

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Patient Satisfaction and Non-U.K. Educated Nurses: A Cross Sectional Observational Study of English National Health Service Hospitals
AUTHORS	Germack, Hayley; Griffiths, Peter; Sloane, Douglas; Rafferty, Anne Marie; Ball, Jane; Aiken, Linda

VERSION 1 - REVIEW

REVIEWER	Joerg Klewer Faculty of Public Health and Health Care Management University of Applied Sciences Zwickau Germany
REVIEW RETURNED	18-Aug-2015

GENERAL COMMENTS	<p>The paper addresses to the impact on patient satisfaction of non-U.K. educated nurses. In the chapters discussions and conclusions the authors point to the problem, that substitution of U.K. educated nurses is not without risks to quality of care. This was not the main question of this research paper, because objective quality of care (e.g. mortality) has not been obtained.</p> <p>Furthermore, in the discussion the authors do discuss possible limitations of the training program of non-U.K. nurses and the influence on quality of care, which have not been investigated. The level of hostility towards foreigners in the patient population remains unknown. Maybe some extend of the findings presented results from xenophobia ? This limitation should be discussed. Therefore the authors should rewrite the discussion addressing the issues mentioned, without merging patient satisfaction and quality of care.</p> <p>An editorial remark: Pointing to tables by using complete sentences should be avoided. Instead of using for example "Table 3 displays...", the results should be presented, followed by (Table 3) at the end of the sentence.</p>
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REVIEWER	EVRIKIDKI PAPASTAVROU CYPRUS UNIVERSITY OF TECHNOLOGY
REVIEW RETURNED	18-Oct-2015

GENERAL COMMENTS	This is a very interesting paper discussing the problem of nurse shortage from a different perspective analysing the link between poor quality of care and inadequate nurse resources. The study is well designed, the data were properly analysed and the results were
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	<p>clearly and simply presented giving the reader a good picture of the problem in the UK. Few grammatical errors need to be checked, e.g. p.10, line16, the word lower in written twice and the research ethics need to be addressed.</p> <p>Also in p.13, table 1 interestingly is reported that most of the participants that are non-UK educated are from non-EU countries (93%) and only 7% are trained in Europe. Given that free movement of workers is a fundamental principle of the European Union, I would expect the authors to explain this and what is happening in the country regarding the employment policies regarding eu and non-eu health care workers, the NMC guidance for recruitment and all the related documents. What is the reason behind this? Is it economic, is it the language (non-eu are requested to provide evidence of good knowledge of english) or is it something else?</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Joerg Klewer

Institution and Country: University of Applied Sciences Zwickau, Germany

The paper addresses to the impact on patient satisfaction of non-U.K. educated nurses. In the chapters discussions and conclusions the authors point to the problem, that substitution of U.K. educated nurses is not without risks to quality of care. This was not the main question of this research paper, because objective quality of care (e.g. mortality) has not been obtained.

We are using the World Health Organization's definition of quality of health care that includes patient satisfaction with care as an important element of quality[3]. Indeed many countries, including England, now routinely survey citizens who have had a hospital admission to obtain their ratings of their care as an indicator of quality. We agree that mortality is an important element of quality and we have reported the impact of nursing on mortality in previous publications[4]. But thankfully most patients admitted to hospitals do not die and thus the need for a wider range of quality measures. We have clarified in the introduction to the paper that patient satisfaction is but one of multiple internationally accepted markers of care quality (page 1, lines 10-25).

Furthermore, in the discussion the authors do discuss possible limitations of the training program of non-U.K. nurses and the influence on quality of care, which have not been investigated.

We have edited the discussion section removing material on possible limitations in the NHS training program for non-U.K. nurses which is beyond the scope of our study (pages 11-12).

The level of hostility towards foreigners in the patient population remains unknown. Maybe some extend of the findings presented results from xenophobia? This limitation should be discussed. Therefore the authors should rewrite the discussion addressing the issues mentioned, without merging patient satisfaction and quality of care.

We have edited the discussion to points directly related to our research. We did not study xenophobia and thus believe this topic is beyond the scope of our paper. We have edited the discussion to focus explicitly on patient satisfaction but we interpret international interest in patient satisfaction as one indicator of quality of care (pages 11-12; page 11, line 14).

Pointing to tables by using complete sentences should be avoided. Instead of using for example

"Table 3 displays...", the results should be presented, followed by (Table 3) at the end of the sentence.

We have made this editorial change where feasible (page 6, lines 47-51; page 8, lines 17-19).

Reviewer: 2

Reviewer Name: Evridiki Papastavrou

Institution and Country: Cyprus University of Technology, Cyprus

This is a very interesting paper discussing the problem of nurse shortage from a different perspective analysing the link between poor quality of care and inadequate nurse resources. The study is well designed, the data were properly analysed and the results were clearly and simply presented giving the reader a good picture of the problem in the UK. Few grammatical errors need to be checked, e.g. p.10, line16, the word lower is written twice and the research ethics need to be addressed.

Thank you, this has been done (page 10, line 49; page 5, lines 17-20).

Also in p.13, table 1 interestingly is reported that most of the participants that are non-UK educated are from non-EU countries (93%) and only 7% are trained in Europe. Given that free movement of workers is a fundamental principle of the European Union, I would expect the authors to explain this and what is happening in the country regarding the employment policies regarding eu and non-eu health care workers, the NMC guidance for recruitment and all the related documents. What is the reason behind this? Is it economic, is it the language (non-eu are requested to provide evidence of good knowledge of english) or is it something else?

Research suggests that nurse migration to England follows international south to north trade patterns long established with English speaking Commonwealth countries. Nurse migration within Western Europe has been slow because of language differences and lack of push-pull factors [5]. The entry of Eastern European countries into the EU and the economic downturn after 2008 may alter future patterns of nurse migration within the EU but perhaps not in ways likely to fundamentally change the nature of the patient satisfaction findings in our paper because of language, nursing education, and health system differences across EU countries. We have added discussion on this point (page 12, lines 14-28).

1. Aiken LH, Cimiotti JP, Sloane DM, Smith HL, Flynn L, Neff DF. Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Medical Care* 2011;49(12):1047-53.
2. Smith HL. A double sample to minimize bias due to nonresponse in a mail survey. *Population Studies Center Working Papers* 2009; (No. 09-05. 2009).
http://repository.upenn.edu/cgi/viewcontent.cgi?article=1013&context=psc_working_papers (accessed 2015 Aug 03).
3. World Health Organization. *The World Health Report 2000. Health Systems: Improving Performance*. Geneva: World Health Organization, 2000.
4. Aiken L, Sloane D, Bruyneel L, et al. Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet* 2014;383(9931):1824-30.
5. Aiken LH, Buchan J, Sochalski J, Nichols B, Powell M. Trends in international nurse migration. *Health Affairs* 2004;23(3):69-77.

VERSION 2 – REVIEW

REVIEWER	Joerg Klewer Faculty of Public Health and Health Care Management University of Applied Sciences Zwickau Germany
REVIEW RETURNED	02-Nov-2015

GENERAL COMMENTS	The reviewer completed the checklist but made no further comments.
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REVIEWER	EVRIKIDKI PAPAATAVROU CYPRUS UNIVERSITY OF TECHNOLOGY, CYPRUS
REVIEW RETURNED	31-Oct-2015

GENERAL COMMENTS	The reviewer completed the checklist but made no further comments.
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