An Ethnographic Focus for the Study of Information Needs in the Emergency Center of the Hospital Italiano de Buenos Aires

Adriana R. Dawidowski Dawidowski, Analía J. Baum, Alejandro M. Mauro, María B. Schachner, Eduardo de los Rios, Daniel R. Luna

Department of Medical Informatics
Hospital Italiano de Buenos Aires
Buenos Aires. Argentina

HOSPITAL ITALIANO de Buenos Aires

Department of Medical Informatics

Acronyms

- **IN**: Information Need
- **PIN**: Possible Information Need
- **EC**: Emergency Center
- **HIBA**: Italian Hospital of Buenos Aires
- **EHR**: Electronic Health Record

Rationale

Why to study Information Needs?

- The HIBA is designing an EHR integrated with decision support tools for the EC

- It is a challenge to create decisions tools useful to and used by physicians
  - Developers must have accurate models of end users
    - What information the physycians use while they are caring for patients?
    - How much information do they need?
    - What kinds of information do they need?

It is necessary to identify the IN of the physicians

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Problems for studying INs

Published studies of physicians' information needs have reported widely disparate results, with quantitative estimates of information need that vary by several orders of magnitude (Gorman)

Why?

➔ The method for eliciting requirements

➔ The definition of INs

Problems for studying INs

- **The method for eliciting requirements**

  →Oral/written user reports
  - Nobody know/realizes his own practices
  - To report IN is a signal of professional incompetence

    ➔ **Incomplete and incorrect identified INs**

    ➔ **Out of the context of the daily work**

- **The definition of IN**

  →Neither explicit nor univocal definition of IN
  - By type of information (Patient data; Population statistics; Medical knowledge; Logistic information; Social influences)
  - By the intention of search (Unrecognized needs; Recognized needs; Pursued needs)

    ➔ **Identification depends on the point of view of the researcher**

The ethnographic approach

- **Based in direct observation of the scenarios**
- **Applied by Forsythe to elicit requirements in medical settings**

  →It allows...

  - **to identify any kind of physician's doubts**
  - **to understand the interrelationship between the requirement and the work flows**

Forsythe's definition of IN

"Conscious expressions (verbal or non-verbal) of a desire for more information by one or more people"

→Any type of message that implies a desire for information is registered, independently of the nature of the information wanted

→The researcher registers the expressions he considered an IN

- ➔ **It is more feasible to identify verbal messages**
- ➔ **It depends on the researcher**

Objectives of the study

- To identify Information Needs of physycians in the EC of the HIBA...
  - Embodied in the daily work of the emergency setting
  - Independently of the type of information
  - Based on the perspectives of the stakeholders

Definition of the object of study

Given the complexity of those involved in the information system for the EC, to decide whether an expression constitutes an IN or not will depend on the perspectives of the person faced with this question

Possible Information Need: the registry of a verbal or gestural single message considered by the researcher a lack of information

Information Need: PIN validated by the stakeholders as an information necessity within the EC

Design of the study: Qualitative research

1) Eliciting PINs:

→Participant observation

- Carried out by observers of different professional formations (doctors, nurses and sociologists) that accompany the emergentologists and the residents during their daily work

2) Defining INs:

→Focus groups

- The PIN list will be discussed in focal groups with the interested parties and those responsible for the design of the EHR for the EC

Methods

1) Participant observation

- 1 hour observation in the EC, in different moments of the day and the week, during at least 1 month and until saturation of the analysis. The registry (including messages and context) will be recorded manually after the observation and discussed within the research team for identification of the PINs

2) Focus groups

- Homogeneous groups of 5 to 6 of residents, emergentologysts, developers, medical IT specialists, hospital administrators. The previously identified PINs will be exposed for the group discusion. Textual registries will be analyzed and the Information Needs defined by each stakeholder will be identified

Acknowledge:
To the Emergency Department physicians and nurses

References:

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