

Evaluating Social Interactions on the Introduction of a Telephone Based System for Nursing Handovers

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Position Paper

This paper reports a study of nursing shift handovers conducted over a six month period in 1995, with the aim of evaluating a telephone based voice recognition system called the Nurse Communicator . During this study we explored the co-operative nature of nursing handovers on two wards both before and after the introduction of the Nurse Communicator. We wished to look at the social interactions and socially constructed context of nursing handovers in three different situations: office based handovers, walkround handovers and the changing nature of the interactions of the nurses on the introduction of Nurse Communicator.

In the South Tees Acute Hospitals NHS Trust, the wards are managed on a three shift basis. One of the nurses' responsibilities is to hand over important information concerning patients to the nurses on the oncoming shift. The two traditional ways of doing this are that nurses from both shifts meet in the office or the nurses walk around the ward and discuss the patient at their bedside. This is a time consuming activity and it has been estimated that nursing handovers cost the trust stg1.5 million per year (Footitt, 1995).

Nurse Communicator consists of an IBM compatible PC containing voice processing cards, where each card supports four telephone lines, is linked to the internal telephone system and is password protected. Nurse Communicator allows information to be stored, patient by patient throughout the shift. This information can then be accessed by the nurses on the following shift as often as they require. We investigated the effect Nurse Communicator would have on handovers with regard to reducing the time spent, avoiding duplication of information, allowing nurses to finish their shift on time, and giving nurses more time to care for their patients.

Introducing technological support for current working practises will fundamentally alter the nature of those working practises. In order to effectively evaluate the impact that the introduction of Nurse Communicator had on the working practises of the nurses on the ward, it was imperative not only to collect quantitative data on time taken in handovers, number of nurses involved, type of information exchanged etc., but also on how nurses interacted with each other throughout the day. Ethnographic studies normally take many months and generate vast amounts of data (Murray and Hewitt, 1994) and was not feasible within the time constraints of this study. However we needed to obtain information on socially constructed communications, tacit knowledge, local jargon etc. used in these working practises in order to effectively evaluate the impact of Nurse Communicator. To this end we developed an

interaction questionnaire for collecting qualitative data on interactions. This part of the study was conducted over four days and allowed us to elicit information on social interactions not only during handover times, but also throughout the day. We collected information on the type and nature of the interactions, local jargon and tacit knowledge used in the interactions. The interaction questionnaire contained questions on the media used in conducting the interaction, the main purpose and trust of the interaction, style, content etc. The researchers (both qualified Nurses) were asked to describe the tacit knowledge or any local jargon that was used in the interaction, and the informal roles that were adopted in the interaction (Rogers, 1992). There is one issue fundamental to nursing handovers and that that information given during handover, vital to the health of the patient, must not be lost. Therefore the evaluation of the interaction questioner need to take this into account. The analysis therefore included information on patients conditions, medication given and needed etc., and when this information was exchanged.

During the main phase of the study we collected data on two wards over several weeks, both before and after the introduction of the Nurse Communicator, using forms, questionnaires, tape recordings and interviews, and included information on the number of nurses present during handover, time taken, which shift, type of ward, amount of time to discuss each patient etc. Other factors were taken into account such as the number of telephones and where they were situated. This paper will present findings from this study which suggests that using the Nurse Communicator is less time consuming than traditional handovers and allows the nurses more time for the patients but that time must be given to social interaction, possibly at other times than traditional nursing handover times, otherwise the necessary group cohesion could be lost with the introduction of this new technology. We are continuing the study with a view to the introduction of a fully operational telephone based system for nursing handovers and future plans are to develop a specification of requirements for a socio-technological solution to the problem of nursing handovers as a part of the process of total patient care.

The Nurse Communicator was developed by an American Company called IVS (Integrated Voice Solutions)

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