Notice of the Final Oral Examination
for the Degree of Doctor of Philosophy

of

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“What do Key Informants Think about Information Quality in Acute Care in Relation to Information Technology: An Exploratory Study”

School of Health Information Science

Tuesday, April 11, 2017
9:00AM
David Turpin Building
Room A144

Supervisory Committee:
Dr. Andre Kushniruk, School of Health Information Science, University of Victoria (Supervisor)
Dr. Scott MacDonald, School of Health Information Science, UVic (Member)
Dr. Elizabeth Borycki, School of Health Information Science, UVic (Member)
Dr. Anthony Marley, Department of Psychology, UVic (Outside Member)

External Examiner:
Dr. Peter Bath, School of Information, University of Sheffield

Chair of Oral Examination:
Dr. Sylvia Pantaleo, Department of Curriculum & Instruction, UVic

Dr. David Capson, Dean, Faculty of Graduate Studies
Abstract

The published experience indicates that large information system implementations are often expensive failures with costs to human safety largely because of missing or corrupt information. This has generated the overall research question of “What do Key Informants think about Information Quality in Acute Care?”

This thesis research examined information quality using a Grounded Theory analytic method of coding and analyzing semi structured interview responses from ten clinical (nurses, physician, pharmacist) and ten non-clinical (IT support) key informants in several public sector health organizations across Canada. The semi structured interview questions focused on five key areas: information quality, acute care setting, information systems, risk (as a function of poor information quality) and patient safety.

A key finding from the interview data is that information is missing and unstable within the two key health care information systems: the paper chart, the main repository of narrative unstructured data, and the electronic health record system, of structured data.

The informants mentioned pressure to information standardization such as fixed patient identity information anchoring patient data in the rest of the patient record. However, there is resistance to standardizing other information because the users, nurses and physicians, resist fettering in order to be able to tell the patient’s story in narrative unstructured data form.

A descriptive socio-technical model, the Systems Engineering Initiative for Patient Safety (SEIPS) Model that organizes elements for analysis under the headings of person, task, technology and tools, organization, external environment and patient outcomes, was considered for further discussion in the context of the study. The analysis of the SEIPS Model also helps to identify gaps in the Model including what missing and uncertain information might mean. Key points from this discussion include how the information system maps to the real world, the patient, and to the user’s perception of the real world. This mapping can never be totally accurate and complete so gaps exist.

The discussion of information and information flow lead to enhancements of the SEIPS Model, placing information and information quality in its rightful place as a “glue” for the acute care system. This is an important contribution to knowledge that is amenable to future research so there can be a better fit between the real world, information, information systems and people to provide safer care.