



NATIONAL INSTITUTE
FOR HEALTH AND WELFARE

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Timo Sinervo (eds.)

DISCUSSION PAPER

The 12th NOVO symposium Care integration, systems reform and sustainability in health care

Helsinki, 15-16 November 2018

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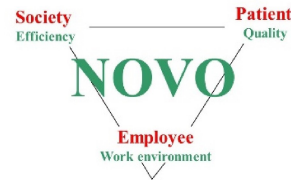
ISBN 978-952-343-194-2 (printed)
ISBN 978-952-343-195-9 (online publication)
ISSN 2323-363X (online publication)

<http://urn.fi/URN:ISBN:978-952-343-195-9>

Juvenes Print – Finnish University Print Ltd
Helsinki, Finland 2018

Preface

On behalf of Steering group and Organising Committee, it is our great pleasure to welcome you to the 12th NOVO-Symposium: **Care integration, systems reform and sustainability in health care.**



This is the third time the NOVO Symposium has been hosted in Helsinki and this time at the venue of National Institute for Health and Welfare (THL) Helsinki. Symposium is a joint effort of the Finnish Institution of Occupational Health (FIOH) and THL.

Health care services all over Europe struggle with economic constraints, aging population and increasing demands for services. Patient choice and marketization of service production in health care has increased in Europe as well as Nordic countries as means for higher efficiency. Another major development has been care integration and care coordination for clients with multiple diseases or needs. In most of the Nordic countries employees' sickleaves and turnover are increasing and shortage of personnel is frequent. Implementation of large reforms demands for sustainability in terms of society, patient and employees.

For this symposium, we have abstracts covering widely the topics of the NOVO: work environment, efficiency and quality of care. Moreover abstracts represent a board range of methodological perspective. We have organized the presentations under eight tracks:

- Reforms
- Care organisation development
- Activities and processes
- Integration & efficiency
- Working life and stress
- Working environment and outcomes
- Management and leadership
- Quality & skills

As always, NOVO Symposium brings together researchers to discuss Nordic insights into health care systems. We hope that the current NOVO Symposium will offer inspiring views for international research and will generate stimulating exchanges of experiences about the aspects of support sustainable health care systems.

We encourage you to networking and hope you a pleasant symposium in Helsinki!

Timo Sinervo & Marjukka Laine



Session 3: Activities and processes

Value Stream Mapping in healthcare: ergonomic implications and the significance of adding an ergonomic module - The NOVO Multicentre Study I

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Background

During the recent decade “Lean production” has become a prevalent rationalization methodology in healthcare. A commonly applied Lean tool is Value Stream Mapping (VSM). It is a participatory tool, i.a. used to identify non-Value-Adding-Work (non-VAW) in patient flows. The process results in an Action Plan suggesting interventions aiming at minimizing non-VAW in order to increase the proportion of value creation. Scientific evidence indicates that non-VAW often represents periods of physical and mental recovery. Reduction of non-VAW may therefore cause “Work intensification”. On this background the VSM tool has been complemented by an ergonomic module (ErgoVSM) to be used in the healthcare sector (Jarebrant et al., 2010). The aim of the present study was to investigate differences in Action Plans regarding expected impact on ergonomics and performance issues when using ErgoVSM rather than VSM.

Material and Methods

Fourteen hospital wards were investigated, six in Denmark, two in Iceland and six in Sweden (one VSM ward refused to complete). In each country half the wards used VSM according to their ordinary Lean routines and the other half used ErgoVSM. All action plans were collected and each proposal was analysed based on triangulations between different stakeholder assessments. Data were analysed using Fisher's exact test of contingency tables of impact on four factors: Work Environment (WE, +/-), task/job content/system and efficiency according to VSM/ErgoVSM.

Results

Of a total of 175 proposals from all the investigated wards 106 were assessed as causing WE+, 8 WE-, 20 WE0, and 41 Not Assessable. Of the 106 WE+ proposals 78% aimed at system level changes (job content and work situation), the remaining at task level changes or not assessable. This is in contrast to the intervention proposals generally investigated in the ergonomic intervention literature focusing almost exclusively interventions at task and individual level. Using ErgoVSM rather than VSM in Sweden and Iceland resulted in a higher proportion of proposals aiming at reduction of ergonomic risks compared to the Danish wards ($p=0.02$). Using ErgoVSM did not result in fewer proposals aiming at improving efficiency ($p=0.5$).

Conclusions

Integration of ergonomic criteria into the rationalization tool VSM seems to imply a potential for more comprehensive ergonomic improvements without inhibiting the development of proposals improving efficiency. However, this impact of ErgoVSM seems to be modified by contextual factors.