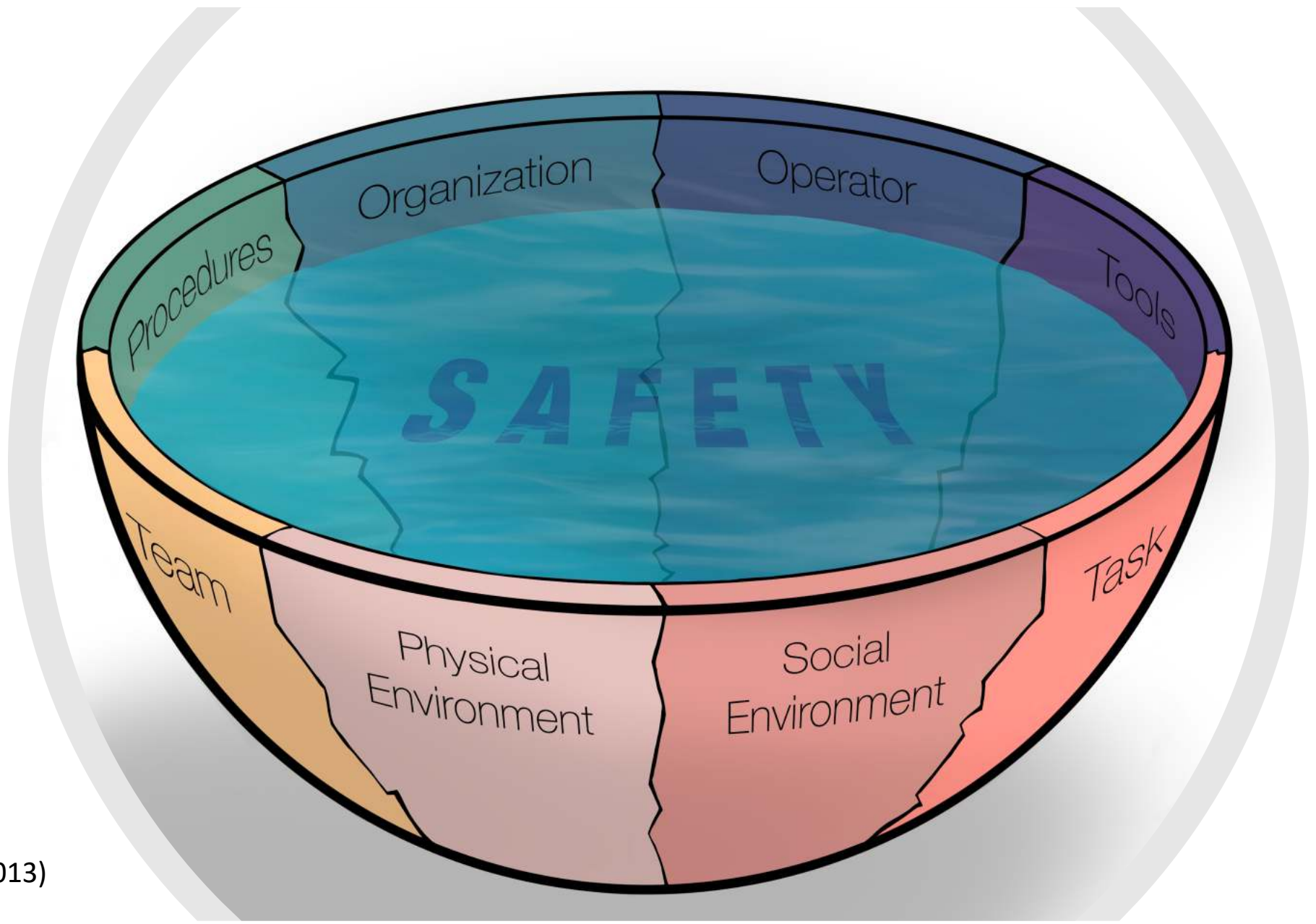


La simulazione oltre le competenze non-tecniche: le competenze professionali situate

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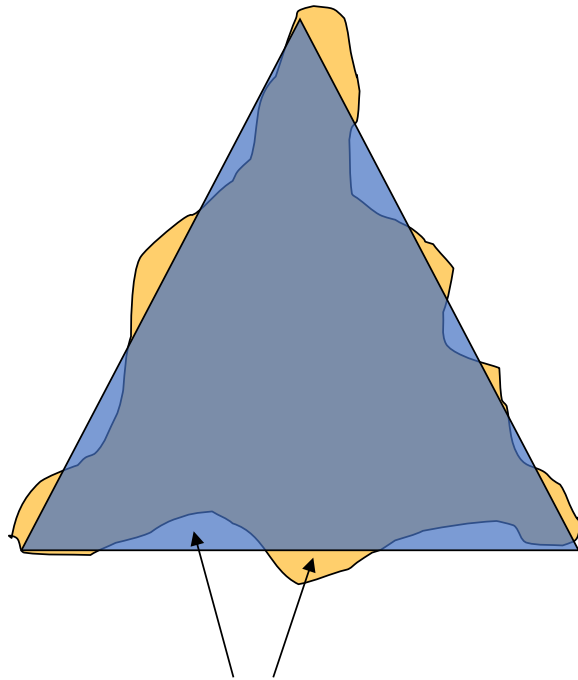


Bracco (2013)

realtà

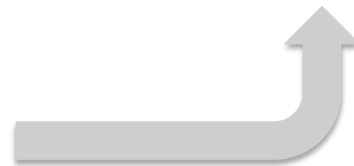
≠

procedura



Spazio di discrezionalità

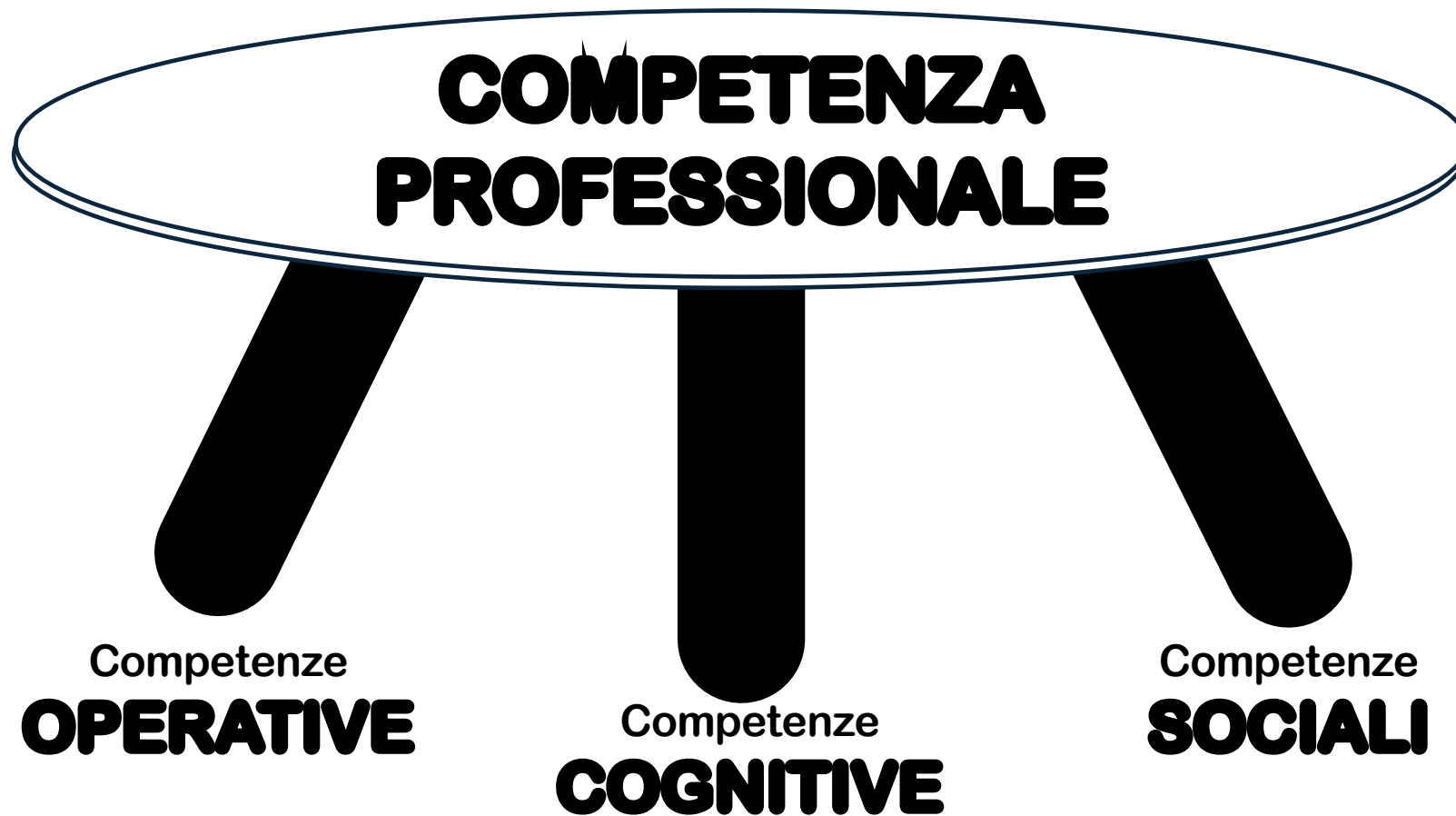
- gestione dello stress
- gestione del carico di lavoro
- comunicazione
- teamwork
- decision making
- situation awareness
- leadership





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doi:10.2307/1176008.

La simulazione oltre le NTS

1. Costruire uno scenario per la formazione sulle competenze professionali situate
2. Gestire il debriefing in modo da integrare le CPS

1. Definire chiaramente gli obiettivi di apprendimento

- Con operatori esperti, più probabile il focus su tutte le CPS
- Usare i 15 punti del CRM (facili ma generici)
- Usare uno strumento di rating con precisi BM (es. ANTS, NOTSS...)
- Stabilire obiettivi adeguati alla preparazione dei partecipanti

2. Individuare le CPS presenti in ciascun obiettivo e collegarle a specifici BM

3. Definire le caratteristiche dello scenario che possono richiedere quegli specifici BM

- Visualizzare i parametri del pz per valutare la raccolta di informazioni
- Cominciare lo scenario con meno personale, per valutare la gestione delle priorità e la capacità di chiedere aiuto
- Avere più professioni, per valutare la leadership

4. Massima cura del realismo ambientale e psicologico (immersività dello scenario)

- Situazioni o eventi non realistici “inquinano” i comportamenti e quindi le CPS

RESEARCH ARTICLE

Open Access



Adaptation of non-technical skills behavioural markers for delivery room simulation

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Abstract

Background: Simulation in healthcare has proved to be a useful method in improving skills and increasing the safety of clinical operations. The debriefing session, after the simulated scenario, is the core of the simulation, since it allows participants to integrate the experience with the theoretical frameworks and the procedural guidelines. There is consistent evidence for the relevance of non-technical skills (NTS) for the safe and efficient accomplishment of operations. However, the observation, assessment and feedback on these skills is particularly complex, because the process needs expert observers and the feedback is often provided in judgmental and ineffective ways. The aim of this study was therefore to develop and test a set of observation and rating forms for the NTS behavioural markers of multi-professional teams involved in delivery room emergency simulations (MINTS-DR, Multi-professional Inventory for Non-Technical Skills in the Delivery Room).

Methods: The MINTS-DR was developed by adapting the existing tools and, when needed, by designing new tools according to the literature. We followed a bottom-up process accompanied by interviews and co-design between practitioners and psychology experts. The forms were specific for anaesthetists, gynaecologists, nurses/midwives, assistants, plus a global team assessment tool. We administered the tools in five editions of a simulation training course that involved 48 practitioners. Ratings on usability and usefulness were collected.

Results: The mean ratings of the usability and usefulness of the tools were not statistically different to or higher than 4 on a 5-point rating scale. In either case no significant differences were found across professional categories.

Conclusion: The MINTS-DR is quick and easy to administer. It is judged to be a useful asset in maximising the learning experience that is provided by the simulation.

Keywords: Medical Education, Patient Simulation, Education, Obstetric emergency, Social Skills, Clinical Skills




Table 1 Sample of items for each Non-Technical Skill (NTS) of the MINTS-DR. Only the positive behavioural markers are reported. Some NTS cells are empty because they were not relevant for the specific profession and/or were not reported in literature

| NTS | Professional category | | | | Team |
|--------------------------|--|---|---|--|--|
| | Gynaecologists | Anaesthetists | Midwives/Nurses | Healthcare assistants | |
| Situation awareness | Requires further resources before they are urgently needed | When clinical conditions change, increases the rate of controls | Activities are controlled and performed according to a priority order | Quickly and properly responds to requests | Quickly reacts to urgent situations |
| Decision making | The therapeutic options are declared and discussed with the team | Decides the course of actions, comparing the decision with the colleagues | When she makes a decision, declares it and then accomplishes it | - | - |
| Task management | If the clinical situation changes, reviews the plan of actions | Priorities are defined with the team | Tools and environment are carefully organized | Remains calm even if there is tension in the delivery room | The team adapts to changing situations |
| Teamwork and cooperation | Begins to operate after checking the availability of tools with the team | Defines the roles among the team before beginning a task | Takes into account and supports other team members' requests | Provides help and assistance to the others | Roles and responsibilities are clear and rapidly defined |
| Communication | The plan of action is explained and shared with the team | Talks in a clear, simple and comprehensible way | Requests are direct, motivated and explicit | Listens to the patient's and family's requests | Those who get an order confirm the reception |
| Leadership | When under pressure remains calm and looks for a solution | If an anesthesiological problem occurs, gets control of the situation | - | - | - |



Article

Crisis Resource Management in the Delivery Room: Development of Behavioral Markers for Team Performance in Emergency Simulation

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Received: 14 December 2017; Accepted: 27 February 2018; Published: 3 March 2018

Abstract: Human factors are the most relevant issues contributing to adverse events in obstetrics. Specific training of Crisis Resource Management (CRM) skills (i.e., problem solving and team management, resource allocation, awareness of environment, and dynamic decision-making) is now widespread and is often based on High Fidelity Simulation. In order to be used as a guideline in simulated scenarios, CRM skills need to be mapped to specific and observable behavioral markers. For this purpose, we developed a set of observable behaviors related to the main elements of CRM in the delivery room. The observational tool was then adopted in a two-days seminar on obstetric hemorrhage where teams working in obstetric wards of six Italian hospitals took part in simulations. The tool was used as a guide for the debriefing and as a peer-to-peer feedback. It was then rated for its usefulness in facilitating the reflection upon one's own behavior, its ease of use, and its usefulness for the peer-to-peer feedback. The ratings were positive, with a median of 4 on a 5-point scale. The CRM observational tool has therefore been well-received and presents a promising level of inter-rater agreement. We believe the tool could have value in facilitating debriefing and in the peer-to-peer feedback.

Keywords: Crisis Resource Management; obstetric hemorrhage; non-technical skills; High Fidelity Simulation; delivery room

Table 1. Sample of behavioral markers for Crisis Resource Management (CRM) in the delivery room (for the complete list see the Supplementary material).

| Stem | Positive Anchor | Negative Anchor |
|---|---|--|
| <i>Know the environment</i> | | |
| Resources (tools, personnel, materials) | are found and used when necessary | are found after looking around or after asking where they were |
| <i>Anticipate and plan</i> | | |
| The potential clinical complications are discussed... | in advance | when they happen or are not discussed at all |
| <i>Call for help early</i> | | |
| The request of medical and/or organizational resource supply is made... | as soon as the team members realize a problem has occurred | some after the problem has occurred |
| <i>Exercise leadership and followership with assertiveness</i> | | |
| In the team ... | someone is coordinating, assigning tasks, declaring the decisions | nobody is coordinating, assigning tasks, declaring the decisions |
| In the team ... | the leader encourages and supports the opinions of the other colleagues | the others' opinions are ignored, trivialized or discouraged |
| The team members ... | share opinions and personal points of view | perform silently what required and do not express any personal opinion |



Article

Simulation as A Training Method for Electricity Workers' Safety

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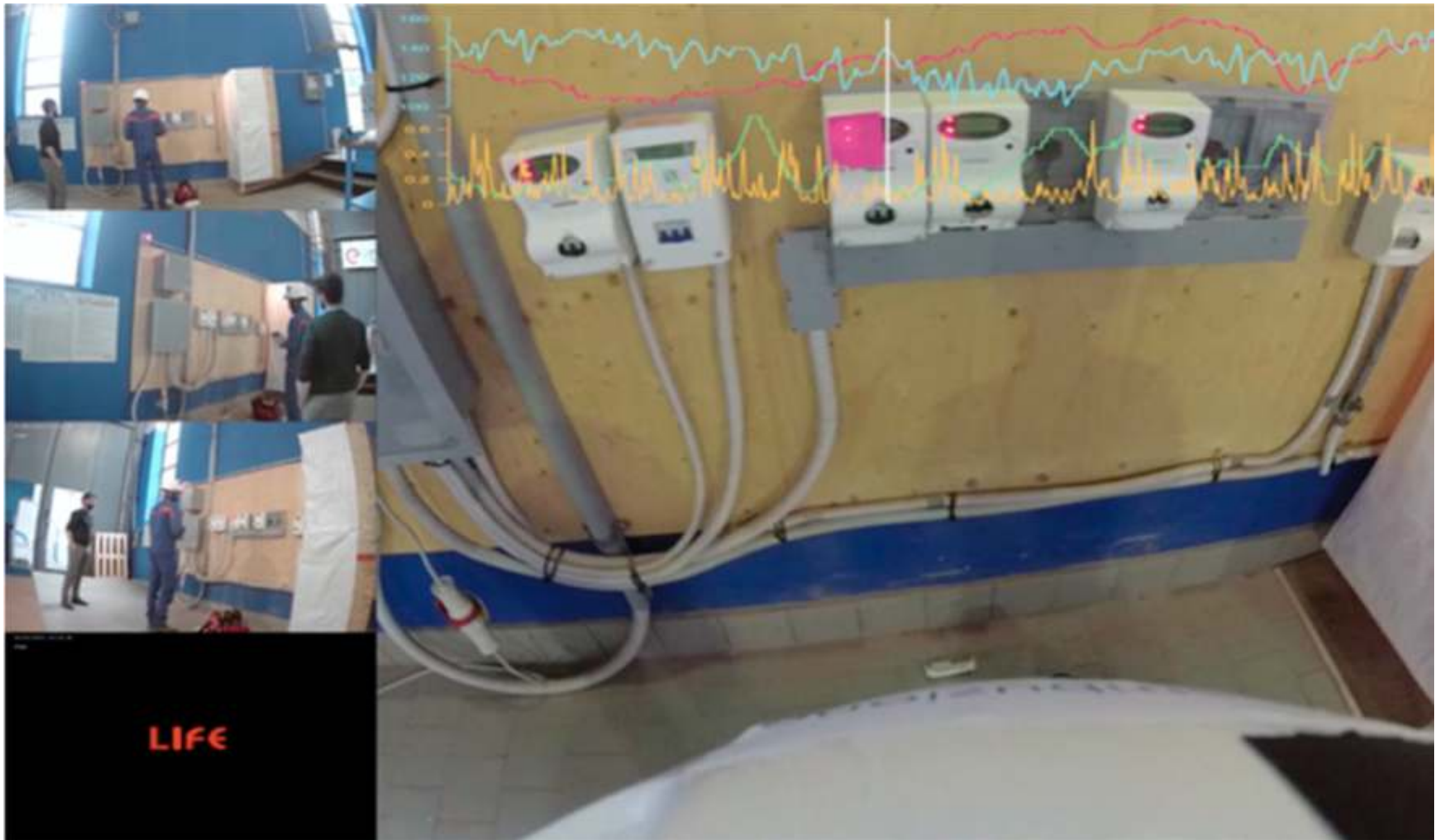
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Abstract: Background: Simulation is a useful method to improve learning and increase the safety of work operations, both for technical and non-technical skills. However, the observation, assessment, and feedback about these skills is particularly complex, because the process needs expert observers, and the feedback could be judgmental and ineffective. Therefore, a structured process to develop effective simulation scenarios and tools for the observation and feedback about performance is crucial. To this aim, in the present research, we developed a training model for electricity distribution workers, based on high fidelity simulation. Methods: We designed simulation scenarios based on real cases, developed, and tested a set of observation and rating forms for the non-technical skills behavioral markers, and we tracked behaviors based on non-verbal cues (physiological and head orientation parameters). Results: The training methodology proved to be highly appreciated by the participants and effective in fostering reflexivity. An in-depth analysis of physiological indexes and behaviors compliant to safety procedures revealed that breath rate and heart rate patterns commonly related with mindful and relaxed states were correlated with compliant behaviors, and patterns typical of stress and anxiety were correlated with non-compliant behaviors. Conclusions: a new training method based on high fidelity simulation, addressing both technical and non-technical skills is now available for fostering self-reflection and safety for electricity distribution workers. Future research should assess the long-term effectiveness of high-fidelity simulation for electricity workers, and should investigate non-invasive and real-time methods for tracking physiological parameters.

Citation: Bracco, F.; Masini, M.; Glowinski, D.; Piccinno, T.; Schaeerlaeken, S. Simulation as A Training Method for Electricity Workers' Safety. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1591. <https://doi.org/10.3390/ijerph18041591>

Academic Editors: Marco Giovanni Mariani and Dina Guglielmi
Received: 31 December 2020
Accepted: 4 February 2021
Published: 8 February 2021

Keywords: simulation; non-technical skills; industrial safety





Simulazione relazionale



Grazie per l'attenzione