

Adopting evidence-based guidelines for acute stroke care: barriers and enablers for health professionals

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An evidence summary based on the following systematic review: Baatiema, L., Otim, M.E., Mnatzaganian, G., de-Graft Aikins, A., Coombes, J. & Somerset, S. (2017) 'Health professionals' views on the barriers and enablers to evidence-based practice for acute stroke care: a systematic review'. *Implementation Science*, 12(1):74.



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Background to the review

Evidence-based practice is the key stone of clinical practice, policy and management. Despite this, a knowledge to practice gap still exists and it is estimated to take 17 years for evidence to be translated to clinical practice¹. The reasons for slow translation in acute stroke care are not completely understood. Some studies have highlighted the barriers that result in under-utilisation of best practice. However, no previous review has attempted to systematically analyse barriers and enablers within the highly recommended acute stroke therapies. A systematic review by Baatiema et al. 2017 addressed the issue by exploring the adoption of evidence-based guidelines for acute stroke, through the views of health professionals.

Purpose of the review

To identify and systematically review studies of health professionals' views on the barriers and enablers to evidence-based interventions for acute stroke care.

What methods did the review use?

The authors searched for studies that identified barriers or enablers to the uptake of four highly recommended acute stroke therapies or services:

- Organisational context or structural level factors were the most frequent barriers to uptake of evidence-based care for acute stroke.
- Poor understanding of barriers or enablers to uptake of guidelines means that effective therapies are underutilised.
- Future interventions/health policy should utilise these findings to encourage uptake of best practice.

specialist stroke unit care, thrombolytic therapy, the use of aspirin and de-compressive surgery. Relevant healthcare databases were searched for eligible studies published from 1990-2016. Included studies were based on the views and experiences of health professionals and were limited to studies that were peer-reviewed and published in English.

Analysis of studies was conducted using both descriptive statistics (quantitative studies) and thematic analysis (qualitative studies). A pre-existing framework of seven domains² was used to categorise the themes of barriers and enablers.

How good is the review and the quality of included studies?

All identified studies were screened for inclusion by one author and reviewed by a second. The use of a single author for screening has an impact on the accuracy, reliability and transparency of the process. The key findings were identified by one author, categorised using the framework and validated by a second author. Included studies were assessed for quality by two authors.

Methodological limitations were found in the quantitative studies such as a lack of detail on

sampling techniques. The overall quality of the quantitative studies was therefore moderate.

The quality of qualitative studies was uncertain. Authors reported how data collection was adequately described, however, none of the studies reported on theoretical or philosophical sources for methodological relevance, analysis and interpretation.

What are the results of the review?

Overall 10 studies met the inclusion criteria (three qualitative and seven quantitative). Studies were published between 2004 and 2015 and conducted in Australia, USA, Sweden, Norway, Denmark and the Netherlands. The total number of participants was 1692 and included nurses, doctors, neurologists, emergency department physicians, allied health staff and health managers.

Table.1 shows the frequency (%) of each theme based on the number of times relevant barriers and enablers were reported. Social, political and legal factors were not reported.

Table.1 Barriers or enablers to adopting evidence-based acute stroke care

Theme	Barrier or Enabler
Capacity for organisational change (37%)	<ul style="list-style-type: none"> ▪ Lack of institutional support, e.g. lack of guidelines, funding for professional development. ▪ Limited health staff capacity, e.g. shortage of stroke nurses ▪ Workload demands and a lack of protocols.
Individual health professionals' factors (25%)	<ul style="list-style-type: none"> ▪ Lack of awareness/knowledge of an intervention. ▪ Lack of skills to apply the intervention. ▪ Low motivation to implement.
Resources and incentives (11%)	<ul style="list-style-type: none"> ▪ Limited physical space to establish stroke units. ▪ Lack of CT scans and financial resources. ▪ Limited time, stroke beds and staff capacity.
Guideline factors (10%)	<ul style="list-style-type: none"> ▪ The nature of evidence related to stroke guidelines could influence uptake amongst health professionals, e.g. perceptions of the effectiveness of thrombolysis.
Patient factors (10%)	<ul style="list-style-type: none"> ▪ Lack of awareness of early stroke symptoms. ▪ Patients arriving late in emergency departments to receive care/thrombolysis. ▪ Patient's decision for other interventions (due to perceived side-effects of thrombolysis).

Professional Interactions (7%)	<ul style="list-style-type: none"> ▪ Inadequate communication between clinical staff. ▪ Lack of clinical leadership/support from senior clinicians.
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How do the authors interpret the results?

The most cited barriers from the review are organisational context or structural level factors. The authors state that given their significance (and reference in other reviews), health managers and policy makers should give greater consideration to addressing these barriers. The authors also discuss that health professionals have their own unique challenges to adopting evidence that future research could explore further.

The findings also highlighted delays in patients arriving at hospital due to non-recognition of stroke symptoms. The authors therefore recommend the need for increased public health campaigns and further research for seeking care during early onset of stroke symptoms.

What are the main limitations of the review?

The review process may have missed relevant articles due to the inclusion criteria (English language/ peer-reviewed articles). The authors also acknowledge that using a pre-defined framework to organise the findings may inadvertently exclude some barriers/enablers.

Who are the authors and where is it published?

This was an international review with authors from Ghana, Australia and UAE. The primary author was from the University of Ghana. The review was published in Implementation Science which has an impact factor of 4.525 (within the top 12% of journals).

References

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