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)

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

<table>
<thead>
<tr>
<th>Project Team</th>
<th>HCWs</th>
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<tbody>
<tr>
<td><strong>Aims</strong></td>
<td>Providing daily care quality (risk of infection is a part of it)</td>
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<tr>
<td>Understanding and Improving HCWs practices</td>
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<tr>
<td>Reducing risk of infection</td>
<td></td>
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<tr>
<td><strong>Perceived risks</strong></td>
<td>Many professional risks (risk of infection is a part of it)</td>
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<tr>
<td>Risk of infection</td>
<td></td>
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<td><strong>Expressed priorities</strong></td>
<td>Research staff: improve working conditions to provide daily care quality</td>
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<td>Scientific research</td>
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<td><strong>Representations of MHT implementation</strong></td>
<td>Lack of meanings and contexts</td>
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<tr>
<td>Accuracy and Objectivity</td>
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<td>Technologization of scientific research</td>
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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.

REFERENCES


In relation to this presentation, I declare the following, real or perceived conflict of interest: Ph. Brouqui is part of the MediHandTrace start-up.