Out of hospital neonatal resuscitation: a control randomised study

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Promoteurs: Ghuysen Alexandre et Bragard Isabelle
1. Background
Childbirth

• High risk event (Mileder et al., 2014)

• Full-term infants with hypoxia: 0.6% mortality (Gold et al., 2009)

Neonatal resuscitation: 5.3% childbirth (CPIP, 2014)

64 unannounced deliveries → 20% preterm infants

Limited expertise (Nadel et al., 2000)

Knowledge, Skills and Attitudes (Halamek et al., 2016)
Simulation

(Chiniara, 2013)
Aims

• Comparison simulation with traditional teaching

• Knowledge and Skills

• Nurses students
2. Material and methods
Design

Experimental group
Course + Simulation + Placement
Pre-test
Post-test
Course + Placement
Control group
Assessment tool

• Questionnaire concerning guidelines and knowledge

• Evaluation framework: skills
3. Results
Participants: 36 students

Mean age
Total: 22 (22-23) ans
GC: 22 (22-23) ans
GE: 22 (22-23) ans

Homogeneity
Global knowledge

Knowledge: overall score (/17)

- CG: Pretest: 0, Post-test: 2
- EG: Pretest: 0, Post-test: 4

- Difference: p < 0.0001

p = 0.0001

p < 0.0001
Knowledge: guideline

Knowledge: guideline (/10)

Pretest  Post-test

CG  EG

p = 0.0001

p < 0.0001

Difference: p < 0.0001
Technical and procedural skills

Overall score (/30)

- CG: Pretest -> Post-test: $p = 0.0004$ (+83%)
- EG: Pretest -> Post-test: $P < 0.0001$ (+175%)

Difference: $p = 0.003$
4. Conclusion and perspectives
Conclusion

• Simulation and placement improve knowledge and skills

• Improvement: simulation > traditional teaching

• Small sample / single site trial
Perspectives

• Multicentre trial

• Non-technical skills: leadership and communication

• Number of sessions and interval between 2 sessions

Thank you for your attention
Bibliography

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