

Factors facilitating and inhibiting value stream mapping processes at hospital units in three Nordic countries - a Nordic multicenter study

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Keywords. Production Ergonomics, Intervention, Lean, Sustainable production system.

1. Conceptual framework and Purpose

In healthcare Value Stream Mapping (VSM) is a common Lean tool used to improve the efficiency of patient flows by identifying and minimizing waste (Keyte & Locher, 2004). It is a participatory tool, i.e. those affected by this type of rationalization are performing the analyses and subsequently suggesting appropriate interventions. Participation has been shown to be crucial to obtain ownership of the suggested interventions and thereby increase impact.

VSM has been shown to be a powerful rationalization tool. However, the resulting interventions may imply physical work intensification and impaired psychosocial work environment. Due to this, Lean is often perceived as a “threat” by employees at hospitals (Härenstam et al 2000, personal communications). Physical and psychosocial working conditions should therefore be taken into account in the rationalization process to obtain sustainable solutions, i.e. solutions that allow for competitive performance and acceptable work environment in a long term perspective.

On this background we have complemented the VSM tool by an ergonomic module assisting the users to consider also physical and psychosocial implications of the suggested interventions. This ErgoVSM tool is now evaluated in a Nordic Multicenter Study including Denmark, Iceland and Sweden (Winkel et al, 2012).

The aim of this paper is to present observations that may indicate facilitating and inhibiting factors for the VSM process.

2. Methods

Seven wards have used the ErgoVSM and seven the traditional VSM. Information was obtained by screening key hospital documents and interviewing participants in the VSM processes.

3. Results

In Sweden one out of three wards using VSM decided not to fulfil the VSM process. On Iceland the only ward using VSM also decided not to fulfil their VSM process. The hospitals of the investigated wards using VSM in Sweden and Iceland had a strong primary focus on financial balance of the business according to key documents. Decisions on when and which value stream to analyse were made by management with little/no dialog with the employees. Work environment issues were not discussed as part of this. In addition, Iceland had a short experience of Lean, mainly based on support from McKinsey, an American global management consulting firm that focuses on solving issues of concern to senior management (http://en.wikipedia.org/wiki/McKinsey_%26_Company). Thus, they had no attention to the wellbeing to the employees and their work environment when introducing Lean. In general, the Icelandic Lean coaches had problems motivating the employees. However, they perceived a facilitated VSM process at the investigated ErgoVSM ward. Due to this, the main Lean coach decided to include work environment aspects in the VSM processes performed at other wards not part of the present Multicenter Study. Positive effects on those VSM processes were reported back to the researchers.

In Denmark all three wards using VSM fulfilled their VSM process. This hospital had a long Lean experience. The main Lean coach reported process problems during their 3 initial years when using a top-down approach. Before the present project was initiated they had turned to a bottom-up initiation of the VSM processes. The Lean coach also expressed that work environment issues might be articulated as part of the VSM process.

All seven wards using ErgoVSM in the 3 countries fulfilled the process.

4. Conclusion

When using the Lean tool “Value Stream Mapping” it seems to be important not only to focus on efficiency but also on issues that are perceived important for the well-being of the individual employee.

Financial support

The Nordic Council of Ministers and national grants.

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