

Introducing a Measurement Framework to Assess Lean Readiness Level Within Emergency Departments in Kuwait

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Abstract

The purpose of this paper is to identify the key quality practices deemed essential for lean system (LS) implementation within emergency departments (EDs) and to develop a measurement framework to assess the lean readiness within EDs.

This study is exploratory in nature; thus, the data obtained is secondary. First, the relevant literature was reviewed; the authors focused on the most recent literature (from 2013 to 2018). The review covers aspects such as lean assessment frameworks, lean critical success factors, lean readiness levels, and articles dealing with LSs within hospitals in general, and more precisely, in EDs.

After analysing the literature, the main constructs were identified and the conceptual framework developed. As a second phase, in order to increase trustworthiness regarding the findings of the main constructs, and thereby enhance the robustness of the assessment framework, an expert panel was approached to validate the authors' findings and assumptions and to ensure that the constructs represented the main factors to enable the authors to measure the lean readiness levels within EDs. A total of 65 experts in lean healthcare were contacted through their hospitals and via LinkedIn; the experts worked in hospitals in countries such as Canada, Egypt, Germany, India, Poland, Spain, the UK, and the USA. A total of 28 experts agreed to validate the conceptual model; however, only 17 returned the forms to the authors on time.

Based on a literature review, several factors have been identified as essential factors for lean implementation within EDs. Those factors were then validated based on the experts' opinions. The main factors were grouped into six main constructs: top management and leadership, human resources, patient relations, supplier relations, processes, and continuous improvement. The measurement framework has been developed to enable EDs to assess their lean readiness before attempting a lean system.

This framework should help in mitigating the lean failures initiatives within EDs as it can be used to determine the factors that will enable/hinder the implementation of LSs within their EDs. The constructs of the framework have been validated by experts in lean healthcare practitioners and educators but have not yet been tested, which prevents the author from declaring it fit for EDs. Future research could be focused on the validation of the proposed framework presented in this study by using the framework to measure lean readiness within non-lean EDs.

The proposed framework is the first lean readiness measurement framework that concentrates on EDs and one of the few lean readiness assessment frameworks in the healthcare literature.

Keywords

Lean Assessment, Lean Healthcare, Lean System, Readiness Level