, https://doi.org/10.1108/09696471011034919.

20. H. T. M. Bui, "From the Fifth Discipline to the New Revolution: What We Have Learnt From Senge's Ideas Over the Last Three Decades," *Learning Organization* 27, no. 6 (2020): 495–504, https://doi.org/10.1108/TLO-04-2020-0062.

21. D. Dymock and C. McCarthy, "Toward a Learning Organization? Employee Perceptions," *Learning Organization* 13, no. 5 (2006): 525–536.

22. N. O'Connor and B. Kotze, ""Learning Organizations": a clinician's primer," *Australas Psychiatry* 16, no. 3 (2008): 173–178, https://doi.org/10.1080/10398560801888639.

23. S. C. Goh, C. Chan, and C. Kuziemsku, "Teamwork, Organizational Learning, Patient Safety and Job Outcomes," *International Journal of Health Care Quality Assurance* 26, no. 5 (2013): 420–432, https://doi.org/10.1108/IJHCQA-05-2011-0032.

24. E. Hovlid, O. Bukve, K. Haug, A. B. Aslaksen, and C. von Plessen, "Sustainability of Healthcare Improvement: What Can We Learn From Learning Theory?," *BMC Health Services Research* 12 (2012): 235, http://www.biomedcentral.com/1472-6963/12/235.

25. J. Kosinskienė and J. Ruževičius, "Kokybės vadybos priemonių poveikis sveikatos priežiūros įstaigų veiklos veiksmingumui," *Visuomenės Sveikata* 1, no. 52 (2011): 13–29.

26. E. Olshansky, K. D. Lakes, J. Vaughan, et al., "Enhancing the Construct and Content Validity of Rating Scales for Clinical Research," *International Journal of Educational and Psychological Assessment* 10, no. 1 (2013): 36–50.

27. S. E. Chavis, F. V. Anagnostopoulos-King, S. L. Syme, S. Varlotta, K. E. Noonan, and H. B. Congdon, "In-Person to Virtual Interprofessional Education: Teamwork Attitudes and Skills Among Dental and Dental Hygiene Students," *Journal of Dental Education* 88, no. 11 (2024): 1481–1489, https://doi.org/10.1002/jdd.13636.

28. A. Y. Alqutaibi, M. M. Rahhal, R. Awad, et al., "Foundations of Interprofessional Education in Dental Schools: A Narrative Review," *European Journal of Dentistry* 19, no. 3 (2025): 587–594, https://doi.org/10.1055/s-0045-1804504.

29. K. N. Williams, E. H. Lazzara, J. Hernandez, et al., "Integrating Competency-Based, Interprofessional Teamwork Education for Students: Guiding Principles to Support Current Needs and Future Directions," *Frontiers in Medicine* 11 (2025): 1490282.

30. J. Clarkson, J. Dean, J. Ward, A. Komashie, and T. Bashford, "A Systems Approach to Healthcare: From Thinking to -Practice," *Future Healthc J* 5, no. 3 (2018): 151–155, https://doi.org/10.7861/futurehosp.5-3-151.

31. A. Burgess and E. Matar, "Team-Based Learning (TBL): Theory, Planning, Practice, and Implementation," in *Clinical Education for the Health Professions*, eds ed., ed. D. Nestel, G. Reedy, L. McKenna, and S. Gough (Springer, 2023), https://doi.org/10.1007/978-981-15-3344-0_128.

32. M. Satcher, A. Dees, J. Johnston, et al., "Visualized Shared Mental Modeling: An Adapted Practical Framework for Interdisciplinary Teams Solving Complex Problems in Healthcare," *BMC Health Services Research* 25 (2025): 1467, https://doi.org/10.1186/s12913-025-13588-7.

16000579, 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/eje.70147 by Cochrane Lithuania, Wiley Online Library on [09/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License