

CONCEPT MAPPING: TOOL FOR THE IMPROVEMENT OF THE HAND HYGIENE COMPLIANCE AMONG HEALTHCARE WORKERS

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Background

The study was conducted by the Infection Control Program of the Epidemiology and Evaluation Service of Hospital del Mar, a tertiary care hospital in Barcelona. The fieldwork took place in two hospital services (General Surgery and Infectious Diseases). Health care-Associated Infections (HAIs) are infections acquired as a result of health care that are not present, nor in incubation phase, at the time of such assistance. They are a cause of high morbidity and mortality and represent an increase in healthcare costs. Healthcare workers' hands are the most common vehicle for the transmission of HAIs. Nevertheless, it is well known that the compliance rates of hand hygiene are only around 40% and differs between services. Concept Mapping is a mixed tool that combines a qualitative perspective and statistical analysis and allows us to identify influential factors in the compliance of the hand hygiene of healthcare workers, in order to be able to apply interventions to improve these rates.

Methods

Group sessions of 8-10 people for each professional category were conducted. In the first session the methodology to be followed was described. In the second, the participants identified the factors that could influence the compliance of hand hygiene. The collected information was transcribed and processed using Concept System Core® software. We obtained 59 ideas that were grouped in 6 clusters: 1. Positive reinforcement, 2. Need for training, 3. Health care pressure, 4. Inappropriate environment, 5. Malpractice ideas, 6. Resources. The different factors identified were scored using a score from 1 (relatively agreement) to 5 (extremely agreement) according to importance and influence they had on hand hygiene compliance. For the analysis, maps of the influence versus importance were made comparing correlations (r-score) between: professional categories and service. In addition we compared correlations between doctors and nurses according to influence and importance stratified by service.

Results

We included 42 volunteer professionals from the general surgery (6 doctors and 10 nurses) and from the infectious diseases (11 doctors and 10 nurses) hospitalization units and 5 hospital porters. There was a very strong correlation between doctors and nurses of the **Infectious Diseases Service** (Figure 1) in the perception of the influence and importance of factors related to hand hygiene compliance ($r=0.93$ for the influence and $r=0.69$ for the importance). However, as observed in Figure 2, correlation was very weak in the **General Surgery Service** ($r=-0.17$ for the influence and $r=0.51$ for the importance). Professionals identified the most influential factors in compliance being training and adequate resources, taking into account professional category and service.

Figure 1: Clusters correlations between doctors and nurses according to influence and importance for the Infectious Diseases Service.

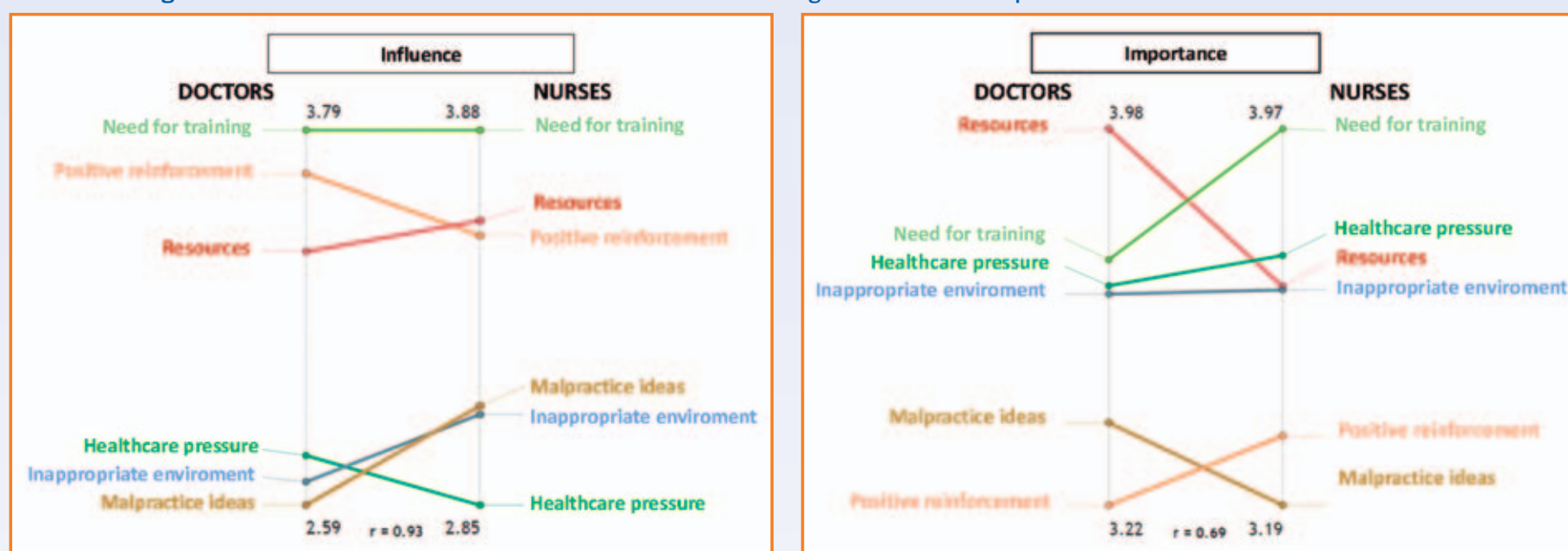
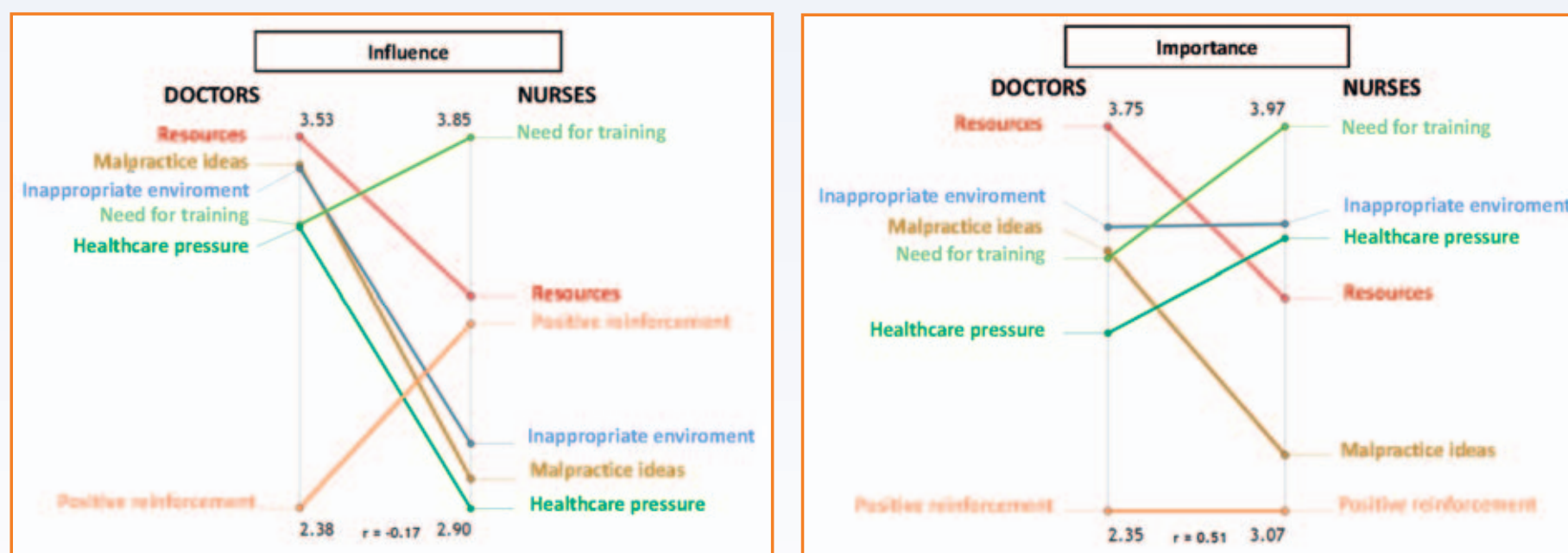


Figure 2: Clusters correlations between doctors and nurses according to influence and importance for the General Surgery Service.



Conclusion

The intervention allows us to verify that there are different perceptions of the factors that influence the fulfilment of hand hygiene among professionals and services. This implies that when formulating strategies to improve hand hygiene, they have to be addressed specially for each professional group and health service, since their perceptions and work dynamics are different.