Author’s response to reviews

Title: Paediatric Physiotherapy Curriculum: An Audit and Survey of Australian Entry-level Physiotherapy Programs

Authors:
Karen Mistry (karenhmistry@gmail.com)
Emi Yonezawa (emi-3@live.com.au)
Nikki Milne (nميله@bond.edu.au)

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Author’s response to reviews:

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Prof. Olwyn Westwood
Editor in Chief
BMC Medical Education

Dear Professor Olwyn and BMC reviewers,

RE: Response to reviewers’ comments for submission of Manuscript MEED-D-19-00070 Paediatric Physiotherapy Curriculum: An Audit and Survey of Australian Entry-level Physiotherapy Programs

We would like to thank the reviewers of our manuscript.

We appreciate the time the reviewers have taken to provide comments in order to improve the manuscript. We hope that you will find the responses provided suitable for improving the quality and clarity of this manuscript for the BMC readers. We look forward to hearing back from you regarding the outcomes of these amendments.

Many thanks and kind regards,

Dr Nikki Milne
Assistant Professor of Physiotherapy
Faculty of Health Science and Medicine
Telephone: +61 7 5595 4155 / Mobile: 0411 558 447
Email: nميله@bond.edu.au
Gold Coast, Queensland, 4229, Australia
Reviewer- 1 W Bagg

Comment 1

This is a nationwide study of the paediatric learning in a physiotherapy context. I am not a physiotherapist and have no content expertise. My comments therefore relate to study design and meeting educational standards.

This is an important study given the reported lack of consistency of paediatric learning in the physiotherapy context.

All institutions offering physiotherapy in Australia were approached. That all did not participate is disappointing, but not unexpected.

The response rate seems adequate (although perhaps not ideal) and the range of respondents in terms of higher education and clinical experience is likely to be representative.

Removing the non-paediatric physiotherapists for the sensitivity analysis is a good idea.

RESPONSE: Thank you for these comments.

Comment 2

Line 494 and line 605 I think the authors should be careful what they wish for. Accrediting bodies typically leave individual institutions to decide how to meet the accreditation standards. Requiring accrediting bodies to be too ridged, or prescriptive, will reduce Universities’ autonomy to decide what is important for learning in the local context. One size does not fit all. If guidelines are to be provided with guidelines, they should be "guidelines" not "tramlines". The authors may wish to reflect this dilemma in the discussion.
RESPONSE: Thank you for your comment. We agree that accrediting bodies do typically leave individual institutions to decide how they meet the standards for accreditation, so it is more suited to the local context. We also agree that accreditation bodies should not have guidelines that are too rigid, so Universities can have autonomy in the way they deliver content and achieve learning outcomes. We appreciate that our statements could be taken and result in a very tough expectation from accreditation bodies, so have modified this section of the manuscript to soften this message slightly. The following paragraphs have been amended as follows in red:

ORIGINAL: The lack of detailed curriculum guidelines in this difficult to source placement area (i.e. paediatrics) means that the quality control for paediatric competencies compared to the more adult-oriented competencies in Australian physiotherapy programs is reduced. Concerningly, the APC accreditation standard 3.3 - The quality and quantity of clinical education is sufficient to produce a graduate competent to practise across the lifespan in a range of environments and settings, appears to be left open to interpretation for paediatrics as there is no defined expectation for coursework curriculum or practical experience. To ensure that programs are producing graduates competent to practise across the lifespan and to safeguard paediatric clients, it would be advantageous to have Australian guidelines available detailing minimum standards for paediatric curriculum and practical experience that physiotherapy programs could be benchmarked against by accreditation panels.

REVISED: The lack of detailed curriculum guidelines in this difficult to source placement area (i.e. paediatrics) means that the quality control for paediatric competencies compared to the more adult-oriented competencies in Australian physiotherapy programs is reduced. Currently, the APC accreditation standard 3.3 - The quality and quantity of clinical education is sufficient to produce a graduate competent to practise across the lifespan in a range of environments and settings, appears to be left open to interpretation for paediatrics as there is no defined expectation for coursework curriculum or practical experience. Whilst the authors of this paper are not suggesting that the APC mandate a set number of clinical placement hours or an exact syllabus, to ensure that programs are producing graduates competent to practise across the lifespan and to safeguard paediatric clients, further scrutiny in this area is warranted. It may be advantageous to have Australian guidelines available detailing minimum standards for paediatric curriculum and practical experience that physiotherapy programs could be benchmarked against by accreditation panels. A mandated benchmarking process for pediatric curriculum may also assist the universities to share and learn about new and innovative ways to develop paediatric specific skills and knowledge and this may be particularly helpful for programs who do not have paediatric physiotherapists on staff.

AND

ORIGINAL: With the information provided from this study, the program accreditation bodies or paediatric education interest groups could use this information to assist with developing a guideline for paediatric curriculum requirements for which universities could be held accountable. Universities can also use these study findings to compare and identify gaps within their curriculum and consider appropriate changes to their program syllabus and staff resourcing. In supporting universities to produce safe entry-level physiotherapists, this research may help to increase the awareness of placement providers, that universities see a lack of paediatric placements as a barrier to the implementation of paediatric content.

REVISED: With the information provided from this study, the program accreditation bodies or paediatric education interest groups could use this information to assist with developing or support the development of a minimum standards guideline for paediatric curriculum requirements for which
universities could be held accountable. Universities can also use these study findings to compare and identify gaps within their curriculum and consider opportunities for benchmarking and ways to make appropriate changes to their program syllabus and staff resourcing. In supporting universities to produce safe entry-level physiotherapists, this research may help to increase the awareness of placement providers, that universities see a lack of paediatric placements as a barrier to the implementation of paediatric content.

Comment 3

Line 558 The lack of clinical placements in paediatrics is a significant concern as highlighted by the authors. The paper could address ways to address this shortcoming, including the use of simulated learning opportunities.

RESPONSE: Thank you for highlighting this omission in our paper. We have now amended the following section and have added the following (in red font).

ORIGINAL: This suggests that a gap may exist in the practical assessment of paediatric competencies for physiotherapy students and this is likely due to the limited number of paediatric placement opportunities available in Australia. This was evidenced in addressing our fourth study aim, where a lack of paediatric-specific placements was noted as a barrier to many program’s paediatric curriculum. Half of the participants in the present study reported that they provided all students the opportunity to attend clinical placement in the field of paediatrics, however the length of time or expected learning outcomes from the placement (e.g. observation verses competencies) is unknown.

ADDED CONTENT: If universities were mandated to benchmark their paediatric curriculum, universities who are underrepresented in paediatric placements, would have the opportunity to see how some universities manage to place all students in paediatric clinical experiences and assess their competencies for working safely and effectively with children. With the NDIS now active across Australia, it may be appropriate to consider new opportunities for paediatric placements, outside of hospital settings. Supervised visits to childcare and school environments, paediatric placements with private practices working with NDIS funded clients, university interprofessional paediatric clinics, simulated learning, in addition to the more commonly utilised community health and hospital environments, should all be considered as rich learning environments where physiotherapy students could develop paediatric specific competencies. Additionally, universities may need to look beyond traditional 5-week full time 1:1 supervised placement blocks, yet still offer adequate time and supervision for students to develop safe and effective skills that will serve children, infants and their families well.

Comment 4

Line 667 - developing minimum standards seems essential and the authors may wish to propose a mechanism for doing so, which ensure the engagement of stakeholders.

RESPONSE: Thank you for your comment. We have now added some additional information (in red below) as stimulus for considering ways in which

ORIGINAL: Our study together with future complementary research could provide findings that may assist with developing minimum standards for paediatric curriculum and assessment in entry-level physiotherapy programs and consequently better assure the public of the knowledge, skills and
attributes that all physiotherapists possess relevant to working with paediatric populations after graduating from an Australian physiotherapy program.

ADDED CONTENT: To develop minimum standards for Australian entry-level physiotherapy paediatric curriculum (including clinical experiences) the recommended research above, must first be undertaken to fully understand the expectation of key stakeholders regarding paediatric physiotherapy curriculum. With this information, paediatric teaching leads may then collaborate through targeted workshops or Delphi style consensus methods (REF) to achieve consensus on what should be included in Australian minimum standards for pediatric physiotherapy entry-level curriculum.

Comment 5

Minor point
Line 143 "intension" should be "intention"

RESPONSE: Thank you for bringing our attention to this, we have modified the word as seen below.

Providers with the intention to treat children aged between zero - six years have to register as an Early Childhood Early Intervention (ECEI) provider through the NDIS.

Reviewer- 2 Mohammed Abbas

Comment 1

Need rephrasing background and literature review: very lengthy

RESPONSE: The authors would like to thank you for reviewing our paper and providing us with insightful comments. Whilst we acknowledge the length of this background and literature review, we believe the information provided is critical for readers to understand the urgency of such work in Australia. A minor edit has been made to the introduction to remove a sentence, however we feel the rest of the information is important for the target population.

Comments 2 and 3

Clarification needed about the criteria for entering the program, objectives and instruction throughout the program and finally the eligibility for practice. It is not clear whether the research question regarding entry to program or post program i.e. licence

RESPONSE: Thank you for highlighting this omission. We have now added reference to the focus of this study being in entry-level programs in the aims section. (i.e. students entering the profession for the first time.

Comment 4

Line number 66 is there any recommendation for that literature review: rationale, objective and research question are not clearly stated with consideration to the appropriate position
RESPONSE: Thank you for making this comment. We have now added the following sentence at the beginning of the review of literature.

ADDED SENTENCE: To understand issues surrounding paediatric content in physiotherapy programs globally, a narrative review of the literature was undertaken.

Comment 5

methodology: line number 182 design is not clear, inclusion and exclusion criteria are not mentioned and finally curriculum was not mentioned

RESPONSE: Thank you for your comment. In order to provide improved clarity, we have modified this section to add the following (in red).

ORIGINAL: A web-based desktop audit was concurrently carried out to review each university’s (n=20) curriculum for paediatric content as it was published on their university website at the time of the audit.

REVISED: A web-based desktop audit of university entry-level curriculum and a mixed method cross-sectional survey was concurrently carried out to review each university’s (n=20) curriculum for paediatric content as it was published on their university website at the time of the audit. The inclusion criteria for both research designs were as follows: (1) University or Institution of higher education located in Australia, (2) Offering an entry-level physiotherapy program (i.e. bachelor, masters by coursework, extended masters). Institutions offering only a diploma or certificate of trade in the area of physiotherapy were excluded.

Comment 6

result: line number 248 tables were crowded

RESPONSE: The authors would like to thank you for your comment and we do acknowledge that our results table could appear crowded. However, we believe the information displayed in the tables give a greater understanding of the results that were gathered through the survey using a Likert scale. Due to the complexity and variability in our results we were unable to convert all the information in the tables into a graph. For this reason, we believe the tables were the best mode for displaying all the information that was gathered. We also are aware that this information is sought by paediatric teaching leads in other universities, so we do not wish to omit any of this information.

Comment 7

discussion: line number 441 discussion needs rearrangement because some result and recommendation stated here line number 446 the objectives should be at the end of the background in the line number of 468 is this recommendation line number

RESPONSE: Thank you for your comment. We feel that it is appropriate to restate the study aims prior discussing them, so that the reader is reorientated to the original aims / objectives of the study. However, we do acknowledge that this may cause some confusion so we have repositioned these as past tense.
Comment 8

624 lengthy limitation

RESPONSE: Thank you for your comment. Upon reviewing our limitations section we felt that a paragraph could be moved into the future research section, so have done this to help reduce the limitations section. The paragraph relocated from limitations to future research was:

Additionally, future research should investigate the details of paediatric assessment in clinical practice to explore if paediatric competencies are being assessed in a valid manner after completion of clinical placement experiences. This may assist with ensuring graduates from Australian programs are safe, effective and efficient to work therapeutically with children and their families.

Comment 9

references: line number 770, 773, 775 and 778 are old references


RESPONSE: The authors would like to thank you for your comment. Whist we are aware of the below references being quite old, they are pertinent to our study and no more recent research has been published on those topics. The literature search we carried out prior to commencing our study identified the article on Line 775 to have a similar purpose to our research and with similar design but was carried out in the United States. In our search we identified that between the years 1990-1993 quite a few studies relating to paediatric physiotherapy curriculum based in the United States were carried out. We were unable to find similar studies carried out in the more recent years, which is why we have chosen to include these studies in our paper. We believe showcasing this older literature also serves as an impactful medium for the readers to understand the gap in literature. Therefore, the readers may take a greater interest in our findings and it could help promote further studies to be carried out in this area of need.