Safe Staffing: is the evidence shaping policy and practice?

Safe staffing summit, London

Jane Ball
October 2016
Outline

- Nurse staffing levels matter – don’t they?
- Research evidence – old and new
- Impact on policy and practice
Lack of staff is often an excuse for poor care…. there is no direct correlation between number of staff and good or bad care

Harry Cayton, CHRE regulator, HSJ March 2012
Research evidence base

- In the 1980’s... eg.
  - Hinshaw et al (1981) ‘Staff, patient and cost outcomes of all RN staffing’
  - Fagin (1982) ‘Nursing as an alternative to high cost care’ (review of 51 studies)

- Links to ’magnet’ hospital research

- International Hospital Outcomes Study (5 countries)

- Twenty years later: RN4Cast (15 countries)
Caring Costs: the costs and benefits of registered nurses

“there is no ‘body’ of literature on the costs and benefits of nursing, but rather a series of often incompatible parts”.

Kane et al’s systematic review

- 96 studies
- Increased RN staffing was associated with lower hospital related mortality in
  - intensive care units (OR 0.91 CI 0.86–0.96)
  - surgical units (OR, 0.84; 95% CI, 0.80–0.89),
  - medical patients (OR, 0.94; 95% CI, 0.94–0.95)

Kane et al (2007) Medical Care 45: 12, 1195-1204
International Hospital Outcomes Study

Nurse staffing + education + work environment = lower hospital mortality

- Surgical patients in hospitals with better nurse work environments have 13% lower odds on dying;
- Patients in hospitals with better staffing (two fewer patients per nurse) have 11% lower odds on dying;
- Patients in hospitals with better educated nurses (20% more BSNs) have 8% lower odds on dying.

Surgical patients in hospitals that are better on all three have roughly 30% lower odds on dying.

Source: Aiken et al., JONA, 2008
3 year study: 2010-2012

Nurse Survey
31 Trusts (46 Hospitals)
401 med/surg wards
2,990 RNs

Patient Satisfaction
National data (secondary)

Patient discharge data
HES data – mortality rates

Hospital characteristics
Hospital/Trust survey

15 EU countries
Staffing levels: Pt/RN ratio (day)

Source: Ball J, Griffiths P & Rafferty A M (2012) RN4Cast
Care left undone and nurse staffing

Missed care by patient: RN ratio

- Best (< 6.1)
- 6.1 -7.3
- 7.4 -9.2
- 9.3 - 11.5
- Worst (> 11.5)
An increase in a nurses’ workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7%

(odds ratio 1.068, 95% CI 1.031–1.106, p = 0.0002)

Expected Deaths per 1000 Discharges at Different Staffing Levels

- 19.3 deaths at 14 patients per nurse
- 16.9 deaths at 12 patients per nurse
- 14.8 deaths at 10 patients per nurse
- 13.0 deaths at 8 patients per nurse
- 11.4 deaths at 6 patients per nurse
- 10.0 deaths at 4 patients per nurse

Nurse Staffing (Patients per Nurse) vs. Expected Deaths per 1000 Discharges
Registered nurse, healthcare support worker, medical staffing levels & mortality in English hospital trusts: a cross-sectional study

Griffiths P, Ball J et al. 2016

6 pts or less per RN
Case mix adjusted mortality 20% lower than where
10 pts or more per RN
Context in England: care ‘crisis’

- Estimated 400-1,200 deaths beyond the expected level of mortalities at Mid Staffordshire Hospital Trust
- Patient neglect
- Independent inquiry (led by Robert Francis QC)
Francis Inquiry found:

“There does not appear to have been an evidence base for the changes that were made.

The attraction of the advantages – the financial savings – discouraged proper attention being paid to the disadvantages”

- NICE to undertake a review of the evidence and provide guidelines for safe staffing in each specialty (July 2014 – “red flag’ triggers for review)

- Staffing levels in each Trust to be published

- Nurse staffing on each ward to be made visible
Review of Evidence for NICE

Factors influencing staffing
5 reviews
• 21 primary studies

Economics
• 5 studies

Staffing / outcomes
35 primary studies
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Mortality and Failure to rescue - findings

- 28 studies reported associations between nurse staffing levels and the outcomes considered for the review
- For death (9 studies) and failure to rescue (7 studies), a relatively clear picture emerges.

Significant associations in six studies
- 4 (all rated ++ for validity): Low staffing & higher mortality
- 2 (rated ++ for internal validity): Low staffing & higher FTR
  \[(Park \ et \ al., \ 2012, \ Twigg \ et \ al., \ 2013)\]

No study showed a significant adverse relationship.
Safe staffing in 2016?

- NICE guidance discontinued by NHS England (June 2015)
- Only fill ‘essential’ vacancies (Aug 2015)
- Trusts told to ‘cap’ the amount spent on temporary staffing (Aug 2015)
- Health Education England commission 300 of the 3,000 extra RN training places needed (Dec 2015)
- Nursing Associates to “bridge the gap” (Dec 2015)
- Migration Advisory Committee: shortage of nurses is NHS own making
- Care Hours per Patient Day (April 2016)
- NHS Improvement guidance to be released: “Safe SUSTAINABLE staffing”
Conclusion:

Has research on nurse staffing impacted on Policy & Practice?
Thank you!

Any questions?

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