Incident Reporting Systems as a possibility for organizational learning (not only) from errors and critical incidents: Potentials, barriers and design implications regarding reporting and learning systems in hospitals.

This thesis considers local (Critical) Incident Reporting Systems ((C)IRS) as an opportunity to learn from errors and undesired events (incidents) in hospitals. In health care, the necessity to learn from incidents has been discussed increasingly since the 1990s. Especially high-risk organizations, where incidents may have fatal consequences, should develop comprehensive strategies to prevent incidents and exploit their learning potential. Local IRS can be a central part of risk management; and voluntary documentation systems in hospitals can be part of this strategy. They can be a basis for collecting and processing of individual learning opportunities systematically and transferring the results back into the organization. To achieve this, a learning-friendly design, implementation and embedding of local IRS are important prerequisites.

Little is known about how to design and implement local IRS to support organizational change towards increased patient safety.

Research on didactically sound and effective IRS-models and empirical data in German-speaking countries were lacking so far. This case study performed in a Swiss university hospital (800 beds, 6,100 employees) helps to fill this gap. The implementation of a hospital-wide local IRS was set as strategic goal by hospital management in order to enhance patient safety. The current status of IRS-implementation was that one clinic (of 37) and four wards (different clinics) used different stand-alone IRS. As a first step, a requirement profile on learning-friendly IRS was derived from the literature. This included both literature-based criteria for design and utilization from IRS-literature as well as design rules and success factors for organizational learning derived from the field of work psychology and pedagogy. This requirement profile was validated in three empirical studies and adapted accordingly.

In the first empirical study, an assessment of the current state of IRS and characteristics critical to success was performed. The survey was carried out in four clinics by analysis of documents, half-structured interviews (N=18), seven structured group discussions and observations over a period of 22 months.

In the second study, two cases of organizational learning were investigated by process monitoring. These studies led to improved patient identification regarding blood sampling and prevention of tubing misconnections. For organizational learning in the hospital, potentials, barriers and design criteria were derived; aiming at improved and safer health care.

In the final empirical study, it was investigated to which extent the use and implementation of local IRS can be stimulated by a hospital-wide survey on safety culture. It was assumed that a positive interaction exists between a strong safety culture on the one hand and the willingness to implement IRS and report incidents on the other hand. This survey served several purposes: it was used to assess the current status of i) patient safety climate, ii) the use of IRS, iii) the attitudes towards implementation of IRS, and iv) to create a hospital-wide awareness and acceptance of IRS. The survey in question was a German version of the Hospital Survey on Patient Safety Culture (Patientensicherheitsklimainventar). A response of 46.8 % was achieved (2,897 valid questionnaires). According to a follow-up survey, in 23 of 37 clinics, the safety culture survey led to implementation of IRS. This could be confirmed by monitoring of the increase in IRS-use throughout the hospital. For the first time, empirical data are presented on a learning-friendly, effective design and implementation of local IRS, taking a Swiss health care organization as an example. The results of this research identify potentials and barriers for IRS as a reporting and learning system in hospitals. It is shown that poor design and implementation of IRS can obstruct learning: Blindly taking measures, not enough priority given to patient safety, insufficient qualifications, competencies and resources of staff lead to new errors with increased first order learning. In contrast, a learning-friendly design and maintenance of local IRS, embedded in a hospital and clinic-wide quality and patient safety strategy, proved effective for organizational learning. Patient safety culture surveys proved to be an effective instrument in encouraging IRS-implementation. Design criteria for IRS as instruments for organizational learning, in the context of clinical risk management and patient safety culture improvement are condensed in twelve theses.

The findings from the empirical studies result in a dialogue-oriented model of organizational learning using local IRS. Thus, this work demonstrates potentials for learning on several organizational levels and points out the necessity of a (re-)structuring of the present IRS discussion.


Full version (German): http://nbn-resolving.org/urn/resolver.pl?urn=urn:nbn:de:hebis:34-2009032426765