QUALITATIVE ANALYSIS OF PERCEPTIONS AND BEHAVIORS OF HEALTHCARE WORKERS AND RESEARCHERS TOWARDS AUTOMATED HAND HYGIENE MONITORING TECHNOLOGY

TARANTINI C, BROUQUI P, PATOURAUX P, GRIFFITH K, PERETTI-WATEL P.
UMR912-SESSTIM
IHU-Méditerranée Infection

CONTEXT

- Automated RFID-based Hand Hygiene (HH) monitoring technology was implemented in an infectious diseases ward

- Technology MediHandTrace® [1] (MHT)

- MHT system involves:

  - *Electronic tags*: HCW shoes

  - *Antenna mats* on the floor *+ e-devices* in HAS dispensers

  - *1 feedback screen*: in the HCWs' office showing real-time hand desinfection rates by occupational groups in real-time (Figure 1)

OBJECTIVES

- **Understanding** HCWs perceptions and attitudes towards MHT technology

- **Anticipate** resistance to change

- **Facilitate** future implementation

METHODS

- **Semi-structured interviews** with HCWs

- **Ethnographic approach** with HCWs and Project Team (PT)

Figure 1: Exemple of real-time HH disinfection rates feedback

RESULTS

MHT technology: related risks

- Feedback from confronted HCWs:

  - Carcinogenic effects of RFID waves

  - "Big Brother" effects of RFID tracking

  - Competition effects of real-time feedback on screen

- **Information meetings** between HCWs and PT participate in **neutralizing fears** for **carcinogenic** and **"big brother"** effects

2 versions of "truth" about HH practices

- **PT:** Truth = Objectivity = Accuracy = MHT [2]

- **HCWs:** Truth = Social context + Difficulties in work organization ≠ MHT

Social effects of MHT and scientific studies

- Reinforcement of hierarchical cleavages and barriers

- HCWs **VS** "Elite" (Physicians + Health Executive + Heads of department)

- Cause = HCWs feel they are not sharing same professional norms, values and interests as "Elite"

Social effects of nurse researchers involve in MHT project

- Disruption of the negotiated social order [3] = Tensions

- Increasing HCWs acceptance of the project

Main oppositions between PT & HCWs

	Project Team	HCWs
Aims	Understanding and Improving HCWs practices	Providing daily care quality (risk of infection is a part of it)
	Reducing risk of infection	
Perceived risks	Risk of infection	Many professional risks (risk of infection is a part of it)
Expressed priorities	Scientific research	Research staff: improve working conditions to provide daily care quality
Representations of MHT implementation	Accuracy and Objectivity	Lack of meanings and contexts
	Technologization of scientific research	Technologization of service and staff reduction

CONCLUSIONS

- Resistance and criticism from HCWs depends on multiple causes

  - *Superficial causes* → Lack of information about technology used and objectives

  - *Structural causes* → Meeting of 2 professional groups (PT and HCWs) with different norms, values and risk perceptions

- Implementation of **technology** for **scientific project** in hospital ward is **not neutral**: It implies **social effects and transformations**

- We have to **understand** and **support transformations.**

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3. Strauss A. et al. The hospital and its negotiated order. In: Firedson E. New-York: The Free Press. 1963; 147-168.