Notice of the Final Oral Examination
for the Degrees of Master of Nursing and Master of Science

of

VANESSA KINCH

BScN (University of Northern British Columbia, 2005)

“Identification & Visualization of Patient Information Elements to Support Chronic Illness Care: A Scoping Review and Pilot Study”

School of Nursing
School of Health Information Science

July 31, 2017
10:00 A.M.
David Turpin Building
A137

Supervisory Committee:
Dr. Karen Courtney, School of Health Information Science, University of Victoria (Co-Supervisor)
Dr. James Ronan, School of Nursing, UVic (Co-Supervisor)

External Examiner:
Dr. Mary Benham-Hutchins, School of Nursing, University of Texas

Chair of Oral Examination:
Dr. Helena Kadlec, Department of Psychology, UVic

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

Purpose: The purpose of this thesis is to determine what is known from the literature about the use of Clinical Information Systems (CIS's) to support the information needs of individual health care providers, in particular the nurse case manager, and the inter-professional team providing chronic illness care in the community setting.

Methods and Analysis: This is a scoping review with a pilot study for feasibility. MEDLINE, CINAHL, and WEB OF SCIENCE were searched up to April 2017. Reference lists and a citation manager of included studies were searched to identify further studies. Relevant full text papers were obtained and screened against inclusion criteria. Data from eligible articles was extracted using a predefined extraction form. Thematic narrative descriptions and descriptive statistics were used to summarize findings. Nurse case managers were recruited from diabetes and chronic kidney disease clinics for an exploratory questionnaire and follow up interview. Descriptive content analysis and nonparametric statistics were used to summarize findings of the pilot study.

Results: 45 articles were identified meeting the inclusion criteria. Three themes emerged (1) patient information elements (2) visualization formats, techniques, and organization and (3) visualization of patient information elements. Diagnostics and observations were the most frequently mentioned information elements. Text was the main representation format. Four participants completed the pilot study initial questionnaire and one completed the follow up interview. There was 100% agreement for 11 elements. Six themes emerged (1) required information can change (2) information is required for different purposes (3) information required for communication is related to nurse case manager concerns (4) required information varies depending on the discipline reviewing it (5) certain types of information need to be grouped together and (6) it is difficult for a HCP to visualize what is necessary in a CIS without first seeing or trying it.

Recommendations: The recommendations include using a concept-oriented view customizable to the role of the HCP to display: diagnostics as graphs and colour coded, observations, medications, problem lists, clinical events, guidelines, the care plan, clinician to clinician communication, patient to clinician communication and clinician to patient communication as text, and clinical events as a timeline.

Conclusion: This review and accompanying pilot study is a starting point for a framework of guidelines with the recommendations of proposed patient information elements and the visualization formats, techniques and organization.