PEER REVIEW HISTORY

BMJ Paediatrics Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

This paper was submitted to a another journal from BMJ but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Paediatrics Open. The paper was subsequently accepted for publication at BMJ Paediatrics Open.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Investigating the roles and training of paediatric research nurses working across Europe - a questionnaire-based survey
AUTHORS	Veal, Gareth; Malik, Salma; Lupo, Mariangela; MacFarlane, Susan; Lepola, Pirkko; Costello, Mary; Ceci, Adriana; Boue, Carine; Lecour, Charlotte; Otto, Annette; Rastegari, Maryam; Berry, Philip

VERSION 1 - REVIEW

REVIEWER	de Bruyne, Pauline Department of Pediatrics and Medical genetics, Ghent University, Belgium Competing interests: None
REVIEW RETURNED	18-Jul-2017

GENERAL COMMENTS	- Page 2, line 37: please spell out abbreviations in abstract: IMP - Page 2, line 49: The fact that nurse prescribing may be beneficial in paediatric clinical trials setting, is not a conclusion of this survey. The advantages of nurse prescribing have been described, mostly for the UK. We need more research on this before we can make conclusions for Europe, taking into account the local legal restrictions for it in some European countries. - Page 4, line 21: The paediatric research nurse roles that have been listed, only represent part of the roles that research nurses have: data collection and management, archiving, etc. - Page 7: rounding of numbers should be consistent throughout the entire table. Some numbers in the percentages column have one decimal, some have not. Percentages ending in .5 should be rounded up: e.g. 278/341= 81,5%. If the authors decide not to use decimals, this should be rounded to 82%. Page 7, line 51: please be consistent in the spelling of 'online' throughout the manuscript (on-line or online?) Page 8: please spell out all the abbreviations: GCP, IT Page 12: line 33: typing error in 'prescribing' Discussion: The authors could elaborate more on how to organize the research nurse training in Europe in the future. Figures on pages 19 and 20: figures not clear when printed in grey

REVIEWER	Gibson, Faith Great Ormond Street Hospital for Children NHS Foundation Trust and University of Surrey, UK Competing interests: None
REVIEW RETURNED	27-Jul-2017

GENERAL COMMENTS	I have few comments to make as the paper is very clear, good description of methods, analysis and results. Below are my suggestions to be considered: 1. As your paper is about research nurses I wonder if in your introduction, you do indeed start with that, so maybe begin with the role to situate your work in the role itself. 2. In terms of dissemination of your questionnaire, this was distributed via lead network contacts, of these how many were nurses? As your responses were only from 20 European countries, I just wonder if this is a further limitation of your study where the survey relies on 'posting on' from another professional group who might not in their day to day practice prioritise your request. 3. In terms of response, you asked in which country they worked, you list the countries in Table 2, then can you say which European countries are not represented here. Then how many of those countries not here are part of the Enpr-EMA. This would help the reader in considering what is missing. Nursing as you know is very different across the European countries so when we try to look at training that becomes difficult, so the more you can say about which countries were not represented in the survey the more the reader can think 'what does this mean to me in my practice in my country'. Hope this makes sense. 4. I appreciate your conclusion which suggests facilitating and developing further education/training across Europe. But educational preparation, legislation, role descriptors and competencies will always vary country to country, a research nurse may indeed want to, for example take an active role in the consenting process, but this may not be possible, because of the reasons above. Although you do reflect on these challenges in your discussion I wonder if a final comment in your conclusion would also be helpful. What is the role of organisations such as the Enpr-EMA in facilitating greater parity, that may indeed impact on the delivery of high quality ethical research that benefits families?

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

- Page 2, line 37: please spell out abbreviations in abstract: IMP

Author response: this sentence has been amended as requested to read 'Only 3% of research nurses prescribed investigational medicinal products (IMPs) in a clinical trial setting, with contrasting roles observed between countries'.

- Page 2, line 49: The fact that nurse prescribing may be beneficial in paediatric clinical trials setting, is not a conclusion of this survey. The advantages of nurse prescribing have been described, mostly for the UK. We need more research on this before we can make conclusions for Europe, taking into account the local legal restrictions for it in some European countries.

Author response: we agree that this is not strictly speaking a conclusion of the study but more of a discussion point. The final two sentences of the conclusions section of the abstract have therefore been modified as requested to read 'Currently, low levels of nurse prescribing are observed in a paediatric clinical trial setting across Europe. Appropriate research nurse training programmes should be promoted through national networks across Europe.'

- Page 4, line 21: The paediatric research nurse roles that have been listed, only represent part of the roles that research nurses have: data collection and management, archiving, etc.

Author response: we agree with the reviewer that this is not an exhaustive list. It was what was decided to be included in the questionnaire following informal discussions with research nurses involved in clinical trials, concerning what roles and activities they spent significant amounts of time involved in.

- Page 7: rounding of numbers should be consistent throughout the entire table. Some numbers in the percentages column have one decimal, some have not. Percentages ending in .5 should be rounded up: e.g. 278/341= 81,5%. If the authors decide not to use decimals, this should be rounded to 82%.

Author response: we have modified the table to provide percentages to 2 significant figures, i.e. including a decimal place for values <10%. In addition we have checked all of the values and rounded up as requested where appropriate.

Page 7, line 51: please be consistent in the spelling of 'online' throughout the manuscript (on-line or online?)

Author response: we have been through the manuscript and standardised the use of 'online' as opposed to 'on-line'. Indeed this example on page 7 was actually the only place where 'on-line' had been used, with the more widely used 'online' used throughout the rest of the manuscript.

Page 8: please spell out all the abbreviations: GCP, IT

Author response: the full meanings of these abbreviations (Good Clinical Practice – GCP and information technology – IT) have been included on page 8 of the revised manuscript.

Page 12: line 33: typing error in 'prescribing'

Author response: this has been corrected on page 12 of the revised manuscript.

Discussion: The authors could elaborate more on how to organize the research nurse training in Europe in the future.

Author response: The following additional text has been included in the discussion in the revised manuscript – 'In this respect, Enpr-EMA should look to enhance the design of the European paediatric research nurse core curriculum, together with relevant European Nursing Associations, which could be then adopted across EU countries. Increased collaboration and discussion between key stakeholders will help to harmonise approaches to training and standardise the way that paediatric clinical trials are conducted across Europe, promoting improved ethical and clinical standards and the generation of robust results from clinical trials'.

Figures on pages 19 and 20: figures not clear when printed in grey

Author response: in response to this comment and the Editorial comments below, we have modified both figures so that they are clear to the reviewer in black and white as opposed to colour in the revised manuscript.

Reviewer: 2

Thank you for asking me to review this interesting paper. I have few comments to make as the paper is very clear, good description of methods, analysis and results. Below are my suggestions to be considered:

1. As your paper is about research nurses I wonder if in your introduction, you do indeed start with that, so maybe begin with the role to situate your work in the role itself.

Author response: The study was initiated and instigated by the European Network of Paediatric Research at the European Medicines Agency (Enpr-EMA), a group whose objectives include facilitating studies to increase the availability of medicinal products authorised for use in the paediatric population, by fostering high-quality, ethical research on the quality, safety and efficacy of medicines for use in children. The decision to investigate research nurse training was therefore very much related to an overarching network aim of improving the way that clinical trials are conducted in a paediatric setting. With this background we feel that it is more appropriate to emphasise this requirement for high-quality ethical research on medicines in children and then introduce the key roles played by the research nurse within this setting.

2. In terms of dissemination of your questionnaire, this was distributed via lead network contacts, of these how many were nurses? As your responses were only from 20 European countries, I just wonder if this is a further limitation of your study where the survey relies on 'posting on' from another professional group who might not in their day to day practice prioritise your request.

Author response: we accept this additional limitation to the study and have inserted the following text into the appropriate section in the discussion on page 10 of the revised manuscript – 'Similarly, while national and disease specialty networks of paediatric research nurses were identified through Enpr-EMA networks and the identification of appropriate European groups through internet searches, many lead network contacts were not research nurses and wider circulation of the study information and link to the survey may not always have been prioritised'.

3. In terms of response, you asked in which country they worked, you list the countries in Table 2, then can you say which European countries are not represented here. Then how many of those countries not here are part of the Enpr-EMA. This would help the reader in considering what is missing. Nursing as you know is very different across the European countries so when we try to look at training that becomes difficult, so the more you can say about which countries were not represented in the survey the more the reader can think 'what does this mean to me in my practice in my country'. Hope this makes sense.

Author response: we agree that more European countries could have been included in the study and that the role of the research nurse may differ considerably across countries. With regards to the make-up of Enpr-EMA this is difficult to gauge as there are several levels of membership and I would anticipate that the vast majority of European countries are included at some level. The following sentence has been included in the discussion section of the revised manuscript – 'It is accepted that the role of the research nurse may differ significantly between countries and that the current survey, while relatively expansive in terms of the number of respondents and countries involved, did not include respondents from many other European countries'.

4. I appreciate your conclusion which suggests facilitating and developing further education/training across Europe. But educational preparation, legislation, role descriptors and competencies will always vary country to country, a research nurse may indeed want to, for example take an active role in the consenting process, but this may not be possible, because of the reasons above. Although you do reflect on these challenges in your discussion I wonder if a final comment in your conclusion would also be helpful. What is the role of organisations such as the Enpr-EMA in

facilitating greater parity, that may indeed impact on the delivery of high quality ethical research that benefits families?

Author response: based on these comments and also points raised by the first reviewer, the following final sentences have been incorporated in the conclusion section of the revised manuscript – 'In this respect, Enpr-EMA should look to enhance the design of the European paediatric research nurse core curriculum, together with relevant European Nursing Associations, which could be then adopted across EU countries. Increased collaboration and discussion between key stakeholders will help to harmonise approaches to training and standardise the way that paediatric clinical trials are conducted across Europe, promoting improved ethical and clinical standards and the generation of robust results from clinical trials'.