Connecting Health and Humans
K. Saranto et al. (Eds.)
IOS Press, 2009

doi:10.3233/978-1-60750-024-7-226

Experiences with the Electronic Nursing Discharge Summary

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Abstract. The aim of this paper is to describe nursing staff´s experiences with the Electronic Nursing Discharge Summary (ENDS) [Hoitotyön yhteenveto, HOIY]. This study is a part of the Salpa project of the Satakunta Hospital District (SHD). The goal of the project was to implement the Regional Information System (Fiale System) for social and health care in Satakunta, Finland. During the project (2004–2007), 3600 social and health care professionals were trained to use the Fiale System. The ENDS is used in the patient transfer phase. It complies with the national definition work of core information and can be opened through the Fiale System. The ENDS includes basic information on the care period in question for purposes of further care. 22 nurses, both those processing and those receiving the ENDS were interviewed by phone in 2006 about their experiences and satisfaction with the ENDS. The data was analyzed using content analysis. Experiences with this system are mainly positive. When done carefully, the ENDS enables real time communication, fast enough and safely, though the new structure needs consideration and documentation takes time. On the basis of this and other studies it can be concluded that acceptance of the nursing documentation process is more important than IT skills [1]. The ENDS has a guiding role as a tool for supporting nurses in their day-to-day documentation.

Keywords: Nursing Informatics, Medical Records Systems, Computerized, Patient Discharge

1. Introduction

Despite an increased focus on the need for cooperation between health care providers there are still problems in communication, documentation and exchange of information between the providers. There is no exact evidence that the documented information complies with the patient´s need for care and with the reality. [2.] Care planning and nursing interventions are not always visible in the patient´s records at discharge [3]. A unified and standardized nursing documentation aims to provide a flexible flow of communication. The use of structured and standardized templates can help nurses to improve the completeness, structure and content of the information in nursing discharge notes [4]. However, induction projects may fail unless nurses are sufficiently motivated to complete nursing process documentation in general. Efficient training sessions on the nursing process, high computer acceptance by nursing management, training of key users and intensive user support may have a positive influence on IT adoption. [1.]

Finland is divided into 20 hospital districts, of which the SHD is one. Hospital districts are municipal federations and responsible for organizing specialized medical care services. Municipalities are responsible for organizing municipal health and social services. In addition, there are private service producers. SHD works in cooperation with the municipal health and social services, offering specialized medical care services for the 226 000 residents of its 24 member municipalities. The hospitals of the hospital district are located in Pori, Rauma and Harjavalta. There are

approximately 612 beds in use. Exceptionally demanding specialized care services are purchased separately. The hospital districts are also responsible for the development of their services.

Finland is required to have a national archive of electronic patient records by 1.4.2011, [5]. One of the development targets of the SHD is electronic nursing documentation, which has been developed multi-professionally. The ENDS acts as a nursing summary when a patient is transferred for further care. The ENDS is a compact summary of the Nursing Minimum Data Set of the care period, in other words, a summary of nursing diagnosis/needs, nursing interventions and nursing outcomes [6]. It is one part of the medical record and is based on daily notes. The ENDS should include all the necessary information required for patient care. The purpose of the summary is to improve the continuation of care by excluding overlapping in documentation, when each professional documents his or her own to-do list and responsibilities. The ENDS should include the reason why the patient has come for care, how she or he has felt and how his or her condition has changed, what his or her treatment consisted of and whether the care will continue, and if so, how. The ENDS is a way to make nursing care invisible.

The ENDS is a continuation of the development work to standardize manual referral at the SHD in 2003, so it replaces the previous manual referral. The ENDS, adapted by standardized national definition work [7], has been tested in the transfer phase of patients at the SHD by 117 nurses on five wards (internal medicine, surgery). The piloting started in November 2005 and ended in January 2007 and covered special care. The pilot was one part of the Salpa project, which aims to achieve a seamless social and health service entity for patients with the Fiale System. This system provides technical support for a client-centric model and for new regional services [8.] If required, the Fiale System can provide an opportunity to use the summary for the 17 782 social and health care professionals in Western Finland [9]. After the Salpa project, some parts of the project will continue in the Alku project (Regional Demobilization Model).

The aim of this paper is to describe nursing staff´s experiences with the ENDS after the testing period. The aim of this evaluation is to explore three major questions:

1. How is the essential information of a care period transferred by the ENDS for further care purposes?
2. Is the ENDS consistent with the current standardized national definition work?
3. What opinions do the nursing staff have of electronic nursing documentation?

2. Material and methods

The material was collected using phone interviews in which a pre-written evaluation form was used. One nurse was interviewed at the Salpa project office. The material was collected on each of the five ENDS pilot special care wards. In primary care, each respondent was from one of five health centres. The head nurses named the interviewees on the basis of the criteria set by the researcher. The same evaluation form was used for interviews both from the view of processing in special care and receiving in primary care. All the interviewees allowed me to make notes during the interviews. The notes were made on the issues that the interviewees especially emphasized. The collection of data ended when the material was complete. The

material was collected between 19.9–25.10.2006 and the interviews took between 18–63 minutes.
The questions, the themes and the sub-themes used were derived from literature and previous reports [10]. The background variables were the job unit and position. The nurses were asked about their experiences and satisfaction with the ENDS. The aspects of the evaluation were: 1. the patient´s care, 2. the content of nursing documentation (consistency of basic function, and consistency of nursing process) and 3. the nursing staff. The data was analyzed thematically. The first step in the analysis was to read through the typed notes (n = 40 A4 pages) to obtain an overall view of the data. After that a content analysis was made, which means that the main themes and sub-themes of all respondents were identified in the typed interviews. An analysis was made of the themes mentioned by the respondents. The data was then quantified and the issue with most mentions was placed first.

3. Results

3.1. Background variables

A total of 22 nurses participated in the study. Table 1 presents the background information of the nurses involved in the study.

Table 1 Background information of the nurses involved in the study (n = 22).

	n
Position	
Head nurse	2
Nurse (RN)	20
Processing/receiving standpoint	
Processing	11
Receiving	11
Structure of organization	
Special care	11
Primary care	11
Structure of ward in special care	
Surgical	4
Internal medicine	7

3.2. The aspects of patient care

Experiences with this system are mainly positive. No-one wanted to return to the previous system. The ENDS enables fast, safe and real-time communication, if it is done carefully and if supported by the epicrisis and a short report. The summary is short, easy to read, clear and a compact package of information including the basic information on a care period for purposes of further care (e.g. activity, nutrition, digestion, medication, psychological regulation). The most important issue from the aspect of the receiving nurse is the patient´s condition at discharge.
An electronically-saved summary improves the legal protection of the nursing staff, because information is not only documented on paper and interpretation problems caused by handwriting will be eliminated. The ENDS decreases the patient's responsibility for data transmission. Interdisciplinary usage possibilities can be seen as a benefit of the ENDS. It is written in Finnish without abbreviations, which allows

utilization not only by the patient her/himself but multi-professionally, e.g. the staff of the home health service can also use it. The hospital has prerequisites for electronic data transfer, but the home health service is not yet prepared for receiving the ENDS. Therefore the ENDS is still printed out and sent with the patient.

3.3. The aspects of the nursing documentation content

All the respondents were not aware of the proper way to document the nursing process. The new structure (headings) needs consideration and the usage of headings varies. The headings are not filled out automatically by the electronic systems, so all the steps of the nursing process (headings) were not documented. The nurses believed that the best way to learn the nursing documentation according to the nursing process is learning by doing. There were differences between doctors' and nurses' documentation habits, but there were also differences earlier. The extent to which the nurses recorded the patient´s medication at discharge varied. The advantage of the previous manual referral was a separate place for medication (the name of medicine, strength, dose, delivery time), which is no longer available in the ENDS. Especially the medication which has been given on transfer day should be marked clearly, because delivery times vary in different settings.

3.4. Nursing staff aspects

Technology and the computer skills of the nursing staff have not caused major issues, but some units still lack a quiet place for doing the documentation. Electronic documentation takes time especially at the beginning. However, once the structured ENDS has been used for a few months, the recording time needed is reduced. The role of the head nurse in wards was considered very important. If the head nurse´s attitudes promote the use of the ENDS, the acceptance of the nursing staff will be more positive towards electronic nursing documentation. Nurses mentioned specific benefits of the ENDS and also made proposals for improvement and development.

4. Discussion

The results of this study are parallel with the results of earlier studies [1], [2], [3], [4]. Acceptance of the nursing process is more important than IT skills. High computer acceptance by nursing management, investment in user training and user support often have a positive influence on IT adoption. The positive experiences with the ENDS enabled the extension of this system to the whole SHD after the ENDS pilot. Documentation based on the nursing process, the documentation model generated in the nationwide project (the National Nursing Documentation Project of Finland) and the use of the Fiale System were taught to the SHD nursing staff (n = 1095) in 2007. Based on this training, the texts were classified and grouped into electronic ENDS and nursing forms. Since this training, the units have been responsible for making sure that the documentation is consistent with the Nursing Minimum Data Set. A network of support contacts and backups (n = 120) has been created for maintaining this model.

Since March 2007, the whole SHD has been using the ENDS as a nursing summary when transferring a patient from a ward (internal medicine, surgery, psychiatry) to

further care (primary care, homecare and elderly care). In 2008, the nursing staff of one of the health care centers in Satakunta has been trained to use the ENDS, arranged by the Alku project. Continuous evaluation was carried out during the piloting and the training. Nurses were taught to document the relevant information from the nursing perspective and to avoid overlapping with medical documentation. Some of the ENDS were not written from a nursing perspective so there is obviously still a need for support and training to reinforce the nurses´ professional identity. On-site training to refresh knowledge of the nursing process and nursing documentation is needed, and peer review can also be used.

5. Conclusions

The nursing staff´s opinions of the electronic nursing documentation were quite positive and they expressed their willingness to continue using it. The essential information of a particular care period was transferred by the ENDS for further care in real time, quickly and safely. However, some of the respondents were unaware of the proper way of documenting the nursing process. The ENDS has a guiding role as a tool for supporting nurses in their day-to-day documentation work. In the future, it will be necessary to develop the data content of the ENDS in cooperation with the National Nursing Documentation Project of Finland. The SHD is involved in the nationwide project and is committed to developing nursing documentation consistent with the aims of the project.

Acknowledgements

The author would like to thank the SHD and Project Manager Terttu Luojukoski for their contribution during all the phases of the project.

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