Author’s response to reviews

Title: Determining the clinical knowledge and practice of Australian podiatrists on children with developmental coordination disorder: A cross-sectional survey

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Author’s response to reviewers:

We would like to thank the reviewers their comments and suggestions to strengthen the manuscript toward publication. We hope you find the below changes suitable.
Reviewer #1:

I thank the authors for submitting this article. It was well written and informative. My comments below are intended to improve the clarity of a few points and to identify the very few typos within the article. No major revisions are needed.

Inconsistencies - the name of the disorder is capitalised in various ways Developmental coordination disorder / developmental coordination disorder. Please review and change as necessary to be consistent. My suggestion would be developmental coordination disorder.

Response #1: Capitalisation has been standardised to ‘developmental coordination disorder’

Abstract - this is succinct and clear. The results part on line 40/41 may need to be changed depending upon the thoughts of the authors following my comments in the results section below.

Response #2:

Method - Line 174 typo = non-evidence (hyphen needed)

Response #3: Hyphen added

Line 212 - 30% report familiarity with DCD whilst 37% reported familiarity with alternative terminology. In the abstract, this is written "as a further 37%" so it is unclear if this means a total of 67% were familiar with DCD and alternative terms, or if it is 30% familiar with DCD plus a further 7% with alternative terminology. Please could you clarify this here and in the abstract?

Response #4: Results section has been edited to clarify that 30% of participants reported familiarity with DCD, and a further 37% who were not familiar with DCD reported familiarity with alternate terminology – bringing the total to 67%

In the next line (215) it is stated that 54% were familiar with the term dyspraxia - is dyspraxia not counted within the alternative terminology? In which case, is it not 30% familiar with DCD and 54% familiar with DCD or alternative terminology? Please clarify why you have chosen the 37% figure and not the 54% figure.
Response #5: All participants were asked their familiarity with both DCD and alternate terminology. The dyspraxia figure represents 54% of the whole sample. The 37% figure represents the proportion of participants who were not familiar with DCD but were familiar with alternate or historical terminology.

Line 218 Figure 1 - are the labels correct for this figure or are the red (unaware of association) and orange (incorrect association) mixed up? The labels do not seem to apply correctly to the statement they are aligned with, i.e. "unaware of symptoms" cannot have an answer of "incorrect" but it could have "unaware of association". Please check this.

Response #6: These two labels in Figure 1 were incorrect in the legend and have been changed.

Line 237 - it is stated that the majority of responders would refer to other health professionals. This is true for the familial with DCD group, but only 37% of those not familiar with DCD would refer, this is not the majority. Should this statement be reconsidered (and if so, the same point in the conclusion needs to be addressed).

Response #7: The statement was updated both in results and conclusion to reflect that referral was the most frequently chosen assessment practice rather than the majority in both groups.

Line 244 typo = comma needs to be moved after the reference [28].

Response #8: Comma has been moved.

Line 248 typo? = "assessing DCD" - should this mean assessing for DCD?

Response #9: This statement relates to assessing children with DCD in a podiatry context, rather than assessing diagnostically for the condition – the statement has been changed to clarify this.

Line 253 - this reads "provided with a definition of signs and symptoms" but should it read "provided with definition of the condition"? Was a definition of signs and symptoms given - method suggests definition of the condition.

Response #10: The reviewer is correct, and the phrasing has been updated to “provided with a definition of the condition”
Line 255 typo = remove closed bracket.
Response #11: Closed bracket removed

Line 254 - there is lots of brackets and familiar / unfamiliar word combinations. Could this section be looked at again to make it less clumsy?
Response #12: The phrasing of these sections have been standardised to improve clarity

Line 266 Management strategies "flexibility" - is this a management strategy? What is meant by this? Is it management of flexibility or is it meaning strengthening as the management? The use of strengthening as a strategy was used previously.
Response #13: The management strategy here is increasing flexibility, likely through muscle stretching.

Line 268/9 I think the brackets need to be removed in this sentence as explaining of the odds ratio in this way is important and useful, and doesn't need to come across as a secondary comment.
Response #14: Brackets have been removed

Discussion
Line 287 - when does a condition become common or prevalent - and are these terms meaning the same thing? It 5% sufficient for something to be "common"?
Response #16: Although we believe that 5% of the population being affected by a condition is enough to justify use of the word common, the sentence containing both ‘common’ and ‘prevalent’ was unnecessary, with ‘prevalent’ being sufficient to communicate the point.
Line 331 typo = full stop needed after [31].
Response #17: Full stop added

Line 272 Could the discussion point on the use of evidence based management and being familiar/ unfamiliar with DCD be expanded upon a little more? It is interesting that those not familiar with DCD are using more evidence-based management than those familiar with the condition. This must be by chance otherwise they would know about DCD to look up the evidence. Or is possible that because those familiar with DCD know that they will refer to other professionals who will carry out that management (physios / OTs) or have they had clinical experience that these management strategies have not worked well in their practice despite the evidence? In the same way it is perhaps concerning that those practitioners who are unfamiliar with the condition are not referring to other health professionals - is that because they don't think about it at all or don't realise the benefit in referral in these children? I appreciate that the research will not provide the answers but these sorts of anomalies need some consideration and maybe highlight the need for further research to tease out some of the issues. I find that in this part of the discussion the results are being reiterated without any great discussion of the results being included.

Response #18:

Conclusion

Line 368 There is an inference here that recommending footwear / orthoses is wrong since there is a lack of evidence for their use, through the use of "despite the lack of evidence". If we stopped providing treatments unless there is supporting evidence, podiatrists would not be doing very much with their day! It would be different if the podiatrists were providing these treatments and there was strong evidence to say that they did not work. Maybe the inference in this sentence could be reconsidered.

Response #19: We appreciate that this statement could be interpreted to deter use of these treatment strategies which may well be indicated based on clinical presentation. Commentary about lack of podiatric-specific evidence has been moved to the following sentence of the conclusion

Figure 2

The label for the first choice - "non-specific / non-standardised assessment and referral" - is the "and referral" part correct as the second grouping is for the referral? In figure 2 - the term "non-
specific" has been used but it is not used in the results section, where the term non-standardised is only used. These terms do mean different things and if the term non-specific was used in the questionnaire, then that might alter the results. For example, if 10% (ish) use a non-specific tool, 20% use a DCD-specific tool, 5% do not assess - what are the others using? It would suggest that 65% are using their own assessment tool - which is also a non-specific tool. So perhaps the terminology is wrong here and by "non-specific / non-standardised" the authors only mean "non-standardised"? Along these lines I would also question if there is therefore a "specific" tool for diagnosing DCD. The BOT and MABC are not specific to DCD. Perhaps some clarity could be added here.

Response #20: The figure has been altered to show ‘other assessment methods’ – as this was taken from open responses which included a variety of methods. The results section has also been updated

Are we looking for podiatrist to make the diagnosis of DCD or to recognise that the child has signs / symptoms that might indicate DCD and make the referral to the centre that can confirm that diagnosis? Whilst looking at the results in this figure, did the authors not find it surprising that 20% of podiatrist who are not familiar with the DCD, are using the BOT/MABC? It is slightly conflicting to my mind that someone would use these tools (fairly long-winded to undertake and expensive in time / money) but not be familiar with DCD in any of its described terms. Should that be a discussion point?

Response #21: It is not expected that podiatrists will be making diagnoses of DCD, but rather recognising common presentations, providing management which falls within scope of practice, and making appropriate referrals. The survey question regarding assessment for respondents who reported being unfamiliar with DCD was phrased as what assessment do they think they could use rather than what they did use. It is possible that these respondents selected what they believe to be the highest level and standardised assessment rather than the options available in their individual clinic.

Reviewer #2:

Thank-you for the opportunity to review this manuscript which sought to determine the clinical knowledge and practice of Australian podiatrists on children with developmental coordination disorder. Generally the methodology and the results obtained appear to support the conclusions drawn and, since the evidence base in relation podiatry and DCD is limited there will be benefits of this work progressing to publication. However consideration of a number points is warranted before this.
Abstract

Lines 29-39 Although the aim of the study is understood the reviewer asks that it is slightly rephrased in the abstract to improve its clarity.

Response #22: The aim has been rephrased in the abstract to ‘to determine current knowledge of Australian podiatrists regarding presentation, assessment, and management of children with developmental coordination disorder.’

Line 30 change "it's" to its

Response #23: This has been changed

Line 55 "we" consider avoiding 1st person narrative in scientific write up.

Response #24: The sentence has been edited to remove the first person phrasing

Background

The background is generally clear as to the purpose of the study with appropriate references.

However I did expect to see the following work that had considered DCD from the ICF-CY perspective, Bieber, E., Smits-Engelsman, B. C. M., Sgandurra, G., Cioni, G., Feys, H., Guzzetta, A., & Klingels, K. (2016).


Response #25:

I would also think the introduction may benefit from inclusion of the retrospective podiatric study by Hindmoor. Hindmoor, P. (2014). Podiatric intervention in managing the gait related symptoms of Developmental Coordination Disorder (Dyspraxia). A retrospective study. Journal of Foot and Ankle Research, 7(S1), A35. https://doi.org/10.1186/1757-1146-7-S1-A35
Response #26: We agree that this is very relevant work, however did not feel it appropriate for inclusion as published results were non-specific, particularly around which gait characteristics were measured, design of orthoses used, or follow-up period.

Line 93 94, "Inclusion of other allied health professionals, such as podiatrists, in management of DCD symptomology is an emerging and relevant field." Is this statement corroborated in the literature or the opinion of the Authors?

Response #27

Line 101 line 103 "It is within scope of practice for podiatrists to have the ability to appropriately assess and manage the lower limb concerns of a child with DCD, and to understand when referral is appropriate."

Rather an assumptive statement the reviewer suggests further qualifying this statement or corroborating with appropriate citation.

Response #28:

Line 106 "in the general podiatric population" Should this not read amongst podiatrists in Australia?

Response #29: While the paucity of evidence surrounding podiatry input in DCD is not confined to Australian research, this study only sampled Australian participants, and so the statement has been edited.

Line 108 The primary aim reads somewhat ambiguously and requires greater specificity.

Response #30: The sentence has been changed to read: ‘The primary aim of this study was to determine the awareness and familiarity of Australian podiatrists with DCD or historic terminology for DCD.’
Methods

Line 142 -143 Please elaborate how measures of clinical knowledge and experience of DCD were further developed by the authors or allude to where this is discussed in the methodology section.

Response #31: Previous similar studies have looked at knowledge of teachers, general practitioners, and paediatricians, and so further developments were made to specify the survey for podiatrists. This statement has been updated in the methodology.

Discussion

Line 319 -320 "great amount of caution" consider tempering your statement here, The work the Authors are alluding to only considered 14 subjects and Morrison et al acknowledge it was only a preliminary study which may have been underpowered.

Response #32: We have stated that this study is limited and therefore the results should be taken with caution, however understand that the clarity of this statement can be improved, and has hence been edited

Although the authors have performed a power calculation and met the minimum required number of respondents, further discussion on the risks of participation bias in surveys needs to be considered in the limitations since only 7% of eligible podiatrists responded. It may have been interesting to see if there was any bias in the sample in terms of years of qualification, primary role, highest qualification, and paediatric patient load in the responders compared to the overall national demographics published by the Podiatry Board of Australia.

Response #33:

Did the authors wish to allude how this work may or may not be generalisable to international podiatry given the recent work by Williams et al on undergraduate paediatric education? Williams, C. M., Nester, C., & Morrison, S. C. (2019). International approaches to paediatric podiatry curricula: It’s the same, but different. Journal of Foot and Ankle Research, 12(1), 28. https://doi.org/10.1186/s13047-019-0339-9

Response #34: