

The Method of Applying Knowledge Management to Lean in Emergency Care Units

Christiane Lima Barbosa

Federal University of Para, Brazil

Maria Helena Teixeira da Silva

 <https://orcid.org/0000-0001-5330-3361>
Fluminense Federal University, Brazil

Adalberto da Cruz Lima

 <https://orcid.org/0000-0001-7666-4581>
Federal University of Para, Brazil

Milena Estanislau Diniz Mansur dos Reis

 <https://orcid.org/0000-0003-1080-8735>
Fluminense Federal University, Brazil

Harvey José Santos Ribeiro Cosenza

Fluminense Federal University, Brazil

EXECUTIVE SUMMARY

This chapter analyzes Lean interventions in emergency care units (ECUs) with a focus on learning theory and knowledge management. The use of data served to understand the effectiveness of Lean methodology in transforming knowledge in ECUs. The method was a systematic and descriptive ex-post survey in the Lean project database, quantitative, and qualitative analysis aiming to establish relationships between the foci. The virtual platform is an effective tool for dissemination and generates reliable answers for analysis and decision making. The benefits of interventions through the use of Lean tools are unquestionable, visible, and useful for the daily life of the units. However, the internalization of the Lean culture for permanence and improvements is a point of attention as well as the content, form, and conduction of the actions. Committed people, management by processes, Lean flows, shared information, and agile communication are guarantees for the transformation and consolidation of the improvements.

INTRODUCTION

The connectivity by social media is favorable to the dissemination and receipt of information by various means of communication. In this market scenario, an organization uses knowledge to create social and technological environments (Xavier, Oliveira and Teixeira, 2012), generate and share individual and collective knowledge by understanding their characteristics, needs and demands (Terra, 2005).

The record of an information in each medium characterizes a document. The registration of documents in various types and forms of support are archives (Vieira, 2020). Performing knowledge management in an institution propels innovation in processes, products and services, and creates safekeeping mechanisms avoiding loss or obsolescence of knowledge.

As a consequence, there is an increase in productivity and efficiency, encouragement of innovations, better qualification of employees, and an increase in the quality of products and services, helping in the decision-making process (Fugate et al., 2012; Daud, 2012; Al-Sudairy and Vasista, 2012).

Knowledge gathers data, facts and information to be interpreted by individuals in different contexts and experiences (Baskerville and Dulipovici, 2006; Tuomi, 1999), in tacit or explicit form (Silva, 2004). Tacit knowledge is subjective and comes from the individual's perception and experience. Explicit knowledge is codifiable, transferable, and organized, that is, the way and means by which knowledge is passed on, shared, and disseminated (Silva, 2004). The conversion of tacit knowledge into explicit knowledge through learning theory and organizational learning are strategies to maintain competitiveness amidst technological advances.

The question is, in what way does learning theory relate to knowledge management (KM)? Document management or knowledge management: which one does the system use in the healthcare environment? This chapter aims to relate learning theory to knowledge management in 24-hour Emergency Care Units (ECUs-24h) through their current demands by investigating the delivered products, methods, and planning at the end of the first year of the project.

It is worth highlighting that learning and knowledge will be analysed and presented from the perspectives of the researchers responsible for planning and of the teams composed of the employees of the ECUs. All participants are the protagonists in thinking, executing and achieving the results, at different stages, various forms and levels of execution. The affirmative hypothesis of the analyses is that the learning process has a beginning, a middle and an end, all based on a conceptual basis of application aiming at obtaining results. From these results is expected the transformation of knowledge and people, both coexisting in a collaborative environment. In order to identify parameters that affirm or refute the hypothesis the following documents and by-products were used for the analyses:

1. **Initial diagnosis:** applied during the project's general planning phase via a questionnaire as an instrument to collect information on the study universe, the Emergency Care Units;
2. **Road map of the Lean Project in the UPAs:** it is the detailing of the modus operandi of the improvement interventions, which was in constant improvement showing that knowledge and learning must be continuous;
3. **Lean thinking:** is the conceptual basis that underlies the execution of the Lean Project, the various stages of application and the construction of knowledge from a dynamic and practical learning of a theory in healthcare;
4. **Good practice report:** documentation that certifies the execution of improvements reported in A3 and made available in the project database;

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/the-method-of-applying-knowledge-management-to-lean-in-emergency-care-units/313655

Related Content

Meta-Learning

Christophe Giraud-Carrier, Pavel Brazdil, Carlos Soares and Ricardo Vilalta (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1207-1215).

www.irma-international.org/chapter/meta-learning/10976

A Novel Approach on Negative Association Rules

Ioannis N. Kouris (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1425-1430).

www.irma-international.org/chapter/novel-approach-negative-association-rules/11008

Incremental Learning

Abdelhamid Bouchachia (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 1006-1012).

www.irma-international.org/chapter/incremental-learning/10944

A Data Mining Methodology for Product Family Design

Seung Ki Moon (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 497-505).

www.irma-international.org/chapter/data-mining-methodology-product-family/10866

Data Warehousing and Mining in Supply Chains

Richard Mathieu (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition* (pp. 586-591).

www.irma-international.org/chapter/data-warehousing-mining-supply-chains/10880