Integrating Work Environment Considerations Into Lean and Value Stream Mapping

Public healthcare systems and in particular hospitals in industrialized countries face growing demand in terms of number of patients and new advanced treatments. Funding does not increase proportionately and hospitals are ever searching for methods to increase productivity. Lean management has emerged a dominant approach to increase productivity in healthcare (Edwards et al. 2012. Radnor, Holweg, & Waring, 2012). In Denmark lean management has become widely used with hospitals developing their own lean departments and consultants. Lean management is developed in the car manufacturing industry (Spear & Bowen, 1999; Womack & Jones. 1996) and is based on standardisation, levelling, and optimisation of work flows through value stream mapping (VSM) (Rother & Shook, 2009) and eliminating waste. Lean is essentially a rationalization approach that will reduce waste and increase productivity thereby causing work intensification (Westgaard & Winkel, 2011) with negative impact on work environment. To compensate for the negative effects of lean a work environment complement (ErgoVSM) has been developed in Sweden (Jarebrandt et al. 2010). ErgoVSM integrate work environment considerations into VSM by introducing work environment measurements to be assessed for each identified work activity. The measurements are: 1) Physical: a) work posture, b) weight/force, c) physical load, d) potential, e) porosity and f) variation. And 2) psychosocial dimensions: a) Demands, b) control, c) communication, d) potential, e) mental porosity and f) variation in contents. However, lean management and the VSM analysis focus on waste to identify workflow problems and develop an improved workflow. The lean mindset and waste analysis is taught to workshop participants by a lean coach. The focus and mindset of reducing waste is much different from identifying and discussing work environment problems and there might be a tension between the two perspectives. Subsequently it may not be possible to integrate work environment considerations into lean and VSM. The purpose of this presentation is to examine if it is possible to integrate work environment considerations into lean and VSM. This is done by applying the ErgoVSM method as part of a normal lean intervention. The paper will answer if ErgoVSM can identify physical and psychosocial work environment problems and develop solutions as part of lean and VSM.

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