

Magnet Hospitals – are they better places for staff?

Job-related stress and burnout are prevalent amongst healthcare staff; in particular, nurses in the UK have one of the highest levels of burnout in any country in Europe. Tackling this problem is a high priority in the UK and in other countries where shortages of healthcare professionals are affecting healthcare delivery.

'Magnet' hospitals are reputed to attract and retain staff, and to achieve better outcomes for patients. But what do we know about whether Magnet hospitals are 'better' places for staff to work, and whether they improve staff wellbeing?

What is the problem?

In the European Union (EU), mental health and wellbeing are among the highest priorities of the public health agenda [1]. Job-related burnout and other mental health morbidities are more prevalent in the healthcare workforce than among workers in other settings [2, 3]. The RN4Cast study found that 42% of registered nurses surveyed in general acute hospitals in England were reporting 'emotional exhaustion', as measured by the Maslach Burnout Inventory; of the 12 countries studied, only Greece had a higher level of burnout [4]. Burnout in the healthcare workforce affects staff's mental health, and can lead to depression, substance abuse and even suicide [5]. It has also been associated with higher job turnover amongst staff [6].

The UK has an ongoing shortage of healthcare professionals, with in the region of 40,000 RN vacancies in the NHS. In the early 1980's, the US also faced a shortage of nurses. Some hospitals, which had good reputations for patient care, appeared to be better able to both attract and retain staff – having almost 'magnetic' properties.

What is the 'Magnet' model?

The creation of a 'Magnet' model was inspired by the characteristics of these exemplary hospitals. Research revealed the human resource practices, organizational strategies, structures and systems in these hospitals that facilitated excellence in professional nursing practice [7]. The characteristics identified were labelled the 'Forces of Magnetism' [8].

The American Nursing Credentialing Center (ANCC) runs the 'Magnet Recognition Program', which is intended to motivate hospitals to improve the working environment of nurses so as to have a subsequent positive impact on patient care. Hospitals are accredited as 'Magnet Recognised' if they have met all the standards required for accreditation by the ANCC [8].

There are currently 502 'Magnet Recognised' hospitals in eight countries, but over 90% of these are in the US. Only one hospital in Europe has achieved Magnet recognition. In Lord Willis's 'Raising the Bar' report in 2015, the potential of adopting a 'Magnet'-style model

for the UK was highlighted, whilst recognising the need to understand how well the model might transfer.

What evidence is there?

Since the 1980's, a large body of evidence, mainly set in US hospitals, documents the association of the Magnet model with many important effects. These include: staff wellbeing improvements, lower burnout, higher job satisfaction and lower intent to leave jobs [9]; positive financial outcomes for organizations [10]; higher patient satisfaction and improved clinical outcomes [11].

Kelly and colleagues in 2011 reported that Magnet hospitals are more likely to have working environments that are supportive to professional nursing care and to employ more highly educated nurses than non-Magnet hospitals [9]. They also found that nurses in Magnet hospitals were less likely to be dissatisfied with their jobs or to report high burnout.

Longitudinal and repeated measures studies have found that hospitals following the Magnet model have improved work environments, well-being of staff and patient outcomes more over time compared to other hospitals [e.g. 12].

To test transferability and effectiveness of the Magnet model outside US hospitals, two international pilot studies (one in England and the other in Armenia and Russia) showed positive outcomes [13, 14]. Both studies demonstrated the ability to transfer the model and outcomes showed: reduced staff dissatisfaction, intent to leave and emotional exhaustion; improved work environments and perceived quality of care.

Several reviews have been undertaken. One systematic review found 141 studies, but only the 10 quantitative studies comparing nurse and patient outcomes in Magnet accredited hospitals with those in non-Magnet hospitals were eligible for inclusion [8]. In particular, there were none of the preferred study types: controlled clinical trials, controlled before and after or interrupted time series studies. Of the 10 studies included, nine were retrospective analyses of data extracted from existing databases, and only one study collected original data.

An integrative review undertaken in 2018 explored the impact of the Magnet model on organisational culture

within the nursing context and identified 29 studies [15]. The authors reported that not having standardised evaluation tools made it difficult to compare study results.

Despite methodological challenges, both reviews nonetheless reported positive results for Magnet hospitals compared to non-Magnet hospitals: better organisational culture; higher job satisfaction and lower intent to leave and turnover rates; lower pressure ulcers, patient falls, failure to rescue and 30-day inpatient mortality.

What are our knowledge gaps?

Previous evidence, mainly primary studies from the US, has demonstrated positive findings associated with some Magnet hospitals. However systematic reviews have not been able to demonstrate conclusive evidence for the effect of Magnet status in general, due to differences between study methods/tools, ineligible study types and low quality of some studies. Neither of the reviews described above were able to find conclusive answers to the questions they investigated.

The lack of conclusive results from systematic reviews may explain, in part, why the uptake of the Magnet model in Europe is low despite the large body of primary evidence that appears to support it.

In order to make evidence-based decisions in practice, it is important to have the best available, generalisable evidence. In the hierarchy of evidence, a systematic review or meta-analysis of randomised controlled trials (RCTs) would provide the best evidence on which to base decisions to change practice.

A large-scale RCT could help to test the effectiveness of Magnet organizational redesign.

New research in Europe

The Magnet4Europe study, recently funded by Horizon 2020, aims to evaluate the effect of implementing a Magnet-based intervention on nurses' and doctors' mental health and wellbeing. The 4-year study is a mixed-methods evaluation of organizational redesign, using a wait-list RCT (where wards start the implementation on different dates) and process evaluation.

The study plans to recruit at least 60 hospitals across six European countries: the UK, Ireland, Belgium, Sweden, Norway and Germany.

Hospitals involved in Magnet4Europe will each be twinned with a Magnet hospital in the US. Further support will be provided via regular Learning Collaboratives with other EU hospitals in the study, as well as by the teams in each country.

Prof Jane Ball (University of Southampton) is leading the initiative in the UK, working with Prof Anne Marie Rafferty (King's College London). It is due to launch in autumn 2020.

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