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Review Article

**FACTORS IMPROVING HEALTHCARE ENVIRONMENT FOR
BETTER PRACTICE:REVIEW**

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Abstract:

Despite extensive endeavors over several decades to enhance the quality and safety of healthcare, achieving this objective appears more unattainable. Rarely are successful examples of improvement duplicated. Utilizing many ways for adopting guidelines seems to yield greater effectiveness compared to using a single strategy. As mentioned in the introduction, guidelines are now commonly regarded as integral components of complete quality systems. These systems generally incorporate guidelines with educational interventions, audits, and other measures aimed at enhancing performance.

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INTRODUCTION:

Continuous improvement is necessary for delivering health care of exceptional quality and reliability [1]. Despite numerous efforts to enhance quality and safety, there are still frequent reports of medical errors, failures to follow evidence-based practices, unwarranted variations and inequities in care, and wasteful use of resources. As a result, achieving the aim of improvement can frequently feel difficult to attain. The literature is abundant with instances of effective quality and safety enhancement endeavors. However, the majority of examples are often limited to a certain geographical area and are rarely duplicated by other companies [4]. A potential cause for difficulties in transferability could be the insufficient comprehension of the methods by which organizations attain enhancement. This is partly due to the lack of research that incorporate various improvement projects. Research indicates that group learning contributes to improvement. Collective learning refers to the acquisition of information, understanding, or skills among groups and organizations [5]. Collective learning is distinct from individual learning since it necessitates individuals to collaboratively scrutinize and understand organizational experience.

data-based medicine (EBM) refers to the careful, clear, and prudent utilization of the most up-to-date and reliable data when making decisions regarding the treatment of specific patients [6]. Professional societies and international health care organizations, like the WHO [7], are rapidly adopting evidence-based medicine (EBM). Clinical guidelines are scientifically formulated statements that help guide healthcare practitioners and patients in making decisions about the most appropriate therapy for certain clinical problems. These guidelines play a crucial role in shaping evidence-based medicine. Practitioners might utilize protocols for making decisions while attending to the needs of specific patients. The guidelines may offer directives regarding the specific diagnostic or screening tests or therapies to be employed [9]. Guidelines are now widely recognized as an essential component of professional quality systems. These could include activities such as ongoing professional development, peer evaluation, and audit processes [10].

While there has been an increase in the creation of standards for medical staff, nursing staff, and other healthcare workers, it does not guarantee that the advice outlined in these guidelines are really adhered to [11]. In a study conducted by Grol et al. [12], it was shown that general practitioners (GPs) followed guideline suggestions in around 61% of relevant

judgments based on observations of ten Dutch guidelines. Furthermore, Bauer [13] conducted an analysis of 41 papers pertaining to the execution of clinical guidelines in the realm of mental health treatment, encompassing conditions such as depression, schizophrenia, and addiction. The cross-sectional and pre-post studies demonstrated guideline adherence in 27% of cases, whereas the controlled trials showed adherence in 67% of cases. Several of these studies shown that once the specific implementation tactics were discontinued, the rates of adherence reverted back to their original levels.

DISCUSSION:

Studying failures is a unique type of experimentation that has been highlighted in the QI literature. It allows businesses to enhance quality and safety in the long run by minimizing the repetition of problems [14]. An article in the health industry explores the elements that impact an organization's ability to learn from failures. These aspects include the features of the adverse event, the composition and norms of the group, safety management practices, as well as the cultural, leadership, and network structures of the business. The sole empirical study on the acquisition of knowledge from mistakes in the healthcare field was conducted exclusively in nursing homes. The study revealed that facilities acquired knowledge from both their own failures and the failures of others. However, they demonstrated a lower level of learning when they had already invested in the unsuccessful plan. A correlated investigation defines trial and error learning as a progression in which collective preconceptions and ideals gradually intertwine with organizational routines. Consequently, established processes that are strongly associated with common assumptions and values might prove challenging to modify, even in the face of failures [15].

Exploration and exploitation are terms used to represent different aspects of learning processes. Exploration involves finding out new possibilities and variations, while exploitation focuses on applying existing information and pursuing optimal outcomes. These concepts are discussed in reference [16]. Empirical research has demonstrated that both exploratory and exploitative learning have a significant influence on innovation and performance. A study discovered that the utilization of both exploratory and exploitative learning methods had mutually beneficial impacts on creativity and performance inside industrial companies. The importance of sequencing between exploratory and exploitative learning is emphasized by some, particularly in situations where the goal is to replicate

products or services. Furthermore, studies indicate that exploitation can displace exploration [17].

Exploration and exploitation are facilitated by both official and informal coordination mechanisms, which are elaborated upon in the "Organization structure" section under "The supportive learning environment". Specifically, casual social connections are beneficial for both types of learning [18].

Knowledge acquisition refers to the systematic process of gathering and disseminating information inside an organization. The literature on learning in quality improvement (QI) examines the processes, structural elements, and behavioral components that contribute to the acquisition of knowledge. Some authors consider knowledge acquisition to be a feature of exploration. However, it is more accurate to highlight the experimental and variance-seeking nature of exploration and differentiate it from attempts to gain knowledge. A significant divergence in both the literature and practical application lies in the contrast between internal and external knowledge acquisition [19]. The distinction is in the utilization of an organization's internal experience and expertise versus the acquisition of knowledge from external experts and clients of the firm. Studies indicate that the order in which internal and external knowledge is acquired, as well as the selection of learning processes at specific times, have an effect on both immediate and long-lasting learning outcomes [20].

Internal knowledge acquisition is influenced by individual, societal, and structural variables. An individual's cognitive requirements and inclination towards learning influence the degree to which they acquire knowledge from others. Studies indicate that the most effective learning takes place when newly learned knowledge is connected to preexisting knowledge, rather than being highly specialized or completely unrelated to current knowledge [21].

Further elaboration on social and structural elements can be found in the subsequent section titled "Supportive learning environment". Nevertheless, it is important to note that social factors, such as the characteristics of social networks and the management of team interaction processes (such as communication and conflict resolution), as well as familiarity through face-to-face communication, the minimization of differences, and the sharing of narratives, play a crucial role in facilitating the encoding, retrieval, and communication of knowledge stored by various individuals [22].

Organizations have the ability to design internal learning processes in order to facilitate enhancement. This literature focuses on the methodology of organizing experiential learning, encompassing both technical and organizational aspects. Research supports the importance of gaining information through practical experience. It shows that team learning is enhanced by the expertise of individual workers, their ability to utilize the knowledge of their colleagues, and the organization's ability to coordinate activities [23]. Additional methods for organizing learning processes involve replicating practices in different contexts, implementing "learn how" activities to put practices into action in a specific environment, employing structured problem-solving approaches, utilizing employee surveys to evaluate the learning culture, employing coordination practices that facilitate ongoing revision and alignment by making work transparent to others, and employing collective reflection processes to capture and integrate new knowledge in the form of routines, technologies, and procedures [24]. Organizations must actively strive to consolidate or preserve information, or alternatively, make a deliberate decision to renounce or discard knowledge.

Organizations have the ability to design internal learning processes in order to facilitate enhancement. This literature focuses on the methodology of organizing experiential learning, encompassing both technical and organizational aspects [25]. Research confirms the importance of gaining knowledge through practical experience. It also shows that team learning is enhanced by the expertise of individual workers and their ability to utilize the knowledge of their colleagues. Additionally, the effectiveness of team learning is influenced by the organization's ability to coordinate activities. Additional methods for organizing learning processes involve replicating practices in different environments, engaging in "learn how" activities that put practices into action within a specific context, employing structured problem-solving approaches, utilizing employee surveys to evaluate the learning culture, implementing coordination practices that facilitate continuous revision and alignment by making work transparent to others, and employing collective reflection processes to capture and integrate new knowledge in the form of routines, technologies, and procedures [27]. Organizations must actively strive to consolidate or preserve information, or alternatively decide to discard or unlearn knowledge [27].

Gaining knowledge from external individuals and entities can be a beneficial method for corporations to

get new information. Significant instances include acquiring knowledge from patients, as well as the possibility of discovering novel information by examining other countries and various businesses [23]. External information acquisition frequently takes place through interpersonal procedures. For instance, the literature discusses the need of recruiting persons who possess specialized skills or knowledge, utilizing connections within networks, affiliations with established systems, and seeking advice from consultants, as well as promoting diversity within work groups. External knowledge acquisition is also facilitated by various systems-oriented techniques. One effective approach is to emulate the successful techniques employed by others. Nevertheless, imitating is challenging due of three factors: 1) Effective strategies can be intricate and therefore difficult to replicate through logical, algorithmic methods; 2) Attempting to imitate successful strategies in small steps often faces limitations that hinder complete replication; and 3) Replicating entire strategies is challenging due to the fact that minor inaccuracies in the imitated strategies can result in significant outcomes. In addition, when firms effectively replicate the practices of an innovative organization, the innovator can also reap benefits. This is because imitators develop knowledge that the innovator can leverage to continue innovating, especially when the generated knowledge is already familiar to them [24,25].

Organizations can gain information through vicarious learning, which involves the collection, codification, and combination of knowledge, as well as the identification, translation, adoption, and continuation of knowledge [26]. Organizations enhance their knowledge by developing absorptive capacity, which refers to their ability to effectively utilize external knowledge for the purpose of learning, particularly in the context of sharing knowledge between different firms. A study investigated the causal connection between absorptive capacity, which refers to the output generated from research and development, and the investment made by organizations in acquiring information. In essence, the study explored whether knowledge acquisition is a result of absorptive capacity or vice versa, posing the question of whether it is a "chicken or an egg" scenario. The empirical evidence they provide indicates that certain firms, instead of developing absorptive capacity to maximize the advantages of acquiring information, experience larger returns from knowledge acquisition and therefore invest more in it [27]. Ultimately, the effectiveness of knowledge acquisition procedures depends on the careful selection of where to search for

new knowledge, the duration and intensity of the search, and ensuring that the search location and intensity are well-matched [28].

QI collaboratives are a distinct organizational structure that is becoming more commonly employed to facilitate the exchange and acquisition of knowledge amongst enterprises. Learning collaboratives are comprised of interconnected organizations or patient care units within organizations that collaborate to address issues pertaining to the quality or safety of patient care. The available research on QI collaboratives, albeit small, generally indicates beneficial outcomes [29]. Learning sessions are considered essential for acquiring common knowledge in collaborative settings. Additionally, a study discovered that performing evidence reviews that are tailored to the requirements of frontline innovators yields valuable insights within the framework of a Quality Improvement (QI) collaborative [30].

Performance monitoring involves systematically analyzing and evaluating data to enhance quality, which includes benchmarking against competitors, top-performing enterprises, and technological advancements. Articles advocate for meticulous surveillance to assess workforce and other delivery system reforms [31]. To become a highly dependable organization, it is necessary to combine various sources and interpretations of data at different levels of analysis [32]. According to articles, the amount and intensity of performance monitoring methods were used to distinguish between anticoagulation clinics, QI collaboratives, and businesses employing overall quality management [33].

Psychological safety enhances team learning by fostering a sense of ease among members, enabling them to freely ask questions and express their concerns. Research conducted through qualitative investigations has revealed that individuals who possess a sense of ease in expressing their thoughts, promoting dialogue, and actively seeking input from others are more likely to successfully introduce new methods and achieve a higher standard of care [34]. Psychological safety enhances the process of enhancing quality and safety by fostering more idea development and facilitating a deeper knowledge of problems. A study utilizing a combination of research approaches indicates that psychological safety enhances quality improvement by fostering collaboration and problem-solving [35].

Diversity is typically understood as variations in demographic characteristics. However, variations in

structural aspects such as the physical environment, training and experience, and reporting managers can also influence organizational learning. This is because these variations can enhance the diversity of social connections that individuals have access to, and expose members to different sources of task-related information, expertise, and feedback, thereby increasing knowledge within the organization. Therefore, businesses that have diverse experiences may have an advantage in recognizing optimal methods and making superior strategic choices [35].

Over four decades ago, Donabedian [36] suggested evaluating the quality of healthcare by examining its structure, practices, and outcomes. Structure measurements evaluate the ease of access, the presence, and the excellence of resources, such as medical insurance, the capacity of hospital beds, and the quantity of highly trained nurses. Process measurements evaluate the provision of healthcare services by doctors and providers, including the utilization of recommendations for the treatment of diabetic patients. Outcome metrics are indicators of the ultimate outcome of healthcare and can be impacted by environmental and behavioral factors. Illustrative instances comprise fatality rates, contentment of patients, and enhanced state of health. Two decades later, leaders in the field of health care adopted methodologies from Deming's work [37] to revive the manufacturing industry in post-World War II Japan. Deming, the progenitor of Total Quality Management (TQM), advocated for the unwavering commitment to a specific objective and the methodical examination and quantification of process stages in relation to capability or results. The TQM model is a comprehensive organizational strategy that encompasses various elements like as organizational management, teamwork, well-defined processes, systems thinking, and change. Its purpose is to establish an atmosphere conducive to continuous improvement. This strategy embraced the perspective that the entire organization must be dedicated to quality and enhancement in order to attain optimal outcomes.

Continuous quality improvement (CQI) and Total Quality Management (TQM) are often used synonymously in the field of healthcare. Continuous Quality Improvement (CQI) has been employed as a method to enhance clinical practice, operating under the premise that there is potential for enhancement in every procedure and on every occasion. Most QA programs at hospitals primarily concentrate on addressing concerns highlighted by regulatory or accreditation bodies. These concerns typically involve

verifying documents, evaluating the performance of oversight committees, and analyzing credentialing procedures. The Clinical Performance Index (CPI) is a comprehensive approach that may be directly applied to the clinical treatment of individual patients, as it considers multiple dimensions of outcomes. CPI, a clinician-led method, aims to achieve a thorough comprehension of the intricacies of healthcare delivery. It involves assembling a team, establishing a clear objective, gathering data, evaluating the findings, and subsequently implementing changes in practice based on those findings. Management and clinician commitment and involvement are crucial for the successful implementation of change, as evidenced by these models. Among several quality improvement initiatives, there has been a specific focus on the importance of management having confidence in the project, effectively communicating its objective, and empowering the team [37].

CONCLUSION:

The committee was assigned the responsibility of finding determinants that impact an individual's utilization of health-care services, such as poverty and degree of urbanization. This chapter will discuss and examine the various aspects that are relevant to the topic at hand. The committee has structured the initial portion of the chapter around the examination of both individual and societal factors that influence the consumption of healthcare. This includes exploring the factors that impact the need for care, the likelihood of seeking services, and the obstacles that hinder access to services. A total of eight components were discovered within the nursing, physiotherapy, and pharmacy professions. These aspects include education, competency, professional identity, role confusion, legislation and regulatory policies, organisational structures, financial issues, and professional and personal factors.

REFERENCES:

1. Birkmeyer JD, Reames BN, McCulloch P, Carr AJ, Campbell WB, Wennberg JE. Understanding of regional variation in the use of surgery. *Lancet*. 2013;382(9898):1121–1129.
2. Nelson AR, Smedley BD, Stith AY. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care (full printed version)* National Academies Press; 2002.
3. Committee on the Learning Health Care System in America; Institute of Medicine Smith M, et al., editors. *Best Care at Lower Cost: The Path to Continuously Learning Health Care in*

- America. Washington: National Academies Press; 2013.
4. Bradley EH, Herrin J, Wang Y, et al. Strategies for reducing the door-to-balloon time in acute myocardial infarction. *N Engl J Med.* 2006;355(22):2308–2320.
 5. Pronovost P, Needham D, Berenholtz S, et al. An intervention to decrease catheter-related bloodstream infections in the ICU. *N Engl J Med.* 2006;355(26):2725–2732.
 6. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ.* 1996;312:71–72.
 7. WHO World Health Organization .*Global programme on evidence for health policy Guidelines for WHO Guidelines.* Geneva: WHO World Health Organization; 2003.
 8. Schunemann HJ, Fretheim A, Oxman AD. Improving the use of research evidence in guideline development: 1. Guidelines for guidelines. *Health Res Policy Syst.* 2006;4:13.
 9. Grol R, Grimshaw J. From best evidence to best practice: effective implementation of change in patients' care. *Lancet.* 2003;362:1225–1230.
 10. Woolf SH, Grol R, Hutchinson A, Eccles M, Grimshaw J. Clinical guidelines: potential benefits, limitations, and harms of clinical guidelines. *BMJ.* 1999;318:527–530.
 11. Grol R, Dalhuijsen J, Thomas S, Veld C, Rutten G, Mookink H. Attributes of clinical guidelines that influence use of guidelines in general practice: observational study. *BMJ.* 1998;317:858–861.
 12. Burgers JS, Grol RP, Zaat JO, Spies TH, Bij AK van der, Mookink HG. Characteristics of effective clinical guidelines for general practice. *Br J Gen Pract.* 2003;53:15–19.
 13. Edmondson AC, Bohmer RM, Pisano GP. Disrupted Routines: Team Learning and New Technology Implementation in Hospitals. *Adm Sci Q.* 2001;46(4):685–716.
 14. Rivard PE, Parker VA, Rosen AK. Quality improvement for patient safety: project-level versus program-level learning. *Health Care Manage Rev.* 2013;38(1):40–50.
 15. Stan M, Vermeulen F. Selection at the Gate: Difficult Cases, Spillovers, and Organizational Learning. *Organization Science.* 2013;24(3):796–812.
 16. Miner AS, Bassoff P, Moorman C. Organizational Improvisation and Learning: A Field Study. *Adm Sci Q.* 2001;46(2):304–337.
 17. Lichtenthaler U. Absorptive capacity, environmental turbulence, and the complementarity of organizational learning processes. *Acad Manage J.* 2009;52(4):822–846.
 18. Weigelt C, Sarkar MB. Learning from supply-side agents: the impact of technology solution providers' experiential diversity on clients' innovation adoption. *Acad Manage J.* 2009;52(1):37–60.
 19. Lapré MA, Mukherjee AS, van Wassenhove LN. Behind the Learning Curve: Linking Learning Activities to Waste Reduction. *Management Science.* 2000;46(5):597.
 20. King J, Moulton B. Group Health's participation in a shared decision-making demonstration yielded lessons, such as role of culture change. *Health Aff (Millwood)* 2013;32(2):294–302.
 21. Macdonnell M, Darzi A. A key to slower health spending growth worldwide will be unlocking innovation to reduce the labor-intensity of care. *Health Aff (Millwood)* 2013;32(4):653–660.
 22. Weaver SJ, Dy SM, Rosen MA. Team-training in healthcare: a narrative synthesis of the literature. *BMJ Qual Saf.* 2014;23(5):359–372.
 23. Smets M, Morris TIM, Greenwood R. From practice to field: a multilevel model of practice-driven institutional change. *Acad Manage J.* 2012;55(4):877–904.
 24. Rerup C, Feldman MS. Routines as a source of change in organizational schemata: the role of trial-and-error learning. *Acad Manage J.* 2011;54(3):577–610.
 25. Chuang YT, Ginsburg L, Berta WB. Learning from preventable adverse events in health care organizations: development of a multilevel model of learning and propositions. *Health Care Manage Rev.* 2007;32(4):330–340.
 26. Chuang YT, Baum JAC. It's All in the Name: Failure-Induced Learning by Multiunit Chains. *Adm Sci Q.* 2003;48(1):33–59.
 27. Haunschild PR, Sullivan BN. Learning from Complexity: Effects of Prior Accidents and Incidents on Airlines' Learning. *Adm Sci Q.* 2002;47(4):609–643.
 28. Henderson AD, Stern I. Selection-based Learning: The Coevolution of Internal and External Selection in High-velocity Environments. *Adm Sci Q.* 2004;49(1):39–75.

29. Madsen PM. These Lives Will Not Be Lost in Vain: Organizational Learning from Disaster in US Coal Mining. *Organization Science*. 2009;20(5):861–875.
30. Madsen PM, Desai V. Failing to learn? The effects of failure and success on organizational learning in the global orbital launch vehicle industry. *Acad Manage J*. 2010;53(3):451–476.
31. Gray PH, Meister DB. Knowledge Sourcing Effectiveness. *Management Science*. 2004;50(6):821–834.
32. Schilling MA, Vidal P, Ployhart RE, Marangoni A. Learning by Doing Something Else: Variation, Relatedness, and the Learning Curve. *Management Science*. 2003;49(1):39–56.
33. Rulke DL, Galaskiewicz J. Distribution of Knowledge, Group Network Structure, and Group Performance. *Management Science*. 2000;46(5):612.
34. Van Der Vegt GS, Bunderson JS. Learning and performance in multidisciplinary teams: the importance of collective team identification. *Acad Manage J*. 2005;48(3):532–547.
35. Lewis K. Knowledge and Performance in Knowledge-Worker Teams: A Longitudinal Study of Transactive Memory Systems. *Management Science*. 2004;50(11):1519–1533.
36. Donabedian A. Evaluating quality of medical care. *Milbank Q*. 1966;44:166–206.
37. Deming WE. *Out of the Crisis*. Cambridge, MA: Massachusetts Institute of Technology Center for Advanced Engineering Study; 1986.