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How does the nursing summary tool support professional nurse competences?

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The purpose of the study was to describe a real working life challenge pertaining to the nursing summary documentation. The aim of the study is to to explore the association between a co-created nursing summary-tool and nurses' professional competences. The study question is how the nursing summary tool supported nurse competences relating to nurse leadership, nursing interventions, nursing decision making process, nurse professionalism and ethics through planning, implementation and evaluation.

The thesis was an action based study which was carried out within the Skin and Allergy Ward 4 (IAOS4), Skin and Allergy Hospital HUS/HYKS in Helsinki, Finland. The participants of the study were registered nurses working on the Skin and Allergy Hospital Ward. Data was collected qualitively through an open ended questionnaire. An inductive qualitative approach was used to analyze the data collected.

The findings were represented in four main categories; functional tool, encouraging critical reflection, continuos-, safe- and quality patientcare, and critical reflection of organizational skills. The findings made it clear that the participants of the project had varying experiences, nursing knowledge and professional competences, which served as a filter for the building of new knowledge. The study also showed that supporting nurse competences was greatly dependent on the acknowledgement of the challenges and facing those challenges with a tool modelled by the nurses themselves in order to support their work.

Keywords	Professional nurse competence, nursing summary, nursing documentation, action research

Sisällys

1 Introduction

Quality nursing care relies greatly on the open availability and easy access of quality information. Apart from the provision of nursing care, another essential task for nurses is to exchange information about their patients' health and nursing care plans (Ammenwerth et al. 2003, p. 69-84).Sources for this information are in the nursing records system, nursing notes, nursing care plans and nursing summaries.

In Finland, laws regulate these sources of information pertaining to nursing documentation and the nurse must be familiar with them, along with the organizational policies (see Appendix 1) In order to support the quality of safe patient care, it is essential for nurses to apply these to nursing practices. However, different changes, legal acts and policies bring new challenges to the nurses "know-how" and competencies (Finnish Social and Health Ministry, 2012).Competence in nursing practice is essential to provide quality and safe patient care and evermore so considering the increasing complexities of nursing care. Changes in patients and healthcare service structure affect nursing knowledge, skills and task images (Williams & Botti, 2002 p. 131-140; Fitzgerald, 2007 p. 237-242).

A legal act regarding nurse documentation came into effect on the 1st of September, 2014; The Finnish act on the Electronic Processing of Client Data in Social and Health Care Services (159/2007) (FINLEX, 2007). It obliges health care service providers in Finland to join the electronic national healthcare archiving service; KanTa.fi. The aim of the archive is to secure the availability and usability of electronic patient information and medical records, so that the healthcare service providers and the patients themselves may find patient information more effectively. The minimum content requirement from nurses is the nursing summary.

The nursing summary is a final assessment of patient care, written when the patient is discharged or transferred to another healthcare facility. The nurse writes the nursing summary utilizing nursing care and patient information, written according to the Nurses National Documentation Model and stages of the nursing process.

Specialized health care units, nursing care plans and interventions greatly emphasize their specialty of nursing care documentation, which may result in conflicts in the context of interest (Nykänen et al. 2010 p.23).

The intricacies of different specialist nursing care may be unfamiliar to other nurse's specialty fields.Therefore, meaningful nursing documentation within the nursing summary is crucial in order to support quality, safe and continuous nursing care for the patient. The nursing summary is an essential tool to utilize for the next healthcare professionals that will provide further nursing care for the patient, as they may have a different level of knowledge, or are in a different specialized field of nursing care.

The nursing summary documentation change was a new process at the time for the registered nurses on the Skin and Allergy Hospital Ward 4 (IAOS4). Nurses on the ward document, according to the Finnish National Documentation Model. However they use mutually agreed upon and optional nursing documentation headings as well in the daily patient records, which serve the needs of the patients with specialist skin and wound care needs. Nonetheless, it was observed that there was a gap between the HUS-organizational nursing summary guidelines and the nurses' general know-how to properly complete the documentation of the nursing summary. This issue caused concern among the nurses of the Skin and Allergy Hospital Ward 4, about the quality of nursing documentation and safe patient care, as well as nurse competency. In order to meet the needs of the registered nurses, the nursing summary tool was modelled by members of the nursing staff.

This study is an action based research which aims to investigate how the nursing summary tool supports nursing competencies; nursing leadership, nursing interventions, the nursing decision making process and nursing professionalism and ethics. These competences have been chosen based on the managing-self for change –model as well as the fundamental concepts of the nursing summary. The following theoretical framework outlines the Finnish National Documentation Model, to allow further understanding of its intricacies pertaining to the nursing summary. Nurse competencies are presented to comprehend the importance of nurses' professional skills, knowledge, attitudes, values and abilities to result in effective, quality and safe patient care.

2 Theoretical framework

2.1 Finnish Nursing Documentation Model

Understanding the Finnish Nursing Documentation Model requires the interpretation of nursing documentation in general and also the overall nursing processes. Nursing documentation is described as saved information pertaining to nursing care within the patient record system and also other centralised information related to the patient. It predicates and justifies the care given and is used as a tool in order to establish the effectiveness of the care given. Nursing documentation should adhere to the principles of nursing care: be respectful, patient centred, continuous and safe. Nursing professionals are responsible for their documentation in the overlapping domains of: appropriateness, truthfulness, the protection of information, ensuring the information is passed on in the right direction and acting accordingly within the care orders and laws. (Rautava-Nurmi et al. 2012 p.14-18)

In Finland, nursing documentation is written in order to adhere to the Finnish National Nursing Documentation Model, communally developed University Hospitals' multi professional nursing documentation structure, and according to the sections of the RAFAELA© nursing intensity and mutually agreed headings that serve the patients' needs in specialized care (Nykänen & Junttila, 2012 p.15).

Nursing documentation is enabled by the Finnish National Nursing Documentation Model, which is documented according to the nursing process model stages using structured entry; the Finnish Care Classification system (FinCC). Meaning that structured headings arrange the nursing care process and determine the context of nurse documentation. Standardized terminology, classifications and codes are fundamental for the efficient use of electronic patient record systems and the communication among professionals and patients. The documentation model was developed for specialist nursing care and primary health care. Its aim is to support unity in nursing documentation structure by providing master data (Ensio & Häyrinen et al, 2007 p.67; Nykänen & Junttila, 2012 p.15-17). Further information regarding The National Finnish Documentation Model is presented below.

Stages of nursing process	Admission of patient		Planning of nursing care		Nursing interventions	Assesment of nursing	
Stages of nursing process	Gathering of patient information & analysis	Nursing needs assessment & prioritizing	Setting nursing goals	Planning interventions to achieve goals	Implementation of nursing care	Nursing results	Nursing summary	
	Nursing needs of patient (FinCC Classification SHTaL & SHTuL)	SHTaL & measurement instruments	SHTaL				Composed of central nursing care master data	
	SHToL & SHTuL			SHToL	SHToL & measurement instruments	SHToL & measurement instrumets	(free text and different classificatio-ns can be used)	
Master data of nursing care	Master data	Nursing need			Nursing intervention	Nursing results	Nursing summary	Nursing intensity

Table 1.
The Finnish National Documentation Model by STM 2009 (Rautava-Nurmi 2012 p. 46)

The top represents the stages of the nursing decision making process; a linear timeline of what actions of nursing care the nurse initiates in each stage. Subsequently the nurses use the Master Data –components in the electronic nursing system to build precise stages of the nursing process by structured entry.

2.1.1 FinCC

The use of various terminologies, classifications and codes are essential in structured documentation such as The Finnish National Nursing Documentation Model. It facilitates the assessment and retrieval of documentation because relevant data is categorized under predetermined structures within the electronic databases. There are several nursing terminologies available internationally, however in Finland the FinCC is used (Liljamo et al. 2012 p. 57-84). Nevertheless, there is no evidence that one single framework of nursing terminology can contribute for extensive the coverage for the realm of nursing (Humphreys et al. 1998 p.11).

In the electronic patient record system the FinCC consists of different parts: the Finnish nursing assessment classification (SHTal 3.0), The Finnish nursing interventions classification (SHTol 3.0), and the stage of nursing outcome classification (SHTul 1.0). These classifications comprise the nursing master data [hoitotyön ydintiedot] of systematic nursing documentation (Liljamo et al .2012 p.10-14, Nykänen & Junttila, 2012 p.15-17). These classifications are linearly used according to the nursing process stages.

The FinCC classifications have a hierarch structure, which have three levels: component, main classification and sub classifications, i.e. recovered or healed, unchanged, worsened or deteriorated. The health care professionals can enter patient details under different views and specific subject headings.

They are entered adhering to a predetermined data structure; heading, view and treatment process stage, using the classifications and codes defined for the purpose. Information about nursing care can be further structured, for instance, by using the codes and classifications specified for data entry. Automatic references can be related to the stages of the treatment process, i.e. whether a particular data entry concerns treatment planning or implementation. Free text in the form of narrative is written under the classifications so that one may make nursing documentation more accurate and give a holistic view. Specialty units may use their own nursing care specific structured headings to meet the nursing needs unique to the specialty of the ward. This allows more specific documentation in a structured manner to meet the requirements of the nursing care process (Virkkunen & Jokinen, 2018 p. 23).

2.1.2 The Nursing Process Model

The nursing process model can be seen as an adjusted holistic approach, which allows nursing care direction and consistency for nursing care and nursing documentation. The nursing process model can also be called the nursing decision making process in Finland, but in this study the nursing process model is used, which includes the decision making stages. The nursing process model is a patient centered tool for nurses to support nursing care, promote wellbeing, prevent disease, and maintain health and to support patients in different situations. The nursing care process is also a management tool that supports the nurses own critical thinking (Rautava-Nurmi et al. 2012 p. 44).

The nursing process stages are documented systematically as a chronological and ongoing process. The context of the systematic documentation begins with the patients' needs and processes onwards towards planning, intervention and assessment. Documentation is written according to the stages of the nursing process, which can be described as an organizing framework for the nurses to provide individualized patient care. The term systematic nursing documentation is used to describe when nurses document the nursing care process stages. Furthermore, systematic nursing documentation is implemented into the electronic patient records, using structured data-entry; FinCC, resulting in systematic structured entry emanate to The Finnish National Nursing Documentation Model (Sonninen et al., 2007 p.66).

Systematic nursing documentation and structured data entry facilitate the planning, implementation, monitoring and evaluation of patient care by utilizing nurses and a multiprofessional staff. Hospitals and areas where the same information system is used, benefit from it by it allowing information to be accessed by different healthcare professionals, wards and care providers, from their information systems. The model improves the unity of documentation styles, quality of information and patient safety. It facilitates the nurse's decision making process and continuation of care with the nursing summary (Iivanainen & Syväoja, 2015 p. 6-10, 55).

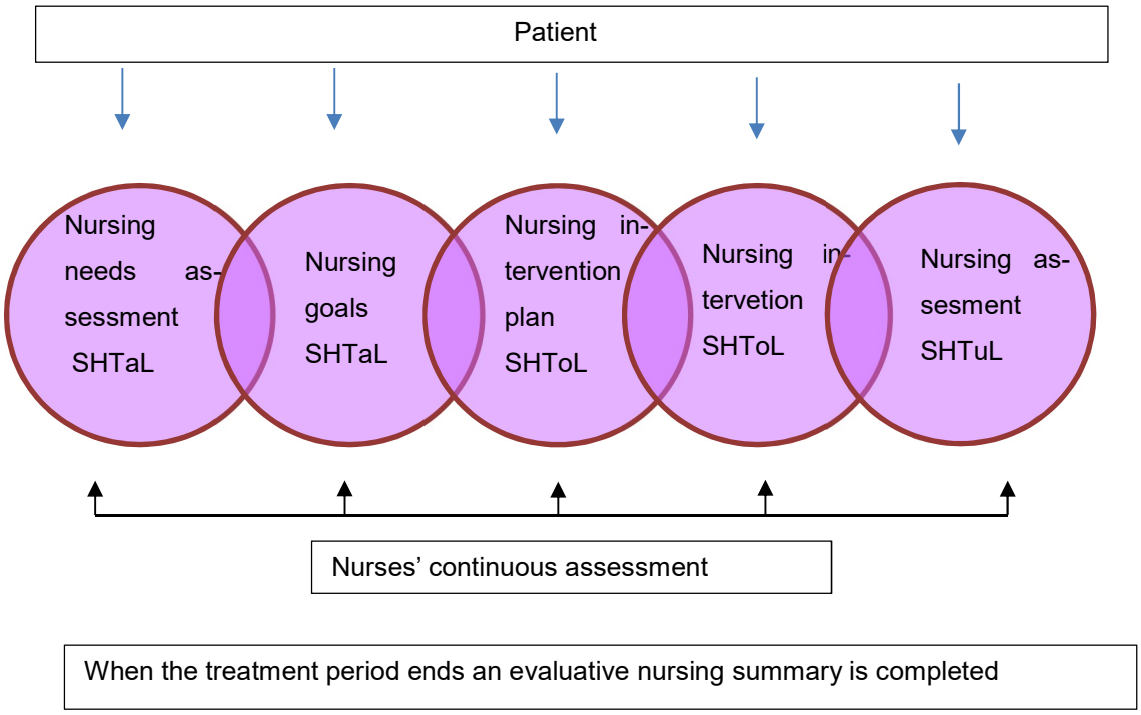

Figure 1. The nursing process model (Rautava-Nurmi et al. 2012 p.46).

The information of the nursing process is documented and shared with others who are involved in the care of the patient. The nursing process is a cyclical and dynamic process which can end at any stage if a solution for the patients' health issues is found (Rautava-Nurmi et al. 2012 p.46, Keenan & Yakel 2005, Yildirim et al. 2011 p. 257-262).

2.1.3 Stages of the nursing process

There are five different stages of the nursing process. The nursing process in Finland is comprised of: nursing needs assessment [hoidon tarpeen määrittäminen], nursing goals [hoidon tavoitteet], nursing intervention plan [hoidon suunnittelut toiminnot], nursing intervention [hoidon toteutus], and nursing assessment [hoidon arviointi].
In this study, the nursing assessment covers the final assessment; the nursing summary as well. The stages of the nursing process are continuously assessed by the nurse. The stages are overlapping and interconnected, meaning that when there is a change in one stage it will affect the other stages. Nurses need to consider all the

stages of the nursing process when writing the final evaluation and the nursing summary (Rautava-Nurmi et al. 2012 p.45-50).

The nursing needs assessment can be described as ascertaining information pertaining to what nursing needs and problems the patient has that can be treated, relieved, and cured by nursing interventions. Nurses inquire multi professional patient documents, interview and meet to patient to form the nursing needs assessment (Sonninen et al., 2007 p.77). The nursing needs assessment is modified to adhere to the current needs of the patient. The needs can be both physical, psychological, and social. Moreover, patient needs and problems can be both subjective, from the patient's point of view and objective, from the nurse's point of view, which may be actual, or potential. Meaning that actual problems can be measured and potential problems are ones that threaten the patient's recovery. Additionally, descriptions of the physician's diagnosis can also be used as a nursing need assessment. However, if this is the case, the nursing needs assessment has to include a description about the patient's wellbeing and situation, which can be responded to by nursing interventions (Ahonen et al. 2007 p.30, Rautava-Nurmi et al. 2012 p. 47-50).

Nursing goals are included in the nursing needs assessment. By recognizing nursing needs, it is possible to determine the goals of nursing care. In practice, it can be described as finding out what the patient or the healthcare professionals want from the treatment determined by the realistic stages of recovery expected. Nursing goals require nurses to be able to assess what kinds of changes may happen related to patient recovery (Liljamo, et al. 2012 p. 13).

The nursing intervention plan are the essential methods which assist the patient in their recovery related to the nursing goals. They can also minimize illness and support the patient. The plan is constructed by the nurse's multi professional insight. The helping methods can vary related to the wellbeing of the patient, their abilities, values and current life situation (Liljamo, et al. 2012 p. 14–15).

Nursing interventions are the actualized interventions. Nursing interventions are based on nursing principles, ethics, patient's independent initiative, nursing professionalism, safety and holistic care. They highlight the use of nursing theory and practical skills.

These interventions are documented in the patient record in past tense. The documentation needs to be precise, patient centered, and evaluative. They can also include the patient's thoughts and feelings about the intervention, or care in general. When nurses document the nursing interventions, they take into consideration how the goals were actualized and what other events occurred during these interventions. Nurses bear the responsibility of observing critically important issues during the care and documentation of them. The nursing observations are essential for multi professional success in patient care. (Rautava-Nurmi et al. 2012 p, 45–50, Liljamo et al. 2012 p 14–17)

Nursing assessment is an evaluation about whether the nursing goals have been achieved and what kind of changes can be seen in the patient's wellbeing and situation. It also includes the new nursing needs and the patient's own experiences and resources. Nursing assessments are done according to the pace of patient's wellbeing and recovery. The nursing summary is a part of the nursing assessment, but is only completed when the treatment period has ended, the patient is referred to another unit, discharged home, or passes away (Rautava-Nurmi et al. 2012 p. 45–50, Liljamo, et al. 2012 p. 13, 18).

2.1.4 Nursing summary

The nursing summary is a concise text of relevant information reflecting the patient's nursing care process, which is completed at the end of the treatment period. It gives the reader a comprehensive understanding of the patient's situation and care. The complete nursing summary should be an inclusive patient assessment within the timeframe of admittance to care, or when care initiates till the time of discharge or referral to another healthcare facility. The summary compares the state of patient in the beginning of care, to the end of care, in a specific unit or ward and has a nursing plan for the continuation of care.

The nursing summary facilitates knowledge and makes the care continuous and effective. It helps nurses in other wards to initiate their nursing care process more effectively, due to the relevant information. Thus, it can be utilized in the planning of care after discharge or referral, at home, at another healthcare facility, or the next time a patient is admitted to the same hospital. The nursing summary reduces redundant manoeuvres

while searching for details about the patients care during a certain time period among healthcare providers. The patients can see their own nursing summary in the National patient repository Omakanta –service (HUS, 2015; Liljamo et al. 2012 p.18).

The nursing summary is made up from several obligatory headings: final assessment [loppuarvio], nursing needs assessment [hoidon tarve], nursing interventions [hoitotyön toiminnot], nursing outcome [hoidon tulokset], information pertaining to follow-up care [jatkohoidon järjestämistä koskevat tiedot], other information [muu merkintä]. Other optional headings can be used according to the patients nursing needs. This ensures the patients continuation of safe and quality care (See Appendix 2) (HUS, 2015; Liljamo et al. 2012 p.18).

In nursing practice the process of writing the summary may be initiated after patient admittance and finished when discharged or patient referral. The summary can be written using the Miranda search engine to attach pre written nursing records and charts. If the ready written nursing documentation does not present meaningful or accurate enough information, the nursing summary may also be completed by free text. The summary can be saved incomplete as a “note” and completed later by another nurse. When the nursing summary is archived, it is automatically transferred to the KanTa. (HUS, 2015)

2.2 Nurses Professional Competences

Professional competency for nurses is the combination of skills, knowledge, attitudes, values and abilities that result in effective, quality and safe patient care. It can be referred to as delivering nursing care according to professional standards. Professional nursing competencies are fundamental concepts in nursing and have a strong relationship with quality improvement of patient care and public health. Competent nurses deliver an improved quality of patient care and an increase in patient satisfaction. In addition, competent nurses help actively encourage nursing as a profession and develop nursing education and clinical nursing. Current references to the principles of professionalism, emphasize that quality improvement is the ethical and professional responsibility of all the medical professions, including nurses (Khodayarian et al, 2011, Levett-Jones, 2014 p. 229-233).

Nurse competencies can be understood as complex and context-specific dispositions that are acquired by first learning them at school. When acquired, they can be used to successfully deal with tasks and situations at work and can be further built upon. The definition of nursing competence is the following:

> "The Intersection between knowledge, skills, attitudes and values, as well as the mobilization of said components in order to transfer them to a certain context or real situation, hence coming up with the best possible action/solution to address all the different situations and problems that can emerge at any moment, making use of the available resources" (EFN, 2015; Gómez del Pulgar, 2011)

The accountability of registered nurse competencies are an individual responsibility, as well as a shared one. Individuals are responsible for maintaining professional competence, in their scope of practice; what they are authorized, educated and competent enough to perform. They are also a shared responsibility; the laws of safety at work (738/2002) state that healthcare organizations are to provide a means for nurses to get a briefing about the job environment, tools, safety, and health. Also from the point of view of patient safety, it is essential that nurses are briefed and facilitated enough to accomplish the duties and responsibilities required (Ranta & Tilander, 2014 p.40-41).

In Finland, nurse's professional competences are based on valid laws along with social- and health policies. They are affected by the needs of the population, legislative changes, new research, service design, and social- and health policy programs (Ministry of Social Affairs and Health, 2012). Changes in laws and policies that effect the healthcare sector have created new challenges for professional nurse competences. Thus new nurse competences; the professional competence of nurse responsible for general care, were created in Finland in order to answer societies along with work life's changing needs.

The professional competence of nurse responsible for general care (180op) by Eriksson et al. 2015 are used in this study. They are the outcome of the Future Education of Nurses -project aligned with the EU-directives related to nurse education. The reform has been accepted by the Finnish Healthcare networks executive committee in October of 2013 (Ministry of Social Affairs and Health, 2012). They are the result off actively involved in local development, researches and co-operation in health-care units and Universities of Applied Sciences, legislation and other regulatory bodies in Finland. The renewed nurse competencies demonstrate the nurse's knowledge in nine categories, from

patient centricity to social- and healthcare quality and safety. The statements are organized by using a standards-based conceptual framework that emphasizes the regulatory purposes of the nine competency categories with sub-categories. Despite that they are entry-level competence, they can be regarded as compatible due to their representation of nationwide guidelines. Furthermore, they provide a valid, reliable up-to-date standards and dimensions of what competencies should practicing nurses have and be supported on.

3 Study purpose

The study question is how the nursing summary tool supported nurse competences relating to nurse leadership nurse leadership, nursing interventions, nursing decision making process, nurse professionalism and ethics through planning, implementation and evaluation.

The aim of the study is to to explore the association between the nursing summary-tool and nurse competences. Research indicates that good nurse competences and supportive tools have a direct impact on high quality and safe of patient care and nurse job satisfaction. Strategies and approaches that support nurse's competences allow grounds for professional growth. Attending to the nurses' needs amidst challenges and encouraging positive forms of commitment, also adds to nurse's competences. Approaches such as supportive tools, ensure the safety and quality of tasks and reduce risks and variability in nursing documentation outcomes. They also provide a framework, which creates mutual assurance when time is short, increasing stress and prioritizing work tasks (Karami et al. 2017, Battistelli et al. 2015).

The study objectives are related to the steps of action research. Nurse's professional empowerment and competence are among the main interests of human resource management in healthcare systems worldwide. World Health Organization 2016 states that all the member countries are required to commit to the implementation of plans in order to support nurses' professional competences.

4 Phases of the nursing summary tool project

4.1 Planning the nursing summary tool

The nursing summary tool project was based on the working-life problem of how to support nurses to complete the nursing summary. Registered nurses on the Skin and Allergy Ward felt challenged by the sudden documentation change. To answer the nurses' needs, the nursing summary tool was created. The tools purpose and aim was to support nurse's critical thinking in regards to the nursing summary, so that nurses could successfully self-manage and complete the nursing summary document in the patient record system. The project of the nursing summary tool initiated in December 2014 within the Skin and Allergy Hospital Ward.

In the first phase several meetings were held between the documentation representatives of the Skin and Allergy Hospital ward in November 2014 - December 2014. In these sessions the introduction of the nursing summary was given by the documentation representative of HUS. Practical work took place where the nursing summaries were written out pertaining to different type patients groups using free text and using the search engine. During this session positive interaction and a time frame was made toward a common goal.

Planning resulted to a common introduction session of the nursing summary on the Skin and Allergy Wards' recreational day in January of 2015. All nurses could attend this information session, so the same material and discussion session was presented during weekly information session held every Tuesday. The common introduction session would consist of presenting HUS-intranet nursing summary guidelines, information about the KanTa –archive, building a meaning of the nursing summary related to nurses own work and methods of support. After the session open discussion was encouraged and free notes were wrote from nurse's feedback.

In the second phase of the planning in January of 2015, the introduction session of the nursing summary took place. Open discussion suggested that the nurses felt incompetent to start practicing the writing of the nursing summary on their own. They expressed distress about their name being on a legal document in which they did not feel competent

enough to complete. The nurses wished to have guide tool which was easy to use, that would assist them in the writing of the nursing summary. Screen view pictures were suggested to be made about the technical process i.e. which boxes should be filled in before writing the summary and which boxes to tick. Individual support from the group members was wanted during the spring of 2015, to ensure that the nursing summaries were written correctly. Despite the constructive feedback, there was no feedback for the content of the nursing summary tool.

In the third phase of the planning, after some deliberations, it was possible to foresee which aspects of the project needed attention; structure, content of the tool, and usability. Based on the open discussion and the feedback, the idea developing a nursing summary internal tool for Ward 4 was formed. It was mutually agreed that the nursing summary tool would be the name of the end product. It was mutually agreed that the nursing summary tool was to be modelled as a supportive and liable measure to the HUS general guidelines of the nursing summary. This was concluded by having the exact obligatory headings and structure of content, including additional information, of what to write underneath different headings. The tool would be presented to the nurses in March of 2015.

4.2 Modelling of the nursing summary tool

As a result from planning, the tools purpose and aim became much clearer. The tools first design was comprised of a mnemonic checklist form with nursing process examples (See Appendix 3). The purpose of the tool was to answer the needs of the nurses amidst the documentation change. The nursing summary tool aims to support nurses' critical thinking and memory, in order to successfully write the nursing summary and also to support safe, continuous patient care. As mentioned, writing the nursing summary requires nurses to critically think through the nursing decision making process model in the master data of patient information.

Thus, to support the aim of the nursing summary tool, examples of the nursing decision making process stages would be presented within the tool. In other words, it was further modified with more intricate information of what master data and specialist nursing decision making process stages belong under each obligatory heading.

Due to the intricacies of specialist nursing care, it was seen as crucial to emphasize on the clarity of the content. The importance of the content of the nursing summary can be related to concepts of evidence-based nursing. An evidence-based nursing approach provides improved outcomes, quality and consistency of care at a lower cost. The Skin and Allergy Hospital's multi-professional team practice evidence-based treatment strategies for skin and wound care. There are many different strategies, treatment options and guidelines for skin and wound care at the ward. Linearly, these care and treatment options are individual in the perspective of continuous patient care. However, to keep the nursing summary concise, and due to the increase of multi-morbidity and ageing patients, it was regarded that specific wound assessment and care guide tools would only be mentioned in the nursing summary.

According to research, supportive tools in hospitals promote process improvement and increase patient safety. They have improved the processes for hospital discharges and patient transfers. Implementing a formalized process may minimize errors caused by lack of information and inconsistent procedures. A nurse using a checklist has positive impact on health outcomes for the patient, including reducing mortality, complications, injuries and other patient harm (Health Research & Educational Trust 2013).

Usability takes into consideration the environment in which it is used. The nursing environment is described to be a hectic environment, where work stations (computers) are limited (Hallila 2005 p.13-15). This resulted into the idea of the tool being a separate document within each work station on the Windows doc- form and as a laminated guide next to the computers. It was decided among the members that the laminated guide would be chosen, as it would allow the nurses themselves to "click-through" the process of making the nursing summary - making them more familiar with the nursing summary. It was seen that having a separate tool next to the computers engages users early and often.

4.3 Implementation of the tool

The nursing summary tool was implemented according to plan. Five laminated nursing summary tool –guides were introduced to the nursing staff of the Skin and Allergy Hospital every day of the one week, for one week, in March of 2015. The nurses who were not working at that time, were introduced to it later. The nursing summary tool was introduced as a guide to support nurse's critical thinking during the process of writing the nursing summary. It was stated to the nurses that the meaning of the nursing summary tool was not to copy directly the stages of nursing care process examples, but to help guide and support their documentation, critical thinking and to help refresh memory.

5 Research setting

5.1 Organization

The Skin and Allergy Hospital Ward 4 in Helsinki is a part of The Helsinki University Hospital in Finland (HUS). The Helsinki University Hospital employs 25,000 healthcare professionals, making it the biggest care provider and second largest employer in Finland. HUS is responsible for providing care for all the residents of 24 municipalities. Treatment and nursing care for many rare and severe diseases are nationally centralized in HUS. The Skin and Allergy Ward 4 is located in The Skin and Allergy Hospital belonging to the branch of Inflammatory Unit of HUS. (HUS, 2019)

The Skin and Allergy Ward 4 is an inpatient ward, where patients suffering from demanding severe skin diseases and difficult wounds are treated. There are 20 patient places. In addition, due to the spectrum of skin and wound diseases, patients often suffer from multi morbidity. The ward also specializes in the treatment of intravenous human immunoglobulin treatment for severe skin diseases. Specialised multi professional healthcare professionals are centralised in the Skin and Allergy Hospital functions, which are also available on the ward. The ward has twenty beds for adult patients who need round-the-clock nursing care. Patients are admitted to the ward by a physician's referral. The general length of stay at the ward is five days but can reach to more than weeks. The peak patient turnover time is at 13:00 Monday to Friday. The patient turnover per day varies from admitting and discharging between one to nine patients a day. The

staffing model on the Skin and Allergy Ward 4 is based on the nurse-patient ratio managed by board of auditors of HUS and patient classification regarding nurse intensity levels. The patient turnover and increased multi professional care are allocated on weekdays. Resulting in that on weekdays there are six nurses working on the morning shift, three on evening shifts and two nurses on night shifts. Weekends are an exception with four nurses on the morning shifts. The role and responsibilities of registered nurses differ pertaining to shift; morning- evening- and nightshift (See Appendix 4&5).

6 Materials and methods

6.1 Participants and study environment

The participants of the study were fourteen registered nurses and one nursing student working on Skin and Allergy Ward 4. Further information pertaining to the target group would be acquired through the questionnaire and a consent form attached as appendices (See Appendix 6 &7). The study environment was planned to be on the Skin and Allergy Ward 4.

The registered nurses would immediately start utilising the nursing summary tool after the information session. The nurses would practice writing the nursing summary during normal work hours, with real patient cases. The preferred arrangement would allow a degree of openness for discussion amongst peers. According to Skår 2009 (p.8-10), nurses highlight that a good colleagueship with peers was essential to feel positive in certain circumstances. Nurse's benefit from learning opportunities which are gained through relationships with colleagues within their working environment.

6.1 The professional competences of nurse responsible for general care in relation to the nursing summary documentation change

The following information provides insight on as to how the professional competences of the nurse responsible for general care by Eriksson et al. 2015 were chosen. To assist in further understanding the concepts of the nursing summary were applied to the framework of the managing change for self -stages presented by Mr. Sanjiv Kumar (Director International Institute of Health Management Research, New Delhi) and his study team (See Appendix 8).

Nurses benefit from change the most when they take an active effort to acquire and improve their skills. Life-long learning seeks regular formal and informal response on weaknesses and strengths. Therefore, it is important to define the present situation, the know-how and how to achieve the future prospective situation (Kumar et al, 2015).

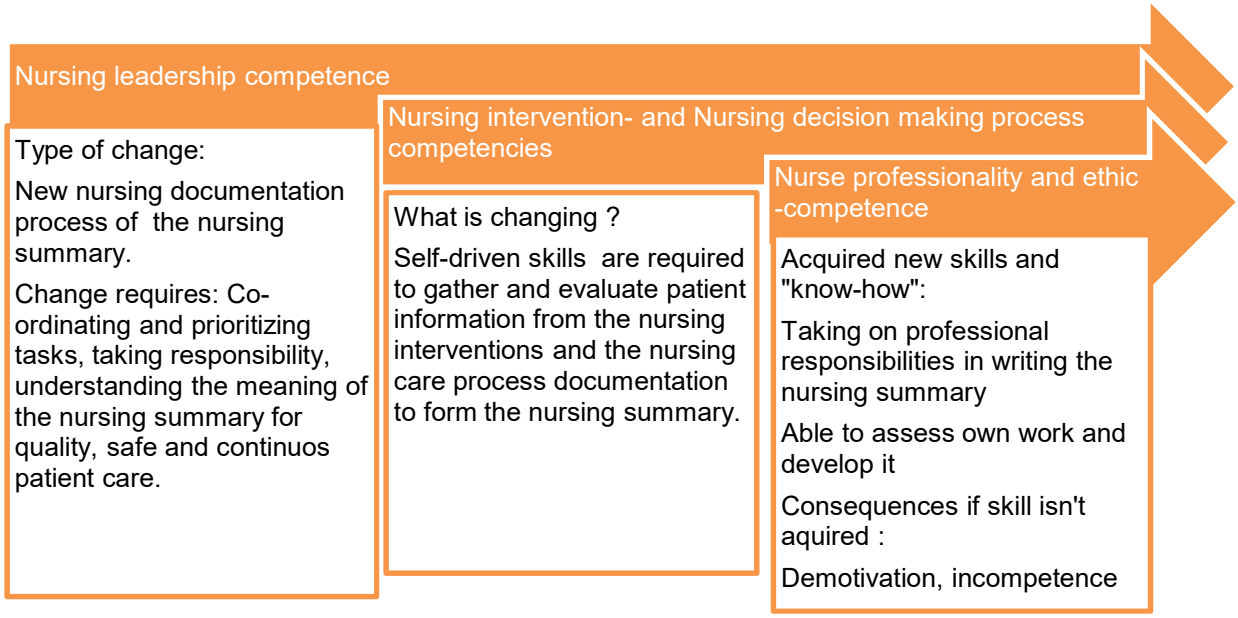

Figure 2. Professional nursing competencies; nursing leadership-, the overlapping competencies; nursing interventions-, nursing decision making process-, nurse professionalism and ethic- competencies applied with Indian J Community Med 2015 transition management plan related to managing change for individual healthcare professionals

The implementation of the nursing summary to the nursing practice will directly affect aspects of the documentation the nursing care process of the patients who are discharged or referred (Mykkänen, 2010). Therefore, the leadership competence is chosen. The fundamental concepts of the nursing summary are understanding and also the ability to use professional nursing language within their documentation, as well as that the information retrieval from patient records is an essential skill (Mykkänen, 2010). Thus, the nursing interventions- and the overall decision making process are essential to examine. The nursing summary is a meaningful document which aims to improve the safety, quality, and continuity of nursing care. To further develop the nursing summary, writing it is crucial for nurses to assess their own nursing efficiency, thus professionalism and ethics competency were chosen.

Leadership skills competence belongs to the generic competence of leadership and entrepreneurship. The context of this competence was nurses being able to co-ordinate and prioritize their work according to one's responsibility with critical self-reflection (Eriksson et al. 2015 p. 62-63). Nurses at all levels need strong leadership skills in the nursing care process in order to contribute to their effectiveness, patient safety and quality of care. Leadership competence allows nurses to think carefully about their own specialist practice within the environment which they work and how to improve it. Using critical reflection, nurses are able to observe and develop areas of professional practice (Campbell, Mackay 2001 p. 25-30).

Nursing interventions competence belongs to the generic competence of clinical nursing. It involves the structured nursing needs (FinCC) and the Finnish national documentation model. The context involves nurses to be able to respond to nursing needs using nursing interventions, including clinical and physiological assessment and measurement tools, prioritize acknowledged needs and to document them systematically using structured nursing documentation (Eriksson et al. 2015 p. 63-65). This competence was seen important because the nursing summary highlights on the given treatment and nursing interventions. Successful nursing interventions and nursing care recommendations should be emphasized on in the nursing summary to promote effective, safe and continuous patient care.

The nurse's decision making process competence belongs to the generic competence of evidence-based practice and decision making. The context of this competence is the nurse's ability to evaluate the nursing care process, assess interventions according to the decision making process and document them accordingly. The documentation of both competences are supported by the Finnish national documentation model and FinCC in the electronic patient records (Eriksson et al. 2015 p. 65-66). The competence was seen important because the nursing summary portrays the nursing care process concisely. The nurse's proficiency in nursing documentation and functionality of the patient record system together make the nurses work efficient. Thus, a nurse competent in nursing interventions and the nursing care process, can be regarded as accountable for continuous safe patient care. These competences can be seen as the exchange of mutual and technical skills, combined with nurse's critical thinking (Del Buono et al, 1987 p. 21-26; Gurvis et al, 1995 p. 247-252; Jeska, 1998 p. 121-144).

Nurse's professionality and expertise belongs to the generic competence of ethics and professionalism in nursing. The focus in this study is professional growth and development. Meaning that nurses are able to assess and advance their own work and take responsibility of one's actions and are able to evaluate their own skills and development pertaining to nursing documentation (Eriksson et al. 2015 p. 61-62; Meretoja et al. 2004 p.124-133). The importance of nurse's self-assessment competence is described in several studies. One study identifies that assessment of competences can be related to identifying areas for professional development. Self-assessment expands individual practice by allowing them to discover their own weaknesses and strengths. This is essential from the aspect of safe patient care and the organizations quality assurance and human resource management (Benner, 1982 p.402-407; Nagelsmith, 1995 p.245-248).

6.2 Data Collection

The method of data collection was a questionnaire of open-ended questions. The purpose of the questionnaire was to collect data from the participants on how the nursing summary tool supported nurse competences relating to nurse leadership nurse leadership, nursing interventions, nursing decision making process, nurse professionality and ethics (See Appendices 6).

The benefits of the open-ended questions include the probability of discovering spontaneous responses. Open-ended questions avoid the increased bias of close-ended questions. Nevertheless, disadvantages of open-ended questions, in comparison, include requirements of extensive coding and greater non-response amounts from individuals (Reja et al. 2003 p.161). Despite the challenges, open-ended questions were chosen due to their nature. They aim to assist further comprehension of the individual and subjective experiences of participants involved in writing the nursing summary with the nursing summary tool. The questionnaire included a consent form and promoted nurses to speak honestly and freely.

Nurse Leadership -competency question were related to how the supportive tools help nurses to understand the nursing summary's meaning in their work. The competency also entails questions related to responsibility and organizing work. It was regarded important, as change involves various types of personal loss factors, such as losing familiar routines at work. Employees devote in themselves when advantages of proposed change are made meaningful (Kotter, 1996 p.10-11). Accordingly, the final research questions related to nurse leadership competence are as follows:

1) How has the nursing summary tool affected your nursing role and responsibilities? If you feel it hasn't, describe why.

2) How has the nursing summary tool affected your attitude towards the documentation change?

3) How has the nursing summary tool supported you in order to understand its meaning in safe, continuous and quality patient care?

The nursing interventions- and the decision making process competencies overlap in the questionnaire. They evaluate the context of structured nursing needs (FinCC) and the Finnish National Documentation Model, which includes the nursing summary. It means to give grounds to further understand how the nursing summary tool might support in the writing and gathering of information within the summary. Accordingly, the final research questions related to the nursing interventions and the nursing decision making process competencies are as follows:

4) How has the nursing summary tool supported your documentation of the nursing summary? If you do not feel it has supported you, describe why.

5) How has the nursing summary tool supported you to document nursing interventions in the nursing summary?

6) How has the nursing summary tool supported you to document the nursing decision making process in the nursing summary?

7) How does the nursing summary tool support you in nursing assessment of the nursing summary?

8) How has the nursing summary supported you in structured nursing documentation in the nursing summary?

The meaning of nurse professionality- and expertise competence open-ended questions involve how nurses feel in regards to their own skills, self-assessment and development, regarding writing the nursing summary using the nursing summary tool. The questions aim to provide insight to how nurses understand their skills and development areas about documenting the nursing summary and to gain a deeper meaning about their level of competencies and thoughts. Accordingly, the final research questions related to nurse professionality and expertise competence are as follows:

9) How have you developed in documenting the nursing summary? If you feel you haven't, please explain.

10) What would you like to say about your professional competencies regarding and the nursing summary tool?

6.3 Data Analysis

Evaluation is essential for knowledge building and value judgment. They calculate the merit, worth and value of an activity involving the use of value judgment questions.The evaluation process associated with making ongoing and sensible conclusions about the benefit of the actions taken to date, which further involves the systematic gathering of appropriate information (Somekh & Lewin, 2011 p.103-104). As part of the cyclic process of action research, the data collection was evaluated and the participants' responses were analyzed.

The findings were based on raw data analyzed from participant nurses. The feedback was analyzed using qualitative inductive content analysis [sisällön analyysi] method to produce meaningful sub-categories, main categories and themes. The raw data from the open-ended questionnaires were re-written and translated into English on a Windows Word -document. The document was printed out. The raw data was reduced to sentence-level. The sentences with similar meanings were clustered together. The coding of the sentences was performed according to the internal meaning of the sentence, short statements and meaningful subjects. Four categories were formed according to the meaning to provide a compatible interpretation. The categories were re-reanalyzed. At this point, a new category was formed and some categories merged together to form larger categories. The analysis of the categories was performed in an unbiased manner throughout the analysis stage. The meaning of the categories was to create larger themes of meaning based on similarities. The raw data before the analysis consisted of a lot of good material, opinions and very short statements, but only relevant data was used in this thesis. Because it essential to choose the relevant information that support the study objectives and enable decision making for the research to make it coherent (Tuomi & Sarajärvi, 2013 p.62).

7 Findings

7.1 The findings

The findings of the study present evidence of data in relation to the study question. Ten registered nurses and one nursing student working on the Skin and Allergy Ward participated in the study by answering the questionnaire. From these participants, sixty-percent had worked at the Skin and Allergy Ward for six to ten- years and forty percent one to six-years. The study participant's age varied from eighteen to twenty-five years of age through fifty-six to sixty-five years of age. The age group of twenty-six until thirty-five years of age counted for forty percent, which was the biggest age group of the participants. Followed by forty-six through fifty-five years of age which counted for thirty percent, twenty percent for fifty-six through sixty-five years of age and finally ten percent between eighteen and twenty-five years of age. Based on the study findings a conceptual figure was created.

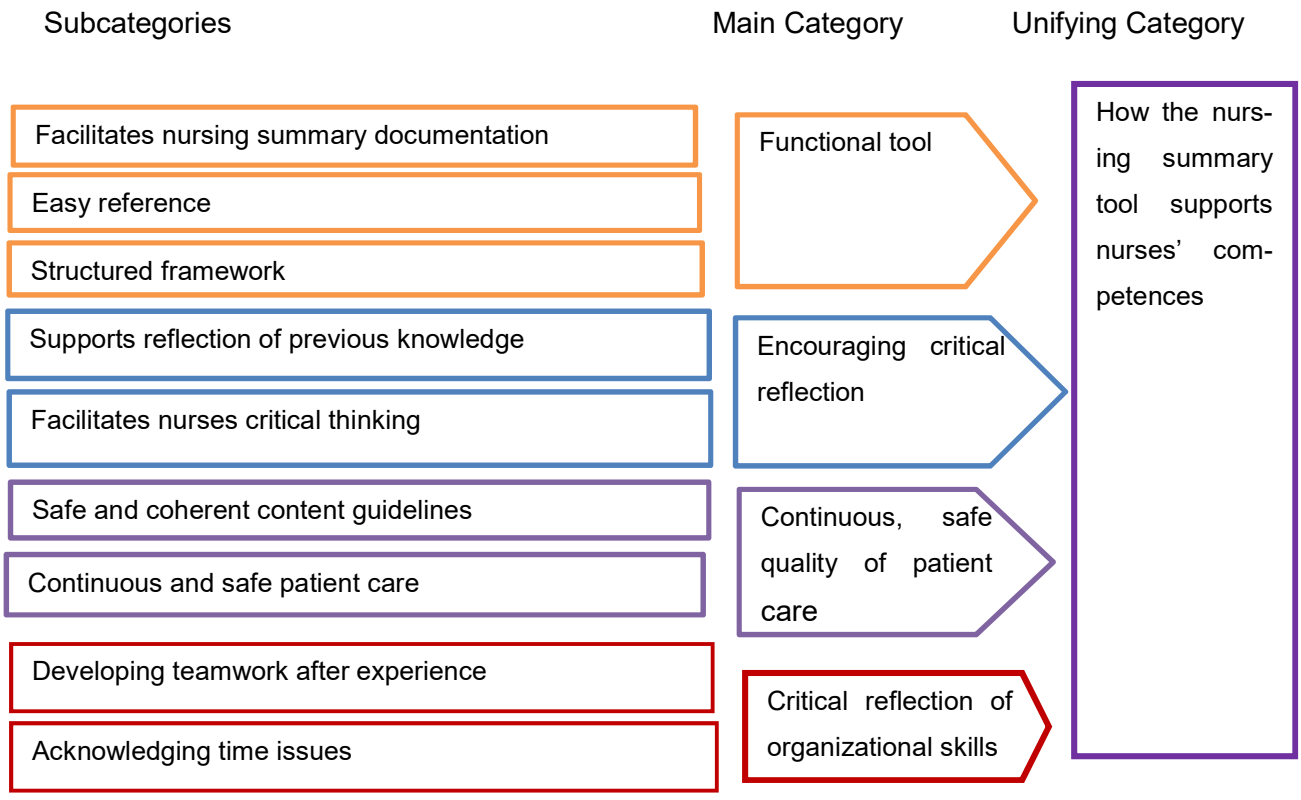

Figure 3. Process of data analysis to form the subcategory, main category and unifying category.

Four main categories; functional tool, encouraging critical reflection, continuous, safe quality of patient care and critical reflection of organizational skills were identified. These main categories create the unifying category of how the nursing summary supported nurse competences; nurse leadership-, nursing interventions-, nursing decision making process-, and nurse professionality- and ethics competences.

7.2 Functional tool

This main category was derived from three subcategories; facilitates nursing summary documentation, easy reference and structured framework. After an analysis of the raw data collected, it was noted that the nursing summary tool had a positive impact. The term functional can be described as “having a special activity, purpose, or task” (Oxford Dictionary, 2019). Based on the inductive content analysis a figure is presented to allow further understanding of the process.

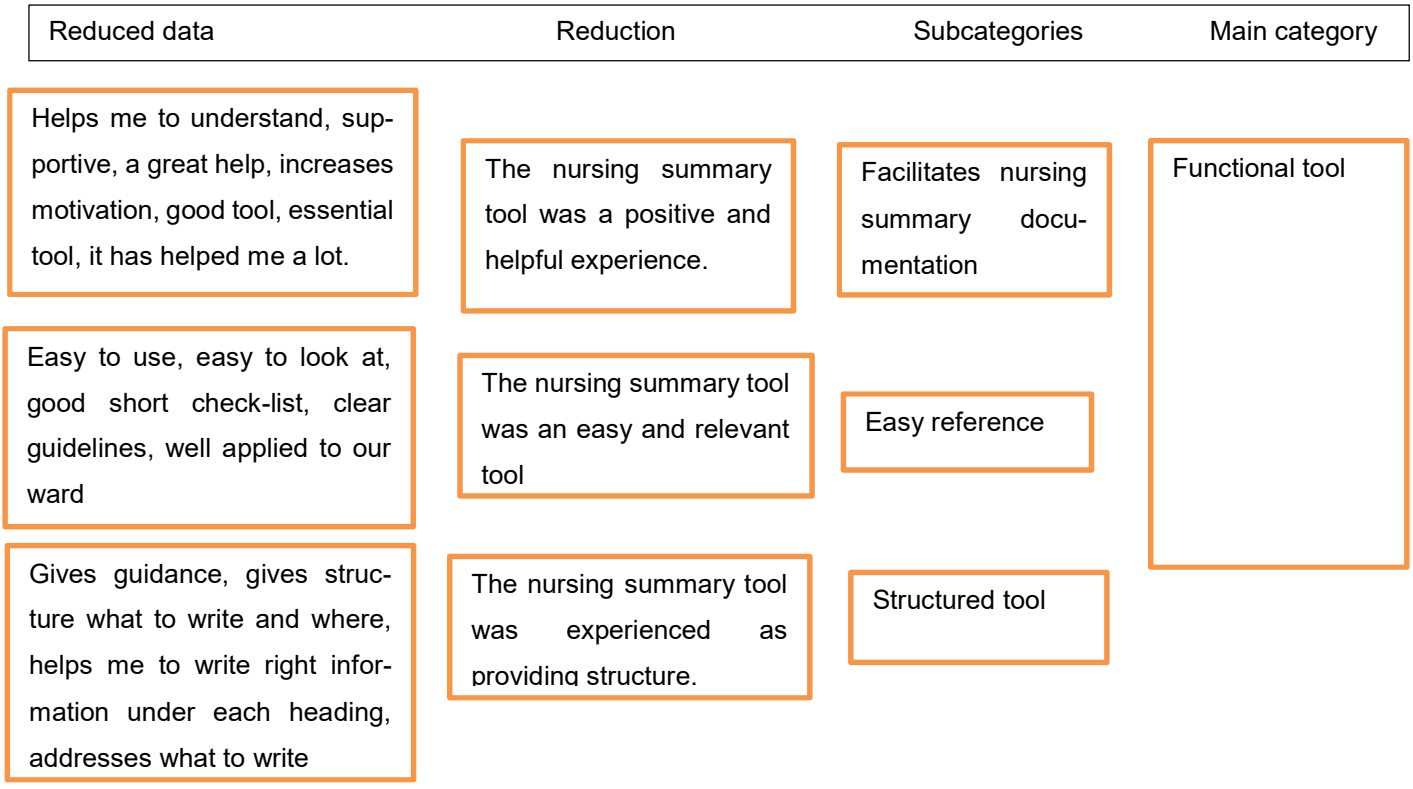

Figure 4. Example of the inductive content analysis to form the main category of “functional tool”. The same approach was conducted in all following categories.

The nurses stated that the nursing summary tool had supported their writing of the nursing summary in a positive and helpful way. According to the nurses, the nursing summary tool was essential for them in the beginning in order to able to write the nursing summary. The nursing summary tool was received as a positive experience which was regarded as relevant and easy to use by giving structured framework to help address what was to be written under the different headings. It was also pointed out that it was applied well to suit the Skin and Allergy Ward's patient material. It can be concluded that the nursing summary tool is a functional tool that facilitates nursing summary documentation by having an easy structure to refer to.

7.3 Encouraging critical reflection

This main category was derived from two subcategories; supports reflection of previous knowledge and supporting nurse's critical thinking. The subcategory of reflection of previous knowledge was derived from statements concerning how the nursing summary tool supported the nurse's memory. The raw data stated that it helped them refresh their memory utilizing the tool and double-checking information -especially if they were unable to remember everything and also how it helped to focus on the writing of the nursing summary. The second subcategory supports nurse's critical thinking and was derived from statements that describe how the nursing summary tool helped them analyze and assess patient information as well as the nurse's decision making process stages. The nurses felt that the nursing summary tool assisted them in critical thinking related to continuous care issues between specialist care and public healthcare units. It can be concluded that the nursing summary tool encouraged critical reflection by supporting the reflection of previous knowledge and nurse's critical thinking.

7.4 Continuous, safe quality of patient care

This main category was derived from two subcategories; continuous and safe patient care and coherent content guidelines. This first subcategory derived from statements which reveal the meaningfulness of the nursing summary, written using the support of the nursing summary tool, in regards of safe and continuous patient care. The nurses emphasized on the importance of the completed nursing summary for all healthcare professional, patients, patients friends and family. Data analyzed revealed that the nurses saw the complete nursing summary as a bridge for safe and continuous patient care. The second subcategory was derived from nurse's statements which reveal the importance of having uniform in nursing summary documentation. Nurses also stated that nursing documentation is too convoluted without unity.

This can be concluded that coherent content of the nursing summary tool supports its meaningful use resulting in safe and continuous patient care.

7.5 Critical reflection of organizational skills

This main category was derived from two subcategories; acknowledgement of time issues and developing teamwork. The first subcategory was derived from acknowledging time issues. Nurses described that writing the nursing summary takes a lot of time and that nurses wished to have more time to be able to write it. They state that having enough time is important to be able to write a good nursing summary. The second subcategory was derived from statements which described new teamwork skills developed, related to the nursing summary documentation. Nurses describe how they have organized when they start writing preliminary nursing summaries for patients during night shifts. Distributing the writing of the nursing summary to several nurses has helped the nurses who are in charge of the discharge. They describe that it has helped overall organization a lot and that it decreases the workload of individual nurses.

It can be summarized that after the experience of writing the nursing summary with the nursing summary tool, nurses have acknowledged the importance of time for documenting the nursing summary and have developed their organizational skills to solve the time related issue by critical reflection.

8 Discussion

8.1 Discussion of Findings

The purpose and aim of this thesis was to describe how the nursing summary tool supports the nurses professional competences; by planning, implementation and evaluation. The study's' nursing summary tool project was planned and implemented in line with the Skin and Allergy Hospital Ward as a part of a real life work challenge. To answer the research question an open-ended questionnaire was given out for the nurses to fill in. According to the participants, professional nurse competences were supported in 4 categories: functional tool, encouraging critical reflection, assisting continuous and safe patient care and contributing to critical reflection of organizational skills.

According to the findings the nursing summary tool supported nurse competence by being a functional tool. The category of functional tool was formed from sub-categories; facilitating nursing summary documentation, structured framework, and easy reference. The facilitating aspect and structured framework can be comprehended as "useful" properties of the functional tool. These properties are be described as a form of support and development of activities in working units. They propose a structure which allows an advantage to find agreement with controversial aspects of phenomena. Studies identify that such tools create possibilities to externalize convoluted aspects, creating neutral space for 'things' that may be difficult to comprehend (Toikko & Rantanen 2009 p. 108). In other words, functional tools in the right setting decrease task complexity.

Easy reference is related to convenience and reducing the complexity of the nursing summary task. Nurse's task complexity and nursing competence are key factors influencing patient assessment (Corcoran, 1986 p. 155-162), which are an essential part of the nursing summary completion process. Kieras & Polson 1985 (p.365-394) identify that clarity and concision decline complexity, while diversity, inaccuracy, conflict, unstructured guidance, and non-routine events increase task complexity.

Therefore, easy reference to information and guidelines can be interpreted very important in nursing to promote safe quality patient care, time management issues and convenience (Thompson et al 2004 p. 68-72, Dee & Stanley, 2005 p. 213-222).

According to the findings, the nursing summary tool encouraged critical reflection. Encouraging critical reflection was assembled from sub-categories of facilitating critical thinking and supporting reflection of previous knowledge. Participants claimed the examples of random evidence-based nursing encouraged critical reflection by how information or parts of the nursing process should be documented under which heading meaningfully.

Critical reflection in nursing, requires that nurses look into the underlying assumptions of the critical thinking process while questioning and inquiring into the validity of the reasoning, and even the facts of the case. Critical reflective skills are vital, although they must be used sensibly and are not sufficient for evidence-based nursing alone (Benner et al., 2008). Tashiro et al. 2013 (p. 170-179) refers to Tamura, 2008 as follows:

> "Conceptually reflection is a systematic cognitive process originating from Dewey's educational philosophy. In reflection, one deeply understands their experience through internal examination, so that one can improve their behavior or practice".

Thus reflection is circular in nature and depicts the current development identifying three stages of the reflective process: (i) awareness of uncomfortable feelings and thoughts; (ii) critical analysis of the situation; and (iii) development of a new perspective. Meaning critical reflection in nursing professional development is an active process, activated by a theory–practice gap. The aim of reflection is to be better positioned in order to provide excellent care leading to the improvement of quality of care (Tashiro et al. 2013 p. 170-179 refers Freshwater et al. 2008, Gibbs's 1988 & Kolb's 1984).

The participants stated that the array of examples supported reflection of previous knowledge by improving memory i.e. writing about complex patient cases. Nursing knowledge is based on disciplines including both theoretical and practical perspectives. The difference among the two types of knowledge is often referred to as the 'know-how' and the 'know that' (Ryle, 1947 p.16-21). 'Know that' is knowledge that usually comes from theory and research. It is well articulated and effortlessly communicated verbally and could be defined as the science of nursing 'Know-how' or 'implicit knowledge' is regularly gained through individual experience and is related to tacit knowledge (Hall, 2005 p. 34-37).Tacit knowledge can be interpreted as knowledge that is used intuitively and unconsciously, which is obtained through individual experience, characterized by being personal and contextual. Meaning it is not articulated but learnt during practice and is considered as the art of nursing. Furthermore, tacit knowledge supports nurses in the constantly changing environment and in the continuous holistic care of the nursing care process (Carlsson et al, 2000 p. 533-545, Herbig et al. 2001 p. 687-695). Cook and Brown have shown that tacit and explicit knowledge work the other cannot and that both types of knowledge can utilized as a support in obtaining the other (Cook and Brown, 1999 p. 384-385).

The participants also expressed that the evidence-based nursing examples were in a familiar form to their specialty of nursing they were easy to understand. In other words, nurse's professional language in relation to their specialty can be described as cognitive proximity. Boschma (2005) describes proximity as cognitive, organizational, institutional, social, and geographical. Cognitive proximity dimension pertains to a mutual knowledge based between individuals and the extent of these individuals to comprehend one another, transfer knowledge, and acquire knowledge from one another. It is recognized that cognitive proximity is embodied by the homogeneity of competencies, capabilities, skills and knowledge bases (Boschma, 2005 p. 67-74). In this study cognitive proximity is related to micro level (inter-individual). Meaning cognitive proximity represents homogeneity among individuals in teamwork. In this perspective, the literature points at cognitive proximity can be perceived through employees using the same professional language and scientific standards which support communication during collaboration. This can be identified as subjective similarities between employees as well as by shared competences and past experiences (Knoben & Oerlemans, 2006 p.71-89; Vincent et al. 2007).

According to the findings the nursing summary tool supported nurse's awareness of safety and quality of care by the safe and coherent guidelines. The findings are in line the aim of the nursing summary; to support the safe, quality and continuous patient care. This finding is highly important because nurses and healthcare organizations themselves take their role seriously in delivering safe and quality care to patients. The definition of patient safety is different dependent on from which perspective it is investigated. The Finnish Social and Health Ministry 2017 define patient safety as:

> "The principles and operations of persons and organizations acting in social welfare and health care to ensure the safety of care and services as well as protect patients from injury".

Quality of care is described as attributes and features of the abilities of an organization, product, service, or a process (Pekurinen, Räikkönen, Leinonen, 2008 p.12). The definition also includes the aspect of competent health care personnel, appropriateness and meaningful use of documentation and information flow. The regional government supports safety culture, unifying practices that promote safety as well as improving patient and client safety and quality form of the public service promise (Finnish Social and Health Ministry, 2017 p.12).

It is described that it is essential to provide healthcare workers with solution-focused tools to further support safety culture. This can be achieved by recognizing practices to support patient safety and improving them by changing processes. The nursing summary tool created a positive awareness of safety and quality of care by being a solution-focused tool solving the problem of the participant's feelings of incompetence. The tool was received safe because it was clear to understand and adhered to the organizational and national policy which created a sense of meaningful safe and quality nurses work. Central to nursing, is the immense historical expression to support quality and safe patient care. Evidence of valuing principles of quality and safety competencies in nursing is apparent in nursing publications (Cronenwett, 2001 p. 15-21), standards of practice and accreditation guidelines (ANA, 2015 p. 4-5).

According to the findings the nursing summary tool supported nurses in critical reflection of organizational skills by developing teamwork after the experience and thereof acknowledging time management issues. It is stated that efficiency and reaction speed in today's working environment are common features. In such scenarios the people who are able to filter their learning by experience at hand are in the best position (Ruohotie, 2005 p. 4-18). Reflection and organizing knowledge become inevitable. Thereof, this may support individual experiences, their meaning, what to do, and how to react. Real time reflection considers learning of the experience thus offers tools to learn in a changing environment (Kauppi, 2004 p. 192).

8.2 Trustworthiness

Trustworthiness of qualitative research that may be regarded as the findings reflecting the reality of the experience. Trustworthiness ought to be assessed according to the purpose and circumstances related to the study (Watkins, 1991). It is comprised of validity, credibility, conformability and transferability (Shenton, 2004 p.63–75). The following will present concepts related to action research and its preference to external validity.

In this study the researcher noted a problem pertaining to nurses working on the Skin and Allergy Ward voicing their concerns about their competences related to writing the nursing summary with the HUS organizational guidelines. The nurses stated they wished for additional support which led to planning, modelling and implementation of the nursing summary tool. The qualitative inquiry led to analysing concepts of the nursing summary which in relation to the Professional Nursing Competences by Erikkson et al. 2015. The relationship was analysed using the framework of the managing change for self -stages by Kumar, 2015. The latter assisted to create the research question: How does the nursing summary tool support nurses in nurse leadership, nursing interventions, nursing decision making process, and nurse professionality and ethics through planning, implementation and evaluation -competences .

It is encouraged to analyse the meaning of open-ended questions, as it may improve the quality of the data and the process of analysis. Meaningful open-ended questions minimize dilemmas in data analysis, and result in an ethical approach to making best use of the data (O'Cathain & Thomas, 2004). Evaluation took the form of an open-ended questionnaire presenting concepts of the carefully chosen competences. Competences are associated meaningful participation and coordination, as well as holistic management of situations in the nurses work environment (Meretoja et al. 2002 p. 95-102). Thus the focus was decided to be on competence-based perspective of the individual nurse. Nurses were given a months' time to answer the questionnaire in their workplace environment. This was regarded necessary, as time to answer optional questionnaires is limited in the hospital environment.

The credibility of the study can be related also to the honesty and accuracy of the data analysis. Qualitative inductive content analysis assists to discover patterns, themes and categories and to organize and to describe what happened during the implementation (Fade & Swift, 2010 p.106-114) It is essential that the data is formed into understandable form which provide a framework to see clearly within the data (Kananen, 2008 p.89). Thus the data analysis was performed by qualitative inductive content analysis method to produce meaningful sub-categories, main categories and themes. The findings were based on raw data analysed from participant nurses. The feedback was analysed using qualitative inductive content analysis method to produce the sub-categories, main categories and themes. The raw data from the open-ended questionnaires were re-written and translated into English on a Windows Word -document. The document was printed out. The raw data was then cut up first to sentence-level; data bits. The coding of the sentences was performed according to the internal meaning of the sentence, short statements and meaningful subjects. Data bits were gathered and reduced to separated groups and a contrast was made within data bits in each group to look for patterns and variation.

Four categories were formed according to the meaning to provide a compatible interpretation. The categories were reanalysed. This produced a set of sub categories and enabled a more detailed comparison of the data. Reoccurring subcategories were overlapped and assisted to clarify the conceptual connections in the data bits. Meaningful connections were done conceptually to connect the subcategories to the main categories. At this point, a new category was formed and some categories merged together to form larger categories. The main categories were connected to answer the research question. Conformability of the findings are presented by an example how the coding was used to create comprehendible categories by simplifying and condensing data from the questionnaires.

The process of analysis of the categories was performed in an unbiased manner throughout the analysis stage. The raw data before the analysis consisted of a lot of good material, opinions and very short statements, but only relevant data was used in this thesis. It is states that it is essential to choose the relevant information that support the study objectives and enable decision making for the research to make it coherent (Tuomi & Sarajärvi 2013 p.62). The researcher's familiarity with the subject may have improved the trustworthiness (Fereday & Muir-Cochrane, 2006 p. 80-92). The original expressions were used to increase the credibility of the results (Polit & Beck, 2001 p. 463).

Transferability of this study is applicable to the stages of action research and findings. Pertaining to the nursing summary tool project, activity, competences of participants and the environment of implementation are specific and therefore difficult to standardize. The improvements to knowledge and understanding of the participant's working in specialist field of nursing, leads to specific social actions and reflections for new understanding and also creating new areas of inquiry in a specific environment. Despite the niche field of specialist skin and wound care nursing, the findings may be transferred to assist modelling similar supportive tools or methods during a change in documentation routine.

8.3 Ethics

The ethical considerations of this study have been contemplated from the planning to the dissemination. Ethics was regarded as intellectual honesty and rigor on the part of researcher, both in carrying out the study, analysing and introducing the results. Action research should adhere to ethical guidelines as it is in relation with human subjects. It is essential to comprehend and apply ethical principles to nurse related research, as well as to the perusing of research (Heala & Shorten, 2017). The emphasis of ethical considerations have different measures in different phases of the thesis; due to the nature of action research.

During the planning phase, permission to conduct research was granted from the Skin and Allergy Hospital research representative in 2015. Ethics of the project of the nursing summary tool was aligned with the wards mission to support continuous, safe, and quality nursing care along with nursing values adhering to organizational policies. The nursing summary tool was accepted and implemented as an internal tool for the Skin and Allergy Ward with the permission of the head nurse of the Skin and Allergy Ward. To clarify the issue of distorting the HUS organizational guidelines of the nursing summary, the National Institute for Welfare and Health of Finland was inquired into offering further guidelines on the possibilities of modelling such an internal tool for further information.
A phone call dated 6 February 2015 was made and a representative from the National Institute for Welfare and Health of Finland gave consent for the nursing summary tool project as it did not distort the original meaning, context, framework of the nursing summary. The nursing summary tool project was planned and implemented in line with the HUS organizational guidelines which furthermore adhere to guidelines of the National Institute for Welfare and Health of Finland.

Value judgment questions in the form of a questionnaire were used to collect data from participants about their subjective views of the facilitation process. Due to the small amount of participants, the protection of the participants includes not presenting full quotations nor answers presented in the questionnaire. The protection of dignity of subjects was clarified to the participants by an additional consent form attached to the questionnaire (See Appendix 7).

The consent form consisted of a range of aspects including: voluntary participation or the right to withdraw, risk of harm, informed consent confidentiality and anonymity, the role of the researcher, not distorting data and honesty, and right to service (Williamson 2002 p. 587-593; Löfman et al. 2012 p. 333-340). The material from the data collection was only used in this study and disposed of accordingly.

Challenges occurred as there is a paucity of research related to topic of supportive tools created by nurses to support nursing competences. This may be due to challenges of pursuing an evidence-based research of a supportive tools in work-life in a specialist ward. Additionally, it may be challenging to identify when supportive documentation tools are required, how to construct them, implement and assess them. The research and information used for references has been deliberated to fit the specific theme of the study. Text abbreviations and quotations are supporting the study by their context. Information used in this study has been used in a respectful manner by understanding the whole article used when abbreviated. Specific information about nursing documentation and nurse competences in Finland was referred from Finnish valid and up-to-date guidelines to support current knowledge and consistency towards a more meaningful outcome of the thesis.

9 Conclusion

The above implies that the nursing summary tool supported nurse competences in the following categories of functional tool, encouraging critical reflection, assisting continuous and safe patient care and contributing to critical reflection of organizational skills.
In other words, the functional tool decreased the complexity of the task of the nursing summary. The contents of the tool presented in nurse's professional language further encouraged nurse's critical reflection. Integrating critical thinking and previous knowledge in the process supported awareness and safety of continuous patient care. This process further on contributed to critical reflection of organizational skills by optimizing nurse's workload of writing the nursing summary to support a smooth discharge process.

The findings revealed that participants appreciated the support of the nursing summary tool and that their requirements for how much support varied. Thus, individuals have different needs as to how best supportive measures for competence can be implemented, therefore further research done under different circumstances of change will yield valuable information to better supportive measures or practice.

The analysis of the feedback assisted to answer the research question and provided answers which may be used for further development. However, there were some limitations and confrontations that show that further research in this area can be performed. Participant's turnout was low and some questions were not fully answered, this limited the extent of the feedback. The nursing summary tool was not modelled according to any theory of nursing documentation or facilitation. However, the nursing summary tool adhered to current law, policy and ethics of the organization and ward.

To work in the real life working challenge related to nurse documentation of the nursing summary required understanding of the specialist nursing to trustworthily proceed towards goals. The findings made it clear that the participants of the project had varying experiences, nursing knowledge and professional competences, which served as a filter for the building of new knowledge. This allowed the built understanding in the area of nurse competence regarding nursing documentation of the nursing summary. The study also showed that supporting nurse competences was greatly dependent on the acknowledgement of the challenges and facing those challenges with a tool modelled by the nurses themselves in order to support their work. In this case for the Skin and Allergy Wards nurses, was that they were enabled to self-reflect, discuss and give feed-back on the challenges of the nursing summary, daily work routine changes freely, in a friendly environment. Meaning what nurses regard as meaningful related to their own needs of support and of the abilities to complete tasks, build on knowledge and their own professional competences.

However, bridging the gaps between nursing individual competencies related to nursing documentation rarely follow a straightforward pathway due to our differences. Independent of background and culture, for a nurse to develop their nursing competency and utilize it in their daily practice, they need to acquire gained abilities through experience. The study can help direct specific information for further nurse documentation challenges and its timing to support preparation for Apotti patient information system which will be implemented in HUS Inflammation centre units May 2020.

To succeed in nursing summary tool project at the Skin and Allergy ward 4 required understanding of how critical thinking, problem solving skills, self-directedness and co-operation skills appear during the project phases of action research. Furthermore, it is essential that nurses are given the possibility to acknowledge, clarify and develop their visions, interpretations, and individual understanding. It is fruitful to be able to discuss nursing challenges and to be able to reflect competences, which is a necessity in the constantly changing healthcare environment.

The hospital environment creates challenges for nurses undergoing change in work routine, which affects the need for time to get familiar with the change and to gain competence. Individual nurses have different competency levels and strive to work seamlessly to provide quality, safe and continuous patient care. Florence Nightingale (1860, 2007) portrays the following:

> "To be 'in charge' is certainly not only to carry out the proper measures yourself but to see that everyone else does so too; to see that no one either willfully or ignorantly thwarts or prevents such measures. It is neither to do everything yourself nor to appoint a number of people to each duty, but to ensure that each does that duty to which he is appointed" (Nightingale, 2007 p.42).

Thus it is highly important to listen to nurses who feel challenged by change and who feel further support is needed to manage change successfully and simultaneously support safe, quality, and continuous patient care.

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Appendix

1. Laws pertaining to nursing documentation in Finland

The law of patient rights (1992/785) states how healthcare professionals should document the organization, planning, implementation, and assessment of nursing care in the electronic patient records to guarantee and protect safe patient care. Information pertaining to the patient information and patient records are confidential. However, information related to examinations and organizing healthcare or nursing care, or the nursing summary can be extradited to other healthcare units.

Patients have the right to self-determine the information extradited related to their patient records and care situation. Therefore information can be given out by the patient's permission or their trustee. According to law, patients have the right to deny handing over information, even if the information is essential to their care.

The legislation provides the patient right of access to information that is of concern to them. Health care professionals must give a report about their wellbeing and all sectors related to care. Documentation in the patient records must be clear and comprehendible. Common nursing terminology and abbreviations are allowed.

The law of Social- and healthcare handling of electronic client information (159/2007) enacts to handling of client information within operating unit as well as handing over information to other operating units. Electronic patient record systems structure must enable the use, storage, and extradition with the use of the National Archives Services of Finland.

The aim of the law is to contribute to information security and the access of patient information. By the right of this law handling of electronic patient information and the digital patient data repository KanTa are produced to develop and secure digital services for the social welfare and healthcare sector. KanTa –services can be accessed online. The patient data repository KanTa –archive is a healthcare data system. It forms grounds for the active use and storage of centralized patient data. The repository KanTa –archives define the centralized types of social- and healthcare documents required from social- and healthcare units.

According to the law of Social- and healthcare handling of electronic client information (159/2007) public healthcare service providers must join the patient data repository KanTa- archives by 1st of September 2014. Evaluation criteria for the minimal content of archived documents is based on the information contents usefulness for the healthcare professionals and patients themselves. In regards of nursing care the minimal content of archived documents is the nursing summary.

2. The general guidelines for the nursing summary by HUS

Patient's social security number Patient's name
Nursing summary Treatment period and place

Final nursing assessment (obligatory heading)	Description of why did the patient get admitted to the ward, nursing care, other treatment, rehabilitation or therapy, the outcome of possible abnormalities and the patient's condition when leaving the treatment unit. Free text summary, or Miranda search engine can be utilized for information retrieval. Patient information and master data of nursing care days or visits are used.
Nursing needs (obligatory heading)	Nursing needs of the patient, health issues related to nursing care period on ward which have been cured, relieved or stayed the same. Continuous nursing needs should also be described in this section. Patient information and master data of nursing care days or visits are used.
Nursing interventions (obligatory heading)	Goals of the nursing care and nursing interventions which have been used to reach nursing goals. Patient information and master data of nursing care days or visits are used.
Nursing outcome (obligatory heading)	Patient's wellbeing and state after the nursing care related to the nursing goals. Patient information and master data of nursing care days or visits are used.(Nursing care and rehabilitation implementation, patients and relatives guidance, patients own perspective about care etc.)
Nursingcare intensity	The nursing care intensity is documented when the responsibility of care is referred to another healthcare provider. It is not documented when the patient is discharged home. The nursing care intensity is either documented numerically or verbally (OPCq, POLIHOIq, PERIHOIq).

Information related to follow-up treatment (obligatory heading)	Information related to the continuous care or therapy. The reason for continuous care is documented. The details of provider and services are documented. Patient information and master data of nursing care days are used (heading of continuous care).
Medical treatment	The healthcare facilities contact information: name of hospital, unit, and unit's telephone number. In addition, if the unit has primary nursing, the primary nurse's details can be documented.
Other information (obligatory heading)	

3. The nursing summary tool

- Short description why the patient has been admitted to the ward and time period. Health concerns at the beginning and the health concerns and situation at the time of discharge or referral. You may describe the patients' health concerns by using i.e. improved, unchanged or deterioration. Include nursing intensity if needed.

- Skin and wound diagnosis first then other diagnosis

- Central information: living environment, home care,

- Factors regarding health: mobility, mobility aids and other aids

- Risks of medication and blood transfusion, risk details of allergies, nosocomial infection, artificial organs.

1) Nursing needs and goals (examples)

- Nursing needs of wound patient: initial wound(TIME-wound assessment), and pitting edema assessment, skin condition, pain condition, pruritus/itching, mobility, pressure ulcer risk, falling risks, nutritional screening risks and mental status.

- Nursing care goals of wound patient:, successful mechanical wound cleaning leading to signs of epitheliazation process, decreased bacterial balance, no signs of infection or decreased infection, decreased wound secretion - successful treatment of pitting edema (Compression bandages, Easywrap, Cobain 2Lite), relieved pain and pruritus..

- Nursing needs of skin patient: condition of skin disease, pain- secretion and pruritus –situation, nutritional/fluid balance.

- Nursing goals of skin patient: calming/healing of skin condition; less skin crust, decreased pigmentation, decreased pruritus- secretion and pain situation.

- Individual assessment of primary care needs: mental status, self-care & exhaustion, anxiety, adherence to care, mobility (falling down risks & pressure ulcer risks), hygiene, nutritional situation.

- Individual goals of primary care: realistic goals pertaining to needs, writing down dates may help to asses if goals achieved .i.e. Patients self-care exhaustion relieved, mobility increased etc.

- Vital signs

2) Nursing interventions

- Answer to nursing needs: what were the main nursing interventions which have alleviated, prevented or removed patients' health problems.

- Wounds: daily wound care and assessment 1-2 times a day, (topical anesthetic, wound solutions, KMN04 –baths, silver nitrate, hibitane –baths, hydrogen peroxide, iodine, mechanical cleaning, negative pressure wound therapy, larvae, small skin transplant [palasiirre]), compression therapy, ankle-brachial index measurement.

- Skin: daily assessment and care of skin 1-3 per day, corticosteroids, basic creams, occlusion treatment, light therapy, KMN04 baths, hibitane baths, methylene blue, silver nitrate, protective measures (Tubifast, Zipzoc, Melolin etc.)

- Assessment, supportive and therapeutic interventions related to patient performance, vital signs, nutrition and fluid balance, hygiene, and mental health.

- Important information about medication. (New medicine, medicine administered for nursing needs)

- How has nursing care been performed?

3) Nursing care results

Patients current health situation, have the nursing goals been achieved? Have the nursing interventions assisted the patients' health situation? Assessment of skin and wound situation. Has the nursing care plan proceeded accordingly.

4) Nursing care plan for follow-up treatment

- Skin and wound care plan
- Changes in patients medication
- Blood sample times and appoitments
- Other suggestions regarding patients care

Other : The Skin and Allergy Hospital Ward (IAOS4) tel. +358- 9-47186442

4. The Skin and Allergy Hospital Ward 4. Roles and responsibilities of registered nurse

- Safe care of medicine care (per. os, s.c., i.m, i.v., c.v., ocular, nasal, oral etc.)
- Checking patients medicine charts, updating charts
- Vital signs and functions
- Wound care (topical local anesthetics, preparation of wound bed, revisions, assessment of wound care products, larvae wound therapy, negative air pressure wound therapy)
- Skin care (topical corticosteroid treatment, Protopic© treatment, other topical crème care, UVA- treatment plans for different skin disorders, chemical baths, removal of dead skin)
- Treatment of swelling (pitting swelling, lymphoedema /swelling etc.)
- Basic care
- Prevention of pressure ulcers, prevention of malnutrition, prevention of falling
- Observing and recording patients' behavior.
- Maintaining nursing care plans, assessment of patients' medical histories, writing the nursing summary and updating changes in daily documentation
- Adhering with the protocols, norms, rules and regulations in order to maintain complete medical records.
- Administration and patient discharge
- Carrying out the requisite treatments and medications.
- Coordinating with physicians and other healthcare professionals for creating and evaluating customized care plans.
- Assisting and organizing physician rounds
- Patient advocacy (resolving patients' problems and fulfilling their requirements by applying multifaceted team strategy)
- Discussing treatment with physicians.
- Checking the ward stock of supplies on a regular basis for maintaining the inventory level of medicines, topical creams/drugs, wound care products and placing orders if required.
- Registered nurse on shift manager role is responsible for human resource management at the time of duty and following day is needed
- Organizing patient places on ward
- Maintaining hygienic and safe working environment in compliance with HUS organization guidelines. (including assessment of safety issues and fire hazards)

- Conducting research of HUS for improving the nursing practices and healthcare outcomes.
- Providing instant care during medical emergencies, like anaphylactic shock, heart attacks and strokes.
- Providing necessary guidance on health maintenance and disease prevention.
- Keeping an eye on each and every aspect of patient care that includes physical activity plus proper diet.
- Preparing rooms, and decontaminating equipment's and instruments.
- Preparing patients for examinations and operations.
- Educating and guiding patients
- Interacting with the healthcare teams for maintaining harmonious relationships.
- Attending weekly ward meetings for enhancing professional and technical knowledge.
- Performing lab work (blood samples)
- Recommending other forms of treatment like physical therapy, etc.

5. The Skin and Allergy Hospital Ward 4 – Week schedule

Monday	Medicine order Topical medicine and cream order (if needed) Instrument order/dispatch	Physicians' round (Specialist dermatologist, and two specializing physicians)
Tuesday	Medicine order Topical medicine and cream order (if needed) Instrument order/dispatch	Ward meeting 14:00 Indirect physicians' rounds
Wednesday	Medicine order Topical medicine and cream order Instrument order/dispatch	Physicians' round (specialist dermatologist, and two specializing physicians)
Thursday	Medicine order Topical medicine and cream order (if needed) Instrument order/dispatch Ward supply order	Physicians' round (Medical director, Specialist dermatologist, and two Specializing physicians)
Friday	Medicine order Topical medicine and cream order (if needed) Instrument order/dispatch Order of meals for weekend	Physicians' round (Specialist dermatologist, and two specializing physicians)
Saturday	Organization of other rooms on ward (physicians' rooms) Medicine order Topical medicine and cream order (if needed)	
Sunday	Medicine order Topical medicine and cream order (if needed)	

6. Nursing summary tool questionnaire

Dear colleague,

I am doing a study related to my Masters in Healthcare Business –degree (YAMK) about how does the nursing summary tool support nurses' professional competences.

The meaning of this questionnaire is to receive answers about your experiences with the nursing summary tool related to nurses' professional competences. I hope you answer the questions honestly and without hesitation. Your participation is voluntary and your answers will be anonymous. Please fill out the form of consent attached.

I will gather the questionnaire back at 12'o clock on the 6th of May 2016. If you are unable to return the questionnaire on the specific date, please email me at anna-lotta.antniemi-mouchette@metropolia.fi.

Thank you so much in advance!

Sincerely,Anna-Lotta

Name:_____

Sex: women __, man__, other ___, I do not wish to answer____

Age: 18-25 ___, 26-35 ___, 26-45 ___, 46-55 ___, 56-65___

How long have you been working on the Skin and Allergy Ward 4 (IAOS4)?

Under a year ___, 1-3 years__, 4-6 years___, 7-10 years ___,

More than 10 years ___

1) How has the nursing summary tool affected your nursing role and responsibilities? If you feel it hasn't, describe why.

2) How has the nursing summary tool affected your attitude towards the documentation change?

3) How has the nursing summary tool supported you in order to understand its meaning in safe, continuous and quality patient care?

4) How has the nursing summary tool supported your documentation of the nursing summary? If you do not feel it has supported you, describe why.

5) How has the nursing summary tool supported you to document nursing interventions in the nursing summary?

6) How has the nursing summary tool supported you to document the nursing decision making process in the nursing summary?

7) How does the nursing summary tool support you in nursing assessment of the nursing summary?

8) How has the nursing summary supported you in structured nursing documentation in the nursing summary?

9) How have you developed in documenting the nursing summary? If you feel you haven't, please explain.

10) What would you like to say about your professional competencies regarding and the nursing summary tool?

7. Consent form

Date

Consent form

Name of student researcher: Anna-Lotta Antniemi-Mouchette

Institution: University of Metropolia Applied Sciences, Helsinki

Permission for research

I have understood the information about the research. I am aware that I can ask questions about the research. I know that participation is voluntary. I have the possibility to withdraw from the research anytime. I acknowledge that the answers will be used as material for the research. I agree that my actions, habits, functionality, comments and quotes can also be assessed and used as material for the research. I understand that the material might be looked at by the student researcher's supervisors or peers for reviewing, without my identity being revealed. (Holloway & Wheeler, 2010)

I agree to take part in the research _____

I do not agree to take part in the research _____

Name of participant: _____

8. Managing change for self

What is changing?	Types of change	Adaptation required	Consequences of not adapting to change
Self-driven: New vision, ambitions, new job, new skills on moving up, and moving into new areas of professional work. External: New technology, product or services, policy change, demographic profile, and services to new/underserved geographic areas and ethnic group.	Incremental: Progress by evolution work method, process, office layout, reporting structure, new product, services and projects Fundamental or disruptive: Large dramatic changes may involve major upheavel	Acquire new skills, open to adopt and use new acquiring/using new technology and new ways of doing things Alliance building, consortium and networking	Missed opportunity, career stagnation, sidelined in the organization and demotivation

(Kumar et al, 2015)