

FRAM and LEAN as tools for describing and improving the referral process between outpatient clinics in a Danish Hospital: complementary or conflicting?

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Background

One-third of all referrals to internal medicine outpatient clinics at the University Hospital of Southern Denmark are from internal sources, and can potentially be avoided. This indicates that the referral process of patients between the outpatient clinics is inefficient resulting in unnecessary referrals.

Aims

In this study, two different approaches to understanding and improving the healthcare system will be used respectively to describe the referral process between the outpatient clinics, and identify improvements. These two approaches are Resilience engineering and Lean, respectively represented by Functional Resonance Resilience Method (FRAM) and Value Stream Method (VSM). The FRAM and VSM will also be compared to identify learning opportunities.

Method

The study will draw on sources of data from interviews, observations, a VSM workshop and registry data on referrals from the hospital's system.

Results

The FRAM shed light on that organisational structure, time constraints, interruptions and lack of standard for referral may explain the inefficient referral process. Additionally, the VSM showed that while the processing time of a referral took between 6 - 17 minutes in the outpatient clinics, the real time including waiting time was longer between 22 hours 42 minutes to 5 days 14 hours 25 minutes. This may lead to bottleneck in the referral flow. One third of internal referrals may be averted by focusing on the aforementioned factors.

Conclusions

The study showed how FRAM and VSM can be utilised synergically in practice to support organisational changes. Future research on how to incorporate baseline data in FRAM will be welcomed. Our study, may guide similar practices or other industries in how to use the FRAM and VSM to improve their referral process or support organisation changes.

Figure 1. VSM of the current state of the referrals process

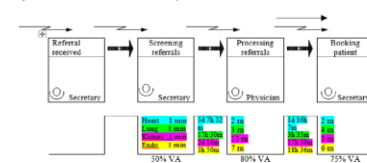


Table 1. Identified themes from FRAM

- > Organisational structure
- > Time constraint
- > Variation in handling of referrals
- > Adhere to the documentation guidelines
- > Interruptions

Figure 2. FRAM of the referral process, WAD

