RECONCILING STANDARDISATION PROCESSES AND IMPROVISATION PRACTICES IN HEALTH CARE: HOW TO DEAL WITH STRUCTURAL, CLINICAL AND PERFORMATIVE UNPREDICTABILITY

OP12

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1. Introduction

Background: Hospitals are non-linear systems in which inputs and outputs are not necessarily proportional or predictable. Unpredictability is a key factor in these systems and improving their performance implies the responsiveness of the clinical staff in situations of uncertainty.

The heavy pressure for innovation and creativity, means that the management of the unexpected in this kind of organization is strategic. How can the gap between rationality and improvisation practiced by medical staff seeking to keep processes reliable be addressed, while at the same time, allowing learning and the evolution of clinical practices?

Purpose: This study explored how medical staff combine the use of protocols and improvisation practices to deal with unpredictability when seeking efficiency in health care.

2. Theoretical Foundation

Clinical protocols seek to reduce the variability of care, providing greater clarity in identifying clinical patterns and predicting costs, as well as in monitoring outcomes (WHO, 2008). However, the rationality of these mechanisms is not always sufficient to provide an adequate response to all possible demands or even to determine what is best for the patient. It then falls to the clinical staff to make judgments, combining knowledge and experience through intuition (Batista et al., 2016).

According to McKenna, Leykum and McDaniel (2013), improvisation can be viewed as a form of clinical decision-making that is based on both intuition and analytical reasoning when ambiguous situations emerge. The starting point of improvisation is the existence of a minimal structure (Kamoche and Cunha, 2001), that is, structures that give support without restrictions (Weick, 1998). Thus, improvisation practice does not refer to an absence of rules, norms and control, but to a balance between flexibility and control.

Due to the fact that improvisation and control are associated with weaknesses, a total lack of control would lead to a lack of alignment to achieve goals, while excessive control could lead to structural rigidity (Cunha, Miner and Antonacopoulou, 2017). Therefore, planning and prescriptions must exist to guide actions and ensure the proper coordination of efforts to achieve the organization's goals. However, conversely, they should not impede improvisation (Weick, 1993).

3. Method

A qualitative, comparative case study was adopted, based on two non-profit Brazilian hospitals, with forty in-depth interviews from September 2019 to February 2020. Forty professionals (20 from A and 20 from B) were interviewed, including 16 nurses, 16 doctors and 8 managers (6 clinical managers and 2 administrative).

Characteristics	Hospital A	Hospital B
Founded	1972	1912
Functions	Teaching, research and care.	Teaching, research and care.
Benchmark	Cardiology, oncology, nephrology, ophthalmology and transplant centre.	Cardiology, oncology, orthopaedics, gynaecology and transplant centre.
Number of beds	226	209
QMS structure	Formal, operating in quality management, patient safety and risk management.	Formal, operating in quality management and patient safety.
Quality Management System	ISO 9001:2015 and National Accreditation Organisation (ONA).	Government system focusing on public and philanthropic hospital development for patient safety.
Quality certifications	ISO 9001:2015 and National Accreditation Organisation (ONA) (accreditation with excellence).	None.
Clinical practice orientation	Established and disseminated protocols; updated periodically. Mechanisms to ensure the adoption of clinical protocols.	Described protocols; extensive; low level of disclosure to the medical staff.
Monitoring of care outcomes (indicators)	Patient safety goals Monitoring infection rates resulting from care Monitoring of compliance with care protocols and outcomes Control of care costs.	Patient safety goals Monitoring infection rates resulting from care.

4. Findings

Triggers	Hospital A	Hospital B	Improvisation dimensions
Procedural demands	• Intercurrences related to the malfunction of materials and equipment during procedures. • Technological deficiency. • Limitation of instrumental traceability.	• Infrastructural limitations of the installed capacity of the U&E. • Demands digitization of manual controls. • Insufficient traceability.	**Structural**
Patient demands	• Lack of clearly defined diagnosis. • Change of preconceived diagnosis. • Interventions that demand immediate responses without full diagnosis. • Unpredictable patient response. • Unforeseen and novelty of the clinical conditions.	• Lack of clearly defined diagnosis. • Errors and failures of professionals in clinical practice. • No previous experience in new protocols. • Unpredictable patient response. • Unforeseen clinical conditions.	**Clinical**
Professional demands	• Micro-practices of improvisation to carry out the protocol. • Immediate response without full diagnosis. • Adoption of improvisation practices in unforseen diagnosis	• Performance resulting from professional improvisation. • Tactical interventions. • Micro-practices to enhance the protocol. • Improvisation as a learning process.	**Performative**

Our findings revealed that, although relevant, protocol-oriented clinical practices were not sufficient to deal with the constant mutations in the clinical condition of patients. These situations require the competence of medical professionals combined with effectiveness of nurses in dealing with unexpected events. The improvisations were mainly triggered in three ways:

1) **Procedural demands** (related to infrastructural and technological gaps, scarcity of resources and interaction difficulties);
2) **Patient demands** (owing to the patient's clinical condition); and
3) **Professional demands** (attempts to improve techniques).

According to the surgeon, "At the time, the protocols said that the patient had to be hydrated, and a more experienced colleague ordered him to be dehydrated. He requested dosages that were not dosed, he advised us not to feed him so much, we even kept the patient fasting" (H1CP3). Despite feeling apprehensive about the conduct suggested by his colleague, he gave the suggestions careful consideration, since the patient was in a serious condition and continued to show no clinical response "[...] it was clear that I would lose that patient" (H1CP3). When he put his colleague's recommendations into practice, the patient began to improve, was removed from the Intensive Care Unit and later discharged from the ward. This case reveals that improvisations are not always incremental and may represent a redesigned model of action and promote major changes in existing plans or routines.

5. Proposed Framework

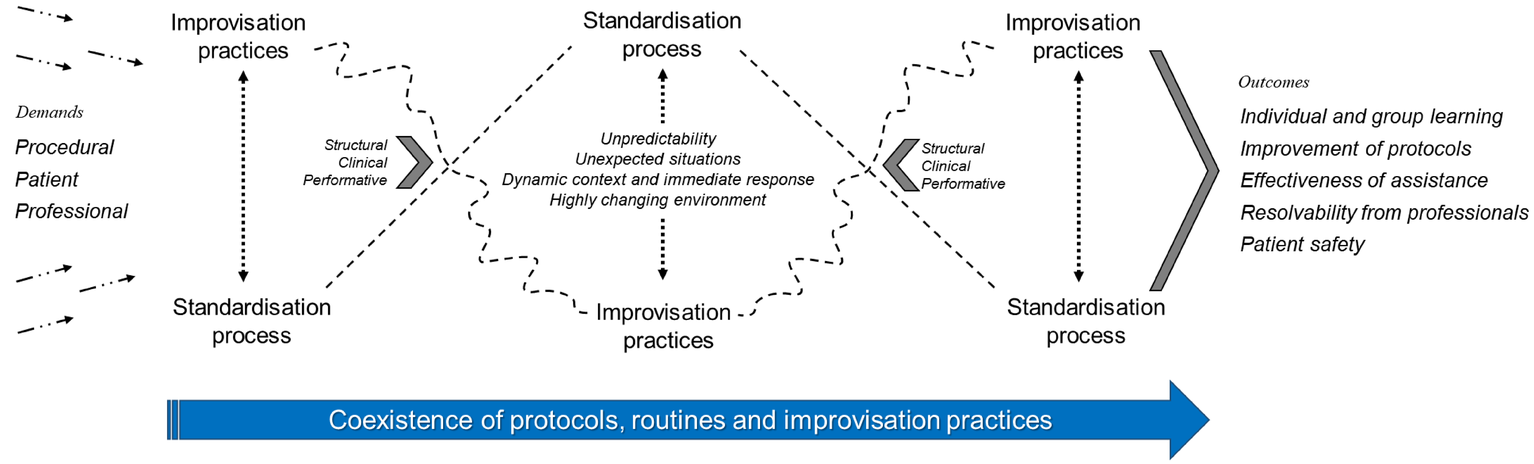

Figure 1 – Reconciling standardisation processes and improvisation practices

6. Practical Implications

Five main managerial implications are presented for health care practice.

(1) The role of leadership in managing the unpredictability of health care becomes the integration between protocols and improvised practices of the medical team, mainly based on experience and knowledge, improving routines and meeting patient needs.
(2) Empowering health professionals for improvisation practices, recognizing the autonomy and expertise of the medical staff, has the potential to improve protocols.
(3) Encouraging managers to make sense of the dynamism and rapidly changing environment will contribute to more reliable responses from health care.
(4) Cultivating the exchange of experiences and the informality of actions taken when dealing with the unexpected would improve the quality of services provided in clinical, structural, and performative practice.
(5) Managing autonomous professionals within hospitals implies continuous efforts to improve routines and protocols, considering the complexity and unpredictability of the system.

7. Conclusion

When dealing with structural, clinical and performance unpredictability, standardized procedures and improvised practices, although obeying different logics, are interrelated in the daily life of the medical team with better performance in health care.

The contribution of this study to the field is that it revealed how the reconciliation between both combined practices becomes fundamental in the guidance of health professionals.

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