Magnet4Europe:
Results from a randomised intervention trial to improve clinician wellbeing in the healthcare workplace

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On behalf of the Magnet4Europe consortium

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Politehnica University of Bucharest, Bucharest, Romania
Overview of Magnet4Europe

Funding & Duration
EU-Horizon2020 01/2020 – 06/2024

Aim
Evaluation of the effect of hospital redesign according to the principles of the Magnet Model on mental health and wellbeing of physicians and nurses

Design
Wait-list cluster randomized controlled trial with a nested mixed-methods evaluation

Sample
Acute general hospitals (n=67) in 6 European countries (Belgium, Germany, Ireland, Norway, Sweden, England)

Coordination
KU Leuven Universiteit Pennsylvania

Partners

| University College Cork | Karolinska Institutet | University of Southampton | London School of Hygiene & Tropical Medicine | Kings College London | Meplis | University of UZA | University of UCC | Berlin |
**MAGNET© MODEL**

**THE MAGNET© BLUEPRINT**

- **Structural Empowerment**
- **Empirical Outcomes**
- **Exemplary Professional Practice**
- **New Knowledge, Innovations & Improvements**
- **Transformational Leadership**

**RATIONALE**

**Impact of redesigning the organization of hospitals**
- >40 year of evidence
- Leading to better work environment
- Leading to better job and patient outcomes

**Proved replicability of knowledge**
- Available blueprint allowing replication
- Critical mass in USA (>600 hospitals or ±10% of US hospitals) & increasing internationalization
- A lot of interest but few concrete implementations in Europe
Magnet4Europe – System Level Intervention

1:1 Twinning EU intervention hospitals with US Magnet hospital

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<thead>
<tr>
<th>COUNTRY</th>
<th>T0</th>
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<tbody>
<tr>
<td>BE</td>
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<td>SE</td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>67</strong></td>
<td><strong>63</strong></td>
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Twinning between hospitals

Magnet4Europe
Fostering partnership and collaboration

By Rocio dela Rosa-Besa, PhD, RN, CV-BC, NPD-BC, CNE; Lisa Guinta, MSN, RN, NEA-BC; and Katrin Mueller-Ouemke, MSc

Implementing Magnet components
Next steps for Klinikum Lüneburg include the following:

<table>
<thead>
<tr>
<th>Magnet components</th>
<th>Next steps</th>
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<tr>
<td>Transformational Leadership</td>
<td>• Conduct leader-led team-building activities to enhance physician–nurse relationships.</td>
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<td>• Develop leader-led initiatives to improve nursing image.</td>
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<td>• Communicate performance metrics data and results to nursing leaders and clinical nurses.</td>
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<td>• Provide continued leadership support for embedding Magnet culture to improve the work environment.</td>
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<td>• Use the newsletter to keep nurses and team members informed.</td>
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<td>Structural Empowerment</td>
<td>• Reward and recognize nurse achievements.</td>
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<td>• Perform market analysis of RN salaries and benefits.</td>
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<td>• Recruit ancillary support staff to relieve RN workload.</td>
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<td>• Develop recruitment initiatives (internal recruitment).</td>
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<td>• Initiate retention strategies (education and career advancement assistance and opportunities).</td>
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<td>Exemplary Professional Practice</td>
<td>• Collect and benchmark nurse-sensitive indicators, nurse satisfaction, and patient satisfaction.</td>
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<td>• Evolve the professional practice model to reflect current organizational and nursing goals and priorities.</td>
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<td>New Knowledge, Innovation &amp; Improvement</td>
<td>• Conduct training and engage staff in performance improvement, evidence-based projects, and research.</td>
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<td>• Deploy the newsletter to disseminate information on projects and research.</td>
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<td>• Expand evidenced-based design of units/departments.</td>
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Learning collaboratives – Online, Cork (2022), Oslo (2023), Leuven (2024)

SYSTEM LEVEL INTERVENTION

- Magnet® blueprint and GAP Analysis Tool
- Critical mass
- 1:1 twinning with US Magnet® hospitals
- Learning collaboratives
- Actionable feedback report

Magnet® blueprint and GAP Analysis Tool
RIGOROUS EVALUATION

SYSTEM LEVEL INTERVENTION

- Magnet® blueprint and GAP Analysis Tool
- Critical mass
- Learning collaboratives
- Actionable feedback report
- Rigorous Evaluation

At Baseline
2020-21
Mid covid-19

Survey among Nurses / physicians
(N=11,603)

Interviews (N=23)

Survey among Nurses / physicians
(N=8,905)

Interviews (N=22)

Process evaluation (N=254)

Focusgroups (n=74)

Process evaluation (N=299)

2021-22
Start implementation of the intervention

End 2023
Evaluation

Survey among Nurses / physicians
(N=5,963)

Improvements in the Nurse Work Environment

Improvements in Clinician Wellbeing, Patient Safety, Care Quality
Magnet4Europe hospitals moved, *on average*, towards greater implementation of the Magnet Blueprint in Gap Analysis.
Wide variation by hospital in implementing the Magnet Blueprint:

No Differences in Implementation by Country

Changes in Gap Analysis implementation ranged from a 11% worsening to a 43% improvement across hospitals.
Is Magnet Feasible in Europe?

Some hospitals currently close to 100% implementation of Magnet Blueprint

Average hospital 50% implementation

90% implementation
Hospitals that more fully implemented the intervention had statistically significant improvements in the nurse work environment, clinician wellbeing, quality, safety, and patient safety.
Summary & Outlook for the Future

- **Strong evidence** that the work environment is modifiable and lead to better job outcomes through improvements of the working environment

- **The Magnet4Europe intervention is likely to yield** favorable changes in work environments and outcomes
  - If all Magnet4Europe hospitals reached at least 80% implementation of the Magnet Blueprint we estimate:
    - 18% reduction in nurses with high burnout
    - 15% reduction in intent to leave
    - 12% reduction in job dissatisfaction
Thank you